NVIDIA Performance Primitives (NPP)

Version 6.5

June 20, 2014

Contents

1 NVIDIA Performance Primitives 1

1.1 What is NPP? 1

1.2 Documentation 2

1.3 Technical Specifications 2

1.4 Files 2

1.4.1 Header Files 2

1.4.2 Library Files 3

1.5 Supported NVIDIA Hardware 3

2 General API Conventions 5

2.1 Memory Management 6

2.1.1 Scratch Buffer and Host Pointer 6

2.2 Function Naming 7

2.3 Integer Result Scaling 7

2.4 Rounding Modes 8

2.4.1 Rounding Mode Parameter 8

3 Signal-Processing Specific API Conventions 9

3.1 Signal Data 10

3.1.1 Parameter Names for Signal Data 10

3.1.1.1 Source Signal Pointer 10

3.1.1.2 Destination Signal Pointer 10

3.1.1.3 In-Place Signal Pointer 10

3.1.2 Signal Data Alignment Requirements 11

3.1.3 Signal Data Related Error Codes 11

3.2 Signal Length 11

3.2.1 Length Related Error Codes 11

4 Imaging-Processing Specific API Conventions 13

4.1 Function Naming . . . 14
4.2 Image Data . . . 14
4.2.1 Line Step . . . 15
4.2.2 Parameter Names for Image Data . . . 15
4.2.2.1 Passing Source-Image Data . . . 15
4.2.2.2 Passing Destination-Image Data . . . 16
4.2.2.3 Passing In-Place Image Data . . . 18
4.2.2.4 Passing Mask-Image Data . . . 18
4.2.2.5 Passing Channel-of-Interest Data . . . 18
4.2.3 Image Data Alignment Requirements . . . 18
4.2.4 Image Data Related Error Codes . . . 19
4.3 Region-of-Interest (ROI) . . . 19
4.3.1 ROI Related Error Codes . . . 19
4.4 Masked Operation . . . 20
4.5 Channel-of-Interest API . . . 20
4.5.1 Select-Channel Source-Image Pointer . . . 20
4.5.2 Select-Channel Source-Image . . . 20
4.5.3 Select-Channel Destination-Image Pointer . . . 20
4.6 Source-Image Sampling . . . 21
4.6.1 Point-Wise Operations . . . 21
4.6.2 Neighborhood Operations . . . 21
4.6.2.1 Mask-Size Parameter . . . 21
4.6.2.2 Anchor-Point Parameter . . . 22
4.6.2.3 Sampling Beyond Image Boundaries . . . 22

5 Module Index 23
5.1 Modules . . . 23

6 Data Structure Index 29
6.1 Data Structures . . . 29

7 Module Documentation 31
7.1 NPP Core . . . 31
7.1.1 Detailed Description . . . 31
7.1.2 Function Documentation . . . 32
7.1.2.1 nppGetGpuComputeCapability . . . 32
7.1.2.2 nppGetGpuName . . . 32
7.1.2.3 nppGetGpuNumSMs . . . 32

7.1.2.4 nppGetLibVersion . . . 32
7.1.2.5 nppGetMaxThreadsPerBlock . . . 32
7.1.2.6 nppGetMaxThreadsPerSM . . . 33
7.1.2.7 nppGetStream . . . 33
7.1.2.8 nppSetStream . . . 33
7.2 NPP Type Definitions and Constants . . . 34
7.2.1 Define Documentation . . . 39
7.2.1.1 NPP_MAX_16S . . . 39
7.2.1.2 NPP_MAX_16U . . . 39
7.2.1.3 NPP_MAX_32S . . . 39
7.2.1.4 NPP_MAX_32U . . . 39
7.2.1.5 NPP_MAX_64S . . . 39
7.2.1.6 NPP_MAX_64U . . . 39
7.2.1.7 NPP_MAX_8S . . . 40
7.2.1.8 NPP_MAX_8U . . . 40
7.2.1.9 NPP_MAXABS_32F . . . 40
7.2.1.10 NPP_MAXABS_64F . . . 40
7.2.1.11 NPP_MIN_16S . . . 40
7.2.1.12 NPP_MIN_16U . . . 40
7.2.1.13 NPP_MIN_32S . . . 40
7.2.1.14 NPP_MIN_32U . . . 40
7.2.1.15 NPP_MIN_64S . . . 40
7.2.1.16 NPP_MIN_64U . . . 40
7.2.1.17 NPP_MIN_8S . . . 40
7.2.1.18 NPP_MIN_8U . . . 41
7.2.1.19 NPP_MINABS_32F . . . 41
7.2.1.20 NPP_MINABS_64F . . . 41
7.2.2 Enumeration Type Documentation . . . 41
7.2.2.1 NppCmpOp . . . 41
7.2.2.2 NppGpuComputeCapability . . . 41
7.2.2.3 NppHintAlgorithm . . . 41
7.2.2.4 NppiAlphaOp . . . 42
7.2.2.5 NppiAxis . . . 42
7.2.2.6 NppiBorderType . . . 42
7.2.2.7 NppiHuffmanTableType . . . 42
7.2.2.8 NppiInterpolationMode . . . 43

7.2.2.9 NppiMaskSize 43
7.2.2.10 NppRoundMode 43
7.2.2.11 NppStatus 44
7.2.2.12 NppsZCType 46
7.3 Basic NPP Data Types 47
7.3.1 Typedef Documentation 48
7.3.1.1 Npp16s 48
7.3.1.2 Npp16u 48
7.3.1.3 Npp32f 48
7.3.1.4 Npp32fc 48
7.3.1.5 Npp32s 48
7.3.1.6 Npp32sc 49
7.3.1.7 Npp32u 49
7.3.1.8 Npp32uc 49
7.3.1.9 Npp64f 49
7.3.1.10 Npp64fc 49
7.3.1.11 Npp64s 49
7.3.1.12 Npp64sc 49
7.3.1.13 Npp64u 49
7.3.1.14 Npp8s 49
7.3.1.15 Npp8u 49
7.3.2 Function Documentation 49
7.3.2.1 __align__ 49
7.3.2.2 __align__ 50
7.3.3 Variable Documentation 50
7.3.3.1 Npp16sc 50
7.3.3.2 Npp16uc 50
7.3.3.3 Npp8uc 50
7.4 NPP Image Processing 51
7.5 Arithmetic and Logical Operations 52
7.6 Arithmetic Operations 53
7.7 AddC 55
7.7.1 Detailed Description 60
7.7.2 Function Documentation 60
7.7.2.1 nppiAddC_16s_AC4IRSfs 60
7.7.2.2 nppiAddC_16s_AC4RSfs 60

7.7.2.3 nppiAddC_16s_C1IRSfs 60
7.7.2.4 nppiAddC_16s_C1RSfs 61
7.7.2.5 nppiAddC_16s_C3IRSfs 61
7.7.2.6 nppiAddC_16s_C3RSfs 62
7.7.2.7 nppiAddC_16s_C4IRSfs 62
7.7.2.8 nppiAddC_16s_C4RSfs 62
7.7.2.9 nppiAddC_16sc_AC4IRSfs 63
7.7.2.10 nppiAddC_16sc_AC4RSfs 63
7.7.2.11 nppiAddC_16sc_C1IRSfs 64
7.7.2.12 nppiAddC_16sc_C1RSfs 64
7.7.2.13 nppiAddC_16sc_C3IRSfs 64
7.7.2.14 nppiAddC_16sc_C3RSfs 65
7.7.2.15 nppiAddC_16u_AC4IRSfs 65
7.7.2.16 nppiAddC_16u_AC4RSfs 66
7.7.2.17 nppiAddC_16u_C1IRSfs 66
7.7.2.18 nppiAddC_16u_C1RSfs 66
7.7.2.19 nppiAddC_16u_C3IRSfs 67
7.7.2.20 nppiAddC_16u_C3RSfs 67
7.7.2.21 nppiAddC_16u_C4IRSfs 68
7.7.2.22 nppiAddC_16u_C4RSfs 68
7.7.2.23 nppiAddC_32f_AC4IR 68
7.7.2.24 nppiAddC_32f_AC4R 69
7.7.2.25 nppiAddC_32f_C1IR 69
7.7.2.26 nppiAddC_32f_C1R 69
7.7.2.27 nppiAddC_32f_C3IR 70
7.7.2.28 nppiAddC_32f_C3R 70
7.7.2.29 nppiAddC_32f_C4IR 70
7.7.2.30 nppiAddC_32f_C4R 71
7.7.2.31 nppiAddC_32fc_AC4IR 71
7.7.2.32 nppiAddC_32fc_AC4R 71
7.7.2.33 nppiAddC_32fc_C1IR 72
7.7.2.34 nppiAddC_32fc_C1R 72
7.7.2.35 nppiAddC_32fc_C3IR 72
7.7.2.36 nppiAddC_32fc_C3R 73
7.7.2.37 nppiAddC_32fc_C4IR 73
7.7.2.38 nppiAddC_32fc_C4R 73

7.7.2.39 nppiAddC_32s_C1IRSfs . . . 74
7.7.2.40 nppiAddC_32s_C1RSfs . . . 74
7.7.2.41 nppiAddC_32s_C3IRSfs . . . 74
7.7.2.42 nppiAddC_32s_C3RSfs . . . 75
7.7.2.43 nppiAddC_32sc_AC4IRSfs . . . 75
7.7.2.44 nppiAddC_32sc_AC4RSfs . . . 76
7.7.2.45 nppiAddC_32sc_C1IRSfs . . . 76
7.7.2.46 nppiAddC_32sc_C1RSfs . . . 76
7.7.2.47 nppiAddC_32sc_C3IRSfs . . . 77
7.7.2.48 nppiAddC_32sc_C3RSfs . . . 77
7.7.2.49 nppiAddC_8u_AC4IRSfs . . . 78
7.7.2.50 nppiAddC_8u_AC4RSfs . . . 78
7.7.2.51 nppiAddC_8u_C1IRSfs . . . 78
7.7.2.52 nppiAddC_8u_C1RSfs . . . 79
7.7.2.53 nppiAddC_8u_C3IRSfs . . . 79
7.7.2.54 nppiAddC_8u_C3RSfs . . . 79
7.7.2.55 nppiAddC_8u_C4IRSfs . . . 80
7.7.2.56 nppiAddC_8u_C4RSfs . . . 80
7.8 MulC . . . 81
7.8.1 Detailed Description . . . 86
7.8.2 Function Documentation . . . 86
7.8.2.1 nppiMulC_16s_AC4IRSfs . . . 86
7.8.2.2 nppiMulC_16s_AC4RSfs . . . 86
7.8.2.3 nppiMulC_16s_C1IRSfs . . . 87
7.8.2.4 nppiMulC_16s_C1RSfs . . . 87
7.8.2.5 nppiMulC_16s_C3IRSfs . . . 87
7.8.2.6 nppiMulC_16s_C3RSfs . . . 88
7.8.2.7 nppiMulC_16s_C4IRSfs . . . 88
7.8.2.8 nppiMulC_16s_C4RSfs . . . 88
7.8.2.9 nppiMulC_16sc_AC4IRSfs . . . 89
7.8.2.10 nppiMulC_16sc_AC4RSfs . . . 89
7.8.2.11 nppiMulC_16sc_C1IRSfs . . . 90
7.8.2.12 nppiMulC_16sc_C1RSfs . . . 90
7.8.2.13 nppiMulC_16sc_C3IRSfs . . . 90
7.8.2.14 nppiMulC_16sc_C3RSfs . . . 91
7.8.2.15 nppiMulC_16u_AC4IRSfs . . . 91

7.8.2.16 nppiMulC_16u_AC4RSfs 92
7.8.2.17 nppiMulC_16u_C1IRSfs 92
7.8.2.18 nppiMulC_16u_C1RSfs 92
7.8.2.19 nppiMulC_16u_C3IRSfs 93
7.8.2.20 nppiMulC_16u_C3RSfs 93
7.8.2.21 nppiMulC_16u_C4IRSfs 94
7.8.2.22 nppiMulC_16u_C4RSfs 94
7.8.2.23 nppiMulC_32f_AC4IR 94
7.8.2.24 nppiMulC_32f_AC4R 95
7.8.2.25 nppiMulC_32f_C1IR 95
7.8.2.26 nppiMulC_32f_C1R 95
7.8.2.27 nppiMulC_32f_C3IR 96
7.8.2.28 nppiMulC_32f_C3R 96
7.8.2.29 nppiMulC_32f_C4IR 96
7.8.2.30 nppiMulC_32f_C4R 97
7.8.2.31 nppiMulC_32fc_AC4IR 97
7.8.2.32 nppiMulC_32fc_AC4R 97
7.8.2.33 nppiMulC_32fc_C1IR 98
7.8.2.34 nppiMulC_32fc_C1R 98
7.8.2.35 nppiMulC_32fc_C3IR 98
7.8.2.36 nppiMulC_32fc_C3R 99
7.8.2.37 nppiMulC_32fc_C4IR 99
7.8.2.38 nppiMulC_32fc_C4R 99
7.8.2.39 nppiMulC_32s_C1IRSfs 100
7.8.2.40 nppiMulC_32s_C1RSfs 100
7.8.2.41 nppiMulC_32s_C3IRSfs 100
7.8.2.42 nppiMulC_32s_C3RSfs 101
7.8.2.43 nppiMulC_32sc_AC4IRSfs 101
7.8.2.44 nppiMulC_32sc_AC4RSfs 102
7.8.2.45 nppiMulC_32sc_C1IRSfs 102
7.8.2.46 nppiMulC_32sc_C1RSfs 102
7.8.2.47 nppiMulC_32sc_C3IRSfs 103
7.8.2.48 nppiMulC_32sc_C3RSfs 103
7.8.2.49 nppiMulC_8u_AC4IRSfs 104
7.8.2.50 nppiMulC_8u_AC4RSfs 104
7.8.2.51 nppiMulC_8u_C1IRSfs 104

7.8.2.52 nppiMulC_8u_C1RSfs 105
7.8.2.53 nppiMulC_8u_C3IRSfs 105
7.8.2.54 nppiMulC_8u_C3RSfs 105
7.8.2.55 nppiMulC_8u_C4IRSfs 106
7.8.2.56 nppiMulC_8u_C4RSfs 106
7.9 MulCScale 107
7.9.1 Detailed Description 108
7.9.2 Function Documentation 108
7.9.2.1 nppiMulCScale_16u_AC4IR 108
7.9.2.2 nppiMulCScale_16u_AC4R 109
7.9.2.3 nppiMulCScale_16u_C1IR 109
7.9.2.4 nppiMulCScale_16u_C1R 109
7.9.2.5 nppiMulCScale_16u_C3IR 110
7.9.2.6 nppiMulCScale_16u_C3R 110
7.9.2.7 nppiMulCScale_16u_C4IR 110
7.9.2.8 nppiMulCScale_16u_C4R 111
7.9.2.9 nppiMulCScale_8u_AC4IR 111
7.9.2.10 nppiMulCScale_8u_AC4R 111
7.9.2.11 nppiMulCScale_8u_C1IR 112
7.9.2.12 nppiMulCScale_8u_C1R 112
7.9.2.13 nppiMulCScale_8u_C3IR 112
7.9.2.14 nppiMulCScale_8u_C3R 113
7.9.2.15 nppiMulCScale_8u_C4IR 113
7.9.2.16 nppiMulCScale_8u_C4R 113
7.10 SubC 114
7.10.1 Detailed Description 119
7.10.2 Function Documentation 119
7.10.2.1 nppiSubC_16s_AC4IRSfs 119
7.10.2.2 nppiSubC_16s_AC4RSfs 119
7.10.2.3 nppiSubC_16s_C1IRSfs 119
7.10.2.4 nppiSubC_16s_C1RSfs 120
7.10.2.5 nppiSubC_16s_C3IRSfs 120
7.10.2.6 nppiSubC_16s_C3RSfs 121
7.10.2.7 nppiSubC_16s_C4IRSfs 121
7.10.2.8 nppiSubC_16s_C4RSfs 121
7.10.2.9 nppiSubC_16sc_AC4IRSfs 122

7.10.2.10 nppiSubC_16sc_AC4RSfs 122
7.10.2.11 nppiSubC_16sc_C1IRSfs 123
7.10.2.12 nppiSubC_16sc_C1RSfs 123
7.10.2.13 nppiSubC_16sc_C3IRSfs 123
7.10.2.14 nppiSubC_16sc_C3RSfs 124
7.10.2.15 nppiSubC_16u_AC4IRSfs 124
7.10.2.16 nppiSubC_16u_AC4RSfs 125
7.10.2.17 nppiSubC_16u_C1IRSfs 125
7.10.2.18 nppiSubC_16u_C1RSfs 125
7.10.2.19 nppiSubC_16u_C3IRSfs 126
7.10.2.20 nppiSubC_16u_C3RSfs 126
7.10.2.21 nppiSubC_16u_C4IRSfs 127
7.10.2.22 nppiSubC_16u_C4RSfs 127
7.10.2.23 nppiSubC_32f_AC4IR 127
7.10.2.24 nppiSubC_32f_AC4R 128
7.10.2.25 nppiSubC_32f_C1IR 128
7.10.2.26 nppiSubC_32f_C1R 128
7.10.2.27 nppiSubC_32f_C3IR 129
7.10.2.28 nppiSubC_32f_C3R 129
7.10.2.29 nppiSubC_32f_C4IR 129
7.10.2.30 nppiSubC_32f_C4R 130
7.10.2.31 nppiSubC_32fc_AC4IR 130
7.10.2.32 nppiSubC_32fc_AC4R 130
7.10.2.33 nppiSubC_32fc_C1IR 131
7.10.2.34 nppiSubC_32fc_C1R 131
7.10.2.35 nppiSubC_32fc_C3IR 131
7.10.2.36 nppiSubC_32fc_C3R 132
7.10.2.37 nppiSubC_32fc_C4IR 132
7.10.2.38 nppiSubC_32fc_C4R 132
7.10.2.39 nppiSubC_32s_C1IRSfs 133
7.10.2.40 nppiSubC_32s_C1RSfs 133
7.10.2.41 nppiSubC_32s_C3IRSfs 133
7.10.2.42 nppiSubC_32s_C3RSfs 134
7.10.2.43 nppiSubC_32sc_AC4IRSfs 134
7.10.2.44 nppiSubC_32sc_AC4RSfs 135
7.10.2.45 nppiSubC_32sc_C1IRSfs 135

7.10.2.46 nppiSubC_32sc_C1RSfs 135
7.10.2.47 nppiSubC_32sc_C3IRSfs 136
7.10.2.48 nppiSubC_32sc_C3RSfs 136
7.10.2.49 nppiSubC_8u_AC4IRSfs 137
7.10.2.50 nppiSubC_8u_AC4RSfs 137
7.10.2.51 nppiSubC_8u_C1IRSfs 137
7.10.2.52 nppiSubC_8u_C1RSfs 138
7.10.2.53 nppiSubC_8u_C3IRSfs 138
7.10.2.54 nppiSubC_8u_C3RSfs 138
7.10.2.55 nppiSubC_8u_C4IRSfs 139
7.10.2.56 nppiSubC_8u_C4RSfs 139
7.11 DivC 140
7.11.1 Detailed Description 145
7.11.2 Function Documentation 145
7.11.2.1 nppiDivC_16s_AC4IRSfs 145
7.11.2.2 nppiDivC_16s_AC4RSfs 145
7.11.2.3 nppiDivC_16s_C1IRSfs 146
7.11.2.4 nppiDivC_16s_C1RSfs 146
7.11.2.5 nppiDivC_16s_C3IRSfs 146
7.11.2.6 nppiDivC_16s_C3RSfs 147
7.11.2.7 nppiDivC_16s_C4IRSfs 147
7.11.2.8 nppiDivC_16s_C4RSfs 147
7.11.2.9 nppiDivC_16sc_AC4IRSfs 148
7.11.2.10 nppiDivC_16sc_AC4RSfs 148
7.11.2.11 nppiDivC_16sc_C1IRSfs 149
7.11.2.12 nppiDivC_16sc_C1RSfs 149
7.11.2.13 nppiDivC_16sc_C3IRSfs 149
7.11.2.14 nppiDivC_16sc_C3RSfs 150
7.11.2.15 nppiDivC_16u_AC4IRSfs 150
7.11.2.16 nppiDivC_16u_AC4RSfs 151
7.11.2.17 nppiDivC_16u_C1IRSfs 151
7.11.2.18 nppiDivC_16u_C1RSfs 151
7.11.2.19 nppiDivC_16u_C3IRSfs 152
7.11.2.20 nppiDivC_16u_C3RSfs 152
7.11.2.21 nppiDivC_16u_C4IRSfs 153
7.11.2.22 nppiDivC_16u_C4RSfs 153

7.11.2.23 nppiDivC_32f_AC4IR 153
7.11.2.24 nppiDivC_32f_AC4R 154
7.11.2.25 nppiDivC_32f_C1IR 154
7.11.2.26 nppiDivC_32f_C1R 154
7.11.2.27 nppiDivC_32f_C3IR 155
7.11.2.28 nppiDivC_32f_C3R 155
7.11.2.29 nppiDivC_32f_C4IR 155
7.11.2.30 nppiDivC_32f_C4R 156
7.11.2.31 nppiDivC_32fc_AC4IR 156
7.11.2.32 nppiDivC_32fc_AC4R 156
7.11.2.33 nppiDivC_32fc_C1IR 157
7.11.2.34 nppiDivC_32fc_C1R 157
7.11.2.35 nppiDivC_32fc_C3IR 157
7.11.2.36 nppiDivC_32fc_C3R 158
7.11.2.37 nppiDivC_32fc_C4IR 158
7.11.2.38 nppiDivC_32fc_C4R 158
7.11.2.39 nppiDivC_32s_C1IRSfs 159
7.11.2.40 nppiDivC_32s_C1RSfs 159
7.11.2.41 nppiDivC_32s_C3IRSfs 159
7.11.2.42 nppiDivC_32s_C3RSfs 160
7.11.2.43 nppiDivC_32sc_AC4IRSfs 160
7.11.2.44 nppiDivC_32sc_AC4RSfs 161
7.11.2.45 nppiDivC_32sc_C1IRSfs 161
7.11.2.46 nppiDivC_32sc_C1RSfs 161
7.11.2.47 nppiDivC_32sc_C3IRSfs 162
7.11.2.48 nppiDivC_32sc_C3RSfs 162
7.11.2.49 nppiDivC_8u_AC4IRSfs 163
7.11.2.50 nppiDivC_8u_AC4RSfs 163
7.11.2.51 nppiDivC_8u_C1IRSfs 163
7.11.2.52 nppiDivC_8u_C1RSfs 164
7.11.2.53 nppiDivC_8u_C3IRSfs 164
7.11.2.54 nppiDivC_8u_C3RSfs 164
7.11.2.55 nppiDivC_8u_C4IRSfs 165
7.11.2.56 nppiDivC_8u_C4RSfs 165
7.12 AbsDiffC 166
7.12.1 Detailed Description 166

7.12.2 Function Documentation 166
7.12.2.1 nppiAbsDiffC_16u_C1R 166
7.12.2.2 nppiAbsDiffC_32f_C1R 166
7.12.2.3 nppiAbsDiffC_8u_C1R 167
7.13 Add 168
7.13.1 Detailed Description 173
7.13.2 Function Documentation 173
7.13.2.1 nppiAdd_16s_AC4IRSfs 173
7.13.2.2 nppiAdd_16s_AC4RSfs 173
7.13.2.3 nppiAdd_16s_C1IRSfs 174
7.13.2.4 nppiAdd_16s_C1RSfs 174
7.13.2.5 nppiAdd_16s_C3IRSfs 175
7.13.2.6 nppiAdd_16s_C3RSfs 175
7.13.2.7 nppiAdd_16s_C4IRSfs 176
7.13.2.8 nppiAdd_16s_C4RSfs 176
7.13.2.9 nppiAdd_16sc_AC4IRSfs 176
7.13.2.10 nppiAdd_16sc_AC4RSfs 177
7.13.2.11 nppiAdd_16sc_C1IRSfs 177
7.13.2.12 nppiAdd_16sc_C1RSfs 178
7.13.2.13 nppiAdd_16sc_C3IRSfs 178
7.13.2.14 nppiAdd_16sc_C3RSfs 178
7.13.2.15 nppiAdd_16u_AC4IRSfs 179
7.13.2.16 nppiAdd_16u_AC4RSfs 179
7.13.2.17 nppiAdd_16u_C1IRSfs 180
7.13.2.18 nppiAdd_16u_C1RSfs 180
7.13.2.19 nppiAdd_16u_C3IRSfs 181
7.13.2.20 nppiAdd_16u_C3RSfs 181
7.13.2.21 nppiAdd_16u_C4IRSfs 181
7.13.2.22 nppiAdd_16u_C4RSfs 182
7.13.2.23 nppiAdd_32f_AC4IR 182
7.13.2.24 nppiAdd_32f_AC4R 183
7.13.2.25 nppiAdd_32f_C1IR 183
7.13.2.26 nppiAdd_32f_C1R 183
7.13.2.27 nppiAdd_32f_C3IR 184
7.13.2.28 nppiAdd_32f_C3R 184
7.13.2.29 nppiAdd_32f_C4IR 185

7.13.2.30 nppiAdd_32f_C4R 185
7.13.2.31 nppiAdd_32fc_AC4IR 185
7.13.2.32 nppiAdd_32fc_AC4R 186
7.13.2.33 nppiAdd_32fc_C1IR 186
7.13.2.34 nppiAdd_32fc_C1R 186
7.13.2.35 nppiAdd_32fc_C3IR 187
7.13.2.36 nppiAdd_32fc_C3R 187
7.13.2.37 nppiAdd_32fc_C4IR 188
7.13.2.38 nppiAdd_32fc_C4R 188
7.13.2.39 nppiAdd_32s_C1IRSfs 188
7.13.2.40 nppiAdd_32s_C1R 189
7.13.2.41 nppiAdd_32s_C1RSfs 189
7.13.2.42 nppiAdd_32s_C3IRSfs 190
7.13.2.43 nppiAdd_32s_C3RSfs 190
7.13.2.44 nppiAdd_32sc_AC4IRSfs 190
7.13.2.45 nppiAdd_32sc_AC4RSfs 191
7.13.2.46 nppiAdd_32sc_C1IRSfs 191
7.13.2.47 nppiAdd_32sc_C1RSfs 192
7.13.2.48 nppiAdd_32sc_C3IRSfs 192
7.13.2.49 nppiAdd_32sc_C3RSfs 192
7.13.2.50 nppiAdd_8u_AC4IRSfs 193
7.13.2.51 nppiAdd_8u_AC4RSfs 193
7.13.2.52 nppiAdd_8u_C1IRSfs 194
7.13.2.53 nppiAdd_8u_C1RSfs 194
7.13.2.54 nppiAdd_8u_C3IRSfs 195
7.13.2.55 nppiAdd_8u_C3RSfs 195
7.13.2.56 nppiAdd_8u_C4IRSfs 195
7.13.2.57 nppiAdd_8u_C4RSfs 196
7.14 AddSquare 197
7.14.1 Detailed Description 197
7.14.2 Function Documentation 197
7.14.2.1 nppiAddSquare_16u32f_C1IMR 197
7.14.2.2 nppiAddSquare_16u32f_C1IR 198
7.14.2.3 nppiAddSquare_32f_C1IMR 198
7.14.2.4 nppiAddSquare_32f_C1IR 199
7.14.2.5 nppiAddSquare_8u32f_C1IMR 199

7.14.2.6 nppiAddSquare_8u32f_C1IR 199

7.15 AddProduct 200

7.15.1 Detailed Description 200

7.15.2 Function Documentation 200

7.15.2.1 nppiAddProduct_16u32f_C1IMR 200

7.15.2.2 nppiAddProduct_16u32f_C1IR 201

7.15.2.3 nppiAddProduct_32f_C1IMR 201

7.15.2.4 nppiAddProduct_32f_C1IR 202

7.15.2.5 nppiAddProduct_8u32f_C1IMR 202

7.15.2.6 nppiAddProduct_8u32f_C1IR 203

7.16 AddWeighted 204

7.16.1 Detailed Description 204

7.16.2 Function Documentation 204

7.16.2.1 nppiAddWeighted_16u32f_C1IMR 204

7.16.2.2 nppiAddWeighted_16u32f_C1IR 205

7.16.2.3 nppiAddWeighted_32f_C1IMR 205

7.16.2.4 nppiAddWeighted_32f_C1IR 206

7.16.2.5 nppiAddWeighted_8u32f_C1IMR 206

7.16.2.6 nppiAddWeighted_8u32f_C1IR 207

7.17 Mul 208

7.17.1 Detailed Description 213

7.17.2 Function Documentation 213

7.17.2.1 nppiMul_16s_AC4IRSfs 213

7.17.2.2 nppiMul_16s_AC4RSfs 214

7.17.2.3 nppiMul_16s_C1IRSfs 214

7.17.2.4 nppiMul_16s_C1RSfs 214

7.17.2.5 nppiMul_16s_C3IRSfs 215

7.17.2.6 nppiMul_16s_C3RSfs 215

7.17.2.7 nppiMul_16s_C4IRSfs 216

7.17.2.8 nppiMul_16s_C4RSfs 216

7.17.2.9 nppiMul_16sc_AC4IRSfs 216

7.17.2.10 nppiMul_16sc_AC4RSfs 217

7.17.2.11 nppiMul_16sc_C1IRSfs 217

7.17.2.12 nppiMul_16sc_C1RSfs 218

7.17.2.13 nppiMul_16sc_C3IRSfs 218

7.17.2.14 nppiMul_16sc_C3RSfs 218

7.17.2.15 nppiMul_16u_AC4IRSfs 219
7.17.2.16 nppiMul_16u_AC4RSfs 219
7.17.2.17 nppiMul_16u_C1IRSfs 220
7.17.2.18 nppiMul_16u_C1RSfs 220
7.17.2.19 nppiMul_16u_C3IRSfs 221
7.17.2.20 nppiMul_16u_C3RSfs 221
7.17.2.21 nppiMul_16u_C4IRSfs 221
7.17.2.22 nppiMul_16u_C4RSfs 222
7.17.2.23 nppiMul_32f_AC4IR 222
7.17.2.24 nppiMul_32f_AC4R 223
7.17.2.25 nppiMul_32f_C1IR 223
7.17.2.26 nppiMul_32f_C1R 223
7.17.2.27 nppiMul_32f_C3IR 224
7.17.2.28 nppiMul_32f_C3R 224
7.17.2.29 nppiMul_32f_C4IR 225
7.17.2.30 nppiMul_32f_C4R 225
7.17.2.31 nppiMul_32fc_AC4IR 225
7.17.2.32 nppiMul_32fc_AC4R 226
7.17.2.33 nppiMul_32fc_C1IR 226
7.17.2.34 nppiMul_32fc_C1R 226
7.17.2.35 nppiMul_32fc_C3IR 227
7.17.2.36 nppiMul_32fc_C3R 227
7.17.2.37 nppiMul_32fc_C4IR 228
7.17.2.38 nppiMul_32fc_C4R 228
7.17.2.39 nppiMul_32s_C1IRSfs 228
7.17.2.40 nppiMul_32s_C1R 229
7.17.2.41 nppiMul_32s_C1RSfs 229
7.17.2.42 nppiMul_32s_C3IRSfs 230
7.17.2.43 nppiMul_32s_C3RSfs 230
7.17.2.44 nppiMul_32sc_AC4IRSfs 230
7.17.2.45 nppiMul_32sc_AC4RSfs 231
7.17.2.46 nppiMul_32sc_C1IRSfs 231
7.17.2.47 nppiMul_32sc_C1RSfs 232
7.17.2.48 nppiMul_32sc_C3IRSfs 232
7.17.2.49 nppiMul_32sc_C3RSfs 232
7.17.2.50 nppiMul_8u_AC4IRSfs 233

7.17.2.51 nppiMul_8u_AC4RSfs 233
7.17.2.52 nppiMul_8u_C1IRSfs 234
7.17.2.53 nppiMul_8u_C1RSfs 234
7.17.2.54 nppiMul_8u_C3IRSfs 235
7.17.2.55 nppiMul_8u_C3RSfs 235
7.17.2.56 nppiMul_8u_C4IRSfs 235
7.17.2.57 nppiMul_8u_C4RSfs 236
7.18 MulScale 237
7.18.1 Detailed Description 238
7.18.2 Function Documentation 238
7.18.2.1 nppiMulScale_16u_AC4IR 238
7.18.2.2 nppiMulScale_16u_AC4R 239
7.18.2.3 nppiMulScale_16u_C1IR 239
7.18.2.4 nppiMulScale_16u_C1R 240
7.18.2.5 nppiMulScale_16u_C3IR 240
7.18.2.6 nppiMulScale_16u_C3R 240
7.18.2.7 nppiMulScale_16u_C4IR 241
7.18.2.8 nppiMulScale_16u_C4R 241
7.18.2.9 nppiMulScale_8u_AC4IR 242
7.18.2.10 nppiMulScale_8u_AC4R 242
7.18.2.11 nppiMulScale_8u_C1IR 242
7.18.2.12 nppiMulScale_8u_C1R 243
7.18.2.13 nppiMulScale_8u_C3IR 243
7.18.2.14 nppiMulScale_8u_C3R 244
7.18.2.15 nppiMulScale_8u_C4IR 244
7.18.2.16 nppiMulScale_8u_C4R 244
7.19 Sub 246
7.19.1 Detailed Description 251
7.19.2 Function Documentation 251
7.19.2.1 nppiSub_16s_AC4IRSfs 251
7.19.2.2 nppiSub_16s_AC4RSfs 252
7.19.2.3 nppiSub_16s_C1IRSfs 252
7.19.2.4 nppiSub_16s_C1RSfs 253
7.19.2.5 nppiSub_16s_C3IRSfs 253
7.19.2.6 nppiSub_16s_C3RSfs 253
7.19.2.7 nppiSub_16s_C4IRSfs 254

7.19.2.8 nppiSub_16s_C4RSfs 254
7.19.2.9 nppiSub_16sc_AC4IRSfs 255
7.19.2.10 nppiSub_16sc_AC4RSfs 255
7.19.2.11 nppiSub_16sc_C1IRSfs 255
7.19.2.12 nppiSub_16sc_C1RSfs 256
7.19.2.13 nppiSub_16sc_C3IRSfs 256
7.19.2.14 nppiSub_16sc_C3RSfs 257
7.19.2.15 nppiSub_16u_AC4IRSfs 257
7.19.2.16 nppiSub_16u_AC4RSfs 257
7.19.2.17 nppiSub_16u_C1IRSfs 258
7.19.2.18 nppiSub_16u_C1RSfs 258
7.19.2.19 nppiSub_16u_C3IRSfs 259
7.19.2.20 nppiSub_16u_C3RSfs 259
7.19.2.21 nppiSub_16u_C4IRSfs 260
7.19.2.22 nppiSub_16u_C4RSfs 260
7.19.2.23 nppiSub_32f_AC4IR 260
7.19.2.24 nppiSub_32f_AC4R 261
7.19.2.25 nppiSub_32f_C1IR 261
7.19.2.26 nppiSub_32f_C1R 262
7.19.2.27 nppiSub_32f_C3IR 262
7.19.2.28 nppiSub_32f_C3R 262
7.19.2.29 nppiSub_32f_C4IR 263
7.19.2.30 nppiSub_32f_C4R 263
7.19.2.31 nppiSub_32fc_AC4IR 264
7.19.2.32 nppiSub_32fc_AC4R 264
7.19.2.33 nppiSub_32fc_C1IR 264
7.19.2.34 nppiSub_32fc_C1R 265
7.19.2.35 nppiSub_32fc_C3IR 265
7.19.2.36 nppiSub_32fc_C3R 266
7.19.2.37 nppiSub_32fc_C4IR 266
7.19.2.38 nppiSub_32fc_C4R 266
7.19.2.39 nppiSub_32s_C1IRSfs 267
7.19.2.40 nppiSub_32s_C1R 267
7.19.2.41 nppiSub_32s_C1RSfs 268
7.19.2.42 nppiSub_32s_C3IRSfs 268
7.19.2.43 nppiSub_32s_C3RSfs 268

7.19.2.44 nppiSub_32s_C4IRSfs 269
7.19.2.45 nppiSub_32s_C4RSfs 269
7.19.2.46 nppiSub_32sc_AC4IRSfs 270
7.19.2.47 nppiSub_32sc_AC4RSfs 270
7.19.2.48 nppiSub_32sc_C1IRSfs 271
7.19.2.49 nppiSub_32sc_C1RSfs 271
7.19.2.50 nppiSub_32sc_C3IRSfs 271
7.19.2.51 nppiSub_32sc_C3RSfs 272
7.19.2.52 nppiSub_8u_AC4IRSfs 272
7.19.2.53 nppiSub_8u_AC4RSfs 273
7.19.2.54 nppiSub_8u_C1IRSfs 273
7.19.2.55 nppiSub_8u_C1RSfs 273
7.19.2.56 nppiSub_8u_C3IRSfs 274
7.19.2.57 nppiSub_8u_C3RSfs 274
7.19.2.58 nppiSub_8u_C4IRSfs 275
7.19.2.59 nppiSub_8u_C4RSfs 275
7.20 Div 276
7.20.1 Detailed Description 281
7.20.2 Function Documentation 281
7.20.2.1 nppiDiv_16s_AC4IRSfs 281
7.20.2.2 nppiDiv_16s_AC4RSfs 281
7.20.2.3 nppiDiv_16s_C1IRSfs 282
7.20.2.4 nppiDiv_16s_C1RSfs 282
7.20.2.5 nppiDiv_16s_C3IRSfs 283
7.20.2.6 nppiDiv_16s_C3RSfs 283
7.20.2.7 nppiDiv_16s_C4IRSfs 283
7.20.2.8 nppiDiv_16s_C4RSfs 284
7.20.2.9 nppiDiv_16sc_AC4IRSfs 284
7.20.2.10 nppiDiv_16sc_AC4RSfs 285
7.20.2.11 nppiDiv_16sc_C1IRSfs 285
7.20.2.12 nppiDiv_16sc_C1RSfs 285
7.20.2.13 nppiDiv_16sc_C3IRSfs 286
7.20.2.14 nppiDiv_16sc_C3RSfs 286
7.20.2.15 nppiDiv_16u_AC4IRSfs 287
7.20.2.16 nppiDiv_16u_AC4RSfs 287
7.20.2.17 nppiDiv_16u_C1IRSfs 288

7.20.2.18 nppiDiv_16u_C1RSfs 288
7.20.2.19 nppiDiv_16u_C3IRSfs 288
7.20.2.20 nppiDiv_16u_C3RSfs 289
7.20.2.21 nppiDiv_16u_C4IRSfs 289
7.20.2.22 nppiDiv_16u_C4RSfs 290
7.20.2.23 nppiDiv_32f_AC4IR 290
7.20.2.24 nppiDiv_32f_AC4R 290
7.20.2.25 nppiDiv_32f_C1IR 291
7.20.2.26 nppiDiv_32f_C1R 291
7.20.2.27 nppiDiv_32f_C3IR 292
7.20.2.28 nppiDiv_32f_C3R 292
7.20.2.29 nppiDiv_32f_C4IR 292
7.20.2.30 nppiDiv_32f_C4R 293
7.20.2.31 nppiDiv_32fc_AC4IR 293
7.20.2.32 nppiDiv_32fc_AC4R 293
7.20.2.33 nppiDiv_32fc_C1IR 294
7.20.2.34 nppiDiv_32fc_C1R 294
7.20.2.35 nppiDiv_32fc_C3IR 295
7.20.2.36 nppiDiv_32fc_C3R 295
7.20.2.37 nppiDiv_32fc_C4IR 295
7.20.2.38 nppiDiv_32fc_C4R 296
7.20.2.39 nppiDiv_32s_C1IRSfs 296
7.20.2.40 nppiDiv_32s_C1R 296
7.20.2.41 nppiDiv_32s_C1RSfs 297
7.20.2.42 nppiDiv_32s_C3IRSfs 297
7.20.2.43 nppiDiv_32s_C3RSfs 298
7.20.2.44 nppiDiv_32sc_AC4IRSfs 298
7.20.2.45 nppiDiv_32sc_AC4RSfs 298
7.20.2.46 nppiDiv_32sc_C1IRSfs 299
7.20.2.47 nppiDiv_32sc_C1RSfs 299
7.20.2.48 nppiDiv_32sc_C3IRSfs 300
7.20.2.49 nppiDiv_32sc_C3RSfs 300
7.20.2.50 nppiDiv_8u_AC4IRSfs 301
7.20.2.51 nppiDiv_8u_AC4RSfs 301
7.20.2.52 nppiDiv_8u_C1IRSfs 301
7.20.2.53 nppiDiv_8u_C1RSfs 302

7.20.2.54 nppiDiv_8u_C3IRSfs 302
7.20.2.55 nppiDiv_8u_C3RSfs 303
7.20.2.56 nppiDiv_8u_C4IRSfs 303
7.20.2.57 nppiDiv_8u_C4RSfs 303
7.21 Div_Round 305
7.21.1 Detailed Description 307
7.21.2 Function Documentation 307
7.21.2.1 nppiDiv_Round_16s_AC4IRSfs 307
7.21.2.2 nppiDiv_Round_16s_AC4RSfs 308
7.21.2.3 nppiDiv_Round_16s_C1IRSfs 308
7.21.2.4 nppiDiv_Round_16s_C1RSfs 309
7.21.2.5 nppiDiv_Round_16s_C3IRSfs 309
7.21.2.6 nppiDiv_Round_16s_C3RSfs 310
7.21.2.7 nppiDiv_Round_16s_C4IRSfs 310
7.21.2.8 nppiDiv_Round_16s_C4RSfs 311
7.21.2.9 nppiDiv_Round_16u_AC4IRSfs 311
7.21.2.10 nppiDiv_Round_16u_AC4RSfs 312
7.21.2.11 nppiDiv_Round_16u_C1IRSfs 312
7.21.2.12 nppiDiv_Round_16u_C1RSfs 313
7.21.2.13 nppiDiv_Round_16u_C3IRSfs 313
7.21.2.14 nppiDiv_Round_16u_C3RSfs 314
7.21.2.15 nppiDiv_Round_16u_C4IRSfs 314
7.21.2.16 nppiDiv_Round_16u_C4RSfs 315
7.21.2.17 nppiDiv_Round_8u_AC4IRSfs 315
7.21.2.18 nppiDiv_Round_8u_AC4RSfs 316
7.21.2.19 nppiDiv_Round_8u_C1IRSfs 316
7.21.2.20 nppiDiv_Round_8u_C1RSfs 317
7.21.2.21 nppiDiv_Round_8u_C3IRSfs 317
7.21.2.22 nppiDiv_Round_8u_C3RSfs 318
7.21.2.23 nppiDiv_Round_8u_C4IRSfs 318
7.21.2.24 nppiDiv_Round_8u_C4RSfs 319
7.22 Abs 320
7.22.1 Detailed Description 321
7.22.2 Function Documentation 321
7.22.2.1 nppiAbs_16s_AC4IR 321
7.22.2.2 nppiAbs_16s_AC4R 321

7.22.2.3 nppiAbs_16s_C1IR 322
7.22.2.4 nppiAbs_16s_C1R 322
7.22.2.5 nppiAbs_16s_C3IR 322
7.22.2.6 nppiAbs_16s_C3R 323
7.22.2.7 nppiAbs_16s_C4IR 323
7.22.2.8 nppiAbs_16s_C4R 323
7.22.2.9 nppiAbs_32f_AC4IR 324
7.22.2.10 nppiAbs_32f_AC4R 324
7.22.2.11 nppiAbs_32f_C1IR 324
7.22.2.12 nppiAbs_32f_C1R 325
7.22.2.13 nppiAbs_32f_C3IR 325
7.22.2.14 nppiAbs_32f_C3R 325
7.22.2.15 nppiAbs_32f_C4IR 326
7.22.2.16 nppiAbs_32f_C4R 326
7.23 AbsDiff 327
7.23.1 Detailed Description 327
7.23.2 Function Documentation 327
7.23.2.1 nppiAbsDiff_16u_C1R 327
7.23.2.2 nppiAbsDiff_32f_C1R 328
7.23.2.3 nppiAbsDiff_8u_C1R 328
7.23.2.4 nppiAbsDiff_8u_C3R 328
7.23.2.5 nppiAbsDiff_8u_C4R 329
7.24 Sqr 330
7.24.1 Detailed Description 332
7.24.2 Function Documentation 333
7.24.2.1 nppiSqr_16s_AC4IRSfs 333
7.24.2.2 nppiSqr_16s_AC4RSfs 333
7.24.2.3 nppiSqr_16s_C1IRSfs 333
7.24.2.4 nppiSqr_16s_C1RSfs 334
7.24.2.5 nppiSqr_16s_C3IRSfs 334
7.24.2.6 nppiSqr_16s_C3RSfs 334
7.24.2.7 nppiSqr_16s_C4IRSfs 335
7.24.2.8 nppiSqr_16s_C4RSfs 335
7.24.2.9 nppiSqr_16u_AC4IRSfs 335
7.24.2.10 nppiSqr_16u_AC4RSfs 336
7.24.2.11 nppiSqr_16u_C1IRSfs 336

7.24.2.12 nppiSqr_16u_C1RSfs 336
7.24.2.13 nppiSqr_16u_C3IRSfs 337
7.24.2.14 nppiSqr_16u_C3RSfs 337
7.24.2.15 nppiSqr_16u_C4IRSfs 337
7.24.2.16 nppiSqr_16u_C4RSfs 338
7.24.2.17 nppiSqr_32f_AC4IR 338
7.24.2.18 nppiSqr_32f_AC4R 338
7.24.2.19 nppiSqr_32f_C1IR 339
7.24.2.20 nppiSqr_32f_C1R 339
7.24.2.21 nppiSqr_32f_C3IR 339
7.24.2.22 nppiSqr_32f_C3R 340
7.24.2.23 nppiSqr_32f_C4IR 340
7.24.2.24 nppiSqr_32f_C4R 340
7.24.2.25 nppiSqr_8u_AC4IRSfs 341
7.24.2.26 nppiSqr_8u_AC4RSfs 341
7.24.2.27 nppiSqr_8u_C1IRSfs 341
7.24.2.28 nppiSqr_8u_C1RSfs 342
7.24.2.29 nppiSqr_8u_C3IRSfs 342
7.24.2.30 nppiSqr_8u_C3RSfs 342
7.24.2.31 nppiSqr_8u_C4IRSfs 343
7.24.2.32 nppiSqr_8u_C4RSfs 343
7.25 Sqrt 344
7.25.1 Detailed Description 346
7.25.2 Function Documentation 346
7.25.2.1 nppiSqrt_16s_AC4IRSfs 346
7.25.2.2 nppiSqrt_16s_AC4RSfs 347
7.25.2.3 nppiSqrt_16s_C1IRSfs 347
7.25.2.4 nppiSqrt_16s_C1RSfs 347
7.25.2.5 nppiSqrt_16s_C3IRSfs 348
7.25.2.6 nppiSqrt_16s_C3RSfs 348
7.25.2.7 nppiSqrt_16u_AC4IRSfs 348
7.25.2.8 nppiSqrt_16u_AC4RSfs 349
7.25.2.9 nppiSqrt_16u_C1IRSfs 349
7.25.2.10 nppiSqrt_16u_C1RSfs 350
7.25.2.11 nppiSqrt_16u_C3IRSfs 350
7.25.2.12 nppiSqrt_16u_C3RSfs 350

7.25.2.13 nppiSqrt_32f_AC4IR 351
7.25.2.14 nppiSqrt_32f_AC4R 351
7.25.2.15 nppiSqrt_32f_C1IR 351
7.25.2.16 nppiSqrt_32f_C1R 352
7.25.2.17 nppiSqrt_32f_C3IR 352
7.25.2.18 nppiSqrt_32f_C3R 352
7.25.2.19 nppiSqrt_32f_C4IR 353
7.25.2.20 nppiSqrt_32f_C4R 353
7.25.2.21 nppiSqrt_8u_AC4IRSfs 353
7.25.2.22 nppiSqrt_8u_AC4RSfs 354
7.25.2.23 nppiSqrt_8u_C1IRSfs 354
7.25.2.24 nppiSqrt_8u_C1RSfs 354
7.25.2.25 nppiSqrt_8u_C3IRSfs 355
7.25.2.26 nppiSqrt_8u_C3RSfs 355
7.26 Ln 356
7.26.1 Detailed Description 357
7.26.2 Function Documentation 357
7.26.2.1 nppiLn_16s_C1IRSfs 357
7.26.2.2 nppiLn_16s_C1RSfs 358
7.26.2.3 nppiLn_16s_C3IRSfs 358
7.26.2.4 nppiLn_16s_C3RSfs 358
7.26.2.5 nppiLn_16u_C1IRSfs 359
7.26.2.6 nppiLn_16u_C1RSfs 359
7.26.2.7 nppiLn_16u_C3IRSfs 359
7.26.2.8 nppiLn_16u_C3RSfs 360
7.26.2.9 nppiLn_32f_C1IR 360
7.26.2.10 nppiLn_32f_C1R 360
7.26.2.11 nppiLn_32f_C3IR 361
7.26.2.12 nppiLn_32f_C3R 361
7.26.2.13 nppiLn_8u_C1IRSfs 361
7.26.2.14 nppiLn_8u_C1RSfs 362
7.26.2.15 nppiLn_8u_C3IRSfs 362
7.26.2.16 nppiLn_8u_C3RSfs 362
7.27 Exp 363
7.27.1 Detailed Description 364
7.27.2 Function Documentation 364

7.27.2.1 nppiExp_16s_C1IRSfs 364
7.27.2.2 nppiExp_16s_C1RSfs 365
7.27.2.3 nppiExp_16s_C3IRSfs 365
7.27.2.4 nppiExp_16s_C3RSfs 365
7.27.2.5 nppiExp_16u_C1IRSfs 366
7.27.2.6 nppiExp_16u_C1RSfs 366
7.27.2.7 nppiExp_16u_C3IRSfs 366
7.27.2.8 nppiExp_16u_C3RSfs 367
7.27.2.9 nppiExp_32f_C1IR 367
7.27.2.10 nppiExp_32f_C1R 367
7.27.2.11 nppiExp_32f_C3IR 368
7.27.2.12 nppiExp_32f_C3R 368
7.27.2.13 nppiExp_8u_C1IRSfs 368
7.27.2.14 nppiExp_8u_C1RSfs 369
7.27.2.15 nppiExp_8u_C3IRSfs 369
7.27.2.16 nppiExp_8u_C3RSfs 369

7.28 Logical Operations 370

7.29 AndC 371

7.29.1 Detailed Description 373

7.29.2 Function Documentation 373

7.29.2.1 nppiAndC_16u_AC4IR 373
7.29.2.2 nppiAndC_16u_AC4R 373
7.29.2.3 nppiAndC_16u_C1IR 373
7.29.2.4 nppiAndC_16u_C1R 374
7.29.2.5 nppiAndC_16u_C3IR 374
7.29.2.6 nppiAndC_16u_C3R 374
7.29.2.7 nppiAndC_16u_C4IR 375
7.29.2.8 nppiAndC_16u_C4R 375
7.29.2.9 nppiAndC_32s_AC4IR 376
7.29.2.10 nppiAndC_32s_AC4R 376
7.29.2.11 nppiAndC_32s_C1IR 376
7.29.2.12 nppiAndC_32s_C1R 377
7.29.2.13 nppiAndC_32s_C3IR 377
7.29.2.14 nppiAndC_32s_C3R 377
7.29.2.15 nppiAndC_32s_C4IR 378
7.29.2.16 nppiAndC_32s_C4R 378

7.29.2.17 nppiAndC_8u_AC4IR 378
7.29.2.18 nppiAndC_8u_AC4R 379
7.29.2.19 nppiAndC_8u_C1IR 379
7.29.2.20 nppiAndC_8u_C1R 379
7.29.2.21 nppiAndC_8u_C3IR 380
7.29.2.22 nppiAndC_8u_C3R 380
7.29.2.23 nppiAndC_8u_C4IR 380
7.29.2.24 nppiAndC_8u_C4R 381
7.30 OrC 382
7.30.1 Detailed Description 384
7.30.2 Function Documentation 384
7.30.2.1 nppiOrC_16u_AC4IR 384
7.30.2.2 nppiOrC_16u_AC4R 384
7.30.2.3 nppiOrC_16u_C1IR 384
7.30.2.4 nppiOrC_16u_C1R 385
7.30.2.5 nppiOrC_16u_C3IR 385
7.30.2.6 nppiOrC_16u_C3R 385
7.30.2.7 nppiOrC_16u_C4IR 386
7.30.2.8 nppiOrC_16u_C4R 386
7.30.2.9 nppiOrC_32s_AC4IR 387
7.30.2.10 nppiOrC_32s_AC4R 387
7.30.2.11 nppiOrC_32s_C1IR 387
7.30.2.12 nppiOrC_32s_C1R 388
7.30.2.13 nppiOrC_32s_C3IR 388
7.30.2.14 nppiOrC_32s_C3R 388
7.30.2.15 nppiOrC_32s_C4IR 389
7.30.2.16 nppiOrC_32s_C4R 389
7.30.2.17 nppiOrC_8u_AC4IR 389
7.30.2.18 nppiOrC_8u_AC4R 390
7.30.2.19 nppiOrC_8u_C1IR 390
7.30.2.20 nppiOrC_8u_C1R 390
7.30.2.21 nppiOrC_8u_C3IR 391
7.30.2.22 nppiOrC_8u_C3R 391
7.30.2.23 nppiOrC_8u_C4IR 391
7.30.2.24 nppiOrC_8u_C4R 392
7.31 XorC 393

7.31.1 Detailed Description . . . 395
7.31.2 Function Documentation . . . 395
7.31.2.1 nppiXorC_16u_AC4IR . . . 395
7.31.2.2 nppiXorC_16u_AC4R . . . 395
7.31.2.3 nppiXorC_16u_C1IR . . . 395
7.31.2.4 nppiXorC_16u_C1R . . . 396
7.31.2.5 nppiXorC_16u_C3IR . . . 396
7.31.2.6 nppiXorC_16u_C3R . . . 396
7.31.2.7 nppiXorC_16u_C4IR . . . 397
7.31.2.8 nppiXorC_16u_C4R . . . 397
7.31.2.9 nppiXorC_32s_AC4IR . . . 398
7.31.2.10 nppiXorC_32s_AC4R . . . 398
7.31.2.11 nppiXorC_32s_C1IR . . . 398
7.31.2.12 nppiXorC_32s_C1R . . . 399
7.31.2.13 nppiXorC_32s_C3IR . . . 399
7.31.2.14 nppiXorC_32s_C3R . . . 399
7.31.2.15 nppiXorC_32s_C4IR . . . 400
7.31.2.16 nppiXorC_32s_C4R . . . 400
7.31.2.17 nppiXorC_8u_AC4IR . . . 400
7.31.2.18 nppiXorC_8u_AC4R . . . 401
7.31.2.19 nppiXorC_8u_C1IR . . . 401
7.31.2.20 nppiXorC_8u_C1R . . . 401
7.31.2.21 nppiXorC_8u_C3IR . . . 402
7.31.2.22 nppiXorC_8u_C3R . . . 402
7.31.2.23 nppiXorC_8u_C4IR . . . 402
7.31.2.24 nppiXorC_8u_C4R . . . 403
7.32 RShiftC . . . 404
7.32.1 Detailed Description . . . 407
7.32.2 Function Documentation . . . 407
7.32.2.1 nppiRShiftC_16s_AC4IR . . . 407
7.32.2.2 nppiRShiftC_16s_AC4R . . . 407
7.32.2.3 nppiRShiftC_16s_C1IR . . . 408
7.32.2.4 nppiRShiftC_16s_C1R . . . 408
7.32.2.5 nppiRShiftC_16s_C3IR . . . 408
7.32.2.6 nppiRShiftC_16s_C3R . . . 409
7.32.2.7 nppiRShiftC_16s_C4IR . . . 409

7.32.2.8 nppiRShiftC_16s_C4R 409
7.32.2.9 nppiRShiftC_16u_AC4IR 410
7.32.2.10 nppiRShiftC_16u_AC4R 410
7.32.2.11 nppiRShiftC_16u_C1IR 411
7.32.2.12 nppiRShiftC_16u_C1R 411
7.32.2.13 nppiRShiftC_16u_C3IR 411
7.32.2.14 nppiRShiftC_16u_C3R 412
7.32.2.15 nppiRShiftC_16u_C4IR 412
7.32.2.16 nppiRShiftC_16u_C4R 412
7.32.2.17 nppiRShiftC_32s_AC4IR 413
7.32.2.18 nppiRShiftC_32s_AC4R 413
7.32.2.19 nppiRShiftC_32s_C1IR 413
7.32.2.20 nppiRShiftC_32s_C1R 414
7.32.2.21 nppiRShiftC_32s_C3IR 414
7.32.2.22 nppiRShiftC_32s_C3R 414
7.32.2.23 nppiRShiftC_32s_C4IR 415
7.32.2.24 nppiRShiftC_32s_C4R 415
7.32.2.25 nppiRShiftC_8s_AC4IR 415
7.32.2.26 nppiRShiftC_8s_AC4R 416
7.32.2.27 nppiRShiftC_8s_C1IR 416
7.32.2.28 nppiRShiftC_8s_C1R 416
7.32.2.29 nppiRShiftC_8s_C3IR 417
7.32.2.30 nppiRShiftC_8s_C3R 417
7.32.2.31 nppiRShiftC_8s_C4IR 417
7.32.2.32 nppiRShiftC_8s_C4R 418
7.32.2.33 nppiRShiftC_8u_AC4IR 418
7.32.2.34 nppiRShiftC_8u_AC4R 418
7.32.2.35 nppiRShiftC_8u_C1IR 419
7.32.2.36 nppiRShiftC_8u_C1R 419
7.32.2.37 nppiRShiftC_8u_C3IR 419
7.32.2.38 nppiRShiftC_8u_C3R 420
7.32.2.39 nppiRShiftC_8u_C4IR 420
7.32.2.40 nppiRShiftC_8u_C4R 420
7.33 LShiftC 421
7.33.1 Detailed Description 423
7.33.2 Function Documentation 423

7.33.2.1 nppiLShiftC_16u_AC4IR 423
7.33.2.2 nppiLShiftC_16u_AC4R 423
7.33.2.3 nppiLShiftC_16u_C1IR 423
7.33.2.4 nppiLShiftC_16u_C1R 424
7.33.2.5 nppiLShiftC_16u_C3IR 424
7.33.2.6 nppiLShiftC_16u_C3R 424
7.33.2.7 nppiLShiftC_16u_C4IR 425
7.33.2.8 nppiLShiftC_16u_C4R 425
7.33.2.9 nppiLShiftC_32s_AC4IR 426
7.33.2.10 nppiLShiftC_32s_AC4R 426
7.33.2.11 nppiLShiftC_32s_C1IR 426
7.33.2.12 nppiLShiftC_32s_C1R 427
7.33.2.13 nppiLShiftC_32s_C3IR 427
7.33.2.14 nppiLShiftC_32s_C3R 427
7.33.2.15 nppiLShiftC_32s_C4IR 428
7.33.2.16 nppiLShiftC_32s_C4R 428
7.33.2.17 nppiLShiftC_8u_AC4IR 428
7.33.2.18 nppiLShiftC_8u_AC4R 429
7.33.2.19 nppiLShiftC_8u_C1IR 429
7.33.2.20 nppiLShiftC_8u_C1R 429
7.33.2.21 nppiLShiftC_8u_C3IR 430
7.33.2.22 nppiLShiftC_8u_C3R 430
7.33.2.23 nppiLShiftC_8u_C4IR 430
7.33.2.24 nppiLShiftC_8u_C4R 431
7.34 And 432
7.34.1 Detailed Description 434
7.34.2 Function Documentation 434
7.34.2.1 nppiAnd_16u_AC4IR 434
7.34.2.2 nppiAnd_16u_AC4R 434
7.34.2.3 nppiAnd_16u_C1IR 434
7.34.2.4 nppiAnd_16u_C1R 435
7.34.2.5 nppiAnd_16u_C3IR 435
7.34.2.6 nppiAnd_16u_C3R 436
7.34.2.7 nppiAnd_16u_C4IR 436
7.34.2.8 nppiAnd_16u_C4R 436
7.34.2.9 nppiAnd_32s_AC4IR 437

7.34.2.10 nppiAnd_32s_AC4R 437
7.34.2.11 nppiAnd_32s_C1IR 438
7.34.2.12 nppiAnd_32s_C1R 438
7.34.2.13 nppiAnd_32s_C3IR 438
7.34.2.14 nppiAnd_32s_C3R 439
7.34.2.15 nppiAnd_32s_C4IR 439
7.34.2.16 nppiAnd_32s_C4R 439
7.34.2.17 nppiAnd_8u_AC4IR 440
7.34.2.18 nppiAnd_8u_AC4R 440
7.34.2.19 nppiAnd_8u_C1IR 441
7.34.2.20 nppiAnd_8u_C1R 441
7.34.2.21 nppiAnd_8u_C3IR 441
7.34.2.22 nppiAnd_8u_C3R 442
7.34.2.23 nppiAnd_8u_C4IR 442
7.34.2.24 nppiAnd_8u_C4R 442
7.35 Or 444
7.35.1 Detailed Description 446
7.35.2 Function Documentation 446
7.35.2.1 nppiOr_16u_AC4IR 446
7.35.2.2 nppiOr_16u_AC4R 446
7.35.2.3 nppiOr_16u_C1IR 446
7.35.2.4 nppiOr_16u_C1R 447
7.35.2.5 nppiOr_16u_C3IR 447
7.35.2.6 nppiOr_16u_C3R 448
7.35.2.7 nppiOr_16u_C4IR 448
7.35.2.8 nppiOr_16u_C4R 448
7.35.2.9 nppiOr_32s_AC4IR 449
7.35.2.10 nppiOr_32s_AC4R 449
7.35.2.11 nppiOr_32s_C1IR 450
7.35.2.12 nppiOr_32s_C1R 450
7.35.2.13 nppiOr_32s_C3IR 450
7.35.2.14 nppiOr_32s_C3R 451
7.35.2.15 nppiOr_32s_C4IR 451
7.35.2.16 nppiOr_32s_C4R 451
7.35.2.17 nppiOr_8u_AC4IR 452
7.35.2.18 nppiOr_8u_AC4R 452

7.35.2.19 nppiOr_8u_C1IR 453
7.35.2.20 nppiOr_8u_C1R 453
7.35.2.21 nppiOr_8u_C3IR 453
7.35.2.22 nppiOr_8u_C3R 454
7.35.2.23 nppiOr_8u_C4IR 454
7.35.2.24 nppiOr_8u_C4R 454
7.36 Xor 456
7.36.1 Detailed Description 458
7.36.2 Function Documentation 458
7.36.2.1 nppiXor_16u_AC4IR 458
7.36.2.2 nppiXor_16u_AC4R 458
7.36.2.3 nppiXor_16u_C1IR 458
7.36.2.4 nppiXor_16u_C1R 459
7.36.2.5 nppiXor_16u_C3IR 459
7.36.2.6 nppiXor_16u_C3R 460
7.36.2.7 nppiXor_16u_C4IR 460
7.36.2.8 nppiXor_16u_C4R 460
7.36.2.9 nppiXor_32s_AC4IR 461
7.36.2.10 nppiXor_32s_AC4R 461
7.36.2.11 nppiXor_32s_C1IR 462
7.36.2.12 nppiXor_32s_C1R 462
7.36.2.13 nppiXor_32s_C3IR 462
7.36.2.14 nppiXor_32s_C3R 463
7.36.2.15 nppiXor_32s_C4IR 463
7.36.2.16 nppiXor_32s_C4R 463
7.36.2.17 nppiXor_8u_AC4IR 464
7.36.2.18 nppiXor_8u_AC4R 464
7.36.2.19 nppiXor_8u_C1IR 465
7.36.2.20 nppiXor_8u_C1R 465
7.36.2.21 nppiXor_8u_C3IR 465
7.36.2.22 nppiXor_8u_C3R 466
7.36.2.23 nppiXor_8u_C4IR 466
7.36.2.24 nppiXor_8u_C4R 466
7.37 Not 468
7.37.1 Detailed Description 468
7.37.2 Function Documentation 468

7.37.2.1 nppiNot_8u_AC4IR 468
7.37.2.2 nppiNot_8u_AC4R 469
7.37.2.3 nppiNot_8u_C1IR 469
7.37.2.4 nppiNot_8u_C1R 469
7.37.2.5 nppiNot_8u_C3IR 470
7.37.2.6 nppiNot_8u_C3R 470
7.37.2.7 nppiNot_8u_C4IR 470
7.37.2.8 nppiNot_8u_C4R 471
7.38 Alpha Composition 472
7.39 AlphaCompC 473
7.39.1 Detailed Description 474
7.39.2 Function Documentation 474
7.39.2.1 nppiAlphaCompC_16s_C1R 474
7.39.2.2 nppiAlphaCompC_16u_AC4R 475
7.39.2.3 nppiAlphaCompC_16u_C1R 475
7.39.2.4 nppiAlphaCompC_16u_C3R 476
7.39.2.5 nppiAlphaCompC_16u_C4R 476
7.39.2.6 nppiAlphaCompC_32f_C1R 477
7.39.2.7 nppiAlphaCompC_32s_C1R 477
7.39.2.8 nppiAlphaCompC_32u_C1R 478
7.39.2.9 nppiAlphaCompC_8s_C1R 478
7.39.2.10 nppiAlphaCompC_8u_AC4R 479
7.39.2.11 nppiAlphaCompC_8u_C1R 479
7.39.2.12 nppiAlphaCompC_8u_C3R 480
7.39.2.13 nppiAlphaCompC_8u_C4R 480
7.40 AlphaPremulC 481
7.40.1 Detailed Description 482
7.40.2 Function Documentation 482
7.40.2.1 nppiAlphaPremulC_16u_AC4IR 482
7.40.2.2 nppiAlphaPremulC_16u_AC4R 482
7.40.2.3 nppiAlphaPremulC_16u_C1IR 483
7.40.2.4 nppiAlphaPremulC_16u_C1R 483
7.40.2.5 nppiAlphaPremulC_16u_C3IR 484
7.40.2.6 nppiAlphaPremulC_16u_C3R 484
7.40.2.7 nppiAlphaPremulC_16u_C4IR 484
7.40.2.8 nppiAlphaPremulC_16u_C4R 485

7.40.2.9 nppiAlphaPremulC_8u_AC4IR 485
7.40.2.10 nppiAlphaPremulC_8u_AC4R 485
7.40.2.11 nppiAlphaPremulC_8u_C1IR 486
7.40.2.12 nppiAlphaPremulC_8u_C1R 486
7.40.2.13 nppiAlphaPremulC_8u_C3IR 486
7.40.2.14 nppiAlphaPremulC_8u_C3R 487
7.40.2.15 nppiAlphaPremulC_8u_C4IR 487
7.40.2.16 nppiAlphaPremulC_8u_C4R 487
7.41 AlphaComp 488
7.41.1 Detailed Description 489
7.41.2 Function Documentation 489
7.41.2.1 nppiAlphaComp_16s_AC1R 489
7.41.2.2 nppiAlphaComp_16u_AC1R 489
7.41.2.3 nppiAlphaComp_16u_AC4R 490
7.41.2.4 nppiAlphaComp_32f_AC1R 490
7.41.2.5 nppiAlphaComp_32f_AC4R 491
7.41.2.6 nppiAlphaComp_32s_AC1R 491
7.41.2.7 nppiAlphaComp_32s_AC4R 492
7.41.2.8 nppiAlphaComp_32u_AC1R 492
7.41.2.9 nppiAlphaComp_32u_AC4R 493
7.41.2.10 nppiAlphaComp_8s_AC1R 493
7.41.2.11 nppiAlphaComp_8u_AC1R 493
7.41.2.12 nppiAlphaComp_8u_AC4R 494
7.42 AlphaPremul 495
7.42.1 Detailed Description 495
7.42.2 Function Documentation 495
7.42.2.1 nppiAlphaPremul_16u_AC4IR 495
7.42.2.2 nppiAlphaPremul_16u_AC4R 496
7.42.2.3 nppiAlphaPremul_8u_AC4IR 496
7.42.2.4 nppiAlphaPremul_8u_AC4R 496
7.43 Color and Sampling Conversion 497
7.43.1 Detailed Description 497
7.44 Color Model Conversion 498
7.44.1 Detailed Description 525
7.44.2 Function Documentation 525
7.44.2.1 nppiBGRToCbYCr422_709HDTV_8u_AC4C2R 525

7.44.2.2 nppiBGRToCbYCr422_709HDTV_8u_C3C2R 525
7.44.2.3 nppiBGRToCbYCr422_8u_AC4C2R 526
7.44.2.4 nppiBGRToHLS_8u_AC4P4R 526
7.44.2.5 nppiBGRToHLS_8u_AC4R 527
7.44.2.6 nppiBGRToHLS_8u_AP4C4R 527
7.44.2.7 nppiBGRToHLS_8u_AP4R 527
7.44.2.8 nppiBGRToHLS_8u_C3P3R 528
7.44.2.9 nppiBGRToHLS_8u_P3C3R 528
7.44.2.10 nppiBGRToHLS_8u_P3R 528
7.44.2.11 nppiBGRToLab_8u_C3R 529
7.44.2.12 nppiBGRToYCbCr411_8u_AC4P3R 529
7.44.2.13 nppiBGRToYCbCr411_8u_C3P3R 529
7.44.2.14 nppiBGRToYCbCr420_709CSC_8u_AC4P3R 530
7.44.2.15 nppiBGRToYCbCr420_709CSC_8u_C3P3R 530
7.44.2.16 nppiBGRToYCbCr420_709HDTV_8u_AC4P3R 531
7.44.2.17 nppiBGRToYCbCr420_8u_AC4P3R 531
7.44.2.18 nppiBGRToYCbCr420_8u_C3P3R 531
7.44.2.19 nppiBGRToYCbCr422_8u_AC4C2R 532
7.44.2.20 nppiBGRToYCbCr422_8u_AC4P3R 532
7.44.2.21 nppiBGRToYCbCr422_8u_C3C2R 533
7.44.2.22 nppiBGRToYCbCr422_8u_C3P3R 533
7.44.2.23 nppiBGRToYCbCr_8u_AC4P3R 533
7.44.2.24 nppiBGRToYCbCr_8u_AC4P4R 534
7.44.2.25 nppiBGRToYCbCr_8u_C3P3R 534
7.44.2.26 nppiBGRToYCrCb420_709CSC_8u_AC4P3R 535
7.44.2.27 nppiBGRToYCrCb420_709CSC_8u_C3P3R 535
7.44.2.28 nppiBGRToYCrCb420_8u_AC4P3R 535
7.44.2.29 nppiBGRToYCrCb420_8u_C3P3R 536
7.44.2.30 nppiBGRToYUV420_8u_AC4P3R 536
7.44.2.31 nppiBGRToYUV_8u_AC4P4R 537
7.44.2.32 nppiBGRToYUV_8u_AC4R 537
7.44.2.33 nppiBGRToYUV_8u_C3P3R 537
7.44.2.34 nppiBGRToYUV_8u_C3R 538
7.44.2.35 nppiBGRToYUV_8u_P3R 538
7.44.2.36 nppiCbYCr422ToBGR_709HDTV_8u_C2C3R 538
7.44.2.37 nppiCbYCr422ToBGR_709HDTV_8u_C2C4R 539

7.44.2.38 nppiCbYCr422ToBGR_8u_C2C4R 539
7.44.2.39 nppiCbYCr422ToRGB_8u_C2C3R 540
7.44.2.40 nppiColorToGray_16s_AC4C1R 540
7.44.2.41 nppiColorToGray_16s_C3C1R 540
7.44.2.42 nppiColorToGray_16u_AC4C1R 541
7.44.2.43 nppiColorToGray_16u_C3C1R 541
7.44.2.44 nppiColorToGray_32f_AC4C1R 541
7.44.2.45 nppiColorToGray_32f_C3C1R 542
7.44.2.46 nppiColorToGray_8u_AC4C1R 542
7.44.2.47 nppiColorToGray_8u_C3C1R 543
7.44.2.48 nppiHLSToBGR_8u_AC4P4R 543
7.44.2.49 nppiHLSToBGR_8u_AC4R 543
7.44.2.50 nppiHLSToBGR_8u_AP4C4R 544
7.44.2.51 nppiHLSToBGR_8u_AP4R 544
7.44.2.52 nppiHLSToBGR_8u_C3P3R 544
7.44.2.53 nppiHLSToBGR_8u_P3C3R 545
7.44.2.54 nppiHLSToBGR_8u_P3R 545
7.44.2.55 nppiHLSToRGB_8u_AC4R 545
7.44.2.56 nppiHLSToRGB_8u_C3R 546
7.44.2.57 nppiHSVToRGB_8u_AC4R 546
7.44.2.58 nppiHSVToRGB_8u_C3R 546
7.44.2.59 nppiLabToBGR_8u_C3R 547
7.44.2.60 nppiLUVToRGB_8u_AC4R 547
7.44.2.61 nppiLUVToRGB_8u_C3R 547
7.44.2.62 nppiNV21ToBGR_8u_P2C4R 548
7.44.2.63 nppiNV21ToRGB_8u_P2C4R 548
7.44.2.64 nppiRGBToCbYCr422_8u_C3C2R 548
7.44.2.65 nppiRGBToCbYCr422Gamma_8u_C3C2R 549
7.44.2.66 nppiRGBToGray_16s_AC4C1R 549
7.44.2.67 nppiRGBToGray_16s_C3C1R 549
7.44.2.68 nppiRGBToGray_16u_AC4C1R 550
7.44.2.69 nppiRGBToGray_16u_C3C1R 550
7.44.2.70 nppiRGBToGray_32f_AC4C1R 550
7.44.2.71 nppiRGBToGray_32f_C3C1R 551
7.44.2.72 nppiRGBToGray_8u_AC4C1R 551
7.44.2.73 nppiRGBToGray_8u_C3C1R 551

7.44.2.74 nppiRGBToHLS_8u_AC4R 552
7.44.2.75 nppiRGBToHLS_8u_C3R 552
7.44.2.76 nppiRGBToHSV_8u_AC4R 552
7.44.2.77 nppiRGBToHSV_8u_C3R 553
7.44.2.78 nppiRGBToLUV_8u_AC4R 553
7.44.2.79 nppiRGBToLUV_8u_C3R 553
7.44.2.80 nppiRGBToXYZ_8u_AC4R 554
7.44.2.81 nppiRGBToXYZ_8u_C3R 554
7.44.2.82 nppiRGBToYCbCr420_8u_C3P3R 554
7.44.2.83 nppiRGBToYCbCr422_8u_C3C2R 555
7.44.2.84 nppiRGBToYCbCr422_8u_C3P3R 555
7.44.2.85 nppiRGBToYCbCr422_8u_P3C2R 555
7.44.2.86 nppiRGBToYCbCr_8u_AC4P3R 556
7.44.2.87 nppiRGBToYCbCr_8u_AC4R 556
7.44.2.88 nppiRGBToYCbCr_8u_C3P3R 556
7.44.2.89 nppiRGBToYCbCr_8u_C3R 557
7.44.2.90 nppiRGBToYCbCr_8u_P3R 557
7.44.2.91 nppiRGBToYCC_8u_AC4R 558
7.44.2.92 nppiRGBToYCC_8u_C3R 558
7.44.2.93 nppiRGBToYCrCb420_8u_AC4P3R 558
7.44.2.94 nppiRGBToYCrCb422_8u_C3C2R 559
7.44.2.95 nppiRGBToYCrCb422_8u_P3C2R 559
7.44.2.96 nppiRGBToYUV420_8u_C3P3R 559
7.44.2.97 nppiRGBToYUV420_8u_P3R 560
7.44.2.98 nppiRGBToYUV422_8u_C3C2R 560
7.44.2.99 nppiRGBToYUV422_8u_C3P3R 560
7.44.2.100nppiRGBToYUV422_8u_P3R 561
7.44.2.101nppiRGBToYUV_8u_AC4P4R 561
7.44.2.102nppiRGBToYUV_8u_AC4R 561
7.44.2.103nppiRGBToYUV_8u_C3P3R 562
7.44.2.104nppiRGBToYUV_8u_C3R 562
7.44.2.105nppiRGBToYUV_8u_P3R 562
7.44.2.106nppiXYZToRGB_8u_AC4R 563
7.44.2.107nppiXYZToRGB_8u_C3R 563
7.44.2.108nppiYCbCr411ToBGR_8u_P3C3R 564
7.44.2.109nppiYCbCr411ToBGR_8u_P3C4R 564

7.44.2.110nppiYCbCr420ToBGR_709CSC_8u_P3C3R 564
7.44.2.111nppiYCbCr420ToBGR_709HDTV_8u_P3C4R 565
7.44.2.112nppiYCbCr420ToBGR_8u_P3C3R 565
7.44.2.113nppiYCbCr420ToBGR_8u_P3C4R 565
7.44.2.114nppiYCbCr420ToRGB_8u_P3C3R 566
7.44.2.115nppiYCbCr422ToBGR_8u_C2C3R 566
7.44.2.116nppiYCbCr422ToBGR_8u_C2C4R 566
7.44.2.117nppiYCbCr422ToBGR_8u_P3C3R 567
7.44.2.118nppiYCbCr422ToRGB_8u_C2C3R 567
7.44.2.119nppiYCbCr422ToRGB_8u_C2P3R 568
7.44.2.120nppiYCbCr422ToRGB_8u_P3C3R 568
7.44.2.121nppiYCbCrToBGR_709CSC_8u_P3C3R 568
7.44.2.122nppiYCbCrToBGR_709CSC_8u_P3C4R 569
7.44.2.123nppiYCbCrToBGR_8u_P3C3R 569
7.44.2.124nppiYCbCrToBGR_8u_P3C4R 569
7.44.2.125nppiYCbCrToRGB_8u_AC4R 570
7.44.2.126nppiYCbCrToRGB_8u_C3R 570
7.44.2.127nppiYCbCrToRGB_8u_P3C3R 570
7.44.2.128nppiYCbCrToRGB_8u_P3C4R 571
7.44.2.129nppiYCbCrToRGB_8u_P3R 571
7.44.2.130nppiYCCToRGB_8u_AC4R 572
7.44.2.131nppiYCCToRGB_8u_C3R 572
7.44.2.132nppiYCrCb420ToRGB_8u_P3C4R 572
7.44.2.133nppiYCrCb422ToRGB_8u_C2C3R 573
7.44.2.134nppiYCrCb422ToRGB_8u_C2P3R 573
7.44.2.135nppiYUV420ToBGR_8u_P3C3R 573
7.44.2.136nppiYUV420ToBGR_8u_P3C4R 574
7.44.2.137nppiYUV420ToRGB_8u_P3AC4R 574
7.44.2.138nppiYUV420ToRGB_8u_P3C3R 574
7.44.2.139nppiYUV420ToRGB_8u_P3C4R 575
7.44.2.140nppiYUV420ToRGB_8u_P3R 575
7.44.2.141nppiYUV422ToRGB_8u_C2C3R 575
7.44.2.142nppiYUV422ToRGB_8u_P3AC4R 576
7.44.2.143nppiYUV422ToRGB_8u_P3C3R 576
7.44.2.144nppiYUV422ToRGB_8u_P3R 576
7.44.2.145nppiYUVToBGR_8u_AC4R 577

7.44.2.146 nppiYUVToBGR_8u_C3R 577
7.44.2.147 nppiYUVToBGR_8u_P3C3R 577
7.44.2.148 nppiYUVToBGR_8u_P3R 578
7.44.2.149 nppiYUVToRGB_8u_AC4R 578
7.44.2.150 nppiYUVToRGB_8u_C3R 578
7.44.2.151 nppiYUVToRGB_8u_P3C3R 579
7.44.2.152 nppiYUVToRGB_8u_P3R 579
7.45 Color Sampling Format Conversion 580
7.45.1 Detailed Description 587
7.45.2 Function Documentation 587
7.45.2.1 nppiCbYCr422ToYCbCr411_8u_C2P3R 587
7.45.2.2 nppiCbYCr422ToYCbCr420_8u_C2P2R 588
7.45.2.3 nppiCbYCr422ToYCbCr420_8u_C2P3R 588
7.45.2.4 nppiCbYCr422ToYCbCr422_8u_C2P3R 589
7.45.2.5 nppiCbYCr422ToYCbCr422_8u_C2R 589
7.45.2.6 nppiCbYCr422ToYCrCb420_8u_C2P3R 589
7.45.2.7 nppiYCbCr411_8u_P2P3R 590
7.45.2.8 nppiYCbCr411_8u_P3P2R 590
7.45.2.9 nppiYCbCr411ToYCbCr420_8u_P2P3R 591
7.45.2.10 nppiYCbCr411ToYCbCr420_8u_P3P2R 591
7.45.2.11 nppiYCbCr411ToYCbCr420_8u_P3R 591
7.45.2.12 nppiYCbCr411ToYCbCr422_8u_P2C2R 592
7.45.2.13 nppiYCbCr411ToYCbCr422_8u_P2P3R 592
7.45.2.14 nppiYCbCr411ToYCbCr422_8u_P3C2R 593
7.45.2.15 nppiYCbCr411ToYCbCr422_8u_P3R 593
7.45.2.16 nppiYCbCr411ToYCrCb420_8u_P2P3R 593
7.45.2.17 nppiYCbCr411ToYCrCb422_8u_P3C2R 594
7.45.2.18 nppiYCbCr411ToYCrCb422_8u_P3R 594
7.45.2.19 nppiYCbCr420_8u_P2P3R 595
7.45.2.20 nppiYCbCr420_8u_P3P2R 595
7.45.2.21 nppiYCbCr420ToCbYCr422_8u_P2C2R 595
7.45.2.22 nppiYCbCr420ToYCbCr411_8u_P2P3R 596
7.45.2.23 nppiYCbCr420ToYCbCr411_8u_P3P2R 596
7.45.2.24 nppiYCbCr420ToYCbCr422_8u_P2C2R 597
7.45.2.25 nppiYCbCr420ToYCbCr422_8u_P2P3R 597
7.45.2.26 nppiYCbCr420ToYCbCr422_8u_P3R 598

7.45.2.27 nppiYCbCr420ToYCrCb420_8u_P2P3R 598
7.45.2.28 nppiYCbCr422_8u_C2P3R 598
7.45.2.29 nppiYCbCr422_8u_P3C2R 599
7.45.2.30 nppiYCbCr422ToCbYCr422_8u_C2R 599
7.45.2.31 nppiYCbCr422ToYCbCr411_8u_C2P2R 600
7.45.2.32 nppiYCbCr422ToYCbCr411_8u_C2P3R 600
7.45.2.33 nppiYCbCr422ToYCbCr411_8u_P3P2R 600
7.45.2.34 nppiYCbCr422ToYCbCr411_8u_P3R 601
7.45.2.35 nppiYCbCr422ToYCbCr420_8u_C2P2R 601
7.45.2.36 nppiYCbCr422ToYCbCr420_8u_C2P3R 602
7.45.2.37 nppiYCbCr422ToYCbCr420_8u_P3P2R 602
7.45.2.38 nppiYCbCr422ToYCbCr420_8u_P3R 603
7.45.2.39 nppiYCbCr422ToYCrCb420_8u_C2P3R 603
7.45.2.40 nppiYCbCr422ToYCrCb422_8u_C2R 603
7.45.2.41 nppiYCbCr422ToYCrCb422_8u_P3C2R 604
7.45.2.42 nppiYCrCb420ToCbYCr422_8u_P3C2R 604
7.45.2.43 nppiYCrCb420ToYCbCr411_8u_P3P2R 605
7.45.2.44 nppiYCrCb420ToYCbCr420_8u_P3P2R 605
7.45.2.45 nppiYCrCb420ToYCbCr422_8u_P3C2R 606
7.45.2.46 nppiYCrCb420ToYCbCr422_8u_P3R 606
7.45.2.47 nppiYCrCb422ToYCbCr411_8u_C2P3R 606
7.45.2.48 nppiYCrCb422ToYCbCr420_8u_C2P3R 607
7.45.2.49 nppiYCrCb422ToYCbCr422_8u_C2P3R 607
7.46 Color Gamma Correction 608
7.46.1 Detailed Description 609
7.46.2 Function Documentation 609
7.46.2.1 nppiGammaFwd_8u_AC4IR 609
7.46.2.2 nppiGammaFwd_8u_AC4R 609
7.46.2.3 nppiGammaFwd_8u_C3IR 610
7.46.2.4 nppiGammaFwd_8u_C3R 610
7.46.2.5 nppiGammaFwd_8u_IP3R 610
7.46.2.6 nppiGammaFwd_8u_P3R 611
7.46.2.7 nppiGammaInv_8u_AC4IR 611
7.46.2.8 nppiGammaInv_8u_AC4R 611
7.46.2.9 nppiGammaInv_8u_C3IR 612
7.46.2.10 nppiGammaInv_8u_C3R 612

7.46.2.11 nppiGammaInv_8u_IP3R 612
7.46.2.12 nppiGammaInv_8u_P3R 613
7.47 Complement Color Key 614
7.47.1 Detailed Description 614
7.47.2 Function Documentation 614
7.47.2.1 nppiAlphaCompColorKey_8u_AC4R 614
7.47.2.2 nppiCompColorKey_8u_C1R 615
7.47.2.3 nppiCompColorKey_8u_C3R 615
7.47.2.4 nppiCompColorKey_8u_C4R 616
7.48 Color Processing 617
7.48.1 Detailed Description 631
7.48.2 Function Documentation 631
7.48.2.1 nppiColorTwist32f_16s_AC4IR 631
7.48.2.2 nppiColorTwist32f_16s_AC4R 632
7.48.2.3 nppiColorTwist32f_16s_C1IR 632
7.48.2.4 nppiColorTwist32f_16s_C1R 633
7.48.2.5 nppiColorTwist32f_16s_C2IR 633
7.48.2.6 nppiColorTwist32f_16s_C2R 633
7.48.2.7 nppiColorTwist32f_16s_C3IR 634
7.48.2.8 nppiColorTwist32f_16s_C3R 634
7.48.2.9 nppiColorTwist32f_16s_IP3R 635
7.48.2.10 nppiColorTwist32f_16s_P3R 635
7.48.2.11 nppiColorTwist32f_16u_AC4IR 635
7.48.2.12 nppiColorTwist32f_16u_AC4R 636
7.48.2.13 nppiColorTwist32f_16u_C1IR 636
7.48.2.14 nppiColorTwist32f_16u_C1R 636
7.48.2.15 nppiColorTwist32f_16u_C2IR 637
7.48.2.16 nppiColorTwist32f_16u_C2R 637
7.48.2.17 nppiColorTwist32f_16u_C3IR 638
7.48.2.18 nppiColorTwist32f_16u_C3R 638
7.48.2.19 nppiColorTwist32f_16u_IP3R 638
7.48.2.20 nppiColorTwist32f_16u_P3R 639
7.48.2.21 nppiColorTwist32f_8s_AC4IR 639
7.48.2.22 nppiColorTwist32f_8s_AC4R 639
7.48.2.23 nppiColorTwist32f_8s_C1IR 640
7.48.2.24 nppiColorTwist32f_8s_C1R 640

7.48.2.25 nppiColorTwist32f_8s_C2IR 641
7.48.2.26 nppiColorTwist32f_8s_C2R 641
7.48.2.27 nppiColorTwist32f_8s_C3IR 641
7.48.2.28 nppiColorTwist32f_8s_C3R 642
7.48.2.29 nppiColorTwist32f_8s_C4IR 642
7.48.2.30 nppiColorTwist32f_8s_C4R 642
7.48.2.31 nppiColorTwist32f_8s_IP3R 643
7.48.2.32 nppiColorTwist32f_8s_P3R 643
7.48.2.33 nppiColorTwist32f_8u_AC4IR 644
7.48.2.34 nppiColorTwist32f_8u_AC4R 644
7.48.2.35 nppiColorTwist32f_8u_C1IR 644
7.48.2.36 nppiColorTwist32f_8u_C1R 645
7.48.2.37 nppiColorTwist32f_8u_C2IR 645
7.48.2.38 nppiColorTwist32f_8u_C2R 646
7.48.2.39 nppiColorTwist32f_8u_C3IR 646
7.48.2.40 nppiColorTwist32f_8u_C3R 646
7.48.2.41 nppiColorTwist32f_8u_C4IR 647
7.48.2.42 nppiColorTwist32f_8u_C4R 647
7.48.2.43 nppiColorTwist32f_8u_IP3R 648
7.48.2.44 nppiColorTwist32f_8u_P3R 648
7.48.2.45 nppiColorTwist32fC_8u_C4IR 648
7.48.2.46 nppiColorTwist32fC_8u_C4R 649
7.48.2.47 nppiColorTwist_32f_AC4IR 649
7.48.2.48 nppiColorTwist_32f_AC4R 650
7.48.2.49 nppiColorTwist_32f_C1IR 650
7.48.2.50 nppiColorTwist_32f_C1R 651
7.48.2.51 nppiColorTwist_32f_C2IR 651
7.48.2.52 nppiColorTwist_32f_C2R 651
7.48.2.53 nppiColorTwist_32f_C3IR 652
7.48.2.54 nppiColorTwist_32f_C3R 652
7.48.2.55 nppiColorTwist_32f_C4IR 653
7.48.2.56 nppiColorTwist_32f_C4R 653
7.48.2.57 nppiColorTwist_32f_IP3R 653
7.48.2.58 nppiColorTwist_32f_P3R 654
7.48.2.59 nppiColorTwist_32fC_C4IR 654
7.48.2.60 nppiColorTwist_32fC_C4R 655

7.48.2.61 nppiLUT_16s_AC4IR 655
7.48.2.62 nppiLUT_16s_AC4R 656
7.48.2.63 nppiLUT_16s_C1IR 656
7.48.2.64 nppiLUT_16s_C1R 657
7.48.2.65 nppiLUT_16s_C3IR 657
7.48.2.66 nppiLUT_16s_C3R 658
7.48.2.67 nppiLUT_16s_C4IR 658
7.48.2.68 nppiLUT_16s_C4R 659
7.48.2.69 nppiLUT_16u_AC4IR 659
7.48.2.70 nppiLUT_16u_AC4R 660
7.48.2.71 nppiLUT_16u_C1IR 660
7.48.2.72 nppiLUT_16u_C1R 661
7.48.2.73 nppiLUT_16u_C3IR 661
7.48.2.74 nppiLUT_16u_C3R 662
7.48.2.75 nppiLUT_16u_C4IR 662
7.48.2.76 nppiLUT_16u_C4R 663
7.48.2.77 nppiLUT_32f_AC4IR 663
7.48.2.78 nppiLUT_32f_AC4R 664
7.48.2.79 nppiLUT_32f_C1IR 664
7.48.2.80 nppiLUT_32f_C1R 665
7.48.2.81 nppiLUT_32f_C3IR 665
7.48.2.82 nppiLUT_32f_C3R 666
7.48.2.83 nppiLUT_32f_C4IR 666
7.48.2.84 nppiLUT_32f_C4R 667
7.48.2.85 nppiLUT_8u_AC4IR 667
7.48.2.86 nppiLUT_8u_AC4R 668
7.48.2.87 nppiLUT_8u_C1IR 668
7.48.2.88 nppiLUT_8u_C1R 669
7.48.2.89 nppiLUT_8u_C3IR 669
7.48.2.90 nppiLUT_8u_C3R 670
7.48.2.91 nppiLUT_8u_C4IR 670
7.48.2.92 nppiLUT_8u_C4R 671
7.48.2.93 nppiLUT_Cubic_16s_AC4IR 671
7.48.2.94 nppiLUT_Cubic_16s_AC4R 672
7.48.2.95 nppiLUT_Cubic_16s_C1IR 672
7.48.2.96 nppiLUT_Cubic_16s_C1R 673

7.48.2.97 nppiLUT_Cubic_16s_C3IR 673
7.48.2.98 nppiLUT_Cubic_16s_C3R 674
7.48.2.99 nppiLUT_Cubic_16s_C4IR 674
7.48.2.100nppiLUT_Cubic_16s_C4R 675
7.48.2.101nppiLUT_Cubic_16u_AC4IR 675
7.48.2.102nppiLUT_Cubic_16u_AC4R 676
7.48.2.103nppiLUT_Cubic_16u_C1IR 676
7.48.2.104nppiLUT_Cubic_16u_C1R 677
7.48.2.105nppiLUT_Cubic_16u_C3IR 677
7.48.2.106nppiLUT_Cubic_16u_C3R 678
7.48.2.107nppiLUT_Cubic_16u_C4IR 678
7.48.2.108nppiLUT_Cubic_16u_C4R 679
7.48.2.109nppiLUT_Cubic_32f_AC4IR 679
7.48.2.110nppiLUT_Cubic_32f_AC4R 680
7.48.2.111nppiLUT_Cubic_32f_C1IR 680
7.48.2.112nppiLUT_Cubic_32f_C1R 681
7.48.2.113nppiLUT_Cubic_32f_C3IR 681
7.48.2.114nppiLUT_Cubic_32f_C3R 682
7.48.2.115nppiLUT_Cubic_32f_C4IR 682
7.48.2.116nppiLUT_Cubic_32f_C4R 683
7.48.2.117nppiLUT_Cubic_8u_AC4IR 683
7.48.2.118nppiLUT_Cubic_8u_AC4R 684
7.48.2.119nppiLUT_Cubic_8u_C1IR 684
7.48.2.120nppiLUT_Cubic_8u_C1R 685
7.48.2.121nppiLUT_Cubic_8u_C3IR 685
7.48.2.122nppiLUT_Cubic_8u_C3R 686
7.48.2.123nppiLUT_Cubic_8u_C4IR 686
7.48.2.124nppiLUT_Cubic_8u_C4R 687
7.48.2.125nppiLUT_Linear_16s_AC4IR 687
7.48.2.126nppiLUT_Linear_16s_AC4R 688
7.48.2.127nppiLUT_Linear_16s_C1IR 688
7.48.2.128nppiLUT_Linear_16s_C1R 689
7.48.2.129nppiLUT_Linear_16s_C3IR 689
7.48.2.130nppiLUT_Linear_16s_C3R 690
7.48.2.131nppiLUT_Linear_16s_C4IR 690
7.48.2.132nppiLUT_Linear_16s_C4R 691

7.48.2.133nppiLUT_Linear_16u_AC4IR 691
7.48.2.134nppiLUT_Linear_16u_AC4R 692
7.48.2.135nppiLUT_Linear_16u_C1IR 692
7.48.2.136nppiLUT_Linear_16u_C1R 693
7.48.2.137nppiLUT_Linear_16u_C3IR 693
7.48.2.138nppiLUT_Linear_16u_C3R 694
7.48.2.139nppiLUT_Linear_16u_C4IR 694
7.48.2.140nppiLUT_Linear_16u_C4R 695
7.48.2.141nppiLUT_Linear_32f_AC4IR 695
7.48.2.142nppiLUT_Linear_32f_AC4R 696
7.48.2.143nppiLUT_Linear_32f_C1IR 696
7.48.2.144nppiLUT_Linear_32f_C1R 697
7.48.2.145nppiLUT_Linear_32f_C3IR 697
7.48.2.146nppiLUT_Linear_32f_C3R 698
7.48.2.147nppiLUT_Linear_32f_C4IR 698
7.48.2.148nppiLUT_Linear_32f_C4R 699
7.48.2.149nppiLUT_Linear_8u_AC4IR 699
7.48.2.150nppiLUT_Linear_8u_AC4R 700
7.48.2.151nppiLUT_Linear_8u_C1IR 700
7.48.2.152nppiLUT_Linear_8u_C1R 701
7.48.2.153nppiLUT_Linear_8u_C3IR 701
7.48.2.154nppiLUT_Linear_8u_C3R 702
7.48.2.155nppiLUT_Linear_8u_C4IR 702
7.48.2.156nppiLUT_Linear_8u_C4R 703
7.48.2.157nppiLUT_Trilinear_8u_AC4IR 704
7.48.2.158nppiLUT_Trilinear_8u_AC4R 704
7.48.2.159nppiLUT_Trilinear_8u_C4R 705
7.48.2.160nppiLUTPalette_16u24u_C1R 705
7.48.2.161nppiLUTPalette_16u32u_C1R 706
7.48.2.162nppiLUTPalette_16u8u_C1R 706
7.48.2.163nppiLUTPalette_16u_AC4R 707
7.48.2.164nppiLUTPalette_16u_C1R 707
7.48.2.165nppiLUTPalette_16u_C3R 708
7.48.2.166nppiLUTPalette_16u_C4R 708
7.48.2.167nppiLUTPalette_8u24u_C1R 709
7.48.2.168nppiLUTPalette_8u32u_C1R 709

7.48.2.169nppiLUTPalette_8u_AC4R 710
7.48.2.170nppiLUTPalette_8u_C1R 710
7.48.2.171nppiLUTPalette_8u_C3R 711
7.48.2.172nppiLUTPalette_8u_C4R 711
7.48.2.173nppiLUTPaletteSwap_16u_C3A0C4R 712
7.48.2.174nppiLUTPaletteSwap_8u_C3A0C4R 713
7.49 Compression 714
7.49.1 Detailed Description 714
7.49.2 Typedef Documentation 715
7.49.2.1 NppiDecodeHuffmanSpec 715
7.49.3 Function Documentation 715
7.49.3.1 nppiDecodeHuffmanScanHost_JPEG_8u16s_P1R 715
7.49.3.2 nppiDecodeHuffmanScanHost_JPEG_8u16s_P3R 715
7.49.3.3 nppiDecodeHuffmanSpecFreeHost_JPEG 716
7.49.3.4 nppiDecodeHuffmanSpecGetBufSize_JPEG 716
7.49.3.5 nppiDecodeHuffmanSpecInitAllocHost_JPEG 717
7.49.3.6 nppiDecodeHuffmanSpecInitHost_JPEG 717
7.50 Quantization Functions 718
7.50.1 Typedef Documentation 719
7.50.1.1 NppiDCTState 719
7.50.2 Function Documentation 719
7.50.2.1 nppiDCTFree 719
7.50.2.2 nppiDCTInitAlloc 719
7.50.2.3 nppiDCTQuantFwd8x8LS_JPEG_8u16s_C1R 719
7.50.2.4 nppiDCTQuantFwd8x8LS_JPEG_8u16s_C1R_NEW 720
7.50.2.5 nppiDCTQuantInv8x8LS_JPEG_16s8u_C1R 720
7.50.2.6 nppiDCTQuantInv8x8LS_JPEG_16s8u_C1R_NEW 721
7.50.2.7 nppiQuantFwdRawTableInit_JPEG_8u 722
7.50.2.8 nppiQuantFwdTableInit_JPEG_8u16u 722
7.50.2.9 nppiQuantInvTableInit_JPEG_8u16u 722
7.51 Labeling and Segmentation 724
7.51.1 Detailed Description 724
7.51.2 Typedef Documentation 724
7.51.2.1 NppiGraphcutState 724
7.52 GraphCut 725
7.52.1 Function Documentation 726

7.52.1.1 nppiGraphcut8_32f8u 726
7.52.1.2 nppiGraphcut8_32s8u 727
7.52.1.3 nppiGraphcut8GetSize 727
7.52.1.4 nppiGraphcut8InitAlloc 728
7.52.1.5 nppiGraphcut_32f8u 728
7.52.1.6 nppiGraphcut_32s8u 729
7.52.1.7 nppiGraphcutFree 730
7.52.1.8 nppiGraphcutGetSize 730
7.52.1.9 nppiGraphcutInitAlloc 731
7.53 Data Exchange and Initialization 732
7.53.1 Detailed Description 732
7.54 Set 733
7.54.1 Detailed Description 739
7.54.2 Function Documentation 739
7.54.2.1 nppiSet_16s_AC4MR 739
7.54.2.2 nppiSet_16s_AC4R 740
7.54.2.3 nppiSet_16s_C1MR 740
7.54.2.4 nppiSet_16s_C1R 740
7.54.2.5 nppiSet_16s_C2R 741
7.54.2.6 nppiSet_16s_C3CR 741
7.54.2.7 nppiSet_16s_C3MR 741
7.54.2.8 nppiSet_16s_C3R 742
7.54.2.9 nppiSet_16s_C4CR 742
7.54.2.10 nppiSet_16s_C4MR 742
7.54.2.11 nppiSet_16s_C4R 743
7.54.2.12 nppiSet_16sc_AC4R 743
7.54.2.13 nppiSet_16sc_C1R 743
7.54.2.14 nppiSet_16sc_C2R 744
7.54.2.15 nppiSet_16sc_C3R 744
7.54.2.16 nppiSet_16sc_C4R 744
7.54.2.17 nppiSet_16u_AC4MR 745
7.54.2.18 nppiSet_16u_AC4R 745
7.54.2.19 nppiSet_16u_C1MR 745
7.54.2.20 nppiSet_16u_C1R 746
7.54.2.21 nppiSet_16u_C2R 746
7.54.2.22 nppiSet_16u_C3CR 746

7.54.2.23 nppiSet_16u_C3MR 747
7.54.2.24 nppiSet_16u_C3R 747
7.54.2.25 nppiSet_16u_C4CR 747
7.54.2.26 nppiSet_16u_C4MR 748
7.54.2.27 nppiSet_16u_C4R 748
7.54.2.28 nppiSet_32f_AC4MR 748
7.54.2.29 nppiSet_32f_AC4R 749
7.54.2.30 nppiSet_32f_C1MR 749
7.54.2.31 nppiSet_32f_C1R 750
7.54.2.32 nppiSet_32f_C2R 750
7.54.2.33 nppiSet_32f_C3CR 750
7.54.2.34 nppiSet_32f_C3MR 751
7.54.2.35 nppiSet_32f_C3R 751
7.54.2.36 nppiSet_32f_C4CR 751
7.54.2.37 nppiSet_32f_C4MR 752
7.54.2.38 nppiSet_32f_C4R 752
7.54.2.39 nppiSet_32fc_AC4R 752
7.54.2.40 nppiSet_32fc_C1R 753
7.54.2.41 nppiSet_32fc_C2R 753
7.54.2.42 nppiSet_32fc_C3R 753
7.54.2.43 nppiSet_32fc_C4R 754
7.54.2.44 nppiSet_32s_AC4MR 754
7.54.2.45 nppiSet_32s_AC4R 754
7.54.2.46 nppiSet_32s_C1MR 755
7.54.2.47 nppiSet_32s_C1R 755
7.54.2.48 nppiSet_32s_C2R 755
7.54.2.49 nppiSet_32s_C3CR 756
7.54.2.50 nppiSet_32s_C3MR 756
7.54.2.51 nppiSet_32s_C3R 756
7.54.2.52 nppiSet_32s_C4CR 757
7.54.2.53 nppiSet_32s_C4MR 757
7.54.2.54 nppiSet_32s_C4R 757
7.54.2.55 nppiSet_32sc_AC4R 758
7.54.2.56 nppiSet_32sc_C1R 758
7.54.2.57 nppiSet_32sc_C2R 758
7.54.2.58 nppiSet_32sc_C3R 759

7.54.2.59 nppiSet_32sc_C4R 759
7.54.2.60 nppiSet_32u_AC4R 759
7.54.2.61 nppiSet_32u_C1R 760
7.54.2.62 nppiSet_32u_C2R 760
7.54.2.63 nppiSet_32u_C3R 760
7.54.2.64 nppiSet_32u_C4R 761
7.54.2.65 nppiSet_8s_AC4R 761
7.54.2.66 nppiSet_8s_C1R 761
7.54.2.67 nppiSet_8s_C2R 762
7.54.2.68 nppiSet_8s_C3R 762
7.54.2.69 nppiSet_8s_C4R 762
7.54.2.70 nppiSet_8u_AC4MR 763
7.54.2.71 nppiSet_8u_AC4R 763
7.54.2.72 nppiSet_8u_C1MR 763
7.54.2.73 nppiSet_8u_C1R 764
7.54.2.74 nppiSet_8u_C2R 764
7.54.2.75 nppiSet_8u_C3CR 764
7.54.2.76 nppiSet_8u_C3MR 765
7.54.2.77 nppiSet_8u_C3R 765
7.54.2.78 nppiSet_8u_C4CR 765
7.54.2.79 nppiSet_8u_C4MR 766
7.54.2.80 nppiSet_8u_C4R 766
7.55 Copy 767
7.55.1 Function Documentation 776
7.55.1.1 nppiCopy_16s_AC4MR 776
7.55.1.2 nppiCopy_16s_AC4R 777
7.55.1.3 nppiCopy_16s_C1C3R 777
7.55.1.4 nppiCopy_16s_C1C4R 778
7.55.1.5 nppiCopy_16s_C1MR 778
7.55.1.6 nppiCopy_16s_C1R 778
7.55.1.7 nppiCopy_16s_C3C1R 779
7.55.1.8 nppiCopy_16s_C3CR 779
7.55.1.9 nppiCopy_16s_C3MR 779
7.55.1.10 nppiCopy_16s_C3P3R 780
7.55.1.11 nppiCopy_16s_C3R 780
7.55.1.12 nppiCopy_16s_C4C1R 780

7.55.1.13 nppiCopy_16s_C4CR 781
7.55.1.14 nppiCopy_16s_C4MR 781
7.55.1.15 nppiCopy_16s_C4P4R 781
7.55.1.16 nppiCopy_16s_C4R 782
7.55.1.17 nppiCopy_16s_P3C3R 782
7.55.1.18 nppiCopy_16s_P4C4R 782
7.55.1.19 nppiCopy_16sc_AC4R 783
7.55.1.20 nppiCopy_16sc_C1R 783
7.55.1.21 nppiCopy_16sc_C2R 783
7.55.1.22 nppiCopy_16sc_C3R 784
7.55.1.23 nppiCopy_16sc_C4R 784
7.55.1.24 nppiCopy_16u_AC4MR 784
7.55.1.25 nppiCopy_16u_AC4R 785
7.55.1.26 nppiCopy_16u_C1C3R 785
7.55.1.27 nppiCopy_16u_C1C4R 785
7.55.1.28 nppiCopy_16u_C1MR 786
7.55.1.29 nppiCopy_16u_C1R 786
7.55.1.30 nppiCopy_16u_C3C1R 786
7.55.1.31 nppiCopy_16u_C3CR 787
7.55.1.32 nppiCopy_16u_C3MR 787
7.55.1.33 nppiCopy_16u_C3P3R 787
7.55.1.34 nppiCopy_16u_C3R 788
7.55.1.35 nppiCopy_16u_C4C1R 788
7.55.1.36 nppiCopy_16u_C4CR 788
7.55.1.37 nppiCopy_16u_C4MR 789
7.55.1.38 nppiCopy_16u_C4P4R 789
7.55.1.39 nppiCopy_16u_C4R 789
7.55.1.40 nppiCopy_16u_P3C3R 790
7.55.1.41 nppiCopy_16u_P4C4R 790
7.55.1.42 nppiCopy_32f_AC4MR 790
7.55.1.43 nppiCopy_32f_AC4R 791
7.55.1.44 nppiCopy_32f_C1C3R 791
7.55.1.45 nppiCopy_32f_C1C4R 791
7.55.1.46 nppiCopy_32f_C1MR 792
7.55.1.47 nppiCopy_32f_C1R 792
7.55.1.48 nppiCopy_32f_C3C1R 792

7.55.1.49 nppiCopy_32f_C3CR 793
7.55.1.50 nppiCopy_32f_C3MR 793
7.55.1.51 nppiCopy_32f_C3P3R 793
7.55.1.52 nppiCopy_32f_C3R 794
7.55.1.53 nppiCopy_32f_C4C1R 794
7.55.1.54 nppiCopy_32f_C4CR 794
7.55.1.55 nppiCopy_32f_C4MR 795
7.55.1.56 nppiCopy_32f_C4P4R 795
7.55.1.57 nppiCopy_32f_C4R 795
7.55.1.58 nppiCopy_32f_P3C3R 796
7.55.1.59 nppiCopy_32f_P4C4R 796
7.55.1.60 nppiCopy_32fc_AC4R 796
7.55.1.61 nppiCopy_32fc_C1R 797
7.55.1.62 nppiCopy_32fc_C2R 797
7.55.1.63 nppiCopy_32fc_C3R 797
7.55.1.64 nppiCopy_32fc_C4R 798
7.55.1.65 nppiCopy_32s_AC4MR 798
7.55.1.66 nppiCopy_32s_AC4R 798
7.55.1.67 nppiCopy_32s_C1C3R 799
7.55.1.68 nppiCopy_32s_C1C4R 799
7.55.1.69 nppiCopy_32s_C1MR 799
7.55.1.70 nppiCopy_32s_C1R 800
7.55.1.71 nppiCopy_32s_C3C1R 800
7.55.1.72 nppiCopy_32s_C3CR 800
7.55.1.73 nppiCopy_32s_C3MR 801
7.55.1.74 nppiCopy_32s_C3P3R 801
7.55.1.75 nppiCopy_32s_C3R 801
7.55.1.76 nppiCopy_32s_C4C1R 802
7.55.1.77 nppiCopy_32s_C4CR 802
7.55.1.78 nppiCopy_32s_C4MR 802
7.55.1.79 nppiCopy_32s_C4P4R 803
7.55.1.80 nppiCopy_32s_C4R 803
7.55.1.81 nppiCopy_32s_P3C3R 803
7.55.1.82 nppiCopy_32s_P4C4R 804
7.55.1.83 nppiCopy_32sc_AC4R 804
7.55.1.84 nppiCopy_32sc_C1R 804

7.55.1.85 nppiCopy_32sc_C2R 805

7.55.1.86 nppiCopy_32sc_C3R 805

7.55.1.87 nppiCopy_32sc_C4R 805

7.55.1.88 nppiCopy_8s_AC4R 806

7.55.1.89 nppiCopy_8s_C1R 806

7.55.1.90 nppiCopy_8s_C2R 806

7.55.1.91 nppiCopy_8s_C3R 807

7.55.1.92 nppiCopy_8s_C4R 807

7.55.1.93 nppiCopy_8u_AC4MR 807

7.55.1.94 nppiCopy_8u_AC4R 808

7.55.1.95 nppiCopy_8u_C1C3R 808

7.55.1.96 nppiCopy_8u_C1C4R 808

7.55.1.97 nppiCopy_8u_C1MR 809

7.55.1.98 nppiCopy_8u_C1R 809

7.55.1.99 nppiCopy_8u_C3C1R 809

7.55.1.100nppiCopy_8u_C3CR 810

7.55.1.101nppiCopy_8u_C3MR 810

7.55.1.102nppiCopy_8u_C3P3R 810

7.55.1.103nppiCopy_8u_C3R 811

7.55.1.104nppiCopy_8u_C4C1R 811

7.55.1.105nppiCopy_8u_C4CR 811

7.55.1.106nppiCopy_8u_C4MR 812

7.55.1.107nppiCopy_8u_C4P4R 812

7.55.1.108nppiCopy_8u_C4R 812

7.55.1.109nppiCopy_8u_P3C3R 813

7.55.1.110nppiCopy_8u_P4C4R 813

7.56 Convert 814

7.56.1 Function Documentation 822

7.56.1.1 nppiConvert_16s16u_C1Rs 822

7.56.1.2 nppiConvert_16s32f_AC4R 822

7.56.1.3 nppiConvert_16s32f_C1R 823

7.56.1.4 nppiConvert_16s32f_C3R 823

7.56.1.5 nppiConvert_16s32f_C4R 823

7.56.1.6 nppiConvert_16s32s_AC4R 824

7.56.1.7 nppiConvert_16s32s_C1R 824

7.56.1.8 nppiConvert_16s32s_C3R 824

7.56.1.9 nppiConvert_16s32s_C4R 825
7.56.1.10 nppiConvert_16s32u_C1Rs 825
7.56.1.11 nppiConvert_16s8s_C1RSfs 825
7.56.1.12 nppiConvert_16s8u_AC4R 826
7.56.1.13 nppiConvert_16s8u_C1R 826
7.56.1.14 nppiConvert_16s8u_C3R 827
7.56.1.15 nppiConvert_16s8u_C4R 827
7.56.1.16 nppiConvert_16u16s_C1RSfs 827
7.56.1.17 nppiConvert_16u32f_AC4R 828
7.56.1.18 nppiConvert_16u32f_C1R 828
7.56.1.19 nppiConvert_16u32f_C3R 828
7.56.1.20 nppiConvert_16u32f_C4R 829
7.56.1.21 nppiConvert_16u32s_AC4R 829
7.56.1.22 nppiConvert_16u32s_C1R 829
7.56.1.23 nppiConvert_16u32s_C3R 830
7.56.1.24 nppiConvert_16u32s_C4R 830
7.56.1.25 nppiConvert_16u32u_C1R 830
7.56.1.26 nppiConvert_16u8s_C1RSfs 831
7.56.1.27 nppiConvert_16u8u_AC4R 831
7.56.1.28 nppiConvert_16u8u_C1R 831
7.56.1.29 nppiConvert_16u8u_C3R 832
7.56.1.30 nppiConvert_16u8u_C4R 832
7.56.1.31 nppiConvert_32f16s_AC4R 832
7.56.1.32 nppiConvert_32f16s_C1R 833
7.56.1.33 nppiConvert_32f16s_C1RSfs 833
7.56.1.34 nppiConvert_32f16s_C3R 833
7.56.1.35 nppiConvert_32f16s_C4R 834
7.56.1.36 nppiConvert_32f16u_AC4R 834
7.56.1.37 nppiConvert_32f16u_C1R 835
7.56.1.38 nppiConvert_32f16u_C1RSfs 835
7.56.1.39 nppiConvert_32f16u_C3R 835
7.56.1.40 nppiConvert_32f16u_C4R 836
7.56.1.41 nppiConvert_32f32s_C1RSfs 836
7.56.1.42 nppiConvert_32f32u_C1RSfs 837
7.56.1.43 nppiConvert_32f8s_AC4R 837
7.56.1.44 nppiConvert_32f8s_C1R 837

7.56.1.45 nppiConvert_32f8s_C1RSfs 838
7.56.1.46 nppiConvert_32f8s_C3R 838
7.56.1.47 nppiConvert_32f8s_C4R 839
7.56.1.48 nppiConvert_32f8u_AC4R 839
7.56.1.49 nppiConvert_32f8u_C1R 839
7.56.1.50 nppiConvert_32f8u_C1RSfs 840
7.56.1.51 nppiConvert_32f8u_C3R 840
7.56.1.52 nppiConvert_32f8u_C4R 840
7.56.1.53 nppiConvert_32s16s_C1RSfs 841
7.56.1.54 nppiConvert_32s16u_C1RSfs 841
7.56.1.55 nppiConvert_32s32f_C1R 842
7.56.1.56 nppiConvert_32s32u_C1Rs 842
7.56.1.57 nppiConvert_32s8s_AC4R 842
7.56.1.58 nppiConvert_32s8s_C1R 843
7.56.1.59 nppiConvert_32s8s_C3R 843
7.56.1.60 nppiConvert_32s8s_C4R 843
7.56.1.61 nppiConvert_32s8u_AC4R 844
7.56.1.62 nppiConvert_32s8u_C1R 844
7.56.1.63 nppiConvert_32s8u_C3R 844
7.56.1.64 nppiConvert_32s8u_C4R 845
7.56.1.65 nppiConvert_32u16s_C1RSfs 845
7.56.1.66 nppiConvert_32u16u_C1RSfs 845
7.56.1.67 nppiConvert_32u32f_C1R 846
7.56.1.68 nppiConvert_32u32s_C1RSfs 846
7.56.1.69 nppiConvert_32u8s_C1RSfs 847
7.56.1.70 nppiConvert_32u8u_C1RSfs 847
7.56.1.71 nppiConvert_8s16s_C1R 847
7.56.1.72 nppiConvert_8s16u_C1Rs 848
7.56.1.73 nppiConvert_8s32f_AC4R 848
7.56.1.74 nppiConvert_8s32f_C1R 848
7.56.1.75 nppiConvert_8s32f_C3R 849
7.56.1.76 nppiConvert_8s32f_C4R 849
7.56.1.77 nppiConvert_8s32s_AC4R 850
7.56.1.78 nppiConvert_8s32s_C1R 850
7.56.1.79 nppiConvert_8s32s_C3R 850
7.56.1.80 nppiConvert_8s32s_C4R 851

7.56.1.81 nppiConvert_8s32u_C1Rs . . . 851
7.56.1.82 nppiConvert_8s8u_C1Rs . . . 851
7.56.1.83 nppiConvert_8u16s_AC4R . . . 852
7.56.1.84 nppiConvert_8u16s_C1R . . . 852
7.56.1.85 nppiConvert_8u16s_C3R . . . 852
7.56.1.86 nppiConvert_8u16s_C4R . . . 853
7.56.1.87 nppiConvert_8u16u_AC4R . . . 853
7.56.1.88 nppiConvert_8u16u_C1R . . . 853
7.56.1.89 nppiConvert_8u16u_C3R . . . 854
7.56.1.90 nppiConvert_8u16u_C4R . . . 854
7.56.1.91 nppiConvert_8u32f_AC4R . . . 854
7.56.1.92 nppiConvert_8u32f_C1R . . . 855
7.56.1.93 nppiConvert_8u32f_C3R . . . 855
7.56.1.94 nppiConvert_8u32f_C4R . . . 855
7.56.1.95 nppiConvert_8u32s_AC4R . . . 856
7.56.1.96 nppiConvert_8u32s_C1R . . . 856
7.56.1.97 nppiConvert_8u32s_C3R . . . 856
7.56.1.98 nppiConvert_8u32s_C4R . . . 857
7.56.1.99 nppiConvert_8u8s_C1RSfs . . . 857
7.57 Scale . . . 858
7.57.1 Function Documentation . . . 861
7.57.1.1 nppiScale_16s8u_AC4R . . . 861
7.57.1.2 nppiScale_16s8u_C1R . . . 861
7.57.1.3 nppiScale_16s8u_C3R . . . 861
7.57.1.4 nppiScale_16s8u_C4R . . . 862
7.57.1.5 nppiScale_16u8u_AC4R . . . 862
7.57.1.6 nppiScale_16u8u_C1R . . . 863
7.57.1.7 nppiScale_16u8u_C3R . . . 863
7.57.1.8 nppiScale_16u8u_C4R . . . 863
7.57.1.9 nppiScale_32f8u_AC4R . . . 864
7.57.1.10 nppiScale_32f8u_C1R . . . 864
7.57.1.11 nppiScale_32f8u_C3R . . . 864
7.57.1.12 nppiScale_32f8u_C4R . . . 865
7.57.1.13 nppiScale_32s8u_AC4R . . . 865
7.57.1.14 nppiScale_32s8u_C1R . . . 866
7.57.1.15 nppiScale_32s8u_C3R . . . 866

7.57.1.16 nppiScale_32s8u_C4R 866
7.57.1.17 nppiScale_8u16s_AC4R 867
7.57.1.18 nppiScale_8u16s_C1R 867
7.57.1.19 nppiScale_8u16s_C3R 867
7.57.1.20 nppiScale_8u16s_C4R 868
7.57.1.21 nppiScale_8u16u_AC4R 868
7.57.1.22 nppiScale_8u16u_C1R 868
7.57.1.23 nppiScale_8u16u_C3R 869
7.57.1.24 nppiScale_8u16u_C4R 869
7.57.1.25 nppiScale_8u32f_AC4R 869
7.57.1.26 nppiScale_8u32f_C1R 870
7.57.1.27 nppiScale_8u32f_C3R 870
7.57.1.28 nppiScale_8u32f_C4R 870
7.57.1.29 nppiScale_8u32s_AC4R 871
7.57.1.30 nppiScale_8u32s_C1R 871
7.57.1.31 nppiScale_8u32s_C3R 872
7.57.1.32 nppiScale_8u32s_C4R 872
7.58 Copy Constant Border 873
7.58.1 Function Documentation 875
7.58.1.1 nppiCopyConstBorder_16s_AC4R 875
7.58.1.2 nppiCopyConstBorder_16s_C1R 875
7.58.1.3 nppiCopyConstBorder_16s_C3R 876
7.58.1.4 nppiCopyConstBorder_16s_C4R 876
7.58.1.5 nppiCopyConstBorder_16u_AC4R 877
7.58.1.6 nppiCopyConstBorder_16u_C1R 877
7.58.1.7 nppiCopyConstBorder_16u_C3R 878
7.58.1.8 nppiCopyConstBorder_16u_C4R 878
7.58.1.9 nppiCopyConstBorder_32f_AC4R 879
7.58.1.10 nppiCopyConstBorder_32f_C1R 879
7.58.1.11 nppiCopyConstBorder_32f_C3R 880
7.58.1.12 nppiCopyConstBorder_32f_C4R 880
7.58.1.13 nppiCopyConstBorder_32s_AC4R 881
7.58.1.14 nppiCopyConstBorder_32s_C1R 881
7.58.1.15 nppiCopyConstBorder_32s_C3R 882
7.58.1.16 nppiCopyConstBorder_32s_C4R 882
7.58.1.17 nppiCopyConstBorder_8u_AC4R 883

7.58.1.18 nppiCopyConstBorder_8u_C1R 883
7.58.1.19 nppiCopyConstBorder_8u_C3R 884
7.58.1.20 nppiCopyConstBorder_8u_C4R 884
7.59 Copy Replicate Border 886
7.59.1 Function Documentation 888
7.59.1.1 nppiCopyReplicateBorder_16s_AC4R 888
7.59.1.2 nppiCopyReplicateBorder_16s_C1R 888
7.59.1.3 nppiCopyReplicateBorder_16s_C3R 889
7.59.1.4 nppiCopyReplicateBorder_16s_C4R 889
7.59.1.5 nppiCopyReplicateBorder_16u_AC4R 890
7.59.1.6 nppiCopyReplicateBorder_16u_C1R 890
7.59.1.7 nppiCopyReplicateBorder_16u_C3R 891
7.59.1.8 nppiCopyReplicateBorder_16u_C4R 891
7.59.1.9 nppiCopyReplicateBorder_32f_AC4R 892
7.59.1.10 nppiCopyReplicateBorder_32f_C1R 892
7.59.1.11 nppiCopyReplicateBorder_32f_C3R 893
7.59.1.12 nppiCopyReplicateBorder_32f_C4R 893
7.59.1.13 nppiCopyReplicateBorder_32s_AC4R 894
7.59.1.14 nppiCopyReplicateBorder_32s_C1R 894
7.59.1.15 nppiCopyReplicateBorder_32s_C3R 895
7.59.1.16 nppiCopyReplicateBorder_32s_C4R 895
7.59.1.17 nppiCopyReplicateBorder_8u_AC4R 896
7.59.1.18 nppiCopyReplicateBorder_8u_C1R 896
7.59.1.19 nppiCopyReplicateBorder_8u_C3R 897
7.59.1.20 nppiCopyReplicateBorder_8u_C4R 897
7.60 Copy Wrap Border 898
7.60.1 Function Documentation 900
7.60.1.1 nppiCopyWrapBorder_16s_AC4R 900
7.60.1.2 nppiCopyWrapBorder_16s_C1R 901
7.60.1.3 nppiCopyWrapBorder_16s_C3R 901
7.60.1.4 nppiCopyWrapBorder_16s_C4R 902
7.60.1.5 nppiCopyWrapBorder_16u_AC4R 902
7.60.1.6 nppiCopyWrapBorder_16u_C1R 903
7.60.1.7 nppiCopyWrapBorder_16u_C3R 903
7.60.1.8 nppiCopyWrapBorder_16u_C4R 904
7.60.1.9 nppiCopyWrapBorder_32f_AC4R 904

7.60.1.10 nppiCopyWrapBorder_32f_C1R 905
7.60.1.11 nppiCopyWrapBorder_32f_C3R 905
7.60.1.12 nppiCopyWrapBorder_32f_C4R 906
7.60.1.13 nppiCopyWrapBorder_32s_AC4R 906
7.60.1.14 nppiCopyWrapBorder_32s_C1R 907
7.60.1.15 nppiCopyWrapBorder_32s_C3R 907
7.60.1.16 nppiCopyWrapBorder_32s_C4R 908
7.60.1.17 nppiCopyWrapBorder_8u_AC4R 908
7.60.1.18 nppiCopyWrapBorder_8u_C1R 909
7.60.1.19 nppiCopyWrapBorder_8u_C3R 909
7.60.1.20 nppiCopyWrapBorder_8u_C4R 910
7.61 Copy Sub-Pixel 911
7.61.1 Function Documentation 912
7.61.1.1 nppiCopySubpix_16s_AC4R 912
7.61.1.2 nppiCopySubpix_16s_C1R 913
7.61.1.3 nppiCopySubpix_16s_C3R 913
7.61.1.4 nppiCopySubpix_16s_C4R 914
7.61.1.5 nppiCopySubpix_16u_AC4R 914
7.61.1.6 nppiCopySubpix_16u_C1R 915
7.61.1.7 nppiCopySubpix_16u_C3R 915
7.61.1.8 nppiCopySubpix_16u_C4R 915
7.61.1.9 nppiCopySubpix_32f_AC4R 916
7.61.1.10 nppiCopySubpix_32f_C1R 916
7.61.1.11 nppiCopySubpix_32f_C3R 917
7.61.1.12 nppiCopySubpix_32f_C4R 917
7.61.1.13 nppiCopySubpix_32s_AC4R 917
7.61.1.14 nppiCopySubpix_32s_C1R 918
7.61.1.15 nppiCopySubpix_32s_C3R 918
7.61.1.16 nppiCopySubpix_32s_C4R 919
7.61.1.17 nppiCopySubpix_8u_AC4R 919
7.61.1.18 nppiCopySubpix_8u_C1R 920
7.61.1.19 nppiCopySubpix_8u_C3R 920
7.61.1.20 nppiCopySubpix_8u_C4R 920
7.62 Duplicate Channel 922
7.62.1 Function Documentation 923
7.62.1.1 nppiDup_16s_C1AC4R 923

7.62.1.2 nppiDup_16s_C1C3R 923
7.62.1.3 nppiDup_16s_C1C4R 924
7.62.1.4 nppiDup_16u_C1AC4R 924
7.62.1.5 nppiDup_16u_C1C3R 925
7.62.1.6 nppiDup_16u_C1C4R 925
7.62.1.7 nppiDup_32f_C1AC4R 925
7.62.1.8 nppiDup_32f_C1C3R 926
7.62.1.9 nppiDup_32f_C1C4R 926
7.62.1.10 nppiDup_32s_C1AC4R 926
7.62.1.11 nppiDup_32s_C1C3R 927
7.62.1.12 nppiDup_32s_C1C4R 927
7.62.1.13 nppiDup_8u_C1AC4R 927
7.62.1.14 nppiDup_8u_C1C3R 928
7.62.1.15 nppiDup_8u_C1C4R 928
7.63 Transpose 929
7.63.1 Function Documentation 930
7.63.1.1 nppiTranspose_16s_C1R 930
7.63.1.2 nppiTranspose_16s_C3R 930
7.63.1.3 nppiTranspose_16s_C4R 931
7.63.1.4 nppiTranspose_16u_C1R 931
7.63.1.5 nppiTranspose_16u_C3R 931
7.63.1.6 nppiTranspose_16u_C4R 932
7.63.1.7 nppiTranspose_32f_C1R 932
7.63.1.8 nppiTranspose_32f_C3R 932
7.63.1.9 nppiTranspose_32f_C4R 933
7.63.1.10 nppiTranspose_32s_C1R 933
7.63.1.11 nppiTranspose_32s_C3R 934
7.63.1.12 nppiTranspose_32s_C4R 934
7.63.1.13 nppiTranspose_8u_C1R 934
7.63.1.14 nppiTranspose_8u_C3R 935
7.63.1.15 nppiTranspose_8u_C4R 935
7.64 Swap Channels 936
7.64.1 Function Documentation 939
7.64.1.1 nppiSwapChannels_16s_AC4R 939
7.64.1.2 nppiSwapChannels_16s_C3C4R 939
7.64.1.3 nppiSwapChannels_16s_C3IR 940

7.64.1.4 nppiSwapChannels_16s_C3R 940
7.64.1.5 nppiSwapChannels_16s_C4C3R 940
7.64.1.6 nppiSwapChannels_16s_C4IR 941
7.64.1.7 nppiSwapChannels_16s_C4R 941
7.64.1.8 nppiSwapChannels_16u_AC4R 942
7.64.1.9 nppiSwapChannels_16u_C3C4R 942
7.64.1.10 nppiSwapChannels_16u_C3IR 943
7.64.1.11 nppiSwapChannels_16u_C3R 943
7.64.1.12 nppiSwapChannels_16u_C4C3R 943
7.64.1.13 nppiSwapChannels_16u_C4IR 944
7.64.1.14 nppiSwapChannels_16u_C4R 944
7.64.1.15 nppiSwapChannels_32f_AC4R 945
7.64.1.16 nppiSwapChannels_32f_C3C4R 945
7.64.1.17 nppiSwapChannels_32f_C3IR 946
7.64.1.18 nppiSwapChannels_32f_C3R 946
7.64.1.19 nppiSwapChannels_32f_C4C3R 946
7.64.1.20 nppiSwapChannels_32f_C4IR 947
7.64.1.21 nppiSwapChannels_32f_C4R 947
7.64.1.22 nppiSwapChannels_32s_AC4R 948
7.64.1.23 nppiSwapChannels_32s_C3C4R 948
7.64.1.24 nppiSwapChannels_32s_C3IR 949
7.64.1.25 nppiSwapChannels_32s_C3R 949
7.64.1.26 nppiSwapChannels_32s_C4C3R 949
7.64.1.27 nppiSwapChannels_32s_C4IR 950
7.64.1.28 nppiSwapChannels_32s_C4R 950
7.64.1.29 nppiSwapChannels_8u_AC4R 951
7.64.1.30 nppiSwapChannels_8u_C3C4R 951
7.64.1.31 nppiSwapChannels_8u_C3IR 952
7.64.1.32 nppiSwapChannels_8u_C3R 952
7.64.1.33 nppiSwapChannels_8u_C4C3R 952
7.64.1.34 nppiSwapChannels_8u_C4IR 953
7.64.1.35 nppiSwapChannels_8u_C4R 953
7.65 Filtering Functions 954
7.65.1 Detailed Description 966
7.65.2 Function Documentation 966
7.65.2.1 nppiFilterGauss_16s_AC4R 966

7.65.2.2 nppiFilterGauss_16s_C1R 967
7.65.2.3 nppiFilterGauss_16s_C3R 967
7.65.2.4 nppiFilterGauss_16s_C4R 967
7.65.2.5 nppiFilterGauss_16u_AC4R 968
7.65.2.6 nppiFilterGauss_16u_C1R 968
7.65.2.7 nppiFilterGauss_16u_C3R 969
7.65.2.8 nppiFilterGauss_16u_C4R 969
7.65.2.9 nppiFilterGauss_32f_AC4R 969
7.65.2.10 nppiFilterGauss_32f_C1R 970
7.65.2.11 nppiFilterGauss_32f_C3R 970
7.65.2.12 nppiFilterGauss_32f_C4R 970
7.65.2.13 nppiFilterGauss_8u_AC4R 971
7.65.2.14 nppiFilterGauss_8u_C1R 971
7.65.2.15 nppiFilterGauss_8u_C3R 971
7.65.2.16 nppiFilterGauss_8u_C4R 972
7.65.2.17 nppiFilterGaussBorder_16s_AC4R 972
7.65.2.18 nppiFilterGaussBorder_16s_C1R 972
7.65.2.19 nppiFilterGaussBorder_16s_C3R 973
7.65.2.20 nppiFilterGaussBorder_16s_C4R 973
7.65.2.21 nppiFilterGaussBorder_16u_AC4R 974
7.65.2.22 nppiFilterGaussBorder_16u_C1R 974
7.65.2.23 nppiFilterGaussBorder_16u_C3R 975
7.65.2.24 nppiFilterGaussBorder_16u_C4R 975
7.65.2.25 nppiFilterGaussBorder_32f_AC4R 976
7.65.2.26 nppiFilterGaussBorder_32f_C1R 976
7.65.2.27 nppiFilterGaussBorder_32f_C3R 977
7.65.2.28 nppiFilterGaussBorder_32f_C4R 977
7.65.2.29 nppiFilterGaussBorder_8u_AC4R 978
7.65.2.30 nppiFilterGaussBorder_8u_C1R 978
7.65.2.31 nppiFilterGaussBorder_8u_C3R 979
7.65.2.32 nppiFilterGaussBorder_8u_C4R 979
7.65.2.33 nppiFilterHighPass_16s_AC4R 980
7.65.2.34 nppiFilterHighPass_16s_C1R 980
7.65.2.35 nppiFilterHighPass_16s_C3R 980
7.65.2.36 nppiFilterHighPass_16s_C4R 981
7.65.2.37 nppiFilterHighPass_16u_AC4R 981

7.65.2.38 nppiFilterHighPass_16u_C1R 981
7.65.2.39 nppiFilterHighPass_16u_C3R 982
7.65.2.40 nppiFilterHighPass_16u_C4R 982
7.65.2.41 nppiFilterHighPass_32f_AC4R 982
7.65.2.42 nppiFilterHighPass_32f_C1R 983
7.65.2.43 nppiFilterHighPass_32f_C3R 983
7.65.2.44 nppiFilterHighPass_32f_C4R 983
7.65.2.45 nppiFilterHighPass_8u_AC4R 984
7.65.2.46 nppiFilterHighPass_8u_C1R 984
7.65.2.47 nppiFilterHighPass_8u_C3R 984
7.65.2.48 nppiFilterHighPass_8u_C4R 985
7.65.2.49 nppiFilterLaplace_16s_AC4R 985
7.65.2.50 nppiFilterLaplace_16s_C1R 985
7.65.2.51 nppiFilterLaplace_16s_C3R 986
7.65.2.52 nppiFilterLaplace_16s_C4R 986
7.65.2.53 nppiFilterLaplace_32f_AC4R 986
7.65.2.54 nppiFilterLaplace_32f_C1R 987
7.65.2.55 nppiFilterLaplace_32f_C3R 987
7.65.2.56 nppiFilterLaplace_32f_C4R 987
7.65.2.57 nppiFilterLaplace_8s16s_C1R 988
7.65.2.58 nppiFilterLaplace_8u16s_C1R 988
7.65.2.59 nppiFilterLaplace_8u_AC4R 988
7.65.2.60 nppiFilterLaplace_8u_C1R 989
7.65.2.61 nppiFilterLaplace_8u_C3R 989
7.65.2.62 nppiFilterLaplace_8u_C4R 989
7.65.2.63 nppiFilterLowPass_16s_AC4R 990
7.65.2.64 nppiFilterLowPass_16s_C1R 990
7.65.2.65 nppiFilterLowPass_16s_C3R 990
7.65.2.66 nppiFilterLowPass_16s_C4R 991
7.65.2.67 nppiFilterLowPass_16u_AC4R 991
7.65.2.68 nppiFilterLowPass_16u_C1R 991
7.65.2.69 nppiFilterLowPass_16u_C3R 992
7.65.2.70 nppiFilterLowPass_16u_C4R 992
7.65.2.71 nppiFilterLowPass_32f_AC4R 992
7.65.2.72 nppiFilterLowPass_32f_C1R 993
7.65.2.73 nppiFilterLowPass_32f_C3R 993

7.65.2.74 nppiFilterLowPass_32f_C4R 993
7.65.2.75 nppiFilterLowPass_8u_AC4R 994
7.65.2.76 nppiFilterLowPass_8u_C1R 994
7.65.2.77 nppiFilterLowPass_8u_C3R 994
7.65.2.78 nppiFilterLowPass_8u_C4R 995
7.65.2.79 nppiFilterRobertsDown_16s_AC4R 995
7.65.2.80 nppiFilterRobertsDown_16s_C1R 995
7.65.2.81 nppiFilterRobertsDown_16s_C3R 996
7.65.2.82 nppiFilterRobertsDown_16s_C4R 996
7.65.2.83 nppiFilterRobertsDown_32f_AC4R 996
7.65.2.84 nppiFilterRobertsDown_32f_C1R 997
7.65.2.85 nppiFilterRobertsDown_32f_C3R 997
7.65.2.86 nppiFilterRobertsDown_32f_C4R 997
7.65.2.87 nppiFilterRobertsDown_8u_AC4R 998
7.65.2.88 nppiFilterRobertsDown_8u_C1R 998
7.65.2.89 nppiFilterRobertsDown_8u_C3R 998
7.65.2.90 nppiFilterRobertsDown_8u_C4R 999
7.65.2.91 nppiFilterRobertsUp_16s_AC4R 999
7.65.2.92 nppiFilterRobertsUp_16s_C1R 999
7.65.2.93 nppiFilterRobertsUp_16s_C3R 1000
7.65.2.94 nppiFilterRobertsUp_16s_C4R 1000
7.65.2.95 nppiFilterRobertsUp_32f_AC4R 1000
7.65.2.96 nppiFilterRobertsUp_32f_C1R 1001
7.65.2.97 nppiFilterRobertsUp_32f_C3R 1001
7.65.2.98 nppiFilterRobertsUp_32f_C4R 1001
7.65.2.99 nppiFilterRobertsUp_8u_AC4R 1002
7.65.2.100nppiFilterRobertsUp_8u_C1R 1002
7.65.2.101nppiFilterRobertsUp_8u_C3R 1002
7.65.2.102nppiFilterRobertsUp_8u_C4R 1003
7.65.2.103nppiFilterSharpen_16s_AC4R 1003
7.65.2.104nppiFilterSharpen_16s_C1R 1003
7.65.2.105nppiFilterSharpen_16s_C3R 1004
7.65.2.106nppiFilterSharpen_16s_C4R 1004
7.65.2.107nppiFilterSharpen_16u_AC4R 1004
7.65.2.108nppiFilterSharpen_16u_C1R 1005
7.65.2.109nppiFilterSharpen_16u_C3R 1005

7.65.2.110nppiFilterSharpen_16u_C4R 1005
7.65.2.111nppiFilterSharpen_32f_AC4R 1006
7.65.2.112nppiFilterSharpen_32f_C1R 1006
7.65.2.113nppiFilterSharpen_32f_C3R 1006
7.65.2.114nppiFilterSharpen_32f_C4R 1007
7.65.2.115nppiFilterSharpen_8u_AC4R 1007
7.65.2.116nppiFilterSharpen_8u_C1R 1007
7.65.2.117nppiFilterSharpen_8u_C3R 1008
7.65.2.118nppiFilterSharpen_8u_C4R 1008
7.65.2.119nppiFilterSobelCrossBorder_32f_C1R 1008
7.65.2.120nppiFilterSobelCrossBorder_8s16s_C1R 1009
7.65.2.121nppiFilterSobelCrossBorder_8u16s_C1R 1009
7.65.2.122nppiFilterSobelVertSecondBorder_32f_C1R 1010
7.65.2.123nppiFilterSobelVertSecondBorder_8s16s_C1R 1010
7.65.2.124nppiFilterSobelVertSecondBorder_8u16s_C1R 1011
7.66 1D Linear Filter 1012
7.66.1 Function Documentation 1022
7.66.1.1 nppiFilterColumn32f_16s_AC4R 1022
7.66.1.2 nppiFilterColumn32f_16s_C1R 1023
7.66.1.3 nppiFilterColumn32f_16s_C3R 1023
7.66.1.4 nppiFilterColumn32f_16s_C4R 1024
7.66.1.5 nppiFilterColumn32f_16u_AC4R 1024
7.66.1.6 nppiFilterColumn32f_16u_C1R 1025
7.66.1.7 nppiFilterColumn32f_16u_C3R 1025
7.66.1.8 nppiFilterColumn32f_16u_C4R 1026
7.66.1.9 nppiFilterColumn32f_8u_AC4R 1026
7.66.1.10 nppiFilterColumn32f_8u_C1R 1027
7.66.1.11 nppiFilterColumn32f_8u_C3R 1027
7.66.1.12 nppiFilterColumn32f_8u_C4R 1028
7.66.1.13 nppiFilterColumn_16s_AC4R 1028
7.66.1.14 nppiFilterColumn_16s_C1R 1029
7.66.1.15 nppiFilterColumn_16s_C3R 1029
7.66.1.16 nppiFilterColumn_16s_C4R 1030
7.66.1.17 nppiFilterColumn_16u_AC4R 1030
7.66.1.18 nppiFilterColumn_16u_C1R 1031
7.66.1.19 nppiFilterColumn_16u_C3R 1031

7.66.1.20 nppiFilterColumn_16u_C4R 1032
7.66.1.21 nppiFilterColumn_32f_AC4R 1032
7.66.1.22 nppiFilterColumn_32f_C1R 1033
7.66.1.23 nppiFilterColumn_32f_C3R 1033
7.66.1.24 nppiFilterColumn_32f_C4R 1034
7.66.1.25 nppiFilterColumn_64f_C1R 1034
7.66.1.26 nppiFilterColumn_8u_AC4R 1035
7.66.1.27 nppiFilterColumn_8u_C1R 1035
7.66.1.28 nppiFilterColumn_8u_C3R 1036
7.66.1.29 nppiFilterColumn_8u_C4R 1036
7.66.1.30 nppiFilterRow32f_16s_AC4R 1037
7.66.1.31 nppiFilterRow32f_16s_C1R 1037
7.66.1.32 nppiFilterRow32f_16s_C3R 1038
7.66.1.33 nppiFilterRow32f_16s_C4R 1038
7.66.1.34 nppiFilterRow32f_16u_AC4R 1039
7.66.1.35 nppiFilterRow32f_16u_C1R 1039
7.66.1.36 nppiFilterRow32f_16u_C3R 1040
7.66.1.37 nppiFilterRow32f_16u_C4R 1040
7.66.1.38 nppiFilterRow32f_8u_AC4R 1041
7.66.1.39 nppiFilterRow32f_8u_C1R 1041
7.66.1.40 nppiFilterRow32f_8u_C3R 1042
7.66.1.41 nppiFilterRow32f_8u_C4R 1042
7.66.1.42 nppiFilterRow_16s_AC4R 1043
7.66.1.43 nppiFilterRow_16s_C1R 1043
7.66.1.44 nppiFilterRow_16s_C3R 1044
7.66.1.45 nppiFilterRow_16s_C4R 1044
7.66.1.46 nppiFilterRow_16u_AC4R 1045
7.66.1.47 nppiFilterRow_16u_C1R 1045
7.66.1.48 nppiFilterRow_16u_C3R 1046
7.66.1.49 nppiFilterRow_16u_C4R 1046
7.66.1.50 nppiFilterRow_32f_AC4R 1047
7.66.1.51 nppiFilterRow_32f_C1R 1047
7.66.1.52 nppiFilterRow_32f_C3R 1048
7.66.1.53 nppiFilterRow_32f_C4R 1048
7.66.1.54 nppiFilterRow_64f_C1R 1049
7.66.1.55 nppiFilterRow_8u_AC4R 1049

7.66.1.56 nppiFilterRow_8u_C1R 1050
7.66.1.57 nppiFilterRow_8u_C3R 1050
7.66.1.58 nppiFilterRow_8u_C4R 1051
7.66.1.59 nppiFilterSobelCross_32f_C1R 1051
7.66.1.60 nppiFilterSobelCross_8s16s_C1R 1051
7.66.1.61 nppiFilterSobelCross_8u16s_C1R 1052
7.66.1.62 nppiFilterSobelHorizBorder_16s_AC4R 1052
7.66.1.63 nppiFilterSobelHorizBorder_16s_C1R 1053
7.66.1.64 nppiFilterSobelHorizBorder_16s_C3R 1053
7.66.1.65 nppiFilterSobelHorizBorder_16s_C4R 1053
7.66.1.66 nppiFilterSobelHorizBorder_32f_AC4R 1054
7.66.1.67 nppiFilterSobelHorizBorder_32f_C1R 1054
7.66.1.68 nppiFilterSobelHorizBorder_32f_C3R 1055
7.66.1.69 nppiFilterSobelHorizBorder_32f_C4R 1055
7.66.1.70 nppiFilterSobelHorizBorder_8s16s_C1R 1056
7.66.1.71 nppiFilterSobelHorizBorder_8u16s_C1R 1056
7.66.1.72 nppiFilterSobelHorizBorder_8u_AC4R 1057
7.66.1.73 nppiFilterSobelHorizBorder_8u_C1R 1057
7.66.1.74 nppiFilterSobelHorizBorder_8u_C3R 1057
7.66.1.75 nppiFilterSobelHorizBorder_8u_C4R 1058
7.66.1.76 nppiFilterSobelHorizMaskBorder_32f_C1R 1058
7.66.1.77 nppiFilterSobelHorizSecondBorder_32f_C1R 1059
7.66.1.78 nppiFilterSobelHorizSecondBorder_8s16s_C1R 1059
7.66.1.79 nppiFilterSobelHorizSecondBorder_8u16s_C1R 1060
7.66.1.80 nppiFilterSobelVertBorder_16s_AC4R 1060
7.66.1.81 nppiFilterSobelVertBorder_16s_C1R 1061
7.66.1.82 nppiFilterSobelVertBorder_16s_C3R 1061
7.66.1.83 nppiFilterSobelVertBorder_16s_C4R 1061
7.66.1.84 nppiFilterSobelVertBorder_32f_AC4R 1062
7.66.1.85 nppiFilterSobelVertBorder_32f_C1R 1062
7.66.1.86 nppiFilterSobelVertBorder_32f_C3R 1063
7.66.1.87 nppiFilterSobelVertBorder_32f_C4R 1063
7.66.1.88 nppiFilterSobelVertBorder_8s16s_C1R 1064
7.66.1.89 nppiFilterSobelVertBorder_8u16s_C1R 1064
7.66.1.90 nppiFilterSobelVertBorder_8u_AC4R 1065
7.66.1.91 nppiFilterSobelVertBorder_8u_C1R 1065

7.66.1.92 nppiFilterSobelVertBorder_8u_C3R 1065
7.66.1.93 nppiFilterSobelVertBorder_8u_C4R 1066
7.66.1.94 nppiFilterSobelVertMaskBorder_32f_C1R 1066
7.66.1.95 nppiFilterSobelVertSecond_32f_C1R 1067
7.66.1.96 nppiFilterSobelVertSecond_8s16s_C1R 1067
7.66.1.97 nppiFilterSobelVertSecond_8u16s_C1R 1068
7.67 1D Window Sum 1069
7.67.1 Function Documentation 1070
7.67.1.1 nppiSumWindowColumn_16s32f_C1R 1070
7.67.1.2 nppiSumWindowColumn_16s32f_C3R 1071
7.67.1.3 nppiSumWindowColumn_16s32f_C4R 1071
7.67.1.4 nppiSumWindowColumn_16u32f_C1R 1072
7.67.1.5 nppiSumWindowColumn_16u32f_C3R 1072
7.67.1.6 nppiSumWindowColumn_16u32f_C4R 1073
7.67.1.7 nppiSumWindowColumn_8u32f_C1R 1073
7.67.1.8 nppiSumWindowColumn_8u32f_C3R 1074
7.67.1.9 nppiSumWindowColumn_8u32f_C4R 1074
7.67.1.10 nppiSumWindowRow_16s32f_C1R 1075
7.67.1.11 nppiSumWindowRow_16s32f_C3R 1075
7.67.1.12 nppiSumWindowRow_16s32f_C4R 1076
7.67.1.13 nppiSumWindowRow_16u32f_C1R 1076
7.67.1.14 nppiSumWindowRow_16u32f_C3R 1077
7.67.1.15 nppiSumWindowRow_16u32f_C4R 1077
7.67.1.16 nppiSumWindowRow_8u32f_C1R 1078
7.67.1.17 nppiSumWindowRow_8u32f_C3R 1078
7.67.1.18 nppiSumWindowRow_8u32f_C4R 1079
7.68 Convolution 1080
7.68.1 Function Documentation 1089
7.68.1.1 nppiFilter32f_16s_AC4R 1089
7.68.1.2 nppiFilter32f_16s_C1R 1090
7.68.1.3 nppiFilter32f_16s_C3R 1090
7.68.1.4 nppiFilter32f_16s_C4R 1091
7.68.1.5 nppiFilter32f_16u_AC4R 1091
7.68.1.6 nppiFilter32f_16u_C1R 1092
7.68.1.7 nppiFilter32f_16u_C3R 1092
7.68.1.8 nppiFilter32f_16u_C4R 1093

7.68.1.9 nppiFilter32f_32s_AC4R 1093
7.68.1.10 nppiFilter32f_32s_C1R 1094
7.68.1.11 nppiFilter32f_32s_C3R 1094
7.68.1.12 nppiFilter32f_32s_C4R 1095
7.68.1.13 nppiFilter32f_8s16s_AC4R 1095
7.68.1.14 nppiFilter32f_8s16s_C1R 1096
7.68.1.15 nppiFilter32f_8s16s_C3R 1096
7.68.1.16 nppiFilter32f_8s16s_C4R 1097
7.68.1.17 nppiFilter32f_8s_AC4R 1097
7.68.1.18 nppiFilter32f_8s_C1R 1098
7.68.1.19 nppiFilter32f_8s_C2R 1098
7.68.1.20 nppiFilter32f_8s_C3R 1099
7.68.1.21 nppiFilter32f_8s_C4R 1099
7.68.1.22 nppiFilter32f_8u16s_AC4R 1100
7.68.1.23 nppiFilter32f_8u16s_C1R 1100
7.68.1.24 nppiFilter32f_8u16s_C3R 1101
7.68.1.25 nppiFilter32f_8u16s_C4R 1101
7.68.1.26 nppiFilter32f_8u_AC4R 1102
7.68.1.27 nppiFilter32f_8u_C1R 1102
7.68.1.28 nppiFilter32f_8u_C2R 1103
7.68.1.29 nppiFilter32f_8u_C3R 1103
7.68.1.30 nppiFilter32f_8u_C4R 1104
7.68.1.31 nppiFilter_16s_AC4R 1104
7.68.1.32 nppiFilter_16s_C1R 1105
7.68.1.33 nppiFilter_16s_C3R 1105
7.68.1.34 nppiFilter_16s_C4R 1106
7.68.1.35 nppiFilter_16u_AC4R 1106
7.68.1.36 nppiFilter_16u_C1R 1107
7.68.1.37 nppiFilter_16u_C3R 1107
7.68.1.38 nppiFilter_16u_C4R 1108
7.68.1.39 nppiFilter_32f_AC4R 1108
7.68.1.40 nppiFilter_32f_C1R 1109
7.68.1.41 nppiFilter_32f_C2R 1109
7.68.1.42 nppiFilter_32f_C3R 1110
7.68.1.43 nppiFilter_32f_C4R 1110
7.68.1.44 nppiFilter_64f_C1R 1111

7.68.1.45 nppiFilter_8u_AC4R 1111
7.68.1.46 nppiFilter_8u_C1R 1112
7.68.1.47 nppiFilter_8u_C3R 1112
7.68.1.48 nppiFilter_8u_C4R 1113
7.68.1.49 nppiFilterBorder32f_16s_AC4R 1113
7.68.1.50 nppiFilterBorder32f_16s_C1R 1114
7.68.1.51 nppiFilterBorder32f_16s_C3R 1114
7.68.1.52 nppiFilterBorder32f_16s_C4R 1115
7.68.1.53 nppiFilterBorder32f_16u_AC4R 1115
7.68.1.54 nppiFilterBorder32f_16u_C1R 1116
7.68.1.55 nppiFilterBorder32f_16u_C3R 1116
7.68.1.56 nppiFilterBorder32f_16u_C4R 1117
7.68.1.57 nppiFilterBorder32f_32s_AC4R 1117
7.68.1.58 nppiFilterBorder32f_32s_C1R 1118
7.68.1.59 nppiFilterBorder32f_32s_C3R 1118
7.68.1.60 nppiFilterBorder32f_32s_C4R 1119
7.68.1.61 nppiFilterBorder32f_8s16s_AC4R 1119
7.68.1.62 nppiFilterBorder32f_8s16s_C1R 1120
7.68.1.63 nppiFilterBorder32f_8s16s_C3R 1120
7.68.1.64 nppiFilterBorder32f_8s16s_C4R 1121
7.68.1.65 nppiFilterBorder32f_8s_AC4R 1121
7.68.1.66 nppiFilterBorder32f_8s_C1R 1122
7.68.1.67 nppiFilterBorder32f_8s_C2R 1122
7.68.1.68 nppiFilterBorder32f_8s_C3R 1123
7.68.1.69 nppiFilterBorder32f_8s_C4R 1123
7.68.1.70 nppiFilterBorder32f_8u16s_AC4R 1124
7.68.1.71 nppiFilterBorder32f_8u16s_C1R 1124
7.68.1.72 nppiFilterBorder32f_8u16s_C3R 1125
7.68.1.73 nppiFilterBorder32f_8u16s_C4R 1125
7.68.1.74 nppiFilterBorder32f_8u_AC4R 1126
7.68.1.75 nppiFilterBorder32f_8u_C1R 1126
7.68.1.76 nppiFilterBorder32f_8u_C2R 1127
7.68.1.77 nppiFilterBorder32f_8u_C3R 1127
7.68.1.78 nppiFilterBorder32f_8u_C4R 1128
7.68.1.79 nppiFilterBorder_16s_AC4R 1128
7.68.1.80 nppiFilterBorder_16s_C1R 1129

7.68.1.81 nppiFilterBorder_16s_C3R 1129
7.68.1.82 nppiFilterBorder_16s_C4R 1130
7.68.1.83 nppiFilterBorder_16u_AC4R 1131
7.68.1.84 nppiFilterBorder_16u_C1R 1131
7.68.1.85 nppiFilterBorder_16u_C3R 1132
7.68.1.86 nppiFilterBorder_16u_C4R 1132
7.68.1.87 nppiFilterBorder_32f_AC4R 1133
7.68.1.88 nppiFilterBorder_32f_C1R 1134
7.68.1.89 nppiFilterBorder_32f_C2R 1134
7.68.1.90 nppiFilterBorder_32f_C3R 1135
7.68.1.91 nppiFilterBorder_32f_C4R 1135
7.68.1.92 nppiFilterBorder_8u_AC4R 1136
7.68.1.93 nppiFilterBorder_8u_C1R 1136
7.68.1.94 nppiFilterBorder_8u_C3R 1137
7.68.1.95 nppiFilterBorder_8u_C4R 1137
7.69 2D Fixed Linear Filters 1139
7.69.1 Function Documentation 1140
7.69.1.1 nppiFilterBox_16s_AC4R 1140
7.69.1.2 nppiFilterBox_16s_C1R 1141
7.69.1.3 nppiFilterBox_16s_C3R 1141
7.69.1.4 nppiFilterBox_16s_C4R 1141
7.69.1.5 nppiFilterBox_16u_AC4R 1142
7.69.1.6 nppiFilterBox_16u_C1R 1142
7.69.1.7 nppiFilterBox_16u_C3R 1143
7.69.1.8 nppiFilterBox_16u_C4R 1143
7.69.1.9 nppiFilterBox_32f_AC4R 1143
7.69.1.10 nppiFilterBox_32f_C1R 1144
7.69.1.11 nppiFilterBox_32f_C3R 1144
7.69.1.12 nppiFilterBox_32f_C4R 1145
7.69.1.13 nppiFilterBox_64f_C1R 1145
7.69.1.14 nppiFilterBox_8u_AC4R 1145
7.69.1.15 nppiFilterBox_8u_C1R 1146
7.69.1.16 nppiFilterBox_8u_C3R 1146
7.69.1.17 nppiFilterBox_8u_C4R 1147
7.70 Rank Filters 1148
7.70.1 Function Documentation 1153

7.70.1.1 nppiFilterMax_16s_AC4R 1153
7.70.1.2 nppiFilterMax_16s_C1R 1154
7.70.1.3 nppiFilterMax_16s_C3R 1154
7.70.1.4 nppiFilterMax_16s_C4R 1154
7.70.1.5 nppiFilterMax_16u_AC4R 1155
7.70.1.6 nppiFilterMax_16u_C1R 1155
7.70.1.7 nppiFilterMax_16u_C3R 1156
7.70.1.8 nppiFilterMax_16u_C4R 1156
7.70.1.9 nppiFilterMax_32f_AC4R 1156
7.70.1.10 nppiFilterMax_32f_C1R 1157
7.70.1.11 nppiFilterMax_32f_C3R 1157
7.70.1.12 nppiFilterMax_32f_C4R 1158
7.70.1.13 nppiFilterMax_8u_AC4R 1158
7.70.1.14 nppiFilterMax_8u_C1R 1158
7.70.1.15 nppiFilterMax_8u_C3R 1159
7.70.1.16 nppiFilterMax_8u_C4R 1159
7.70.1.17 nppiFilterMedian_16s_AC4R 1160
7.70.1.18 nppiFilterMedian_16s_C1R 1160
7.70.1.19 nppiFilterMedian_16s_C3R 1160
7.70.1.20 nppiFilterMedian_16s_C4R 1161
7.70.1.21 nppiFilterMedian_16u_AC4R 1161
7.70.1.22 nppiFilterMedian_16u_C1R 1162
7.70.1.23 nppiFilterMedian_16u_C3R 1162
7.70.1.24 nppiFilterMedian_16u_C4R 1163
7.70.1.25 nppiFilterMedian_32f_AC4R 1163
7.70.1.26 nppiFilterMedian_32f_C1R 1163
7.70.1.27 nppiFilterMedian_32f_C3R 1164
7.70.1.28 nppiFilterMedian_32f_C4R 1164
7.70.1.29 nppiFilterMedian_8u_AC4R 1165
7.70.1.30 nppiFilterMedian_8u_C1R 1165
7.70.1.31 nppiFilterMedian_8u_C3R 1166
7.70.1.32 nppiFilterMedian_8u_C4R 1166
7.70.1.33 nppiFilterMedianGetBufferSize_16s_AC4R 1166
7.70.1.34 nppiFilterMedianGetBufferSize_16s_C1R 1167
7.70.1.35 nppiFilterMedianGetBufferSize_16s_C3R 1167
7.70.1.36 nppiFilterMedianGetBufferSize_16s_C4R 1167

7.70.1.37 nppiFilterMedianGetBufferSize_16u_AC4R 1168
7.70.1.38 nppiFilterMedianGetBufferSize_16u_C1R 1168
7.70.1.39 nppiFilterMedianGetBufferSize_16u_C3R 1168
7.70.1.40 nppiFilterMedianGetBufferSize_16u_C4R 1168
7.70.1.41 nppiFilterMedianGetBufferSize_32f_AC4R 1169
7.70.1.42 nppiFilterMedianGetBufferSize_32f_C1R 1169
7.70.1.43 nppiFilterMedianGetBufferSize_32f_C3R 1169
7.70.1.44 nppiFilterMedianGetBufferSize_32f_C4R 1170
7.70.1.45 nppiFilterMedianGetBufferSize_8u_AC4R 1170
7.70.1.46 nppiFilterMedianGetBufferSize_8u_C1R 1170
7.70.1.47 nppiFilterMedianGetBufferSize_8u_C3R 1170
7.70.1.48 nppiFilterMedianGetBufferSize_8u_C4R 1171
7.70.1.49 nppiFilterMin_16s_AC4R 1171
7.70.1.50 nppiFilterMin_16s_C1R 1172
7.70.1.51 nppiFilterMin_16s_C3R 1172
7.70.1.52 nppiFilterMin_16s_C4R 1172
7.70.1.53 nppiFilterMin_16u_AC4R 1173
7.70.1.54 nppiFilterMin_16u_C1R 1173
7.70.1.55 nppiFilterMin_16u_C3R 1174
7.70.1.56 nppiFilterMin_16u_C4R 1174
7.70.1.57 nppiFilterMin_32f_AC4R 1174
7.70.1.58 nppiFilterMin_32f_C1R 1175
7.70.1.59 nppiFilterMin_32f_C3R 1175
7.70.1.60 nppiFilterMin_32f_C4R 1176
7.70.1.61 nppiFilterMin_8u_AC4R 1176
7.70.1.62 nppiFilterMin_8u_C1R 1176
7.70.1.63 nppiFilterMin_8u_C3R 1177
7.70.1.64 nppiFilterMin_8u_C4R 1177
7.71 Fixed Filters 1178
7.71.1 Detailed Description 1185
7.71.2 Function Documentation 1185
7.71.2.1 nppiFilterPrewittHoriz_16s_AC4R 1185
7.71.2.2 nppiFilterPrewittHoriz_16s_C1R 1186
7.71.2.3 nppiFilterPrewittHoriz_16s_C3R 1186
7.71.2.4 nppiFilterPrewittHoriz_16s_C4R 1186
7.71.2.5 nppiFilterPrewittHoriz_32f_AC4R 1187

7.71.2.6 nppiFilterPrewittHoriz_32f_C1R 1187
7.71.2.7 nppiFilterPrewittHoriz_32f_C3R 1187
7.71.2.8 nppiFilterPrewittHoriz_32f_C4R 1188
7.71.2.9 nppiFilterPrewittHoriz_8u_AC4R 1188
7.71.2.10 nppiFilterPrewittHoriz_8u_C1R 1188
7.71.2.11 nppiFilterPrewittHoriz_8u_C3R 1189
7.71.2.12 nppiFilterPrewittHoriz_8u_C4R 1189
7.71.2.13 nppiFilterPrewittVert_16s_AC4R 1189
7.71.2.14 nppiFilterPrewittVert_16s_C1R 1190
7.71.2.15 nppiFilterPrewittVert_16s_C3R 1190
7.71.2.16 nppiFilterPrewittVert_16s_C4R 1190
7.71.2.17 nppiFilterPrewittVert_32f_AC4R 1191
7.71.2.18 nppiFilterPrewittVert_32f_C1R 1191
7.71.2.19 nppiFilterPrewittVert_32f_C3R 1191
7.71.2.20 nppiFilterPrewittVert_32f_C4R 1192
7.71.2.21 nppiFilterPrewittVert_8u_AC4R 1192
7.71.2.22 nppiFilterPrewittVert_8u_C1R 1192
7.71.2.23 nppiFilterPrewittVert_8u_C3R 1193
7.71.2.24 nppiFilterPrewittVert_8u_C4R 1193
7.71.2.25 nppiFilterScharrHoriz_32f_C1R 1193
7.71.2.26 nppiFilterScharrHoriz_8s16s_C1R 1194
7.71.2.27 nppiFilterScharrHoriz_8u16s_C1R 1194
7.71.2.28 nppiFilterScharrHorizBorder_32f_C1R 1194
7.71.2.29 nppiFilterScharrHorizBorder_8s16s_C1R 1195
7.71.2.30 nppiFilterScharrHorizBorder_8u16s_C1R 1195
7.71.2.31 nppiFilterScharrVert_32f_C1R 1196
7.71.2.32 nppiFilterScharrVert_8s16s_C1R 1196
7.71.2.33 nppiFilterScharrVert_8u16s_C1R 1196
7.71.2.34 nppiFilterScharrVertBorder_32f_C1R 1197
7.71.2.35 nppiFilterScharrVertBorder_8s16s_C1R 1197
7.71.2.36 nppiFilterScharrVertBorder_8u16s_C1R 1197
7.71.2.37 nppiFilterSobelHoriz_16s_AC4R 1198
7.71.2.38 nppiFilterSobelHoriz_16s_C1R 1198
7.71.2.39 nppiFilterSobelHoriz_16s_C3R 1199
7.71.2.40 nppiFilterSobelHoriz_16s_C4R 1199
7.71.2.41 nppiFilterSobelHoriz_32f_AC4R 1199

7.71.2.42 nppiFilterSobelHoriz_32f_C1R 1200
7.71.2.43 nppiFilterSobelHoriz_32f_C3R 1200
7.71.2.44 nppiFilterSobelHoriz_32f_C4R 1200
7.71.2.45 nppiFilterSobelHoriz_8s16s_C1R 1201
7.71.2.46 nppiFilterSobelHoriz_8u16s_C1R 1201
7.71.2.47 nppiFilterSobelHoriz_8u_AC4R 1201
7.71.2.48 nppiFilterSobelHoriz_8u_C1R 1202
7.71.2.49 nppiFilterSobelHoriz_8u_C3R 1202
7.71.2.50 nppiFilterSobelHoriz_8u_C4R 1202
7.71.2.51 nppiFilterSobelHorizMask_32f_C1R 1203
7.71.2.52 nppiFilterSobelHorizSecond_32f_C1R 1203
7.71.2.53 nppiFilterSobelHorizSecond_8s16s_C1R 1203
7.71.2.54 nppiFilterSobelHorizSecond_8u16s_C1R 1204
7.71.2.55 nppiFilterSobelVert_16s_AC4R 1204
7.71.2.56 nppiFilterSobelVert_16s_C1R 1204
7.71.2.57 nppiFilterSobelVert_16s_C3R 1205
7.71.2.58 nppiFilterSobelVert_16s_C4R 1205
7.71.2.59 nppiFilterSobelVert_32f_AC4R 1206
7.71.2.60 nppiFilterSobelVert_32f_C1R 1206
7.71.2.61 nppiFilterSobelVert_32f_C3R 1206
7.71.2.62 nppiFilterSobelVert_32f_C4R 1207
7.71.2.63 nppiFilterSobelVert_8s16s_C1R 1207
7.71.2.64 nppiFilterSobelVert_8u16s_C1R 1207
7.71.2.65 nppiFilterSobelVert_8u_AC4R 1208
7.71.2.66 nppiFilterSobelVert_8u_C1R 1208
7.71.2.67 nppiFilterSobelVert_8u_C3R 1208
7.71.2.68 nppiFilterSobelVert_8u_C4R 1209
7.71.2.69 nppiFilterSobelVertMask_32f_C1R 1209
7.72 Geometry Transforms 1210
7.72.1 Detailed Description 1210
7.72.2 Geometric Transform API Specifics 1210
7.72.2.1 Geometric Transforms and ROIs 1210
7.72.2.2 Pixel Interpolation 1210
7.73 ResizeSqrPixel 1212
7.73.1 Detailed Description 1215
7.73.2 Error Codes 1215

7.73.3 Function Documentation 1216
7.73.3.1 nppiGetResizeRect 1216
7.73.3.2 nppiResizeSqrPixel_16s_AC4R 1216
7.73.3.3 nppiResizeSqrPixel_16s_C1R 1217
7.73.3.4 nppiResizeSqrPixel_16s_C3R 1217
7.73.3.5 nppiResizeSqrPixel_16s_C4R 1218
7.73.3.6 nppiResizeSqrPixel_16s_P3R 1218
7.73.3.7 nppiResizeSqrPixel_16s_P4R 1219
7.73.3.8 nppiResizeSqrPixel_16u_AC4R 1220
7.73.3.9 nppiResizeSqrPixel_16u_C1R 1220
7.73.3.10 nppiResizeSqrPixel_16u_C3R 1221
7.73.3.11 nppiResizeSqrPixel_16u_C4R 1221
7.73.3.12 nppiResizeSqrPixel_16u_P3R 1222
7.73.3.13 nppiResizeSqrPixel_16u_P4R 1222
7.73.3.14 nppiResizeSqrPixel_32f_AC4R 1223
7.73.3.15 nppiResizeSqrPixel_32f_C1R 1223
7.73.3.16 nppiResizeSqrPixel_32f_C3R 1224
7.73.3.17 nppiResizeSqrPixel_32f_C4R 1224
7.73.3.18 nppiResizeSqrPixel_32f_P3R 1225
7.73.3.19 nppiResizeSqrPixel_32f_P4R 1226
7.73.3.20 nppiResizeSqrPixel_64f_AC4R 1226
7.73.3.21 nppiResizeSqrPixel_64f_C1R 1227
7.73.3.22 nppiResizeSqrPixel_64f_C3R 1227
7.73.3.23 nppiResizeSqrPixel_64f_C4R 1228
7.73.3.24 nppiResizeSqrPixel_64f_P3R 1228
7.73.3.25 nppiResizeSqrPixel_64f_P4R 1229
7.73.3.26 nppiResizeSqrPixel_8u_AC4R 1230
7.73.3.27 nppiResizeSqrPixel_8u_C1R 1230
7.73.3.28 nppiResizeSqrPixel_8u_C3R 1231
7.73.3.29 nppiResizeSqrPixel_8u_C4R 1231
7.73.3.30 nppiResizeSqrPixel_8u_P3R 1232
7.73.3.31 nppiResizeSqrPixel_8u_P4R 1232
7.74 Resize 1234
7.74.1 Detailed Description 1235
7.74.2 Error Codes 1236
7.74.3 Function Documentation 1236

7.74.3.1 nppiResize_16u_AC4R 1236
7.74.3.2 nppiResize_16u_C1R 1237
7.74.3.3 nppiResize_16u_C3R 1237
7.74.3.4 nppiResize_16u_C4R 1238
7.74.3.5 nppiResize_16u_P3R 1238
7.74.3.6 nppiResize_16u_P4R 1239
7.74.3.7 nppiResize_32f_AC4R 1239
7.74.3.8 nppiResize_32f_C1R 1240
7.74.3.9 nppiResize_32f_C3R 1240
7.74.3.10 nppiResize_32f_C4R 1241
7.74.3.11 nppiResize_32f_P3R 1241
7.74.3.12 nppiResize_32f_P4R 1242
7.74.3.13 nppiResize_8u_AC4R 1242
7.74.3.14 nppiResize_8u_C1R 1243
7.74.3.15 nppiResize_8u_C3R 1243
7.74.3.16 nppiResize_8u_C4R 1244
7.74.3.17 nppiResize_8u_P3R 1244
7.74.3.18 nppiResize_8u_P4R 1245
7.75 Remap 1246
7.75.1 Detailed Description 1249
7.75.2 Error Codes 1249
7.75.3 Function Documentation 1249
7.75.3.1 nppiRemap_16s_AC4R 1249
7.75.3.2 nppiRemap_16s_C1R 1250
7.75.3.3 nppiRemap_16s_C3R 1251
7.75.3.4 nppiRemap_16s_C4R 1251
7.75.3.5 nppiRemap_16s_P3R 1252
7.75.3.6 nppiRemap_16s_P4R 1252
7.75.3.7 nppiRemap_16u_AC4R 1253
7.75.3.8 nppiRemap_16u_C1R 1254
7.75.3.9 nppiRemap_16u_C3R 1254
7.75.3.10 nppiRemap_16u_C4R 1255
7.75.3.11 nppiRemap_16u_P3R 1255
7.75.3.12 nppiRemap_16u_P4R 1256
7.75.3.13 nppiRemap_32f_AC4R 1257
7.75.3.14 nppiRemap_32f_C1R 1257

7.75.3.15 nppiRemap_32f_C3R 1258
7.75.3.16 nppiRemap_32f_C4R 1258
7.75.3.17 nppiRemap_32f_P3R 1259
7.75.3.18 nppiRemap_32f_P4R 1260
7.75.3.19 nppiRemap_64f_AC4R 1260
7.75.3.20 nppiRemap_64f_C1R 1261
7.75.3.21 nppiRemap_64f_C3R 1261
7.75.3.22 nppiRemap_64f_C4R 1262
7.75.3.23 nppiRemap_64f_P3R 1263
7.75.3.24 nppiRemap_64f_P4R 1263
7.75.3.25 nppiRemap_8u_AC4R 1264
7.75.3.26 nppiRemap_8u_C1R 1264
7.75.3.27 nppiRemap_8u_C3R 1265
7.75.3.28 nppiRemap_8u_C4R 1266
7.75.3.29 nppiRemap_8u_P3R 1266
7.75.3.30 nppiRemap_8u_P4R 1267
7.76 Rotate 1268
7.76.1 Detailed Description 1269
7.76.2 Rotate Error Codes 1269
7.76.3 Function Documentation 1269
7.76.3.1 nppiGetRotateBound 1269
7.76.3.2 nppiGetRotateQuad 1270
7.76.3.3 nppiRotate_16u_AC4R 1270
7.76.3.4 nppiRotate_16u_C1R 1271
7.76.3.5 nppiRotate_16u_C3R 1271
7.76.3.6 nppiRotate_16u_C4R 1272
7.76.3.7 nppiRotate_32f_AC4R 1272
7.76.3.8 nppiRotate_32f_C1R 1273
7.76.3.9 nppiRotate_32f_C3R 1273
7.76.3.10 nppiRotate_32f_C4R 1274
7.76.3.11 nppiRotate_8u_AC4R 1274
7.76.3.12 nppiRotate_8u_C1R 1275
7.76.3.13 nppiRotate_8u_C3R 1275
7.76.3.14 nppiRotate_8u_C4R 1276
7.77 Mirror 1277
7.77.1 Detailed Description 1280

7.77.2 Mirror Error Codes 1280
7.77.3 Function Documentation 1280
7.77.3.1 nppiMirror_16s_AC4IR 1280
7.77.3.2 nppiMirror_16s_AC4R 1280
7.77.3.3 nppiMirror_16s_C1IR 1281
7.77.3.4 nppiMirror_16s_C1R 1281
7.77.3.5 nppiMirror_16s_C3IR 1281
7.77.3.6 nppiMirror_16s_C3R 1282
7.77.3.7 nppiMirror_16s_C4IR 1282
7.77.3.8 nppiMirror_16s_C4R 1282
7.77.3.9 nppiMirror_16u_AC4IR 1283
7.77.3.10 nppiMirror_16u_AC4R 1283
7.77.3.11 nppiMirror_16u_C1IR 1284
7.77.3.12 nppiMirror_16u_C1R 1284
7.77.3.13 nppiMirror_16u_C3IR 1284
7.77.3.14 nppiMirror_16u_C3R 1285
7.77.3.15 nppiMirror_16u_C4IR 1285
7.77.3.16 nppiMirror_16u_C4R 1285
7.77.3.17 nppiMirror_32f_AC4IR 1286
7.77.3.18 nppiMirror_32f_AC4R 1286
7.77.3.19 nppiMirror_32f_C1IR 1286
7.77.3.20 nppiMirror_32f_C1R 1287
7.77.3.21 nppiMirror_32f_C3IR 1287
7.77.3.22 nppiMirror_32f_C3R 1287
7.77.3.23 nppiMirror_32f_C4IR 1288
7.77.3.24 nppiMirror_32f_C4R 1288
7.77.3.25 nppiMirror_32s_AC4IR 1288
7.77.3.26 nppiMirror_32s_AC4R 1289
7.77.3.27 nppiMirror_32s_C1IR 1289
7.77.3.28 nppiMirror_32s_C1R 1289
7.77.3.29 nppiMirror_32s_C3IR 1290
7.77.3.30 nppiMirror_32s_C3R 1290
7.77.3.31 nppiMirror_32s_C4IR 1290
7.77.3.32 nppiMirror_32s_C4R 1291
7.77.3.33 nppiMirror_8u_AC4IR 1291
7.77.3.34 nppiMirror_8u_AC4R 1291

7.77.3.35 nppiMirror_8u_C1IR 1292
7.77.3.36 nppiMirror_8u_C1R 1292
7.77.3.37 nppiMirror_8u_C3IR 1292
7.77.3.38 nppiMirror_8u_C3R 1293
7.77.3.39 nppiMirror_8u_C4IR 1293
7.77.3.40 nppiMirror_8u_C4R 1293
7.78 Affine Transforms 1294
7.78.1 Detailed Description 1303
7.78.2 Affine Transform Error Codes 1303
7.78.3 Function Documentation 1303
7.78.3.1 nppiGetAffineBound 1303
7.78.3.2 nppiGetAffineQuad 1303
7.78.3.3 nppiGetAffineTransform 1304
7.78.3.4 nppiWarpAffine_16u_AC4R 1305
7.78.3.5 nppiWarpAffine_16u_C1R 1305
7.78.3.6 nppiWarpAffine_16u_C3R 1306
7.78.3.7 nppiWarpAffine_16u_C4R 1306
7.78.3.8 nppiWarpAffine_16u_P3R 1307
7.78.3.9 nppiWarpAffine_16u_P4R 1307
7.78.3.10 nppiWarpAffine_32f_AC4R 1308
7.78.3.11 nppiWarpAffine_32f_C1R 1308
7.78.3.12 nppiWarpAffine_32f_C3R 1309
7.78.3.13 nppiWarpAffine_32f_C4R 1309
7.78.3.14 nppiWarpAffine_32f_P3R 1310
7.78.3.15 nppiWarpAffine_32f_P4R 1310
7.78.3.16 nppiWarpAffine_32s_AC4R 1311
7.78.3.17 nppiWarpAffine_32s_C1R 1311
7.78.3.18 nppiWarpAffine_32s_C3R 1312
7.78.3.19 nppiWarpAffine_32s_C4R 1312
7.78.3.20 nppiWarpAffine_32s_P3R 1313
7.78.3.21 nppiWarpAffine_32s_P4R 1313
7.78.3.22 nppiWarpAffine_64f_AC4R 1314
7.78.3.23 nppiWarpAffine_64f_C1R 1314
7.78.3.24 nppiWarpAffine_64f_C3R 1315
7.78.3.25 nppiWarpAffine_64f_C4R 1315
7.78.3.26 nppiWarpAffine_64f_P3R 1316

7.78.3.27 nppiWarpAffine_64f_P4R 1316
7.78.3.28 nppiWarpAffine_8u_AC4R 1317
7.78.3.29 nppiWarpAffine_8u_C1R 1317
7.78.3.30 nppiWarpAffine_8u_C3R 1318
7.78.3.31 nppiWarpAffine_8u_C4R 1318
7.78.3.32 nppiWarpAffine_8u_P3R 1319
7.78.3.33 nppiWarpAffine_8u_P4R 1319
7.78.3.34 nppiWarpAffineBack_16u_AC4R 1320
7.78.3.35 nppiWarpAffineBack_16u_C1R 1320
7.78.3.36 nppiWarpAffineBack_16u_C3R 1321
7.78.3.37 nppiWarpAffineBack_16u_C4R 1321
7.78.3.38 nppiWarpAffineBack_16u_P3R 1322
7.78.3.39 nppiWarpAffineBack_16u_P4R 1322
7.78.3.40 nppiWarpAffineBack_32f_AC4R 1323
7.78.3.41 nppiWarpAffineBack_32f_C1R 1323
7.78.3.42 nppiWarpAffineBack_32f_C3R 1324
7.78.3.43 nppiWarpAffineBack_32f_C4R 1324
7.78.3.44 nppiWarpAffineBack_32f_P3R 1325
7.78.3.45 nppiWarpAffineBack_32f_P4R 1325
7.78.3.46 nppiWarpAffineBack_32s_AC4R 1326
7.78.3.47 nppiWarpAffineBack_32s_C1R 1326
7.78.3.48 nppiWarpAffineBack_32s_C3R 1327
7.78.3.49 nppiWarpAffineBack_32s_C4R 1327
7.78.3.50 nppiWarpAffineBack_32s_P3R 1328
7.78.3.51 nppiWarpAffineBack_32s_P4R 1328
7.78.3.52 nppiWarpAffineBack_8u_AC4R 1329
7.78.3.53 nppiWarpAffineBack_8u_C1R 1329
7.78.3.54 nppiWarpAffineBack_8u_C3R 1330
7.78.3.55 nppiWarpAffineBack_8u_C4R 1330
7.78.3.56 nppiWarpAffineBack_8u_P3R 1331
7.78.3.57 nppiWarpAffineBack_8u_P4R 1331
7.78.3.58 nppiWarpAffineQuad_16u_AC4R 1332
7.78.3.59 nppiWarpAffineQuad_16u_C1R 1332
7.78.3.60 nppiWarpAffineQuad_16u_C3R 1333
7.78.3.61 nppiWarpAffineQuad_16u_C4R 1333
7.78.3.62 nppiWarpAffineQuad_16u_P3R 1334

7.78.3.63 nppiWarpAffineQuad_16u_P4R 1334
7.78.3.64 nppiWarpAffineQuad_32f_AC4R 1335
7.78.3.65 nppiWarpAffineQuad_32f_C1R 1335
7.78.3.66 nppiWarpAffineQuad_32f_C3R 1336
7.78.3.67 nppiWarpAffineQuad_32f_C4R 1336
7.78.3.68 nppiWarpAffineQuad_32f_P3R 1337
7.78.3.69 nppiWarpAffineQuad_32f_P4R 1337
7.78.3.70 nppiWarpAffineQuad_32s_AC4R 1338
7.78.3.71 nppiWarpAffineQuad_32s_C1R 1338
7.78.3.72 nppiWarpAffineQuad_32s_C3R 1339
7.78.3.73 nppiWarpAffineQuad_32s_C4R 1339
7.78.3.74 nppiWarpAffineQuad_32s_P3R 1340
7.78.3.75 nppiWarpAffineQuad_32s_P4R 1340
7.78.3.76 nppiWarpAffineQuad_8u_AC4R 1341
7.78.3.77 nppiWarpAffineQuad_8u_C1R 1341
7.78.3.78 nppiWarpAffineQuad_8u_C3R 1342
7.78.3.79 nppiWarpAffineQuad_8u_C4R 1342
7.78.3.80 nppiWarpAffineQuad_8u_P3R 1343
7.78.3.81 nppiWarpAffineQuad_8u_P4R 1343
7.79 Perspective Transform 1344
7.79.1 Detailed Description 1352
7.79.2 Perspective Transform Error Codes 1352
7.79.3 Function Documentation 1352
7.79.3.1 nppiGetPerspectiveBound 1352
7.79.3.2 nppiGetPerspectiveQuad 1353
7.79.3.3 nppiGetPerspectiveTransform 1353
7.79.3.4 nppiWarpPerspective_16u_AC4R 1353
7.79.3.5 nppiWarpPerspective_16u_C1R 1354
7.79.3.6 nppiWarpPerspective_16u_C3R 1354
7.79.3.7 nppiWarpPerspective_16u_C4R 1355
7.79.3.8 nppiWarpPerspective_16u_P3R 1355
7.79.3.9 nppiWarpPerspective_16u_P4R 1356
7.79.3.10 nppiWarpPerspective_32f_AC4R 1356
7.79.3.11 nppiWarpPerspective_32f_C1R 1357
7.79.3.12 nppiWarpPerspective_32f_C3R 1357
7.79.3.13 nppiWarpPerspective_32f_C4R 1358

7.79.3.14 nppiWarpPerspective_32f_P3R 1358
7.79.3.15 nppiWarpPerspective_32f_P4R 1359
7.79.3.16 nppiWarpPerspective_32s_AC4R 1359
7.79.3.17 nppiWarpPerspective_32s_C1R 1360
7.79.3.18 nppiWarpPerspective_32s_C3R 1360
7.79.3.19 nppiWarpPerspective_32s_C4R 1361
7.79.3.20 nppiWarpPerspective_32s_P3R 1361
7.79.3.21 nppiWarpPerspective_32s_P4R 1362
7.79.3.22 nppiWarpPerspective_8u_AC4R 1362
7.79.3.23 nppiWarpPerspective_8u_C1R 1363
7.79.3.24 nppiWarpPerspective_8u_C3R 1363
7.79.3.25 nppiWarpPerspective_8u_C4R 1364
7.79.3.26 nppiWarpPerspective_8u_P3R 1364
7.79.3.27 nppiWarpPerspective_8u_P4R 1365
7.79.3.28 nppiWarpPerspectiveBack_16u_AC4R 1365
7.79.3.29 nppiWarpPerspectiveBack_16u_C1R 1366
7.79.3.30 nppiWarpPerspectiveBack_16u_C3R 1366
7.79.3.31 nppiWarpPerspectiveBack_16u_C4R 1367
7.79.3.32 nppiWarpPerspectiveBack_16u_P3R 1367
7.79.3.33 nppiWarpPerspectiveBack_16u_P4R 1368
7.79.3.34 nppiWarpPerspectiveBack_32f_AC4R 1368
7.79.3.35 nppiWarpPerspectiveBack_32f_C1R 1369
7.79.3.36 nppiWarpPerspectiveBack_32f_C3R 1369
7.79.3.37 nppiWarpPerspectiveBack_32f_C4R 1370
7.79.3.38 nppiWarpPerspectiveBack_32f_P3R 1370
7.79.3.39 nppiWarpPerspectiveBack_32f_P4R 1371
7.79.3.40 nppiWarpPerspectiveBack_32s_AC4R 1371
7.79.3.41 nppiWarpPerspectiveBack_32s_C1R 1372
7.79.3.42 nppiWarpPerspectiveBack_32s_C3R 1372
7.79.3.43 nppiWarpPerspectiveBack_32s_C4R 1373
7.79.3.44 nppiWarpPerspectiveBack_32s_P3R 1373
7.79.3.45 nppiWarpPerspectiveBack_32s_P4R 1374
7.79.3.46 nppiWarpPerspectiveBack_8u_AC4R 1374
7.79.3.47 nppiWarpPerspectiveBack_8u_C1R 1375
7.79.3.48 nppiWarpPerspectiveBack_8u_C3R 1375
7.79.3.49 nppiWarpPerspectiveBack_8u_C4R 1376

7.79.3.50 nppiWarpPerspectiveBack_8u_P3R 1376
7.79.3.51 nppiWarpPerspectiveBack_8u_P4R 1377
7.79.3.52 nppiWarpPerspectiveQuad_16u_AC4R 1377
7.79.3.53 nppiWarpPerspectiveQuad_16u_C1R 1378
7.79.3.54 nppiWarpPerspectiveQuad_16u_C3R 1378
7.79.3.55 nppiWarpPerspectiveQuad_16u_C4R 1379
7.79.3.56 nppiWarpPerspectiveQuad_16u_P3R 1379
7.79.3.57 nppiWarpPerspectiveQuad_16u_P4R 1380
7.79.3.58 nppiWarpPerspectiveQuad_32f_AC4R 1380
7.79.3.59 nppiWarpPerspectiveQuad_32f_C1R 1381
7.79.3.60 nppiWarpPerspectiveQuad_32f_C3R 1381
7.79.3.61 nppiWarpPerspectiveQuad_32f_C4R 1382
7.79.3.62 nppiWarpPerspectiveQuad_32f_P3R 1382
7.79.3.63 nppiWarpPerspectiveQuad_32f_P4R 1383
7.79.3.64 nppiWarpPerspectiveQuad_32s_AC4R 1383
7.79.3.65 nppiWarpPerspectiveQuad_32s_C1R 1384
7.79.3.66 nppiWarpPerspectiveQuad_32s_C3R 1384
7.79.3.67 nppiWarpPerspectiveQuad_32s_C4R 1385
7.79.3.68 nppiWarpPerspectiveQuad_32s_P3R 1385
7.79.3.69 nppiWarpPerspectiveQuad_32s_P4R 1386
7.79.3.70 nppiWarpPerspectiveQuad_8u_AC4R 1386
7.79.3.71 nppiWarpPerspectiveQuad_8u_C1R 1387
7.79.3.72 nppiWarpPerspectiveQuad_8u_C3R 1387
7.79.3.73 nppiWarpPerspectiveQuad_8u_C4R 1388
7.79.3.74 nppiWarpPerspectiveQuad_8u_P3R 1388
7.79.3.75 nppiWarpPerspectiveQuad_8u_P4R 1389
7.80 Linear Transforms 1390
7.80.1 Detailed Description 1390
7.81 Fourier Transforms 1391
7.81.1 Function Documentation 1391
7.81.1.1 nppiMagnitude_32fc32f_C1R 1391
7.81.1.2 nppiMagnitudeSqr_32fc32f_C1R 1391
7.82 Morphological Operations 1393
7.82.1 Detailed Description 1393
7.83 Dilation 1394
7.83.1 Detailed Description 1395

7.83.2 Function Documentation 1395
7.83.2.1 nppiDilate_16u_AC4R 1395
7.83.2.2 nppiDilate_16u_C1R 1395
7.83.2.3 nppiDilate_16u_C3R 1396
7.83.2.4 nppiDilate_16u_C4R 1396
7.83.2.5 nppiDilate_32f_AC4R 1397
7.83.2.6 nppiDilate_32f_C1R 1397
7.83.2.7 nppiDilate_32f_C3R 1397
7.83.2.8 nppiDilate_32f_C4R 1398
7.83.2.9 nppiDilate_8u_AC4R 1398
7.83.2.10 nppiDilate_8u_C1R 1399
7.83.2.11 nppiDilate_8u_C3R 1399
7.83.2.12 nppiDilate_8u_C4R 1400
7.84 Dilation with border control 1401
7.84.1 Detailed Description 1402
7.84.2 Function Documentation 1402
7.84.2.1 nppiDilateBorder_16u_AC4R 1402
7.84.2.2 nppiDilateBorder_16u_C1R 1403
7.84.2.3 nppiDilateBorder_16u_C3R 1403
7.84.2.4 nppiDilateBorder_16u_C4R 1404
7.84.2.5 nppiDilateBorder_32f_AC4R 1404
7.84.2.6 nppiDilateBorder_32f_C1R 1405
7.84.2.7 nppiDilateBorder_32f_C3R 1405
7.84.2.8 nppiDilateBorder_32f_C4R 1406
7.84.2.9 nppiDilateBorder_8u_AC4R 1406
7.84.2.10 nppiDilateBorder_8u_C1R 1407
7.84.2.11 nppiDilateBorder_8u_C3R 1407
7.84.2.12 nppiDilateBorder_8u_C4R 1408
7.85 Dilate3x3 1409
7.85.1 Detailed Description 1410
7.85.2 Function Documentation 1410
7.85.2.1 nppiDilate3x3_16u_AC4R 1410
7.85.2.2 nppiDilate3x3_16u_C1R 1410
7.85.2.3 nppiDilate3x3_16u_C3R 1411
7.85.2.4 nppiDilate3x3_16u_C4R 1411
7.85.2.5 nppiDilate3x3_32f_AC4R 1411

7.85.2.6 nppiDilate3x3_32f_C1R 1412
7.85.2.7 nppiDilate3x3_32f_C3R 1412
7.85.2.8 nppiDilate3x3_32f_C4R 1412
7.85.2.9 nppiDilate3x3_64f_C1R 1413
7.85.2.10 nppiDilate3x3_8u_AC4R 1413
7.85.2.11 nppiDilate3x3_8u_C1R 1413
7.85.2.12 nppiDilate3x3_8u_C3R 1414
7.85.2.13 nppiDilate3x3_8u_C4R 1414
7.86 Dilate3x3Border 1415
7.86.1 Detailed Description 1416
7.86.2 Function Documentation 1416
7.86.2.1 nppiDilate3x3Border_16u_AC4R 1416
7.86.2.2 nppiDilate3x3Border_16u_C1R 1417
7.86.2.3 nppiDilate3x3Border_16u_C3R 1417
7.86.2.4 nppiDilate3x3Border_16u_C4R 1417
7.86.2.5 nppiDilate3x3Border_32f_AC4R 1418
7.86.2.6 nppiDilate3x3Border_32f_C1R 1418
7.86.2.7 nppiDilate3x3Border_32f_C3R 1419
7.86.2.8 nppiDilate3x3Border_32f_C4R 1419
7.86.2.9 nppiDilate3x3Border_8u_AC4R 1420
7.86.2.10 nppiDilate3x3Border_8u_C1R 1420
7.86.2.11 nppiDilate3x3Border_8u_C3R 1420
7.86.2.12 nppiDilate3x3Border_8u_C4R 1421
7.87 Erode 1422
7.87.1 Detailed Description 1423
7.87.2 Function Documentation 1423
7.87.2.1 nppiErode_16u_AC4R 1423
7.87.2.2 nppiErode_16u_C1R 1423
7.87.2.3 nppiErode_16u_C3R 1424
7.87.2.4 nppiErode_16u_C4R 1424
7.87.2.5 nppiErode_32f_AC4R 1425
7.87.2.6 nppiErode_32f_C1R 1425
7.87.2.7 nppiErode_32f_C3R 1425
7.87.2.8 nppiErode_32f_C4R 1426
7.87.2.9 nppiErode_8u_AC4R 1426
7.87.2.10 nppiErode_8u_C1R 1427

7.87.2.11 nppiErode_8u_C3R 1427
7.87.2.12 nppiErode_8u_C4R 1428
7.88 Erosion with border control 1429
7.88.1 Detailed Description 1430
7.88.2 Function Documentation 1430
7.88.2.1 nppiErodeBorder_16u_AC4R 1430
7.88.2.2 nppiErodeBorder_16u_C1R 1431
7.88.2.3 nppiErodeBorder_16u_C3R 1431
7.88.2.4 nppiErodeBorder_16u_C4R 1432
7.88.2.5 nppiErodeBorder_32f_AC4R 1432
7.88.2.6 nppiErodeBorder_32f_C1R 1433
7.88.2.7 nppiErodeBorder_32f_C3R 1433
7.88.2.8 nppiErodeBorder_32f_C4R 1434
7.88.2.9 nppiErodeBorder_8u_AC4R 1434
7.88.2.10 nppiErodeBorder_8u_C1R 1435
7.88.2.11 nppiErodeBorder_8u_C3R 1435
7.88.2.12 nppiErodeBorder_8u_C4R 1436
7.89 Erode3x3 1437
7.89.1 Detailed Description 1438
7.89.2 Function Documentation 1438
7.89.2.1 nppiErode3x3_16u_AC4R 1438
7.89.2.2 nppiErode3x3_16u_C1R 1438
7.89.2.3 nppiErode3x3_16u_C3R 1439
7.89.2.4 nppiErode3x3_16u_C4R 1439
7.89.2.5 nppiErode3x3_32f_AC4R 1439
7.89.2.6 nppiErode3x3_32f_C1R 1440
7.89.2.7 nppiErode3x3_32f_C3R 1440
7.89.2.8 nppiErode3x3_32f_C4R 1440
7.89.2.9 nppiErode3x3_64f_C1R 1441
7.89.2.10 nppiErode3x3_8u_AC4R 1441
7.89.2.11 nppiErode3x3_8u_C1R 1441
7.89.2.12 nppiErode3x3_8u_C3R 1442
7.89.2.13 nppiErode3x3_8u_C4R 1442
7.90 Erode3x3Border 1443
7.90.1 Detailed Description 1444
7.90.2 Function Documentation 1444

7.90.2.1 nppiErode3x3Border_16u_AC4R 1444
7.90.2.2 nppiErode3x3Border_16u_C1R 1445
7.90.2.3 nppiErode3x3Border_16u_C3R 1445
7.90.2.4 nppiErode3x3Border_16u_C4R 1445
7.90.2.5 nppiErode3x3Border_32f_AC4R 1446
7.90.2.6 nppiErode3x3Border_32f_C1R 1446
7.90.2.7 nppiErode3x3Border_32f_C3R 1447
7.90.2.8 nppiErode3x3Border_32f_C4R 1447
7.90.2.9 nppiErode3x3Border_8u_AC4R 1448
7.90.2.10 nppiErode3x3Border_8u_C1R 1448
7.90.2.11 nppiErode3x3Border_8u_C3R 1448
7.90.2.12 nppiErode3x3Border_8u_C4R 1449
7.91 Statistical Operations 1450
7.91.1 Detailed Description 1466
7.91.2 Function Documentation 1466
7.91.2.1 nppiAverageErrorGetBufferHostSize_16s_C1R 1466
7.91.2.2 nppiAverageErrorGetBufferHostSize_16s_C2R 1466
7.91.2.3 nppiAverageErrorGetBufferHostSize_16s_C3R 1466
7.91.2.4 nppiAverageErrorGetBufferHostSize_16s_C4R 1467
7.91.2.5 nppiAverageErrorGetBufferHostSize_16sc_C1R 1467
7.91.2.6 nppiAverageErrorGetBufferHostSize_16sc_C2R 1467
7.91.2.7 nppiAverageErrorGetBufferHostSize_16sc_C3R 1467
7.91.2.8 nppiAverageErrorGetBufferHostSize_16sc_C4R 1468
7.91.2.9 nppiAverageErrorGetBufferHostSize_16u_C1R 1468
7.91.2.10 nppiAverageErrorGetBufferHostSize_16u_C2R 1468
7.91.2.11 nppiAverageErrorGetBufferHostSize_16u_C3R 1469
7.91.2.12 nppiAverageErrorGetBufferHostSize_16u_C4R 1469
7.91.2.13 nppiAverageErrorGetBufferHostSize_32f_C1R 1469
7.91.2.14 nppiAverageErrorGetBufferHostSize_32f_C2R 1469
7.91.2.15 nppiAverageErrorGetBufferHostSize_32f_C3R 1470
7.91.2.16 nppiAverageErrorGetBufferHostSize_32f_C4R 1470
7.91.2.17 nppiAverageErrorGetBufferHostSize_32fc_C1R 1470
7.91.2.18 nppiAverageErrorGetBufferHostSize_32fc_C2R 1471
7.91.2.19 nppiAverageErrorGetBufferHostSize_32fc_C3R 1471
7.91.2.20 nppiAverageErrorGetBufferHostSize_32fc_C4R 1471
7.91.2.21 nppiAverageErrorGetBufferHostSize_32s_C1R 1471

7.91.2.22 nppiAverageErrorGetBufferHostSize_32s_C2R 1472
7.91.2.23 nppiAverageErrorGetBufferHostSize_32s_C3R 1472
7.91.2.24 nppiAverageErrorGetBufferHostSize_32s_C4R 1472
7.91.2.25 nppiAverageErrorGetBufferHostSize_32sc_C1R 1473
7.91.2.26 nppiAverageErrorGetBufferHostSize_32sc_C2R 1473
7.91.2.27 nppiAverageErrorGetBufferHostSize_32sc_C3R 1473
7.91.2.28 nppiAverageErrorGetBufferHostSize_32sc_C4R 1473
7.91.2.29 nppiAverageErrorGetBufferHostSize_32u_C1R 1474
7.91.2.30 nppiAverageErrorGetBufferHostSize_32u_C2R 1474
7.91.2.31 nppiAverageErrorGetBufferHostSize_32u_C3R 1474
7.91.2.32 nppiAverageErrorGetBufferHostSize_32u_C4R 1475
7.91.2.33 nppiAverageErrorGetBufferHostSize_64f_C1R 1475
7.91.2.34 nppiAverageErrorGetBufferHostSize_64f_C2R 1475
7.91.2.35 nppiAverageErrorGetBufferHostSize_64f_C3R 1475
7.91.2.36 nppiAverageErrorGetBufferHostSize_64f_C4R 1476
7.91.2.37 nppiAverageErrorGetBufferHostSize_8s_C1R 1476
7.91.2.38 nppiAverageErrorGetBufferHostSize_8s_C2R 1476
7.91.2.39 nppiAverageErrorGetBufferHostSize_8s_C3R 1477
7.91.2.40 nppiAverageErrorGetBufferHostSize_8s_C4R 1477
7.91.2.41 nppiAverageErrorGetBufferHostSize_8u_C1R 1477
7.91.2.42 nppiAverageErrorGetBufferHostSize_8u_C2R 1477
7.91.2.43 nppiAverageErrorGetBufferHostSize_8u_C3R 1478
7.91.2.44 nppiAverageErrorGetBufferHostSize_8u_C4R 1478
7.91.2.45 nppiAverageRelativeErrorGetBufferHostSize_16s_C1R 1478
7.91.2.46 nppiAverageRelativeErrorGetBufferHostSize_16s_C2R 1479
7.91.2.47 nppiAverageRelativeErrorGetBufferHostSize_16s_C3R 1479
7.91.2.48 nppiAverageRelativeErrorGetBufferHostSize_16s_C4R 1479
7.91.2.49 nppiAverageRelativeErrorGetBufferHostSize_16sc_C1R 1479
7.91.2.50 nppiAverageRelativeErrorGetBufferHostSize_16sc_C2R 1480
7.91.2.51 nppiAverageRelativeErrorGetBufferHostSize_16sc_C3R 1480
7.91.2.52 nppiAverageRelativeErrorGetBufferHostSize_16sc_C4R 1480
7.91.2.53 nppiAverageRelativeErrorGetBufferHostSize_16u_C1R 1481
7.91.2.54 nppiAverageRelativeErrorGetBufferHostSize_16u_C2R 1481
7.91.2.55 nppiAverageRelativeErrorGetBufferHostSize_16u_C3R 1481
7.91.2.56 nppiAverageRelativeErrorGetBufferHostSize_16u_C4R 1481
7.91.2.57 nppiAverageRelativeErrorGetBufferHostSize_32f_C1R 1482

7.91.2.58 nppiAverageRelativeErrorGetBufferHostSize_32f_C2R 1482
7.91.2.59 nppiAverageRelativeErrorGetBufferHostSize_32f_C3R 1482
7.91.2.60 nppiAverageRelativeErrorGetBufferHostSize_32f_C4R 1483
7.91.2.61 nppiAverageRelativeErrorGetBufferHostSize_32fc_C1R 1483
7.91.2.62 nppiAverageRelativeErrorGetBufferHostSize_32fc_C2R 1483
7.91.2.63 nppiAverageRelativeErrorGetBufferHostSize_32fc_C3R 1483
7.91.2.64 nppiAverageRelativeErrorGetBufferHostSize_32fc_C4R 1484
7.91.2.65 nppiAverageRelativeErrorGetBufferHostSize_32s_C1R 1484
7.91.2.66 nppiAverageRelativeErrorGetBufferHostSize_32s_C2R 1484
7.91.2.67 nppiAverageRelativeErrorGetBufferHostSize_32s_C3R 1485
7.91.2.68 nppiAverageRelativeErrorGetBufferHostSize_32s_C4R 1485
7.91.2.69 nppiAverageRelativeErrorGetBufferHostSize_32sc_C1R 1485
7.91.2.70 nppiAverageRelativeErrorGetBufferHostSize_32sc_C2R 1485
7.91.2.71 nppiAverageRelativeErrorGetBufferHostSize_32sc_C3R 1486
7.91.2.72 nppiAverageRelativeErrorGetBufferHostSize_32sc_C4R 1486
7.91.2.73 nppiAverageRelativeErrorGetBufferHostSize_32u_C1R 1486
7.91.2.74 nppiAverageRelativeErrorGetBufferHostSize_32u_C2R 1487
7.91.2.75 nppiAverageRelativeErrorGetBufferHostSize_32u_C3R 1487
7.91.2.76 nppiAverageRelativeErrorGetBufferHostSize_32u_C4R 1487
7.91.2.77 nppiAverageRelativeErrorGetBufferHostSize_64f_C1R 1487
7.91.2.78 nppiAverageRelativeErrorGetBufferHostSize_64f_C2R 1488
7.91.2.79 nppiAverageRelativeErrorGetBufferHostSize_64f_C3R 1488
7.91.2.80 nppiAverageRelativeErrorGetBufferHostSize_64f_C4R 1488
7.91.2.81 nppiAverageRelativeErrorGetBufferHostSize_8s_C1R 1489
7.91.2.82 nppiAverageRelativeErrorGetBufferHostSize_8s_C2R 1489
7.91.2.83 nppiAverageRelativeErrorGetBufferHostSize_8s_C3R 1489
7.91.2.84 nppiAverageRelativeErrorGetBufferHostSize_8s_C4R 1489
7.91.2.85 nppiAverageRelativeErrorGetBufferHostSize_8u_C1R 1490
7.91.2.86 nppiAverageRelativeErrorGetBufferHostSize_8u_C2R 1490
7.91.2.87 nppiAverageRelativeErrorGetBufferHostSize_8u_C3R 1490
7.91.2.88 nppiAverageRelativeErrorGetBufferHostSize_8u_C4R 1491
7.91.2.89 nppiMaximumErrorGetBufferHostSize_16s_C1R 1491
7.91.2.90 nppiMaximumErrorGetBufferHostSize_16s_C2R 1491
7.91.2.91 nppiMaximumErrorGetBufferHostSize_16s_C3R 1491
7.91.2.92 nppiMaximumErrorGetBufferHostSize_16s_C4R 1492
7.91.2.93 nppiMaximumErrorGetBufferHostSize_16sc_C1R 1492

7.91.2.94 nppiMaximumErrorGetBufferHostSize_16sc_C2R 1492
7.91.2.95 nppiMaximumErrorGetBufferHostSize_16sc_C3R 1493
7.91.2.96 nppiMaximumErrorGetBufferHostSize_16sc_C4R 1493
7.91.2.97 nppiMaximumErrorGetBufferHostSize_16u_C1R 1493
7.91.2.98 nppiMaximumErrorGetBufferHostSize_16u_C2R 1493
7.91.2.99 nppiMaximumErrorGetBufferHostSize_16u_C3R 1494
7.91.2.100nppiMaximumErrorGetBufferHostSize_16u_C4R 1494
7.91.2.101nppiMaximumErrorGetBufferHostSize_32f_C1R 1494
7.91.2.102nppiMaximumErrorGetBufferHostSize_32f_C2R 1495
7.91.2.103nppiMaximumErrorGetBufferHostSize_32f_C3R 1495
7.91.2.104nppiMaximumErrorGetBufferHostSize_32f_C4R 1495
7.91.2.105nppiMaximumErrorGetBufferHostSize_32fc_C1R 1495
7.91.2.106nppiMaximumErrorGetBufferHostSize_32fc_C2R 1496
7.91.2.107nppiMaximumErrorGetBufferHostSize_32fc_C3R 1496
7.91.2.108nppiMaximumErrorGetBufferHostSize_32fc_C4R 1496
7.91.2.109nppiMaximumErrorGetBufferHostSize_32s_C1R 1497
7.91.2.110nppiMaximumErrorGetBufferHostSize_32s_C2R 1497
7.91.2.111nppiMaximumErrorGetBufferHostSize_32s_C3R 1497
7.91.2.112nppiMaximumErrorGetBufferHostSize_32s_C4R 1497
7.91.2.113nppiMaximumErrorGetBufferHostSize_32sc_C1R 1498
7.91.2.114nppiMaximumErrorGetBufferHostSize_32sc_C2R 1498
7.91.2.115nppiMaximumErrorGetBufferHostSize_32sc_C3R 1498
7.91.2.116nppiMaximumErrorGetBufferHostSize_32sc_C4R 1499
7.91.2.117nppiMaximumErrorGetBufferHostSize_32u_C1R 1499
7.91.2.118nppiMaximumErrorGetBufferHostSize_32u_C2R 1499
7.91.2.119nppiMaximumErrorGetBufferHostSize_32u_C3R 1499
7.91.2.120nppiMaximumErrorGetBufferHostSize_32u_C4R 1500
7.91.2.121nppiMaximumErrorGetBufferHostSize_64f_C1R 1500
7.91.2.122nppiMaximumErrorGetBufferHostSize_64f_C2R 1500
7.91.2.123nppiMaximumErrorGetBufferHostSize_64f_C3R 1501
7.91.2.124nppiMaximumErrorGetBufferHostSize_64f_C4R 1501
7.91.2.125nppiMaximumErrorGetBufferHostSize_8s_C1R 1501
7.91.2.126nppiMaximumErrorGetBufferHostSize_8s_C2R 1501
7.91.2.127nppiMaximumErrorGetBufferHostSize_8s_C3R 1502
7.91.2.128nppiMaximumErrorGetBufferHostSize_8s_C4R 1502
7.91.2.129nppiMaximumErrorGetBufferHostSize_8u_C1R 1502

7.91.2.130 nppiMaximumErrorGetBufferHostSize_8u_C2R 1503
7.91.2.131 nppiMaximumErrorGetBufferHostSize_8u_C3R 1503
7.91.2.132 nppiMaximumErrorGetBufferHostSize_8u_C4R 1503
7.91.2.133 nppiMaximumRelativeErrorGetBufferHostSize_16s_C1R 1503
7.91.2.134 nppiMaximumRelativeErrorGetBufferHostSize_16s_C2R 1504
7.91.2.135 nppiMaximumRelativeErrorGetBufferHostSize_16s_C3R 1504
7.91.2.136 nppiMaximumRelativeErrorGetBufferHostSize_16s_C4R 1504
7.91.2.137 nppiMaximumRelativeErrorGetBufferHostSize_16sc_C1R 1505
7.91.2.138 nppiMaximumRelativeErrorGetBufferHostSize_16sc_C2R 1505
7.91.2.139 nppiMaximumRelativeErrorGetBufferHostSize_16sc_C3R 1505
7.91.2.140 nppiMaximumRelativeErrorGetBufferHostSize_16sc_C4R 1505
7.91.2.141 nppiMaximumRelativeErrorGetBufferHostSize_16u_C1R 1506
7.91.2.142 nppiMaximumRelativeErrorGetBufferHostSize_16u_C2R 1506
7.91.2.143 nppiMaximumRelativeErrorGetBufferHostSize_16u_C3R 1506
7.91.2.144 nppiMaximumRelativeErrorGetBufferHostSize_16u_C4R 1507
7.91.2.145 nppiMaximumRelativeErrorGetBufferHostSize_32f_C1R 1507
7.91.2.146 nppiMaximumRelativeErrorGetBufferHostSize_32f_C2R 1507
7.91.2.147 nppiMaximumRelativeErrorGetBufferHostSize_32f_C3R 1507
7.91.2.148 nppiMaximumRelativeErrorGetBufferHostSize_32f_C4R 1508
7.91.2.149 nppiMaximumRelativeErrorGetBufferHostSize_32fc_C1R 1508
7.91.2.150 nppiMaximumRelativeErrorGetBufferHostSize_32fc_C2R 1508
7.91.2.151 nppiMaximumRelativeErrorGetBufferHostSize_32fc_C3R 1509
7.91.2.152 nppiMaximumRelativeErrorGetBufferHostSize_32fc_C4R 1509
7.91.2.153 nppiMaximumRelativeErrorGetBufferHostSize_32s_C1R 1509
7.91.2.154 nppiMaximumRelativeErrorGetBufferHostSize_32s_C2R 1509
7.91.2.155 nppiMaximumRelativeErrorGetBufferHostSize_32s_C3R 1510
7.91.2.156 nppiMaximumRelativeErrorGetBufferHostSize_32s_C4R 1510
7.91.2.157 nppiMaximumRelativeErrorGetBufferHostSize_32sc_C1R 1510
7.91.2.158 nppiMaximumRelativeErrorGetBufferHostSize_32sc_C2R 1511
7.91.2.159 nppiMaximumRelativeErrorGetBufferHostSize_32sc_C3R 1511
7.91.2.160 nppiMaximumRelativeErrorGetBufferHostSize_32sc_C4R 1511
7.91.2.161 nppiMaximumRelativeErrorGetBufferHostSize_32u_C1R 1511
7.91.2.162 nppiMaximumRelativeErrorGetBufferHostSize_32u_C2R 1512
7.91.2.163 nppiMaximumRelativeErrorGetBufferHostSize_32u_C3R 1512
7.91.2.164 nppiMaximumRelativeErrorGetBufferHostSize_32u_C4R 1512
7.91.2.165 nppiMaximumRelativeErrorGetBufferHostSize_64f_C1R 1513

7.91.2.166nppiMaximumRelativeErrorGetBufferHostSize_64f_C2R 1513
7.91.2.167nppiMaximumRelativeErrorGetBufferHostSize_64f_C3R 1513
7.91.2.168nppiMaximumRelativeErrorGetBufferHostSize_64f_C4R 1513
7.91.2.169nppiMaximumRelativeErrorGetBufferHostSize_8s_C1R 1514
7.91.2.170nppiMaximumRelativeErrorGetBufferHostSize_8s_C2R 1514
7.91.2.171nppiMaximumRelativeErrorGetBufferHostSize_8s_C3R 1514
7.91.2.172nppiMaximumRelativeErrorGetBufferHostSize_8s_C4R 1515
7.91.2.173nppiMaximumRelativeErrorGetBufferHostSize_8u_C1R 1515
7.91.2.174nppiMaximumRelativeErrorGetBufferHostSize_8u_C2R 1515
7.91.2.175nppiMaximumRelativeErrorGetBufferHostSize_8u_C3R 1515
7.91.2.176nppiMaximumRelativeErrorGetBufferHostSize_8u_C4R 1516
7.92 Sum 1517
7.92.1 Detailed Description 1519
7.92.2 Function Documentation 1520
7.92.2.1 nppiSum_16s_AC4R 1520
7.92.2.2 nppiSum_16s_C1R 1520
7.92.2.3 nppiSum_16s_C3R 1520
7.92.2.4 nppiSum_16s_C4R 1521
7.92.2.5 nppiSum_16u_AC4R 1521
7.92.2.6 nppiSum_16u_C1R 1521
7.92.2.7 nppiSum_16u_C3R 1522
7.92.2.8 nppiSum_16u_C4R 1522
7.92.2.9 nppiSum_32f_AC4R 1523
7.92.2.10 nppiSum_32f_C1R 1523
7.92.2.11 nppiSum_32f_C3R 1523
7.92.2.12 nppiSum_32f_C4R 1524
7.92.2.13 nppiSum_8u64s_C1R 1524
7.92.2.14 nppiSum_8u64s_C4R 1524
7.92.2.15 nppiSum_8u_AC4R 1525
7.92.2.16 nppiSum_8u_C1R 1525
7.92.2.17 nppiSum_8u_C3R 1526
7.92.2.18 nppiSum_8u_C4R 1526
7.92.2.19 nppiSumGetBufferHostSize_16s_AC4R 1526
7.92.2.20 nppiSumGetBufferHostSize_16s_C1R 1527
7.92.2.21 nppiSumGetBufferHostSize_16s_C3R 1527
7.92.2.22 nppiSumGetBufferHostSize_16s_C4R 1527

7.92.2.23 nppiSumGetBufferHostSize_16u_AC4R 1527
7.92.2.24 nppiSumGetBufferHostSize_16u_C1R 1528
7.92.2.25 nppiSumGetBufferHostSize_16u_C3R 1528
7.92.2.26 nppiSumGetBufferHostSize_16u_C4R 1528
7.92.2.27 nppiSumGetBufferHostSize_32f_AC4R 1529
7.92.2.28 nppiSumGetBufferHostSize_32f_C1R 1529
7.92.2.29 nppiSumGetBufferHostSize_32f_C3R 1529
7.92.2.30 nppiSumGetBufferHostSize_32f_C4R 1529
7.92.2.31 nppiSumGetBufferHostSize_8u64s_C1R 1530
7.92.2.32 nppiSumGetBufferHostSize_8u64s_C4R 1530
7.92.2.33 nppiSumGetBufferHostSize_8u_AC4R 1530
7.92.2.34 nppiSumGetBufferHostSize_8u_C1R 1531
7.92.2.35 nppiSumGetBufferHostSize_8u_C3R 1531
7.92.2.36 nppiSumGetBufferHostSize_8u_C4R 1531
7.93 Min 1532
7.93.1 Detailed Description 1534
7.93.2 Function Documentation 1534
7.93.2.1 nppiMin_16s_AC4R 1534
7.93.2.2 nppiMin_16s_C1R 1535
7.93.2.3 nppiMin_16s_C3R 1535
7.93.2.4 nppiMin_16s_C4R 1535
7.93.2.5 nppiMin_16u_AC4R 1536
7.93.2.6 nppiMin_16u_C1R 1536
7.93.2.7 nppiMin_16u_C3R 1536
7.93.2.8 nppiMin_16u_C4R 1537
7.93.2.9 nppiMin_32f_AC4R 1537
7.93.2.10 nppiMin_32f_C1R 1537
7.93.2.11 nppiMin_32f_C3R 1538
7.93.2.12 nppiMin_32f_C4R 1538
7.93.2.13 nppiMin_8u_AC4R 1539
7.93.2.14 nppiMin_8u_C1R 1539
7.93.2.15 nppiMin_8u_C3R 1539
7.93.2.16 nppiMin_8u_C4R 1540
7.93.2.17 nppiMinGetBufferHostSize_16s_AC4R 1540
7.93.2.18 nppiMinGetBufferHostSize_16s_C1R 1540
7.93.2.19 nppiMinGetBufferHostSize_16s_C3R 1541

7.93.2.20 nppiMinGetBufferHostSize_16s_C4R 1541
7.93.2.21 nppiMinGetBufferHostSize_16u_AC4R 1541
7.93.2.22 nppiMinGetBufferHostSize_16u_C1R 1541
7.93.2.23 nppiMinGetBufferHostSize_16u_C3R 1542
7.93.2.24 nppiMinGetBufferHostSize_16u_C4R 1542
7.93.2.25 nppiMinGetBufferHostSize_32f_AC4R 1542
7.93.2.26 nppiMinGetBufferHostSize_32f_C1R 1543
7.93.2.27 nppiMinGetBufferHostSize_32f_C3R 1543
7.93.2.28 nppiMinGetBufferHostSize_32f_C4R 1543
7.93.2.29 nppiMinGetBufferHostSize_8u_AC4R 1543
7.93.2.30 nppiMinGetBufferHostSize_8u_C1R 1544
7.93.2.31 nppiMinGetBufferHostSize_8u_C3R 1544
7.93.2.32 nppiMinGetBufferHostSize_8u_C4R 1544
7.94 MinIndx 1545
7.94.1 Detailed Description 1547
7.94.2 Function Documentation 1547
7.94.2.1 nppiMinIndx_16s_AC4R 1547
7.94.2.2 nppiMinIndx_16s_C1R 1548
7.94.2.3 nppiMinIndx_16s_C3R 1548
7.94.2.4 nppiMinIndx_16s_C4R 1549
7.94.2.5 nppiMinIndx_16u_AC4R 1549
7.94.2.6 nppiMinIndx_16u_C1R 1549
7.94.2.7 nppiMinIndx_16u_C3R 1550
7.94.2.8 nppiMinIndx_16u_C4R 1550
7.94.2.9 nppiMinIndx_32f_AC4R 1551
7.94.2.10 nppiMinIndx_32f_C1R 1551
7.94.2.11 nppiMinIndx_32f_C3R 1551
7.94.2.12 nppiMinIndx_32f_C4R 1552
7.94.2.13 nppiMinIndx_8u_AC4R 1552
7.94.2.14 nppiMinIndx_8u_C1R 1553
7.94.2.15 nppiMinIndx_8u_C3R 1553
7.94.2.16 nppiMinIndx_8u_C4R 1553
7.94.2.17 nppiMinIndxGetBufferHostSize_16s_AC4R 1554
7.94.2.18 nppiMinIndxGetBufferHostSize_16s_C1R 1554
7.94.2.19 nppiMinIndxGetBufferHostSize_16s_C3R 1554
7.94.2.20 nppiMinIndxGetBufferHostSize_16s_C4R 1555

7.94.2.21 nppiMinIndxGetBufferHostSize_16u_AC4R 1555
7.94.2.22 nppiMinIndxGetBufferHostSize_16u_C1R 1555
7.94.2.23 nppiMinIndxGetBufferHostSize_16u_C3R 1556
7.94.2.24 nppiMinIndxGetBufferHostSize_16u_C4R 1556
7.94.2.25 nppiMinIndxGetBufferHostSize_32f_AC4R 1556
7.94.2.26 nppiMinIndxGetBufferHostSize_32f_C1R 1556
7.94.2.27 nppiMinIndxGetBufferHostSize_32f_C3R 1557
7.94.2.28 nppiMinIndxGetBufferHostSize_32f_C4R 1557
7.94.2.29 nppiMinIndxGetBufferHostSize_8u_AC4R 1557
7.94.2.30 nppiMinIndxGetBufferHostSize_8u_C1R 1558
7.94.2.31 nppiMinIndxGetBufferHostSize_8u_C3R 1558
7.94.2.32 nppiMinIndxGetBufferHostSize_8u_C4R 1558
7.95 Max 1559
7.95.1 Detailed Description 1561
7.95.2 Function Documentation 1561
7.95.2.1 nppiMax_16s_AC4R 1561
7.95.2.2 nppiMax_16s_C1R 1562
7.95.2.3 nppiMax_16s_C3R 1562
7.95.2.4 nppiMax_16s_C4R 1562
7.95.2.5 nppiMax_16u_AC4R 1563
7.95.2.6 nppiMax_16u_C1R 1563
7.95.2.7 nppiMax_16u_C3R 1563
7.95.2.8 nppiMax_16u_C4R 1564
7.95.2.9 nppiMax_32f_AC4R 1564
7.95.2.10 nppiMax_32f_C1R 1564
7.95.2.11 nppiMax_32f_C3R 1565
7.95.2.12 nppiMax_32f_C4R 1565
7.95.2.13 nppiMax_8u_AC4R 1566
7.95.2.14 nppiMax_8u_C1R 1566
7.95.2.15 nppiMax_8u_C3R 1566
7.95.2.16 nppiMax_8u_C4R 1567
7.95.2.17 nppiMaxGetBufferHostSize_16s_AC4R 1567
7.95.2.18 nppiMaxGetBufferHostSize_16s_C1R 1567
7.95.2.19 nppiMaxGetBufferHostSize_16s_C3R 1568
7.95.2.20 nppiMaxGetBufferHostSize_16s_C4R 1568
7.95.2.21 nppiMaxGetBufferHostSize_16u_AC4R 1568

7.95.2.22 nppiMaxGetBufferHostSize_16u_C1R 1568
7.95.2.23 nppiMaxGetBufferHostSize_16u_C3R 1569
7.95.2.24 nppiMaxGetBufferHostSize_16u_C4R 1569
7.95.2.25 nppiMaxGetBufferHostSize_32f_AC4R 1569
7.95.2.26 nppiMaxGetBufferHostSize_32f_C1R 1570
7.95.2.27 nppiMaxGetBufferHostSize_32f_C3R 1570
7.95.2.28 nppiMaxGetBufferHostSize_32f_C4R 1570
7.95.2.29 nppiMaxGetBufferHostSize_8u_AC4R 1570
7.95.2.30 nppiMaxGetBufferHostSize_8u_C1R 1571
7.95.2.31 nppiMaxGetBufferHostSize_8u_C3R 1571
7.95.2.32 nppiMaxGetBufferHostSize_8u_C4R 1571
7.96 MaxIndx 1572
7.96.1 Detailed Description 1574
7.96.2 Function Documentation 1574
7.96.2.1 nppiMaxIndx_16s_AC4R 1574
7.96.2.2 nppiMaxIndx_16s_C1R 1575
7.96.2.3 nppiMaxIndx_16s_C3R 1575
7.96.2.4 nppiMaxIndx_16s_C4R 1576
7.96.2.5 nppiMaxIndx_16u_AC4R 1576
7.96.2.6 nppiMaxIndx_16u_C1R 1576
7.96.2.7 nppiMaxIndx_16u_C3R 1577
7.96.2.8 nppiMaxIndx_16u_C4R 1577
7.96.2.9 nppiMaxIndx_32f_AC4R 1578
7.96.2.10 nppiMaxIndx_32f_C1R 1578
7.96.2.11 nppiMaxIndx_32f_C3R 1578
7.96.2.12 nppiMaxIndx_32f_C4R 1579
7.96.2.13 nppiMaxIndx_8u_AC4R 1579
7.96.2.14 nppiMaxIndx_8u_C1R 1580
7.96.2.15 nppiMaxIndx_8u_C3R 1580
7.96.2.16 nppiMaxIndx_8u_C4R 1580
7.96.2.17 nppiMaxIndxGetBufferHostSize_16s_AC4R 1581
7.96.2.18 nppiMaxIndxGetBufferHostSize_16s_C1R 1581
7.96.2.19 nppiMaxIndxGetBufferHostSize_16s_C3R 1581
7.96.2.20 nppiMaxIndxGetBufferHostSize_16s_C4R 1582
7.96.2.21 nppiMaxIndxGetBufferHostSize_16u_AC4R 1582
7.96.2.22 nppiMaxIndxGetBufferHostSize_16u_C1R 1582

7.96.2.23 nppiMaxIndxGetBufferHostSize_16u_C3R 1583
7.96.2.24 nppiMaxIndxGetBufferHostSize_16u_C4R 1583
7.96.2.25 nppiMaxIndxGetBufferHostSize_32f_AC4R 1583
7.96.2.26 nppiMaxIndxGetBufferHostSize_32f_C1R 1583
7.96.2.27 nppiMaxIndxGetBufferHostSize_32f_C3R 1584
7.96.2.28 nppiMaxIndxGetBufferHostSize_32f_C4R 1584
7.96.2.29 nppiMaxIndxGetBufferHostSize_8u_AC4R 1584
7.96.2.30 nppiMaxIndxGetBufferHostSize_8u_C1R 1585
7.96.2.31 nppiMaxIndxGetBufferHostSize_8u_C3R 1585
7.96.2.32 nppiMaxIndxGetBufferHostSize_8u_C4R 1585
7.97 MinMax 1586
7.97.1 Detailed Description 1588
7.97.2 Function Documentation 1588
7.97.2.1 nppiMinMax_16s_AC4R 1588
7.97.2.2 nppiMinMax_16s_C1R 1589
7.97.2.3 nppiMinMax_16s_C3R 1589
7.97.2.4 nppiMinMax_16s_C4R 1589
7.97.2.5 nppiMinMax_16u_AC4R 1590
7.97.2.6 nppiMinMax_16u_C1R 1590
7.97.2.7 nppiMinMax_16u_C3R 1591
7.97.2.8 nppiMinMax_16u_C4R 1591
7.97.2.9 nppiMinMax_32f_AC4R 1591
7.97.2.10 nppiMinMax_32f_C1R 1592
7.97.2.11 nppiMinMax_32f_C3R 1592
7.97.2.12 nppiMinMax_32f_C4R 1593
7.97.2.13 nppiMinMax_8u_AC4R 1593
7.97.2.14 nppiMinMax_8u_C1R 1593
7.97.2.15 nppiMinMax_8u_C3R 1594
7.97.2.16 nppiMinMax_8u_C4R 1594
7.97.2.17 nppiMinMaxGetBufferHostSize_16s_AC4R 1595
7.97.2.18 nppiMinMaxGetBufferHostSize_16s_C1R 1595
7.97.2.19 nppiMinMaxGetBufferHostSize_16s_C3R 1595
7.97.2.20 nppiMinMaxGetBufferHostSize_16s_C4R 1595
7.97.2.21 nppiMinMaxGetBufferHostSize_16u_AC4R 1596
7.97.2.22 nppiMinMaxGetBufferHostSize_16u_C1R 1596
7.97.2.23 nppiMinMaxGetBufferHostSize_16u_C3R 1596

7.97.2.24 nppiMinMaxGetBufferHostSize_16u_C4R 1597
7.97.2.25 nppiMinMaxGetBufferHostSize_32f_AC4R 1597
7.97.2.26 nppiMinMaxGetBufferHostSize_32f_C1R 1597
7.97.2.27 nppiMinMaxGetBufferHostSize_32f_C3R 1597
7.97.2.28 nppiMinMaxGetBufferHostSize_32f_C4R 1598
7.97.2.29 nppiMinMaxGetBufferHostSize_8u_AC4R 1598
7.97.2.30 nppiMinMaxGetBufferHostSize_8u_C1R 1598
7.97.2.31 nppiMinMaxGetBufferHostSize_8u_C3R 1599
7.97.2.32 nppiMinMaxGetBufferHostSize_8u_C4R 1599
7.98 MinMaxIndx 1600
7.98.1 Detailed Description 1603
7.98.2 Function Documentation 1603
7.98.2.1 nppiMinMaxIndx_16u_C1MR 1603
7.98.2.2 nppiMinMaxIndx_16u_C1R 1604
7.98.2.3 nppiMinMaxIndx_16u_C3CMR 1604
7.98.2.4 nppiMinMaxIndx_16u_C3CR 1605
7.98.2.5 nppiMinMaxIndx_32f_C1MR 1606
7.98.2.6 nppiMinMaxIndx_32f_C1R 1606
7.98.2.7 nppiMinMaxIndx_32f_C3CMR 1607
7.98.2.8 nppiMinMaxIndx_32f_C3CR 1607
7.98.2.9 nppiMinMaxIndx_8s_C1MR 1608
7.98.2.10 nppiMinMaxIndx_8s_C1R 1608
7.98.2.11 nppiMinMaxIndx_8s_C3CMR 1609
7.98.2.12 nppiMinMaxIndx_8s_C3CR 1609
7.98.2.13 nppiMinMaxIndx_8u_C1MR 1610
7.98.2.14 nppiMinMaxIndx_8u_C1R 1611
7.98.2.15 nppiMinMaxIndx_8u_C3CMR 1611
7.98.2.16 nppiMinMaxIndx_8u_C3CR 1612
7.98.2.17 nppiMinMaxIndxGetBufferHostSize_16u_C1MR 1612
7.98.2.18 nppiMinMaxIndxGetBufferHostSize_16u_C1R 1612
7.98.2.19 nppiMinMaxIndxGetBufferHostSize_16u_C3CMR 1613
7.98.2.20 nppiMinMaxIndxGetBufferHostSize_16u_C3CR 1613
7.98.2.21 nppiMinMaxIndxGetBufferHostSize_32f_C1MR 1613
7.98.2.22 nppiMinMaxIndxGetBufferHostSize_32f_C1R 1613
7.98.2.23 nppiMinMaxIndxGetBufferHostSize_32f_C3CMR 1614
7.98.2.24 nppiMinMaxIndxGetBufferHostSize_32f_C3CR 1614

7.98.2.25 nppiMinMaxIndxGetBufferHostSize_8s_C1MR 1614
7.98.2.26 nppiMinMaxIndxGetBufferHostSize_8s_C1R 1615
7.98.2.27 nppiMinMaxIndxGetBufferHostSize_8s_C3CMR 1615
7.98.2.28 nppiMinMaxIndxGetBufferHostSize_8s_C3CR 1615
7.98.2.29 nppiMinMaxIndxGetBufferHostSize_8u_C1MR 1615
7.98.2.30 nppiMinMaxIndxGetBufferHostSize_8u_C1R 1616
7.98.2.31 nppiMinMaxIndxGetBufferHostSize_8u_C3CMR 1616
7.98.2.32 nppiMinMaxIndxGetBufferHostSize_8u_C3CR 1616
7.99 Mean 1617
7.99.1 Detailed Description 1620
7.99.2 Function Documentation 1621
7.99.2.1 nppiMean_16s_AC4R 1621
7.99.2.2 nppiMean_16s_C1R 1621
7.99.2.3 nppiMean_16s_C3R 1621
7.99.2.4 nppiMean_16s_C4R 1622
7.99.2.5 nppiMean_16u_AC4R 1622
7.99.2.6 nppiMean_16u_C1MR 1622
7.99.2.7 nppiMean_16u_C1R 1623
7.99.2.8 nppiMean_16u_C3CMR 1623
7.99.2.9 nppiMean_16u_C3R 1624
7.99.2.10 nppiMean_16u_C4R 1624
7.99.2.11 nppiMean_32f_AC4R 1624
7.99.2.12 nppiMean_32f_C1MR 1625
7.99.2.13 nppiMean_32f_C1R 1625
7.99.2.14 nppiMean_32f_C3CMR 1626
7.99.2.15 nppiMean_32f_C3R 1626
7.99.2.16 nppiMean_32f_C4R 1626
7.99.2.17 nppiMean_8s_C1MR 1627
7.99.2.18 nppiMean_8s_C3CMR 1627
7.99.2.19 nppiMean_8u_AC4R 1628
7.99.2.20 nppiMean_8u_C1MR 1628
7.99.2.21 nppiMean_8u_C1R 1629
7.99.2.22 nppiMean_8u_C3CMR 1629
7.99.2.23 nppiMean_8u_C3R 1629
7.99.2.24 nppiMean_8u_C4R 1630
7.99.2.25 nppiMeanGetBufferHostSize_16s_AC4R 1630

7.99.2.26 nppiMeanGetBufferHostSize_16s_C1R 1630
7.99.2.27 nppiMeanGetBufferHostSize_16s_C3R 1631
7.99.2.28 nppiMeanGetBufferHostSize_16s_C4R 1631
7.99.2.29 nppiMeanGetBufferHostSize_16u_AC4R 1631
7.99.2.30 nppiMeanGetBufferHostSize_16u_C1MR 1632
7.99.2.31 nppiMeanGetBufferHostSize_16u_C1R 1632
7.99.2.32 nppiMeanGetBufferHostSize_16u_C3CMR 1632
7.99.2.33 nppiMeanGetBufferHostSize_16u_C3R 1632
7.99.2.34 nppiMeanGetBufferHostSize_16u_C4R 1633
7.99.2.35 nppiMeanGetBufferHostSize_32f_AC4R 1633
7.99.2.36 nppiMeanGetBufferHostSize_32f_C1MR 1633
7.99.2.37 nppiMeanGetBufferHostSize_32f_C1R 1634
7.99.2.38 nppiMeanGetBufferHostSize_32f_C3CMR 1634
7.99.2.39 nppiMeanGetBufferHostSize_32f_C3R 1634
7.99.2.40 nppiMeanGetBufferHostSize_32f_C4R 1634
7.99.2.41 nppiMeanGetBufferHostSize_8s_C1MR 1635
7.99.2.42 nppiMeanGetBufferHostSize_8s_C3CMR 1635
7.99.2.43 nppiMeanGetBufferHostSize_8u_AC4R 1635
7.99.2.44 nppiMeanGetBufferHostSize_8u_C1MR 1636
7.99.2.45 nppiMeanGetBufferHostSize_8u_C1R 1636
7.99.2.46 nppiMeanGetBufferHostSize_8u_C3CMR 1636
7.99.2.47 nppiMeanGetBufferHostSize_8u_C3R 1636
7.99.2.48 nppiMeanGetBufferHostSize_8u_C4R 1637
7.100Mean_StdDev 1638
7.100.1 Detailed Description 1641
7.100.2 Function Documentation 1641
7.100.2.1 nppiMean_StdDev_16u_C1MR 1641
7.100.2.2 nppiMean_StdDev_16u_C1R 1642
7.100.2.3 nppiMean_StdDev_16u_C3CMR 1642
7.100.2.4 nppiMean_StdDev_16u_C3CR 1643
7.100.2.5 nppiMean_StdDev_32f_C1MR 1643
7.100.2.6 nppiMean_StdDev_32f_C1R 1644
7.100.2.7 nppiMean_StdDev_32f_C3CMR 1644
7.100.2.8 nppiMean_StdDev_32f_C3CR 1645
7.100.2.9 nppiMean_StdDev_8s_C1MR 1645
7.100.2.10nppiMean_StdDev_8s_C1R 1646

7.100.2.11nppiMean_StdDev_8s_C3CMR 1646
7.100.2.12nppiMean_StdDev_8s_C3CR 1647
7.100.2.13nppiMean_StdDev_8u_C1MR 1647
7.100.2.14nppiMean_StdDev_8u_C1R 1648
7.100.2.15nppiMean_StdDev_8u_C3CMR 1648
7.100.2.16nppiMean_StdDev_8u_C3CR 1649
7.100.2.17nppiMeanStdDevGetBufferHostSize_16u_C1MR 1649
7.100.2.18nppiMeanStdDevGetBufferHostSize_16u_C1R 1649
7.100.2.19nppiMeanStdDevGetBufferHostSize_16u_C3CMR 1650
7.100.2.20nppiMeanStdDevGetBufferHostSize_16u_C3CR 1650
7.100.2.21nppiMeanStdDevGetBufferHostSize_32f_C1MR 1650
7.100.2.22nppiMeanStdDevGetBufferHostSize_32f_C1R 1650
7.100.2.23nppiMeanStdDevGetBufferHostSize_32f_C3CMR 1651
7.100.2.24nppiMeanStdDevGetBufferHostSize_32f_C3CR 1651
7.100.2.25nppiMeanStdDevGetBufferHostSize_8s_C1MR 1651
7.100.2.26nppiMeanStdDevGetBufferHostSize_8s_C1R 1652
7.100.2.27nppiMeanStdDevGetBufferHostSize_8s_C3CMR 1652
7.100.2.28nppiMeanStdDevGetBufferHostSize_8s_C3CR 1652
7.100.2.29nppiMeanStdDevGetBufferHostSize_8u_C1MR 1652
7.100.2.30nppiMeanStdDevGetBufferHostSize_8u_C1R 1653
7.100.2.31nppiMeanStdDevGetBufferHostSize_8u_C3CMR 1653
7.100.2.32nppiMeanStdDevGetBufferHostSize_8u_C3CR 1653
7.101Image Norms 1654
7.101.1 Detailed Description 1654
7.102Norm_Inf 1656
7.102.1 Detailed Description 1660
7.102.2 Function Documentation 1660
7.102.2.1 nppiNorm_Inf_16s_AC4R 1660
7.102.2.2 nppiNorm_Inf_16s_C1R 1660
7.102.2.3 nppiNorm_Inf_16s_C3R 1660
7.102.2.4 nppiNorm_Inf_16s_C4R 1661
7.102.2.5 nppiNorm_Inf_16u_AC4R 1661
7.102.2.6 nppiNorm_Inf_16u_C1MR 1662
7.102.2.7 nppiNorm_Inf_16u_C1R 1662
7.102.2.8 nppiNorm_Inf_16u_C3CMR 1662
7.102.2.9 nppiNorm_Inf_16u_C3R 1663

7.102.2.10nppiNorm_Inf_16u_C4R 1663
7.102.2.11nppiNorm_Inf_32f_AC4R 1664
7.102.2.12nppiNorm_Inf_32f_C1MR 1664
7.102.2.13nppiNorm_Inf_32f_C1R 1664
7.102.2.14nppiNorm_Inf_32f_C3CMR 1665
7.102.2.15nppiNorm_Inf_32f_C3R 1665
7.102.2.16nppiNorm_Inf_32f_C4R 1666
7.102.2.17nppiNorm_Inf_32s_C1R 1666
7.102.2.18nppiNorm_Inf_8s_C1MR 1666
7.102.2.19nppiNorm_Inf_8s_C3CMR 1667
7.102.2.20nppiNorm_Inf_8u_AC4R 1667
7.102.2.21nppiNorm_Inf_8u_C1MR 1668
7.102.2.22nppiNorm_Inf_8u_C1R 1668
7.102.2.23nppiNorm_Inf_8u_C3CMR 1668
7.102.2.24nppiNorm_Inf_8u_C3R 1669
7.102.2.25nppiNorm_Inf_8u_C4R 1669
7.102.2.26nppiNormInfGetBufferHostSize_16s_AC4R 1670
7.102.2.27nppiNormInfGetBufferHostSize_16s_C1R 1670
7.102.2.28nppiNormInfGetBufferHostSize_16s_C3R 1670
7.102.2.29nppiNormInfGetBufferHostSize_16s_C4R 1670
7.102.2.30nppiNormInfGetBufferHostSize_16u_AC4R 1671
7.102.2.31nppiNormInfGetBufferHostSize_16u_C1MR 1671
7.102.2.32nppiNormInfGetBufferHostSize_16u_C1R 1671
7.102.2.33nppiNormInfGetBufferHostSize_16u_C3CMR 1672
7.102.2.34nppiNormInfGetBufferHostSize_16u_C3R 1672
7.102.2.35nppiNormInfGetBufferHostSize_16u_C4R 1672
7.102.2.36nppiNormInfGetBufferHostSize_32f_AC4R 1672
7.102.2.37nppiNormInfGetBufferHostSize_32f_C1MR 1673
7.102.2.38nppiNormInfGetBufferHostSize_32f_C1R 1673
7.102.2.39nppiNormInfGetBufferHostSize_32f_C3CMR 1673
7.102.2.40nppiNormInfGetBufferHostSize_32f_C3R 1674
7.102.2.41nppiNormInfGetBufferHostSize_32f_C4R 1674
7.102.2.42nppiNormInfGetBufferHostSize_32s_C1R 1674
7.102.2.43nppiNormInfGetBufferHostSize_8s_C1MR 1674
7.102.2.44nppiNormInfGetBufferHostSize_8s_C3CMR 1675
7.102.2.45nppiNormInfGetBufferHostSize_8u_AC4R 1675

7.102.2.46 nppiNormInfGetBufferHostSize_8u_C1MR 1675
7.102.2.47 nppiNormInfGetBufferHostSize_8u_C1R 1676
7.102.2.48 nppiNormInfGetBufferHostSize_8u_C3CMR 1676
7.102.2.49 nppiNormInfGetBufferHostSize_8u_C3R 1676
7.102.2.50 nppiNormInfGetBufferHostSize_8u_C4R 1676
7.103 Norm_L1 1678
7.103.1 Detailed Description 1681
7.103.2 Function Documentation 1682
7.103.2.1 nppiNorm_L1_16s_AC4R 1682
7.103.2.2 nppiNorm_L1_16s_C1R 1682
7.103.2.3 nppiNorm_L1_16s_C3R 1682
7.103.2.4 nppiNorm_L1_16s_C4R 1683
7.103.2.5 nppiNorm_L1_16u_AC4R 1683
7.103.2.6 nppiNorm_L1_16u_C1MR 1683
7.103.2.7 nppiNorm_L1_16u_C1R 1684
7.103.2.8 nppiNorm_L1_16u_C3CMR 1684
7.103.2.9 nppiNorm_L1_16u_C3R 1685
7.103.2.10 nppiNorm_L1_16u_C4R 1685
7.103.2.11 nppiNorm_L1_32f_AC4R 1685
7.103.2.12 nppiNorm_L1_32f_C1MR 1686
7.103.2.13 nppiNorm_L1_32f_C1R 1686
7.103.2.14 nppiNorm_L1_32f_C3CMR 1687
7.103.2.15 nppiNorm_L1_32f_C3R 1687
7.103.2.16 nppiNorm_L1_32f_C4R 1687
7.103.2.17 nppiNorm_L1_8s_C1MR 1688
7.103.2.18 nppiNorm_L1_8s_C3CMR 1688
7.103.2.19 nppiNorm_L1_8u_AC4R 1689
7.103.2.20 nppiNorm_L1_8u_C1MR 1689
7.103.2.21 nppiNorm_L1_8u_C1R 1689
7.103.2.22 nppiNorm_L1_8u_C3CMR 1690
7.103.2.23 nppiNorm_L1_8u_C3R 1690
7.103.2.24 nppiNorm_L1_8u_C4R 1691
7.103.2.25 nppiNormL1GetBufferHostSize_16s_AC4R 1691
7.103.2.26 nppiNormL1GetBufferHostSize_16s_C1R 1691
7.103.2.27 nppiNormL1GetBufferHostSize_16s_C3R 1692
7.103.2.28 nppiNormL1GetBufferHostSize_16s_C4R 1692

7.103.2.29 nppiNormL1GetBufferHostSize_16u_AC4R 1692

7.103.2.30 nppiNormL1GetBufferHostSize_16u_C1MR 1692

7.103.2.31 nppiNormL1GetBufferHostSize_16u_C1R 1693

7.103.2.32 nppiNormL1GetBufferHostSize_16u_C3CMR 1693

7.103.2.33 nppiNormL1GetBufferHostSize_16u_C3R 1693

7.103.2.34 nppiNormL1GetBufferHostSize_16u_C4R 1694

7.103.2.35 nppiNormL1GetBufferHostSize_32f_AC4R 1694

7.103.2.36 nppiNormL1GetBufferHostSize_32f_C1MR 1694

7.103.2.37 nppiNormL1GetBufferHostSize_32f_C1R 1694

7.103.2.38 nppiNormL1GetBufferHostSize_32f_C3CMR 1695

7.103.2.39 nppiNormL1GetBufferHostSize_32f_C3R 1695

7.103.2.40 nppiNormL1GetBufferHostSize_32f_C4R 1695

7.103.2.41 nppiNormL1GetBufferHostSize_8s_C1MR 1696

7.103.2.42 nppiNormL1GetBufferHostSize_8s_C3CMR 1696

7.103.2.43 nppiNormL1GetBufferHostSize_8u_AC4R 1696

7.103.2.44 nppiNormL1GetBufferHostSize_8u_C1MR 1696

7.103.2.45 nppiNormL1GetBufferHostSize_8u_C1R 1697

7.103.2.46 nppiNormL1GetBufferHostSize_8u_C3CMR 1697

7.103.2.47 nppiNormL1GetBufferHostSize_8u_C3R 1697

7.103.2.48 nppiNormL1GetBufferHostSize_8u_C4R 1698

7.104 Norm_L2 1699

7.104.1 Detailed Description 1702

7.104.2 Function Documentation 1703

7.104.2.1 nppiNorm_L2_16s_AC4R 1703

7.104.2.2 nppiNorm_L2_16s_C1R 1703

7.104.2.3 nppiNorm_L2_16s_C3R 1703

7.104.2.4 nppiNorm_L2_16s_C4R 1704

7.104.2.5 nppiNorm_L2_16u_AC4R 1704

7.104.2.6 nppiNorm_L2_16u_C1MR 1704

7.104.2.7 nppiNorm_L2_16u_C1R 1705

7.104.2.8 nppiNorm_L2_16u_C3CMR 1705

7.104.2.9 nppiNorm_L2_16u_C3R 1706

7.104.2.10 nppiNorm_L2_16u_C4R 1706

7.104.2.11 nppiNorm_L2_32f_AC4R 1706

7.104.2.12 nppiNorm_L2_32f_C1MR 1707

7.104.2.13 nppiNorm_L2_32f_C1R 1707

7.104.2.14 nppiNorm_L2_32f_C3CMR . . . 1708
7.104.2.15 nppiNorm_L2_32f_C3R . . . 1708
7.104.2.16 nppiNorm_L2_32f_C4R . . . 1708
7.104.2.17 nppiNorm_L2_8s_C1MR . . . 1709
7.104.2.18 nppiNorm_L2_8s_C3CMR . . . 1709
7.104.2.19 nppiNorm_L2_8u_AC4R . . . 1710
7.104.2.20 nppiNorm_L2_8u_C1MR . . . 1710
7.104.2.21 nppiNorm_L2_8u_C1R . . . 1710
7.104.2.22 nppiNorm_L2_8u_C3CMR . . . 1711
7.104.2.23 nppiNorm_L2_8u_C3R . . . 1711
7.104.2.24 nppiNorm_L2_8u_C4R . . . 1712
7.104.2.25 nppiNormL2GetBufferHostSize_16s_AC4R . . . 1712
7.104.2.26 nppiNormL2GetBufferHostSize_16s_C1R . . . 1712
7.104.2.27 nppiNormL2GetBufferHostSize_16s_C3R . . . 1713
7.104.2.28 nppiNormL2GetBufferHostSize_16s_C4R . . . 1713
7.104.2.29 nppiNormL2GetBufferHostSize_16u_AC4R . . . 1713
7.104.2.30 nppiNormL2GetBufferHostSize_16u_C1MR . . . 1713
7.104.2.31 nppiNormL2GetBufferHostSize_16u_C1R . . . 1714
7.104.2.32 nppiNormL2GetBufferHostSize_16u_C3CMR . . . 1714
7.104.2.33 nppiNormL2GetBufferHostSize_16u_C3R . . . 1714
7.104.2.34 nppiNormL2GetBufferHostSize_16u_C4R . . . 1715
7.104.2.35 nppiNormL2GetBufferHostSize_32f_AC4R . . . 1715
7.104.2.36 nppiNormL2GetBufferHostSize_32f_C1MR . . . 1715
7.104.2.37 nppiNormL2GetBufferHostSize_32f_C1R . . . 1715
7.104.2.38 nppiNormL2GetBufferHostSize_32f_C3CMR . . . 1716
7.104.2.39 nppiNormL2GetBufferHostSize_32f_C3R . . . 1716
7.104.2.40 nppiNormL2GetBufferHostSize_32f_C4R . . . 1716
7.104.2.41 nppiNormL2GetBufferHostSize_8s_C1MR . . . 1717
7.104.2.42 nppiNormL2GetBufferHostSize_8s_C3CMR . . . 1717
7.104.2.43 nppiNormL2GetBufferHostSize_8u_AC4R . . . 1717
7.104.2.44 nppiNormL2GetBufferHostSize_8u_C1MR . . . 1717
7.104.2.45 nppiNormL2GetBufferHostSize_8u_C1R . . . 1718
7.104.2.46 nppiNormL2GetBufferHostSize_8u_C3CMR . . . 1718
7.104.2.47 nppiNormL2GetBufferHostSize_8u_C3R . . . 1718
7.104.2.48 nppiNormL2GetBufferHostSize_8u_C4R . . . 1719
7.105 NormDiff_Inf . . . 1720

7.105.1 Detailed Description 1724
7.105.2 Function Documentation 1724
7.105.2.1 nppiNormDiff_Inf_16s_AC4R 1724
7.105.2.2 nppiNormDiff_Inf_16s_C1R 1725
7.105.2.3 nppiNormDiff_Inf_16s_C3R 1725
7.105.2.4 nppiNormDiff_Inf_16s_C4R 1725
7.105.2.5 nppiNormDiff_Inf_16u_AC4R 1726
7.105.2.6 nppiNormDiff_Inf_16u_C1MR 1726
7.105.2.7 nppiNormDiff_Inf_16u_C1R 1727
7.105.2.8 nppiNormDiff_Inf_16u_C3CMR 1727
7.105.2.9 nppiNormDiff_Inf_16u_C3R 1728
7.105.2.10nppiNormDiff_Inf_16u_C4R 1728
7.105.2.11nppiNormDiff_Inf_32f_AC4R 1729
7.105.2.12nppiNormDiff_Inf_32f_C1MR 1729
7.105.2.13nppiNormDiff_Inf_32f_C1R 1730
7.105.2.14nppiNormDiff_Inf_32f_C3CMR 1730
7.105.2.15nppiNormDiff_Inf_32f_C3R 1731
7.105.2.16nppiNormDiff_Inf_32f_C4R 1731
7.105.2.17nppiNormDiff_Inf_8s_C1MR 1731
7.105.2.18nppiNormDiff_Inf_8s_C3CMR 1732
7.105.2.19nppiNormDiff_Inf_8u_AC4R 1732
7.105.2.20nppiNormDiff_Inf_8u_C1MR 1733
7.105.2.21nppiNormDiff_Inf_8u_C1R 1733
7.105.2.22nppiNormDiff_Inf_8u_C3CMR 1734
7.105.2.23nppiNormDiff_Inf_8u_C3R 1734
7.105.2.24nppiNormDiff_Inf_8u_C4R 1735
7.105.2.25nppiNormDiffInfGetBufferHostSize_16s_AC4R 1735
7.105.2.26nppiNormDiffInfGetBufferHostSize_16s_C1R 1736
7.105.2.27nppiNormDiffInfGetBufferHostSize_16s_C3R 1736
7.105.2.28nppiNormDiffInfGetBufferHostSize_16s_C4R 1736
7.105.2.29nppiNormDiffInfGetBufferHostSize_16u_AC4R 1736
7.105.2.30nppiNormDiffInfGetBufferHostSize_16u_C1MR 1737
7.105.2.31nppiNormDiffInfGetBufferHostSize_16u_C1R 1737
7.105.2.32nppiNormDiffInfGetBufferHostSize_16u_C3CMR 1737
7.105.2.33nppiNormDiffInfGetBufferHostSize_16u_C3R 1738
7.105.2.34nppiNormDiffInfGetBufferHostSize_16u_C4R 1738

7.105.2.35nppiNormDiffInfGetBufferHostSize_32f_AC4R 1738
7.105.2.36nppiNormDiffInfGetBufferHostSize_32f_C1MR 1738
7.105.2.37nppiNormDiffInfGetBufferHostSize_32f_C1R 1739
7.105.2.38nppiNormDiffInfGetBufferHostSize_32f_C3CMR 1739
7.105.2.39nppiNormDiffInfGetBufferHostSize_32f_C3R 1739
7.105.2.40nppiNormDiffInfGetBufferHostSize_32f_C4R 1740
7.105.2.41nppiNormDiffInfGetBufferHostSize_8s_C1MR 1740
7.105.2.42nppiNormDiffInfGetBufferHostSize_8s_C3CMR 1740
7.105.2.43nppiNormDiffInfGetBufferHostSize_8u_AC4R 1740
7.105.2.44nppiNormDiffInfGetBufferHostSize_8u_C1MR 1741
7.105.2.45nppiNormDiffInfGetBufferHostSize_8u_C1R 1741
7.105.2.46nppiNormDiffInfGetBufferHostSize_8u_C3CMR 1741
7.105.2.47nppiNormDiffInfGetBufferHostSize_8u_C3R 1742
7.105.2.48nppiNormDiffInfGetBufferHostSize_8u_C4R 1742
7.106NormDiff_L1 1743
7.106.1 Detailed Description 1747
7.106.2 Function Documentation 1747
7.106.2.1 nppiNormDiff_L1_16s_AC4R 1747
7.106.2.2 nppiNormDiff_L1_16s_C1R 1747
7.106.2.3 nppiNormDiff_L1_16s_C3R 1748
7.106.2.4 nppiNormDiff_L1_16s_C4R 1748
7.106.2.5 nppiNormDiff_L1_16u_AC4R 1749
7.106.2.6 nppiNormDiff_L1_16u_C1MR 1749
7.106.2.7 nppiNormDiff_L1_16u_C1R 1750
7.106.2.8 nppiNormDiff_L1_16u_C3CMR 1750
7.106.2.9 nppiNormDiff_L1_16u_C3R 1751
7.106.2.10nppiNormDiff_L1_16u_C4R 1751
7.106.2.11nppiNormDiff_L1_32f_AC4R 1751
7.106.2.12nppiNormDiff_L1_32f_C1MR 1752
7.106.2.13nppiNormDiff_L1_32f_C1R 1752
7.106.2.14nppiNormDiff_L1_32f_C3CMR 1753
7.106.2.15nppiNormDiff_L1_32f_C3R 1753
7.106.2.16nppiNormDiff_L1_32f_C4R 1754
7.106.2.17nppiNormDiff_L1_8s_C1MR 1754
7.106.2.18nppiNormDiff_L1_8s_C3CMR 1755
7.106.2.19nppiNormDiff_L1_8u_AC4R 1755

7.106.2.20 nppiNormDiff_L1_8u_C1MR 1756
7.106.2.21 nppiNormDiff_L1_8u_C1R 1756
7.106.2.22 nppiNormDiff_L1_8u_C3CMR 1757
7.106.2.23 nppiNormDiff_L1_8u_C3R 1757
7.106.2.24 nppiNormDiff_L1_8u_C4R 1758
7.106.2.25 nppiNormDiffL1GetBufferHostSize_16s_AC4R 1758
7.106.2.26 nppiNormDiffL1GetBufferHostSize_16s_C1R 1758
7.106.2.27 nppiNormDiffL1GetBufferHostSize_16s_C3R 1759
7.106.2.28 nppiNormDiffL1GetBufferHostSize_16s_C4R 1759
7.106.2.29 nppiNormDiffL1GetBufferHostSize_16u_AC4R 1759
7.106.2.30 nppiNormDiffL1GetBufferHostSize_16u_C1MR 1759
7.106.2.31 nppiNormDiffL1GetBufferHostSize_16u_C1R 1760
7.106.2.32 nppiNormDiffL1GetBufferHostSize_16u_C3CMR 1760
7.106.2.33 nppiNormDiffL1GetBufferHostSize_16u_C3R 1760
7.106.2.34 nppiNormDiffL1GetBufferHostSize_16u_C4R 1761
7.106.2.35 nppiNormDiffL1GetBufferHostSize_32f_AC4R 1761
7.106.2.36 nppiNormDiffL1GetBufferHostSize_32f_C1MR 1761
7.106.2.37 nppiNormDiffL1GetBufferHostSize_32f_C1R 1761
7.106.2.38 nppiNormDiffL1GetBufferHostSize_32f_C3CMR 1762
7.106.2.39 nppiNormDiffL1GetBufferHostSize_32f_C3R 1762
7.106.2.40 nppiNormDiffL1GetBufferHostSize_32f_C4R 1762
7.106.2.41 nppiNormDiffL1GetBufferHostSize_8s_C1MR 1763
7.106.2.42 nppiNormDiffL1GetBufferHostSize_8s_C3CMR 1763
7.106.2.43 nppiNormDiffL1GetBufferHostSize_8u_AC4R 1763
7.106.2.44 nppiNormDiffL1GetBufferHostSize_8u_C1MR 1763
7.106.2.45 nppiNormDiffL1GetBufferHostSize_8u_C1R 1764
7.106.2.46 nppiNormDiffL1GetBufferHostSize_8u_C3CMR 1764
7.106.2.47 nppiNormDiffL1GetBufferHostSize_8u_C3R 1764
7.106.2.48 nppiNormDiffL1GetBufferHostSize_8u_C4R 1765
7.107 NormDiff_L2 1766
7.107.1 Detailed Description 1770
7.107.2 Function Documentation 1770
7.107.2.1 nppiNormDiff_L2_16s_AC4R 1770
7.107.2.2 nppiNormDiff_L2_16s_C1R 1770
7.107.2.3 nppiNormDiff_L2_16s_C3R 1771
7.107.2.4 nppiNormDiff_L2_16s_C4R 1771

7.107.2.5 nppiNormDiff_L2_16u_AC4R 1772
7.107.2.6 nppiNormDiff_L2_16u_C1MR 1772
7.107.2.7 nppiNormDiff_L2_16u_C1R 1773
7.107.2.8 nppiNormDiff_L2_16u_C3CMR 1773
7.107.2.9 nppiNormDiff_L2_16u_C3R 1774
7.107.2.10nppiNormDiff_L2_16u_C4R 1774
7.107.2.11nppiNormDiff_L2_32f_AC4R 1774
7.107.2.12nppiNormDiff_L2_32f_C1MR 1775
7.107.2.13nppiNormDiff_L2_32f_C1R 1775
7.107.2.14nppiNormDiff_L2_32f_C3CMR 1776
7.107.2.15nppiNormDiff_L2_32f_C3R 1776
7.107.2.16nppiNormDiff_L2_32f_C4R 1777
7.107.2.17nppiNormDiff_L2_8s_C1MR 1777
7.107.2.18nppiNormDiff_L2_8s_C3CMR 1778
7.107.2.19nppiNormDiff_L2_8u_AC4R 1778
7.107.2.20nppiNormDiff_L2_8u_C1MR 1779
7.107.2.21nppiNormDiff_L2_8u_C1R 1779
7.107.2.22nppiNormDiff_L2_8u_C3CMR 1780
7.107.2.23nppiNormDiff_L2_8u_C3R 1780
7.107.2.24nppiNormDiff_L2_8u_C4R 1781
7.107.2.25nppiNormDiffL2GetBufferHostSize_16s_AC4R 1781
7.107.2.26nppiNormDiffL2GetBufferHostSize_16s_C1R 1781
7.107.2.27nppiNormDiffL2GetBufferHostSize_16s_C3R 1782
7.107.2.28nppiNormDiffL2GetBufferHostSize_16s_C4R 1782
7.107.2.29nppiNormDiffL2GetBufferHostSize_16u_AC4R 1782
7.107.2.30nppiNormDiffL2GetBufferHostSize_16u_C1MR 1782
7.107.2.31nppiNormDiffL2GetBufferHostSize_16u_C1R 1783
7.107.2.32nppiNormDiffL2GetBufferHostSize_16u_C3CMR 1783
7.107.2.33nppiNormDiffL2GetBufferHostSize_16u_C3R 1783
7.107.2.34nppiNormDiffL2GetBufferHostSize_16u_C4R 1784
7.107.2.35nppiNormDiffL2GetBufferHostSize_32f_AC4R 1784
7.107.2.36nppiNormDiffL2GetBufferHostSize_32f_C1MR 1784
7.107.2.37nppiNormDiffL2GetBufferHostSize_32f_C1R 1784
7.107.2.38nppiNormDiffL2GetBufferHostSize_32f_C3CMR 1785
7.107.2.39nppiNormDiffL2GetBufferHostSize_32f_C3R 1785
7.107.2.40nppiNormDiffL2GetBufferHostSize_32f_C4R 1785

7.107.2.41 nppiNormDiffL2GetBufferHostSize_8s_C1MR 1786
7.107.2.42 nppiNormDiffL2GetBufferHostSize_8s_C3CMR 1786
7.107.2.43 nppiNormDiffL2GetBufferHostSize_8u_AC4R 1786
7.107.2.44 nppiNormDiffL2GetBufferHostSize_8u_C1MR 1786
7.107.2.45 nppiNormDiffL2GetBufferHostSize_8u_C1R 1787
7.107.2.46 nppiNormDiffL2GetBufferHostSize_8u_C3CMR 1787
7.107.2.47 nppiNormDiffL2GetBufferHostSize_8u_C3R 1787
7.107.2.48 nppiNormDiffL2GetBufferHostSize_8u_C4R 1788
7.108 NormRel_Inf 1789
7.108.1 Detailed Description 1793
7.108.2 Function Documentation 1793
7.108.2.1 nppiNormRel_Inf_16s_AC4R 1793
7.108.2.2 nppiNormRel_Inf_16s_C1R 1793
7.108.2.3 nppiNormRel_Inf_16s_C3R 1794
7.108.2.4 nppiNormRel_Inf_16s_C4R 1794
7.108.2.5 nppiNormRel_Inf_16u_AC4R 1795
7.108.2.6 nppiNormRel_Inf_16u_C1MR 1795
7.108.2.7 nppiNormRel_Inf_16u_C1R 1796
7.108.2.8 nppiNormRel_Inf_16u_C3CMR 1796
7.108.2.9 nppiNormRel_Inf_16u_C3R 1797
7.108.2.10 nppiNormRel_Inf_16u_C4R 1797
7.108.2.11 nppiNormRel_Inf_32f_AC4R 1798
7.108.2.12 nppiNormRel_Inf_32f_C1MR 1798
7.108.2.13 nppiNormRel_Inf_32f_C1R 1799
7.108.2.14 nppiNormRel_Inf_32f_C3CMR 1799
7.108.2.15 nppiNormRel_Inf_32f_C3R 1800
7.108.2.16 nppiNormRel_Inf_32f_C4R 1800
7.108.2.17 nppiNormRel_Inf_8s_C1MR 1801
7.108.2.18 nppiNormRel_Inf_8s_C3CMR 1801
7.108.2.19 nppiNormRel_Inf_8u_AC4R 1802
7.108.2.20 nppiNormRel_Inf_8u_C1MR 1802
7.108.2.21 nppiNormRel_Inf_8u_C1R 1803
7.108.2.22 nppiNormRel_Inf_8u_C3CMR 1803
7.108.2.23 nppiNormRel_Inf_8u_C3R 1804
7.108.2.24 nppiNormRel_Inf_8u_C4R 1804
7.108.2.25 nppiNormRelInfGetBufferHostSize_16s_AC4R 1804

7.108.2.26 nppiNormRelInfGetBufferHostSize_16s_C1R 1805
7.108.2.27 nppiNormRelInfGetBufferHostSize_16s_C3R 1805
7.108.2.28 nppiNormRelInfGetBufferHostSize_16s_C4R 1805
7.108.2.29 nppiNormRelInfGetBufferHostSize_16u_AC4R 1806
7.108.2.30 nppiNormRelInfGetBufferHostSize_16u_C1MR 1806
7.108.2.31 nppiNormRelInfGetBufferHostSize_16u_C1R 1806
7.108.2.32 nppiNormRelInfGetBufferHostSize_16u_C3CMR 1806
7.108.2.33 nppiNormRelInfGetBufferHostSize_16u_C3R 1807
7.108.2.34 nppiNormRelInfGetBufferHostSize_16u_C4R 1807
7.108.2.35 nppiNormRelInfGetBufferHostSize_32f_AC4R 1807
7.108.2.36 nppiNormRelInfGetBufferHostSize_32f_C1MR 1808
7.108.2.37 nppiNormRelInfGetBufferHostSize_32f_C1R 1808
7.108.2.38 nppiNormRelInfGetBufferHostSize_32f_C3CMR 1808
7.108.2.39 nppiNormRelInfGetBufferHostSize_32f_C3R 1808
7.108.2.40 nppiNormRelInfGetBufferHostSize_32f_C4R 1809
7.108.2.41 nppiNormRelInfGetBufferHostSize_32s_C1R 1809
7.108.2.42 nppiNormRelInfGetBufferHostSize_8s_C1MR 1809
7.108.2.43 nppiNormRelInfGetBufferHostSize_8s_C3CMR 1810
7.108.2.44 nppiNormRelInfGetBufferHostSize_8u_AC4R 1810
7.108.2.45 nppiNormRelInfGetBufferHostSize_8u_C1MR 1810
7.108.2.46 nppiNormRelInfGetBufferHostSize_8u_C1R 1810
7.108.2.47 nppiNormRelInfGetBufferHostSize_8u_C3CMR 1811
7.108.2.48 nppiNormRelInfGetBufferHostSize_8u_C3R 1811
7.108.2.49 nppiNormRelInfGetBufferHostSize_8u_C4R 1811
7.109 NormRel_L1 1812
7.109.1 Detailed Description 1816
7.109.2 Function Documentation 1816
7.109.2.1 nppiNormRel_L1_16s_AC4R 1816
7.109.2.2 nppiNormRel_L1_16s_C1R 1816
7.109.2.3 nppiNormRel_L1_16s_C3R 1817
7.109.2.4 nppiNormRel_L1_16s_C4R 1817
7.109.2.5 nppiNormRel_L1_16u_AC4R 1818
7.109.2.6 nppiNormRel_L1_16u_C1MR 1818
7.109.2.7 nppiNormRel_L1_16u_C1R 1819
7.109.2.8 nppiNormRel_L1_16u_C3CMR 1819
7.109.2.9 nppiNormRel_L1_16u_C3R 1820

7.109.2.10nppiNormRel_L1_16u_C4R 1820
7.109.2.11nppiNormRel_L1_32f_AC4R 1820
7.109.2.12nppiNormRel_L1_32f_C1MR 1821
7.109.2.13nppiNormRel_L1_32f_C1R 1821
7.109.2.14nppiNormRel_L1_32f_C3CMR 1822
7.109.2.15nppiNormRel_L1_32f_C3R 1822
7.109.2.16nppiNormRel_L1_32f_C4R 1823
7.109.2.17nppiNormRel_L1_8s_C1MR 1823
7.109.2.18nppiNormRel_L1_8s_C3CMR 1824
7.109.2.19nppiNormRel_L1_8u_AC4R 1824
7.109.2.20nppiNormRel_L1_8u_C1MR 1825
7.109.2.21nppiNormRel_L1_8u_C1R 1825
7.109.2.22nppiNormRel_L1_8u_C3CMR 1826
7.109.2.23nppiNormRel_L1_8u_C3R 1826
7.109.2.24nppiNormRel_L1_8u_C4R 1827
7.109.2.25nppiNormRelL1GetBufferHostSize_16s_AC4R 1827
7.109.2.26nppiNormRelL1GetBufferHostSize_16s_C1R 1828
7.109.2.27nppiNormRelL1GetBufferHostSize_16s_C3R 1828
7.109.2.28nppiNormRelL1GetBufferHostSize_16s_C4R 1828
7.109.2.29nppiNormRelL1GetBufferHostSize_16u_AC4R 1828
7.109.2.30nppiNormRelL1GetBufferHostSize_16u_C1MR 1829
7.109.2.31nppiNormRelL1GetBufferHostSize_16u_C1R 1829
7.109.2.32nppiNormRelL1GetBufferHostSize_16u_C3CMR 1829
7.109.2.33nppiNormRelL1GetBufferHostSize_16u_C3R 1830
7.109.2.34nppiNormRelL1GetBufferHostSize_16u_C4R 1830
7.109.2.35nppiNormRelL1GetBufferHostSize_32f_AC4R 1830
7.109.2.36nppiNormRelL1GetBufferHostSize_32f_C1MR 1830
7.109.2.37nppiNormRelL1GetBufferHostSize_32f_C1R 1831
7.109.2.38nppiNormRelL1GetBufferHostSize_32f_C3CMR 1831
7.109.2.39nppiNormRelL1GetBufferHostSize_32f_C3R 1831
7.109.2.40nppiNormRelL1GetBufferHostSize_32f_C4R 1832
7.109.2.41nppiNormRelL1GetBufferHostSize_8s_C1MR 1832
7.109.2.42nppiNormRelL1GetBufferHostSize_8s_C3CMR 1832
7.109.2.43nppiNormRelL1GetBufferHostSize_8u_AC4R 1832
7.109.2.44nppiNormRelL1GetBufferHostSize_8u_C1MR 1833
7.109.2.45nppiNormRelL1GetBufferHostSize_8u_C1R 1833

7.109.2.46 nppiNormRelL1GetBufferHostSize_8u_C3CMR 1833

7.109.2.47 nppiNormRelL1GetBufferHostSize_8u_C3R 1834

7.109.2.48 nppiNormRelL1GetBufferHostSize_8u_C4R 1834

7.110 NormRel_L2 1835

7.110.1 Detailed Description 1839

7.110.2 Function Documentation 1839

7.110.2.1 nppiNormRel_L2_16s_AC4R 1839

7.110.2.2 nppiNormRel_L2_16s_C1R 1839

7.110.2.3 nppiNormRel_L2_16s_C3R 1840

7.110.2.4 nppiNormRel_L2_16s_C4R 1840

7.110.2.5 nppiNormRel_L2_16u_AC4R 1841

7.110.2.6 nppiNormRel_L2_16u_C1MR 1841

7.110.2.7 nppiNormRel_L2_16u_C1R 1842

7.110.2.8 nppiNormRel_L2_16u_C3CMR 1842

7.110.2.9 nppiNormRel_L2_16u_C3R 1843

7.110.2.10 nppiNormRel_L2_16u_C4R 1843

7.110.2.11 nppiNormRel_L2_32f_AC4R 1843

7.110.2.12 nppiNormRel_L2_32f_C1MR 1844

7.110.2.13 nppiNormRel_L2_32f_C1R 1844

7.110.2.14 nppiNormRel_L2_32f_C3CMR 1845

7.110.2.15 nppiNormRel_L2_32f_C3R 1845

7.110.2.16 nppiNormRel_L2_32f_C4R 1846

7.110.2.17 nppiNormRel_L2_8s_C1MR 1846

7.110.2.18 nppiNormRel_L2_8s_C3CMR 1847

7.110.2.19 nppiNormRel_L2_8u_AC4R 1847

7.110.2.20 nppiNormRel_L2_8u_C1MR 1848

7.110.2.21 nppiNormRel_L2_8u_C1R 1848

7.110.2.22 nppiNormRel_L2_8u_C3CMR 1849

7.110.2.23 nppiNormRel_L2_8u_C3R 1849

7.110.2.24 nppiNormRel_L2_8u_C4R 1850

7.110.2.25 nppiNormRelL2GetBufferHostSize_16s_AC4R 1850

7.110.2.26 nppiNormRelL2GetBufferHostSize_16s_C1R 1851

7.110.2.27 nppiNormRelL2GetBufferHostSize_16s_C3R 1851

7.110.2.28 nppiNormRelL2GetBufferHostSize_16s_C4R 1851

7.110.2.29 nppiNormRelL2GetBufferHostSize_16u_AC4R 1851

7.110.2.30 nppiNormRelL2GetBufferHostSize_16u_C1MR 1852

7.110.2.31nppiNormRelL2GetBufferHostSize_16u_C1R 1852
7.110.2.32nppiNormRelL2GetBufferHostSize_16u_C3CMR 1852
7.110.2.33nppiNormRelL2GetBufferHostSize_16u_C3R 1853
7.110.2.34nppiNormRelL2GetBufferHostSize_16u_C4R 1853
7.110.2.35nppiNormRelL2GetBufferHostSize_32f_AC4R 1853
7.110.2.36nppiNormRelL2GetBufferHostSize_32f_C1MR 1853
7.110.2.37nppiNormRelL2GetBufferHostSize_32f_C1R 1854
7.110.2.38nppiNormRelL2GetBufferHostSize_32f_C3CMR 1854
7.110.2.39nppiNormRelL2GetBufferHostSize_32f_C3R 1854
7.110.2.40nppiNormRelL2GetBufferHostSize_32f_C4R 1855
7.110.2.41nppiNormRelL2GetBufferHostSize_8s_C1MR 1855
7.110.2.42nppiNormRelL2GetBufferHostSize_8s_C3CMR 1855
7.110.2.43nppiNormRelL2GetBufferHostSize_8u_AC4R 1855
7.110.2.44nppiNormRelL2GetBufferHostSize_8u_C1MR 1856
7.110.2.45nppiNormRelL2GetBufferHostSize_8u_C1R 1856
7.110.2.46nppiNormRelL2GetBufferHostSize_8u_C3CMR 1856
7.110.2.47nppiNormRelL2GetBufferHostSize_8u_C3R 1857
7.110.2.48nppiNormRelL2GetBufferHostSize_8u_C4R 1857
7.111DotProd 1858
7.111.1 Detailed Description 1862
7.111.2 Function Documentation 1862
7.111.2.1 nppiDotProd_16s64f_AC4R 1862
7.111.2.2 nppiDotProd_16s64f_C1R 1863
7.111.2.3 nppiDotProd_16s64f_C3R 1863
7.111.2.4 nppiDotProd_16s64f_C4R 1863
7.111.2.5 nppiDotProd_16u64f_AC4R 1864
7.111.2.6 nppiDotProd_16u64f_C1R 1864
7.111.2.7 nppiDotProd_16u64f_C3R 1865
7.111.2.8 nppiDotProd_16u64f_C4R 1865
7.111.2.9 nppiDotProd_32f64f_AC4R 1866
7.111.2.10nppiDotProd_32f64f_C1R 1866
7.111.2.11nppiDotProd_32f64f_C3R 1866
7.111.2.12nppiDotProd_32f64f_C4R 1867
7.111.2.13nppiDotProd_32s64f_AC4R 1867
7.111.2.14nppiDotProd_32s64f_C1R 1868
7.111.2.15nppiDotProd_32s64f_C3R 1868

7.111.2.16nppiDotProd_32s64f_C4R 1869
7.111.2.17nppiDotProd_32u64f_AC4R 1869
7.111.2.18nppiDotProd_32u64f_C1R 1869
7.111.2.19nppiDotProd_32u64f_C3R 1870
7.111.2.20nppiDotProd_32u64f_C4R 1870
7.111.2.21nppiDotProd_8s64f_AC4R 1871
7.111.2.22nppiDotProd_8s64f_C1R 1871
7.111.2.23nppiDotProd_8s64f_C3R 1872
7.111.2.24nppiDotProd_8s64f_C4R 1872
7.111.2.25nppiDotProd_8u64f_AC4R 1872
7.111.2.26nppiDotProd_8u64f_C1R 1873
7.111.2.27nppiDotProd_8u64f_C3R 1873
7.111.2.28nppiDotProd_8u64f_C4R 1874
7.111.2.29nppiDotProdGetBufferHostSize_16s64f_AC4R 1874
7.111.2.30nppiDotProdGetBufferHostSize_16s64f_C1R 1874
7.111.2.31nppiDotProdGetBufferHostSize_16s64f_C3R 1875
7.111.2.32nppiDotProdGetBufferHostSize_16s64f_C4R 1875
7.111.2.33nppiDotProdGetBufferHostSize_16u64f_AC4R 1875
7.111.2.34nppiDotProdGetBufferHostSize_16u64f_C1R 1876
7.111.2.35nppiDotProdGetBufferHostSize_16u64f_C3R 1876
7.111.2.36nppiDotProdGetBufferHostSize_16u64f_C4R 1876
7.111.2.37nppiDotProdGetBufferHostSize_32f64f_AC4R 1876
7.111.2.38nppiDotProdGetBufferHostSize_32f64f_C1R 1877
7.111.2.39nppiDotProdGetBufferHostSize_32f64f_C3R 1877
7.111.2.40nppiDotProdGetBufferHostSize_32f64f_C4R 1877
7.111.2.41nppiDotProdGetBufferHostSize_32s64f_AC4R 1878
7.111.2.42nppiDotProdGetBufferHostSize_32s64f_C1R 1878
7.111.2.43nppiDotProdGetBufferHostSize_32s64f_C3R 1878
7.111.2.44nppiDotProdGetBufferHostSize_32s64f_C4R 1878
7.111.2.45nppiDotProdGetBufferHostSize_32u64f_AC4R 1879
7.111.2.46nppiDotProdGetBufferHostSize_32u64f_C1R 1879
7.111.2.47nppiDotProdGetBufferHostSize_32u64f_C3R 1879
7.111.2.48nppiDotProdGetBufferHostSize_32u64f_C4R 1880
7.111.2.49nppiDotProdGetBufferHostSize_8s64f_AC4R 1880
7.111.2.50nppiDotProdGetBufferHostSize_8s64f_C1R 1880
7.111.2.51nppiDotProdGetBufferHostSize_8s64f_C3R 1880

7.111.2.52nppiDotProdGetBufferHostSize_8s64f_C4R 1881
7.111.2.53nppiDotProdGetBufferHostSize_8u64f_AC4R 1881
7.111.2.54nppiDotProdGetBufferHostSize_8u64f_C1R 1881
7.111.2.55nppiDotProdGetBufferHostSize_8u64f_C3R 1882
7.111.2.56nppiDotProdGetBufferHostSize_8u64f_C4R 1882
7.112CountInRange. 1883
7.112.1 Detailed Description 1884
7.112.2 Function Documentation 1884
7.112.2.1 nppiCountInRange_32f_AC4R 1884
7.112.2.2 nppiCountInRange_32f_C1R 1884
7.112.2.3 nppiCountInRange_32f_C3R 1885
7.112.2.4 nppiCountInRange_8u_AC4R 1885
7.112.2.5 nppiCountInRange_8u_C1R 1886
7.112.2.6 nppiCountInRange_8u_C3R 1886
7.112.2.7 nppiCountInRangeGetBufferHostSize_32f_AC4R 1887
7.112.2.8 nppiCountInRangeGetBufferHostSize_32f_C1R 1887
7.112.2.9 nppiCountInRangeGetBufferHostSize_32f_C3R 1887
7.112.2.10nppiCountInRangeGetBufferHostSize_8u_AC4R 1888
7.112.2.11nppiCountInRangeGetBufferHostSize_8u_C1R 1888
7.112.2.12nppiCountInRangeGetBufferHostSize_8u_C3R 1888
7.113MaxEvery 1889
7.113.1 Detailed Description 1890
7.113.2 Function Documentation 1890
7.113.2.1 nppiMaxEvery_16s_AC4IR 1890
7.113.2.2 nppiMaxEvery_16s_C1IR 1891
7.113.2.3 nppiMaxEvery_16s_C3IR 1891
7.113.2.4 nppiMaxEvery_16s_C4IR 1891
7.113.2.5 nppiMaxEvery_16u_AC4IR 1892
7.113.2.6 nppiMaxEvery_16u_C1IR 1892
7.113.2.7 nppiMaxEvery_16u_C3IR 1892
7.113.2.8 nppiMaxEvery_16u_C4IR 1893
7.113.2.9 nppiMaxEvery_32f_AC4IR 1893
7.113.2.10nppiMaxEvery_32f_C1IR 1893
7.113.2.11nppiMaxEvery_32f_C3IR 1894
7.113.2.12nppiMaxEvery_32f_C4IR 1894
7.113.2.13nppiMaxEvery_8u_AC4IR 1894

7.113.2.14 nppiMaxEvery_8u_C1IR 1895
7.113.2.15 nppiMaxEvery_8u_C3IR 1895
7.113.2.16 nppiMaxEvery_8u_C4IR 1895
7.114 MinEvery 1896
7.114.1 Detailed Description 1897
7.114.2 Function Documentation 1897
7.114.2.1 nppiMinEvery_16s_AC4IR 1897
7.114.2.2 nppiMinEvery_16s_C1IR 1898
7.114.2.3 nppiMinEvery_16s_C3IR 1898
7.114.2.4 nppiMinEvery_16s_C4IR 1898
7.114.2.5 nppiMinEvery_16u_AC4IR 1899
7.114.2.6 nppiMinEvery_16u_C1IR 1899
7.114.2.7 nppiMinEvery_16u_C3IR 1899
7.114.2.8 nppiMinEvery_16u_C4IR 1900
7.114.2.9 nppiMinEvery_32f_AC4IR 1900
7.114.2.10 nppiMinEvery_32f_C1IR 1900
7.114.2.11 nppiMinEvery_32f_C3IR 1901
7.114.2.12 nppiMinEvery_32f_C4IR 1901
7.114.2.13 nppiMinEvery_8u_AC4IR 1901
7.114.2.14 nppiMinEvery_8u_C1IR 1902
7.114.2.15 nppiMinEvery_8u_C3IR 1902
7.114.2.16 nppiMinEvery_8u_C4IR 1902
7.115 Integral 1903
7.115.1 Detailed Description 1903
7.115.2 Function Documentation 1903
7.115.2.1 nppiIntegral_8u32f_C1R 1903
7.115.2.2 nppiIntegral_8u32s_C1R 1904
7.116 SqrIntegral 1905
7.116.1 Detailed Description 1905
7.116.2 Function Documentation 1905
7.116.2.1 nppiSqrIntegral_8u32f64f_C1R 1905
7.116.2.2 nppiSqrIntegral_8u32s64f_C1R 1906
7.116.2.3 nppiSqrIntegral_8u32s_C1R 1906
7.117 RectStdDev 1908
7.117.1 Detailed Description 1908
7.117.2 Function Documentation 1908

7.117.2.1 nppiRectStdDev_32f_C1R 1908
7.117.2.2 nppiRectStdDev_32s32f_C1R 1909
7.117.2.3 nppiRectStdDev_32s_C1RSfs 1909
7.118 HistogramEven 1911
7.118.1 Detailed Description 1913
7.118.2 Function Documentation 1913
7.118.2.1 nppiEvenLevelsHost_32s 1913
7.118.2.2 nppiHistogramEven_16s_AC4R 1914
7.118.2.3 nppiHistogramEven_16s_C1R 1914
7.118.2.4 nppiHistogramEven_16s_C3R 1915
7.118.2.5 nppiHistogramEven_16s_C4R 1915
7.118.2.6 nppiHistogramEven_16u_AC4R 1916
7.118.2.7 nppiHistogramEven_16u_C1R 1916
7.118.2.8 nppiHistogramEven_16u_C3R 1917
7.118.2.9 nppiHistogramEven_16u_C4R 1917
7.118.2.10 nppiHistogramEven_8u_AC4R 1918
7.118.2.11 nppiHistogramEven_8u_C1R 1918
7.118.2.12 nppiHistogramEven_8u_C3R 1918
7.118.2.13 nppiHistogramEven_8u_C4R 1919
7.118.2.14 nppiHistogramEvenGetBufferSize_16s_AC4R 1919
7.118.2.15 nppiHistogramEvenGetBufferSize_16s_C1R 1920
7.118.2.16 nppiHistogramEvenGetBufferSize_16s_C3R 1920
7.118.2.17 nppiHistogramEvenGetBufferSize_16s_C4R 1920
7.118.2.18 nppiHistogramEvenGetBufferSize_16u_AC4R 1921
7.118.2.19 nppiHistogramEvenGetBufferSize_16u_C1R 1921
7.118.2.20 nppiHistogramEvenGetBufferSize_16u_C3R 1921
7.118.2.21 nppiHistogramEvenGetBufferSize_16u_C4R 1922
7.118.2.22 nppiHistogramEvenGetBufferSize_8u_AC4R 1922
7.118.2.23 nppiHistogramEvenGetBufferSize_8u_C1R 1922
7.118.2.24 nppiHistogramEvenGetBufferSize_8u_C3R 1923
7.118.2.25 nppiHistogramEvenGetBufferSize_8u_C4R 1923
7.119 HistogramRange 1924
7.119.1 Detailed Description 1926
7.119.2 Function Documentation 1927
7.119.2.1 nppiHistogramRange_16s_AC4R 1927
7.119.2.2 nppiHistogramRange_16s_C1R 1927

7.119.2.3 nppiHistogramRange_16s_C3R 1928
7.119.2.4 nppiHistogramRange_16s_C4R 1928
7.119.2.5 nppiHistogramRange_16u_AC4R 1928
7.119.2.6 nppiHistogramRange_16u_C1R 1929
7.119.2.7 nppiHistogramRange_16u_C3R 1929
7.119.2.8 nppiHistogramRange_16u_C4R 1930
7.119.2.9 nppiHistogramRange_32f_AC4R 1930
7.119.2.10nppiHistogramRange_32f_C1R 1931
7.119.2.11nppiHistogramRange_32f_C3R 1931
7.119.2.12nppiHistogramRange_32f_C4R 1932
7.119.2.13nppiHistogramRange_8u_AC4R 1932
7.119.2.14nppiHistogramRange_8u_C1R 1933
7.119.2.15nppiHistogramRange_8u_C3R 1933
7.119.2.16nppiHistogramRange_8u_C4R 1933
7.119.2.17nppiHistogramRangeGetBufferSize_16s_AC4R 1934
7.119.2.18nppiHistogramRangeGetBufferSize_16s_C1R 1934
7.119.2.19nppiHistogramRangeGetBufferSize_16s_C3R 1935
7.119.2.20nppiHistogramRangeGetBufferSize_16s_C4R 1935
7.119.2.21nppiHistogramRangeGetBufferSize_16u_AC4R 1935
7.119.2.22nppiHistogramRangeGetBufferSize_16u_C1R 1936
7.119.2.23nppiHistogramRangeGetBufferSize_16u_C3R 1936
7.119.2.24nppiHistogramRangeGetBufferSize_16u_C4R 1936
7.119.2.25nppiHistogramRangeGetBufferSize_32f_AC4R 1937
7.119.2.26nppiHistogramRangeGetBufferSize_32f_C1R 1937
7.119.2.27nppiHistogramRangeGetBufferSize_32f_C3R 1937
7.119.2.28nppiHistogramRangeGetBufferSize_32f_C4R 1938
7.119.2.29nppiHistogramRangeGetBufferSize_8u_AC4R 1938
7.119.2.30nppiHistogramRangeGetBufferSize_8u_C1R 1938
7.119.2.31nppiHistogramRangeGetBufferSize_8u_C3R 1939
7.119.2.32nppiHistogramRangeGetBufferSize_8u_C4R 1939
7.120Image Proximity 1940
7.120.1 Detailed Description 1940
7.120.2 General Introduction 1940
7.120.3 Categorizations 1942
7.121SqrDistanceFull_Norm 1943
7.121.1 Detailed Description 1944

7.121.2 Function Documentation 1945
7.121.2.1 nppiSqrDistanceFull_Norm_16u32f_AC4R 1945
7.121.2.2 nppiSqrDistanceFull_Norm_16u32f_C1R 1945
7.121.2.3 nppiSqrDistanceFull_Norm_16u32f_C3R 1946
7.121.2.4 nppiSqrDistanceFull_Norm_16u32f_C4R 1946
7.121.2.5 nppiSqrDistanceFull_Norm_32f_AC4R 1946
7.121.2.6 nppiSqrDistanceFull_Norm_32f_C1R 1947
7.121.2.7 nppiSqrDistanceFull_Norm_32f_C3R 1947
7.121.2.8 nppiSqrDistanceFull_Norm_32f_C4R 1948
7.121.2.9 nppiSqrDistanceFull_Norm_8s32f_AC4R 1948
7.121.2.10nppiSqrDistanceFull_Norm_8s32f_C1R 1949
7.121.2.11nppiSqrDistanceFull_Norm_8s32f_C3R 1949
7.121.2.12nppiSqrDistanceFull_Norm_8s32f_C4R 1949
7.121.2.13nppiSqrDistanceFull_Norm_8u32f_AC4R 1950
7.121.2.14nppiSqrDistanceFull_Norm_8u32f_C1R 1950
7.121.2.15nppiSqrDistanceFull_Norm_8u32f_C3R 1951
7.121.2.16nppiSqrDistanceFull_Norm_8u32f_C4R 1951
7.121.2.17nppiSqrDistanceFull_Norm_8u_AC4RSfs 1952
7.121.2.18nppiSqrDistanceFull_Norm_8u_C1RSfs 1952
7.121.2.19nppiSqrDistanceFull_Norm_8u_C3RSfs 1953
7.121.2.20nppiSqrDistanceFull_Norm_8u_C4RSfs 1953
7.122 SqrDistanceSame_Norm 1954
7.122.1 Detailed Description 1956
7.122.2 Function Documentation 1956
7.122.2.1 nppiSqrDistanceSame_Norm_16u32f_AC4R 1956
7.122.2.2 nppiSqrDistanceSame_Norm_16u32f_C1R 1956
7.122.2.3 nppiSqrDistanceSame_Norm_16u32f_C3R 1957
7.122.2.4 nppiSqrDistanceSame_Norm_16u32f_C4R 1957
7.122.2.5 nppiSqrDistanceSame_Norm_32f_AC4R 1958
7.122.2.6 nppiSqrDistanceSame_Norm_32f_C1R 1958
7.122.2.7 nppiSqrDistanceSame_Norm_32f_C3R 1958
7.122.2.8 nppiSqrDistanceSame_Norm_32f_C4R 1959
7.122.2.9 nppiSqrDistanceSame_Norm_8s32f_AC4R 1959
7.122.2.10nppiSqrDistanceSame_Norm_8s32f_C1R 1960
7.122.2.11nppiSqrDistanceSame_Norm_8s32f_C3R 1960
7.122.2.12nppiSqrDistanceSame_Norm_8s32f_C4R 1961

7.122.2.13nppiSqrDistanceSame_Norm_8u32f_AC4R 1961
7.122.2.14nppiSqrDistanceSame_Norm_8u32f_C1R 1961
7.122.2.15nppiSqrDistanceSame_Norm_8u32f_C3R 1962
7.122.2.16nppiSqrDistanceSame_Norm_8u32f_C4R 1962
7.122.2.17nppiSqrDistanceSame_Norm_8u_AC4RSfs 1963
7.122.2.18nppiSqrDistanceSame_Norm_8u_C1RSfs 1963
7.122.2.19nppiSqrDistanceSame_Norm_8u_C3RSfs 1964
7.122.2.20nppiSqrDistanceSame_Norm_8u_C4RSfs 1964
7.123SqrDistanceValid_Norm 1965
7.123.1 Detailed Description 1967
7.123.2 Function Documentation 1967
7.123.2.1 nppiSqrDistanceValid_Norm_16u32f_AC4R 1967
7.123.2.2 nppiSqrDistanceValid_Norm_16u32f_C1R 1967
7.123.2.3 nppiSqrDistanceValid_Norm_16u32f_C3R 1968
7.123.2.4 nppiSqrDistanceValid_Norm_16u32f_C4R 1968
7.123.2.5 nppiSqrDistanceValid_Norm_32f_AC4R 1969
7.123.2.6 nppiSqrDistanceValid_Norm_32f_C1R 1969
7.123.2.7 nppiSqrDistanceValid_Norm_32f_C3R 1969
7.123.2.8 nppiSqrDistanceValid_Norm_32f_C4R 1970
7.123.2.9 nppiSqrDistanceValid_Norm_8s32f_AC4R 1970
7.123.2.10nppiSqrDistanceValid_Norm_8s32f_C1R 1971
7.123.2.11nppiSqrDistanceValid_Norm_8s32f_C3R 1971
7.123.2.12nppiSqrDistanceValid_Norm_8s32f_C4R 1972
7.123.2.13nppiSqrDistanceValid_Norm_8u32f_AC4R 1972
7.123.2.14nppiSqrDistanceValid_Norm_8u32f_C1R 1972
7.123.2.15nppiSqrDistanceValid_Norm_8u32f_C3R 1973
7.123.2.16nppiSqrDistanceValid_Norm_8u32f_C4R 1973
7.123.2.17nppiSqrDistanceValid_Norm_8u_AC4RSfs 1974
7.123.2.18nppiSqrDistanceValid_Norm_8u_C1RSfs 1974
7.123.2.19nppiSqrDistanceValid_Norm_8u_C3RSfs 1975
7.123.2.20nppiSqrDistanceValid_Norm_8u_C4RSfs 1975
7.124CrossCorrFull_Norm 1976
7.124.1 Detailed Description 1977
7.124.2 Function Documentation 1978
7.124.2.1 nppiCrossCorrFull_Norm_16u32f_AC4R 1978
7.124.2.2 nppiCrossCorrFull_Norm_16u32f_C1R 1978

7.124.2.3 nppiCrossCorrFull_Norm_16u32f_C3R 1979
7.124.2.4 nppiCrossCorrFull_Norm_16u32f_C4R 1979
7.124.2.5 nppiCrossCorrFull_Norm_32f_AC4R 1979
7.124.2.6 nppiCrossCorrFull_Norm_32f_C1R 1980
7.124.2.7 nppiCrossCorrFull_Norm_32f_C3R 1980
7.124.2.8 nppiCrossCorrFull_Norm_32f_C4R 1981
7.124.2.9 nppiCrossCorrFull_Norm_8s32f_AC4R 1981
7.124.2.10nppiCrossCorrFull_Norm_8s32f_C1R 1982
7.124.2.11nppiCrossCorrFull_Norm_8s32f_C3R 1982
7.124.2.12nppiCrossCorrFull_Norm_8s32f_C4R 1982
7.124.2.13nppiCrossCorrFull_Norm_8u32f_AC4R 1983
7.124.2.14nppiCrossCorrFull_Norm_8u32f_C1R 1983
7.124.2.15nppiCrossCorrFull_Norm_8u32f_C3R 1984
7.124.2.16nppiCrossCorrFull_Norm_8u32f_C4R 1984
7.124.2.17nppiCrossCorrFull_Norm_8u_AC4RSfs 1985
7.124.2.18nppiCrossCorrFull_Norm_8u_C1RSfs 1985
7.124.2.19nppiCrossCorrFull_Norm_8u_C3RSfs 1986
7.124.2.20nppiCrossCorrFull_Norm_8u_C4RSfs 1986
7.125CrossCorrSame_Norm 1987
7.125.1 Detailed Description 1988
7.125.2 Function Documentation 1989
7.125.2.1 nppiCrossCorrSame_Norm_16u32f_AC4R 1989
7.125.2.2 nppiCrossCorrSame_Norm_16u32f_C1R 1989
7.125.2.3 nppiCrossCorrSame_Norm_16u32f_C3R 1990
7.125.2.4 nppiCrossCorrSame_Norm_16u32f_C4R 1990
7.125.2.5 nppiCrossCorrSame_Norm_32f_AC4R 1990
7.125.2.6 nppiCrossCorrSame_Norm_32f_C1R 1991
7.125.2.7 nppiCrossCorrSame_Norm_32f_C3R 1991
7.125.2.8 nppiCrossCorrSame_Norm_32f_C4R 1992
7.125.2.9 nppiCrossCorrSame_Norm_8s32f_AC4R 1992
7.125.2.10nppiCrossCorrSame_Norm_8s32f_C1R 1993
7.125.2.11nppiCrossCorrSame_Norm_8s32f_C3R 1993
7.125.2.12nppiCrossCorrSame_Norm_8s32f_C4R 1993
7.125.2.13nppiCrossCorrSame_Norm_8u32f_AC4R 1994
7.125.2.14nppiCrossCorrSame_Norm_8u32f_C1R 1994
7.125.2.15nppiCrossCorrSame_Norm_8u32f_C3R 1995

7.125.2.16 nppiCrossCorrSame_Norm_8u32f_C4R 1995
7.125.2.17 nppiCrossCorrSame_Norm_8u_AC4RSfs 1996
7.125.2.18 nppiCrossCorrSame_Norm_8u_C1RSfs 1996
7.125.2.19 nppiCrossCorrSame_Norm_8u_C3RSfs 1997
7.125.2.20 nppiCrossCorrSame_Norm_8u_C4RSfs 1997
7.126 CrossCorrValid_Norm 1998
7.126.1 Detailed Description 1999
7.126.2 Function Documentation 2000
7.126.2.1 nppiCrossCorrValid_Norm_16u32f_AC4R 2000
7.126.2.2 nppiCrossCorrValid_Norm_16u32f_C1R 2000
7.126.2.3 nppiCrossCorrValid_Norm_16u32f_C3R 2001
7.126.2.4 nppiCrossCorrValid_Norm_16u32f_C4R 2001
7.126.2.5 nppiCrossCorrValid_Norm_32f_AC4R 2001
7.126.2.6 nppiCrossCorrValid_Norm_32f_C1R 2002
7.126.2.7 nppiCrossCorrValid_Norm_32f_C3R 2002
7.126.2.8 nppiCrossCorrValid_Norm_32f_C4R 2003
7.126.2.9 nppiCrossCorrValid_Norm_8s32f_AC4R 2003
7.126.2.10 nppiCrossCorrValid_Norm_8s32f_C1R 2004
7.126.2.11 nppiCrossCorrValid_Norm_8s32f_C3R 2004
7.126.2.12 nppiCrossCorrValid_Norm_8s32f_C4R 2004
7.126.2.13 nppiCrossCorrValid_Norm_8u32f_AC4R 2005
7.126.2.14 nppiCrossCorrValid_Norm_8u32f_C1R 2005
7.126.2.15 nppiCrossCorrValid_Norm_8u32f_C3R 2006
7.126.2.16 nppiCrossCorrValid_Norm_8u32f_C4R 2006
7.126.2.17 nppiCrossCorrValid_Norm_8u_AC4RSfs 2007
7.126.2.18 nppiCrossCorrValid_Norm_8u_C1RSfs 2007
7.126.2.19 nppiCrossCorrValid_Norm_8u_C3RSfs 2008
7.126.2.20 nppiCrossCorrValid_Norm_8u_C4RSfs 2008
7.127 CrossCorrValid 2009
7.127.1 Detailed Description 2009
7.127.2 Function Documentation 2009
7.127.2.1 nppiCrossCorrValid_16u32f_C1R 2009
7.127.2.2 nppiCrossCorrValid_32f_C1R 2010
7.127.2.3 nppiCrossCorrValid_8s32f_C1R 2010
7.127.2.4 nppiCrossCorrValid_8u32f_C1R 2011
7.128 CrossCorrFull_NormLevel 2012

7.128.1 Detailed Description 2015
7.128.2 Function Documentation 2016
7.128.2.1 nppiCrossCorrFull_NormLevel_16u32f_AC4R 2016
7.128.2.2 nppiCrossCorrFull_NormLevel_16u32f_C1R 2016
7.128.2.3 nppiCrossCorrFull_NormLevel_16u32f_C3R 2017
7.128.2.4 nppiCrossCorrFull_NormLevel_16u32f_C4R 2017
7.128.2.5 nppiCrossCorrFull_NormLevel_32f_AC4R 2018
7.128.2.6 nppiCrossCorrFull_NormLevel_32f_C1R 2018
7.128.2.7 nppiCrossCorrFull_NormLevel_32f_C3R 2019
7.128.2.8 nppiCrossCorrFull_NormLevel_32f_C4R 2019
7.128.2.9 nppiCrossCorrFull_NormLevel_8s32f_AC4R 2020
7.128.2.10nppiCrossCorrFull_NormLevel_8s32f_C1R 2020
7.128.2.11nppiCrossCorrFull_NormLevel_8s32f_C3R 2021
7.128.2.12nppiCrossCorrFull_NormLevel_8s32f_C4R 2021
7.128.2.13nppiCrossCorrFull_NormLevel_8u32f_AC4R 2022
7.128.2.14nppiCrossCorrFull_NormLevel_8u32f_C1R 2022
7.128.2.15nppiCrossCorrFull_NormLevel_8u32f_C3R 2023
7.128.2.16nppiCrossCorrFull_NormLevel_8u32f_C4R 2023
7.128.2.17nppiCrossCorrFull_NormLevel_8u_AC4RSfs 2024
7.128.2.18nppiCrossCorrFull_NormLevel_8u_C1RSfs 2024
7.128.2.19nppiCrossCorrFull_NormLevel_8u_C3RSfs 2025
7.128.2.20nppiCrossCorrFull_NormLevel_8u_C4RSfs 2025
7.128.2.21nppiFullNormLevelGetBufferHostSize_16u32f_AC4R 2026
7.128.2.22nppiFullNormLevelGetBufferHostSize_16u32f_C1R 2026
7.128.2.23nppiFullNormLevelGetBufferHostSize_16u32f_C3R 2026
7.128.2.24nppiFullNormLevelGetBufferHostSize_16u32f_C4R 2026
7.128.2.25nppiFullNormLevelGetBufferHostSize_32f_AC4R 2027
7.128.2.26nppiFullNormLevelGetBufferHostSize_32f_C1R 2027
7.128.2.27nppiFullNormLevelGetBufferHostSize_32f_C3R 2027
7.128.2.28nppiFullNormLevelGetBufferHostSize_32f_C4R 2028
7.128.2.29nppiFullNormLevelGetBufferHostSize_8s32f_AC4R 2028
7.128.2.30nppiFullNormLevelGetBufferHostSize_8s32f_C1R 2028
7.128.2.31nppiFullNormLevelGetBufferHostSize_8s32f_C3R 2028
7.128.2.32nppiFullNormLevelGetBufferHostSize_8s32f_C4R 2029
7.128.2.33nppiFullNormLevelGetBufferHostSize_8u32f_AC4R 2029
7.128.2.34nppiFullNormLevelGetBufferHostSize_8u32f_C1R 2029

7.128.2.35 nppiFullNormLevelGetBufferHostSize_8u32f_C3R 2030
7.128.2.36 nppiFullNormLevelGetBufferHostSize_8u32f_C4R 2030
7.128.2.37 nppiFullNormLevelGetBufferHostSize_8u_AC4RSfs 2030
7.128.2.38 nppiFullNormLevelGetBufferHostSize_8u_C1RSfs 2030
7.128.2.39 nppiFullNormLevelGetBufferHostSize_8u_C3RSfs 2031
7.128.2.40 nppiFullNormLevelGetBufferHostSize_8u_C4RSfs 2031
7.129 CrossCorrSame_NormLevel 2032
7.129.1 Detailed Description 2035
7.129.2 Function Documentation 2036
7.129.2.1 nppiCrossCorrSame_NormLevel_16u32f_AC4R 2036
7.129.2.2 nppiCrossCorrSame_NormLevel_16u32f_C1R 2036
7.129.2.3 nppiCrossCorrSame_NormLevel_16u32f_C3R 2037
7.129.2.4 nppiCrossCorrSame_NormLevel_16u32f_C4R 2037
7.129.2.5 nppiCrossCorrSame_NormLevel_32f_AC4R 2038
7.129.2.6 nppiCrossCorrSame_NormLevel_32f_C1R 2038
7.129.2.7 nppiCrossCorrSame_NormLevel_32f_C3R 2039
7.129.2.8 nppiCrossCorrSame_NormLevel_32f_C4R 2039
7.129.2.9 nppiCrossCorrSame_NormLevel_8s32f_AC4R 2040
7.129.2.10 nppiCrossCorrSame_NormLevel_8s32f_C1R 2040
7.129.2.11 nppiCrossCorrSame_NormLevel_8s32f_C3R 2041
7.129.2.12 nppiCrossCorrSame_NormLevel_8s32f_C4R 2041
7.129.2.13 nppiCrossCorrSame_NormLevel_8u32f_AC4R 2042
7.129.2.14 nppiCrossCorrSame_NormLevel_8u32f_C1R 2042
7.129.2.15 nppiCrossCorrSame_NormLevel_8u32f_C3R 2043
7.129.2.16 nppiCrossCorrSame_NormLevel_8u32f_C4R 2043
7.129.2.17 nppiCrossCorrSame_NormLevel_8u_AC4RSfs 2044
7.129.2.18 nppiCrossCorrSame_NormLevel_8u_C1RSfs 2044
7.129.2.19 nppiCrossCorrSame_NormLevel_8u_C3RSfs 2045
7.129.2.20 nppiCrossCorrSame_NormLevel_8u_C4RSfs 2045
7.129.2.21 nppiSameNormLevelGetBufferHostSize_16u32f_AC4R 2046
7.129.2.22 nppiSameNormLevelGetBufferHostSize_16u32f_C1R 2046
7.129.2.23 nppiSameNormLevelGetBufferHostSize_16u32f_C3R 2046
7.129.2.24 nppiSameNormLevelGetBufferHostSize_16u32f_C4R 2046
7.129.2.25 nppiSameNormLevelGetBufferHostSize_32f_AC4R 2047
7.129.2.26 nppiSameNormLevelGetBufferHostSize_32f_C1R 2047
7.129.2.27 nppiSameNormLevelGetBufferHostSize_32f_C3R 2047

7.129.2.28nppiSameNormLevelGetBufferHostSize_32f_C4R 2048
7.129.2.29nppiSameNormLevelGetBufferHostSize_8s32f_AC4R 2048
7.129.2.30nppiSameNormLevelGetBufferHostSize_8s32f_C1R 2048
7.129.2.31nppiSameNormLevelGetBufferHostSize_8s32f_C3R 2048
7.129.2.32nppiSameNormLevelGetBufferHostSize_8s32f_C4R 2049
7.129.2.33nppiSameNormLevelGetBufferHostSize_8u32f_AC4R 2049
7.129.2.34nppiSameNormLevelGetBufferHostSize_8u32f_C1R 2049
7.129.2.35nppiSameNormLevelGetBufferHostSize_8u32f_C3R 2050
7.129.2.36nppiSameNormLevelGetBufferHostSize_8u32f_C4R 2050
7.129.2.37nppiSameNormLevelGetBufferHostSize_8u_AC4RSfs 2050
7.129.2.38nppiSameNormLevelGetBufferHostSize_8u_C1RSfs 2050
7.129.2.39nppiSameNormLevelGetBufferHostSize_8u_C3RSfs 2051
7.129.2.40nppiSameNormLevelGetBufferHostSize_8u_C4RSfs 2051
7.130CrossCorrValid_NormLevel 2052
7.130.1 Detailed Description 2055
7.130.2 Function Documentation 2056
7.130.2.1 nppiCrossCorrValid_NormLevel_16u32f_AC4R 2056
7.130.2.2 nppiCrossCorrValid_NormLevel_16u32f_C1R 2056
7.130.2.3 nppiCrossCorrValid_NormLevel_16u32f_C3R 2057
7.130.2.4 nppiCrossCorrValid_NormLevel_16u32f_C4R 2057
7.130.2.5 nppiCrossCorrValid_NormLevel_32f_AC4R 2058
7.130.2.6 nppiCrossCorrValid_NormLevel_32f_C1R 2058
7.130.2.7 nppiCrossCorrValid_NormLevel_32f_C3R 2059
7.130.2.8 nppiCrossCorrValid_NormLevel_32f_C4R 2059
7.130.2.9 nppiCrossCorrValid_NormLevel_8s32f_AC4R 2060
7.130.2.10nppiCrossCorrValid_NormLevel_8s32f_C1R 2060
7.130.2.11nppiCrossCorrValid_NormLevel_8s32f_C3R 2061
7.130.2.12nppiCrossCorrValid_NormLevel_8s32f_C4R 2061
7.130.2.13nppiCrossCorrValid_NormLevel_8u32f_AC4R 2062
7.130.2.14nppiCrossCorrValid_NormLevel_8u32f_C1R 2062
7.130.2.15nppiCrossCorrValid_NormLevel_8u32f_C3R 2063
7.130.2.16nppiCrossCorrValid_NormLevel_8u32f_C4R 2063
7.130.2.17nppiCrossCorrValid_NormLevel_8u_AC4RSfs 2064
7.130.2.18nppiCrossCorrValid_NormLevel_8u_C1RSfs 2064
7.130.2.19nppiCrossCorrValid_NormLevel_8u_C3RSfs 2065
7.130.2.20nppiCrossCorrValid_NormLevel_8u_C4RSfs 2065

7.130.2.21nppiValidNormLevelGetBufferHostSize_16u32f_AC4R 2066
7.130.2.22nppiValidNormLevelGetBufferHostSize_16u32f_C1R 2066
7.130.2.23nppiValidNormLevelGetBufferHostSize_16u32f_C3R 2066
7.130.2.24nppiValidNormLevelGetBufferHostSize_16u32f_C4R 2066
7.130.2.25nppiValidNormLevelGetBufferHostSize_32f_AC4R 2067
7.130.2.26nppiValidNormLevelGetBufferHostSize_32f_C1R 2067
7.130.2.27nppiValidNormLevelGetBufferHostSize_32f_C3R 2067
7.130.2.28nppiValidNormLevelGetBufferHostSize_32f_C4R 2068
7.130.2.29nppiValidNormLevelGetBufferHostSize_8s32f_AC4R 2068
7.130.2.30nppiValidNormLevelGetBufferHostSize_8s32f_C1R 2068
7.130.2.31nppiValidNormLevelGetBufferHostSize_8s32f_C3R 2068
7.130.2.32nppiValidNormLevelGetBufferHostSize_8s32f_C4R 2069
7.130.2.33nppiValidNormLevelGetBufferHostSize_8u32f_AC4R 2069
7.130.2.34nppiValidNormLevelGetBufferHostSize_8u32f_C1R 2069
7.130.2.35nppiValidNormLevelGetBufferHostSize_8u32f_C3R 2070
7.130.2.36nppiValidNormLevelGetBufferHostSize_8u32f_C4R 2070
7.130.2.37nppiValidNormLevelGetBufferHostSize_8u_AC4RSfs 2070
7.130.2.38nppiValidNormLevelGetBufferHostSize_8u_C1RSfs 2070
7.130.2.39nppiValidNormLevelGetBufferHostSize_8u_C3RSfs 2071
7.130.2.40nppiValidNormLevelGetBufferHostSize_8u_C4RSfs 2071
7.131Image Quality Index 2072
7.131.1 Detailed Description 2074
7.131.2 Function Documentation 2074
7.131.2.1 nppiQualityIndex_16u32f_AC4R 2074
7.131.2.2 nppiQualityIndex_16u32f_C1R 2074
7.131.2.3 nppiQualityIndex_16u32f_C3R 2075
7.131.2.4 nppiQualityIndex_32f_AC4R 2075
7.131.2.5 nppiQualityIndex_32f_C1R 2076
7.131.2.6 nppiQualityIndex_32f_C3R 2076
7.131.2.7 nppiQualityIndex_8u32f_AC4R 2077
7.131.2.8 nppiQualityIndex_8u32f_C1R 2077
7.131.2.9 nppiQualityIndex_8u32f_C3R 2077
7.131.2.10nppiQualityIndexGetBufferHostSize_16u32f_AC4R 2078
7.131.2.11nppiQualityIndexGetBufferHostSize_16u32f_C1R 2078
7.131.2.12nppiQualityIndexGetBufferHostSize_16u32f_C3R 2079
7.131.2.13nppiQualityIndexGetBufferHostSize_32f_AC4R 2079

7.131.2.14 nppiQualityIndexGetBufferHostSize_32f_C1R 2079
7.131.2.15 nppiQualityIndexGetBufferHostSize_32f_C3R 2079
7.131.2.16 nppiQualityIndexGetBufferHostSize_8u32f_AC4R 2080
7.131.2.17 nppiQualityIndexGetBufferHostSize_8u32f_C1R 2080
7.131.2.18 nppiQualityIndexGetBufferHostSize_8u32f_C3R 2080
7.132 MaximumError 2081
7.132.1 Detailed Description 2084
7.132.2 Function Documentation 2084
7.132.2.1 nppiMaximumError_16s_C1R 2084
7.132.2.2 nppiMaximumError_16s_C2R 2085
7.132.2.3 nppiMaximumError_16s_C3R 2085
7.132.2.4 nppiMaximumError_16s_C4R 2086
7.132.2.5 nppiMaximumError_16sc_C1R 2086
7.132.2.6 nppiMaximumError_16sc_C2R 2086
7.132.2.7 nppiMaximumError_16sc_C3R 2087
7.132.2.8 nppiMaximumError_16sc_C4R 2087
7.132.2.9 nppiMaximumError_16u_C1R 2088
7.132.2.10 nppiMaximumError_16u_C2R 2088
7.132.2.11 nppiMaximumError_16u_C3R 2089
7.132.2.12 nppiMaximumError_16u_C4R 2089
7.132.2.13 nppiMaximumError_32f_C1R 2089
7.132.2.14 nppiMaximumError_32f_C2R 2090
7.132.2.15 nppiMaximumError_32f_C3R 2090
7.132.2.16 nppiMaximumError_32f_C4R 2091
7.132.2.17 nppiMaximumError_32fc_C1R 2091
7.132.2.18 nppiMaximumError_32fc_C2R 2092
7.132.2.19 nppiMaximumError_32fc_C3R 2092
7.132.2.20 nppiMaximumError_32fc_C4R 2093
7.132.2.21 nppiMaximumError_32s_C1R 2093
7.132.2.22 nppiMaximumError_32s_C2R 2093
7.132.2.23 nppiMaximumError_32s_C3R 2094
7.132.2.24 nppiMaximumError_32s_C4R 2094
7.132.2.25 nppiMaximumError_32sc_C1R 2095
7.132.2.26 nppiMaximumError_32sc_C2R 2095
7.132.2.27 nppiMaximumError_32sc_C3R 2096
7.132.2.28 nppiMaximumError_32sc_C4R 2096

7.132.2.29 nppiMaximumError_32u_C1R 2096
7.132.2.30 nppiMaximumError_32u_C2R 2097
7.132.2.31 nppiMaximumError_32u_C3R 2097
7.132.2.32 nppiMaximumError_32u_C4R 2098
7.132.2.33 nppiMaximumError_64f_C1R 2098
7.132.2.34 nppiMaximumError_64f_C2R 2099
7.132.2.35 nppiMaximumError_64f_C3R 2099
7.132.2.36 nppiMaximumError_64f_C4R 2099
7.132.2.37 nppiMaximumError_8s_C1R 2100
7.132.2.38 nppiMaximumError_8s_C2R 2100
7.132.2.39 nppiMaximumError_8s_C3R 2101
7.132.2.40 nppiMaximumError_8s_C4R 2101
7.132.2.41 nppiMaximumError_8u_C1R 2102
7.132.2.42 nppiMaximumError_8u_C2R 2102
7.132.2.43 nppiMaximumError_8u_C3R 2102
7.132.2.44 nppiMaximumError_8u_C4R 2103
7.133 AverageError 2104
7.133.1 Detailed Description 2107
7.133.2 Function Documentation 2107
7.133.2.1 nppiAverageError_16s_C1R 2107
7.133.2.2 nppiAverageError_16s_C2R 2108
7.133.2.3 nppiAverageError_16s_C3R 2108
7.133.2.4 nppiAverageError_16s_C4R 2109
7.133.2.5 nppiAverageError_16sc_C1R 2109
7.133.2.6 nppiAverageError_16sc_C2R 2110
7.133.2.7 nppiAverageError_16sc_C3R 2110
7.133.2.8 nppiAverageError_16sc_C4R 2110
7.133.2.9 nppiAverageError_16u_C1R 2111
7.133.2.10 nppiAverageError_16u_C2R 2111
7.133.2.11 nppiAverageError_16u_C3R 2112
7.133.2.12 nppiAverageError_16u_C4R 2112
7.133.2.13 nppiAverageError_32f_C1R 2113
7.133.2.14 nppiAverageError_32f_C2R 2113
7.133.2.15 nppiAverageError_32f_C3R 2113
7.133.2.16 nppiAverageError_32f_C4R 2114
7.133.2.17 nppiAverageError_32fc_C1R 2114

7.133.2.18 nppiAverageError_32fc_C2R 2115
7.133.2.19 nppiAverageError_32fc_C3R 2115
7.133.2.20 nppiAverageError_32fc_C4R 2116
7.133.2.21 nppiAverageError_32s_C1R 2116
7.133.2.22 nppiAverageError_32s_C2R 2117
7.133.2.23 nppiAverageError_32s_C3R 2117
7.133.2.24 nppiAverageError_32s_C4R 2117
7.133.2.25 nppiAverageError_32sc_C1R 2118
7.133.2.26 nppiAverageError_32sc_C2R 2118
7.133.2.27 nppiAverageError_32sc_C3R 2119
7.133.2.28 nppiAverageError_32sc_C4R 2119
7.133.2.29 nppiAverageError_32u_C1R 2120
7.133.2.30 nppiAverageError_32u_C2R 2120
7.133.2.31 nppiAverageError_32u_C3R 2120
7.133.2.32 nppiAverageError_32u_C4R 2121
7.133.2.33 nppiAverageError_64f_C1R 2121
7.133.2.34 nppiAverageError_64f_C2R 2122
7.133.2.35 nppiAverageError_64f_C3R 2122
7.133.2.36 nppiAverageError_64f_C4R 2123
7.133.2.37 nppiAverageError_8s_C1R 2123
7.133.2.38 nppiAverageError_8s_C2R 2124
7.133.2.39 nppiAverageError_8s_C3R 2124
7.133.2.40 nppiAverageError_8s_C4R 2124
7.133.2.41 nppiAverageError_8u_C1R 2125
7.133.2.42 nppiAverageError_8u_C2R 2125
7.133.2.43 nppiAverageError_8u_C3R 2126
7.133.2.44 nppiAverageError_8u_C4R 2126
7.134 MaximumRelativeError 2127
7.134.1 Detailed Description 2130
7.134.2 Function Documentation 2130
7.134.2.1 nppiMaximumRelativeError_16s_C1R 2130
7.134.2.2 nppiMaximumRelativeError_16s_C2R 2131
7.134.2.3 nppiMaximumRelativeError_16s_C3R 2131
7.134.2.4 nppiMaximumRelativeError_16s_C4R 2132
7.134.2.5 nppiMaximumRelativeError_16sc_C1R 2132
7.134.2.6 nppiMaximumRelativeError_16sc_C2R 2133

7.134.2.7 nppiMaximumRelativeError_16sc_C3R 2133
7.134.2.8 nppiMaximumRelativeError_16sc_C4R 2134
7.134.2.9 nppiMaximumRelativeError_16u_C1R 2134
7.134.2.10nppiMaximumRelativeError_16u_C2R 2134
7.134.2.11nppiMaximumRelativeError_16u_C3R 2135
7.134.2.12nppiMaximumRelativeError_16u_C4R 2135
7.134.2.13nppiMaximumRelativeError_32f_C1R 2136
7.134.2.14nppiMaximumRelativeError_32f_C2R 2136
7.134.2.15nppiMaximumRelativeError_32f_C3R 2137
7.134.2.16nppiMaximumRelativeError_32f_C4R 2137
7.134.2.17nppiMaximumRelativeError_32fc_C1R 2138
7.134.2.18nppiMaximumRelativeError_32fc_C2R 2138
7.134.2.19nppiMaximumRelativeError_32fc_C3R 2139
7.134.2.20nppiMaximumRelativeError_32fc_C4R 2139
7.134.2.21nppiMaximumRelativeError_32s_C1R 2140
7.134.2.22nppiMaximumRelativeError_32s_C2R 2140
7.134.2.23nppiMaximumRelativeError_32s_C3R 2140
7.134.2.24nppiMaximumRelativeError_32s_C4R 2141
7.134.2.25nppiMaximumRelativeError_32sc_C1R 2141
7.134.2.26nppiMaximumRelativeError_32sc_C2R 2142
7.134.2.27nppiMaximumRelativeError_32sc_C3R 2142
7.134.2.28nppiMaximumRelativeError_32sc_C4R 2143
7.134.2.29nppiMaximumRelativeError_32u_C1R 2143
7.134.2.30nppiMaximumRelativeError_32u_C2R 2144
7.134.2.31nppiMaximumRelativeError_32u_C3R 2144
7.134.2.32nppiMaximumRelativeError_32u_C4R 2144
7.134.2.33nppiMaximumRelativeError_64f_C1R 2145
7.134.2.34nppiMaximumRelativeError_64f_C2R 2145
7.134.2.35nppiMaximumRelativeError_64f_C3R 2146
7.134.2.36nppiMaximumRelativeError_64f_C4R 2146
7.134.2.37nppiMaximumRelativeError_8s_C1R 2147
7.134.2.38nppiMaximumRelativeError_8s_C2R 2147
7.134.2.39nppiMaximumRelativeError_8s_C3R 2148
7.134.2.40nppiMaximumRelativeError_8s_C4R 2148
7.134.2.41nppiMaximumRelativeError_8u_C1R 2149
7.134.2.42nppiMaximumRelativeError_8u_C2R 2149

7.134.2.43 nppiMaximumRelativeError_8u_C3R 2149
7.134.2.44 nppiMaximumRelativeError_8u_C4R 2150
7.135 AverageRelativeError 2151
7.135.1 Detailed Description 2154
7.135.2 Function Documentation 2154
7.135.2.1 nppiAverageRelativeError_16s_C1R 2154
7.135.2.2 nppiAverageRelativeError_16s_C2R 2155
7.135.2.3 nppiAverageRelativeError_16s_C3R 2155
7.135.2.4 nppiAverageRelativeError_16s_C4R 2156
7.135.2.5 nppiAverageRelativeError_16sc_C1R 2156
7.135.2.6 nppiAverageRelativeError_16sc_C2R 2157
7.135.2.7 nppiAverageRelativeError_16sc_C3R 2157
7.135.2.8 nppiAverageRelativeError_16sc_C4R 2158
7.135.2.9 nppiAverageRelativeError_16u_C1R 2158
7.135.2.10 nppiAverageRelativeError_16u_C2R 2158
7.135.2.11 nppiAverageRelativeError_16u_C3R 2159
7.135.2.12 nppiAverageRelativeError_16u_C4R 2159
7.135.2.13 nppiAverageRelativeError_32f_C1R 2160
7.135.2.14 nppiAverageRelativeError_32f_C2R 2160
7.135.2.15 nppiAverageRelativeError_32f_C3R 2161
7.135.2.16 nppiAverageRelativeError_32f_C4R 2161
7.135.2.17 nppiAverageRelativeError_32fc_C1R 2162
7.135.2.18 nppiAverageRelativeError_32fc_C2R 2162
7.135.2.19 nppiAverageRelativeError_32fc_C3R 2163
7.135.2.20 nppiAverageRelativeError_32fc_C4R 2163
7.135.2.21 nppiAverageRelativeError_32s_C1R 2164
7.135.2.22 nppiAverageRelativeError_32s_C2R 2164
7.135.2.23 nppiAverageRelativeError_32s_C3R 2164
7.135.2.24 nppiAverageRelativeError_32s_C4R 2165
7.135.2.25 nppiAverageRelativeError_32sc_C1R 2165
7.135.2.26 nppiAverageRelativeError_32sc_C2R 2166
7.135.2.27 nppiAverageRelativeError_32sc_C3R 2166
7.135.2.28 nppiAverageRelativeError_32sc_C4R 2167
7.135.2.29 nppiAverageRelativeError_32u_C1R 2167
7.135.2.30 nppiAverageRelativeError_32u_C2R 2168
7.135.2.31 nppiAverageRelativeError_32u_C3R 2168

7.135.2.32nppiAverageRelativeError_32u_C4R 2168
7.135.2.33nppiAverageRelativeError_64f_C1R 2169
7.135.2.34nppiAverageRelativeError_64f_C2R 2169
7.135.2.35nppiAverageRelativeError_64f_C3R 2170
7.135.2.36nppiAverageRelativeError_64f_C4R 2170
7.135.2.37nppiAverageRelativeError_8s_C1R 2171
7.135.2.38nppiAverageRelativeError_8s_C2R 2171
7.135.2.39nppiAverageRelativeError_8s_C3R 2172
7.135.2.40nppiAverageRelativeError_8s_C4R 2172
7.135.2.41nppiAverageRelativeError_8u_C1R 2173
7.135.2.42nppiAverageRelativeError_8u_C2R 2173
7.135.2.43nppiAverageRelativeError_8u_C3R 2173
7.135.2.44nppiAverageRelativeError_8u_C4R 2174
7.136Memory Management 2175
7.136.1 Detailed Description 2177
7.136.2 Function Documentation 2177
7.136.2.1 nppiFree 2177
7.136.2.2 nppiMalloc_16s_C1 2177
7.136.2.3 nppiMalloc_16s_C2 2178
7.136.2.4 nppiMalloc_16s_C4 2178
7.136.2.5 nppiMalloc_16sc_C1 2178
7.136.2.6 nppiMalloc_16sc_C2 2178
7.136.2.7 nppiMalloc_16sc_C3 2179
7.136.2.8 nppiMalloc_16sc_C4 2179
7.136.2.9 nppiMalloc_16u_C1 2179
7.136.2.10nppiMalloc_16u_C2 2180
7.136.2.11nppiMalloc_16u_C3 2180
7.136.2.12nppiMalloc_16u_C4 2180
7.136.2.13nppiMalloc_32f_C1 2180
7.136.2.14nppiMalloc_32f_C2 2181
7.136.2.15nppiMalloc_32f_C3 2181
7.136.2.16nppiMalloc_32f_C4 2181
7.136.2.17nppiMalloc_32fc_C1 2182
7.136.2.18nppiMalloc_32fc_C2 2182
7.136.2.19nppiMalloc_32fc_C3 2182
7.136.2.20nppiMalloc_32fc_C4 2182

7.136.2.21 nppiMalloc_32s_C1 2183
7.136.2.22 nppiMalloc_32s_C3 2183
7.136.2.23 nppiMalloc_32s_C4 2183
7.136.2.24 nppiMalloc_32sc_C1 2184
7.136.2.25 nppiMalloc_32sc_C2 2184
7.136.2.26 nppiMalloc_32sc_C3 2184
7.136.2.27 nppiMalloc_32sc_C4 2184
7.136.2.28 nppiMalloc_8u_C1 2185
7.136.2.29 nppiMalloc_8u_C2 2185
7.136.2.30 nppiMalloc_8u_C3 2185
7.136.2.31 nppiMalloc_8u_C4 2186
7.137 Threshold and Compare Operations 2187
7.137.1 Detailed Description 2187
7.138 Threshold Operations 2188
7.138.1 Detailed Description 2202
7.138.2 Function Documentation 2202
7.138.2.1 nppiThreshold_16s_AC4IR 2202
7.138.2.2 nppiThreshold_16s_AC4R 2202
7.138.2.3 nppiThreshold_16s_C1IR 2203
7.138.2.4 nppiThreshold_16s_C1R 2203
7.138.2.5 nppiThreshold_16s_C3IR 2204
7.138.2.6 nppiThreshold_16s_C3R 2204
7.138.2.7 nppiThreshold_16u_AC4IR 2205
7.138.2.8 nppiThreshold_16u_AC4R 2205
7.138.2.9 nppiThreshold_16u_C1IR 2206
7.138.2.10 nppiThreshold_16u_C1R 2206
7.138.2.11 nppiThreshold_16u_C3IR 2206
7.138.2.12 nppiThreshold_16u_C3R 2207
7.138.2.13 nppiThreshold_32f_AC4IR 2207
7.138.2.14 nppiThreshold_32f_AC4R 2208
7.138.2.15 nppiThreshold_32f_C1IR 2208
7.138.2.16 nppiThreshold_32f_C1R 2209
7.138.2.17 nppiThreshold_32f_C3IR 2209
7.138.2.18 nppiThreshold_32f_C3R 2210
7.138.2.19 nppiThreshold_8u_AC4IR 2210
7.138.2.20 nppiThreshold_8u_AC4R 2211

7.138.2.21nppiThreshold_8u_C1IR 2211
7.138.2.22nppiThreshold_8u_C1R 2212
7.138.2.23nppiThreshold_8u_C3IR 2212
7.138.2.24nppiThreshold_8u_C3R 2213
7.138.2.25nppiThreshold_GT_16s_AC4IR 2213
7.138.2.26nppiThreshold_GT_16s_AC4R 2213
7.138.2.27nppiThreshold_GT_16s_C1IR 2214
7.138.2.28nppiThreshold_GT_16s_C1R 2214
7.138.2.29nppiThreshold_GT_16s_C3IR 2215
7.138.2.30nppiThreshold_GT_16s_C3R 2215
7.138.2.31nppiThreshold_GT_16u_AC4IR 2215
7.138.2.32nppiThreshold_GT_16u_AC4R 2216
7.138.2.33nppiThreshold_GT_16u_C1IR 2216
7.138.2.34nppiThreshold_GT_16u_C1R 2217
7.138.2.35nppiThreshold_GT_16u_C3IR 2217
7.138.2.36nppiThreshold_GT_16u_C3R 2217
7.138.2.37nppiThreshold_GT_32f_AC4IR 2218
7.138.2.38nppiThreshold_GT_32f_AC4R 2218
7.138.2.39nppiThreshold_GT_32f_C1IR 2219
7.138.2.40nppiThreshold_GT_32f_C1R 2219
7.138.2.41nppiThreshold_GT_32f_C3IR 2219
7.138.2.42nppiThreshold_GT_32f_C3R 2220
7.138.2.43nppiThreshold_GT_8u_AC4IR 2220
7.138.2.44nppiThreshold_GT_8u_AC4R 2221
7.138.2.45nppiThreshold_GT_8u_C1IR 2221
7.138.2.46nppiThreshold_GT_8u_C1R 2221
7.138.2.47nppiThreshold_GT_8u_C3IR 2222
7.138.2.48nppiThreshold_GT_8u_C3R 2222
7.138.2.49nppiThreshold_GTVal_16s_AC4IR 2223
7.138.2.50nppiThreshold_GTVal_16s_AC4R 2223
7.138.2.51nppiThreshold_GTVal_16s_C1IR 2223
7.138.2.52nppiThreshold_GTVal_16s_C1R 2224
7.138.2.53nppiThreshold_GTVal_16s_C3IR 2224
7.138.2.54nppiThreshold_GTVal_16s_C3R 2225
7.138.2.55nppiThreshold_GTVal_16u_AC4IR 2225
7.138.2.56nppiThreshold_GTVal_16u_AC4R 2225

7.138.2.57nppiThreshold_GTVal_16u_C1IR 2226
7.138.2.58nppiThreshold_GTVal_16u_C1R 2226
7.138.2.59nppiThreshold_GTVal_16u_C3IR 2227
7.138.2.60nppiThreshold_GTVal_16u_C3R 2227
7.138.2.61nppiThreshold_GTVal_32f_AC4IR 2228
7.138.2.62nppiThreshold_GTVal_32f_AC4R 2228
7.138.2.63nppiThreshold_GTVal_32f_C1IR 2228
7.138.2.64nppiThreshold_GTVal_32f_C1R 2229
7.138.2.65nppiThreshold_GTVal_32f_C3IR 2229
7.138.2.66nppiThreshold_GTVal_32f_C3R 2230
7.138.2.67nppiThreshold_GTVal_8u_AC4IR 2230
7.138.2.68nppiThreshold_GTVal_8u_AC4R 2230
7.138.2.69nppiThreshold_GTVal_8u_C1IR 2231
7.138.2.70nppiThreshold_GTVal_8u_C1R 2231
7.138.2.71nppiThreshold_GTVal_8u_C3IR 2232
7.138.2.72nppiThreshold_GTVal_8u_C3R 2232
7.138.2.73nppiThreshold_LT_16s_AC4IR 2233
7.138.2.74nppiThreshold_LT_16s_AC4R 2233
7.138.2.75nppiThreshold_LT_16s_C1IR 2233
7.138.2.76nppiThreshold_LT_16s_C1R 2234
7.138.2.77nppiThreshold_LT_16s_C3IR 2234
7.138.2.78nppiThreshold_LT_16s_C3R 2235
7.138.2.79nppiThreshold_LT_16u_AC4IR 2235
7.138.2.80nppiThreshold_LT_16u_AC4R 2235
7.138.2.81nppiThreshold_LT_16u_C1IR 2236
7.138.2.82nppiThreshold_LT_16u_C1R 2236
7.138.2.83nppiThreshold_LT_16u_C3IR 2237
7.138.2.84nppiThreshold_LT_16u_C3R 2237
7.138.2.85nppiThreshold_LT_32f_AC4IR 2237
7.138.2.86nppiThreshold_LT_32f_AC4R 2238
7.138.2.87nppiThreshold_LT_32f_C1IR 2238
7.138.2.88nppiThreshold_LT_32f_C1R 2239
7.138.2.89nppiThreshold_LT_32f_C3IR 2239
7.138.2.90nppiThreshold_LT_32f_C3R 2239
7.138.2.91nppiThreshold_LT_8u_AC4IR 2240
7.138.2.92nppiThreshold_LT_8u_AC4R 2240

7.138.2.93 nppiThreshold_LT_8u_C1IR 2241
7.138.2.94 nppiThreshold_LT_8u_C1R 2241
7.138.2.95 nppiThreshold_LT_8u_C3IR 2241
7.138.2.96 nppiThreshold_LT_8u_C3R 2242
7.138.2.97 nppiThreshold_LTVal_16s_AC4IR 2242
7.138.2.98 nppiThreshold_LTVal_16s_AC4R 2243
7.138.2.99 nppiThreshold_LTVal_16s_C1IR 2243
7.138.2.100 nppiThreshold_LTVal_16s_C1R 2243
7.138.2.101 nppiThreshold_LTVal_16s_C3IR 2244
7.138.2.102 nppiThreshold_LTVal_16s_C3R 2244
7.138.2.103 nppiThreshold_LTVal_16u_AC4IR 2245
7.138.2.104 nppiThreshold_LTVal_16u_AC4R 2245
7.138.2.105 nppiThreshold_LTVal_16u_C1IR 2246
7.138.2.106 nppiThreshold_LTVal_16u_C1R 2246
7.138.2.107 nppiThreshold_LTVal_16u_C3IR 2246
7.138.2.108 nppiThreshold_LTVal_16u_C3R 2247
7.138.2.109 nppiThreshold_LTVal_32f_AC4IR 2247
7.138.2.110 nppiThreshold_LTVal_32f_AC4R 2248
7.138.2.111 nppiThreshold_LTVal_32f_C1IR 2248
7.138.2.112 nppiThreshold_LTVal_32f_C1R 2248
7.138.2.113 nppiThreshold_LTVal_32f_C3IR 2249
7.138.2.114 nppiThreshold_LTVal_32f_C3R 2249
7.138.2.115 nppiThreshold_LTVal_8u_AC4IR 2250
7.138.2.116 nppiThreshold_LTVal_8u_AC4R 2250
7.138.2.117 nppiThreshold_LTVal_8u_C1IR 2251
7.138.2.118 nppiThreshold_LTVal_8u_C1R 2251
7.138.2.119 nppiThreshold_LTVal_8u_C3IR 2251
7.138.2.120 nppiThreshold_LTVal_8u_C3R 2252
7.138.2.121 nppiThreshold_LTValGTVal_16s_AC4IR 2252
7.138.2.122 nppiThreshold_LTValGTVal_16s_AC4R 2253
7.138.2.123 nppiThreshold_LTValGTVal_16s_C1IR 2253
7.138.2.124 nppiThreshold_LTValGTVal_16s_C1R 2254
7.138.2.125 nppiThreshold_LTValGTVal_16s_C3IR 2254
7.138.2.126 nppiThreshold_LTValGTVal_16s_C3R 2255
7.138.2.127 nppiThreshold_LTValGTVal_16u_AC4IR 2255
7.138.2.128 nppiThreshold_LTValGTVal_16u_AC4R 2256

7.138.2.129 nppiThreshold_LTValGTVal_16u_C1IR 2256
7.138.2.130 nppiThreshold_LTValGTVal_16u_C1R 2257
7.138.2.131 nppiThreshold_LTValGTVal_16u_C3IR 2257
7.138.2.132 nppiThreshold_LTValGTVal_16u_C3R 2258
7.138.2.133 nppiThreshold_LTValGTVal_32f_AC4IR 2258
7.138.2.134 nppiThreshold_LTValGTVal_32f_AC4R 2259
7.138.2.135 nppiThreshold_LTValGTVal_32f_C1IR 2259
7.138.2.136 nppiThreshold_LTValGTVal_32f_C1R 2260
7.138.2.137 nppiThreshold_LTValGTVal_32f_C3IR 2260
7.138.2.138 nppiThreshold_LTValGTVal_32f_C3R 2261
7.138.2.139 nppiThreshold_LTValGTVal_8u_AC4IR 2261
7.138.2.140 nppiThreshold_LTValGTVal_8u_AC4R 2262
7.138.2.141 nppiThreshold_LTValGTVal_8u_C1IR 2262
7.138.2.142 nppiThreshold_LTValGTVal_8u_C1R 2263
7.138.2.143 nppiThreshold_LTValGTVal_8u_C3IR 2263
7.138.2.144 nppiThreshold_LTValGTVal_8u_C3R 2264
7.138.2.145 nppiThreshold_Val_16s_AC4IR 2264
7.138.2.146 nppiThreshold_Val_16s_AC4R 2265
7.138.2.147 nppiThreshold_Val_16s_C1IR 2265
7.138.2.148 nppiThreshold_Val_16s_C1R 2266
7.138.2.149 nppiThreshold_Val_16s_C3IR 2266
7.138.2.150 nppiThreshold_Val_16s_C3R 2267
7.138.2.151 nppiThreshold_Val_16u_AC4IR 2267
7.138.2.152 nppiThreshold_Val_16u_AC4R 2268
7.138.2.153 nppiThreshold_Val_16u_C1IR 2268
7.138.2.154 nppiThreshold_Val_16u_C1R 2269
7.138.2.155 nppiThreshold_Val_16u_C3IR 2269
7.138.2.156 nppiThreshold_Val_16u_C3R 2270
7.138.2.157 nppiThreshold_Val_32f_AC4IR 2270
7.138.2.158 nppiThreshold_Val_32f_AC4R 2271
7.138.2.159 nppiThreshold_Val_32f_C1IR 2271
7.138.2.160 nppiThreshold_Val_32f_C1R 2272
7.138.2.161 nppiThreshold_Val_32f_C3IR 2272
7.138.2.162 nppiThreshold_Val_32f_C3R 2273
7.138.2.163 nppiThreshold_Val_8u_AC4IR 2273
7.138.2.164 nppiThreshold_Val_8u_AC4R 2274

7.138.2.165 nppiThreshold_Val_8u_C1IR 2274
7.138.2.166 nppiThreshold_Val_8u_C1R 2275
7.138.2.167 nppiThreshold_Val_8u_C3IR 2275
7.138.2.168 nppiThreshold_Val_8u_C3R 2276
7.139 Compare Operations 2277
7.139.1 Detailed Description 2280
7.139.2 Function Documentation 2280
7.139.2.1 nppiCompare_16s_AC4R 2280
7.139.2.2 nppiCompare_16s_C1R 2281
7.139.2.3 nppiCompare_16s_C3R 2281
7.139.2.4 nppiCompare_16s_C4R 2282
7.139.2.5 nppiCompare_16u_AC4R 2282
7.139.2.6 nppiCompare_16u_C1R 2283
7.139.2.7 nppiCompare_16u_C3R 2283
7.139.2.8 nppiCompare_16u_C4R 2284
7.139.2.9 nppiCompare_32f_AC4R 2284
7.139.2.10 nppiCompare_32f_C1R 2285
7.139.2.11 nppiCompare_32f_C3R 2285
7.139.2.12 nppiCompare_32f_C4R 2286
7.139.2.13 nppiCompare_8u_AC4R 2286
7.139.2.14 nppiCompare_8u_C1R 2287
7.139.2.15 nppiCompare_8u_C3R 2287
7.139.2.16 nppiCompare_8u_C4R 2288
7.139.2.17 nppiCompareC_16s_AC4R 2288
7.139.2.18 nppiCompareC_16s_C1R 2288
7.139.2.19 nppiCompareC_16s_C3R 2289
7.139.2.20 nppiCompareC_16s_C4R 2289
7.139.2.21 nppiCompareC_16u_AC4R 2290
7.139.2.22 nppiCompareC_16u_C1R 2290
7.139.2.23 nppiCompareC_16u_C3R 2291
7.139.2.24 nppiCompareC_16u_C4R 2291
7.139.2.25 nppiCompareC_32f_AC4R 2291
7.139.2.26 nppiCompareC_32f_C1R 2292
7.139.2.27 nppiCompareC_32f_C3R 2292
7.139.2.28 nppiCompareC_32f_C4R 2293
7.139.2.29 nppiCompareC_8u_AC4R 2293

7.139.2.30 nppiCompareC_8u_C1R 2294
7.139.2.31 nppiCompareC_8u_C3R 2294
7.139.2.32 nppiCompareC_8u_C4R 2294
7.139.2.33 nppiCompareEqualEps_32f_AC4R 2295
7.139.2.34 nppiCompareEqualEps_32f_C1R 2295
7.139.2.35 nppiCompareEqualEps_32f_C3R 2296
7.139.2.36 nppiCompareEqualEps_32f_C4R 2296
7.139.2.37 nppiCompareEqualEpsC_32f_AC4R 2297
7.139.2.38 nppiCompareEqualEpsC_32f_C1R 2297
7.139.2.39 nppiCompareEqualEpsC_32f_C3R 2298
7.139.2.40 nppiCompareEqualEpsC_32f_C4R 2298
7.140 NPP Signal Processing 2300
7.141 Arithmetic and Logical Operations 2301
7.142 Arithmetic Operations 2302
7.143 AddC 2304
7.143.1 Detailed Description 2305
7.143.2 Function Documentation 2305
7.143.2.1 nppsAddC_16s_ISfs 2305
7.143.2.2 nppsAddC_16s_Sfs 2306
7.143.2.3 nppsAddC_16sc_ISfs 2306
7.143.2.4 nppsAddC_16sc_Sfs 2306
7.143.2.5 nppsAddC_16u_ISfs 2307
7.143.2.6 nppsAddC_16u_Sfs 2307
7.143.2.7 nppsAddC_32f 2307
7.143.2.8 nppsAddC_32f_I 2308
7.143.2.9 nppsAddC_32fc 2308
7.143.2.10 nppsAddC_32fc_I 2308
7.143.2.11 nppsAddC_32s_ISfs 2308
7.143.2.12 nppsAddC_32s_Sfs 2309
7.143.2.13 nppsAddC_32sc_ISfs 2309
7.143.2.14 nppsAddC_32sc_Sfs 2310
7.143.2.15 nppsAddC_64f 2310
7.143.2.16 nppsAddC_64f_I 2310
7.143.2.17 nppsAddC_64fc 2311
7.143.2.18 nppsAddC_64fc_I 2311
7.143.2.19 nppsAddC_8u_ISfs 2311

7.143.2.20nppsAddC_8u_Sfs 2312
7.144AddProductC 2313
7.144.1 Detailed Description 2313
7.144.2 Function Documentation 2313
7.144.2.1 nppsAddProductC_32f 2313
7.145MulC 2314
7.145.1 Detailed Description 2315
7.145.2 Function Documentation 2315
7.145.2.1 nppsMulC_16s_ISfs 2315
7.145.2.2 nppsMulC_16s_Sfs 2316
7.145.2.3 nppsMulC_16sc_ISfs 2316
7.145.2.4 nppsMulC_16sc_Sfs 2317
7.145.2.5 nppsMulC_16u_ISfs 2317
7.145.2.6 nppsMulC_16u_Sfs 2317
7.145.2.7 nppsMulC_32f 2318
7.145.2.8 nppsMulC_32f16s_Sfs 2318
7.145.2.9 nppsMulC_32f_I 2318
7.145.2.10nppsMulC_32fc 2319
7.145.2.11nppsMulC_32fc_I 2319
7.145.2.12nppsMulC_32s_ISfs 2319
7.145.2.13nppsMulC_32s_Sfs 2320
7.145.2.14nppsMulC_32sc_ISfs 2320
7.145.2.15nppsMulC_32sc_Sfs 2320
7.145.2.16nppsMulC_64f 2321
7.145.2.17nppsMulC_64f64s_ISfs 2321
7.145.2.18nppsMulC_64f_I 2321
7.145.2.19nppsMulC_64fc 2322
7.145.2.20nppsMulC_64fc_I 2322
7.145.2.21nppsMulC_8u_ISfs 2322
7.145.2.22nppsMulC_8u_Sfs 2323
7.145.2.23nppsMulC_Low_32f16s 2323
7.146SubC 2324
7.146.1 Detailed Description 2325
7.146.2 Function Documentation 2325
7.146.2.1 nppsSubC_16s_ISfs 2325
7.146.2.2 nppsSubC_16s_Sfs 2326

7.146.2.3 nppsSubC_16sc_ISfs 2326
7.146.2.4 nppsSubC_16sc_Sfs 2326
7.146.2.5 nppsSubC_16u_ISfs 2327
7.146.2.6 nppsSubC_16u_Sfs 2327
7.146.2.7 nppsSubC_32f 2327
7.146.2.8 nppsSubC_32f_I 2328
7.146.2.9 nppsSubC_32fc 2328
7.146.2.10nppsSubC_32fc_I 2328
7.146.2.11nppsSubC_32s_ISfs 2328
7.146.2.12nppsSubC_32s_Sfs 2329
7.146.2.13nppsSubC_32sc_ISfs 2329
7.146.2.14nppsSubC_32sc_Sfs 2330
7.146.2.15nppsSubC_64f 2330
7.146.2.16nppsSubC_64f_I 2330
7.146.2.17nppsSubC_64fc 2331
7.146.2.18nppsSubC_64fc_I 2331
7.146.2.19nppsSubC_8u_ISfs 2331
7.146.2.20nppsSubC_8u_Sfs 2332
7.147SubCRev 2333
7.147.1 Detailed Description 2334
7.147.2 Function Documentation 2334
7.147.2.1 nppsSubCRev_16s_ISfs 2334
7.147.2.2 nppsSubCRev_16s_Sfs 2335
7.147.2.3 nppsSubCRev_16sc_ISfs 2335
7.147.2.4 nppsSubCRev_16sc_Sfs 2335
7.147.2.5 nppsSubCRev_16u_ISfs 2336
7.147.2.6 nppsSubCRev_16u_Sfs 2336
7.147.2.7 nppsSubCRev_32f 2336
7.147.2.8 nppsSubCRev_32f_I 2337
7.147.2.9 nppsSubCRev_32fc 2337
7.147.2.10nppsSubCRev_32fc_I 2337
7.147.2.11nppsSubCRev_32s_ISfs 2338
7.147.2.12nppsSubCRev_32s_Sfs 2338
7.147.2.13nppsSubCRev_32sc_ISfs 2338
7.147.2.14nppsSubCRev_32sc_Sfs 2339
7.147.2.15nppsSubCRev_64f 2339

7.147.2.16 nppsSubCRev_64f_I 2339
7.147.2.17 nppsSubCRev_64fc 2340
7.147.2.18 nppsSubCRev_64fc_I 2340
7.147.2.19 nppsSubCRev_8u_ISfs 2340
7.147.2.20 nppsSubCRev_8u_Sfs 2341
7.148 DivC 2342
7.148.1 Detailed Description 2343
7.148.2 Function Documentation 2343
7.148.2.1 nppsDivC_16s_ISfs 2343
7.148.2.2 nppsDivC_16s_Sfs 2343
7.148.2.3 nppsDivC_16sc_ISfs 2344
7.148.2.4 nppsDivC_16sc_Sfs 2344
7.148.2.5 nppsDivC_16u_ISfs 2344
7.148.2.6 nppsDivC_16u_Sfs 2345
7.148.2.7 nppsDivC_32f 2345
7.148.2.8 nppsDivC_32f_I 2345
7.148.2.9 nppsDivC_32fc 2346
7.148.2.10 nppsDivC_32fc_I 2346
7.148.2.11 nppsDivC_64f 2346
7.148.2.12 nppsDivC_64f_I 2347
7.148.2.13 nppsDivC_64fc 2347
7.148.2.14 nppsDivC_64fc_I 2347
7.148.2.15 nppsDivC_8u_ISfs 2347
7.148.2.16 nppsDivC_8u_Sfs 2348
7.149 DivCRev 2349
7.149.1 Detailed Description 2349
7.149.2 Function Documentation 2349
7.149.2.1 nppsDivCRev_16u 2349
7.149.2.2 nppsDivCRev_16u_I 2349
7.149.2.3 nppsDivCRev_32f 2350
7.149.2.4 nppsDivCRev_32f_I 2350
7.150 Add 2351
7.150.1 Detailed Description 2353
7.150.2 Function Documentation 2353
7.150.2.1 nppsAdd_16s 2353
7.150.2.2 nppsAdd_16s32f 2353

7.150.2.3 nppsAdd_16s32s_I 2354
7.150.2.4 nppsAdd_16s_I 2354
7.150.2.5 nppsAdd_16s_ISfs 2354
7.150.2.6 nppsAdd_16s_Sfs 2355
7.150.2.7 nppsAdd_16sc_ISfs 2355
7.150.2.8 nppsAdd_16sc_Sfs 2355
7.150.2.9 nppsAdd_16u 2356
7.150.2.10 nppsAdd_16u_ISfs 2356
7.150.2.11 nppsAdd_16u_Sfs 2356
7.150.2.12 nppsAdd_32f 2357
7.150.2.13 nppsAdd_32f_I 2357
7.150.2.14 nppsAdd_32fc 2357
7.150.2.15 nppsAdd_32fc_I 2358
7.150.2.16 nppsAdd_32s_ISfs 2358
7.150.2.17 nppsAdd_32s_Sfs 2358
7.150.2.18 nppsAdd_32sc_ISfs 2359
7.150.2.19 nppsAdd_32sc_Sfs 2359
7.150.2.20 nppsAdd_32u 2359
7.150.2.21 nppsAdd_64f 2360
7.150.2.22 nppsAdd_64f_I 2360
7.150.2.23 nppsAdd_64fc 2360
7.150.2.24 nppsAdd_64fc_I 2361
7.150.2.25 nppsAdd_64s_Sfs 2361
7.150.2.26 nppsAdd_8u16u 2361
7.150.2.27 nppsAdd_8u_ISfs 2362
7.150.2.28 nppsAdd_8u_Sfs 2362
7.151 AddProduct 2363
7.151.1 Detailed Description 2363
7.151.2 Function Documentation 2364
7.151.2.1 nppsAddProduct_16s32s_Sfs 2364
7.151.2.2 nppsAddProduct_16s_Sfs 2364
7.151.2.3 nppsAddProduct_32f 2364
7.151.2.4 nppsAddProduct_32fc 2365
7.151.2.5 nppsAddProduct_32s_Sfs 2365
7.151.2.6 nppsAddProduct_64f 2366
7.151.2.7 nppsAddProduct_64fc 2366

7.152 Mul . . . 2367
7.152.1 Detailed Description . . . 2369
7.152.2 Function Documentation . . . 2369
7.152.2.1 nppsMul_16s . . . 2369
7.152.2.2 nppsMul_16s32f . . . 2370
7.152.2.3 nppsMul_16s32s_Sfs . . . 2370
7.152.2.4 nppsMul_16s_I . . . 2370
7.152.2.5 nppsMul_16s_ISfs . . . 2371
7.152.2.6 nppsMul_16s_Sfs . . . 2371
7.152.2.7 nppsMul_16sc_ISfs . . . 2371
7.152.2.8 nppsMul_16sc_Sfs . . . 2372
7.152.2.9 nppsMul_16u16s_Sfs . . . 2372
7.152.2.10 nppsMul_16u_ISfs . . . 2372
7.152.2.11 nppsMul_16u_Sfs . . . 2373
7.152.2.12 nppsMul_32f . . . 2373
7.152.2.13 nppsMul_32f32fc . . . 2373
7.152.2.14 nppsMul_32f32fc_I . . . 2374
7.152.2.15 nppsMul_32f_I . . . 2374
7.152.2.16 nppsMul_32fc . . . 2374
7.152.2.17 nppsMul_32fc_I . . . 2375
7.152.2.18 nppsMul_32s32sc_ISfs . . . 2375
7.152.2.19 nppsMul_32s32sc_Sfs . . . 2375
7.152.2.20 nppsMul_32s_ISfs . . . 2376
7.152.2.21 nppsMul_32s_Sfs . . . 2376
7.152.2.22 nppsMul_32sc_ISfs . . . 2376
7.152.2.23 nppsMul_32sc_Sfs . . . 2377
7.152.2.24 nppsMul_64f . . . 2377
7.152.2.25 nppsMul_64f_I . . . 2377
7.152.2.26 nppsMul_64fc . . . 2378
7.152.2.27 nppsMul_64fc_I . . . 2378
7.152.2.28 nppsMul_8u16u . . . 2378
7.152.2.29 nppsMul_8u_ISfs . . . 2379
7.152.2.30 nppsMul_8u_Sfs . . . 2379
7.152.2.31 nppsMul_Low_32s_Sfs . . . 2379
7.153 Sub . . . 2380
7.153.1 Detailed Description . . . 2381

7.153.2 Function Documentation . . . 2381
7.153.2.1 nppsSub_16s . . . 2381
7.153.2.2 nppsSub_16s32f . . . 2382
7.153.2.3 nppsSub_16s_I . . . 2382
7.153.2.4 nppsSub_16s_ISfs . . . 2382
7.153.2.5 nppsSub_16s_Sfs . . . 2383
7.153.2.6 nppsSub_16sc_ISfs . . . 2383
7.153.2.7 nppsSub_16sc_Sfs . . . 2383
7.153.2.8 nppsSub_16u_ISfs . . . 2384
7.153.2.9 nppsSub_16u_Sfs . . . 2384
7.153.2.10nppsSub_32f . . . 2384
7.153.2.11nppsSub_32f_I . . . 2385
7.153.2.12nppsSub_32fc . . . 2385
7.153.2.13nppsSub_32fc_I . . . 2385
7.153.2.14nppsSub_32s_ISfs . . . 2386
7.153.2.15nppsSub_32s_Sfs . . . 2386
7.153.2.16nppsSub_32sc_ISfs . . . 2386
7.153.2.17nppsSub_32sc_Sfs . . . 2387
7.153.2.18nppsSub_64f . . . 2387
7.153.2.19nppsSub_64f_I . . . 2387
7.153.2.20nppsSub_64fc . . . 2388
7.153.2.21nppsSub_64fc_I . . . 2388
7.153.2.22nppsSub_8u_ISfs . . . 2388
7.153.2.23nppsSub_8u_Sfs . . . 2389
7.154Div . . . 2390
7.154.1 Detailed Description . . . 2391
7.154.2 Function Documentation . . . 2391
7.154.2.1 nppsDiv_16s_ISfs . . . 2391
7.154.2.2 nppsDiv_16s_Sfs . . . 2392
7.154.2.3 nppsDiv_16sc_ISfs . . . 2392
7.154.2.4 nppsDiv_16sc_Sfs . . . 2392
7.154.2.5 nppsDiv_16u_ISfs . . . 2393
7.154.2.6 nppsDiv_16u_Sfs . . . 2393
7.154.2.7 nppsDiv_32f . . . 2393
7.154.2.8 nppsDiv_32f_I . . . 2394
7.154.2.9 nppsDiv_32fc . . . 2394

7.154.2.10 nppsDiv_32fc_I . . . 2394
7.154.2.11 nppsDiv_32s16s_Sfs . . . 2394
7.154.2.12 nppsDiv_32s_ISfs . . . 2395
7.154.2.13 nppsDiv_32s_Sfs . . . 2395
7.154.2.14 nppsDiv_64f . . . 2396
7.154.2.15 nppsDiv_64f_I . . . 2396
7.154.2.16 nppsDiv_64fc . . . 2396
7.154.2.17 nppsDiv_64fc_I . . . 2397
7.154.2.18 nppsDiv_8u_ISfs . . . 2397
7.154.2.19 nppsDiv_8u_Sfs . . . 2397
7.155 Div_Round . . . 2398
7.155.1 Detailed Description . . . 2398
7.155.2 Function Documentation . . . 2398
7.155.2.1 nppsDiv_Round_16s_ISfs . . . 2398
7.155.2.2 nppsDiv_Round_16s_Sfs . . . 2399
7.155.2.3 nppsDiv_Round_16u_ISfs . . . 2399
7.155.2.4 nppsDiv_Round_16u_Sfs . . . 2399
7.155.2.5 nppsDiv_Round_8u_ISfs . . . 2400
7.155.2.6 nppsDiv_Round_8u_Sfs . . . 2400
7.156 Abs . . . 2401
7.156.1 Detailed Description . . . 2401
7.156.2 Function Documentation . . . 2401
7.156.2.1 nppsAbs_16s . . . 2401
7.156.2.2 nppsAbs_16s_I . . . 2402
7.156.2.3 nppsAbs_32f . . . 2402
7.156.2.4 nppsAbs_32f_I . . . 2402
7.156.2.5 nppsAbs_32s . . . 2402
7.156.2.6 nppsAbs_32s_I . . . 2403
7.156.2.7 nppsAbs_64f . . . 2403
7.156.2.8 nppsAbs_64f_I . . . 2403
7.157 Sqr . . . 2404
7.157.1 Detailed Description . . . 2405
7.157.2 Function Documentation . . . 2405
7.157.2.1 nppsSqr_16s_ISfs . . . 2405
7.157.2.2 nppsSqr_16s_Sfs . . . 2405
7.157.2.3 nppsSqr_16sc_ISfs . . . 2405

7.157.2.4 nppsSqr_16sc_Sfs 2406
7.157.2.5 nppsSqr_16u_ISfs 2406
7.157.2.6 nppsSqr_16u_Sfs 2406
7.157.2.7 nppsSqr_32f 2407
7.157.2.8 nppsSqr_32f_I 2407
7.157.2.9 nppsSqr_32fc 2407
7.157.2.10nppsSqr_32fc_I 2407
7.157.2.11nppsSqr_64f 2408
7.157.2.12nppsSqr_64f_I 2408
7.157.2.13nppsSqr_64fc 2408
7.157.2.14nppsSqr_64fc_I 2408
7.157.2.15nppsSqr_8u_ISfs 2409
7.157.2.16nppsSqr_8u_Sfs 2409
7.158Sqrt 2410
7.158.1 Detailed Description 2411
7.158.2 Function Documentation 2411
7.158.2.1 nppsSqrt_16s_ISfs 2411
7.158.2.2 nppsSqrt_16s_Sfs 2411
7.158.2.3 nppsSqrt_16sc_ISfs 2412
7.158.2.4 nppsSqrt_16sc_Sfs 2412
7.158.2.5 nppsSqrt_16u_ISfs 2412
7.158.2.6 nppsSqrt_16u_Sfs 2413
7.158.2.7 nppsSqrt_32f 2413
7.158.2.8 nppsSqrt_32f_I 2413
7.158.2.9 nppsSqrt_32fc 2413
7.158.2.10nppsSqrt_32fc_I 2414
7.158.2.11nppsSqrt_32s16s_Sfs 2414
7.158.2.12nppsSqrt_64f 2414
7.158.2.13nppsSqrt_64f_I 2415
7.158.2.14nppsSqrt_64fc 2415
7.158.2.15nppsSqrt_64fc_I 2415
7.158.2.16nppsSqrt_64s16s_Sfs 2415
7.158.2.17nppsSqrt_64s_ISfs 2416
7.158.2.18nppsSqrt_64s_Sfs 2416
7.158.2.19nppsSqrt_8u_ISfs 2416
7.158.2.20nppsSqrt_8u_Sfs 2416

7.159Cubrt 2418
7.159.1 Detailed Description 2418
7.159.2 Function Documentation 2418
7.159.2.1 nppsCubrt_32f 2418
7.159.2.2 nppsCubrt_32s16s_Sfs 2418
7.160Exp 2419
7.160.1 Detailed Description 2419
7.160.2 Function Documentation 2419
7.160.2.1 nppsExp_16s_ISfs 2419
7.160.2.2 nppsExp_16s_Sfs 2420
7.160.2.3 nppsExp_32f 2420
7.160.2.4 nppsExp_32f64f 2420
7.160.2.5 nppsExp_32f_I 2421
7.160.2.6 nppsExp_32s_ISfs 2421
7.160.2.7 nppsExp_32s_Sfs 2421
7.160.2.8 nppsExp_64f 2421
7.160.2.9 nppsExp_64f_I 2422
7.160.2.10nppsExp_64s_ISfs 2422
7.160.2.11nppsExp_64s_Sfs 2422
7.161Ln 2423
7.161.1 Detailed Description 2423
7.161.2 Function Documentation 2423
7.161.2.1 nppsLn_16s_ISfs 2423
7.161.2.2 nppsLn_16s_Sfs 2424
7.161.2.3 nppsLn_32f 2424
7.161.2.4 nppsLn_32f_I 2424
7.161.2.5 nppsLn_32s16s_Sfs 2425
7.161.2.6 nppsLn_32s_ISfs 2425
7.161.2.7 nppsLn_32s_Sfs 2425
7.161.2.8 nppsLn_64f 2426
7.161.2.9 nppsLn_64f32f 2426
7.161.2.10nppsLn_64f_I 2426
7.16210Log10 2427
7.162.1 Detailed Description 2427
7.162.2 Function Documentation 2427
7.162.2.1 npps10Log10_32s_ISfs 2427

7.162.2.2 npps10Log10_32s_Sfs 2427
7.163 SumLn 2428
7.163.1 Detailed Description 2428
7.163.2 Function Documentation 2428
7.163.2.1 nppsSumLn_16s32f 2428
7.163.2.2 nppsSumLn_32f 2429
7.163.2.3 nppsSumLn_32f64f 2429
7.163.2.4 nppsSumLn_64f 2429
7.163.2.5 nppsSumLnGetBufferSize_16s32f 2430
7.163.2.6 nppsSumLnGetBufferSize_32f 2430
7.163.2.7 nppsSumLnGetBufferSize_32f64f 2430
7.163.2.8 nppsSumLnGetBufferSize_64f 2431
7.164 Arctan 2432
7.164.1 Detailed Description 2432
7.164.2 Function Documentation 2432
7.164.2.1 nppsArctan_32f 2432
7.164.2.2 nppsArctan_32f_I 2432
7.164.2.3 nppsArctan_64f 2433
7.164.2.4 nppsArctan_64f_I 2433
7.165 Normalize 2434
7.165.1 Detailed Description 2434
7.165.2 Function Documentation 2434
7.165.2.1 nppsNormalize_16s_Sfs 2434
7.165.2.2 nppsNormalize_16sc_Sfs 2435
7.165.2.3 nppsNormalize_32f 2435
7.165.2.4 nppsNormalize_32fc 2435
7.165.2.5 nppsNormalize_64f 2436
7.165.2.6 nppsNormalize_64fc 2436
7.166 Cauchy, CauchyD, and CauchyDD2 2437
7.166.1 Detailed Description 2437
7.166.2 Function Documentation 2437
7.166.2.1 nppsCauchy_32f_I 2437
7.166.2.2 nppsCauchyD_32f_I 2437
7.166.2.3 nppsCauchyDD2_32f_I 2438
7.167 Logical And Shift Operations 2439
7.168 AndC 2440

7.168.1 Detailed Description 2440
7.168.2 Function Documentation 2440
7.168.2.1 nppsAndC_16u 2440
7.168.2.2 nppsAndC_16u_I 2441
7.168.2.3 nppsAndC_32u 2441
7.168.2.4 nppsAndC_32u_I 2441
7.168.2.5 nppsAndC_8u 2441
7.168.2.6 nppsAndC_8u_I 2442
7.169 And 2443
7.169.1 Detailed Description 2443
7.169.2 Function Documentation 2443
7.169.2.1 nppsAnd_16u 2443
7.169.2.2 nppsAnd_16u_I 2444
7.169.2.3 nppsAnd_32u 2444
7.169.2.4 nppsAnd_32u_I 2444
7.169.2.5 nppsAnd_8u 2444
7.169.2.6 nppsAnd_8u_I 2445
7.170 OrC 2446
7.170.1 Detailed Description 2446
7.170.2 Function Documentation 2446
7.170.2.1 nppsOrC_16u 2446
7.170.2.2 nppsOrC_16u_I 2447
7.170.2.3 nppsOrC_32u 2447
7.170.2.4 nppsOrC_32u_I 2447
7.170.2.5 nppsOrC_8u 2447
7.170.2.6 nppsOrC_8u_I 2448
7.171 Or 2449
7.171.1 Detailed Description 2449
7.171.2 Function Documentation 2449
7.171.2.1 nppsOr_16u 2449
7.171.2.2 nppsOr_16u_I 2450
7.171.2.3 nppsOr_32u 2450
7.171.2.4 nppsOr_32u_I 2450
7.171.2.5 nppsOr_8u 2450
7.171.2.6 nppsOr_8u_I 2451
7.172 XorC 2452

7.172.1 Detailed Description 2452

7.172.2 Function Documentation 2452

7.172.2.1 nppsXorC_16u 2452

7.172.2.2 nppsXorC_16u_I 2453

7.172.2.3 nppsXorC_32u 2453

7.172.2.4 nppsXorC_32u_I 2453

7.172.2.5 nppsXorC_8u 2453

7.172.2.6 nppsXorC_8u_I 2454

7.173Xor 2455

7.173.1 Detailed Description 2455

7.173.2 Function Documentation 2455

7.173.2.1 nppsXor_16u 2455

7.173.2.2 nppsXor_16u_I 2456

7.173.2.3 nppsXor_32u 2456

7.173.2.4 nppsXor_32u_I 2456

7.173.2.5 nppsXor_8u 2456

7.173.2.6 nppsXor_8u_I 2457

7.174Not 2458

7.174.1 Detailed Description 2458

7.174.2 Function Documentation 2458

7.174.2.1 nppsNot_16u 2458

7.174.2.2 nppsNot_16u_I 2459

7.174.2.3 nppsNot_32u 2459

7.174.2.4 nppsNot_32u_I 2459

7.174.2.5 nppsNot_8u 2459

7.174.2.6 nppsNot_8u_I 2460

7.175LShiftC 2461

7.175.1 Detailed Description 2461

7.175.2 Function Documentation 2461

7.175.2.1 nppsLShiftC_16s 2461

7.175.2.2 nppsLShiftC_16s_I 2462

7.175.2.3 nppsLShiftC_16u 2462

7.175.2.4 nppsLShiftC_16u_I 2462

7.175.2.5 nppsLShiftC_32s 2463

7.175.2.6 nppsLShiftC_32s_I 2463

7.175.2.7 nppsLShiftC_32u 2463

7.175.2.8 nppsLShiftC_32u_I 2464
7.175.2.9 nppsLShiftC_8u 2464
7.175.2.10nppsLShiftC_8u_I 2464
7.176RShiftC 2465
7.176.1 Detailed Description 2465
7.176.2 Function Documentation 2465
7.176.2.1 nppsRShiftC_16s 2465
7.176.2.2 nppsRShiftC_16s_I 2466
7.176.2.3 nppsRShiftC_16u 2466
7.176.2.4 nppsRShiftC_16u_I 2466
7.176.2.5 nppsRShiftC_32s 2467
7.176.2.6 nppsRShiftC_32s_I 2467
7.176.2.7 nppsRShiftC_32u 2467
7.176.2.8 nppsRShiftC_32u_I 2468
7.176.2.9 nppsRShiftC_8u 2468
7.176.2.10nppsRShiftC_8u_I 2468
7.177Conversion Functions 2469
7.178Convert 2470
7.178.1 Function Documentation 2472
7.178.1.1 nppsConvert_16s32f 2472
7.178.1.2 nppsConvert_16s32f_Sfs 2472
7.178.1.3 nppsConvert_16s32s 2472
7.178.1.4 nppsConvert_16s64f_Sfs 2472
7.178.1.5 nppsConvert_16s8s_Sfs 2472
7.178.1.6 nppsConvert_16u32f 2472
7.178.1.7 nppsConvert_32f16s_Sfs 2472
7.178.1.8 nppsConvert_32f16u_Sfs 2472
7.178.1.9 nppsConvert_32f32s_Sfs 2472
7.178.1.10nppsConvert_32f64f 2472
7.178.1.11nppsConvert_32f8s_Sfs 2472
7.178.1.12nppsConvert_32f8u_Sfs 2472
7.178.1.13nppsConvert_32s16s 2472
7.178.1.14nppsConvert_32s16s_Sfs 2472
7.178.1.15nppsConvert_32s32f 2472
7.178.1.16nppsConvert_32s32f_Sfs 2472
7.178.1.17nppsConvert_32s64f 2472

7.178.1.18 nppsConvert_32s64f_Sfs 2472
7.178.1.19 nppsConvert_64f16s_Sfs 2472
7.178.1.20 nppsConvert_64f32f 2472
7.178.1.21 nppsConvert_64f32s_Sfs 2472
7.178.1.22 nppsConvert_64f64s_Sfs 2472
7.178.1.23 nppsConvert_64s32s_Sfs 2472
7.178.1.24 nppsConvert_64s64f 2472
7.178.1.25 nppsConvert_8s16s 2472
7.178.1.26 nppsConvert_8s32f 2472
7.178.1.27 nppsConvert_8u32f 2472
7.179 Threshold 2473
7.179.1 Function Documentation 2477
7.179.1.1 nppsThreshold_16s 2477
7.179.1.2 nppsThreshold_16s_I 2478
7.179.1.3 nppsThreshold_16sc 2478
7.179.1.4 nppsThreshold_16sc_I 2478
7.179.1.5 nppsThreshold_32f 2479
7.179.1.6 nppsThreshold_32f_I 2479
7.179.1.7 nppsThreshold_32fc 2479
7.179.1.8 nppsThreshold_32fc_I 2480
7.179.1.9 nppsThreshold_64f 2480
7.179.1.10 nppsThreshold_64f_I 2481
7.179.1.11 nppsThreshold_64fc 2481
7.179.1.12 nppsThreshold_64fc_I 2481
7.179.1.13 nppsThreshold_GT_16s 2482
7.179.1.14 nppsThreshold_GT_16s_I 2482
7.179.1.15 nppsThreshold_GT_16sc 2482
7.179.1.16 nppsThreshold_GT_16sc_I 2483
7.179.1.17 nppsThreshold_GT_32f 2483
7.179.1.18 nppsThreshold_GT_32f_I 2483
7.179.1.19 nppsThreshold_GT_32fc 2484
7.179.1.20 nppsThreshold_GT_32fc_I 2484
7.179.1.21 nppsThreshold_GT_64f 2484
7.179.1.22 nppsThreshold_GT_64f_I 2485
7.179.1.23 nppsThreshold_GT_64fc 2485
7.179.1.24 nppsThreshold_GT_64fc_I 2485

7.179.1.25 nppsThreshold_GTVal_16s . . . 2486
7.179.1.26 nppsThreshold_GTVal_16s_I . . . 2486
7.179.1.27 nppsThreshold_GTVal_16sc . . . 2486
7.179.1.28 nppsThreshold_GTVal_16sc_I . . . 2487
7.179.1.29 nppsThreshold_GTVal_32f . . . 2487
7.179.1.30 nppsThreshold_GTVal_32f_I . . . 2487
7.179.1.31 nppsThreshold_GTVal_32fc . . . 2488
7.179.1.32 nppsThreshold_GTVal_32fc_I . . . 2488
7.179.1.33 nppsThreshold_GTVal_64f . . . 2488
7.179.1.34 nppsThreshold_GTVal_64f_I . . . 2489
7.179.1.35 nppsThreshold_GTVal_64fc . . . 2489
7.179.1.36 nppsThreshold_GTVal_64fc_I . . . 2489
7.179.1.37 nppsThreshold_LT_16s . . . 2490
7.179.1.38 nppsThreshold_LT_16s_I . . . 2490
7.179.1.39 nppsThreshold_LT_16sc . . . 2490
7.179.1.40 nppsThreshold_LT_16sc_I . . . 2491
7.179.1.41 nppsThreshold_LT_32f . . . 2491
7.179.1.42 nppsThreshold_LT_32f_I . . . 2491
7.179.1.43 nppsThreshold_LT_32fc . . . 2492
7.179.1.44 nppsThreshold_LT_32fc_I . . . 2492
7.179.1.45 nppsThreshold_LT_64f . . . 2492
7.179.1.46 nppsThreshold_LT_64f_I . . . 2493
7.179.1.47 nppsThreshold_LT_64fc . . . 2493
7.179.1.48 nppsThreshold_LT_64fc_I . . . 2493
7.179.1.49 nppsThreshold_LTVal_16s . . . 2494
7.179.1.50 nppsThreshold_LTVal_16s_I . . . 2494
7.179.1.51 nppsThreshold_LTVal_16sc . . . 2494
7.179.1.52 nppsThreshold_LTVal_16sc_I . . . 2495
7.179.1.53 nppsThreshold_LTVal_32f . . . 2495
7.179.1.54 nppsThreshold_LTVal_32f_I . . . 2495
7.179.1.55 nppsThreshold_LTVal_32fc . . . 2496
7.179.1.56 nppsThreshold_LTVal_32fc_I . . . 2496
7.179.1.57 nppsThreshold_LTVal_64f . . . 2496
7.179.1.58 nppsThreshold_LTVal_64f_I . . . 2497
7.179.1.59 nppsThreshold_LTVal_64fc . . . 2497
7.179.1.60 nppsThreshold_LTVal_64fc_I . . . 2497

7.180Filtering Functions 2498
7.180.1 Detailed Description 2498
7.181Integral 2499
7.181.1 Detailed Description 2499
7.181.2 Function Documentation 2499
7.181.2.1 nppsIntegral_32s 2499
7.181.2.2 nppsIntegralGetBufferSize_32s 2499
7.182Initialization 2500
7.183Set 2501
7.183.1 Function Documentation 2502
7.183.1.1 nppsSet_16s 2502
7.183.1.2 nppsSet_16sc 2502
7.183.1.3 nppsSet_16u 2502
7.183.1.4 nppsSet_32f 2502
7.183.1.5 nppsSet_32fc 2503
7.183.1.6 nppsSet_32s 2503
7.183.1.7 nppsSet_32sc 2503
7.183.1.8 nppsSet_32u 2504
7.183.1.9 nppsSet_64f 2504
7.183.1.10nppsSet_64fc 2504
7.183.1.11nppsSet_64s 2504
7.183.1.12nppsSet_64sc 2505
7.183.1.13nppsSet_8s 2505
7.183.1.14nppsSet_8u 2505
7.184Zero 2506
7.184.1 Function Documentation 2506
7.184.1.1 nppsZero_16s 2506
7.184.1.2 nppsZero_16sc 2507
7.184.1.3 nppsZero_32f 2507
7.184.1.4 nppsZero_32fc 2507
7.184.1.5 nppsZero_32s 2507
7.184.1.6 nppsZero_32sc 2508
7.184.1.7 nppsZero_64f 2508
7.184.1.8 nppsZero_64fc 2508
7.184.1.9 nppsZero_64s 2508
7.184.1.10nppsZero_64sc 2509

7.184.1.11nppsZero_8u 2509
7.185Copy 2510
7.185.1 Function Documentation 2510
7.185.1.1 nppsCopy_16s 2510
7.185.1.2 nppsCopy_16sc 2511
7.185.1.3 nppsCopy_32f 2511
7.185.1.4 nppsCopy_32fc 2511
7.185.1.5 nppsCopy_32s 2512
7.185.1.6 nppsCopy_32sc 2512
7.185.1.7 nppsCopy_64fc 2512
7.185.1.8 nppsCopy_64s 2512
7.185.1.9 nppsCopy_64sc 2513
7.185.1.10nppsCopy_8u 2513
7.186Statistical Functions 2514
7.186.1 Detailed Description 2514
7.187MinEvery And MaxEvery Functions 2515
7.187.1 Detailed Description 2515
7.187.2 Function Documentation 2515
7.187.2.1 nppsMaxEvery_16s_I 2515
7.187.2.2 nppsMaxEvery_16u_I 2516
7.187.2.3 nppsMaxEvery_32f_I 2516
7.187.2.4 nppsMaxEvery_32s_I 2516
7.187.2.5 nppsMaxEvery_8u_I 2517
7.187.2.6 nppsMinEvery_16s_I 2517
7.187.2.7 nppsMinEvery_16u_I 2517
7.187.2.8 nppsMinEvery_32f_I 2517
7.187.2.9 nppsMinEvery_32s_I 2518
7.187.2.10nppsMinEvery_64f_I 2518
7.187.2.11nppsMinEvery_8u_I 2518
7.188Sum 2519
7.188.1 Detailed Description 2520
7.188.2 Function Documentation 2520
7.188.2.1 nppsSum_16s32s_Sfs 2520
7.188.2.2 nppsSum_16s_Sfs 2520
7.188.2.3 nppsSum_16sc32sc_Sfs 2521
7.188.2.4 nppsSum_16sc_Sfs 2521

7.188.2.5 nppsSum_32f 2522
7.188.2.6 nppsSum_32fc 2522
7.188.2.7 nppsSum_32s_Sfs 2522
7.188.2.8 nppsSum_64f 2523
7.188.2.9 nppsSum_64fc 2523
7.188.2.10 nppsSumGetBufferSize_16s32s_Sfs 2523
7.188.2.11 nppsSumGetBufferSize_16s_Sfs 2524
7.188.2.12 nppsSumGetBufferSize_16sc32sc_Sfs 2524
7.188.2.13 nppsSumGetBufferSize_16sc_Sfs 2524
7.188.2.14 nppsSumGetBufferSize_32f 2524
7.188.2.15 nppsSumGetBufferSize_32fc 2525
7.188.2.16 nppsSumGetBufferSize_32s_Sfs 2525
7.188.2.17 nppsSumGetBufferSize_64f 2525
7.188.2.18 nppsSumGetBufferSize_64fc 2525
7.189 Maximum 2526
7.189.1 Function Documentation 2527
7.189.1.1 nppsMax_16s 2527
7.189.1.2 nppsMax_32f 2528
7.189.1.3 nppsMax_32s 2528
7.189.1.4 nppsMax_64f 2528
7.189.1.5 nppsMaxAbs_16s 2529
7.189.1.6 nppsMaxAbs_32s 2529
7.189.1.7 nppsMaxAbsGetBufferSize_16s 2529
7.189.1.8 nppsMaxAbsGetBufferSize_32s 2530
7.189.1.9 nppsMaxAbsIndx_16s 2530
7.189.1.10 nppsMaxAbsIndx_32s 2530
7.189.1.11 nppsMaxAbsIndxGetBufferSize_16s 2531
7.189.1.12 nppsMaxAbsIndxGetBufferSize_32s 2531
7.189.1.13 nppsMaxGetBufferSize_16s 2531
7.189.1.14 nppsMaxGetBufferSize_32f 2532
7.189.1.15 nppsMaxGetBufferSize_32s 2532
7.189.1.16 nppsMaxGetBufferSize_64f 2532
7.189.1.17 nppsMaxIndx_16s 2532
7.189.1.18 nppsMaxIndx_32f 2533
7.189.1.19 nppsMaxIndx_32s 2533
7.189.1.20 nppsMaxIndx_64f 2534

7.189.1.21 nppsMaxIndxGetBufferSize_16s 2534
7.189.1.22 nppsMaxIndxGetBufferSize_32f 2534
7.189.1.23 nppsMaxIndxGetBufferSize_32s 2535
7.189.1.24 nppsMaxIndxGetBufferSize_64f 2535
7.190 Minimum 2536
7.190.1 Function Documentation 2537
7.190.1.1 nppsMin_16s 2537
7.190.1.2 nppsMin_32f 2538
7.190.1.3 nppsMin_32s 2538
7.190.1.4 nppsMin_64f 2538
7.190.1.5 nppsMinAbs_16s 2539
7.190.1.6 nppsMinAbs_32s 2539
7.190.1.7 nppsMinAbsGetBufferSize_16s 2539
7.190.1.8 nppsMinAbsGetBufferSize_32s 2540
7.190.1.9 nppsMinAbsIndx_16s 2540
7.190.1.10 nppsMinAbsIndx_32s 2540
7.190.1.11 nppsMinAbsIndxGetBufferSize_16s 2541
7.190.1.12 nppsMinAbsIndxGetBufferSize_32s 2541
7.190.1.13 nppsMinGetBufferSize_16s 2541
7.190.1.14 nppsMinGetBufferSize_32f 2542
7.190.1.15 nppsMinGetBufferSize_32s 2542
7.190.1.16 nppsMinGetBufferSize_64f 2542
7.190.1.17 nppsMinIndx_16s 2542
7.190.1.18 nppsMinIndx_32f 2543
7.190.1.19 nppsMinIndx_32s 2543
7.190.1.20 nppsMinIndx_64f 2544
7.190.1.21 nppsMinIndxGetBufferSize_16s 2544
7.190.1.22 nppsMinIndxGetBufferSize_32f 2544
7.190.1.23 nppsMinIndxGetBufferSize_32s 2545
7.190.1.24 nppsMinIndxGetBufferSize_64f 2545
7.191 Mean 2546
7.191.1 Function Documentation 2547
7.191.1.1 nppsMean_16s_Sfs 2547
7.191.1.2 nppsMean_16sc_Sfs 2547
7.191.1.3 nppsMean_32f 2547
7.191.1.4 nppsMean_32fc 2548

7.191.1.5 nppsMean_32s_Sfs 2548
7.191.1.6 nppsMean_64f 2549
7.191.1.7 nppsMean_64fc 2549
7.191.1.8 nppsMeanGetBufferSize_16s_Sfs 2549
7.191.1.9 nppsMeanGetBufferSize_16sc_Sfs 2550
7.191.1.10nppsMeanGetBufferSize_32f 2550
7.191.1.11nppsMeanGetBufferSize_32fc 2550
7.191.1.12nppsMeanGetBufferSize_32s_Sfs 2550
7.191.1.13nppsMeanGetBufferSize_64f 2551
7.191.1.14nppsMeanGetBufferSize_64fc 2551
7.192Standard Deviation 2552
7.192.1 Function Documentation 2552
7.192.1.1 nppsStdDev_16s32s_Sfs 2552
7.192.1.2 nppsStdDev_16s_Sfs 2553
7.192.1.3 nppsStdDev_32f 2553
7.192.1.4 nppsStdDev_64f 2553
7.192.1.5 nppsStdDevGetBufferSize_16s32s_Sfs 2554
7.192.1.6 nppsStdDevGetBufferSize_16s_Sfs 2554
7.192.1.7 nppsStdDevGetBufferSize_32f 2554
7.192.1.8 nppsStdDevGetBufferSize_64f 2554
7.193Mean And Standard Deviation 2555
7.193.1 Function Documentation 2555
7.193.1.1 nppsMeanStdDev_16s32s_Sfs 2555
7.193.1.2 nppsMeanStdDev_16s_Sfs 2556
7.193.1.3 nppsMeanStdDev_32f 2556
7.193.1.4 nppsMeanStdDev_64f 2556
7.193.1.5 nppsMeanStdDevGetBufferSize_16s32s_Sfs 2557
7.193.1.6 nppsMeanStdDevGetBufferSize_16s_Sfs 2557
7.193.1.7 nppsMeanStdDevGetBufferSize_32f 2557
7.193.1.8 nppsMeanStdDevGetBufferSize_64f 2558
7.194Minimum_Maximum 2559
7.194.1 Function Documentation 2561
7.194.1.1 nppsMinMax_16s 2561
7.194.1.2 nppsMinMax_16u 2561
7.194.1.3 nppsMinMax_32f 2561
7.194.1.4 nppsMinMax_32s 2562

7.194.1.5 nppsMinMax_32u 2562
7.194.1.6 nppsMinMax_64f 2562
7.194.1.7 nppsMinMax_8u 2563
7.194.1.8 nppsMinMaxGetBufferSize_16s 2563
7.194.1.9 nppsMinMaxGetBufferSize_16u 2563
7.194.1.10nppsMinMaxGetBufferSize_32f 2564
7.194.1.11nppsMinMaxGetBufferSize_32s 2564
7.194.1.12nppsMinMaxGetBufferSize_32u 2564
7.194.1.13nppsMinMaxGetBufferSize_64f 2565
7.194.1.14nppsMinMaxGetBufferSize_8u 2565
7.194.1.15nppsMinMaxIndx_16s 2565
7.194.1.16nppsMinMaxIndx_16u 2566
7.194.1.17nppsMinMaxIndx_32f 2566
7.194.1.18nppsMinMaxIndx_32s 2566
7.194.1.19nppsMinMaxIndx_32u 2567
7.194.1.20nppsMinMaxIndx_64f 2567
7.194.1.21nppsMinMaxIndx_8u 2568
7.194.1.22nppsMinMaxIndxGetBufferSize_16s 2568
7.194.1.23nppsMinMaxIndxGetBufferSize_16u 2568
7.194.1.24nppsMinMaxIndxGetBufferSize_32f 2569
7.194.1.25nppsMinMaxIndxGetBufferSize_32s 2569
7.194.1.26nppsMinMaxIndxGetBufferSize_32u 2569
7.194.1.27nppsMinMaxIndxGetBufferSize_64f 2569
7.194.1.28nppsMinMaxIndxGetBufferSize_8u 2570
7.195Infinity Norm 2571
7.195.1 Function Documentation 2572
7.195.1.1 nppsNorm_Inf_16s32f 2572
7.195.1.2 nppsNorm_Inf_16s32s_Sfs 2572
7.195.1.3 nppsNorm_Inf_32f 2572
7.195.1.4 nppsNorm_Inf_32fc32f 2573
7.195.1.5 nppsNorm_Inf_64f 2573
7.195.1.6 nppsNorm_Inf_64fc64f 2573
7.195.1.7 nppsNormInfGetBufferSize_16s32f 2574
7.195.1.8 nppsNormInfGetBufferSize_16s32s_Sfs 2574
7.195.1.9 nppsNormInfGetBufferSize_32f 2574
7.195.1.10nppsNormInfGetBufferSize_32fc32f 2574

7.195.1.11 nppsNormInfGetBufferSize_64f 2575
7.195.1.12 nppsNormInfGetBufferSize_64fc64f 2575
7.196 L1 Norm 2576
7.196.1 Function Documentation 2577
7.196.1.1 nppsNorm_L1_16s32f 2577
7.196.1.2 nppsNorm_L1_16s32s_Sfs 2577
7.196.1.3 nppsNorm_L1_16s64s_Sfs 2577
7.196.1.4 nppsNorm_L1_32f 2578
7.196.1.5 nppsNorm_L1_32fc64f 2578
7.196.1.6 nppsNorm_L1_64f 2578
7.196.1.7 nppsNorm_L1_64fc64f 2579
7.196.1.8 nppsNormL1GetBufferSize_16s32f 2579
7.196.1.9 nppsNormL1GetBufferSize_16s32s_Sfs 2579
7.196.1.10 nppsNormL1GetBufferSize_16s64s_Sfs 2580
7.196.1.11 nppsNormL1GetBufferSize_32f 2580
7.196.1.12 nppsNormL1GetBufferSize_32fc64f 2580
7.196.1.13 nppsNormL1GetBufferSize_64f 2580
7.196.1.14 nppsNormL1GetBufferSize_64fc64f 2581
7.197 L2 Norm 2582
7.197.1 Function Documentation 2583
7.197.1.1 nppsNorm_L2_16s32f 2583
7.197.1.2 nppsNorm_L2_16s32s_Sfs 2583
7.197.1.3 nppsNorm_L2_32f 2583
7.197.1.4 nppsNorm_L2_32fc64f 2584
7.197.1.5 nppsNorm_L2_64f 2584
7.197.1.6 nppsNorm_L2_64fc64f 2584
7.197.1.7 nppsNorm_L2Sqr_16s64s_Sfs 2585
7.197.1.8 nppsNormL2GetBufferSize_16s32f 2585
7.197.1.9 nppsNormL2GetBufferSize_16s32s_Sfs 2585
7.197.1.10 nppsNormL2GetBufferSize_32f 2586
7.197.1.11 nppsNormL2GetBufferSize_32fc64f 2586
7.197.1.12 nppsNormL2GetBufferSize_64f 2586
7.197.1.13 nppsNormL2GetBufferSize_64fc64f 2586
7.197.1.14 nppsNormL2SqrGetBufferSize_16s64s_Sfs 2587
7.198 Infinity Norm Diff 2588
7.198.1 Function Documentation 2589

7.198.1.1 nppsNormDiff_Inf_16s32f 2589
7.198.1.2 nppsNormDiff_Inf_16s32s_Sfs 2589
7.198.1.3 nppsNormDiff_Inf_32f 2589
7.198.1.4 nppsNormDiff_Inf_32fc32f 2590
7.198.1.5 nppsNormDiff_Inf_64f 2590
7.198.1.6 nppsNormDiff_Inf_64fc64f 2591
7.198.1.7 nppsNormDiffInfGetBufferSize_16s32f 2591
7.198.1.8 nppsNormDiffInfGetBufferSize_16s32s_Sfs 2591
7.198.1.9 nppsNormDiffInfGetBufferSize_32f 2591
7.198.1.10nppsNormDiffInfGetBufferSize_32fc32f 2592
7.198.1.11nppsNormDiffInfGetBufferSize_64f 2592
7.198.1.12nppsNormDiffInfGetBufferSize_64fc64f 2592
7.199L1 Norm Diff 2593
7.199.1 Function Documentation 2594
7.199.1.1 nppsNormDiff_L1_16s32f 2594
7.199.1.2 nppsNormDiff_L1_16s32s_Sfs 2594
7.199.1.3 nppsNormDiff_L1_16s64s_Sfs 2594
7.199.1.4 nppsNormDiff_L1_32f 2595
7.199.1.5 nppsNormDiff_L1_32fc64f 2595
7.199.1.6 nppsNormDiff_L1_64f 2596
7.199.1.7 nppsNormDiff_L1_64fc64f 2596
7.199.1.8 nppsNormDiffL1GetBufferSize_16s32f 2596
7.199.1.9 nppsNormDiffL1GetBufferSize_16s32s_Sfs 2597
7.199.1.10nppsNormDiffL1GetBufferSize_16s64s_Sfs 2597
7.199.1.11nppsNormDiffL1GetBufferSize_32f 2597
7.199.1.12nppsNormDiffL1GetBufferSize_32fc64f 2597
7.199.1.13nppsNormDiffL1GetBufferSize_64f 2598
7.199.1.14nppsNormDiffL1GetBufferSize_64fc64f 2598
7.200L2 Norm Diff 2599
7.200.1 Function Documentation 2600
7.200.1.1 nppsNormDiff_L2_16s32f 2600
7.200.1.2 nppsNormDiff_L2_16s32s_Sfs 2600
7.200.1.3 nppsNormDiff_L2_32f 2600
7.200.1.4 nppsNormDiff_L2_32fc64f 2601
7.200.1.5 nppsNormDiff_L2_64f 2601
7.200.1.6 nppsNormDiff_L2_64fc64f 2602

7.200.1.7 nppsNormDiff_L2Sqr_16s64s_Sfs 2602
7.200.1.8 nppsNormDiffL2GetBufferSize_16s32f 2602
7.200.1.9 nppsNormDiffL2GetBufferSize_16s32s_Sfs 2603
7.200.1.10 nppsNormDiffL2GetBufferSize_32f 2603
7.200.1.11 nppsNormDiffL2GetBufferSize_32fc64f 2603
7.200.1.12 nppsNormDiffL2GetBufferSize_64f 2603
7.200.1.13 nppsNormDiffL2GetBufferSize_64fc64f 2604
7.200.1.14 nppsNormDiffL2SqrGetBufferSize_16s64s_Sfs 2604
7.201 Dot Product 2605
7.201.1 Function Documentation 2608
7.201.1.1 nppsDotProd_16s16sc32fc 2608
7.201.1.2 nppsDotProd_16s16sc32sc_Sfs 2609
7.201.1.3 nppsDotProd_16s16sc64sc 2609
7.201.1.4 nppsDotProd_16s16sc_Sfs 2610
7.201.1.5 nppsDotProd_16s32f 2610
7.201.1.6 nppsDotProd_16s32s32s_Sfs 2610
7.201.1.7 nppsDotProd_16s32s_Sfs 2611
7.201.1.8 nppsDotProd_16s64s 2611
7.201.1.9 nppsDotProd_16s_Sfs 2612
7.201.1.10 nppsDotProd_16sc32fc 2612
7.201.1.11 nppsDotProd_16sc32sc_Sfs 2612
7.201.1.12 nppsDotProd_16sc64sc 2613
7.201.1.13 nppsDotProd_16sc_Sfs 2613
7.201.1.14 nppsDotProd_32f 2614
7.201.1.15 nppsDotProd_32f32fc 2614
7.201.1.16 nppsDotProd_32f32fc64fc 2614
7.201.1.17 nppsDotProd_32f64f 2615
7.201.1.18 nppsDotProd_32fc 2615
7.201.1.19 nppsDotProd_32fc64fc 2615
7.201.1.20 nppsDotProd_32s32sc_Sfs 2616
7.201.1.21 nppsDotProd_32s_Sfs 2616
7.201.1.22 nppsDotProd_32sc_Sfs 2616
7.201.1.23 nppsDotProd_64f 2617
7.201.1.24 nppsDotProd_64f64fc 2617
7.201.1.25 nppsDotProd_64fc 2618
7.201.1.26 nppsDotProdGetBufferSize_16s16sc32fc 2618

7.201.1.27 nppsDotProdGetBufferSize_16s16sc32sc_Sfs 2618
7.201.1.28 nppsDotProdGetBufferSize_16s16sc64sc 2618
7.201.1.29 nppsDotProdGetBufferSize_16s16sc_Sfs 2619
7.201.1.30 nppsDotProdGetBufferSize_16s32f 2619
7.201.1.31 nppsDotProdGetBufferSize_16s32s32s_Sfs 2619
7.201.1.32 nppsDotProdGetBufferSize_16s32s_Sfs 2620
7.201.1.33 nppsDotProdGetBufferSize_16s64s 2620
7.201.1.34 nppsDotProdGetBufferSize_16s_Sfs 2620
7.201.1.35 nppsDotProdGetBufferSize_16sc32fc 2620
7.201.1.36 nppsDotProdGetBufferSize_16sc32sc_Sfs 2621
7.201.1.37 nppsDotProdGetBufferSize_16sc64sc 2621
7.201.1.38 nppsDotProdGetBufferSize_16sc_Sfs 2621
7.201.1.39 nppsDotProdGetBufferSize_32f 2621
7.201.1.40 nppsDotProdGetBufferSize_32f32fc 2622
7.201.1.41 nppsDotProdGetBufferSize_32f32fc64fc 2622
7.201.1.42 nppsDotProdGetBufferSize_32f64f 2622
7.201.1.43 nppsDotProdGetBufferSize_32fc 2622
7.201.1.44 nppsDotProdGetBufferSize_32fc64fc 2623
7.201.1.45 nppsDotProdGetBufferSize_32s32sc_Sfs 2623
7.201.1.46 nppsDotProdGetBufferSize_32s_Sfs 2623
7.201.1.47 nppsDotProdGetBufferSize_32sc_Sfs 2623
7.201.1.48 nppsDotProdGetBufferSize_64f 2624
7.201.1.49 nppsDotProdGetBufferSize_64f64fc 2624
7.201.1.50 nppsDotProdGetBufferSize_64fc 2624
7.202 Count In Range 2625
7.202.1 Function Documentation 2625
7.202.1.1 nppsCountInRange_32s 2625
7.202.1.2 nppsCountInRangeGetBufferSize_32s 2625
7.203 Count Zero Crossings 2626
7.203.1 Function Documentation 2626
7.203.1.1 nppsZeroCrossing_16s32f 2626
7.203.1.2 nppsZeroCrossing_32f 2626
7.203.1.3 nppsZeroCrossingGetBufferSize_16s32f 2627
7.203.1.4 nppsZeroCrossingGetBufferSize_32f 2627
7.204 MaximumError 2628
7.204.1 Detailed Description 2630

7.204.2 Function Documentation 2630
7.204.2.1 nppsMaximumError_16s 2630
7.204.2.2 nppsMaximumError_16sc 2630
7.204.2.3 nppsMaximumError_16u 2631
7.204.2.4 nppsMaximumError_32f 2631
7.204.2.5 nppsMaximumError_32fc 2631
7.204.2.6 nppsMaximumError_32s 2632
7.204.2.7 nppsMaximumError_32sc 2632
7.204.2.8 nppsMaximumError_32u 2632
7.204.2.9 nppsMaximumError_64f 2633
7.204.2.10 nppsMaximumError_64fc 2633
7.204.2.11 nppsMaximumError_64s 2633
7.204.2.12 nppsMaximumError_64sc 2634
7.204.2.13 nppsMaximumError_8s 2634
7.204.2.14 nppsMaximumError_8u 2634
7.204.2.15 nppsMaximumErrorGetBufferSize_16s 2635
7.204.2.16 nppsMaximumErrorGetBufferSize_16sc 2635
7.204.2.17 nppsMaximumErrorGetBufferSize_16u 2635
7.204.2.18 nppsMaximumErrorGetBufferSize_32f 2635
7.204.2.19 nppsMaximumErrorGetBufferSize_32fc 2636
7.204.2.20 nppsMaximumErrorGetBufferSize_32s 2636
7.204.2.21 nppsMaximumErrorGetBufferSize_32sc 2636
7.204.2.22 nppsMaximumErrorGetBufferSize_32u 2636
7.204.2.23 nppsMaximumErrorGetBufferSize_64f 2637
7.204.2.24 nppsMaximumErrorGetBufferSize_64fc 2637
7.204.2.25 nppsMaximumErrorGetBufferSize_64s 2637
7.204.2.26 nppsMaximumErrorGetBufferSize_64sc 2637
7.204.2.27 nppsMaximumErrorGetBufferSize_8s 2638
7.204.2.28 nppsMaximumErrorGetBufferSize_8u 2638
7.205 AverageError 2639
7.205.1 Detailed Description 2641
7.205.2 Function Documentation 2641
7.205.2.1 nppsAverageError_16s 2641
7.205.2.2 nppsAverageError_16sc 2641
7.205.2.3 nppsAverageError_16u 2642
7.205.2.4 nppsAverageError_32f 2642

7.205.2.5 nppsAverageError_32fc 2642
7.205.2.6 nppsAverageError_32s 2643
7.205.2.7 nppsAverageError_32sc 2643
7.205.2.8 nppsAverageError_32u 2643
7.205.2.9 nppsAverageError_64f 2644
7.205.2.10 nppsAverageError_64fc 2644
7.205.2.11 nppsAverageError_64s 2644
7.205.2.12 nppsAverageError_64sc 2645
7.205.2.13 nppsAverageError_8s 2645
7.205.2.14 nppsAverageError_8u 2645
7.205.2.15 nppsAverageErrorGetBufferSize_16s 2646
7.205.2.16 nppsAverageErrorGetBufferSize_16sc 2646
7.205.2.17 nppsAverageErrorGetBufferSize_16u 2646
7.205.2.18 nppsAverageErrorGetBufferSize_32f 2646
7.205.2.19 nppsAverageErrorGetBufferSize_32fc 2647
7.205.2.20 nppsAverageErrorGetBufferSize_32s 2647
7.205.2.21 nppsAverageErrorGetBufferSize_32sc 2647
7.205.2.22 nppsAverageErrorGetBufferSize_32u 2647
7.205.2.23 nppsAverageErrorGetBufferSize_64f 2648
7.205.2.24 nppsAverageErrorGetBufferSize_64fc 2648
7.205.2.25 nppsAverageErrorGetBufferSize_64s 2648
7.205.2.26 nppsAverageErrorGetBufferSize_64sc 2648
7.205.2.27 nppsAverageErrorGetBufferSize_8s 2649
7.205.2.28 nppsAverageErrorGetBufferSize_8u 2649
7.206 MaximumRelativeError 2650
7.206.1 Detailed Description 2652
7.206.2 Function Documentation 2652
7.206.2.1 nppsMaximumRelativeError_16s 2652
7.206.2.2 nppsMaximumRelativeError_16sc 2652
7.206.2.3 nppsMaximumRelativeError_16u 2653
7.206.2.4 nppsMaximumRelativeError_32f 2653
7.206.2.5 nppsMaximumRelativeError_32fc 2654
7.206.2.6 nppsMaximumRelativeError_32s 2654
7.206.2.7 nppsMaximumRelativeError_32sc 2654
7.206.2.8 nppsMaximumRelativeError_32u 2655
7.206.2.9 nppsMaximumRelativeError_64f 2655

7.206.2.10nppsMaximumRelativeError_64fc 2656
7.206.2.11nppsMaximumRelativeError_64s 2656
7.206.2.12nppsMaximumRelativeError_64sc 2656
7.206.2.13nppsMaximumRelativeError_8s 2657
7.206.2.14nppsMaximumRelativeError_8u 2657
7.206.2.15nppsMaximumRelativeErrorGetBufferSize_16s 2658
7.206.2.16nppsMaximumRelativeErrorGetBufferSize_16sc 2658
7.206.2.17nppsMaximumRelativeErrorGetBufferSize_16u 2658
7.206.2.18nppsMaximumRelativeErrorGetBufferSize_32f 2658
7.206.2.19nppsMaximumRelativeErrorGetBufferSize_32fc 2659
7.206.2.20nppsMaximumRelativeErrorGetBufferSize_32s 2659
7.206.2.21nppsMaximumRelativeErrorGetBufferSize_32sc 2659
7.206.2.22nppsMaximumRelativeErrorGetBufferSize_32u 2659
7.206.2.23nppsMaximumRelativeErrorGetBufferSize_64f 2660
7.206.2.24nppsMaximumRelativeErrorGetBufferSize_64fc 2660
7.206.2.25nppsMaximumRelativeErrorGetBufferSize_64s 2660
7.206.2.26nppsMaximumRelativeErrorGetBufferSize_64sc 2660
7.206.2.27nppsMaximumRelativeErrorGetBufferSize_8s 2661
7.206.2.28nppsMaximumRelativeErrorGetBufferSize_8u 2661
7.207 AverageRelativeError 2662
7.207.1 Detailed Description 2664
7.207.2 Function Documentation 2664
7.207.2.1 nppsAverageRelativeError_16s 2664
7.207.2.2 nppsAverageRelativeError_16sc 2664
7.207.2.3 nppsAverageRelativeError_16u 2665
7.207.2.4 nppsAverageRelativeError_32f 2665
7.207.2.5 nppsAverageRelativeError_32fc 2666
7.207.2.6 nppsAverageRelativeError_32s 2666
7.207.2.7 nppsAverageRelativeError_32sc 2666
7.207.2.8 nppsAverageRelativeError_32u 2667
7.207.2.9 nppsAverageRelativeError_64f 2667
7.207.2.10nppsAverageRelativeError_64fc 2668
7.207.2.11nppsAverageRelativeError_64s 2668
7.207.2.12nppsAverageRelativeError_64sc 2668
7.207.2.13nppsAverageRelativeError_8s 2669
7.207.2.14nppsAverageRelativeError_8u 2669

7.207.2.15 nppsAverageRelativeErrorGetBufferSize_16s 2670

7.207.2.16 nppsAverageRelativeErrorGetBufferSize_16sc 2670

7.207.2.17 nppsAverageRelativeErrorGetBufferSize_16u 2670

7.207.2.18 nppsAverageRelativeErrorGetBufferSize_32f 2670

7.207.2.19 nppsAverageRelativeErrorGetBufferSize_32fc 2671

7.207.2.20 nppsAverageRelativeErrorGetBufferSize_32s 2671

7.207.2.21 nppsAverageRelativeErrorGetBufferSize_32sc 2671

7.207.2.22 nppsAverageRelativeErrorGetBufferSize_32u 2671

7.207.2.23 nppsAverageRelativeErrorGetBufferSize_64f 2672

7.207.2.24 nppsAverageRelativeErrorGetBufferSize_64fc 2672

7.207.2.25 nppsAverageRelativeErrorGetBufferSize_64s 2672

7.207.2.26 nppsAverageRelativeErrorGetBufferSize_64sc 2672

7.207.2.27 nppsAverageRelativeErrorGetBufferSize_8s 2673

7.207.2.28 nppsAverageRelativeErrorGetBufferSize_8u 2673

7.208 Memory Management 2674

7.209 Malloc 2675

7.209.1 Detailed Description 2676

7.209.2 Function Documentation 2676

7.209.2.1 nppsMalloc_16s 2676

7.209.2.2 nppsMalloc_16sc 2676

7.209.2.3 nppsMalloc_16u 2676

7.209.2.4 nppsMalloc_32f 2677

7.209.2.5 nppsMalloc_32fc 2677

7.209.2.6 nppsMalloc_32s 2677

7.209.2.7 nppsMalloc_32sc 2677

7.209.2.8 nppsMalloc_32u 2678

7.209.2.9 nppsMalloc_64f 2678

7.209.2.10 nppsMalloc_64fc 2678

7.209.2.11 nppsMalloc_64s 2678

7.209.2.12 nppsMalloc_64sc 2679

7.209.2.13 nppsMalloc_8s 2679

7.209.2.14 nppsMalloc_8u 2679

7.210 Free 2680

7.210.1 Detailed Description 2680

7.210.2 Function Documentation 2680

7.210.2.1 nppsFree 2680

8 Data Structure Documentation 2681

8.1 NPP_ALIGN_16 Struct Reference 2681

8.1.1 Detailed Description 2681

8.1.2 Field Documentation 2681

8.1.2.1 im 2681

8.1.2.2 im 2682

8.1.2.3 re 2682

8.1.2.4 re 2682

8.2 NPP_ALIGN_8 Struct Reference 2683

8.2.1 Detailed Description 2683

8.2.2 Field Documentation 2683

8.2.2.1 im 2683

8.2.2.2 im 2683

8.2.2.3 im 2683

8.2.2.4 re 2684

8.2.2.5 re 2684

8.2.2.6 re 2684

8.3 NppiHaarBuffer Struct Reference 2685

8.3.1 Field Documentation 2685

8.3.1.1 haarBuffer 2685

8.3.1.2 haarBufferSize 2685

8.4 NppiHaarClassifier_32f Struct Reference 2686

8.4.1 Field Documentation 2686

8.4.1.1 classifiers 2686

8.4.1.2 classifierSize 2686

8.4.1.3 classifierStep 2686

8.4.1.4 counterDevice 2686

8.4.1.5 numClassifiers 2686

8.5 NppiPoint Struct Reference 2687

8.5.1 Detailed Description 2687

8.5.2 Field Documentation 2687

8.5.2.1 x 2687

8.5.2.2 y 2687

8.6 NppiRect Struct Reference 2688

8.6.1 Detailed Description 2688

8.6.2 Field Documentation 2688

8.6.2.1 height 2688

8.6.2.2 width 2688

8.6.2.3 x 2688

8.6.2.4 y 2688

8.7 NppiSize Struct Reference 2689

8.7.1 Detailed Description 2689

8.7.2 Field Documentation 2689

8.7.2.1 height 2689

8.7.2.2 width 2689

8.8 NppLibraryVersion Struct Reference 2690

8.8.1 Field Documentation 2690

8.8.1.1 build 2690

8.8.1.2 major 2690

8.8.1.3 minor 2690

Chapter 1

NVIDIA Performance Primitives

IMPORTANT SPECIAL NOTICE IMPORTANT SPECIAL NOTICE IMPORTANT SPECIAL NOTICE Note: NPP is a stateless API, as of NPP 6.5 the ONLY state that NPP remembers between function calls is the stream ID associated with each CPU thread that creates NPP streams. If an application intends to use NPP with multiple host threads then it is the responsibility of the application to call nppSetStream from each CPU thread to create an association between that thread and that stream within NPP. Earlier versions of NPP required a CPU thread mutex around the nppSetStream call and the one or more NPP function calls that followed because NPP only remembered the current stream ID (the one most recently set by an nppSetStream call) between NPP function calls. All NPP functions should be thread safe except for the following functions:

```
nppiGraphcut_32s8u

nppiGraphcut_32f8u

nppiGraphcut8_32s8u

nppiGraphcut8_32f8u

nppiDCTQuantFwd8x8LS_JPEG_8u16s_C1R

nppiDCTQuantInv8x8LS_JPEG_16s8u_C1R
```

Starting from NPP version 6.5, we ship static libraries on Linux and Mac, including nppc_static, nppi_-static, and npps_static. In 6.5, we don't support static libraries on Windows yet.

As of NPP version 5.0 and beyond a few parameters for a few pre-5.0 existing image LUT functions have changed from host memory pointers to device memory pointers. Your application will fail (crash or report an error) if you use these functions with host memory pointers. The functions are the nppiLUT_Linear_-8u_xxx functions.

Also, pre-5.0 function nppiMeanStdDev8uC1RGetBufferHostSize has been renamed nppiMeanStdDevGetBufferHostSize_8u_C1R.

1.1 What is NPP?

NVIDIA NPP is a library of functions for performing CUDA accelerated processing. The initial set of functionality in the library focuses on imaging and video processing and is widely applicable for developers in these areas. NPP will evolve over time to encompass more of the compute heavy tasks in a variety of problem domains. The NPP library is written to maximize flexibility, while maintaining high performance.

NPP can be used in one of two ways:

- A stand-alone library for adding GPU acceleration to an application with minimal effort. Using this route allows developers to add GPU acceleration to their applications in a matter of hours.
- A cooperative library for interoperating with a developer's GPU code efficiently.

Either route allows developers to harness the massive compute resources of NVIDIA GPUs, while simultaneously reducing development times.

1.2 Documentation

- General API Conventions
- Signal-Processing Specific API Conventions
- Imaging-Processing Specific API Conventions

1.3 Technical Specifications

Supported Platforms:

- Microsoft Windows 7 and 8 (64-bit and 32-bit)
- Microsoft Windows Vista (64-bit and 32-bit)
- Linux (Centos & Ubuntu) (64-bit and 32-bit)
- Mac OS X (64-bit)
- Android on Arm V7

1.4 Files

NPP is comprises the following files:

1.4.1 Header Files

- nppdefs.h
- nppcore.h
- nppi.h
- npps.h
- nppversion.h
- npp.h

All those header files are located in the CUDA Toolkit's

```
/include/
```

directory.

1.4.2 Library Files

Starting with Version 5.5 NPP's functionality is now split up into 3 distinct libraries:

- A core library (NPPC) containing basic functionality from the npp.h header files as well as functionality shared by the other two libraries.
- The image processing library NPPI. Any functions from the nppi.h header file (or the various header files named "nppi_xxx.h" are bundled into the NPPI library.
- The signal processing library NPPS. Any function from the npps.h header file (or the various header files named "npps_xxx.h" are bundled into the NPPS library.

On the Windows platform the NPP stub libraries are found in the CUDA Toolkit's library directory:

```
/lib/nppc.lib

/lib/nppi.lib

/lib/npps.lib
```

The matching DLLs are located in the CUDA Toolkit's binary directory. Example

```
/bin/nppi64_55_<build_no>.dll      // Dynamic image-processing library for 64-bit Windows.
```

On Linux and Mac platforms the dynamic libraries are located in the lib directory

```
/lib/libnppc32.so.5.5.<build_no>   // NPP 32-bit dynamic core library for Linux
/lib/libnpps32.5.5.dylib  // NPP 32-bit dynamic signal processing library for Mac
```

1.5 Supported NVIDIA Hardware

NPP runs on all CUDA capable NVIDIA hardware. For details please see http://www.nvidia.com/object/cuda_learn_products.html

Chapter 2

General API Conventions

2.1 Memory Management

The design of all the NPP functions follows the same guidelines as other NVIDIA CUDA libraries like cuFFT and cuBLAS. That is that all pointer arguments in those APIs are device pointers.

This convention enables the individual developer to make smart choices about memory management that minimize the number of memory transfers. It also allows the user the maximum flexibility regarding which of the various memory transfer mechanisms offered by the CUDA runtime is used, e.g. synchronous or asynchronous memory transfers, zero-copy and pinned memory, etc.

The most basic steps involved in using NPP for processing data is as follows:

1. Transfer input data from the host to device using

   ```
   cudaMemCpy(...)
   ```

2. Process data using one or several NPP functions or custom CUDA kernels

3. Transfer the result data from the device to the host using

   ```
   cudaMemCpy(...)
   ```

2.1.1 Scratch Buffer and Host Pointer

Some primitives of NPP require additional device memory buffers (scratch buffers) for calculations, e.g. signal and image reductions (Sum, Max, Min, MinMax, etc.). In order to give the NPP user maximum control regarding memory allocations and performance, it is the user's responsibility to allocate and delete those temporary buffers. For one this has the benefit that the library will not allocate memory unbeknownst to the user. It also allows developers who invoke the same primitive repeatedly to allocate the scratch only once, improving performance and potential device-memory fragmentation .

Scratch-buffer memory is unstructured and may be passed to the primitive in uninitialized form. This allows for reuse of the same scratch buffers with any primitive require scratch memory, as long as it is sufficiently sized.

The minimum scratch-buffer size for a given primitive (e.g. nppsSum_32f()) can be obtained by a companion function (e.g. nppsSumGetBufferSize_32f()). The buffer size is returned via a host pointer as allocation of the scratch-buffer is performed via CUDA runtime host code.

An example to invoke signal sum primitive and allocate and free the necessary scratch memory:

```
// pSrc, pSum, pDeviceBuffer are all device pointers.
Npp32f * pSrc;
Npp32f * pSum;
Npp8u * pDeviceBuffer;
int nLength = 1024;

// Allocate the device memroy.
cudaMalloc((void **)(&pSrc), sizeof(Npp32f) * nLength);
nppsSet_32f(1.0f, pSrc, nLength);
cudaMalloc((void **)(&pSum), sizeof(Npp32f) * 1);

// Compute the appropriate size of the scratch-memory buffer
int nBufferSize;
nppsSumGetBufferSize_32f(nLength, &nBufferSize);
// Allocate the scratch buffer
cudaMalloc((void **)(&pDeviceBuffer), nBufferSize);

// Call the primitive with the scratch buffer
```

```
nppsSum_32f(pSrc, nLength, pSum, pDeviceBuffer);
Npp32f nSumHost;
cudaMemcpy(&nSumHost, pSum, sizeof(Npp32f) * 1, cudaMemcpyDeviceToHost);
printf("sum = %f\n", nSumHost); // nSumHost = 1024.0f;

// Free the device memory
cudaFree(pSrc);
cudaFree(pDeviceBuffer);
cudaFree(pSum);
```

2.2 Function Naming

Since NPP is a C API and therefore does not allow for function overloading for different data-types the NPP naming convention addresses the need to differentiate between different flavors of the same algorithm or primitive function but for various data types. This disambiguation of different flavors of a primitive is done via a suffix containing data type and other disambiguating information.

In addition to the flavor suffix, all NPP functions are prefixed with by the letters "npp". Primitives belonging to NPP's image-processing module add the letter "i" to the npp prefix, i.e. are prefixed by "nppi". Similarly signal-processing primitives are prefixed with "npps".

The general naming scheme is:

npp<module info><PrimitiveName>_<data-type info>[_<additional flavor info>](<parameter list>)

The data-type information uses the same names as the Basic NPP Data Types. For example the data-type information "8u" would imply that the primitive operates on Npp8u data.

If a primitive consumes different type data from what it produces, both types will be listed in the order of consumed to produced data type.

Details about the "additional flavor information" is provided for each of the NPP modules, since each problem domain uses different flavor information suffixes.

2.3 Integer Result Scaling

NPP signal processing and imaging primitives often operate on integer data. This integer data is usually a fixed point fractional representation of some physical magnitue (e.g. luminance). Because of this fixed-point nature of the representation many numerical operations (e.g. addition or multiplication) tend to produce results exceeding the original fixed-point range if treated as regular integers.

In cases where the results exceed the original range, these functions clamp the result values back to the valid range. E.g. the maximum positive value for a 16-bit unsigned integer is 32767. A multiplication operation of 4 ∗ 10000 = 40000 would exceed this range. The result would be clamped to be 32767.

To avoid the level of lost information due to clamping most integer primitives allow for result scaling. Primitives with result scaling have the "Sfs" suffix in their name and provide a parameter "nScaleFactor" that controls the amount of scaling. Before the results of an operation are clamped to the valid output-data range by multiplying them with $2^{\text{-nScaleFactor}}$.

Example: The primitive nppsSqr_8u_Sfs() computes the square of 8-bit unsigned sample values in a signal (1D array of values). The maximum value of a 8-bit value is 255. The square of $255^2 = 65025$ which would be clamped to 255 if no result scaling is performed. In order to map the maximum value of 255 to 255 in the result, one would specify an integer result scaling factor of 8, i.e. multiply each result with $2^{-8} = \frac{1}{2^8} = \frac{1}{256}$. The final result for a signal value of 255 being squared and scaled would be:

$$255^2 \cdot 2^{-8} = 254.00390625$$

which would be rounded to a final result of 254.

A medium gray value of 128 would result in

$$128^2 * 2^{-8} = 64$$

2.4 Rounding Modes

Many NPP functions require converting floating-point values to integers. The NppRoundMode enum lists NPP's supported rounding modes. Not all primitives in NPP that perform rounding as part of their functionality allow the user to specify the round-mode used. Instead they use NPP's default rounding mode, which is NPP_RND_FINANCIAL.

2.4.1 Rounding Mode Parameter

A subset of NPP functions performing rounding as part of their functionality do allow the user to specify which rounding mode is used through a parameter of the NppRoundMode type.

Chapter 3

Signal-Processing Specific API Conventions

3.1 Signal Data

Signal data is passed to and from NPPS primitives via a pointer to the signal's data type.

The general idea behind this fairly low-level way of passing signal data is ease-of-adoption into existing software projects:

- Passing the data pointer rather than a higher- level signal struct allows for easy adoption by not requiring a specific signal representation (that could include total signal size offset, or other additional information). This avoids awkward packing and unpacking of signal data from the host application to an NPP specific signal representation.

3.1.1 Parameter Names for Signal Data

There are three general cases of image-data passing throughout NPP detailed in the following sections.

Those are signals consumed by the algorithm.

3.1.1.1 Source Signal Pointer

The source signal data is generally passed via a pointer named

```
pSrc
```

The source signal pointer is generally defined constant, enforcing that the primitive does not change any image data pointed to by that pointer. E.g.

```
nppsPrimitive_32s(const Npp32s * pSrc, ...)
```

In case the primitive consumes multiple signals as inputs the source pointers are numbered like this:

```
pSrc1, pScr2, ...
```

3.1.1.2 Destination Signal Pointer

The destination signal data is generally passed via a pointer named

```
pDst
```

In case the primitive consumes multiple signals as inputs the source pointers are numbered like this:

```
pDst1, pDst2, ...
```

3.1.1.3 In-Place Signal Pointer

In the case of in-place processing, source and destination are served by the same pointer and thus pointers to in-place signal data are called:

```
pSrcDst
```

3.1.2 Signal Data Alignment Requirements

NPP requires signal sample data to be naturally aligned, i.e. any pointer

```
NppType * p;
```

to a sample in a signal needs to fulfill:

```
assert(p % sizeof(p) == 0);
```

3.1.3 Signal Data Related Error Codes

All NPPI primitives operating on signal data validate the signal-data pointer for proper alignment and test that the point is not null.

Failed validation results in one of the following error codes being returned and the primitive not being executed:

- NPP_NULL_POINTER_ERROR is returned if the image-data pointer is 0 (NULL).
- NPP_ALIGNMENT_ERROR if the signal-data pointer address is not a multiple of the signal's data-type size.

3.2 Signal Length

The vast majority of NPPS functions take a

```
nLength
```

parameter that tells the primitive how many of the signal's samples starting from the given data pointer are to be processed.

3.2.1 Length Related Error Codes

All NPPS primitives taking a length parameter validate this input.

Failed validation results in the following error code being returned and the primitive not being executed:

- NPP_SIZE_ERROR is returned if the length is negative.

Chapter 4

Imaging-Processing Specific API Conventions

4.1 Function Naming

Image processing related functions use a number of suffixes to indicate various different flavors of a primitive beyond just different data types. The flavor suffix uses the following abbreviations:

- "A" if the image is a 4 channel image this indicates the result alpha channel is not affected by the primitive.
- "Cn" the image consists of n channel packed pixels, where n can be 1, 2, 3 or 4.
- "Pn" the image consists of n separate image planes, where n can be 1, 2, 3 or 4.
- "C" (following the channel information) indicates that the primitive only operates on one of the color channels, the "channel-of-interest". All other output channels are not affected by the primitive.
- "I" indicates that the primitive works "in-place". In this case the image-data pointer is usually named "pSrcDst" to indicate that the image data serves as source and destination at the same time.
- "M" indicates "masked operation". These types of primitives have an additional "mask image" as as input. Each pixel in the destination image corresponds to a pixel in the mask image. Only pixels with a corresponding non-zero mask pixel are being processed.
- "R" indicates the primitive operates only on a rectangular "region-of-interest" or "ROI". All ROI primitives take an additional input parameter of type NppiSize, which specifies the width and height of the rectangular region that the primitive should process. For details on how primitives operate on ROIs see: Region-of-Interest (ROI).
- "Sfs" indicates the result values are processed by fixed scaling and saturation before they're written out.

The suffixes above always appear in alphabetical order. E.g. a 4 channel primitive not affecting the alpha channel with masked operation, in place and with scaling/saturation and ROI would have the postfix: "AC4IMRSfs".

4.2 Image Data

Image data is passed to and from NPPI primitives via a pair of parameters:

1. A pointer to the image's underlying data type.
2. A line step in bytes (also sometimes called line stride).

The general idea behind this fairly low-level way of passing image data is ease-of-adoption into existing software projects:

- Passing a raw pointer to the underlying pixel data type, rather than structured (by color) channel pixel data allows usage of the function in a wide variety of situations avoiding risky type cast or expensive image data copies.
- Passing the data pointer and line step individually rather than a higher- level image struct again allows for easy adoption by not requiring a specific image representation and thus avoiding awkward packing and unpacking of image data from the host application to an NPP specific image representation.

4.2.1 Line Step

The line step (also called "line stride" or "row step") allows lines of oddly sized images to start on well-aligned addresses by adding a number of unused bytes at the ends of the lines. This type of line padding has been common practice in digital image processing for a long time and is not particular to GPU image processing.

The line step is the number of bytes in a line **including the padding.** An other way to interpret this number is to say that it is the number of bytes between the first pixel of successive rows in the image, or generally the number of bytes between two neighboring pixels in any column of pixels.

The general reason for the existence of the line step it is that uniformly aligned rows of pixel enable optimizations of memory-access patterns.

Even though all functions in NPP will work with arbitrarily aligned images, best performance can only be achieved with well aligned image data. Any image data allocated with the NPP image allocators or the 2D memory allocators in the CUDA runtime, is well aligned.

Particularly on older CUDA capable GPUs it is likely that the performance decrease for misaligned data is substantial (orders of magnitude).

All image data passed to NPPI primitives requires a line step to be provided. It is important to keep in mind that this line step is always specified in terms of bytes, not pixels.

4.2.2 Parameter Names for Image Data

There are three general cases of image-data passing throughout NPP detailed in the following sections.

4.2.2.1 Passing Source-Image Data

Those are images consumed by the algorithm.

4.2.2.1.1 Source-Image Pointer

The source image data is generally passed via a pointer named

```
pSrc
```

The source image pointer is generally defined constant, enforcing that the primitive does not change any image data pointed to by that pointer. E.g.

```
nppiPrimitive_32s_C1R(const Npp32s * pSrc, ...)
```

In case the primitive consumes multiple images as inputs the source pointers are numbered like this:

```
pSrc1, pScr2, ...
```

4.2.2.1.2 Source-Planar-Image Pointer Array

The planar source image data is generally passed via an array of pointers named

```
pSrc[]
```

The planar source image pointer array is generally defined a constant array of constant pointers, enforcing that the primitive does not change any image data pointed to by those pointers. E.g.

```
nppiPrimitive_8u_P3R(const Npp8u * const pSrc[3], ...)
```

Each pointer in the array points to a different image plane.

4.2.2.1.3 Source-Planar-Image Pointer

The multiple plane source image data is passed via a set of pointers named

```
pSrc1, pSrc2, ...
```

The planar source image pointer is generally defined as one of a set of constant pointers with each pointer pointing to a different input image plane.

4.2.2.1.4 Source-Image Line Step

The source image line step is the number of bytes between successive rows in the image. The source image line step parameter is

```
nSrcStep
```

or in the case of multiple source images

```
nSrcStep1, nSrcStep2, ...
```

4.2.2.1.5 Source-Planar-Image Line Step Array

The source planar image line step array is an array where each element of the array contains the number of bytes between successive rows for a particular plane in the input image. The source planar image line step array parameter is

```
rSrcStep[]
```

4.2.2.1.6 Source-Planar-Image Line Step

The source planar image line step is the number of bytes between successive rows in a particular plane of the multiplane input image. The source planar image line step parameter is

```
nSrcStep1, nSrcStep2, ...
```

4.2.2.2 Passing Destination-Image Data

Those are images produced by the algorithm.

4.2.2.2.1 Destination-Image Pointer

The destination image data is generally passed via a pointer named

```
pDst
```

In case the primitive generates multiple images as outputs the destination pointers are numbered like this:

```
pDst1, pDst2, ...
```

4.2.2.2.2 Destination-Planar-Image Pointer Array

The planar destination image data pointers are generally passed via an array of pointers named

```
pDst[]
```

Each pointer in the array points to a different image plane.

4.2.2.2.3 Destination-Planar-Image Pointer

The destination planar image data is generally passed via a pointer to each plane of a multiplane output image named

```
pDst1, pDst2, ...
```

4.2.2.2.4 Destination-Image Line Step

The destination image line step parameter is

```
nDstStep
```

or in the case of multiple destination images

```
nDstStep1, nDstStep2, ...
```

4.2.2.2.5 Destination-Planar-Image Line Step Array

The destination planar image line step array is an array where each element of the array contains the number of bytes between successive rows for a particular plane in the output image. The destination planar image line step array parameter is

```
rDstStep[]
```

4.2.2.2.6 Destination-Planar-Image Line Step

The destination planar image line step is the number of bytes between successive rows for a particular plane in a multiplane output image. The destination planar image line step parameter is

```
nDstStep1, nDstStep2, ...
```

4.2.2.3 Passing In-Place Image Data

4.2.2.3.1 In-Place Image Pointer

In the case of in-place processing, source and destination are served by the same pointer and thus pointers to in-place image data are called:

```
pSrcDst
```

4.2.2.3.2 In-Place-Image Line Step

The in-place line step parameter is

```
nSrcDstStep
```

4.2.2.4 Passing Mask-Image Data

Some image processing primitives have variants supporting Masked Operation.

4.2.2.4.1 Mask-Image Pointer

The mask-image data is generally passed via a pointer named

```
pMask
```

4.2.2.4.2 Mask-Image Line Step

The mask-image line step parameter is

```
nMaskStep
```

4.2.2.5 Passing Channel-of-Interest Data

Some image processing primitives support Channel-of-Interest API.

4.2.2.5.1 Channel_of_Interest Number

The channel-of-interest data is generally an integer (either 1, 2, or 3):

```
nCOI
```

4.2.3 Image Data Alignment Requirements

NPP requires pixel data to adhere to certain alignment constraints: For 2 and 4 channel images the following alignment requirement holds: data_pointer % (#channels $*$ sizeof(channel type)) == 0. E.g. a 4 channel image with underlying type Npp8u (8-bit unsigned) would require all pixels to fall on addresses that are multiples of 4 (4 channels $*$ 1 byte size).

As a logical consequence of all pixels being aligned to their natural size the image line steps of 2 and 4 channel images also need to be multiples of the pixel size.

1 and 3 channel images only require that pixel pointers are aligned to the underlying data type, i.e. pData % sizof(data type) == 0. And consequentially line steps are also held to this requirement.

4.2.4 Image Data Related Error Codes

All NPPI primitives operating on image data validate the image-data pointer for proper alignment and test that the point is not null. They also validate the line stride for proper alignment and guard against the step being less or equal to 0. Failed validation results in one of the following error codes being returnd and the primitive not being executed:

- NPP_STEP_ERROR is returned if the data step is 0 or negative.
- NPP_NOT_EVEN_STEP_ERROR is returned if the line step is not a multiple of the pixel size for 2 and 4 channel images.
- NPP_NULL_POINTER_ERROR is returned if the image-data pointer is 0 (NULL).
- NPP_ALIGNMENT_ERROR if the image-data pointer address is not a multiple of the pixel size for 2 and 4 channel images.

4.3 Region-of-Interest (ROI)

In practice processing a rectangular sub-region of an image is often more common than processing complete images. The vast majority of NPP's image-processing primitives allow for processing of such sub regions also referred to as regions-of-interest or ROIs.

All primitives supporting ROI processing are marked by a "R" in their name suffix. In most cases the ROI is passed as a single NppiSize struct, which provides the with and height of the ROI. This raises the question how the primitive knows where in the image this rectangle of (width, height) is located. The "start pixel" of the ROI is implicitly given by the image-data pointer. I.e. instead of explicitly passing a pixel coordinate for the upper-right corner, the user simply offsets the image-data pointers to point to the first pixel of the ROI.

In practice this means that for an image (pSrc, nSrcStep) and the start-pixel of the ROI being at location (xROI, yROI), one would pass

pSrcOffset = pSrc + yROI ∗ nSrcStep + xROI ∗ PixelSize;

as the image-data source to the primitive. PixelSize is typically computed as

PixelSize = NumberOfColorChannels ∗ sizeof(PixelDataType).

E.g. for a pimitive like nppiSet_16s_C4R() we would have

- NumberOfColorChannels == 4;
- sizeof(Npp16s) == 2;
- and thus PixelSize = 4 ∗ 2 = 8;

4.3.1 ROI Related Error Codes

All NPPI primitives operating on ROIs of image data validate the ROI size and image's step size. Failed validation results in one of the following error codes being returned and the primitive not being executed:

- NPP_SIZE_ERROR is returned if either the ROI width or ROI height are negative.
- NPP_STEP_ERROR is returned if the ROI width exceeds the image's line step. In mathematical terms $(\text{widthROI} * \text{PixelSize}) > \text{nLinStep}$ indicates an error.

4.4 Masked Operation

Some primitive support masked operation. An "M" in the suffix of those variants indicates masked operation. Primitives supporting masked operation consume an additional input image provided via a Mask-Image Pointer and Mask-Image Line Step. The mask image is interpreted by these primitives as a boolean image. The values of type Npp8u are interpreted as boolean values where a values of 0 indicates false, any non-zero values true.

Unless otherwise indicated the operation is only performed on pixels where its spatially corresponding mask pixel is true (non-zero). E.g. a masked copy operation would only copy those pixels in the ROI that have corresponding non-zero mask pixels.

4.5 Channel-of-Interest API

Some primitives allow restricting operations to a single channel of interest within a multi-channel image. These primitives are suffixed with the letter "C" (after the channel information, e.g. nppiCopy_-8u_C3CR(...). The channel-of-interest is generally selected by offsetting the image-data pointer to point directly to the channel- of-interest rather than the base of the first pixel in the ROI. Some primitives also explicitly specify the selected channel number and pass it via an integer, e.g. nppiMean_StdDev_8u_-C3CR(...).

4.5.1 Select-Channel Source-Image Pointer

This is a pointer to the channel-of-interest within the first pixel of the source image. E.g. if pSrc is the pointer to the first pixel inside the ROI of a three channel image. Using the appropriate select-channel copy primitive one could copy the second channel of this source image into the first channel of a destination image given by pDst by offsetting the pointer by one:

```
nppiCopy_8u_C3CR(pSrc + 1, nSrcStep, pDst, nDstStep, oSizeROI);
```

4.5.2 Select-Channel Source-Image

Some primitives allow the user to select the channel-of-interest by specifying the channle number (nCOI). This approach is typically used in the image statistical functions. For example,

```
nppiMean_StdDev_8u_C3CR(pSrc, nSrcStep, oSizeROI, nCOI, pDeviceBuffer, pMean, pStdDev );
```

The channel-of-interest number can be either 1, 2, or 3.

4.5.3 Select-Channel Destination-Image Pointer

This is a pointer to the channel-of-interest within the first pixel of the destination image. E.g. if pDst is the pointer to the first pixel inside the ROI of a three channel image. Using the appropriate select-channel copy primitive one could copy data into the second channel of this destination image from the first channel of a source image given by pSrc by offseting the destination pointer by one:

```
nppiCopy_8u_C3CR(pSrc, nSrcStep, pDst + 1, nDstStep, oSizeROI);
```

4.6 Source-Image Sampling

A large number of NPP image-processing functions consume at least one source image and produce an output image (e.g. nppiAddC_8u_C1RSfs() or nppiFilterBox_8u_C1R()). All NPP functions falling into this category also operate on ROIs (see Region-of-Interest (ROI)) which for these functions should be considered to describe the destination ROI. In other words the ROI describes a rectangular region in the destination image and all pixels inside of this region are being written by the function in question.

In order to use such functions successfully it is important to understand how the user defined destination ROI affects which pixels in the input image(s) are being read by the algorithms. To simplify the discussion of ROI propagation (i.e. given a destination ROI, what are the ROIs in in the source(s)), it makes sense to distinguish two major cases:

1. Point-Wise Operations: These are primitives like nppiAddC_8u_C1RSfs(). Each output pixel requires exaclty one input pixel to be read.
2. Neighborhood Operations: These are primitives like nppiFilterBox_8u_C1R(), which require a group of pixels from the source image(s) to be read in order to produce a single output.

4.6.1 Point-Wise Operations

As mentioned above, point-wise operations consume a single pixel from the input image (or a single pixel from each input image, if the operation in question has more than one input image) in order to produce a single output pixel.

4.6.2 Neighborhood Operations

In the case of neightborhood operations a number of input pixels (a "neighborhood" of pixels) is read in the input image (or images) in order to compute a single output pixel. All of the functions for Filtering Functions and Morphological Operations are neigborhood operations.

Most of these functions have parameters that affect the size and relative location of the neighborhood: a mask-size structure and an achor-point structure. Both parameters are described in more detail in the next subsections.

4.6.2.1 Mask-Size Parameter

Many NPP neighborhood operations allow the user to specify the size of the neightborhood via a parameter usually named oMaskSize of type NppiSize. In those cases the neighborhood of pixels read from the source(s) is exactly the size of the mask. Assuming the mask is anchored at location (0, 0) (see Anchor-Point Parameter below) and has a size of (w, h), i.e.

```
assert(oMaskSize.w == w);
assert(oMaskSize.h == h);
assert(oAnchor.x == 0);
assert(oAnchor.y == 0);
```

a neighborhood operation would read the following source pixels in order to compute destiation pixel $D_{i,j}$:

$$\begin{array}{llll} S_{i,j} & S_{i,j+1} & \cdots & S_{i,j+w-1} \\ S_{i+1,j} & S_{i+1,j+1} & \cdots & S_{i+1,j+w-1} \\ \vdots & \vdots & \ddots & \vdots \\ S_{i+h-1,j} & S_{i+h-1,j+1} & \cdots & S_{i+h-1,j+w-1} \end{array}$$

4.6.2.2 Anchor-Point Parameter

Many NPP primitives perforing neighborhood operations allow the user to specify the relative location of the neighborhood via a parameter usually named oAnchor of type NppiPoint. Using the anchor a developer can chose the position of the mask (see Mask-Size Parameter) relative to current pixel index.

Using the same example as in Mask-Size Parameter, but this time with an anchor position of (a, b):

```
assert(oMaskSize.w == w);
assert(oMaskSize.h == h);
assert(oAnchor.x == a);
assert(oAnchor.y == b);
```

the following pixels from the source image would be read:

$$\begin{array}{llll} S_{i-a,j-b} & S_{i-a,j-b+1} & \cdots & S_{i-a,j-b+w-1} \\ S_{i-a+1,j-b} & S_{i-a+1,j-b+1} & \cdots & S_{i-a+1,j-b+w-1} \\ \vdots & \vdots & \ddots & \vdots \\ S_{i-a+h-1,j-b} & S_{i-a+h-1,j-b+1} & \cdots & S_{i-a+h-1,j-b+w-1} \end{array}$$

4.6.2.3 Sampling Beyond Image Boundaries

NPP primitives in general and NPP neighborhood operations in particular require that all pixel locations read and written are valid and within the boundaries of the respective images. Sampling outside of the defined image data regions results in undefined behavior and may lead to system instabilty.

This poses a problem in practice: when processing full-size images one cannot choose the destination ROI to be the same size as the source image. Because neigborhood operations read pixels from an enlarged source ROI, the destination ROI must be shrunk so that the expanded source ROI does not exceed the source image's size.

For cases where this "shrinking" of the destination image size is unacceptable, NPP provides a set of border-expanding Copy primitives. E.g. nppiCopyConstBorder_8u_C1R(), nppiCopyReplicateBorder_8u_C1R() and nppiCopyWrapBorder_8u_C1R(). The user can use these primitives to "expand" the source image's size using one of the three expansion modes. The expanded image can then be safely passed to a neighborhood operation producing a full-size result.

Chapter 5

Module Index

5.1 Modules

Here is a list of all modules:

NPP Core . . . 31
NPP Type Definitions and Constants . . . 34
Basic NPP Data Types . . . 47
NPP Image Processing . . . 51
Arithmetic and Logical Operations . . . 52
Arithmetic Operations . . . 53
AddC . . . 55
MulC . . . 81
MulCScale . . . 107
SubC . . . 114
DivC . . . 140
AbsDiffC . . . 166
Add . . . 168
AddSquare . . . 197
AddProduct . . . 200
AddWeighted . . . 204
Mul . . . 208
MulScale . . . 237
Sub . . . 246
Div . . . 276
Div_Round . . . 305
Abs . . . 320
AbsDiff . . . 327
Sqr . . . 330
Sqrt . . . 344
Ln . . . 356
Exp . . . 363
Logical Operations . . . 370
AndC . . . 371
OrC . . . 382
XorC . . . 393
RShiftC . . . 404
LShiftC . . . 421

And . . . 432
Or . . . 444
Xor . . . 456
Not . . . 468
Alpha Composition . . . 472
AlphaCompC . . . 473
AlphaPremulC . . . 481
AlphaComp . . . 488
AlphaPremul . . . 495
Color and Sampling Conversion . . . 497
Color Model Conversion . . . 498
Color Sampling Format Conversion . . . 580
Color Gamma Correction . . . 608
Complement Color Key . . . 614
Color Processing . . . 617
Compression . . . 714
Quantization Functions . . . 718
Labeling and Segmentation . . . 724
GraphCut . . . 725
Data Exchange and Initialization . . . 732
Set . . . 733
Copy . . . 767
Convert . . . 814
Scale . . . 858
Copy Constant Border . . . 873
Copy Replicate Border . . . 886
Copy Wrap Border . . . 898
Copy Sub-Pixel . . . 911
Duplicate Channel . . . 922
Transpose . . . 929
Swap Channels . . . 936
Filtering Functions . . . 954
1D Linear Filter . . . 1012
1D Window Sum . . . 1069
Convolution . . . 1080
2D Fixed Linear Filters . . . 1139
Rank Filters . . . 1148
Fixed Filters . . . 1178
Geometry Transforms . . . 1210
ResizeSqrPixel . . . 1212
Resize . . . 1234
Remap . . . 1246
Rotate . . . 1268
Mirror . . . 1277
Affine Transforms . . . 1294
Perspective Transform . . . 1344
Linear Transforms . . . 1390
Fourier Transforms . . . 1391
Morphological Operations . . . 1393
Dilation . . . 1394
Dilation with border control . . . 1401
Dilate3x3 . . . 1409
Dilate3x3Border . . . 1415

Erode . . . 1422
Erosion with border control . . . 1429
Erode3x3 . . . 1437
Erode3x3Border . . . 1443
Statistical Operations . . . 1450
Sum . . . 1517
Min . . . 1532
MinIndx . . . 1545
Max . . . 1559
MaxIndx . . . 1572
MinMax . . . 1586
MinMaxIndx . . . 1600
Mean . . . 1617
Mean_StdDev . . . 1638
Image Norms . . . 1654
Norm_Inf . . . 1656
Norm_L1 . . . 1678
Norm_L2 . . . 1699
NormDiff_Inf . . . 1720
NormDiff_L1 . . . 1743
NormDiff_L2 . . . 1766
NormRel_Inf . . . 1789
NormRel_L1 . . . 1812
NormRel_L2 . . . 1835
DotProd . . . 1858
CountInRange. . . . 1883
MaxEvery . . . 1889
MinEvery . . . 1896
Integral . . . 1903
SqrIntegral . . . 1905
RectStdDev . . . 1908
HistogramEven . . . 1911
HistogramRange . . . 1924
Image Proximity . . . 1940
SqrDistanceFull_Norm . . . 1943
SqrDistanceSame_Norm . . . 1954
SqrDistanceValid_Norm . . . 1965
CrossCorrFull_Norm . . . 1976
CrossCorrSame_Norm . . . 1987
CrossCorrValid_Norm . . . 1998
CrossCorrValid . . . 2009
CrossCorrFull_NormLevel . . . 2012
CrossCorrSame_NormLevel . . . 2032
CrossCorrValid_NormLevel . . . 2052
Image Quality Index . . . 2072
MaximumError . . . 2081
AverageError . . . 2104
MaximumRelativeError . . . 2127
AverageRelativeError . . . 2151
Memory Management . . . 2175
Threshold and Compare Operations . . . 2187
Threshold Operations . . . 2188
Compare Operations . . . 2277

NPP Signal Processing 2300
Arithmetic and Logical Operations 2301
Arithmetic Operations 2302
AddC 2304
AddProductC 2313
MulC 2314
SubC 2324
SubCRev 2333
DivC 2342
DivCRev 2349
Add 2351
AddProduct 2363
Mul 2367
Sub 2380
Div 2390
Div_Round 2398
Abs 2401
Sqr 2404
Sqrt 2410
Cubrt 2418
Exp 2419
Ln 2423
10Log10 2427
SumLn 2428
Arctan 2432
Normalize 2434
Cauchy, CauchyD, and CauchyDD2 2437
Logical And Shift Operations 2439
AndC 2440
And 2443
OrC 2446
Or 2449
XorC 2452
Xor 2455
Not 2458
LShiftC 2461
RShiftC 2465
Conversion Functions 2469
Convert 2470
Threshold 2473
Filtering Functions 2498
Integral 2499
Initialization 2500
Set 2501
Zero 2506
Copy 2510
Statistical Functions 2514
MinEvery And MaxEvery Functions 2515
Sum 2519
Maximum 2526
Minimum 2536
Mean 2546
Standard Deviation 2552

Mean And Standard Deviation 2555
Minimum_Maximum 2559
Infinity Norm 2571
L1 Norm 2576
L2 Norm 2582
Infinity Norm Diff 2588
L1 Norm Diff 2593
L2 Norm Diff 2599
Dot Product 2605
Count In Range 2625
Count Zero Crossings 2626
MaximumError 2628
AverageError 2639
MaximumRelativeError 2650
AverageRelativeError 2662
Memory Management 2674
Malloc 2675
Free 2680

Chapter 6

Data Structure Index

6.1 Data Structures

Here are the data structures with brief descriptions:

NPP_ALIGN_16 (Complex Number This struct represents a long long complex number) 2681
NPP_ALIGN_8 (Complex Number This struct represents an unsigned int complex number) . . 2683
NppiHaarBuffer 2685
NppiHaarClassifier_32f 2686
NppiPoint (2D Point) 2687
NppiRect (2D Rectangle This struct contains position and size information of a rectangle in two space) 2688
NppiSize (2D Size This struct typically represents the size of a a rectangular region in two space) 2689
NppLibraryVersion 2690

Chapter 7

Module Documentation

7.1 NPP Core

Basic functions for library management, in particular library version and device property query functions.

Functions

- const NppLibraryVersion ∗ nppGetLibVersion (void)

    Get the NPP library version.

- NppGpuComputeCapability nppGetGpuComputeCapability (void)

    What CUDA compute model is supported by the active CUDA device?

- int nppGetGpuNumSMs (void)

    Get the number of Streaming Multiprocessors (SM) on the active CUDA device.

- int nppGetMaxThreadsPerBlock (void)

    Get the maximum number of threads per block on the active CUDA device.

- int nppGetMaxThreadsPerSM (void)

    Get the maximum number of threads per SM for the active GPU.

- const char ∗ nppGetGpuName (void)

    Get the name of the active CUDA device.

- cudaStream_t nppGetStream (void)

    Get the NPP CUDA stream.

- void nppSetStream (cudaStream_t hStream)

    Set the NPP CUDA stream.

7.1.1 Detailed Description

Basic functions for library management, in particular library version and device property query functions.

7.1.2 Function Documentation

7.1.2.1 NppGpuComputeCapability nppGetGpuComputeCapability (void)

What CUDA compute model is supported by the active CUDA device?

Before trying to call any NPP functions, the user should make a call this function to ensure that the current machine has a CUDA capable device.

Returns:

An enum value representing if a CUDA capable device was found and what level of compute capabilities it supports.

7.1.2.2 const char∗ nppGetGpuName (void)

Get the name of the active CUDA device.

Returns:

Name string of the active graphics-card/compute device in a system.

7.1.2.3 int nppGetGpuNumSMs (void)

Get the number of Streaming Multiprocessors (SM) on the active CUDA device.

Returns:

Number of SMs of the default CUDA device.

7.1.2.4 const NppLibraryVersion∗ nppGetLibVersion (void)

Get the NPP library version.

Returns:

A struct containing separate values for major and minor revision and build number.

7.1.2.5 int nppGetMaxThreadsPerBlock (void)

Get the maximum number of threads per block on the active CUDA device.

Returns:

Maximum number of threads per block on the active CUDA device.

7.1.2.6 int nppGetMaxThreadsPerSM (void)

Get the maximum number of threads per SM for the active GPU.

Returns:

Maximum number of threads per SM for the active GPU

7.1.2.7 cudaStream_t nppGetStream (void)

Get the NPP CUDA stream.

NPP enables concurrent device tasks via a global stream state varible. The NPP stream by default is set to stream 0, i.e. non-concurrent mode. A user can set the NPP stream to any valid CUDA stream. All CUDA commands issued by NPP (e.g. kernels launched by the NPP library) are then issed to that NPP stream.

7.1.2.8 void nppSetStream (cudaStream_t *hStream*)

Set the NPP CUDA stream.

See also:

nppGetStream()

7.2 NPP Type Definitions and Constants

Data Structures

- struct NppLibraryVersion
- struct NppiPoint

  2D Point
- struct NppiSize

  2D Size This struct typically represents the size of a a rectangular region in two space.
- struct NppiRect

  2D Rectangle This struct contains position and size information of a rectangle in two space.
- struct NppiHaarClassifier_32f
- struct NppiHaarBuffer

Modules

- Basic NPP Data Types

Defines

- #define NPP_MIN_8U (0)

  Minimum 8-bit unsigned integer.
- #define NPP_MAX_8U (255)

  Maximum 8-bit unsigned integer.
- #define NPP_MIN_16U (0)

  Minimum 16-bit unsigned integer.
- #define NPP_MAX_16U (65535)

  Maximum 16-bit unsigned integer.
- #define NPP_MIN_32U (0)

  Minimum 32-bit unsigned integer.
- #define NPP_MAX_32U (4294967295U)

  Maximum 32-bit unsigned integer.
- #define NPP_MIN_64U (0)

  Minimum 64-bit unsigned integer.
- #define NPP_MAX_64U (18446744073709551615ULL)

  Maximum 64-bit unsigned integer.
- #define NPP_MIN_8S (-127 - 1)

  Minimum 8-bit signed integer.

- #define NPP_MAX_8S (127)

  Maximum 8-bit signed integer.

- #define NPP_MIN_16S (-32767 - 1)

  Minimum 16-bit signed integer.

- #define NPP_MAX_16S (32767)

  Maximum 16-bit signed integer.

- #define NPP_MIN_32S (-2147483647 - 1)

  Minimum 32-bit signed integer.

- #define NPP_MAX_32S (2147483647)

  Maximum 32-bit signed integer.

- #define NPP_MAX_64S (9223372036854775807LL)

  Maximum 64-bit signed integer.

- #define NPP_MIN_64S (-9223372036854775807LL - 1)

  Minimum 64-bit signed integer.

- #define NPP_MINABS_32F (1.175494351e-38f)

  Smallest positive 32-bit floating point value.

- #define NPP_MAXABS_32F (3.402823466e+38f)

  Largest positive 32-bit floating point value.

- #define NPP_MINABS_64F (2.2250738585072014e-308)

  Smallest positive 64-bit floating point value.

- #define NPP_MAXABS_64F (1.7976931348623158e+308)

  Largest positive 64-bit floating point value.

Enumerations

- enum NppiInterpolationMode {
  NPPI_INTER_UNDEFINED = 0,
  NPPI_INTER_NN = 1,
  NPPI_INTER_LINEAR = 2,
  NPPI_INTER_CUBIC = 4,
  NPPI_INTER_CUBIC2P_BSPLINE,
  NPPI_INTER_CUBIC2P_CATMULLROM,
  NPPI_INTER_CUBIC2P_B05C03,
  NPPI_INTER_SUPER = 8,
  NPPI_INTER_LANCZOS = 16,
  NPPI_SMOOTH_EDGE = (1 << 31) }

Filtering methods.

- enum NppiMaskSize {
  NPP_MASK_SIZE_1_X_3,
  NPP_MASK_SIZE_1_X_5,
  NPP_MASK_SIZE_3_X_1 = 100,
  NPP_MASK_SIZE_5_X_1,
  NPP_MASK_SIZE_3_X_3 = 200,
  NPP_MASK_SIZE_5_X_5 }

  Fixed filter-kernel sizes.

- enum NppStatus {
  NPP_NOT_SUPPORTED_MODE_ERROR = -9999,
  NPP_INVALID_HOST_POINTER_ERROR = -1032,
  NPP_INVALID_DEVICE_POINTER_ERROR = -1031,
  NPP_LUT_PALETTE_BITSIZE_ERROR = -1030,
  NPP_ZC_MODE_NOT_SUPPORTED_ERROR = -1028,
  NPP_NOT_SUFFICIENT_COMPUTE_CAPABILITY = -1027,
  NPP_TEXTURE_BIND_ERROR = -1024,
  NPP_WRONG_INTERSECTION_ROI_ERROR = -1020,
  NPP_HAAR_CLASSIFIER_PIXEL_MATCH_ERROR = -1006,
  NPP_MEMFREE_ERROR = -1005,
  NPP_MEMSET_ERROR = -1004,
  NPP_MEMCPY_ERROR = -1003,
  NPP_ALIGNMENT_ERROR = -1002,
  NPP_CUDA_KERNEL_EXECUTION_ERROR = -1000,
  NPP_ROUND_MODE_NOT_SUPPORTED_ERROR = -213,
  NPP_QUALITY_INDEX_ERROR = -210,
  NPP_RESIZE_NO_OPERATION_ERROR = -201,
  NPP_OVERFLOW_ERROR = -109,
  NPP_NOT_EVEN_STEP_ERROR = -108,
  NPP_HISTOGRAM_NUMBER_OF_LEVELS_ERROR = -107,
  NPP_LUT_NUMBER_OF_LEVELS_ERROR = -106,
  NPP_CHANNEL_ORDER_ERROR = -60,
  NPP_ZERO_MASK_VALUE_ERROR = -59,
  NPP_QUADRANGLE_ERROR = -58,
  NPP_RECTANGLE_ERROR = -57,
  NPP_COEFFICIENT_ERROR = -56,
  NPP_NUMBER_OF_CHANNELS_ERROR = -53,
  NPP_COI_ERROR = -52,
  NPP_DIVISOR_ERROR = -51,
  NPP_CHANNEL_ERROR = -47,

NPP_STRIDE_ERROR = -37,

NPP_ANCHOR_ERROR = -34,

NPP_MASK_SIZE_ERROR = -33,

NPP_RESIZE_FACTOR_ERROR = -23,

NPP_INTERPOLATION_ERROR = -22,

NPP_MIRROR_FLIP_ERROR = -21,

NPP_MOMENT_00_ZERO_ERROR = -20,

NPP_THRESHOLD_NEGATIVE_LEVEL_ERROR = -19,

NPP_THRESHOLD_ERROR = -18,

NPP_CONTEXT_MATCH_ERROR = -17,

NPP_FFT_FLAG_ERROR = -16,

NPP_FFT_ORDER_ERROR = -15,

NPP_STEP_ERROR = -14,

NPP_SCALE_RANGE_ERROR = -13,

NPP_DATA_TYPE_ERROR = -12,

NPP_OUT_OFF_RANGE_ERROR = -11,

NPP_DIVIDE_BY_ZERO_ERROR = -10,

NPP_MEMORY_ALLOCATION_ERR = -9,

NPP_NULL_POINTER_ERROR = -8,

NPP_RANGE_ERROR = -7,

NPP_SIZE_ERROR = -6,

NPP_BAD_ARGUMENT_ERROR = -5,

NPP_NO_MEMORY_ERROR = -4,

NPP_NOT_IMPLEMENTED_ERROR = -3,

NPP_ERROR = -2,

NPP_ERROR_RESERVED = -1,

NPP_NO_ERROR = 0,

NPP_SUCCESS = NPP_NO_ERROR,

NPP_NO_OPERATION_WARNING = 1,

NPP_DIVIDE_BY_ZERO_WARNING = 6,

NPP_AFFINE_QUAD_INCORRECT_WARNING = 28,

NPP_WRONG_INTERSECTION_ROI_WARNING = 29,

NPP_WRONG_INTERSECTION_QUAD_WARNING = 30,

NPP_DOUBLE_SIZE_WARNING = 35,

NPP_MISALIGNED_DST_ROI_WARNING = 10000 }

Error Status Codes.

- enum NppGpuComputeCapability {

NPP_CUDA_UNKNOWN_VERSION = -1,

NPP_CUDA_NOT_CAPABLE = 0,

NPP_CUDA_1_0 = 100,

NPP_CUDA_1_1 = 110,
NPP_CUDA_1_2 = 120,
NPP_CUDA_1_3 = 130,
NPP_CUDA_2_0 = 200,
NPP_CUDA_2_1 = 210,
NPP_CUDA_3_0 = 300,
NPP_CUDA_3_2 = 320,
NPP_CUDA_3_5 = 350,
NPP_CUDA_5_0 = 500 }

- enum NppiAxis {
  NPP_HORIZONTAL_AXIS,
  NPP_VERTICAL_AXIS,
  NPP_BOTH_AXIS }
- enum NppCmpOp {
  NPP_CMP_LESS,
  NPP_CMP_LESS_EQ,
  NPP_CMP_EQ,
  NPP_CMP_GREATER_EQ,
  NPP_CMP_GREATER }
- enum NppRoundMode {
  NPP_RND_NEAR,
  NPP_ROUND_NEAREST_TIES_TO_EVEN = NPP_RND_NEAR,
  NPP_RND_FINANCIAL,
  NPP_ROUND_NEAREST_TIES_AWAY_FROM_ZERO = NPP_RND_FINANCIAL,
  NPP_RND_ZERO,
  NPP_ROUND_TOWARD_ZERO = NPP_RND_ZERO }

  Rounding Modes.

- enum NppiBorderType {
  NPP_BORDER_UNDEFINED = 0,
  NPP_BORDER_NONE = NPP_BORDER_UNDEFINED,
  NPP_BORDER_CONSTANT = 1,
  NPP_BORDER_REPLICATE = 2,
  NPP_BORDER_WRAP = 3 }
- enum NppHintAlgorithm {
  NPP_ALG_HINT_NONE,
  NPP_ALG_HINT_FAST,
  NPP_ALG_HINT_ACCURATE }
- enum NppiAlphaOp {
  NPPI_OP_ALPHA_OVER,
  NPPI_OP_ALPHA_IN,
  NPPI_OP_ALPHA_OUT,

NPPI_OP_ALPHA_ATOP,
NPPI_OP_ALPHA_XOR,
NPPI_OP_ALPHA_PLUS,
NPPI_OP_ALPHA_OVER_PREMUL,
NPPI_OP_ALPHA_IN_PREMUL,
NPPI_OP_ALPHA_OUT_PREMUL,
NPPI_OP_ALPHA_ATOP_PREMUL,
NPPI_OP_ALPHA_XOR_PREMUL,
NPPI_OP_ALPHA_PLUS_PREMUL,
NPPI_OP_ALPHA_PREMUL }

- enum NppsZCType {
  nppZCR,
  nppZCXor,
  nppZCC }
- enum NppiHuffmanTableType {
  nppiDCTable,
  nppiACTable }

7.2.1 Define Documentation

7.2.1.1 #define NPP_MAX_16S (32767)

Maximum 16-bit signed integer.

7.2.1.2 #define NPP_MAX_16U (65535)

Maximum 16-bit unsigned integer.

7.2.1.3 #define NPP_MAX_32S (2147483647)

Maximum 32-bit signed integer.

7.2.1.4 #define NPP_MAX_32U (4294967295U)

Maximum 32-bit unsigned integer.

7.2.1.5 #define NPP_MAX_64S (9223372036854775807LL)

Maximum 64-bit signed integer.

7.2.1.6 #define NPP_MAX_64U (18446744073709551615ULL)

Maximum 64-bit unsigned integer.

7.2.1.7 #define NPP_MAX_8S (127)

Maximum 8-bit signed integer.

7.2.1.8 #define NPP_MAX_8U (255)

Maximum 8-bit unsigned integer.

7.2.1.9 #define NPP_MAXABS_32F (3.402823466e+38f)

Largest positive 32-bit floating point value.

7.2.1.10 #define NPP_MAXABS_64F (1.7976931348623158e+308)

Largest positive 64-bit floating point value.

7.2.1.11 #define NPP_MIN_16S (-32767 - 1)

Minimum 16-bit signed integer.

7.2.1.12 #define NPP_MIN_16U (0)

Minimum 16-bit unsigned integer.

7.2.1.13 #define NPP_MIN_32S (-2147483647 - 1)

Minimum 32-bit signed integer.

7.2.1.14 #define NPP_MIN_32U (0)

Minimum 32-bit unsigned integer.

7.2.1.15 #define NPP_MIN_64S (-9223372036854775807LL - 1)

Minimum 64-bit signed integer.

7.2.1.16 #define NPP_MIN_64U (0)

Minimum 64-bit unsigned integer.

7.2.1.17 #define NPP_MIN_8S (-127 - 1)

Minimum 8-bit signed integer.

7.2.1.18 #define NPP_MIN_8U (0)

Minimum 8-bit unsigned integer.

7.2.1.19 #define NPP_MINABS_32F (1.175494351e-38f)

Smallest positive 32-bit floating point value.

7.2.1.20 #define NPP_MINABS_64F (2.2250738585072014e-308)

Smallest positive 64-bit floating point value.

7.2.2 Enumeration Type Documentation

7.2.2.1 enum NppCmpOp

Enumerator:

NPP_CMP_LESS
NPP_CMP_LESS_EQ
NPP_CMP_EQ
NPP_CMP_GREATER_EQ
NPP_CMP_GREATER

7.2.2.2 enum NppGpuComputeCapability

Enumerator:

NPP_CUDA_UNKNOWN_VERSION Indicates that the compute-capability query failed.
NPP_CUDA_NOT_CAPABLE Indicates that no CUDA capable device was found.
NPP_CUDA_1_0 Indicates that CUDA 1.0 capable device is machine's default device.
NPP_CUDA_1_1 Indicates that CUDA 1.1 capable device is machine's default device.
NPP_CUDA_1_2 Indicates that CUDA 1.2 capable device is machine's default device.
NPP_CUDA_1_3 Indicates that CUDA 1.3 capable device is machine's default device.
NPP_CUDA_2_0 Indicates that CUDA 2.0 capable device is machine's default device.
NPP_CUDA_2_1 Indicates that CUDA 2.1 capable device is machine's default device.
NPP_CUDA_3_0 Indicates that CUDA 3.0 capable device is machine's default device.
NPP_CUDA_3_2 Indicates that CUDA 3.2 capable device is machine's default device.
NPP_CUDA_3_5 Indicates that CUDA 3.5 capable device is machine's default device.
NPP_CUDA_5_0 Indicates that CUDA 5.0 or better is machine's default device.

7.2.2.3 enum NppHintAlgorithm

Enumerator:

NPP_ALG_HINT_NONE
NPP_ALG_HINT_FAST
NPP_ALG_HINT_ACCURATE

7.2.2.4 enum NppiAlphaOp

Enumerator:

NPPI_OP_ALPHA_OVER

NPPI_OP_ALPHA_IN

NPPI_OP_ALPHA_OUT

NPPI_OP_ALPHA_ATOP

NPPI_OP_ALPHA_XOR

NPPI_OP_ALPHA_PLUS

NPPI_OP_ALPHA_OVER_PREMUL

NPPI_OP_ALPHA_IN_PREMUL

NPPI_OP_ALPHA_OUT_PREMUL

NPPI_OP_ALPHA_ATOP_PREMUL

NPPI_OP_ALPHA_XOR_PREMUL

NPPI_OP_ALPHA_PLUS_PREMUL

NPPI_OP_ALPHA_PREMUL

7.2.2.5 enum NppiAxis

Enumerator:

NPP_HORIZONTAL_AXIS

NPP_VERTICAL_AXIS

NPP_BOTH_AXIS

7.2.2.6 enum NppiBorderType

Enumerator:

NPP_BORDER_UNDEFINED

NPP_BORDER_NONE

NPP_BORDER_CONSTANT

NPP_BORDER_REPLICATE

NPP_BORDER_WRAP

7.2.2.7 enum NppiHuffmanTableType

Enumerator:

nppiDCTable DC Table.

nppiACTable AC Table.

7.2.2.8 enum NppiInterpolationMode

Filtering methods.

Enumerator:

NPPI_INTER_UNDEFINED

NPPI_INTER_NN Nearest neighbor filtering.

NPPI_INTER_LINEAR Linear interpolation.

NPPI_INTER_CUBIC Cubic interpolation.

NPPI_INTER_CUBIC2P_BSPLINE Two-parameter cubic filter (B=1, C=0).

NPPI_INTER_CUBIC2P_CATMULLROM Two-parameter cubic filter (B=0, C=1/2).

NPPI_INTER_CUBIC2P_B05C03 Two-parameter cubic filter (B=1/2, C=3/10).

NPPI_INTER_SUPER Super sampling.

NPPI_INTER_LANCZOS Lanczos filtering.

NPPI_SMOOTH_EDGE Smooth edge filtering.

7.2.2.9 enum NppiMaskSize

Fixed filter-kernel sizes.

Enumerator:

NPP_MASK_SIZE_1_X_3

NPP_MASK_SIZE_1_X_5

NPP_MASK_SIZE_3_X_1

NPP_MASK_SIZE_5_X_1

NPP_MASK_SIZE_3_X_3

NPP_MASK_SIZE_5_X_5

7.2.2.10 enum NppRoundMode

Rounding Modes.

The enumerated rounding modes are used by a large number of NPP primitives to allow the user to specify the method by which fractional values are converted to integer values. Also see Rounding Modes.

For NPP release 5.5 new names for the three rounding modes are introduced that are based on the naming conventions for rounding modes set forth in the IEEE-754 floating-point standard. Developers are encouraged to use the new, longer names to be future proof as the legacy names will be deprecated in subsequent NPP releases.

Enumerator:

NPP_RND_NEAR Round to the nearest even integer.

All fractional numbers are rounded to their nearest integer. The ambiguous cases (i.e. <integer>.5) are rounded to the closest even integer. E.g.

- roundNear(0.5) = 0

- roundNear(0.6) = 1
- roundNear(1.5) = 2
- roundNear(-1.5) = -2

NPP_ROUND_NEAREST_TIES_TO_EVEN Alias name for NPP_RND_NEAR.

NPP_RND_FINANCIAL Round according to financial rule.

All fractional numbers are rounded to their nearest integer. The ambiguous cases (i.e. <integer>.5) are rounded away from zero. E.g.

- roundFinancial(0.4) = 0
- roundFinancial(0.5) = 1
- roundFinancial(-1.5) = -2

NPP_ROUND_NEAREST_TIES_AWAY_FROM_ZERO Alias name for NPP_RND_FINANCIAL.

NPP_RND_ZERO Round towards zero (truncation).

All fractional numbers of the form <integer>.<decimals> are truncated to <integer>.

- roundZero(1.5) = 1
- roundZero(1.9) = 1
- roundZero(-2.5) = -2

NPP_ROUND_TOWARD_ZERO Alias name for NPP_RND_ZERO.

7.2.2.11 enum NppStatus

Error Status Codes.

Almost all NPP function return error-status information using these return codes. Negative return codes indicate errors, positive return codes indicate warnings, a return code of 0 indicates success.

Enumerator:

NPP_NOT_SUPPORTED_MODE_ERROR

NPP_INVALID_HOST_POINTER_ERROR

NPP_INVALID_DEVICE_POINTER_ERROR

NPP_LUT_PALETTE_BITSIZE_ERROR

NPP_ZC_MODE_NOT_SUPPORTED_ERROR ZeroCrossing mode not supported.

NPP_NOT_SUFFICIENT_COMPUTE_CAPABILITY

NPP_TEXTURE_BIND_ERROR

NPP_WRONG_INTERSECTION_ROI_ERROR

NPP_HAAR_CLASSIFIER_PIXEL_MATCH_ERROR

NPP_MEMFREE_ERROR

NPP_MEMSET_ERROR

NPP_MEMCPY_ERROR

NPP_ALIGNMENT_ERROR

NPP_CUDA_KERNEL_EXECUTION_ERROR

NPP_ROUND_MODE_NOT_SUPPORTED_ERROR Unsupported round mode.

NPP_QUALITY_INDEX_ERROR Image pixels are constant for quality index.

NPP_RESIZE_NO_OPERATION_ERROR One of the output image dimensions is less than 1 pixel.

NPP_OVERFLOW_ERROR Number overflows the upper or lower limit of the data type.

NPP_NOT_EVEN_STEP_ERROR Step value is not pixel multiple.

NPP_HISTOGRAM_NUMBER_OF_LEVELS_ERROR Number of levels for histogram is less than 2.

NPP_LUT_NUMBER_OF_LEVELS_ERROR Number of levels for LUT is less than 2.

NPP_CHANNEL_ORDER_ERROR Wrong order of the destination channels.

NPP_ZERO_MASK_VALUE_ERROR All values of the mask are zero.

NPP_QUADRANGLE_ERROR The quadrangle is nonconvex or degenerates into triangle, line or point.

NPP_RECTANGLE_ERROR Size of the rectangle region is less than or equal to 1.

NPP_COEFFICIENT_ERROR Unallowable values of the transformation coefficients.

NPP_NUMBER_OF_CHANNELS_ERROR Bad or unsupported number of channels.

NPP_COI_ERROR Channel of interest is not 1, 2, or 3.

NPP_DIVISOR_ERROR Divisor is equal to zero.

NPP_CHANNEL_ERROR Illegal channel index.

NPP_STRIDE_ERROR Stride is less than the row length.

NPP_ANCHOR_ERROR Anchor point is outside mask.

NPP_MASK_SIZE_ERROR Lower bound is larger than upper bound.

NPP_RESIZE_FACTOR_ERROR

NPP_INTERPOLATION_ERROR

NPP_MIRROR_FLIP_ERROR

NPP_MOMENT_00_ZERO_ERROR

NPP_THRESHOLD_NEGATIVE_LEVEL_ERROR

NPP_THRESHOLD_ERROR

NPP_CONTEXT_MATCH_ERROR

NPP_FFT_FLAG_ERROR

NPP_FFT_ORDER_ERROR

NPP_STEP_ERROR Step is less or equal zero.

NPP_SCALE_RANGE_ERROR

NPP_DATA_TYPE_ERROR

NPP_OUT_OFF_RANGE_ERROR

NPP_DIVIDE_BY_ZERO_ERROR

NPP_MEMORY_ALLOCATION_ERR

NPP_NULL_POINTER_ERROR

NPP_RANGE_ERROR

NPP_SIZE_ERROR

NPP_BAD_ARGUMENT_ERROR

NPP_NO_MEMORY_ERROR

NPP_NOT_IMPLEMENTED_ERROR

NPP_ERROR

NPP_ERROR_RESERVED

NPP_NO_ERROR Error free operation.

NPP_SUCCESS Successful operation (same as NPP_NO_ERROR).

NPP_NO_OPERATION_WARNING Indicates that no operation was performed.

NPP_DIVIDE_BY_ZERO_WARNING Divisor is zero however does not terminate the execution.

NPP_AFFINE_QUAD_INCORRECT_WARNING Indicates that the quadrangle passed to one of affine warping functions doesn't have necessary properties.

First 3 vertices are used, the fourth vertex discarded.

NPP_WRONG_INTERSECTION_ROI_WARNING The given ROI has no interestion with either the source or destination ROI.

Thus no operation was performed.

NPP_WRONG_INTERSECTION_QUAD_WARNING The given quadrangle has no intersection with either the source or destination ROI.

Thus no operation was performed.

NPP_DOUBLE_SIZE_WARNING Image size isn't multiple of two.

Indicates that in case of 422/411/420 sampling the ROI width/height was modified for proper processing.

NPP_MISALIGNED_DST_ROI_WARNING Speed reduction due to uncoalesced memory accesses warning.

7.2.2.12 enum NppsZCType

Enumerator:

nppZCR sign change

nppZCXor sign change XOR

nppZCC sign change count_0

7.3 Basic NPP Data Types

Data Structures

- struct NPP_ALIGN_8

  Complex Number This struct represents an unsigned int complex number.

- struct NPP_ALIGN_16

  Complex Number This struct represents a long long complex number.

Typedefs

- typedef unsigned char Npp8u

  8-bit unsigned chars

- typedef signed char Npp8s

  8-bit signed chars

- typedef unsigned short Npp16u

  16-bit unsigned integers

- typedef short Npp16s

  16-bit signed integers

- typedef unsigned int Npp32u

  32-bit unsigned integers

- typedef int Npp32s

  32-bit signed integers

- typedef unsigned long long Npp64u

  64-bit unsigned integers

- typedef long long Npp64s

  64-bit signed integers

- typedef float Npp32f

  32-bit (IEEE) floating-point numbers

- typedef double Npp64f

  64-bit floating-point numbers

- typedef struct NPP_ALIGN_8 Npp32uc

  Complex Number This struct represents an unsigned int complex number.

- typedef struct NPP_ALIGN_8 Npp32sc

  Complex Number This struct represents a signed int complex number.

- typedef struct NPP_ALIGN_8 Npp32fc

  Complex Number This struct represents a single floating-point complex number.

- typedef struct NPP_ALIGN_16 Npp64sc

  Complex Number This struct represents a long long complex number.

- typedef struct NPP_ALIGN_16 Npp64fc

  Complex Number This struct represents a double floating-point complex number.

Functions

- struct __align__ (2)

  Complex Number This struct represents an unsigned char complex number.

- struct __align__ (4)

  Complex Number This struct represents an unsigned short complex number.

Variables

- Npp8uc
- Npp16uc
- Npp16sc

7.3.1 Typedef Documentation

7.3.1.1 typedef short Npp16s

16-bit signed integers

7.3.1.2 typedef unsigned short Npp16u

16-bit unsigned integers

7.3.1.3 typedef float Npp32f

32-bit (IEEE) floating-point numbers

7.3.1.4 typedef struct NPP_ALIGN_8 Npp32fc

Complex Number This struct represents a single floating-point complex number.

7.3.1.5 typedef int Npp32s

32-bit signed integers

7.3.1.6 typedef struct NPP_ALIGN_8 Npp32sc

Complex Number This struct represents a signed int complex number.

7.3.1.7 typedef unsigned int Npp32u

32-bit unsigned integers

7.3.1.8 typedef struct NPP_ALIGN_8 Npp32uc

Complex Number This struct represents an unsigned int complex number.

7.3.1.9 typedef double Npp64f

64-bit floating-point numbers

7.3.1.10 typedef struct NPP_ALIGN_16 Npp64fc

Complex Number This struct represents a double floating-point complex number.

7.3.1.11 typedef long long Npp64s

64-bit signed integers

7.3.1.12 typedef struct NPP_ALIGN_16 Npp64sc

Complex Number This struct represents a long long complex number.

7.3.1.13 typedef unsigned long long Npp64u

64-bit unsigned integers

7.3.1.14 typedef signed char Npp8s

8-bit signed chars

7.3.1.15 typedef unsigned char Npp8u

8-bit unsigned chars

7.3.2 Function Documentation

7.3.2.1 struct __align__ (4) `[read]`

Complex Number This struct represents an unsigned short complex number.

Complex Number This struct represents a short complex number.

< Real part

< Imaginary part

< Real part

< Imaginary part

7.3.2.2 struct __align__ (2) `[read]`

Complex Number This struct represents an unsigned char complex number.

< Real part

< Imaginary part

7.3.3 Variable Documentation

7.3.3.1 Npp16sc

7.3.3.2 Npp16uc

7.3.3.3 Npp8uc

7.4 NPP Image Processing

Modules

- Arithmetic and Logical Operations
- Color and Sampling Conversion

  Routines manipulating an image's color model and sampling format.

- Compression

  Image compression primitives.

- Labeling and Segmentation

  Pixel labeling and image segementation operations.

- Data Exchange and Initialization

  Primitives for initializting, copying and converting image data.

- Filtering Functions

  Linear and non-linear image filtering functions.

- Geometry Transforms

  Routines manipulating an image's geometry.

- Linear Transforms

  Linear image transformations.

- Morphological Operations

  Morphological image operations.

- Statistical Operations

  Primitives for computing the statistical properties of an image.

- Memory Management

  Routines for allocating and deallocating pitched image storage.

- Threshold and Compare Operations

  Methods for pixel-wise threshold and compare operations.

7.5 Arithmetic and Logical Operations

Modules

- Arithmetic Operations
- Logical Operations
- Alpha Composition

7.6 Arithmetic Operations

Modules

- AddC

  Adds a constant value to each pixel of an image.

- MulC

  Multiplies each pixel of an image by a constant value.

- MulCScale

  Multiplies each pixel of an image by a constant value then scales the result by the maximum value for the data bit width.

- SubC

  Subtracts a constant value from each pixel of an image.

- DivC

  Divides each pixel of an image by a constant value.

- AbsDiffC

  Determines absolute difference between each pixel of an image and a constant value.

- Add

  Pixel by pixel addition of two images.

- AddSquare

  Pixel by pixel addition of squared pixels from source image to floating point pixel values of destination image.

- AddProduct

  Pixel by pixel addition of product of pixels from two source images to floating point pixel values of destination image.

- AddWeighted

  Pixel by pixel addition of alpha weighted pixel values from a source image to floating point pixel values of destination image.

- Mul

  Pixel by pixel multiply of two images.

- MulScale

  Pixel by pixel multiplies each pixel of two images then scales the result by the maximum value for the data bit width.

- Sub

  Pixel by pixel subtraction of two images.

- Div

  Pixel by pixel division of two images.

- Div_Round

  Pixel by pixel division of two images using result rounding modes.

- Abs

  Absolute value of each pixel value in an image.

- AbsDiff

  Pixel by pixel absolute difference between two images.

- Sqr

  Square each pixel in an image.

- Sqrt

  Pixel by pixel square root of each pixel in an image.

- Ln

  Pixel by pixel natural logarithm of each pixel in an image.

- Exp

  Exponential value of each pixel in an image.

7.7 AddC

Adds a constant value to each pixel of an image.

Functions

- NppStatus nppiAddC_8u_C1RSfs (const Npp8u ∗pSrc1, int nSrc1Step, const Npp8u nConstant, Npp8u ∗pDst, int nDstStep, NppiSize oSizeROI, int nScaleFactor)

  One 8-bit unsigned char channel image add constant, scale, then clamp to saturated value.

- NppStatus nppiAddC_8u_C1IRSfs (const Npp8u nConstant, Npp8u ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI, int nScaleFactor)

  One 8-bit unsigned char channel in place image add constant, scale, then clamp to saturated value.

- NppStatus nppiAddC_8u_C3RSfs (const Npp8u ∗pSrc1, int nSrc1Step, const Npp8u aConstants[3], Npp8u ∗pDst, int nDstStep, NppiSize oSizeROI, int nScaleFactor)

  Three 8-bit unsigned char channel image add constant, scale, then clamp to saturated value.

- NppStatus nppiAddC_8u_C3IRSfs (const Npp8u aConstants[3], Npp8u ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI, int nScaleFactor)

  Three 8-bit unsigned char channel 8-bit unsigned char in place image add constant, scale, then clamp to saturated value.

- NppStatus nppiAddC_8u_AC4RSfs (const Npp8u ∗pSrc1, int nSrc1Step, const Npp8u aConstants[3], Npp8u ∗pDst, int nDstStep, NppiSize oSizeROI, int nScaleFactor)

  Four 8-bit unsigned char channel with unmodified alpha image add constant, scale, then clamp to saturated value.

- NppStatus nppiAddC_8u_AC4IRSfs (const Npp8u aConstants[3], Npp8u ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI, int nScaleFactor)

  Four 8-bit unsigned char channel with unmodified alpha in place image add constant, scale, then clamp to saturated value.

- NppStatus nppiAddC_8u_C4RSfs (const Npp8u ∗pSrc1, int nSrc1Step, const Npp8u aConstants[4], Npp8u ∗pDst, int nDstStep, NppiSize oSizeROI, int nScaleFactor)

  Four 8-bit unsigned char channel image add constant, scale, then clamp to saturated value.

- NppStatus nppiAddC_8u_C4IRSfs (const Npp8u aConstants[4], Npp8u ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI, int nScaleFactor)

  Four 8-bit unsigned char channel in place image add constant, scale, then clamp to saturated value.

- NppStatus nppiAddC_16u_C1RSfs (const Npp16u ∗pSrc1, int nSrc1Step, const Npp16u nConstant, Npp16u ∗pDst, int nDstStep, NppiSize oSizeROI, int nScaleFactor)

  One 16-bit unsigned short channel image add constant, scale, then clamp to saturated value.

- NppStatus nppiAddC_16u_C1IRSfs (const Npp16u nConstant, Npp16u ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI, int nScaleFactor)

  One 16-bit unsigned short channel in place image add constant, scale, then clamp to saturated value.

- NppStatus nppiAddC_16u_C3RSfs (const Npp16u ∗pSrc1, int nSrc1Step, const Npp16u aConstants[3], Npp16u ∗pDst, int nDstStep, NppiSize oSizeROI, int nScaleFactor)

Three 16-bit unsigned short channel image add constant, scale, then clamp to saturated value.

- NppStatus nppiAddC_16u_C3IRSfs (const Npp16u aConstants[3], Npp16u ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI, int nScaleFactor)

  Three 16-bit unsigned short channel in place image add constant, scale, then clamp to saturated value.

- NppStatus nppiAddC_16u_AC4RSfs (const Npp16u ∗pSrc1, int nSrc1Step, const Npp16u aConstants[3], Npp16u ∗pDst, int nDstStep, NppiSize oSizeROI, int nScaleFactor)

  Four 16-bit unsigned short channel with unmodified alpha image add constant, scale, then clamp to saturated value.

- NppStatus nppiAddC_16u_AC4IRSfs (const Npp16u aConstants[3], Npp16u ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI, int nScaleFactor)

  Four 16-bit unsigned short channel with unmodified alpha in place image add constant, scale, then clamp to saturated value.

- NppStatus nppiAddC_16u_C4RSfs (const Npp16u ∗pSrc1, int nSrc1Step, const Npp16u aConstants[4], Npp16u ∗pDst, int nDstStep, NppiSize oSizeROI, int nScaleFactor)

  Four 16-bit unsigned short channel image add constant, scale, then clamp to saturated value.

- NppStatus nppiAddC_16u_C4IRSfs (const Npp16u aConstants[4], Npp16u ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI, int nScaleFactor)

  Four 16-bit unsigned short channel in place image add constant, scale, then clamp to saturated value.

- NppStatus nppiAddC_16s_C1RSfs (const Npp16s ∗pSrc1, int nSrc1Step, const Npp16s nConstant, Npp16s ∗pDst, int nDstStep, NppiSize oSizeROI, int nScaleFactor)

  One 16-bit signed short channel image add constant, scale, then clamp to saturated value.

- NppStatus nppiAddC_16s_C1IRSfs (const Npp16s nConstant, Npp16s ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI, int nScaleFactor)

  One 16-bit signed short channel in place image add constant, scale, then clamp to saturated value.

- NppStatus nppiAddC_16s_C3RSfs (const Npp16s ∗pSrc1, int nSrc1Step, const Npp16s aConstants[3], Npp16s ∗pDst, int nDstStep, NppiSize oSizeROI, int nScaleFactor)

  Three 16-bit signed short channel image add constant, scale, then clamp to saturated value.

- NppStatus nppiAddC_16s_C3IRSfs (const Npp16s aConstants[3], Npp16s ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI, int nScaleFactor)

  Three 16-bit signed short channel in place image add constant, scale, then clamp to saturated value.

- NppStatus nppiAddC_16s_AC4RSfs (const Npp16s ∗pSrc1, int nSrc1Step, const Npp16s aConstants[3], Npp16s ∗pDst, int nDstStep, NppiSize oSizeROI, int nScaleFactor)

  Four 16-bit signed short channel with unmodified alpha image add constant, scale, then clamp to saturated value.

- NppStatus nppiAddC_16s_AC4IRSfs (const Npp16s aConstants[3], Npp16s ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI, int nScaleFactor)

  Four 16-bit signed short channel with unmodified alpha in place image add constant, scale, then clamp to saturated value.

- NppStatus nppiAddC_16s_C4RSfs (const Npp16s ∗pSrc1, int nSrc1Step, const Npp16s aConstants[4], Npp16s ∗pDst, int nDstStep, NppiSize oSizeROI, int nScaleFactor)

Four 16-bit signed short channel image add constant, scale, then clamp to saturated value.

- NppStatus nppiAddC_16s_C4IRSfs (const Npp16s aConstants[4], Npp16s ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI, int nScaleFactor)

  Four 16-bit signed short channel in place image add constant, scale, then clamp to saturated value.

- NppStatus nppiAddC_16sc_C1RSfs (const Npp16sc ∗pSrc1, int nSrc1Step, const Npp16sc nConstant, Npp16sc ∗pDst, int nDstStep, NppiSize oSizeROI, int nScaleFactor)

  One 16-bit signed short complex number (16-bit real, 16-bit imaginary) channel image add constant, scale, then clamp to saturated value.

- NppStatus nppiAddC_16sc_C1IRSfs (const Npp16sc nConstant, Npp16sc ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI, int nScaleFactor)

  One 16-bit signed short complex number (16-bit real, 16-bit imaginary) channel in place image add constant, scale, then clamp to saturated value.

- NppStatus nppiAddC_16sc_C3RSfs (const Npp16sc ∗pSrc1, int nSrc1Step, const Npp16sc aConstants[3], Npp16sc ∗pDst, int nDstStep, NppiSize oSizeROI, int nScaleFactor)

  Three 16-bit signed short complex number (16-bit real, 16-bit imaginary) channel image add constant, scale, then clamp to saturated value.

- NppStatus nppiAddC_16sc_C3IRSfs (const Npp16sc aConstants[3], Npp16sc ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI, int nScaleFactor)

  Three 16-bit signed short complex number (16-bit real, 16-bit imaginary) channel in place image add constant, scale, then clamp to saturated value.

- NppStatus nppiAddC_16sc_AC4RSfs (const Npp16sc ∗pSrc1, int nSrc1Step, const Npp16sc aConstants[3], Npp16sc ∗pDst, int nDstStep, NppiSize oSizeROI, int nScaleFactor)

  Four 16-bit signed short complex number (16-bit real, 16-bit imaginary) channel with unmodified alpha image add constant, scale, then clamp to saturated value.

- NppStatus nppiAddC_16sc_AC4IRSfs (const Npp16sc aConstants[3], Npp16sc ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI, int nScaleFactor)

  Four 16-bit signed short complex number (16-bit real, 16-bit imaginary) channel with unmodified alpha in place image add constant, scale, then clamp to saturated value.

- NppStatus nppiAddC_32s_C1RSfs (const Npp32s ∗pSrc1, int nSrc1Step, const Npp32s nConstant, Npp32s ∗pDst, int nDstStep, NppiSize oSizeROI, int nScaleFactor)

  One 32-bit signed integer channel image add constant, scale, then clamp to saturated value.

- NppStatus nppiAddC_32s_C1IRSfs (const Npp32s nConstant, Npp32s ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI, int nScaleFactor)

  One 32-bit signed integer channel in place image add constant, scale, then clamp to saturated value.

- NppStatus nppiAddC_32s_C3RSfs (const Npp32s ∗pSrc1, int nSrc1Step, const Npp32s aConstants[3], Npp32s ∗pDst, int nDstStep, NppiSize oSizeROI, int nScaleFactor)

  Three 32-bit signed integer channel image add constant, scale, then clamp to saturated value.

- NppStatus nppiAddC_32s_C3IRSfs (const Npp32s aConstants[3], Npp32s ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI, int nScaleFactor)

  Three 32-bit signed integer channel in place image add constant, scale, then clamp to saturated value.

- NppStatus nppiAddC_32sc_C1RSfs (const Npp32sc ∗pSrc1, int nSrc1Step, const Npp32sc nConstant, Npp32sc ∗pDst, int nDstStep, NppiSize oSizeROI, int nScaleFactor)

  One 32-bit signed complex integer (32-bit real, 32-bit imaginary) channel image add constant, scale, then clamp to saturated value.

- NppStatus nppiAddC_32sc_C1IRSfs (const Npp32sc nConstant, Npp32sc ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI, int nScaleFactor)

  One 32-bit signed complex integer (32-bit real, 32-bit imaginary) channel in place image add constant, scale, then clamp to saturated value.

- NppStatus nppiAddC_32sc_C3RSfs (const Npp32sc ∗pSrc1, int nSrc1Step, const Npp32sc aConstants[3], Npp32sc ∗pDst, int nDstStep, NppiSize oSizeROI, int nScaleFactor)

  Three 32-bit signed complex integer (32-bit real, 32-bit imaginary) channel image add constant, scale, then clamp to saturated value.

- NppStatus nppiAddC_32sc_C3IRSfs (const Npp32sc aConstants[3], Npp32sc ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI, int nScaleFactor)

  Three 32-bit signed complex integer (32-bit real, 32-bit imaginary) channel in place image add constant, scale, then clamp to saturated value.

- NppStatus nppiAddC_32sc_AC4RSfs (const Npp32sc ∗pSrc1, int nSrc1Step, const Npp32sc aConstants[3], Npp32sc ∗pDst, int nDstStep, NppiSize oSizeROI, int nScaleFactor)

  Four 32-bit signed complex integer (32-bit real, 32-bit imaginary) channel with unmodified alpha image add constant, scale, then clamp to saturated value.

- NppStatus nppiAddC_32sc_AC4IRSfs (const Npp32sc aConstants[3], Npp32sc ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI, int nScaleFactor)

  Four 32-bit signed complex integer (32-bit real, 32-bit imaginary) channel with unmodified alpha in place image add constant, scale, then clamp to saturated value.

- NppStatus nppiAddC_32f_C1R (const Npp32f ∗pSrc1, int nSrc1Step, const Npp32f nConstant, Npp32f ∗pDst, int nDstStep, NppiSize oSizeROI)

  One 32-bit floating point channel image add constant.

- NppStatus nppiAddC_32f_C1IR (const Npp32f nConstant, Npp32f ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI)

  One 32-bit floating point channel in place image add constant.

- NppStatus nppiAddC_32f_C3R (const Npp32f ∗pSrc1, int nSrc1Step, const Npp32f aConstants[3], Npp32f ∗pDst, int nDstStep, NppiSize oSizeROI)

  Three 32-bit floating point channel image add constant.

- NppStatus nppiAddC_32f_C3IR (const Npp32f aConstants[3], Npp32f ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI)

  Three 32-bit floating point channel in place image add constant.

- NppStatus nppiAddC_32f_AC4R (const Npp32f ∗pSrc1, int nSrc1Step, const Npp32f aConstants[3], Npp32f ∗pDst, int nDstStep, NppiSize oSizeROI)

  Four 32-bit floating point channel with unmodified alpha image add constant.

- NppStatus nppiAddC_32f_AC4IR (const Npp32f aConstants[3], Npp32f ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI)

Four 32-bit floating point channel with unmodified alpha in place image add constant.

- NppStatus nppiAddC_32f_C4R (const Npp32f ∗pSrc1, int nSrc1Step, const Npp32f aConstants[4], Npp32f ∗pDst, int nDstStep, NppiSize oSizeROI)

  Four 32-bit floating point channel image add constant.

- NppStatus nppiAddC_32f_C4IR (const Npp32f aConstants[4], Npp32f ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI)

  Four 32-bit floating point channel in place image add constant.

- NppStatus nppiAddC_32fc_C1R (const Npp32fc ∗pSrc1, int nSrc1Step, const Npp32fc nConstant, Npp32fc ∗pDst, int nDstStep, NppiSize oSizeROI)

  One 32-bit complex floating point (32-bit floating point real, 32-bit floating point imaginary) channel image add constant.

- NppStatus nppiAddC_32fc_C1IR (const Npp32fc nConstant, Npp32fc ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI)

  One 32-bit complex floating point (32-bit floating point real, 32-bit floating point imaginary) channel in place image add constant.

- NppStatus nppiAddC_32fc_C3R (const Npp32fc ∗pSrc1, int nSrc1Step, const Npp32fc aConstants[3], Npp32fc ∗pDst, int nDstStep, NppiSize oSizeROI)

  Three 32-bit complex floating point (32-bit floating point real, 32-bit floating point imaginary) channel image add constant.

- NppStatus nppiAddC_32fc_C3IR (const Npp32fc aConstants[3], Npp32fc ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI)

  Three 32-bit complex floating point (32-bit floating point real, 32-bit floating point imaginary) channel in place image add constant.

- NppStatus nppiAddC_32fc_AC4R (const Npp32fc ∗pSrc1, int nSrc1Step, const Npp32fc aConstants[3], Npp32fc ∗pDst, int nDstStep, NppiSize oSizeROI)

  Four 32-bit complex floating point (32-bit floating point real, 32-bit floating point imaginary) channel with unmodified alpha image add constant.

- NppStatus nppiAddC_32fc_AC4IR (const Npp32fc aConstants[3], Npp32fc ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI)

  Four 32-bit complex floating point (32-bit floating point real, 32-bit floating point imaginary) channel with unmodified alpha in place image add constant.

- NppStatus nppiAddC_32fc_C4R (const Npp32fc ∗pSrc1, int nSrc1Step, const Npp32fc aConstants[4], Npp32fc ∗pDst, int nDstStep, NppiSize oSizeROI)

  Four 32-bit complex floating point (32-bit floating point real, 32-bit floating point imaginary) channel image add constant.

- NppStatus nppiAddC_32fc_C4IR (const Npp32fc aConstants[4], Npp32fc ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI)

  Four 32-bit complex floating point (32-bit floating point real, 32-bit floating point imaginary) channel in place image add constant.

7.7.1 Detailed Description

Adds a constant value to each pixel of an image.

7.7.2 Function Documentation

7.7.2.1 NppStatus nppiAddC_16s_AC4IRSfs (const Npp16s *aConstants*[3], Npp16s ∗ *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*, int *nScaleFactor*)

Four 16-bit signed short channel with unmodified alpha in place image add constant, scale, then clamp to saturated value.

Parameters:

aConstants fixed size array of constant values, one per channel.

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oSizeROI Region-of-Interest (ROI).

nScaleFactor Integer Result Scaling.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.7.2.2 NppStatus nppiAddC_16s_AC4RSfs (const Npp16s ∗ *pSrc1*, int *nSrc1Step*, const Npp16s *aConstants*[3], Npp16s ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, int *nScaleFactor*)

Four 16-bit signed short channel with unmodified alpha image add constant, scale, then clamp to saturated value.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

aConstants fixed size array of constant values, one per channel.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

nScaleFactor Integer Result Scaling.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.7.2.3 NppStatus nppiAddC_16s_C1IRSfs (const Npp16s *nConstant*, Npp16s ∗ *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*, int *nScaleFactor*)

One 16-bit signed short channel in place image add constant, scale, then clamp to saturated value.

Parameters:

nConstant Constant.

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oSizeROI Region-of-Interest (ROI).

nScaleFactor Integer Result Scaling.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.7.2.4 NppStatus nppiAddC_16s_C1RSfs (const Npp16s $*$ *pSrc1*, int *nSrc1Step*, const Npp16s *nConstant*, Npp16s $*$ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, int *nScaleFactor*)

One 16-bit signed short channel image add constant, scale, then clamp to saturated value.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

nConstant Constant.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

nScaleFactor Integer Result Scaling.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.7.2.5 NppStatus nppiAddC_16s_C3IRSfs (const Npp16s *aConstants*[3], Npp16s $*$ *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*, int *nScaleFactor*)

Three 16-bit signed short channel in place image add constant, scale, then clamp to saturated value.

Parameters:

aConstants fixed size array of constant values, one per channel.

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oSizeROI Region-of-Interest (ROI).

nScaleFactor Integer Result Scaling.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.7.2.6 NppStatus nppiAddC_16s_C3RSfs (const Npp16s ∗ *pSrc1*, int *nSrc1Step*, const Npp16s *aConstants*[3], Npp16s ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, int *nScaleFactor*)

Three 16-bit signed short channel image add constant, scale, then clamp to saturated value.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

aConstants fixed size array of constant values, one per channel.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

nScaleFactor Integer Result Scaling.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.7.2.7 NppStatus nppiAddC_16s_C4IRSfs (const Npp16s *aConstants*[4], Npp16s ∗ *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*, int *nScaleFactor*)

Four 16-bit signed short channel in place image add constant, scale, then clamp to saturated value.

Parameters:

aConstants fixed size array of constant values, one per channel.

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oSizeROI Region-of-Interest (ROI).

nScaleFactor Integer Result Scaling.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.7.2.8 NppStatus nppiAddC_16s_C4RSfs (const Npp16s ∗ *pSrc1*, int *nSrc1Step*, const Npp16s *aConstants*[4], Npp16s ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, int *nScaleFactor*)

Four 16-bit signed short channel image add constant, scale, then clamp to saturated value.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

aConstants fixed size array of constant values, one per channel.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

nScaleFactor Integer Result Scaling.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.7.2.9 NppStatus nppiAddC_16sc_AC4IRSfs (const Npp16sc *aConstants*[3], Npp16sc * *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*, int *nScaleFactor*)

Four 16-bit signed short complex number (16-bit real, 16-bit imaginary) channel with unmodified alpha in place image add constant, scale, then clamp to saturated value.

Parameters:

aConstants fixed size array of constant values, one per channel.

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oSizeROI Region-of-Interest (ROI).

nScaleFactor Integer Result Scaling.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.7.2.10 NppStatus nppiAddC_16sc_AC4RSfs (const Npp16sc * *pSrc1*, int *nSrc1Step*, const Npp16sc *aConstants*[3], Npp16sc * *pDst*, int *nDstStep*, NppiSize *oSizeROI*, int *nScaleFactor*)

Four 16-bit signed short complex number (16-bit real, 16-bit imaginary) channel with unmodified alpha image add constant, scale, then clamp to saturated value.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

aConstants fixed size array of constant values, one per channel.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

nScaleFactor Integer Result Scaling.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.7.2.11 NppStatus nppiAddC_16sc_C1IRSfs (const Npp16sc *nConstant*, Npp16sc * *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*, int *nScaleFactor*)

One 16-bit signed short complex number (16-bit real, 16-bit imaginary) channel in place image add constant, scale, then clamp to saturated value.

Parameters:

nConstant Constant.

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oSizeROI Region-of-Interest (ROI).

nScaleFactor Integer Result Scaling.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.7.2.12 NppStatus nppiAddC_16sc_C1RSfs (const Npp16sc * *pSrc1*, int *nSrc1Step*, const Npp16sc *nConstant*, Npp16sc * *pDst*, int *nDstStep*, NppiSize *oSizeROI*, int *nScaleFactor*)

One 16-bit signed short complex number (16-bit real, 16-bit imaginary) channel image add constant, scale, then clamp to saturated value.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

nConstant Constant.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

nScaleFactor Integer Result Scaling.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.7.2.13 NppStatus nppiAddC_16sc_C3IRSfs (const Npp16sc *aConstants*[3], Npp16sc * *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*, int *nScaleFactor*)

Three 16-bit signed short complex number (16-bit real, 16-bit imaginary) channel in place image add constant, scale, then clamp to saturated value.

Parameters:

aConstants fixed size array of constant values, one per channel.

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oSizeROI Region-of-Interest (ROI).

nScaleFactor Integer Result Scaling.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.7.2.14 NppStatus nppiAddC_16sc_C3RSfs (const Npp16sc ∗ *pSrc1*, int *nSrc1Step*, const Npp16sc *aConstants*[3], Npp16sc ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, int *nScaleFactor*)

Three 16-bit signed short complex number (16-bit real, 16-bit imaginary) channel image add constant, scale, then clamp to saturated value.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

aConstants fixed size array of constant values, one per channel.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

nScaleFactor Integer Result Scaling.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.7.2.15 NppStatus nppiAddC_16u_AC4IRSfs (const Npp16u *aConstants*[3], Npp16u ∗ *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*, int *nScaleFactor*)

Four 16-bit unsigned short channel with unmodified alpha in place image add constant, scale, then clamp to saturated value.

Parameters:

aConstants fixed size array of constant values, one per channel.

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oSizeROI Region-of-Interest (ROI).

nScaleFactor Integer Result Scaling.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.7.2.16 NppStatus nppiAddC_16u_AC4RSfs (const Npp16u ∗ *pSrc1*, int *nSrc1Step*, const Npp16u *aConstants*[3], Npp16u ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, int *nScaleFactor*)

Four 16-bit unsigned short channel with unmodified alpha image add constant, scale, then clamp to saturated value.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

aConstants fixed size array of constant values, one per channel.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

nScaleFactor Integer Result Scaling.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.7.2.17 NppStatus nppiAddC_16u_C1IRSfs (const Npp16u *nConstant*, Npp16u ∗ *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*, int *nScaleFactor*)

One 16-bit unsigned short channel in place image add constant, scale, then clamp to saturated value.

Parameters:

nConstant Constant.

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oSizeROI Region-of-Interest (ROI).

nScaleFactor Integer Result Scaling.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.7.2.18 NppStatus nppiAddC_16u_C1RSfs (const Npp16u ∗ *pSrc1*, int *nSrc1Step*, const Npp16u *nConstant*, Npp16u ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, int *nScaleFactor*)

One 16-bit unsigned short channel image add constant, scale, then clamp to saturated value.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

nConstant Constant.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

nScaleFactor Integer Result Scaling.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.7.2.19 NppStatus nppiAddC_16u_C3IRSfs (const Npp16u *aConstants*[3], Npp16u ∗ *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*, int *nScaleFactor*)

Three 16-bit unsigned short channel in place image add constant, scale, then clamp to saturated value.

Parameters:

aConstants fixed size array of constant values, one per channel.

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oSizeROI Region-of-Interest (ROI).

nScaleFactor Integer Result Scaling.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.7.2.20 NppStatus nppiAddC_16u_C3RSfs (const Npp16u ∗ *pSrc1*, int *nSrc1Step*, const Npp16u *aConstants*[3], Npp16u ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, int *nScaleFactor*)

Three 16-bit unsigned short channel image add constant, scale, then clamp to saturated value.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

aConstants fixed size array of constant values, one per channel.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

nScaleFactor Integer Result Scaling.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.7.2.21 NppStatus nppiAddC_16u_C4IRSfs (const Npp16u *aConstants*[4], Npp16u ∗ *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*, int *nScaleFactor*)

Four 16-bit unsigned short channel in place image add constant, scale, then clamp to saturated value.

Parameters:

aConstants fixed size array of constant values, one per channel.

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oSizeROI Region-of-Interest (ROI).

nScaleFactor Integer Result Scaling.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.7.2.22 NppStatus nppiAddC_16u_C4RSfs (const Npp16u ∗ *pSrc1*, int *nSrc1Step*, const Npp16u *aConstants*[4], Npp16u ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, int *nScaleFactor*)

Four 16-bit unsigned short channel image add constant, scale, then clamp to saturated value.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

aConstants fixed size array of constant values, one per channel.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

nScaleFactor Integer Result Scaling.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.7.2.23 NppStatus nppiAddC_32f_AC4IR (const Npp32f *aConstants*[3], Npp32f ∗ *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*)

Four 32-bit floating point channel with unmodified alpha in place image add constant.

Parameters:

aConstants fixed size array of constant values, one per channel.

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.7.2.24 NppStatus nppiAddC_32f_AC4R (const Npp32f ∗ *pSrc1*, int *nSrc1Step*, const Npp32f *aConstants*[3], Npp32f ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*)

Four 32-bit floating point channel with unmodified alpha image add constant.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

aConstants fixed size array of constant values, one per channel.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.7.2.25 NppStatus nppiAddC_32f_C1IR (const Npp32f *nConstant*, Npp32f ∗ *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*)

One 32-bit floating point channel in place image add constant.

Parameters:

nConstant Constant.

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.7.2.26 NppStatus nppiAddC_32f_C1R (const Npp32f ∗ *pSrc1*, int *nSrc1Step*, const Npp32f *nConstant*, Npp32f ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*)

One 32-bit floating point channel image add constant.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

nConstant Constant.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.7.2.27 NppStatus nppiAddC_32f_C3IR (const Npp32f *aConstants*[3], Npp32f ∗ *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*)

Three 32-bit floating point channel in place image add constant.

Parameters:

aConstants fixed size array of constant values, one per channel.

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.7.2.28 NppStatus nppiAddC_32f_C3R (const Npp32f ∗ *pSrc1*, int *nSrc1Step*, const Npp32f *aConstants*[3], Npp32f ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*)

Three 32-bit floating point channel image add constant.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

aConstants fixed size array of constant values, one per channel.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.7.2.29 NppStatus nppiAddC_32f_C4IR (const Npp32f *aConstants*[4], Npp32f ∗ *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*)

Four 32-bit floating point channel in place image add constant.

Parameters:

aConstants fixed size array of constant values, one per channel.

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.7.2.30 NppStatus nppiAddC_32f_C4R (const Npp32f ∗ *pSrc1*, int *nSrc1Step*, const Npp32f *aConstants*[4], Npp32f ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*)

Four 32-bit floating point channel image add constant.

Parameters:

pSrc1 Source-Image Pointer.
nSrc1Step Source-Image Line Step.
aConstants fixed size array of constant values, one per channel.
pDst Destination-Image Pointer.
nDstStep Destination-Image Line Step.
oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.7.2.31 NppStatus nppiAddC_32fc_AC4IR (const Npp32fc *aConstants*[3], Npp32fc ∗ *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*)

Four 32-bit complex floating point (32-bit floating point real, 32-bit floating point imaginary) channel with unmodified alpha in place image add constant.

Parameters:

aConstants fixed size array of constant values, one per channel.
pSrcDst In-Place Image Pointer.
nSrcDstStep In-Place-Image Line Step.
oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.7.2.32 NppStatus nppiAddC_32fc_AC4R (const Npp32fc ∗ *pSrc1*, int *nSrc1Step*, const Npp32fc *aConstants*[3], Npp32fc ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*)

Four 32-bit complex floating point (32-bit floating point real, 32-bit floating point imaginary) channel with unmodified alpha image add constant.

Parameters:

pSrc1 Source-Image Pointer.
nSrc1Step Source-Image Line Step.
aConstants fixed size array of constant values, one per channel.
pDst Destination-Image Pointer.
nDstStep Destination-Image Line Step.
oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.7.2.33 NppStatus nppiAddC_32fc_C1IR (const Npp32fc *nConstant*, Npp32fc ∗ *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*)

One 32-bit complex floating point (32-bit floating point real, 32-bit floating point imaginary) channel in place image add constant.

Parameters:

nConstant Constant.

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.7.2.34 NppStatus nppiAddC_32fc_C1R (const Npp32fc ∗ *pSrc1*, int *nSrc1Step*, const Npp32fc *nConstant*, Npp32fc ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*)

One 32-bit complex floating point (32-bit floating point real, 32-bit floating point imaginary) channel image add constant.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

nConstant Constant.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.7.2.35 NppStatus nppiAddC_32fc_C3IR (const Npp32fc *aConstants*[3], Npp32fc ∗ *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*)

Three 32-bit complex floating point (32-bit floating point real, 32-bit floating point imaginary) channel in place image add constant.

Parameters:

aConstants fixed size array of constant values, one per channel.

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.7.2.36 NppStatus nppiAddC_32fc_C3R (const Npp32fc ∗ *pSrc1*, int *nSrc1Step*, const Npp32fc *aConstants*[3], Npp32fc ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*)

Three 32-bit complex floating point (32-bit floating point real, 32-bit floating point imaginary) channel image add constant.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

aConstants fixed size array of constant values, one per channel.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.7.2.37 NppStatus nppiAddC_32fc_C4IR (const Npp32fc *aConstants*[4], Npp32fc ∗ *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*)

Four 32-bit complex floating point (32-bit floating point real, 32-bit floating point imaginary) channel in place image add constant.

Parameters:

aConstants fixed size array of constant values, one per channel.

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.7.2.38 NppStatus nppiAddC_32fc_C4R (const Npp32fc ∗ *pSrc1*, int *nSrc1Step*, const Npp32fc *aConstants*[4], Npp32fc ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*)

Four 32-bit complex floating point (32-bit floating point real, 32-bit floating point imaginary) channel image add constant.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

aConstants fixed size array of constant values, one per channel.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.7.2.39 NppStatus nppiAddC_32s_C1IRSfs (const Npp32s *nConstant*, Npp32s ∗ *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*, int *nScaleFactor*)

One 32-bit signed integer channel in place image add constant, scale, then clamp to saturated value.

Parameters:

nConstant Constant.

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oSizeROI Region-of-Interest (ROI).

nScaleFactor Integer Result Scaling.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.7.2.40 NppStatus nppiAddC_32s_C1RSfs (const Npp32s ∗ *pSrc1*, int *nSrc1Step*, const Npp32s *nConstant*, Npp32s ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, int *nScaleFactor*)

One 32-bit signed integer channel image add constant, scale, then clamp to saturated value.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

nConstant Constant.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

nScaleFactor Integer Result Scaling.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.7.2.41 NppStatus nppiAddC_32s_C3IRSfs (const Npp32s *aConstants*[3], Npp32s ∗ *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*, int *nScaleFactor*)

Three 32-bit signed integer channel in place image add constant, scale, then clamp to saturated value.

Parameters:

aConstants fixed size array of constant values, one per channel.

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oSizeROI Region-of-Interest (ROI).

nScaleFactor Integer Result Scaling.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.7.2.42 NppStatus nppiAddC_32s_C3RSfs (const Npp32s ∗ *pSrc1*, int *nSrc1Step*, const Npp32s *aConstants*[3], Npp32s ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, int *nScaleFactor*)

Three 32-bit signed integer channel image add constant, scale, then clamp to saturated value.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

aConstants fixed size array of constant values, one per channel.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

nScaleFactor Integer Result Scaling.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.7.2.43 NppStatus nppiAddC_32sc_AC4IRSfs (const Npp32sc *aConstants*[3], Npp32sc ∗ *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*, int *nScaleFactor*)

Four 32-bit signed complex integer (32-bit real, 32-bit imaginary) channel with unmodified alpha in place image add constant, scale, then clamp to saturated value.

Parameters:

aConstants fixed size array of constant values, one per channel.

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oSizeROI Region-of-Interest (ROI).

nScaleFactor Integer Result Scaling.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.7.2.44 NppStatus nppiAddC_32sc_AC4RSfs (const Npp32sc ∗ *pSrc1*, int *nSrc1Step*, const Npp32sc *aConstants*[3], Npp32sc ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, int *nScaleFactor*)

Four 32-bit signed complex integer (32-bit real, 32-bit imaginary) channel with unmodified alpha image add constant, scale, then clamp to saturated value.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

aConstants fixed size array of constant values, one per channel.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

nScaleFactor Integer Result Scaling.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.7.2.45 NppStatus nppiAddC_32sc_C1IRSfs (const Npp32sc *nConstant*, Npp32sc ∗ *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*, int *nScaleFactor*)

One 32-bit signed complex integer (32-bit real, 32-bit imaginary) channel in place image add constant, scale, then clamp to saturated value.

Parameters:

nConstant Constant.

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oSizeROI Region-of-Interest (ROI).

nScaleFactor Integer Result Scaling.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.7.2.46 NppStatus nppiAddC_32sc_C1RSfs (const Npp32sc ∗ *pSrc1*, int *nSrc1Step*, const Npp32sc *nConstant*, Npp32sc ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, int *nScaleFactor*)

One 32-bit signed complex integer (32-bit real, 32-bit imaginary) channel image add constant, scale, then clamp to saturated value.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

nConstant Constant.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

nScaleFactor Integer Result Scaling.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.7.2.47 NppStatus nppiAddC_32sc_C3IRSfs (const Npp32sc *aConstants*[3], Npp32sc ∗ *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*, int *nScaleFactor*)

Three 32-bit signed complex integer (32-bit real, 32-bit imaginary) channel in place image add constant, scale, then clamp to saturated value.

Parameters:

aConstants fixed size array of constant values, one per channel.

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oSizeROI Region-of-Interest (ROI).

nScaleFactor Integer Result Scaling.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.7.2.48 NppStatus nppiAddC_32sc_C3RSfs (const Npp32sc ∗ *pSrc1*, int *nSrc1Step*, const Npp32sc *aConstants*[3], Npp32sc ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, int *nScaleFactor*)

Three 32-bit signed complex integer (32-bit real, 32-bit imaginary) channel image add constant, scale, then clamp to saturated value.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

aConstants fixed size array of constant values, one per channel.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

nScaleFactor Integer Result Scaling.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.7.2.49 NppStatus nppiAddC_8u_AC4IRSfs (const Npp8u *aConstants*[3], Npp8u ∗ *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*, int *nScaleFactor*)

Four 8-bit unsigned char channel with unmodified alpha in place image add constant, scale, then clamp to saturated value.

Parameters:

aConstants fixed size array of constant values, one per channel..

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oSizeROI Region-of-Interest (ROI).

nScaleFactor Integer Result Scaling.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.7.2.50 NppStatus nppiAddC_8u_AC4RSfs (const Npp8u ∗ *pSrc1*, int *nSrc1Step*, const Npp8u *aConstants*[3], Npp8u ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, int *nScaleFactor*)

Four 8-bit unsigned char channel with unmodified alpha image add constant, scale, then clamp to saturated value.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

aConstants fixed size array of constant values, one per channel..

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

nScaleFactor Integer Result Scaling.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.7.2.51 NppStatus nppiAddC_8u_C1IRSfs (const Npp8u *nConstant*, Npp8u ∗ *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*, int *nScaleFactor*)

One 8-bit unsigned char channel in place image add constant, scale, then clamp to saturated value.

Parameters:

nConstant Constant.

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oSizeROI Region-of-Interest (ROI).

nScaleFactor Integer Result Scaling.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.7.2.52 NppStatus nppiAddC_8u_C1RSfs (const Npp8u ∗ *pSrc1*, int *nSrc1Step*, const Npp8u *nConstant*, Npp8u ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, int *nScaleFactor*)

One 8-bit unsigned char channel image add constant, scale, then clamp to saturated value.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

nConstant Constant.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

nScaleFactor Integer Result Scaling.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.7.2.53 NppStatus nppiAddC_8u_C3IRSfs (const Npp8u *aConstants*[3], Npp8u ∗ *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*, int *nScaleFactor*)

Three 8-bit unsigned char channel 8-bit unsigned char in place image add constant, scale, then clamp to saturated value.

Parameters:

aConstants fixed size array of constant values, one per channel..

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oSizeROI Region-of-Interest (ROI).

nScaleFactor Integer Result Scaling.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.7.2.54 NppStatus nppiAddC_8u_C3RSfs (const Npp8u ∗ *pSrc1*, int *nSrc1Step*, const Npp8u *aConstants*[3], Npp8u ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, int *nScaleFactor*)

Three 8-bit unsigned char channel image add constant, scale, then clamp to saturated value.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

aConstants fixed size array of constant values, one per channel..

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

nScaleFactor Integer Result Scaling.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.7.2.55 NppStatus nppiAddC_8u_C4IRSfs (const Npp8u *aConstants*[4], Npp8u ∗ *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*, int *nScaleFactor*)

Four 8-bit unsigned char channel in place image add constant, scale, then clamp to saturated value.

Parameters:

aConstants fixed size array of constant values, one per channel.

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oSizeROI Region-of-Interest (ROI).

nScaleFactor Integer Result Scaling.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.7.2.56 NppStatus nppiAddC_8u_C4RSfs (const Npp8u ∗ *pSrc1*, int *nSrc1Step*, const Npp8u *aConstants*[4], Npp8u ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, int *nScaleFactor*)

Four 8-bit unsigned char channel image add constant, scale, then clamp to saturated value.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

aConstants fixed size array of constant values, one per channel..

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

nScaleFactor Integer Result Scaling.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.8 MulC

Multiplies each pixel of an image by a constant value.

Functions

- NppStatus nppiMulC_8u_C1RSfs (const Npp8u ∗pSrc1, int nSrc1Step, const Npp8u nConstant, Npp8u ∗pDst, int nDstStep, NppiSize oSizeROI, int nScaleFactor)

  One 8-bit unsigned char channel image multiply by constant, scale, then clamp to saturated value.

- NppStatus nppiMulC_8u_C1IRSfs (const Npp8u nConstant, Npp8u ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI, int nScaleFactor)

  One 8-bit unsigned char channel in place image multiply by constant, scale, then clamp to saturated value.

- NppStatus nppiMulC_8u_C3RSfs (const Npp8u ∗pSrc1, int nSrc1Step, const Npp8u aConstants[3], Npp8u ∗pDst, int nDstStep, NppiSize oSizeROI, int nScaleFactor)

  Three 8-bit unsigned char channel image multiply by constant, scale, then clamp to saturated value.

- NppStatus nppiMulC_8u_C3IRSfs (const Npp8u aConstants[3], Npp8u ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI, int nScaleFactor)

  Three 8-bit unsigned char channel 8-bit unsigned char in place image multiply by constant, scale, then clamp to saturated value.

- NppStatus nppiMulC_8u_AC4RSfs (const Npp8u ∗pSrc1, int nSrc1Step, const Npp8u aConstants[3], Npp8u ∗pDst, int nDstStep, NppiSize oSizeROI, int nScaleFactor)

  Four 8-bit unsigned char channel with unmodified alpha image multiply by constant, scale, then clamp to saturated value.

- NppStatus nppiMulC_8u_AC4IRSfs (const Npp8u aConstants[3], Npp8u ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI, int nScaleFactor)

  Four 8-bit unsigned char channel with unmodified alpha in place image multiply by constant, scale, then clamp to saturated value.

- NppStatus nppiMulC_8u_C4RSfs (const Npp8u ∗pSrc1, int nSrc1Step, const Npp8u aConstants[4], Npp8u ∗pDst, int nDstStep, NppiSize oSizeROI, int nScaleFactor)

  Four 8-bit unsigned char channel image multiply by constant, scale, then clamp to saturated value.

- NppStatus nppiMulC_8u_C4IRSfs (const Npp8u aConstants[4], Npp8u ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI, int nScaleFactor)

  Four 8-bit unsigned char channel in place image multiply by constant, scale, then clamp to saturated value.

- NppStatus nppiMulC_16u_C1RSfs (const Npp16u ∗pSrc1, int nSrc1Step, const Npp16u nConstant, Npp16u ∗pDst, int nDstStep, NppiSize oSizeROI, int nScaleFactor)

  One 16-bit unsigned short channel image multiply by constant, scale, then clamp to saturated value.

- NppStatus nppiMulC_16u_C1IRSfs (const Npp16u nConstant, Npp16u ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI, int nScaleFactor)

  One 16-bit unsigned short channel in place image multiply by constant, scale, then clamp to saturated value.

- NppStatus nppiMulC_16u_C3RSfs (const Npp16u ∗pSrc1, int nSrc1Step, const Npp16u aConstants[3], Npp16u ∗pDst, int nDstStep, NppiSize oSizeROI, int nScaleFactor)

Three 16-bit unsigned short channel image multiply by constant, scale, then clamp to saturated value.

- NppStatus nppiMulC_16u_C3IRSfs (const Npp16u aConstants[3], Npp16u ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI, int nScaleFactor)

  Three 16-bit unsigned short channel in place image multiply by constant, scale, then clamp to saturated value.

- NppStatus nppiMulC_16u_AC4RSfs (const Npp16u ∗pSrc1, int nSrc1Step, const Npp16u aConstants[3], Npp16u ∗pDst, int nDstStep, NppiSize oSizeROI, int nScaleFactor)

  Four 16-bit unsigned short channel with unmodified alpha image multiply by constant, scale, then clamp to saturated value.

- NppStatus nppiMulC_16u_AC4IRSfs (const Npp16u aConstants[3], Npp16u ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI, int nScaleFactor)

  Four 16-bit unsigned short channel with unmodified alpha in place image multiply by constant, scale, then clamp to saturated value.

- NppStatus nppiMulC_16u_C4RSfs (const Npp16u ∗pSrc1, int nSrc1Step, const Npp16u aConstants[4], Npp16u ∗pDst, int nDstStep, NppiSize oSizeROI, int nScaleFactor)

  Four 16-bit unsigned short channel image multiply by constant, scale, then clamp to saturated value.

- NppStatus nppiMulC_16u_C4IRSfs (const Npp16u aConstants[4], Npp16u ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI, int nScaleFactor)

  Four 16-bit unsigned short channel in place image multiply by constant, scale, then clamp to saturated value.

- NppStatus nppiMulC_16s_C1RSfs (const Npp16s ∗pSrc1, int nSrc1Step, const Npp16s nConstant, Npp16s ∗pDst, int nDstStep, NppiSize oSizeROI, int nScaleFactor)

  One 16-bit signed short channel image multiply by constant, scale, then clamp to saturated value.

- NppStatus nppiMulC_16s_C1IRSfs (const Npp16s nConstant, Npp16s ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI, int nScaleFactor)

  One 16-bit signed short channel in place image multiply by constant, scale, then clamp to saturated value.

- NppStatus nppiMulC_16s_C3RSfs (const Npp16s ∗pSrc1, int nSrc1Step, const Npp16s aConstants[3], Npp16s ∗pDst, int nDstStep, NppiSize oSizeROI, int nScaleFactor)

  Three 16-bit signed short channel image multiply by constant, scale, then clamp to saturated value.

- NppStatus nppiMulC_16s_C3IRSfs (const Npp16s aConstants[3], Npp16s ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI, int nScaleFactor)

  Three 16-bit signed short channel in place image multiply by constant, scale, then clamp to saturated value.

- NppStatus nppiMulC_16s_AC4RSfs (const Npp16s ∗pSrc1, int nSrc1Step, const Npp16s aConstants[3], Npp16s ∗pDst, int nDstStep, NppiSize oSizeROI, int nScaleFactor)

  Four 16-bit signed short channel with unmodified alpha image multiply by constant, scale, then clamp to saturated value.

- NppStatus nppiMulC_16s_AC4IRSfs (const Npp16s aConstants[3], Npp16s ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI, int nScaleFactor)

  Four 16-bit signed short channel with unmodified alpha in place image multiply by constant, scale, then clamp to saturated value.

- NppStatus nppiMulC_16s_C4RSfs (const Npp16s *pSrc1, int nSrc1Step, const Npp16s aConstants[4], Npp16s *pDst, int nDstStep, NppiSize oSizeROI, int nScaleFactor)

  Four 16-bit signed short channel image multiply by constant, scale, then clamp to saturated value.

- NppStatus nppiMulC_16s_C4IRSfs (const Npp16s aConstants[4], Npp16s *pSrcDst, int nSrcDstStep, NppiSize oSizeROI, int nScaleFactor)

  Four 16-bit signed short channel in place image multiply by constant, scale, then clamp to saturated value.

- NppStatus nppiMulC_16sc_C1RSfs (const Npp16sc *pSrc1, int nSrc1Step, const Npp16sc nConstant, Npp16sc *pDst, int nDstStep, NppiSize oSizeROI, int nScaleFactor)

  One 16-bit signed short complex number (16-bit real, 16-bit imaginary) channel image multiply by constant, scale, then clamp to saturated value.

- NppStatus nppiMulC_16sc_C1IRSfs (const Npp16sc nConstant, Npp16sc *pSrcDst, int nSrcDstStep, NppiSize oSizeROI, int nScaleFactor)

  One 16-bit signed short complex number (16-bit real, 16-bit imaginary) channel in place image multiply by constant, scale, then clamp to saturated value.

- NppStatus nppiMulC_16sc_C3RSfs (const Npp16sc *pSrc1, int nSrc1Step, const Npp16sc aConstants[3], Npp16sc *pDst, int nDstStep, NppiSize oSizeROI, int nScaleFactor)

  Three 16-bit signed short complex number (16-bit real, 16-bit imaginary) channel image multiply by constant, scale, then clamp to saturated value.

- NppStatus nppiMulC_16sc_C3IRSfs (const Npp16sc aConstants[3], Npp16sc *pSrcDst, int nSrcDstStep, NppiSize oSizeROI, int nScaleFactor)

  Three 16-bit signed short complex number (16-bit real, 16-bit imaginary) channel in place image multiply by constant, scale, then clamp to saturated value.

- NppStatus nppiMulC_16sc_AC4RSfs (const Npp16sc *pSrc1, int nSrc1Step, const Npp16sc aConstants[3], Npp16sc *pDst, int nDstStep, NppiSize oSizeROI, int nScaleFactor)

  Four 16-bit signed short complex number (16-bit real, 16-bit imaginary) channel with unmodified alpha image multiply by constant, scale, then clamp to saturated value.

- NppStatus nppiMulC_16sc_AC4IRSfs (const Npp16sc aConstants[3], Npp16sc *pSrcDst, int nSrcDstStep, NppiSize oSizeROI, int nScaleFactor)

  Four 16-bit signed short complex number (16-bit real, 16-bit imaginary) channel with unmodified alpha in place image multiply by constant, scale, then clamp to saturated value.

- NppStatus nppiMulC_32s_C1RSfs (const Npp32s *pSrc1, int nSrc1Step, const Npp32s nConstant, Npp32s *pDst, int nDstStep, NppiSize oSizeROI, int nScaleFactor)

  One 32-bit signed integer channel image multiply by constant, scale, then clamp to saturated value.

- NppStatus nppiMulC_32s_C1IRSfs (const Npp32s nConstant, Npp32s *pSrcDst, int nSrcDstStep, NppiSize oSizeROI, int nScaleFactor)

  One 32-bit signed integer channel in place image multiply by constant, scale, then clamp to saturated value.

- NppStatus nppiMulC_32s_C3RSfs (const Npp32s *pSrc1, int nSrc1Step, const Npp32s aConstants[3], Npp32s *pDst, int nDstStep, NppiSize oSizeROI, int nScaleFactor)

  Three 32-bit signed integer channel image multiply by constant, scale, then clamp to saturated value.

- NppStatus nppiMulC_32s_C3IRSfs (const Npp32s aConstants[3], Npp32s *pSrcDst, int nSrcDstStep, NppiSize oSizeROI, int nScaleFactor)

Three 32-bit signed integer channel in place image multiply by constant, scale, then clamp to saturated value.

- NppStatus nppiMulC_32sc_C1RSfs (const Npp32sc ∗pSrc1, int nSrc1Step, const Npp32sc nConstant, Npp32sc ∗pDst, int nDstStep, NppiSize oSizeROI, int nScaleFactor)

  One 32-bit signed complex integer (32-bit real, 32-bit imaginary) channel image multiply by constant, scale, then clamp to saturated value.

- NppStatus nppiMulC_32sc_C1IRSfs (const Npp32sc nConstant, Npp32sc ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI, int nScaleFactor)

  One 32-bit signed complex integer (32-bit real, 32-bit imaginary) channel in place image multiply by constant, scale, then clamp to saturated value.

- NppStatus nppiMulC_32sc_C3RSfs (const Npp32sc ∗pSrc1, int nSrc1Step, const Npp32sc aConstants[3], Npp32sc ∗pDst, int nDstStep, NppiSize oSizeROI, int nScaleFactor)

  Three 32-bit signed complex integer (32-bit real, 32-bit imaginary) channel image multiply by constant, scale, then clamp to saturated value.

- NppStatus nppiMulC_32sc_C3IRSfs (const Npp32sc aConstants[3], Npp32sc ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI, int nScaleFactor)

  Three 32-bit signed complex integer (32-bit real, 32-bit imaginary) channel in place image multiply by constant, scale, then clamp to saturated value.

- NppStatus nppiMulC_32sc_AC4RSfs (const Npp32sc ∗pSrc1, int nSrc1Step, const Npp32sc aConstants[3], Npp32sc ∗pDst, int nDstStep, NppiSize oSizeROI, int nScaleFactor)

  Four 32-bit signed complex integer (32-bit real, 32-bit imaginary) channel with unmodified alpha image multiply by constant, scale, then clamp to saturated value.

- NppStatus nppiMulC_32sc_AC4IRSfs (const Npp32sc aConstants[3], Npp32sc ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI, int nScaleFactor)

  Four 32-bit signed complex integer (32-bit real, 32-bit imaginary) channel with unmodified alpha in place image multiply by constant, scale, then clamp to saturated value.

- NppStatus nppiMulC_32f_C1R (const Npp32f ∗pSrc1, int nSrc1Step, const Npp32f nConstant, Npp32f ∗pDst, int nDstStep, NppiSize oSizeROI)

  One 32-bit floating point channel image multiply by constant.

- NppStatus nppiMulC_32f_C1IR (const Npp32f nConstant, Npp32f ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI)

  One 32-bit floating point channel in place image multiply by constant.

- NppStatus nppiMulC_32f_C3R (const Npp32f ∗pSrc1, int nSrc1Step, const Npp32f aConstants[3], Npp32f ∗pDst, int nDstStep, NppiSize oSizeROI)

  Three 32-bit floating point channel image multiply by constant.

- NppStatus nppiMulC_32f_C3IR (const Npp32f aConstants[3], Npp32f ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI)

  Three 32-bit floating point channel in place image multiply by constant.

- NppStatus nppiMulC_32f_AC4R (const Npp32f ∗pSrc1, int nSrc1Step, const Npp32f aConstants[3], Npp32f ∗pDst, int nDstStep, NppiSize oSizeROI)

  Four 32-bit floating point channel with unmodified alpha image multiply by constant.

- NppStatus nppiMulC_32f_AC4IR (const Npp32f aConstants[3], Npp32f ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI)

  Four 32-bit floating point channel with unmodified alpha in place image multiply by constant.

- NppStatus nppiMulC_32f_C4R (const Npp32f ∗pSrc1, int nSrc1Step, const Npp32f aConstants[4], Npp32f ∗pDst, int nDstStep, NppiSize oSizeROI)

  Four 32-bit floating point channel image multiply by constant.

- NppStatus nppiMulC_32f_C4IR (const Npp32f aConstants[4], Npp32f ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI)

  Four 32-bit floating point channel in place image multiply by constant.

- NppStatus nppiMulC_32fc_C1R (const Npp32fc ∗pSrc1, int nSrc1Step, const Npp32fc nConstant, Npp32fc ∗pDst, int nDstStep, NppiSize oSizeROI)

  One 32-bit complex floating point (32-bit floating point real, 32-bit floating point imaginary) channel image multiply by constant.

- NppStatus nppiMulC_32fc_C1IR (const Npp32fc nConstant, Npp32fc ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI)

  One 32-bit complex floating point (32-bit floating point real, 32-bit floating point imaginary) channel in place image multiply by constant.

- NppStatus nppiMulC_32fc_C3R (const Npp32fc ∗pSrc1, int nSrc1Step, const Npp32fc aConstants[3], Npp32fc ∗pDst, int nDstStep, NppiSize oSizeROI)

  Three 32-bit complex floating point (32-bit floating point real, 32-bit floating point imaginary) channel image multiply by constant.

- NppStatus nppiMulC_32fc_C3IR (const Npp32fc aConstants[3], Npp32fc ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI)

  Three 32-bit complex floating point (32-bit floating point real, 32-bit floating point imaginary) channel in place image multiply by constant.

- NppStatus nppiMulC_32fc_AC4R (const Npp32fc ∗pSrc1, int nSrc1Step, const Npp32fc aConstants[3], Npp32fc ∗pDst, int nDstStep, NppiSize oSizeROI)

  Four 32-bit complex floating point (32-bit floating point real, 32-bit floating point imaginary) channel with unmodified alpha image multiply by constant.

- NppStatus nppiMulC_32fc_AC4IR (const Npp32fc aConstants[3], Npp32fc ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI)

  Four 32-bit complex floating point (32-bit floating point real, 32-bit floating point imaginary) channel with unmodified alpha in place image multiply by constant.

- NppStatus nppiMulC_32fc_C4R (const Npp32fc ∗pSrc1, int nSrc1Step, const Npp32fc aConstants[4], Npp32fc ∗pDst, int nDstStep, NppiSize oSizeROI)

  Four 32-bit complex floating point (32-bit floating point real, 32-bit floating point imaginary) channel image multiply by constant.

- NppStatus nppiMulC_32fc_C4IR (const Npp32fc aConstants[4], Npp32fc ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI)

  Four 32-bit complex floating point (32-bit floating point real, 32-bit floating point imaginary) channel in place image multiply by constant.

7.8.1 Detailed Description

Multiplies each pixel of an image by a constant value.

7.8.2 Function Documentation

7.8.2.1 NppStatus nppiMulC_16s_AC4IRSfs (const Npp16s *aConstants*[3], Npp16s ∗ *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*, int *nScaleFactor*)

Four 16-bit signed short channel with unmodified alpha in place image multiply by constant, scale, then clamp to saturated value.

Parameters:

aConstants fixed size array of constant values, one per channel.

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oSizeROI Region-of-Interest (ROI).

nScaleFactor Integer Result Scaling.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.8.2.2 NppStatus nppiMulC_16s_AC4RSfs (const Npp16s ∗ *pSrc1*, int *nSrc1Step*, const Npp16s *aConstants*[3], Npp16s ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, int *nScaleFactor*)

Four 16-bit signed short channel with unmodified alpha image multiply by constant, scale, then clamp to saturated value.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

aConstants fixed size array of constant values, one per channel.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

nScaleFactor Integer Result Scaling.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.8.2.3 NppStatus nppiMulC_16s_C1IRSfs (const Npp16s *nConstant*, Npp16s * *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*, int *nScaleFactor*)

One 16-bit signed short channel in place image multiply by constant, scale, then clamp to saturated value.

Parameters:

nConstant Constant.
pSrcDst In-Place Image Pointer.
nSrcDstStep In-Place-Image Line Step.
oSizeROI Region-of-Interest (ROI).
nScaleFactor Integer Result Scaling.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.8.2.4 NppStatus nppiMulC_16s_C1RSfs (const Npp16s * *pSrc1*, int *nSrc1Step*, const Npp16s *nConstant*, Npp16s * *pDst*, int *nDstStep*, NppiSize *oSizeROI*, int *nScaleFactor*)

One 16-bit signed short channel image multiply by constant, scale, then clamp to saturated value.

Parameters:

pSrc1 Source-Image Pointer.
nSrc1Step Source-Image Line Step.
nConstant Constant.
pDst Destination-Image Pointer.
nDstStep Destination-Image Line Step.
oSizeROI Region-of-Interest (ROI).
nScaleFactor Integer Result Scaling.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.8.2.5 NppStatus nppiMulC_16s_C3IRSfs (const Npp16s *aConstants*[3], Npp16s * *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*, int *nScaleFactor*)

Three 16-bit signed short channel in place image multiply by constant, scale, then clamp to saturated value.

Parameters:

aConstants fixed size array of constant values, one per channel.
pSrcDst In-Place Image Pointer.
nSrcDstStep In-Place-Image Line Step.
oSizeROI Region-of-Interest (ROI).
nScaleFactor Integer Result Scaling.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.8.2.6 NppStatus nppiMulC_16s_C3RSfs (const Npp16s ∗ *pSrc1*, int *nSrc1Step*, const Npp16s *aConstants*[3], Npp16s ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, int *nScaleFactor*)

Three 16-bit signed short channel image multiply by constant, scale, then clamp to saturated value.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

aConstants fixed size array of constant values, one per channel.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

nScaleFactor Integer Result Scaling.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.8.2.7 NppStatus nppiMulC_16s_C4IRSfs (const Npp16s *aConstants*[4], Npp16s ∗ *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*, int *nScaleFactor*)

Four 16-bit signed short channel in place image multiply by constant, scale, then clamp to saturated value.

Parameters:

aConstants fixed size array of constant values, one per channel.

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oSizeROI Region-of-Interest (ROI).

nScaleFactor Integer Result Scaling.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.8.2.8 NppStatus nppiMulC_16s_C4RSfs (const Npp16s ∗ *pSrc1*, int *nSrc1Step*, const Npp16s *aConstants*[4], Npp16s ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, int *nScaleFactor*)

Four 16-bit signed short channel image multiply by constant, scale, then clamp to saturated value.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

aConstants fixed size array of constant values, one per channel.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

nScaleFactor Integer Result Scaling.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.8.2.9 NppStatus nppiMulC_16sc_AC4IRSfs (const Npp16sc *aConstants*[3], Npp16sc * *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*, int *nScaleFactor*)

Four 16-bit signed short complex number (16-bit real, 16-bit imaginary) channel with unmodified alpha in place image multiply by constant, scale, then clamp to saturated value.

Parameters:

aConstants fixed size array of constant values, one per channel.

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oSizeROI Region-of-Interest (ROI).

nScaleFactor Integer Result Scaling.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.8.2.10 NppStatus nppiMulC_16sc_AC4RSfs (const Npp16sc * *pSrc1*, int *nSrc1Step*, const Npp16sc *aConstants*[3], Npp16sc * *pDst*, int *nDstStep*, NppiSize *oSizeROI*, int *nScaleFactor*)

Four 16-bit signed short complex number (16-bit real, 16-bit imaginary) channel with unmodified alpha image multiply by constant, scale, then clamp to saturated value.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

aConstants fixed size array of constant values, one per channel.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

nScaleFactor Integer Result Scaling.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.8.2.11 NppStatus nppiMulC_16sc_C1IRSfs (const Npp16sc *nConstant*, Npp16sc * *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*, int *nScaleFactor*)

One 16-bit signed short complex number (16-bit real, 16-bit imaginary) channel in place image multiply by constant, scale, then clamp to saturated value.

Parameters:

nConstant Constant.

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oSizeROI Region-of-Interest (ROI).

nScaleFactor Integer Result Scaling.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.8.2.12 NppStatus nppiMulC_16sc_C1RSfs (const Npp16sc * *pSrc1*, int *nSrc1Step*, const Npp16sc *nConstant*, Npp16sc * *pDst*, int *nDstStep*, NppiSize *oSizeROI*, int *nScaleFactor*)

One 16-bit signed short complex number (16-bit real, 16-bit imaginary) channel image multiply by constant, scale, then clamp to saturated value.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

nConstant Constant.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

nScaleFactor Integer Result Scaling.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.8.2.13 NppStatus nppiMulC_16sc_C3IRSfs (const Npp16sc *aConstants*[3], Npp16sc * *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*, int *nScaleFactor*)

Three 16-bit signed short complex number (16-bit real, 16-bit imaginary) channel in place image multiply by constant, scale, then clamp to saturated value.

Parameters:

aConstants fixed size array of constant values, one per channel.

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oSizeROI Region-of-Interest (ROI).

nScaleFactor Integer Result Scaling.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.8.2.14 NppStatus nppiMulC_16sc_C3RSfs (const Npp16sc ∗ *pSrc1*, int *nSrc1Step*, const Npp16sc *aConstants*[3], Npp16sc ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, int *nScaleFactor*)

Three 16-bit signed short complex number (16-bit real, 16-bit imaginary) channel image multiply by constant, scale, then clamp to saturated value.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

aConstants fixed size array of constant values, one per channel.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

nScaleFactor Integer Result Scaling.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.8.2.15 NppStatus nppiMulC_16u_AC4IRSfs (const Npp16u *aConstants*[3], Npp16u ∗ *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*, int *nScaleFactor*)

Four 16-bit unsigned short channel with unmodified alpha in place image multiply by constant, scale, then clamp to saturated value.

Parameters:

aConstants fixed size array of constant values, one per channel.

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oSizeROI Region-of-Interest (ROI).

nScaleFactor Integer Result Scaling.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.8.2.16 NppStatus nppiMulC_16u_AC4RSfs (const Npp16u ∗ *pSrc1*, int *nSrc1Step*, const Npp16u *aConstants*[3], Npp16u ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, int *nScaleFactor*)

Four 16-bit unsigned short channel with unmodified alpha image multiply by constant, scale, then clamp to saturated value.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

aConstants fixed size array of constant values, one per channel.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

nScaleFactor Integer Result Scaling.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.8.2.17 NppStatus nppiMulC_16u_C1IRSfs (const Npp16u *nConstant*, Npp16u ∗ *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*, int *nScaleFactor*)

One 16-bit unsigned short channel in place image multiply by constant, scale, then clamp to saturated value.

Parameters:

nConstant Constant.

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oSizeROI Region-of-Interest (ROI).

nScaleFactor Integer Result Scaling.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.8.2.18 NppStatus nppiMulC_16u_C1RSfs (const Npp16u ∗ *pSrc1*, int *nSrc1Step*, const Npp16u *nConstant*, Npp16u ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, int *nScaleFactor*)

One 16-bit unsigned short channel image multiply by constant, scale, then clamp to saturated value.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

nConstant Constant.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

nScaleFactor Integer Result Scaling.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.8.2.19 NppStatus nppiMulC_16u_C3IRSfs (const Npp16u *aConstants*[3], Npp16u ∗ *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*, int *nScaleFactor*)

Three 16-bit unsigned short channel in place image multiply by constant, scale, then clamp to saturated value.

Parameters:

aConstants fixed size array of constant values, one per channel.

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oSizeROI Region-of-Interest (ROI).

nScaleFactor Integer Result Scaling.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.8.2.20 NppStatus nppiMulC_16u_C3RSfs (const Npp16u ∗ *pSrc1*, int *nSrc1Step*, const Npp16u *aConstants*[3], Npp16u ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, int *nScaleFactor*)

Three 16-bit unsigned short channel image multiply by constant, scale, then clamp to saturated value.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

aConstants fixed size array of constant values, one per channel.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

nScaleFactor Integer Result Scaling.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.8.2.21 NppStatus nppiMulC_16u_C4IRSfs (const Npp16u *aConstants*[4], Npp16u ∗ *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*, int *nScaleFactor*)

Four 16-bit unsigned short channel in place image multiply by constant, scale, then clamp to saturated value.

Parameters:

aConstants fixed size array of constant values, one per channel.

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oSizeROI Region-of-Interest (ROI).

nScaleFactor Integer Result Scaling.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.8.2.22 NppStatus nppiMulC_16u_C4RSfs (const Npp16u ∗ *pSrc1*, int *nSrc1Step*, const Npp16u *aConstants*[4], Npp16u ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, int *nScaleFactor*)

Four 16-bit unsigned short channel image multiply by constant, scale, then clamp to saturated value.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

aConstants fixed size array of constant values, one per channel.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

nScaleFactor Integer Result Scaling.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.8.2.23 NppStatus nppiMulC_32f_AC4IR (const Npp32f *aConstants*[3], Npp32f ∗ *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*)

Four 32-bit floating point channel with unmodified alpha in place image multiply by constant.

Parameters:

aConstants fixed size array of constant values, one per channel.

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.8.2.24 NppStatus nppiMulC_32f_AC4R (const Npp32f ∗ *pSrc1*, int *nSrc1Step*, const Npp32f *aConstants*[3], Npp32f ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*)

Four 32-bit floating point channel with unmodified alpha image multiply by constant.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

aConstants fixed size array of constant values, one per channel.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.8.2.25 NppStatus nppiMulC_32f_C1IR (const Npp32f *nConstant*, Npp32f ∗ *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*)

One 32-bit floating point channel in place image multiply by constant.

Parameters:

nConstant Constant.

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.8.2.26 NppStatus nppiMulC_32f_C1R (const Npp32f ∗ *pSrc1*, int *nSrc1Step*, const Npp32f *nConstant*, Npp32f ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*)

One 32-bit floating point channel image multiply by constant.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

nConstant Constant.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.8.2.27 NppStatus nppiMulC_32f_C3IR (const Npp32f *aConstants*[3], Npp32f * *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*)

Three 32-bit floating point channel in place image multiply by constant.

Parameters:

aConstants fixed size array of constant values, one per channel.

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.8.2.28 NppStatus nppiMulC_32f_C3R (const Npp32f * *pSrc1*, int *nSrc1Step*, const Npp32f *aConstants*[3], Npp32f * *pDst*, int *nDstStep*, NppiSize *oSizeROI*)

Three 32-bit floating point channel image multiply by constant.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

aConstants fixed size array of constant values, one per channel.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.8.2.29 NppStatus nppiMulC_32f_C4IR (const Npp32f *aConstants*[4], Npp32f * *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*)

Four 32-bit floating point channel in place image multiply by constant.

Parameters:

aConstants fixed size array of constant values, one per channel.

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.8.2.30 NppStatus nppiMulC_32f_C4R (const Npp32f * *pSrc1*, int *nSrc1Step*, const Npp32f *aConstants*[4], Npp32f * *pDst*, int *nDstStep*, NppiSize *oSizeROI*)

Four 32-bit floating point channel image multiply by constant.

Parameters:

pSrc1 Source-Image Pointer.
nSrc1Step Source-Image Line Step.
aConstants fixed size array of constant values, one per channel.
pDst Destination-Image Pointer.
nDstStep Destination-Image Line Step.
oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.8.2.31 NppStatus nppiMulC_32fc_AC4IR (const Npp32fc *aConstants*[3], Npp32fc * *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*)

Four 32-bit complex floating point (32-bit floating point real, 32-bit floating point imaginary) channel with unmodified alpha in place image multiply by constant.

Parameters:

aConstants fixed size array of constant values, one per channel.
pSrcDst In-Place Image Pointer.
nSrcDstStep In-Place-Image Line Step.
oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.8.2.32 NppStatus nppiMulC_32fc_AC4R (const Npp32fc * *pSrc1*, int *nSrc1Step*, const Npp32fc *aConstants*[3], Npp32fc * *pDst*, int *nDstStep*, NppiSize *oSizeROI*)

Four 32-bit complex floating point (32-bit floating point real, 32-bit floating point imaginary) channel with unmodified alpha image multiply by constant.

Parameters:

pSrc1 Source-Image Pointer.
nSrc1Step Source-Image Line Step.
aConstants fixed size array of constant values, one per channel.
pDst Destination-Image Pointer.
nDstStep Destination-Image Line Step.
oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.8.2.33 NppStatus nppiMulC_32fc_C1IR (const Npp32fc *nConstant*, Npp32fc ∗ *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*)

One 32-bit complex floating point (32-bit floating point real, 32-bit floating point imaginary) channel in place image multiply by constant.

Parameters:

nConstant Constant.

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.8.2.34 NppStatus nppiMulC_32fc_C1R (const Npp32fc ∗ *pSrc1*, int *nSrc1Step*, const Npp32fc *nConstant*, Npp32fc ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*)

One 32-bit complex floating point (32-bit floating point real, 32-bit floating point imaginary) channel image multiply by constant.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

nConstant Constant.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.8.2.35 NppStatus nppiMulC_32fc_C3IR (const Npp32fc *aConstants*[3], Npp32fc ∗ *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*)

Three 32-bit complex floating point (32-bit floating point real, 32-bit floating point imaginary) channel in place image multiply by constant.

Parameters:

aConstants fixed size array of constant values, one per channel.

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.8.2.36 NppStatus nppiMulC_32fc_C3R (const Npp32fc $*$ *pSrc1*, int *nSrc1Step*, const Npp32fc *aConstants*[3], Npp32fc $*$ *pDst*, int *nDstStep*, NppiSize *oSizeROI*)

Three 32-bit complex floating point (32-bit floating point real, 32-bit floating point imaginary) channel image multiply by constant.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

aConstants fixed size array of constant values, one per channel.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.8.2.37 NppStatus nppiMulC_32fc_C4IR (const Npp32fc *aConstants*[4], Npp32fc $*$ *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*)

Four 32-bit complex floating point (32-bit floating point real, 32-bit floating point imaginary) channel in place image multiply by constant.

Parameters:

aConstants fixed size array of constant values, one per channel.

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.8.2.38 NppStatus nppiMulC_32fc_C4R (const Npp32fc $*$ *pSrc1*, int *nSrc1Step*, const Npp32fc *aConstants*[4], Npp32fc $*$ *pDst*, int *nDstStep*, NppiSize *oSizeROI*)

Four 32-bit complex floating point (32-bit floating point real, 32-bit floating point imaginary) channel image multiply by constant.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

aConstants fixed size array of constant values, one per channel.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.8.2.39 NppStatus nppiMulC_32s_C1IRSfs (const Npp32s *nConstant*, Npp32s ∗ *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*, int *nScaleFactor*)

One 32-bit signed integer channel in place image multiply by constant, scale, then clamp to saturated value.

Parameters:

nConstant Constant.

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oSizeROI Region-of-Interest (ROI).

nScaleFactor Integer Result Scaling.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.8.2.40 NppStatus nppiMulC_32s_C1RSfs (const Npp32s ∗ *pSrc1*, int *nSrc1Step*, const Npp32s *nConstant*, Npp32s ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, int *nScaleFactor*)

One 32-bit signed integer channel image multiply by constant, scale, then clamp to saturated value.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

nConstant Constant.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

nScaleFactor Integer Result Scaling.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.8.2.41 NppStatus nppiMulC_32s_C3IRSfs (const Npp32s *aConstants*[3], Npp32s ∗ *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*, int *nScaleFactor*)

Three 32-bit signed integer channel in place image multiply by constant, scale, then clamp to saturated value.

Parameters:

aConstants fixed size array of constant values, one per channel.

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oSizeROI Region-of-Interest (ROI).

nScaleFactor Integer Result Scaling.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.8.2.42 NppStatus nppiMulC_32s_C3RSfs (const Npp32s ∗ *pSrc1*, int *nSrc1Step*, const Npp32s *aConstants*[3], Npp32s ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, int *nScaleFactor*)

Three 32-bit signed integer channel image multiply by constant, scale, then clamp to saturated value.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

aConstants fixed size array of constant values, one per channel.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

nScaleFactor Integer Result Scaling.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.8.2.43 NppStatus nppiMulC_32sc_AC4IRSfs (const Npp32sc *aConstants*[3], Npp32sc ∗ *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*, int *nScaleFactor*)

Four 32-bit signed complex integer (32-bit real, 32-bit imaginary) channel with unmodified alpha in place image multiply by constant, scale, then clamp to saturated value.

Parameters:

aConstants fixed size array of constant values, one per channel.

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oSizeROI Region-of-Interest (ROI).

nScaleFactor Integer Result Scaling.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.8.2.44 NppStatus nppiMulC_32sc_AC4RSfs (const Npp32sc ∗ *pSrc1*, int *nSrc1Step*, const Npp32sc *aConstants*[3], Npp32sc ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, int *nScaleFactor*)

Four 32-bit signed complex integer (32-bit real, 32-bit imaginary) channel with unmodified alpha image multiply by constant, scale, then clamp to saturated value.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

aConstants fixed size array of constant values, one per channel.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

nScaleFactor Integer Result Scaling.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.8.2.45 NppStatus nppiMulC_32sc_C1IRSfs (const Npp32sc *nConstant*, Npp32sc ∗ *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*, int *nScaleFactor*)

One 32-bit signed complex integer (32-bit real, 32-bit imaginary) channel in place image multiply by constant, scale, then clamp to saturated value.

Parameters:

nConstant Constant.

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oSizeROI Region-of-Interest (ROI).

nScaleFactor Integer Result Scaling.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.8.2.46 NppStatus nppiMulC_32sc_C1RSfs (const Npp32sc ∗ *pSrc1*, int *nSrc1Step*, const Npp32sc *nConstant*, Npp32sc ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, int *nScaleFactor*)

One 32-bit signed complex integer (32-bit real, 32-bit imaginary) channel image multiply by constant, scale, then clamp to saturated value.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

nConstant Constant.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

nScaleFactor Integer Result Scaling.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.8.2.47 NppStatus nppiMulC_32sc_C3IRSfs (const Npp32sc *aConstants*[3], Npp32sc ∗ *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*, int *nScaleFactor*)

Three 32-bit signed complex integer (32-bit real, 32-bit imaginary) channel in place image multiply by constant, scale, then clamp to saturated value.

Parameters:

aConstants fixed size array of constant values, one per channel.

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oSizeROI Region-of-Interest (ROI).

nScaleFactor Integer Result Scaling.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.8.2.48 NppStatus nppiMulC_32sc_C3RSfs (const Npp32sc ∗ *pSrc1*, int *nSrc1Step*, const Npp32sc *aConstants*[3], Npp32sc ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, int *nScaleFactor*)

Three 32-bit signed complex integer (32-bit real, 32-bit imaginary) channel image multiply by constant, scale, then clamp to saturated value.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

aConstants fixed size array of constant values, one per channel.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

nScaleFactor Integer Result Scaling.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.8.2.49 NppStatus nppiMulC_8u_AC4IRSfs (const Npp8u *aConstants*[3], Npp8u ∗ *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*, int *nScaleFactor*)

Four 8-bit unsigned char channel with unmodified alpha in place image multiply by constant, scale, then clamp to saturated value.

Parameters:

aConstants fixed size array of constant values, one per channel.

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oSizeROI Region-of-Interest (ROI).

nScaleFactor Integer Result Scaling.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.8.2.50 NppStatus nppiMulC_8u_AC4RSfs (const Npp8u ∗ *pSrc1*, int *nSrc1Step*, const Npp8u *aConstants*[3], Npp8u ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, int *nScaleFactor*)

Four 8-bit unsigned char channel with unmodified alpha image multiply by constant, scale, then clamp to saturated value.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

aConstants fixed size array of constant values, one per channel.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

nScaleFactor Integer Result Scaling.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.8.2.51 NppStatus nppiMulC_8u_C1IRSfs (const Npp8u *nConstant*, Npp8u ∗ *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*, int *nScaleFactor*)

One 8-bit unsigned char channel in place image multiply by constant, scale, then clamp to saturated value.

Parameters:

nConstant Constant.

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oSizeROI Region-of-Interest (ROI).

nScaleFactor Integer Result Scaling.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.8.2.52 NppStatus nppiMulC_8u_C1RSfs (const Npp8u * *pSrc1*, int *nSrc1Step*, const Npp8u *nConstant*, Npp8u * *pDst*, int *nDstStep*, NppiSize *oSizeROI*, int *nScaleFactor*)

One 8-bit unsigned char channel image multiply by constant, scale, then clamp to saturated value.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

nConstant Constant.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

nScaleFactor Integer Result Scaling.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.8.2.53 NppStatus nppiMulC_8u_C3IRSfs (const Npp8u *aConstants*[3], Npp8u * *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*, int *nScaleFactor*)

Three 8-bit unsigned char channel 8-bit unsigned char in place image multiply by constant, scale, then clamp to saturated value.

Parameters:

aConstants fixed size array of constant values, one per channel.

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oSizeROI Region-of-Interest (ROI).

nScaleFactor Integer Result Scaling.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.8.2.54 NppStatus nppiMulC_8u_C3RSfs (const Npp8u * *pSrc1*, int *nSrc1Step*, const Npp8u *aConstants*[3], Npp8u * *pDst*, int *nDstStep*, NppiSize *oSizeROI*, int *nScaleFactor*)

Three 8-bit unsigned char channel image multiply by constant, scale, then clamp to saturated value.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

aConstants fixed size array of constant values, one per channel.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

nScaleFactor Integer Result Scaling.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.8.2.55 NppStatus nppiMulC_8u_C4IRSfs (const Npp8u *aConstants*[4], Npp8u ∗ *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*, int *nScaleFactor*)

Four 8-bit unsigned char channel in place image multiply by constant, scale, then clamp to saturated value.

Parameters:

aConstants fixed size array of constant values, one per channel.

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oSizeROI Region-of-Interest (ROI).

nScaleFactor Integer Result Scaling.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.8.2.56 NppStatus nppiMulC_8u_C4RSfs (const Npp8u ∗ *pSrc1*, int *nSrc1Step*, const Npp8u *aConstants*[4], Npp8u ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, int *nScaleFactor*)

Four 8-bit unsigned char channel image multiply by constant, scale, then clamp to saturated value.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

aConstants fixed size array of constant values, one per channel.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

nScaleFactor Integer Result Scaling.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.9 MulCScale

Multiplies each pixel of an image by a constant value then scales the result by the maximum value for the data bit width.

Functions

- NppStatus nppiMulCScale_8u_C1R (const Npp8u ∗pSrc1, int nSrc1Step, const Npp8u nConstant, Npp8u ∗pDst, int nDstStep, NppiSize oSizeROI)

  One 8-bit unsigned char channel image multiply by constant and scale by max bit width value.

- NppStatus nppiMulCScale_8u_C1IR (const Npp8u nConstant, Npp8u ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI)

  One 8-bit unsigned char channel in place image multiply by constant and scale by max bit width value.

- NppStatus nppiMulCScale_8u_C3R (const Npp8u ∗pSrc1, int nSrc1Step, const Npp8u aConstants[3], Npp8u ∗pDst, int nDstStep, NppiSize oSizeROI)

  Three 8-bit unsigned char channel image multiply by constant and scale by max bit width value.

- NppStatus nppiMulCScale_8u_C3IR (const Npp8u aConstants[3], Npp8u ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI)

  Three 8-bit unsigned char channel 8-bit unsigned char in place image multiply by constant and scale by max bit width value.

- NppStatus nppiMulCScale_8u_AC4R (const Npp8u ∗pSrc1, int nSrc1Step, const Npp8u aConstants[3], Npp8u ∗pDst, int nDstStep, NppiSize oSizeROI)

  Four 8-bit unsigned char channel with unmodified alpha image multiply by constant and scale by max bit width value.

- NppStatus nppiMulCScale_8u_AC4IR (const Npp8u aConstants[3], Npp8u ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI)

  Four 8-bit unsigned char channel with unmodified alpha in place image multiply by constant, scale and scale by max bit width value.

- NppStatus nppiMulCScale_8u_C4R (const Npp8u ∗pSrc1, int nSrc1Step, const Npp8u aConstants[4], Npp8u ∗pDst, int nDstStep, NppiSize oSizeROI)

  Four 8-bit unsigned char channel image multiply by constant and scale by max bit width value.

- NppStatus nppiMulCScale_8u_C4IR (const Npp8u aConstants[4], Npp8u ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI)

  Four 8-bit unsigned char channel in place image multiply by constant and scale by max bit width value.

- NppStatus nppiMulCScale_16u_C1R (const Npp16u ∗pSrc1, int nSrc1Step, const Npp16u nConstant, Npp16u ∗pDst, int nDstStep, NppiSize oSizeROI)

  One 16-bit unsigned short channel image multiply by constant and scale by max bit width value.

- NppStatus nppiMulCScale_16u_C1IR (const Npp16u nConstant, Npp16u ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI)

  One 16-bit unsigned short channel in place image multiply by constant and scale by max bit width value.

- NppStatus nppiMulCScale_16u_C3R (const Npp16u ∗pSrc1, int nSrc1Step, const Npp16u aConstants[3], Npp16u ∗pDst, int nDstStep, NppiSize oSizeROI)

  Three 16-bit unsigned short channel image multiply by constant and scale by max bit width value.

- NppStatus nppiMulCScale_16u_C3IR (const Npp16u aConstants[3], Npp16u ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI)

  Three 16-bit unsigned short channel in place image multiply by constant and scale by max bit width value.

- NppStatus nppiMulCScale_16u_AC4R (const Npp16u ∗pSrc1, int nSrc1Step, const Npp16u aConstants[3], Npp16u ∗pDst, int nDstStep, NppiSize oSizeROI)

  Four 16-bit unsigned short channel with unmodified alpha image multiply by constant and scale by max bit width value.

- NppStatus nppiMulCScale_16u_AC4IR (const Npp16u aConstants[3], Npp16u ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI)

  Four 16-bit unsigned short channel with unmodified alpha in place image multiply by constant and scale by max bit width value.

- NppStatus nppiMulCScale_16u_C4R (const Npp16u ∗pSrc1, int nSrc1Step, const Npp16u aConstants[4], Npp16u ∗pDst, int nDstStep, NppiSize oSizeROI)

  Four 16-bit unsigned short channel image multiply by constant and scale by max bit width value.

- NppStatus nppiMulCScale_16u_C4IR (const Npp16u aConstants[4], Npp16u ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI)

  Four 16-bit unsigned short channel in place image multiply by constant and scale by max bit width value.

7.9.1 Detailed Description

Multiplies each pixel of an image by a constant value then scales the result by the maximum value for the data bit width.

7.9.2 Function Documentation

7.9.2.1 NppStatus nppiMulCScale_16u_AC4IR (const Npp16u *aConstants*[3], Npp16u ∗ *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*)

Four 16-bit unsigned short channel with unmodified alpha in place image multiply by constant and scale by max bit width value.

Parameters:

aConstants fixed size array of constant values, one per channel.

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.9.2.2 NppStatus nppiMulCScale_16u_AC4R (const Npp16u ∗ *pSrc1*, int *nSrc1Step*, const Npp16u *aConstants*[3], Npp16u ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*)

Four 16-bit unsigned short channel with unmodified alpha image multiply by constant and scale by max bit width value.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

aConstants fixed size array of constant values, one per channel.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.9.2.3 NppStatus nppiMulCScale_16u_C1IR (const Npp16u *nConstant*, Npp16u ∗ *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*)

One 16-bit unsigned short channel in place image multiply by constant and scale by max bit width value.

Parameters:

nConstant Constant.

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.9.2.4 NppStatus nppiMulCScale_16u_C1R (const Npp16u ∗ *pSrc1*, int *nSrc1Step*, const Npp16u *nConstant*, Npp16u ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*)

One 16-bit unsigned short channel image multiply by constant and scale by max bit width value.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

nConstant Constant.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.9.2.5 NppStatus nppiMulCScale_16u_C3IR (const Npp16u *aConstants*[3], Npp16u ∗ *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*)

Three 16-bit unsigned short channel in place image multiply by constant and scale by max bit width value.

Parameters:

aConstants fixed size array of constant values, one per channel.

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.9.2.6 NppStatus nppiMulCScale_16u_C3R (const Npp16u ∗ *pSrc1*, int *nSrc1Step*, const Npp16u *aConstants*[3], Npp16u ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*)

Three 16-bit unsigned short channel image multiply by constant and scale by max bit width value.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

aConstants fixed size array of constant values, one per channel.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.9.2.7 NppStatus nppiMulCScale_16u_C4IR (const Npp16u *aConstants*[4], Npp16u ∗ *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*)

Four 16-bit unsigned short channel in place image multiply by constant and scale by max bit width value.

Parameters:

aConstants fixed size array of constant values, one per channel.

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.9.2.8 NppStatus nppiMulCScale_16u_C4R (const Npp16u ∗ *pSrc1*, int *nSrc1Step*, const Npp16u *aConstants*[4], Npp16u ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*)

Four 16-bit unsigned short channel image multiply by constant and scale by max bit width value.

Parameters:

pSrc1 Source-Image Pointer.
nSrc1Step Source-Image Line Step.
aConstants fixed size array of constant values, one per channel.
pDst Destination-Image Pointer.
nDstStep Destination-Image Line Step.
oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.9.2.9 NppStatus nppiMulCScale_8u_AC4IR (const Npp8u *aConstants*[3], Npp8u ∗ *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*)

Four 8-bit unsigned char channel with unmodified alpha in place image multiply by constant, scale and scale by max bit width value.

Parameters:

aConstants fixed size array of constant values, one per channel.
pSrcDst In-Place Image Pointer.
nSrcDstStep In-Place-Image Line Step.
oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.9.2.10 NppStatus nppiMulCScale_8u_AC4R (const Npp8u ∗ *pSrc1*, int *nSrc1Step*, const Npp8u *aConstants*[3], Npp8u ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*)

Four 8-bit unsigned char channel with unmodified alpha image multiply by constant and scale by max bit width value.

Parameters:

pSrc1 Source-Image Pointer.
nSrc1Step Source-Image Line Step.
aConstants fixed size array of constant values, one per channel.
pDst Destination-Image Pointer.
nDstStep Destination-Image Line Step.
oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.9.2.11 NppStatus nppiMulCScale_8u_C1IR (const Npp8u *nConstant*, Npp8u * *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*)

One 8-bit unsigned char channel in place image multiply by constant and scale by max bit width value.

Parameters:

nConstant Constant.

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.9.2.12 NppStatus nppiMulCScale_8u_C1R (const Npp8u * *pSrc1*, int *nSrc1Step*, const Npp8u *nConstant*, Npp8u * *pDst*, int *nDstStep*, NppiSize *oSizeROI*)

One 8-bit unsigned char channel image multiply by constant and scale by max bit width value.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

nConstant Constant.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.9.2.13 NppStatus nppiMulCScale_8u_C3IR (const Npp8u *aConstants*[3], Npp8u * *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*)

Three 8-bit unsigned char channel 8-bit unsigned char in place image multiply by constant and scale by max bit width value.

Parameters:

aConstants fixed size array of constant values, one per channel.

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.9.2.14 NppStatus nppiMulCScale_8u_C3R (const Npp8u ∗ *pSrc1*, int *nSrc1Step*, const Npp8u *aConstants*[3], Npp8u ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*)

Three 8-bit unsigned char channel image multiply by constant and scale by max bit width value.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

aConstants fixed size array of constant values, one per channel.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.9.2.15 NppStatus nppiMulCScale_8u_C4IR (const Npp8u *aConstants*[4], Npp8u ∗ *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*)

Four 8-bit unsigned char channel in place image multiply by constant and scale by max bit width value.

Parameters:

aConstants fixed size array of constant values, one per channel.

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.9.2.16 NppStatus nppiMulCScale_8u_C4R (const Npp8u ∗ *pSrc1*, int *nSrc1Step*, const Npp8u *aConstants*[4], Npp8u ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*)

Four 8-bit unsigned char channel image multiply by constant and scale by max bit width value.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

aConstants fixed size array of constant values, one per channel.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.10 SubC

Subtracts a constant value from each pixel of an image.

Functions

- NppStatus nppiSubC_8u_C1RSfs (const Npp8u ∗pSrc1, int nSrc1Step, const Npp8u nConstant, Npp8u ∗pDst, int nDstStep, NppiSize oSizeROI, int nScaleFactor)

  One 8-bit unsigned char channel image subtract constant, scale, then clamp to saturated value.

- NppStatus nppiSubC_8u_C1IRSfs (const Npp8u nConstant, Npp8u ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI, int nScaleFactor)

  One 8-bit unsigned char channel in place image subtract constant, scale, then clamp to saturated value.

- NppStatus nppiSubC_8u_C3RSfs (const Npp8u ∗pSrc1, int nSrc1Step, const Npp8u aConstants[3], Npp8u ∗pDst, int nDstStep, NppiSize oSizeROI, int nScaleFactor)

  Three 8-bit unsigned char channel image subtract constant, scale, then clamp to saturated value.

- NppStatus nppiSubC_8u_C3IRSfs (const Npp8u aConstants[3], Npp8u ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI, int nScaleFactor)

  Three 8-bit unsigned char channel 8-bit unsigned char in place image subtract constant, scale, then clamp to saturated value.

- NppStatus nppiSubC_8u_AC4RSfs (const Npp8u ∗pSrc1, int nSrc1Step, const Npp8u aConstants[3], Npp8u ∗pDst, int nDstStep, NppiSize oSizeROI, int nScaleFactor)

  Four 8-bit unsigned char channel with unmodified alpha image subtract constant, scale, then clamp to saturated value.

- NppStatus nppiSubC_8u_AC4IRSfs (const Npp8u aConstants[3], Npp8u ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI, int nScaleFactor)

  Four 8-bit unsigned char channel with unmodified alpha in place image subtract constant, scale, then clamp to saturated value.

- NppStatus nppiSubC_8u_C4RSfs (const Npp8u ∗pSrc1, int nSrc1Step, const Npp8u aConstants[4], Npp8u ∗pDst, int nDstStep, NppiSize oSizeROI, int nScaleFactor)

  Four 8-bit unsigned char channel image subtract constant, scale, then clamp to saturated value.

- NppStatus nppiSubC_8u_C4IRSfs (const Npp8u aConstants[4], Npp8u ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI, int nScaleFactor)

  Four 8-bit unsigned char channel in place image subtract constant, scale, then clamp to saturated value.

- NppStatus nppiSubC_16u_C1RSfs (const Npp16u ∗pSrc1, int nSrc1Step, const Npp16u nConstant, Npp16u ∗pDst, int nDstStep, NppiSize oSizeROI, int nScaleFactor)

  One 16-bit unsigned short channel image subtract constant, scale, then clamp to saturated value.

- NppStatus nppiSubC_16u_C1IRSfs (const Npp16u nConstant, Npp16u ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI, int nScaleFactor)

  One 16-bit unsigned short channel in place image subtract constant, scale, then clamp to saturated value.

- NppStatus nppiSubC_16u_C3RSfs (const Npp16u ∗pSrc1, int nSrc1Step, const Npp16u aConstants[3], Npp16u ∗pDst, int nDstStep, NppiSize oSizeROI, int nScaleFactor)

Three 16-bit unsigned short channel image subtract constant, scale, then clamp to saturated value.

- NppStatus nppiSubC_16u_C3IRSfs (const Npp16u aConstants[3], Npp16u ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI, int nScaleFactor)

  Three 16-bit unsigned short channel in place image subtract constant, scale, then clamp to saturated value.

- NppStatus nppiSubC_16u_AC4RSfs (const Npp16u ∗pSrc1, int nSrc1Step, const Npp16u aConstants[3], Npp16u ∗pDst, int nDstStep, NppiSize oSizeROI, int nScaleFactor)

  Four 16-bit unsigned short channel with unmodified alpha image subtract constant, scale, then clamp to saturated value.

- NppStatus nppiSubC_16u_AC4IRSfs (const Npp16u aConstants[3], Npp16u ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI, int nScaleFactor)

  Four 16-bit unsigned short channel with unmodified alpha in place image subtract constant, scale, then clamp to saturated value.

- NppStatus nppiSubC_16u_C4RSfs (const Npp16u ∗pSrc1, int nSrc1Step, const Npp16u aConstants[4], Npp16u ∗pDst, int nDstStep, NppiSize oSizeROI, int nScaleFactor)

  Four 16-bit unsigned short channel image subtract constant, scale, then clamp to saturated value.

- NppStatus nppiSubC_16u_C4IRSfs (const Npp16u aConstants[4], Npp16u ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI, int nScaleFactor)

  Four 16-bit unsigned short channel in place image subtract constant, scale, then clamp to saturated value.

- NppStatus nppiSubC_16s_C1RSfs (const Npp16s ∗pSrc1, int nSrc1Step, const Npp16s nConstant, Npp16s ∗pDst, int nDstStep, NppiSize oSizeROI, int nScaleFactor)

  One 16-bit signed short channel image subtract constant, scale, then clamp to saturated value.

- NppStatus nppiSubC_16s_C1IRSfs (const Npp16s nConstant, Npp16s ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI, int nScaleFactor)

  One 16-bit signed short channel in place image subtract constant, scale, then clamp to saturated value.

- NppStatus nppiSubC_16s_C3RSfs (const Npp16s ∗pSrc1, int nSrc1Step, const Npp16s aConstants[3], Npp16s ∗pDst, int nDstStep, NppiSize oSizeROI, int nScaleFactor)

  Three 16-bit signed short channel image subtract constant, scale, then clamp to saturated value.

- NppStatus nppiSubC_16s_C3IRSfs (const Npp16s aConstants[3], Npp16s ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI, int nScaleFactor)

  Three 16-bit signed short channel in place image subtract constant, scale, then clamp to saturated value.

- NppStatus nppiSubC_16s_AC4RSfs (const Npp16s ∗pSrc1, int nSrc1Step, const Npp16s aConstants[3], Npp16s ∗pDst, int nDstStep, NppiSize oSizeROI, int nScaleFactor)

  Four 16-bit signed short channel with unmodified alpha image subtract constant, scale, then clamp to saturated value.

- NppStatus nppiSubC_16s_AC4IRSfs (const Npp16s aConstants[3], Npp16s ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI, int nScaleFactor)

  Four 16-bit signed short channel with unmodified alpha in place image subtract constant, scale, then clamp to saturated value.

- NppStatus nppiSubC_16s_C4RSfs (const Npp16s ∗pSrc1, int nSrc1Step, const Npp16s aConstants[4], Npp16s ∗pDst, int nDstStep, NppiSize oSizeROI, int nScaleFactor)

Four 16-bit signed short channel image subtract constant, scale, then clamp to saturated value.

- NppStatus nppiSubC_16s_C4IRSfs (const Npp16s aConstants[4], Npp16s ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI, int nScaleFactor)

  Four 16-bit signed short channel in place image subtract constant, scale, then clamp to saturated value.

- NppStatus nppiSubC_16sc_C1RSfs (const Npp16sc ∗pSrc1, int nSrc1Step, const Npp16sc nConstant, Npp16sc ∗pDst, int nDstStep, NppiSize oSizeROI, int nScaleFactor)

  One 16-bit signed short complex number (16-bit real, 16-bit imaginary) channel image subtract constant, scale, then clamp to saturated value.

- NppStatus nppiSubC_16sc_C1IRSfs (const Npp16sc nConstant, Npp16sc ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI, int nScaleFactor)

  One 16-bit signed short complex number (16-bit real, 16-bit imaginary) channel in place image subtract constant, scale, then clamp to saturated value.

- NppStatus nppiSubC_16sc_C3RSfs (const Npp16sc ∗pSrc1, int nSrc1Step, const Npp16sc aConstants[3], Npp16sc ∗pDst, int nDstStep, NppiSize oSizeROI, int nScaleFactor)

  Three 16-bit signed short complex number (16-bit real, 16-bit imaginary) channel image subtract constant, scale, then clamp to saturated value.

- NppStatus nppiSubC_16sc_C3IRSfs (const Npp16sc aConstants[3], Npp16sc ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI, int nScaleFactor)

  Three 16-bit signed short complex number (16-bit real, 16-bit imaginary) channel in place image subtract constant, scale, then clamp to saturated value.

- NppStatus nppiSubC_16sc_AC4RSfs (const Npp16sc ∗pSrc1, int nSrc1Step, const Npp16sc aConstants[3], Npp16sc ∗pDst, int nDstStep, NppiSize oSizeROI, int nScaleFactor)

  Four 16-bit signed short complex number (16-bit real, 16-bit imaginary) channel with unmodified alpha image subtract constant, scale, then clamp to saturated value.

- NppStatus nppiSubC_16sc_AC4IRSfs (const Npp16sc aConstants[3], Npp16sc ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI, int nScaleFactor)

  Four 16-bit signed short complex number (16-bit real, 16-bit imaginary) channel with unmodified alpha in place image subtract constant, scale, then clamp to saturated value.

- NppStatus nppiSubC_32s_C1RSfs (const Npp32s ∗pSrc1, int nSrc1Step, const Npp32s nConstant, Npp32s ∗pDst, int nDstStep, NppiSize oSizeROI, int nScaleFactor)

  One 32-bit signed integer channel image subtract constant, scale, then clamp to saturated value.

- NppStatus nppiSubC_32s_C1IRSfs (const Npp32s nConstant, Npp32s ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI, int nScaleFactor)

  One 32-bit signed integer channel in place image subtract constant, scale, then clamp to saturated value.

- NppStatus nppiSubC_32s_C3RSfs (const Npp32s ∗pSrc1, int nSrc1Step, const Npp32s aConstants[3], Npp32s ∗pDst, int nDstStep, NppiSize oSizeROI, int nScaleFactor)

  Three 32-bit signed integer channel image subtract constant, scale, then clamp to saturated value.

- NppStatus nppiSubC_32s_C3IRSfs (const Npp32s aConstants[3], Npp32s ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI, int nScaleFactor)

  Three 32-bit signed integer channel in place image subtract constant, scale, then clamp to saturated value.

- NppStatus nppiSubC_32sc_C1RSfs (const Npp32sc ∗pSrc1, int nSrc1Step, const Npp32sc nConstant, Npp32sc ∗pDst, int nDstStep, NppiSize oSizeROI, int nScaleFactor)

  One 32-bit signed complex integer (32-bit real, 32-bit imaginary) channel image subtract constant, scale, then clamp to saturated value.

- NppStatus nppiSubC_32sc_C1IRSfs (const Npp32sc nConstant, Npp32sc ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI, int nScaleFactor)

  One 32-bit signed complex integer (32-bit real, 32-bit imaginary) channel in place image subtract constant, scale, then clamp to saturated value.

- NppStatus nppiSubC_32sc_C3RSfs (const Npp32sc ∗pSrc1, int nSrc1Step, const Npp32sc aConstants[3], Npp32sc ∗pDst, int nDstStep, NppiSize oSizeROI, int nScaleFactor)

  Three 32-bit signed complex integer (32-bit real, 32-bit imaginary) channel image subtract constant, scale, then clamp to saturated value.

- NppStatus nppiSubC_32sc_C3IRSfs (const Npp32sc aConstants[3], Npp32sc ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI, int nScaleFactor)

  Three 32-bit signed complex integer (32-bit real, 32-bit imaginary) channel in place image subtract constant, scale, then clamp to saturated value.

- NppStatus nppiSubC_32sc_AC4RSfs (const Npp32sc ∗pSrc1, int nSrc1Step, const Npp32sc aConstants[3], Npp32sc ∗pDst, int nDstStep, NppiSize oSizeROI, int nScaleFactor)

  Four 32-bit signed complex integer (32-bit real, 32-bit imaginary) channel with unmodified alpha image subtract constant, scale, then clamp to saturated value.

- NppStatus nppiSubC_32sc_AC4IRSfs (const Npp32sc aConstants[3], Npp32sc ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI, int nScaleFactor)

  Four 32-bit signed complex integer (32-bit real, 32-bit imaginary) channel with unmodified alpha in place image subtract constant, scale, then clamp to saturated value.

- NppStatus nppiSubC_32f_C1R (const Npp32f ∗pSrc1, int nSrc1Step, const Npp32f nConstant, Npp32f ∗pDst, int nDstStep, NppiSize oSizeROI)

  One 32-bit floating point channel image subtract constant.

- NppStatus nppiSubC_32f_C1IR (const Npp32f nConstant, Npp32f ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI)

  One 32-bit floating point channel in place image subtract constant.

- NppStatus nppiSubC_32f_C3R (const Npp32f ∗pSrc1, int nSrc1Step, const Npp32f aConstants[3], Npp32f ∗pDst, int nDstStep, NppiSize oSizeROI)

  Three 32-bit floating point channel image subtract constant.

- NppStatus nppiSubC_32f_C3IR (const Npp32f aConstants[3], Npp32f ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI)

  Three 32-bit floating point channel in place image subtract constant.

- NppStatus nppiSubC_32f_AC4R (const Npp32f ∗pSrc1, int nSrc1Step, const Npp32f aConstants[3], Npp32f ∗pDst, int nDstStep, NppiSize oSizeROI)

  Four 32-bit floating point channel with unmodified alpha image subtract constant.

- NppStatus nppiSubC_32f_AC4IR (const Npp32f aConstants[3], Npp32f ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI)

Four 32-bit floating point channel with unmodified alpha in place image subtract constant.

- NppStatus nppiSubC_32f_C4R (const Npp32f ∗pSrc1, int nSrc1Step, const Npp32f aConstants[4], Npp32f ∗pDst, int nDstStep, NppiSize oSizeROI)

  Four 32-bit floating point channel image subtract constant.

- NppStatus nppiSubC_32f_C4IR (const Npp32f aConstants[4], Npp32f ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI)

  Four 32-bit floating point channel in place image subtract constant.

- NppStatus nppiSubC_32fc_C1R (const Npp32fc ∗pSrc1, int nSrc1Step, const Npp32fc nConstant, Npp32fc ∗pDst, int nDstStep, NppiSize oSizeROI)

  One 32-bit complex floating point (32-bit floating point real, 32-bit floating point imaginary) channel image subtract constant.

- NppStatus nppiSubC_32fc_C1IR (const Npp32fc nConstant, Npp32fc ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI)

  One 32-bit complex floating point (32-bit floating point real, 32-bit floating point imaginary) channel in place image subtract constant.

- NppStatus nppiSubC_32fc_C3R (const Npp32fc ∗pSrc1, int nSrc1Step, const Npp32fc aConstants[3], Npp32fc ∗pDst, int nDstStep, NppiSize oSizeROI)

  Three 32-bit complex floating point (32-bit floating point real, 32-bit floating point imaginary) channel image subtract constant.

- NppStatus nppiSubC_32fc_C3IR (const Npp32fc aConstants[3], Npp32fc ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI)

  Three 32-bit complex floating point (32-bit floating point real, 32-bit floating point imaginary) channel in place image subtract constant.

- NppStatus nppiSubC_32fc_AC4R (const Npp32fc ∗pSrc1, int nSrc1Step, const Npp32fc aConstants[3], Npp32fc ∗pDst, int nDstStep, NppiSize oSizeROI)

  Four 32-bit complex floating point (32-bit floating point real, 32-bit floating point imaginary) channel with unmodified alpha image subtract constant.

- NppStatus nppiSubC_32fc_AC4IR (const Npp32fc aConstants[3], Npp32fc ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI)

  Four 32-bit complex floating point (32-bit floating point real, 32-bit floating point imaginary) channel with unmodified alpha in place image subtract constant.

- NppStatus nppiSubC_32fc_C4R (const Npp32fc ∗pSrc1, int nSrc1Step, const Npp32fc aConstants[4], Npp32fc ∗pDst, int nDstStep, NppiSize oSizeROI)

  Four 32-bit complex floating point (32-bit floating point real, 32-bit floating point imaginary) channel image subtract constant.

- NppStatus nppiSubC_32fc_C4IR (const Npp32fc aConstants[4], Npp32fc ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI)

  Four 32-bit complex floating point (32-bit floating point real, 32-bit floating point imaginary) channel in place image subtract constant.

7.10.1 Detailed Description

Subtracts a constant value from each pixel of an image.

7.10.2 Function Documentation

7.10.2.1 NppStatus nppiSubC_16s_AC4IRSfs (const Npp16s *aConstants*[3], Npp16s ∗ *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*, int *nScaleFactor*)

Four 16-bit signed short channel with unmodified alpha in place image subtract constant, scale, then clamp to saturated value.

Parameters:

aConstants fixed size array of constant values, one per channel.

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oSizeROI Region-of-Interest (ROI).

nScaleFactor Integer Result Scaling.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.10.2.2 NppStatus nppiSubC_16s_AC4RSfs (const Npp16s ∗ *pSrc1*, int *nSrc1Step*, const Npp16s *aConstants*[3], Npp16s ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, int *nScaleFactor*)

Four 16-bit signed short channel with unmodified alpha image subtract constant, scale, then clamp to saturated value.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

aConstants fixed size array of constant values, one per channel.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

nScaleFactor Integer Result Scaling.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.10.2.3 NppStatus nppiSubC_16s_C1IRSfs (const Npp16s *nConstant*, Npp16s ∗ *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*, int *nScaleFactor*)

One 16-bit signed short channel in place image subtract constant, scale, then clamp to saturated value.

Parameters:

nConstant Constant.

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oSizeROI Region-of-Interest (ROI).

nScaleFactor Integer Result Scaling.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.10.2.4 NppStatus nppiSubC_16s_C1RSfs (const Npp16s * *pSrc1*, int *nSrc1Step*, const Npp16s *nConstant*, Npp16s * *pDst*, int *nDstStep*, NppiSize *oSizeROI*, int *nScaleFactor*)

One 16-bit signed short channel image subtract constant, scale, then clamp to saturated value.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

nConstant Constant.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

nScaleFactor Integer Result Scaling.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.10.2.5 NppStatus nppiSubC_16s_C3IRSfs (const Npp16s *aConstants*[3], Npp16s * *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*, int *nScaleFactor*)

Three 16-bit signed short channel in place image subtract constant, scale, then clamp to saturated value.

Parameters:

aConstants fixed size array of constant values, one per channel.

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oSizeROI Region-of-Interest (ROI).

nScaleFactor Integer Result Scaling.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.10.2.6 NppStatus nppiSubC_16s_C3RSfs (const Npp16s ∗ *pSrc1*, int *nSrc1Step*, const Npp16s *aConstants*[3], Npp16s ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, int *nScaleFactor*)

Three 16-bit signed short channel image subtract constant, scale, then clamp to saturated value.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

aConstants fixed size array of constant values, one per channel.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

nScaleFactor Integer Result Scaling.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.10.2.7 NppStatus nppiSubC_16s_C4IRSfs (const Npp16s *aConstants*[4], Npp16s ∗ *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*, int *nScaleFactor*)

Four 16-bit signed short channel in place image subtract constant, scale, then clamp to saturated value.

Parameters:

aConstants fixed size array of constant values, one per channel.

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oSizeROI Region-of-Interest (ROI).

nScaleFactor Integer Result Scaling.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.10.2.8 NppStatus nppiSubC_16s_C4RSfs (const Npp16s ∗ *pSrc1*, int *nSrc1Step*, const Npp16s *aConstants*[4], Npp16s ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, int *nScaleFactor*)

Four 16-bit signed short channel image subtract constant, scale, then clamp to saturated value.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

aConstants fixed size array of constant values, one per channel.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

nScaleFactor Integer Result Scaling.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.10.2.9 NppStatus nppiSubC_16sc_AC4IRSfs (const Npp16sc *aConstants*[3], Npp16sc ∗ *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*, int *nScaleFactor*)

Four 16-bit signed short complex number (16-bit real, 16-bit imaginary) channel with unmodified alpha in place image subtract constant, scale, then clamp to saturated value.

Parameters:

aConstants fixed size array of constant values, one per channel.

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oSizeROI Region-of-Interest (ROI).

nScaleFactor Integer Result Scaling.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.10.2.10 NppStatus nppiSubC_16sc_AC4RSfs (const Npp16sc ∗ *pSrc1*, int *nSrc1Step*, const Npp16sc *aConstants*[3], Npp16sc ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, int *nScaleFactor*)

Four 16-bit signed short complex number (16-bit real, 16-bit imaginary) channel with unmodified alpha image subtract constant, scale, then clamp to saturated value.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

aConstants fixed size array of constant values, one per channel.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

nScaleFactor Integer Result Scaling.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.10.2.11 NppStatus nppiSubC_16sc_C1IRSfs (const Npp16sc *nConstant*, Npp16sc ∗ *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*, int *nScaleFactor*)

One 16-bit signed short complex number (16-bit real, 16-bit imaginary) channel in place image subtract constant, scale, then clamp to saturated value.

Parameters:

nConstant Constant.

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oSizeROI Region-of-Interest (ROI).

nScaleFactor Integer Result Scaling.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.10.2.12 NppStatus nppiSubC_16sc_C1RSfs (const Npp16sc ∗ *pSrc1*, int *nSrc1Step*, const Npp16sc *nConstant*, Npp16sc ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, int *nScaleFactor*)

One 16-bit signed short complex number (16-bit real, 16-bit imaginary) channel image subtract constant, scale, then clamp to saturated value.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

nConstant Constant.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

nScaleFactor Integer Result Scaling.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.10.2.13 NppStatus nppiSubC_16sc_C3IRSfs (const Npp16sc *aConstants*[3], Npp16sc ∗ *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*, int *nScaleFactor*)

Three 16-bit signed short complex number (16-bit real, 16-bit imaginary) channel in place image subtract constant, scale, then clamp to saturated value.

Parameters:

aConstants fixed size array of constant values, one per channel.

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oSizeROI Region-of-Interest (ROI).

nScaleFactor Integer Result Scaling.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.10.2.14 NppStatus nppiSubC_16sc_C3RSfs (const Npp16sc ∗ *pSrc1*, int *nSrc1Step*, const Npp16sc *aConstants*[3], Npp16sc ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, int *nScaleFactor*)

Three 16-bit signed short complex number (16-bit real, 16-bit imaginary) channel image subtract constant, scale, then clamp to saturated value.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

aConstants fixed size array of constant values, one per channel.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

nScaleFactor Integer Result Scaling.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.10.2.15 NppStatus nppiSubC_16u_AC4IRSfs (const Npp16u *aConstants*[3], Npp16u ∗ *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*, int *nScaleFactor*)

Four 16-bit unsigned short channel with unmodified alpha in place image subtract constant, scale, then clamp to saturated value.

Parameters:

aConstants fixed size array of constant values, one per channel.

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oSizeROI Region-of-Interest (ROI).

nScaleFactor Integer Result Scaling.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.10.2.16 NppStatus nppiSubC_16u_AC4RSfs (const Npp16u ∗ *pSrc1*, int *nSrc1Step*, const Npp16u *aConstants*[3], Npp16u ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, int *nScaleFactor*)

Four 16-bit unsigned short channel with unmodified alpha image subtract constant, scale, then clamp to saturated value.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

aConstants fixed size array of constant values, one per channel.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

nScaleFactor Integer Result Scaling.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.10.2.17 NppStatus nppiSubC_16u_C1IRSfs (const Npp16u *nConstant*, Npp16u ∗ *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*, int *nScaleFactor*)

One 16-bit unsigned short channel in place image subtract constant, scale, then clamp to saturated value.

Parameters:

nConstant Constant.

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oSizeROI Region-of-Interest (ROI).

nScaleFactor Integer Result Scaling.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.10.2.18 NppStatus nppiSubC_16u_C1RSfs (const Npp16u ∗ *pSrc1*, int *nSrc1Step*, const Npp16u *nConstant*, Npp16u ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, int *nScaleFactor*)

One 16-bit unsigned short channel image subtract constant, scale, then clamp to saturated value.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

nConstant Constant.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

nScaleFactor Integer Result Scaling.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.10.2.19 NppStatus nppiSubC_16u_C3IRSfs (const Npp16u *aConstants*[3], Npp16u ∗ *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*, int *nScaleFactor*)

Three 16-bit unsigned short channel in place image subtract constant, scale, then clamp to saturated value.

Parameters:

aConstants fixed size array of constant values, one per channel.

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oSizeROI Region-of-Interest (ROI).

nScaleFactor Integer Result Scaling.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.10.2.20 NppStatus nppiSubC_16u_C3RSfs (const Npp16u ∗ *pSrc1*, int *nSrc1Step*, const Npp16u *aConstants*[3], Npp16u ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, int *nScaleFactor*)

Three 16-bit unsigned short channel image subtract constant, scale, then clamp to saturated value.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

aConstants fixed size array of constant values, one per channel.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

nScaleFactor Integer Result Scaling.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.10.2.21 NppStatus nppiSubC_16u_C4IRSfs (const Npp16u *aConstants*[4], Npp16u * *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*, int *nScaleFactor*)

Four 16-bit unsigned short channel in place image subtract constant, scale, then clamp to saturated value.

Parameters:

aConstants fixed size array of constant values, one per channel.

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oSizeROI Region-of-Interest (ROI).

nScaleFactor Integer Result Scaling.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.10.2.22 NppStatus nppiSubC_16u_C4RSfs (const Npp16u * *pSrc1*, int *nSrc1Step*, const Npp16u *aConstants*[4], Npp16u * *pDst*, int *nDstStep*, NppiSize *oSizeROI*, int *nScaleFactor*)

Four 16-bit unsigned short channel image subtract constant, scale, then clamp to saturated value.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

aConstants fixed size array of constant values, one per channel.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

nScaleFactor Integer Result Scaling.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.10.2.23 NppStatus nppiSubC_32f_AC4IR (const Npp32f *aConstants*[3], Npp32f * *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*)

Four 32-bit floating point channel with unmodified alpha in place image subtract constant.

Parameters:

aConstants fixed size array of constant values, one per channel.

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.10.2.24 NppStatus nppiSubC_32f_AC4R (const Npp32f ∗ *pSrc1*, int *nSrc1Step*, const Npp32f *aConstants*[3], Npp32f ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*)

Four 32-bit floating point channel with unmodified alpha image subtract constant.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

aConstants fixed size array of constant values, one per channel.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.10.2.25 NppStatus nppiSubC_32f_C1IR (const Npp32f *nConstant*, Npp32f ∗ *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*)

One 32-bit floating point channel in place image subtract constant.

Parameters:

nConstant Constant.

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.10.2.26 NppStatus nppiSubC_32f_C1R (const Npp32f ∗ *pSrc1*, int *nSrc1Step*, const Npp32f *nConstant*, Npp32f ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*)

One 32-bit floating point channel image subtract constant.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

nConstant Constant.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.10.2.27 NppStatus nppiSubC_32f_C3IR (const Npp32f *aConstants*[3], Npp32f ∗ *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*)

Three 32-bit floating point channel in place image subtract constant.

Parameters:

aConstants fixed size array of constant values, one per channel.

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.10.2.28 NppStatus nppiSubC_32f_C3R (const Npp32f ∗ *pSrc1*, int *nSrc1Step*, const Npp32f *aConstants*[3], Npp32f ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*)

Three 32-bit floating point channel image subtract constant.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

aConstants fixed size array of constant values, one per channel.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.10.2.29 NppStatus nppiSubC_32f_C4IR (const Npp32f *aConstants*[4], Npp32f ∗ *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*)

Four 32-bit floating point channel in place image subtract constant.

Parameters:

aConstants fixed size array of constant values, one per channel.

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.10.2.30 NppStatus nppiSubC_32f_C4R (const Npp32f ∗ *pSrc1*, int *nSrc1Step*, const Npp32f *aConstants*[4], Npp32f ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*)

Four 32-bit floating point channel image subtract constant.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

aConstants fixed size array of constant values, one per channel.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.10.2.31 NppStatus nppiSubC_32fc_AC4IR (const Npp32fc *aConstants*[3], Npp32fc ∗ *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*)

Four 32-bit complex floating point (32-bit floating point real, 32-bit floating point imaginary) channel with unmodified alpha in place image subtract constant.

Parameters:

aConstants fixed size array of constant values, one per channel.

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.10.2.32 NppStatus nppiSubC_32fc_AC4R (const Npp32fc ∗ *pSrc1*, int *nSrc1Step*, const Npp32fc *aConstants*[3], Npp32fc ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*)

Four 32-bit complex floating point (32-bit floating point real, 32-bit floating point imaginary) channel with unmodified alpha image subtract constant.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

aConstants fixed size array of constant values, one per channel.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.10.2.33 NppStatus nppiSubC_32fc_C1IR (const Npp32fc *nConstant*, Npp32fc ∗ *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*)

One 32-bit complex floating point (32-bit floating point real, 32-bit floating point imaginary) channel in place image subtract constant.

Parameters:

nConstant Constant.

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.10.2.34 NppStatus nppiSubC_32fc_C1R (const Npp32fc ∗ *pSrc1*, int *nSrc1Step*, const Npp32fc *nConstant*, Npp32fc ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*)

One 32-bit complex floating point (32-bit floating point real, 32-bit floating point imaginary) channel image subtract constant.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

nConstant Constant.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.10.2.35 NppStatus nppiSubC_32fc_C3IR (const Npp32fc *aConstants*[3], Npp32fc ∗ *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*)

Three 32-bit complex floating point (32-bit floating point real, 32-bit floating point imaginary) channel in place image subtract constant.

Parameters:

aConstants fixed size array of constant values, one per channel.

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.10.2.36 NppStatus nppiSubC_32fc_C3R (const Npp32fc ∗ *pSrc1*, int *nSrc1Step*, const Npp32fc *aConstants*[3], Npp32fc ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*)

Three 32-bit complex floating point (32-bit floating point real, 32-bit floating point imaginary) channel image subtract constant.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

aConstants fixed size array of constant values, one per channel.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.10.2.37 NppStatus nppiSubC_32fc_C4IR (const Npp32fc *aConstants*[4], Npp32fc ∗ *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*)

Four 32-bit complex floating point (32-bit floating point real, 32-bit floating point imaginary) channel in place image subtract constant.

Parameters:

aConstants fixed size array of constant values, one per channel.

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.10.2.38 NppStatus nppiSubC_32fc_C4R (const Npp32fc ∗ *pSrc1*, int *nSrc1Step*, const Npp32fc *aConstants*[4], Npp32fc ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*)

Four 32-bit complex floating point (32-bit floating point real, 32-bit floating point imaginary) channel image subtract constant.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

aConstants fixed size array of constant values, one per channel.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.10.2.39 NppStatus nppiSubC_32s_C1IRSfs (const Npp32s *nConstant*, Npp32s ∗ *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*, int *nScaleFactor*)

One 32-bit signed integer channel in place image subtract constant, scale, then clamp to saturated value.

Parameters:

nConstant Constant.

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oSizeROI Region-of-Interest (ROI).

nScaleFactor Integer Result Scaling.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.10.2.40 NppStatus nppiSubC_32s_C1RSfs (const Npp32s ∗ *pSrc1*, int *nSrc1Step*, const Npp32s *nConstant*, Npp32s ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, int *nScaleFactor*)

One 32-bit signed integer channel image subtract constant, scale, then clamp to saturated value.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

nConstant Constant.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

nScaleFactor Integer Result Scaling.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.10.2.41 NppStatus nppiSubC_32s_C3IRSfs (const Npp32s *aConstants*[3], Npp32s ∗ *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*, int *nScaleFactor*)

Three 32-bit signed integer channel in place image subtract constant, scale, then clamp to saturated value.

Parameters:

aConstants fixed size array of constant values, one per channel.

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oSizeROI Region-of-Interest (ROI).

nScaleFactor Integer Result Scaling.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.10.2.42 NppStatus nppiSubC_32s_C3RSfs (const Npp32s ∗ *pSrc1*, int *nSrc1Step*, const Npp32s *aConstants*[3], Npp32s ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, int *nScaleFactor*)

Three 32-bit signed integer channel image subtract constant, scale, then clamp to saturated value.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

aConstants fixed size array of constant values, one per channel.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

nScaleFactor Integer Result Scaling.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.10.2.43 NppStatus nppiSubC_32sc_AC4IRSfs (const Npp32sc *aConstants*[3], Npp32sc ∗ *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*, int *nScaleFactor*)

Four 32-bit signed complex integer (32-bit real, 32-bit imaginary) channel with unmodified alpha in place image subtract constant, scale, then clamp to saturated value.

Parameters:

aConstants fixed size array of constant values, one per channel.

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oSizeROI Region-of-Interest (ROI).

nScaleFactor Integer Result Scaling.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.10.2.44 NppStatus nppiSubC_32sc_AC4RSfs (const Npp32sc $*$ *pSrc1*, int *nSrc1Step*, const Npp32sc *aConstants*[3], Npp32sc $*$ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, int *nScaleFactor*)

Four 32-bit signed complex integer (32-bit real, 32-bit imaginary) channel with unmodified alpha image subtract constant, scale, then clamp to saturated value.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

aConstants fixed size array of constant values, one per channel.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

nScaleFactor Integer Result Scaling.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.10.2.45 NppStatus nppiSubC_32sc_C1IRSfs (const Npp32sc *nConstant*, Npp32sc $*$ *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*, int *nScaleFactor*)

One 32-bit signed complex integer (32-bit real, 32-bit imaginary) channel in place image subtract constant, scale, then clamp to saturated value.

Parameters:

nConstant Constant.

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oSizeROI Region-of-Interest (ROI).

nScaleFactor Integer Result Scaling.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.10.2.46 NppStatus nppiSubC_32sc_C1RSfs (const Npp32sc $*$ *pSrc1*, int *nSrc1Step*, const Npp32sc *nConstant*, Npp32sc $*$ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, int *nScaleFactor*)

One 32-bit signed complex integer (32-bit real, 32-bit imaginary) channel image subtract constant, scale, then clamp to saturated value.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

nConstant Constant.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

nScaleFactor Integer Result Scaling.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.10.2.47 NppStatus nppiSubC_32sc_C3IRSfs (const Npp32sc *aConstants*[3], Npp32sc ∗ *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*, int *nScaleFactor*)

Three 32-bit signed complex integer (32-bit real, 32-bit imaginary) channel in place image subtract constant, scale, then clamp to saturated value.

Parameters:

aConstants fixed size array of constant values, one per channel.

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oSizeROI Region-of-Interest (ROI).

nScaleFactor Integer Result Scaling.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.10.2.48 NppStatus nppiSubC_32sc_C3RSfs (const Npp32sc ∗ *pSrc1*, int *nSrc1Step*, const Npp32sc *aConstants*[3], Npp32sc ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, int *nScaleFactor*)

Three 32-bit signed complex integer (32-bit real, 32-bit imaginary) channel image subtract constant, scale, then clamp to saturated value.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

aConstants fixed size array of constant values, one per channel.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

nScaleFactor Integer Result Scaling.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.10.2.49 NppStatus nppiSubC_8u_AC4IRSfs (const Npp8u *aConstants*[3], Npp8u ∗ *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*, int *nScaleFactor*)

Four 8-bit unsigned char channel with unmodified alpha in place image subtract constant, scale, then clamp to saturated value.

Parameters:

aConstants fixed size array of constant values, one per channel.

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oSizeROI Region-of-Interest (ROI).

nScaleFactor Integer Result Scaling.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.10.2.50 NppStatus nppiSubC_8u_AC4RSfs (const Npp8u ∗ *pSrc1*, int *nSrc1Step*, const Npp8u *aConstants*[3], Npp8u ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, int *nScaleFactor*)

Four 8-bit unsigned char channel with unmodified alpha image subtract constant, scale, then clamp to saturated value.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

aConstants fixed size array of constant values, one per channel.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

nScaleFactor Integer Result Scaling.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.10.2.51 NppStatus nppiSubC_8u_C1IRSfs (const Npp8u *nConstant*, Npp8u ∗ *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*, int *nScaleFactor*)

One 8-bit unsigned char channel in place image subtract constant, scale, then clamp to saturated value.

Parameters:

nConstant Constant.

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oSizeROI Region-of-Interest (ROI).

nScaleFactor Integer Result Scaling.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.10.2.52 NppStatus nppiSubC_8u_C1RSfs (const Npp8u ∗ *pSrc1*, int *nSrc1Step*, const Npp8u *nConstant*, Npp8u ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, int *nScaleFactor*)

One 8-bit unsigned char channel image subtract constant, scale, then clamp to saturated value.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

nConstant Constant.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

nScaleFactor Integer Result Scaling.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.10.2.53 NppStatus nppiSubC_8u_C3IRSfs (const Npp8u *aConstants*[3], Npp8u ∗ *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*, int *nScaleFactor*)

Three 8-bit unsigned char channel 8-bit unsigned char in place image subtract constant, scale, then clamp to saturated value.

Parameters:

aConstants fixed size array of constant values, one per channel.

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oSizeROI Region-of-Interest (ROI).

nScaleFactor Integer Result Scaling.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.10.2.54 NppStatus nppiSubC_8u_C3RSfs (const Npp8u ∗ *pSrc1*, int *nSrc1Step*, const Npp8u *aConstants*[3], Npp8u ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, int *nScaleFactor*)

Three 8-bit unsigned char channel image subtract constant, scale, then clamp to saturated value.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

aConstants fixed size array of constant values, one per channel.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

nScaleFactor Integer Result Scaling.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.10.2.55 NppStatus nppiSubC_8u_C4IRSfs (const Npp8u *aConstants*[4], Npp8u ∗ *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*, int *nScaleFactor*)

Four 8-bit unsigned char channel in place image subtract constant, scale, then clamp to saturated value.

Parameters:

aConstants fixed size array of constant values, one per channel.

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oSizeROI Region-of-Interest (ROI).

nScaleFactor Integer Result Scaling.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.10.2.56 NppStatus nppiSubC_8u_C4RSfs (const Npp8u ∗ *pSrc1*, int *nSrc1Step*, const Npp8u *aConstants*[4], Npp8u ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, int *nScaleFactor*)

Four 8-bit unsigned char channel image subtract constant, scale, then clamp to saturated value.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

aConstants fixed size array of constant values, one per channel.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

nScaleFactor Integer Result Scaling.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.11 DivC

Divides each pixel of an image by a constant value.

Functions

- NppStatus nppiDivC_8u_C1RSfs (const Npp8u ∗pSrc1, int nSrc1Step, const Npp8u nConstant, Npp8u ∗pDst, int nDstStep, NppiSize oSizeROI, int nScaleFactor)

  One 8-bit unsigned char channel image divided by constant, scale, then clamp to saturated value.

- NppStatus nppiDivC_8u_C1IRSfs (const Npp8u nConstant, Npp8u ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI, int nScaleFactor)

  One 8-bit unsigned char channel in place image divided by constant, scale, then clamp to saturated value.

- NppStatus nppiDivC_8u_C3RSfs (const Npp8u ∗pSrc1, int nSrc1Step, const Npp8u aConstants[3], Npp8u ∗pDst, int nDstStep, NppiSize oSizeROI, int nScaleFactor)

  Three 8-bit unsigned char channel image divided by constant, scale, then clamp to saturated value.

- NppStatus nppiDivC_8u_C3IRSfs (const Npp8u aConstants[3], Npp8u ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI, int nScaleFactor)

  Three 8-bit unsigned char channel 8-bit unsigned char in place image divided by constant, scale, then clamp to saturated value.

- NppStatus nppiDivC_8u_AC4RSfs (const Npp8u ∗pSrc1, int nSrc1Step, const Npp8u aConstants[3], Npp8u ∗pDst, int nDstStep, NppiSize oSizeROI, int nScaleFactor)

  Four 8-bit unsigned char channel with unmodified alpha image divided by constant, scale, then clamp to saturated value.

- NppStatus nppiDivC_8u_AC4IRSfs (const Npp8u aConstants[3], Npp8u ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI, int nScaleFactor)

  Four 8-bit unsigned char channel with unmodified alpha in place image divided by constant, scale, then clamp to saturated value.

- NppStatus nppiDivC_8u_C4RSfs (const Npp8u ∗pSrc1, int nSrc1Step, const Npp8u aConstants[4], Npp8u ∗pDst, int nDstStep, NppiSize oSizeROI, int nScaleFactor)

  Four 8-bit unsigned char channel image divided by constant, scale, then clamp to saturated value.

- NppStatus nppiDivC_8u_C4IRSfs (const Npp8u aConstants[4], Npp8u ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI, int nScaleFactor)

  Four 8-bit unsigned char channel in place image divided by constant, scale, then clamp to saturated value.

- NppStatus nppiDivC_16u_C1RSfs (const Npp16u ∗pSrc1, int nSrc1Step, const Npp16u nConstant, Npp16u ∗pDst, int nDstStep, NppiSize oSizeROI, int nScaleFactor)

  One 16-bit unsigned short channel image divided by constant, scale, then clamp to saturated value.

- NppStatus nppiDivC_16u_C1IRSfs (const Npp16u nConstant, Npp16u ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI, int nScaleFactor)

  One 16-bit unsigned short channel in place image divided by constant, scale, then clamp to saturated value.

- NppStatus nppiDivC_16u_C3RSfs (const Npp16u ∗pSrc1, int nSrc1Step, const Npp16u aConstants[3], Npp16u ∗pDst, int nDstStep, NppiSize oSizeROI, int nScaleFactor)

Three 16-bit unsigned short channel image divided by constant, scale, then clamp to saturated value.

- NppStatus nppiDivC_16u_C3IRSfs (const Npp16u aConstants[3], Npp16u ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI, int nScaleFactor)

  Three 16-bit unsigned short channel in place image divided by constant, scale, then clamp to saturated value.

- NppStatus nppiDivC_16u_AC4RSfs (const Npp16u ∗pSrc1, int nSrc1Step, const Npp16u aConstants[3], Npp16u ∗pDst, int nDstStep, NppiSize oSizeROI, int nScaleFactor)

  Four 16-bit unsigned short channel with unmodified alpha image divided by constant, scale, then clamp to saturated value.

- NppStatus nppiDivC_16u_AC4IRSfs (const Npp16u aConstants[3], Npp16u ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI, int nScaleFactor)

  Four 16-bit unsigned short channel with unmodified alpha in place image divided by constant, scale, then clamp to saturated value.

- NppStatus nppiDivC_16u_C4RSfs (const Npp16u ∗pSrc1, int nSrc1Step, const Npp16u aConstants[4], Npp16u ∗pDst, int nDstStep, NppiSize oSizeROI, int nScaleFactor)

  Four 16-bit unsigned short channel image divided by constant, scale, then clamp to saturated value.

- NppStatus nppiDivC_16u_C4IRSfs (const Npp16u aConstants[4], Npp16u ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI, int nScaleFactor)

  Four 16-bit unsigned short channel in place image divided by constant, scale, then clamp to saturated value.

- NppStatus nppiDivC_16s_C1RSfs (const Npp16s ∗pSrc1, int nSrc1Step, const Npp16s nConstant, Npp16s ∗pDst, int nDstStep, NppiSize oSizeROI, int nScaleFactor)

  One 16-bit signed short channel image divided by constant, scale, then clamp to saturated value.

- NppStatus nppiDivC_16s_C1IRSfs (const Npp16s nConstant, Npp16s ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI, int nScaleFactor)

  One 16-bit signed short channel in place image divided by constant, scale, then clamp to saturated value.

- NppStatus nppiDivC_16s_C3RSfs (const Npp16s ∗pSrc1, int nSrc1Step, const Npp16s aConstants[3], Npp16s ∗pDst, int nDstStep, NppiSize oSizeROI, int nScaleFactor)

  Three 16-bit signed short channel image divided by constant, scale, then clamp to saturated value.

- NppStatus nppiDivC_16s_C3IRSfs (const Npp16s aConstants[3], Npp16s ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI, int nScaleFactor)

  Three 16-bit signed short channel in place image divided by constant, scale, then clamp to saturated value.

- NppStatus nppiDivC_16s_AC4RSfs (const Npp16s ∗pSrc1, int nSrc1Step, const Npp16s aConstants[3], Npp16s ∗pDst, int nDstStep, NppiSize oSizeROI, int nScaleFactor)

  Four 16-bit signed short channel with unmodified alpha image divided by constant, scale, then clamp to saturated value.

- NppStatus nppiDivC_16s_AC4IRSfs (const Npp16s aConstants[3], Npp16s ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI, int nScaleFactor)

  Four 16-bit signed short channel with unmodified alpha in place image divided by constant, scale, then clamp to saturated value.

- NppStatus nppiDivC_16s_C4RSfs (const Npp16s ∗pSrc1, int nSrc1Step, const Npp16s aConstants[4], Npp16s ∗pDst, int nDstStep, NppiSize oSizeROI, int nScaleFactor)

  Four 16-bit signed short channel image divided by constant, scale, then clamp to saturated value.

- NppStatus nppiDivC_16s_C4IRSfs (const Npp16s aConstants[4], Npp16s ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI, int nScaleFactor)

  Four 16-bit signed short channel in place image divided by constant, scale, then clamp to saturated value.

- NppStatus nppiDivC_16sc_C1RSfs (const Npp16sc ∗pSrc1, int nSrc1Step, const Npp16sc nConstant, Npp16sc ∗pDst, int nDstStep, NppiSize oSizeROI, int nScaleFactor)

  One 16-bit signed short complex number (16-bit real, 16-bit imaginary) channel image divided by constant, scale, then clamp to saturated value.

- NppStatus nppiDivC_16sc_C1IRSfs (const Npp16sc nConstant, Npp16sc ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI, int nScaleFactor)

  One 16-bit signed short complex number (16-bit real, 16-bit imaginary) channel in place image divided by constant, scale, then clamp to saturated value.

- NppStatus nppiDivC_16sc_C3RSfs (const Npp16sc ∗pSrc1, int nSrc1Step, const Npp16sc aConstants[3], Npp16sc ∗pDst, int nDstStep, NppiSize oSizeROI, int nScaleFactor)

  Three 16-bit signed short complex number (16-bit real, 16-bit imaginary) channel image divided by constant, scale, then clamp to saturated value.

- NppStatus nppiDivC_16sc_C3IRSfs (const Npp16sc aConstants[3], Npp16sc ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI, int nScaleFactor)

  Three 16-bit signed short complex number (16-bit real, 16-bit imaginary) channel in place image divided by constant, scale, then clamp to saturated value.

- NppStatus nppiDivC_16sc_AC4RSfs (const Npp16sc ∗pSrc1, int nSrc1Step, const Npp16sc aConstants[3], Npp16sc ∗pDst, int nDstStep, NppiSize oSizeROI, int nScaleFactor)

  Four 16-bit signed short complex number (16-bit real, 16-bit imaginary) channel with unmodified alpha image divided by constant, scale, then clamp to saturated value.

- NppStatus nppiDivC_16sc_AC4IRSfs (const Npp16sc aConstants[3], Npp16sc ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI, int nScaleFactor)

  Four 16-bit signed short complex number (16-bit real, 16-bit imaginary) channel with unmodified alpha in place image divided by constant, scale, then clamp to saturated value.

- NppStatus nppiDivC_32s_C1RSfs (const Npp32s ∗pSrc1, int nSrc1Step, const Npp32s nConstant, Npp32s ∗pDst, int nDstStep, NppiSize oSizeROI, int nScaleFactor)

  One 32-bit signed integer channel image divided by constant, scale, then clamp to saturated value.

- NppStatus nppiDivC_32s_C1IRSfs (const Npp32s nConstant, Npp32s ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI, int nScaleFactor)

  One 32-bit signed integer channel in place image divided by constant, scale, then clamp to saturated value.

- NppStatus nppiDivC_32s_C3RSfs (const Npp32s ∗pSrc1, int nSrc1Step, const Npp32s aConstants[3], Npp32s ∗pDst, int nDstStep, NppiSize oSizeROI, int nScaleFactor)

  Three 32-bit signed integer channel image divided by constant, scale, then clamp to saturated value.

- NppStatus nppiDivC_32s_C3IRSfs (const Npp32s aConstants[3], Npp32s ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI, int nScaleFactor)

Three 32-bit signed integer channel in place image divided by constant, scale, then clamp to saturated value.

- NppStatus nppiDivC_32sc_C1RSfs (const Npp32sc ∗pSrc1, int nSrc1Step, const Npp32sc nConstant, Npp32sc ∗pDst, int nDstStep, NppiSize oSizeROI, int nScaleFactor)

  One 32-bit signed complex integer (32-bit real, 32-bit imaginary) channel image divided by constant, scale, then clamp to saturated value.

- NppStatus nppiDivC_32sc_C1IRSfs (const Npp32sc nConstant, Npp32sc ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI, int nScaleFactor)

  One 32-bit signed complex integer (32-bit real, 32-bit imaginary) channel in place image divided by constant, scale, then clamp to saturated value.

- NppStatus nppiDivC_32sc_C3RSfs (const Npp32sc ∗pSrc1, int nSrc1Step, const Npp32sc aConstants[3], Npp32sc ∗pDst, int nDstStep, NppiSize oSizeROI, int nScaleFactor)

  Three 32-bit signed complex integer (32-bit real, 32-bit imaginary) channel image divided by constant, scale, then clamp to saturated value.

- NppStatus nppiDivC_32sc_C3IRSfs (const Npp32sc aConstants[3], Npp32sc ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI, int nScaleFactor)

  Three 32-bit signed complex integer (32-bit real, 32-bit imaginary) channel in place image divided by constant, scale, then clamp to saturated value.

- NppStatus nppiDivC_32sc_AC4RSfs (const Npp32sc ∗pSrc1, int nSrc1Step, const Npp32sc aConstants[3], Npp32sc ∗pDst, int nDstStep, NppiSize oSizeROI, int nScaleFactor)

  Four 32-bit signed complex integer (32-bit real, 32-bit imaginary) channel with unmodified alpha image divided by constant, scale, then clamp to saturated value.

- NppStatus nppiDivC_32sc_AC4IRSfs (const Npp32sc aConstants[3], Npp32sc ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI, int nScaleFactor)

  Four 32-bit signed complex integer (32-bit real, 32-bit imaginary) channel with unmodified alpha in place image divided by constant, scale, then clamp to saturated value.

- NppStatus nppiDivC_32f_C1R (const Npp32f ∗pSrc1, int nSrc1Step, const Npp32f nConstant, Npp32f ∗pDst, int nDstStep, NppiSize oSizeROI)

  One 32-bit floating point channel image divided by constant.

- NppStatus nppiDivC_32f_C1IR (const Npp32f nConstant, Npp32f ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI)

  One 32-bit floating point channel in place image divided by constant.

- NppStatus nppiDivC_32f_C3R (const Npp32f ∗pSrc1, int nSrc1Step, const Npp32f aConstants[3], Npp32f ∗pDst, int nDstStep, NppiSize oSizeROI)

  Three 32-bit floating point channel image divided by constant.

- NppStatus nppiDivC_32f_C3IR (const Npp32f aConstants[3], Npp32f ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI)

  Three 32-bit floating point channel in place image divided by constant.

- NppStatus nppiDivC_32f_AC4R (const Npp32f ∗pSrc1, int nSrc1Step, const Npp32f aConstants[3], Npp32f ∗pDst, int nDstStep, NppiSize oSizeROI)

  Four 32-bit floating point channel with unmodified alpha image divided by constant.

- NppStatus nppiDivC_32f_AC4IR (const Npp32f aConstants[3], Npp32f ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI)

  Four 32-bit floating point channel with unmodified alpha in place image divided by constant.

- NppStatus nppiDivC_32f_C4R (const Npp32f ∗pSrc1, int nSrc1Step, const Npp32f aConstants[4], Npp32f ∗pDst, int nDstStep, NppiSize oSizeROI)

  Four 32-bit floating point channel image divided by constant.

- NppStatus nppiDivC_32f_C4IR (const Npp32f aConstants[4], Npp32f ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI)

  Four 32-bit floating point channel in place image divided by constant.

- NppStatus nppiDivC_32fc_C1R (const Npp32fc ∗pSrc1, int nSrc1Step, const Npp32fc nConstant, Npp32fc ∗pDst, int nDstStep, NppiSize oSizeROI)

  One 32-bit complex floating point (32-bit floating point real, 32-bit floating point imaginary) channel image divided by constant.

- NppStatus nppiDivC_32fc_C1IR (const Npp32fc nConstant, Npp32fc ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI)

  One 32-bit complex floating point (32-bit floating point real, 32-bit floating point imaginary) channel in place image divided by constant.

- NppStatus nppiDivC_32fc_C3R (const Npp32fc ∗pSrc1, int nSrc1Step, const Npp32fc aConstants[3], Npp32fc ∗pDst, int nDstStep, NppiSize oSizeROI)

  Three 32-bit complex floating point (32-bit floating point real, 32-bit floating point imaginary) channel image divided by constant.

- NppStatus nppiDivC_32fc_C3IR (const Npp32fc aConstants[3], Npp32fc ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI)

  Three 32-bit complex floating point (32-bit floating point real, 32-bit floating point imaginary) channel in place image divided by constant.

- NppStatus nppiDivC_32fc_AC4R (const Npp32fc ∗pSrc1, int nSrc1Step, const Npp32fc aConstants[3], Npp32fc ∗pDst, int nDstStep, NppiSize oSizeROI)

  Four 32-bit complex floating point (32-bit floating point real, 32-bit floating point imaginary) channel with unmodified alpha image divided by constant.

- NppStatus nppiDivC_32fc_AC4IR (const Npp32fc aConstants[3], Npp32fc ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI)

  Four 32-bit complex floating point (32-bit floating point real, 32-bit floating point imaginary) channel with unmodified alpha in place image divided by constant.

- NppStatus nppiDivC_32fc_C4R (const Npp32fc ∗pSrc1, int nSrc1Step, const Npp32fc aConstants[4], Npp32fc ∗pDst, int nDstStep, NppiSize oSizeROI)

  Four 32-bit complex floating point (32-bit floating point real, 32-bit floating point imaginary) channel image divided by constant.

- NppStatus nppiDivC_32fc_C4IR (const Npp32fc aConstants[4], Npp32fc ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI)

  Four 32-bit complex floating point (32-bit floating point real, 32-bit floating point imaginary) channel in place image divided by constant.

7.11.1 Detailed Description

Divides each pixel of an image by a constant value.

7.11.2 Function Documentation

7.11.2.1 NppStatus nppiDivC_16s_AC4IRSfs (const Npp16s *aConstants*[3], Npp16s ∗ *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*, int *nScaleFactor*)

Four 16-bit signed short channel with unmodified alpha in place image divided by constant, scale, then clamp to saturated value.

Parameters:

aConstants fixed size array of constant values, one per channel.

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oSizeROI Region-of-Interest (ROI).

nScaleFactor Integer Result Scaling.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.11.2.2 NppStatus nppiDivC_16s_AC4RSfs (const Npp16s ∗ *pSrc1*, int *nSrc1Step*, const Npp16s *aConstants*[3], Npp16s ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, int *nScaleFactor*)

Four 16-bit signed short channel with unmodified alpha image divided by constant, scale, then clamp to saturated value.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

aConstants fixed size array of constant values, one per channel.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

nScaleFactor Integer Result Scaling.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.11.2.3 NppStatus nppiDivC_16s_C1IRSfs (const Npp16s *nConstant*, Npp16s ∗ *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*, int *nScaleFactor*)

One 16-bit signed short channel in place image divided by constant, scale, then clamp to saturated value.

Parameters:

nConstant Constant.

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oSizeROI Region-of-Interest (ROI).

nScaleFactor Integer Result Scaling.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.11.2.4 NppStatus nppiDivC_16s_C1RSfs (const Npp16s ∗ *pSrc1*, int *nSrc1Step*, const Npp16s *nConstant*, Npp16s ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, int *nScaleFactor*)

One 16-bit signed short channel image divided by constant, scale, then clamp to saturated value.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

nConstant Constant.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

nScaleFactor Integer Result Scaling.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.11.2.5 NppStatus nppiDivC_16s_C3IRSfs (const Npp16s *aConstants*[3], Npp16s ∗ *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*, int *nScaleFactor*)

Three 16-bit signed short channel in place image divided by constant, scale, then clamp to saturated value.

Parameters:

aConstants fixed size array of constant values, one per channel.

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oSizeROI Region-of-Interest (ROI).

nScaleFactor Integer Result Scaling.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.11.2.6 NppStatus nppiDivC_16s_C3RSfs (const Npp16s * *pSrc1*, int *nSrc1Step*, const Npp16s *aConstants*[3], Npp16s * *pDst*, int *nDstStep*, NppiSize *oSizeROI*, int *nScaleFactor*)

Three 16-bit signed short channel image divided by constant, scale, then clamp to saturated value.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

aConstants fixed size array of constant values, one per channel.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

nScaleFactor Integer Result Scaling.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.11.2.7 NppStatus nppiDivC_16s_C4IRSfs (const Npp16s *aConstants*[4], Npp16s * *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*, int *nScaleFactor*)

Four 16-bit signed short channel in place image divided by constant, scale, then clamp to saturated value.

Parameters:

aConstants fixed size array of constant values, one per channel.

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oSizeROI Region-of-Interest (ROI).

nScaleFactor Integer Result Scaling.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.11.2.8 NppStatus nppiDivC_16s_C4RSfs (const Npp16s * *pSrc1*, int *nSrc1Step*, const Npp16s *aConstants*[4], Npp16s * *pDst*, int *nDstStep*, NppiSize *oSizeROI*, int *nScaleFactor*)

Four 16-bit signed short channel image divided by constant, scale, then clamp to saturated value.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

aConstants fixed size array of constant values, one per channel.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

nScaleFactor Integer Result Scaling.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.11.2.9 NppStatus nppiDivC_16sc_AC4IRSfs (const Npp16sc *aConstants*[3], Npp16sc ∗ *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*, int *nScaleFactor*)

Four 16-bit signed short complex number (16-bit real, 16-bit imaginary) channel with unmodified alpha in place image divided by constant, scale, then clamp to saturated value.

Parameters:

aConstants fixed size array of constant values, one per channel.

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oSizeROI Region-of-Interest (ROI).

nScaleFactor Integer Result Scaling.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.11.2.10 NppStatus nppiDivC_16sc_AC4RSfs (const Npp16sc ∗ *pSrc1*, int *nSrc1Step*, const Npp16sc *aConstants*[3], Npp16sc ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, int *nScaleFactor*)

Four 16-bit signed short complex number (16-bit real, 16-bit imaginary) channel with unmodified alpha image divided by constant, scale, then clamp to saturated value.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

aConstants fixed size array of constant values, one per channel.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

nScaleFactor Integer Result Scaling.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.11.2.11 NppStatus nppiDivC_16sc_C1IRSfs (const Npp16sc *nConstant*, Npp16sc ∗ *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*, int *nScaleFactor*)

One 16-bit signed short complex number (16-bit real, 16-bit imaginary) channel in place image divided by constant, scale, then clamp to saturated value.

Parameters:

nConstant Constant.

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oSizeROI Region-of-Interest (ROI).

nScaleFactor Integer Result Scaling.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.11.2.12 NppStatus nppiDivC_16sc_C1RSfs (const Npp16sc ∗ *pSrc1*, int *nSrc1Step*, const Npp16sc *nConstant*, Npp16sc ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, int *nScaleFactor*)

One 16-bit signed short complex number (16-bit real, 16-bit imaginary) channel image divided by constant, scale, then clamp to saturated value.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

nConstant Constant.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

nScaleFactor Integer Result Scaling.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.11.2.13 NppStatus nppiDivC_16sc_C3IRSfs (const Npp16sc *aConstants*[3], Npp16sc ∗ *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*, int *nScaleFactor*)

Three 16-bit signed short complex number (16-bit real, 16-bit imaginary) channel in place image divided by constant, scale, then clamp to saturated value.

Parameters:

aConstants fixed size array of constant values, one per channel.

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oSizeROI Region-of-Interest (ROI).

nScaleFactor Integer Result Scaling.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.11.2.14 NppStatus nppiDivC_16sc_C3RSfs (const Npp16sc ∗ *pSrc1*, int *nSrc1Step*, const Npp16sc *aConstants*[3], Npp16sc ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, int *nScaleFactor*)

Three 16-bit signed short complex number (16-bit real, 16-bit imaginary) channel image divided by constant, scale, then clamp to saturated value.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

aConstants fixed size array of constant values, one per channel.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

nScaleFactor Integer Result Scaling.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.11.2.15 NppStatus nppiDivC_16u_AC4IRSfs (const Npp16u *aConstants*[3], Npp16u ∗ *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*, int *nScaleFactor*)

Four 16-bit unsigned short channel with unmodified alpha in place image divided by constant, scale, then clamp to saturated value.

Parameters:

aConstants fixed size array of constant values, one per channel.

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oSizeROI Region-of-Interest (ROI).

nScaleFactor Integer Result Scaling.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.11.2.16 NppStatus nppiDivC_16u_AC4RSfs (const Npp16u ∗ *pSrc1*, int *nSrc1Step*, const Npp16u *aConstants*[3], Npp16u ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, int *nScaleFactor*)

Four 16-bit unsigned short channel with unmodified alpha image divided by constant, scale, then clamp to saturated value.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

aConstants fixed size array of constant values, one per channel.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

nScaleFactor Integer Result Scaling.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.11.2.17 NppStatus nppiDivC_16u_C1IRSfs (const Npp16u *nConstant*, Npp16u ∗ *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*, int *nScaleFactor*)

One 16-bit unsigned short channel in place image divided by constant, scale, then clamp to saturated value.

Parameters:

nConstant Constant.

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oSizeROI Region-of-Interest (ROI).

nScaleFactor Integer Result Scaling.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.11.2.18 NppStatus nppiDivC_16u_C1RSfs (const Npp16u ∗ *pSrc1*, int *nSrc1Step*, const Npp16u *nConstant*, Npp16u ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, int *nScaleFactor*)

One 16-bit unsigned short channel image divided by constant, scale, then clamp to saturated value.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

nConstant Constant.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

nScaleFactor Integer Result Scaling.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.11.2.19 NppStatus nppiDivC_16u_C3IRSfs (const Npp16u *aConstants*[3], Npp16u ∗ *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*, int *nScaleFactor*)

Three 16-bit unsigned short channel in place image divided by constant, scale, then clamp to saturated value.

Parameters:

aConstants fixed size array of constant values, one per channel.

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oSizeROI Region-of-Interest (ROI).

nScaleFactor Integer Result Scaling.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.11.2.20 NppStatus nppiDivC_16u_C3RSfs (const Npp16u ∗ *pSrc1*, int *nSrc1Step*, const Npp16u *aConstants*[3], Npp16u ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, int *nScaleFactor*)

Three 16-bit unsigned short channel image divided by constant, scale, then clamp to saturated value.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

aConstants fixed size array of constant values, one per channel.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

nScaleFactor Integer Result Scaling.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.11.2.21 NppStatus nppiDivC_16u_C4IRSfs (const Npp16u *aConstants*[4], Npp16u ∗ *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*, int *nScaleFactor*)

Four 16-bit unsigned short channel in place image divided by constant, scale, then clamp to saturated value.

Parameters:

aConstants fixed size array of constant values, one per channel.

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oSizeROI Region-of-Interest (ROI).

nScaleFactor Integer Result Scaling.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.11.2.22 NppStatus nppiDivC_16u_C4RSfs (const Npp16u ∗ *pSrc1*, int *nSrc1Step*, const Npp16u *aConstants*[4], Npp16u ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, int *nScaleFactor*)

Four 16-bit unsigned short channel image divided by constant, scale, then clamp to saturated value.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

aConstants fixed size array of constant values, one per channel.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

nScaleFactor Integer Result Scaling.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.11.2.23 NppStatus nppiDivC_32f_AC4IR (const Npp32f *aConstants*[3], Npp32f ∗ *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*)

Four 32-bit floating point channel with unmodified alpha in place image divided by constant.

Parameters:

aConstants fixed size array of constant values, one per channel.

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.11.2.24 NppStatus nppiDivC_32f_AC4R (const Npp32f ∗ *pSrc1*, int *nSrc1Step*, const Npp32f *aConstants*[3], Npp32f ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*)

Four 32-bit floating point channel with unmodified alpha image divided by constant.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

aConstants fixed size array of constant values, one per channel.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.11.2.25 NppStatus nppiDivC_32f_C1IR (const Npp32f *nConstant*, Npp32f ∗ *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*)

One 32-bit floating point channel in place image divided by constant.

Parameters:

nConstant Constant.

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.11.2.26 NppStatus nppiDivC_32f_C1R (const Npp32f ∗ *pSrc1*, int *nSrc1Step*, const Npp32f *nConstant*, Npp32f ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*)

One 32-bit floating point channel image divided by constant.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

nConstant Constant.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.11.2.27 NppStatus nppiDivC_32f_C3IR (const Npp32f *aConstants*[3], Npp32f ∗ *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*)

Three 32-bit floating point channel in place image divided by constant.

Parameters:

aConstants fixed size array of constant values, one per channel.

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.11.2.28 NppStatus nppiDivC_32f_C3R (const Npp32f ∗ *pSrc1*, int *nSrc1Step*, const Npp32f *aConstants*[3], Npp32f ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*)

Three 32-bit floating point channel image divided by constant.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

aConstants fixed size array of constant values, one per channel.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.11.2.29 NppStatus nppiDivC_32f_C4IR (const Npp32f *aConstants*[4], Npp32f ∗ *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*)

Four 32-bit floating point channel in place image divided by constant.

Parameters:

aConstants fixed size array of constant values, one per channel.

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.11.2.30 NppStatus nppiDivC_32f_C4R (const Npp32f ∗ *pSrc1*, int *nSrc1Step*, const Npp32f *aConstants*[4], Npp32f ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*)

Four 32-bit floating point channel image divided by constant.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

aConstants fixed size array of constant values, one per channel.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.11.2.31 NppStatus nppiDivC_32fc_AC4IR (const Npp32fc *aConstants*[3], Npp32fc ∗ *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*)

Four 32-bit complex floating point (32-bit floating point real, 32-bit floating point imaginary) channel with unmodified alpha in place image divided by constant.

Parameters:

aConstants fixed size array of constant values, one per channel.

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.11.2.32 NppStatus nppiDivC_32fc_AC4R (const Npp32fc ∗ *pSrc1*, int *nSrc1Step*, const Npp32fc *aConstants*[3], Npp32fc ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*)

Four 32-bit complex floating point (32-bit floating point real, 32-bit floating point imaginary) channel with unmodified alpha image divided by constant.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

aConstants fixed size array of constant values, one per channel.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.11.2.33 NppStatus nppiDivC_32fc_C1IR (const Npp32fc *nConstant*, Npp32fc ∗ *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*)

One 32-bit complex floating point (32-bit floating point real, 32-bit floating point imaginary) channel in place image divided by constant.

Parameters:

nConstant Constant.

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.11.2.34 NppStatus nppiDivC_32fc_C1R (const Npp32fc ∗ *pSrc1*, int *nSrc1Step*, const Npp32fc *nConstant*, Npp32fc ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*)

One 32-bit complex floating point (32-bit floating point real, 32-bit floating point imaginary) channel image divided by constant.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

nConstant Constant.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.11.2.35 NppStatus nppiDivC_32fc_C3IR (const Npp32fc *aConstants*[3], Npp32fc ∗ *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*)

Three 32-bit complex floating point (32-bit floating point real, 32-bit floating point imaginary) channel in place image divided by constant.

Parameters:

aConstants fixed size array of constant values, one per channel.

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.11.2.36 NppStatus nppiDivC_32fc_C3R (const Npp32fc ∗ *pSrc1*, int *nSrc1Step*, const Npp32fc *aConstants*[3], Npp32fc ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*)

Three 32-bit complex floating point (32-bit floating point real, 32-bit floating point imaginary) channel image divided by constant.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

aConstants fixed size array of constant values, one per channel.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.11.2.37 NppStatus nppiDivC_32fc_C4IR (const Npp32fc *aConstants*[4], Npp32fc ∗ *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*)

Four 32-bit complex floating point (32-bit floating point real, 32-bit floating point imaginary) channel in place image divided by constant.

Parameters:

aConstants fixed size array of constant values, one per channel.

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.11.2.38 NppStatus nppiDivC_32fc_C4R (const Npp32fc ∗ *pSrc1*, int *nSrc1Step*, const Npp32fc *aConstants*[4], Npp32fc ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*)

Four 32-bit complex floating point (32-bit floating point real, 32-bit floating point imaginary) channel image divided by constant.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

aConstants fixed size array of constant values, one per channel.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.11.2.39 NppStatus nppiDivC_32s_C1IRSfs (const Npp32s *nConstant*, Npp32s ∗ *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*, int *nScaleFactor*)

One 32-bit signed integer channel in place image divided by constant, scale, then clamp to saturated value.

Parameters:

nConstant Constant.

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oSizeROI Region-of-Interest (ROI).

nScaleFactor Integer Result Scaling.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.11.2.40 NppStatus nppiDivC_32s_C1RSfs (const Npp32s ∗ *pSrc1*, int *nSrc1Step*, const Npp32s *nConstant*, Npp32s ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, int *nScaleFactor*)

One 32-bit signed integer channel image divided by constant, scale, then clamp to saturated value.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

nConstant Constant.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

nScaleFactor Integer Result Scaling.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.11.2.41 NppStatus nppiDivC_32s_C3IRSfs (const Npp32s *aConstants*[3], Npp32s ∗ *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*, int *nScaleFactor*)

Three 32-bit signed integer channel in place image divided by constant, scale, then clamp to saturated value.

Parameters:

aConstants fixed size array of constant values, one per channel.

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oSizeROI Region-of-Interest (ROI).

nScaleFactor Integer Result Scaling.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.11.2.42 NppStatus nppiDivC_32s_C3RSfs (const Npp32s ∗ *pSrc1*, int *nSrc1Step*, const Npp32s *aConstants*[3], Npp32s ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, int *nScaleFactor*)

Three 32-bit signed integer channel image divided by constant, scale, then clamp to saturated value.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

aConstants fixed size array of constant values, one per channel.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

nScaleFactor Integer Result Scaling.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.11.2.43 NppStatus nppiDivC_32sc_AC4IRSfs (const Npp32sc *aConstants*[3], Npp32sc ∗ *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*, int *nScaleFactor*)

Four 32-bit signed complex integer (32-bit real, 32-bit imaginary) channel with unmodified alpha in place image divided by constant, scale, then clamp to saturated value.

Parameters:

aConstants fixed size array of constant values, one per channel.

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oSizeROI Region-of-Interest (ROI).

nScaleFactor Integer Result Scaling.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.11.2.44 NppStatus nppiDivC_32sc_AC4RSfs (const Npp32sc ∗ *pSrc1*, int *nSrc1Step*, const Npp32sc *aConstants*[3], Npp32sc ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, int *nScaleFactor*)

Four 32-bit signed complex integer (32-bit real, 32-bit imaginary) channel with unmodified alpha image divided by constant, scale, then clamp to saturated value.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

aConstants fixed size array of constant values, one per channel.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

nScaleFactor Integer Result Scaling.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.11.2.45 NppStatus nppiDivC_32sc_C1IRSfs (const Npp32sc *nConstant*, Npp32sc ∗ *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*, int *nScaleFactor*)

One 32-bit signed complex integer (32-bit real, 32-bit imaginary) channel in place image divided by constant, scale, then clamp to saturated value.

Parameters:

nConstant Constant.

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oSizeROI Region-of-Interest (ROI).

nScaleFactor Integer Result Scaling.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.11.2.46 NppStatus nppiDivC_32sc_C1RSfs (const Npp32sc ∗ *pSrc1*, int *nSrc1Step*, const Npp32sc *nConstant*, Npp32sc ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, int *nScaleFactor*)

One 32-bit signed complex integer (32-bit real, 32-bit imaginary) channel image divided by constant, scale, then clamp to saturated value.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

nConstant Constant.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

nScaleFactor Integer Result Scaling.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.11.2.47 NppStatus nppiDivC_32sc_C3IRSfs (const Npp32sc *aConstants*[3], Npp32sc $*$ *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*, int *nScaleFactor*)

Three 32-bit signed complex integer (32-bit real, 32-bit imaginary) channel in place image divided by constant, scale, then clamp to saturated value.

Parameters:

aConstants fixed size array of constant values, one per channel.

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oSizeROI Region-of-Interest (ROI).

nScaleFactor Integer Result Scaling.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.11.2.48 NppStatus nppiDivC_32sc_C3RSfs (const Npp32sc $*$ *pSrc1*, int *nSrc1Step*, const Npp32sc *aConstants*[3], Npp32sc $*$ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, int *nScaleFactor*)

Three 32-bit signed complex integer (32-bit real, 32-bit imaginary) channel image divided by constant, scale, then clamp to saturated value.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

aConstants fixed size array of constant values, one per channel.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

nScaleFactor Integer Result Scaling.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.11.2.49 NppStatus nppiDivC_8u_AC4IRSfs (const Npp8u *aConstants*[3], Npp8u ∗ *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*, int *nScaleFactor*)

Four 8-bit unsigned char channel with unmodified alpha in place image divided by constant, scale, then clamp to saturated value.

Parameters:

aConstants fixed size array of constant values, one per channel.

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oSizeROI Region-of-Interest (ROI).

nScaleFactor Integer Result Scaling.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.11.2.50 NppStatus nppiDivC_8u_AC4RSfs (const Npp8u ∗ *pSrc1*, int *nSrc1Step*, const Npp8u *aConstants*[3], Npp8u ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, int *nScaleFactor*)

Four 8-bit unsigned char channel with unmodified alpha image divided by constant, scale, then clamp to saturated value.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

aConstants fixed size array of constant values, one per channel.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

nScaleFactor Integer Result Scaling.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.11.2.51 NppStatus nppiDivC_8u_C1IRSfs (const Npp8u *nConstant*, Npp8u ∗ *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*, int *nScaleFactor*)

One 8-bit unsigned char channel in place image divided by constant, scale, then clamp to saturated value.

Parameters:

nConstant Constant.

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oSizeROI Region-of-Interest (ROI).

nScaleFactor Integer Result Scaling.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.11.2.52 NppStatus nppiDivC_8u_C1RSfs (const Npp8u ∗ *pSrc1*, int *nSrc1Step*, const Npp8u *nConstant*, Npp8u ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, int *nScaleFactor*)

One 8-bit unsigned char channel image divided by constant, scale, then clamp to saturated value.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

nConstant Constant.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

nScaleFactor Integer Result Scaling.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.11.2.53 NppStatus nppiDivC_8u_C3IRSfs (const Npp8u *aConstants*[3], Npp8u ∗ *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*, int *nScaleFactor*)

Three 8-bit unsigned char channel 8-bit unsigned char in place image divided by constant, scale, then clamp to saturated value.

Parameters:

aConstants fixed size array of constant values, one per channel.

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oSizeROI Region-of-Interest (ROI).

nScaleFactor Integer Result Scaling.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.11.2.54 NppStatus nppiDivC_8u_C3RSfs (const Npp8u ∗ *pSrc1*, int *nSrc1Step*, const Npp8u *aConstants*[3], Npp8u ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, int *nScaleFactor*)

Three 8-bit unsigned char channel image divided by constant, scale, then clamp to saturated value.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

aConstants fixed size array of constant values, one per channel.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

nScaleFactor Integer Result Scaling.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.11.2.55 NppStatus nppiDivC_8u_C4IRSfs (const Npp8u *aConstants*[4], Npp8u $*$ *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*, int *nScaleFactor*)

Four 8-bit unsigned char channel in place image divided by constant, scale, then clamp to saturated value.

Parameters:

aConstants fixed size array of constant values, one per channel.

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oSizeROI Region-of-Interest (ROI).

nScaleFactor Integer Result Scaling.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.11.2.56 NppStatus nppiDivC_8u_C4RSfs (const Npp8u $*$ *pSrc1*, int *nSrc1Step*, const Npp8u *aConstants*[4], Npp8u $*$ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, int *nScaleFactor*)

Four 8-bit unsigned char channel image divided by constant, scale, then clamp to saturated value.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

aConstants fixed size array of constant values, one per channel.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

nScaleFactor Integer Result Scaling.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.12 AbsDiffC

Determines absolute difference between each pixel of an image and a constant value.

Functions

- NppStatus nppiAbsDiffC_8u_C1R (const Npp8u ∗pSrc1, int nSrc1Step, Npp8u ∗pDst, int nDstStep, NppiSize oSizeROI, Npp8u nConstant)

  One 8-bit unsigned char channel image absolute difference with constant.

- NppStatus nppiAbsDiffC_16u_C1R (const Npp16u ∗pSrc1, int nSrc1Step, Npp16u ∗pDst, int nDstStep, NppiSize oSizeROI, Npp16u nConstant)

  One 16-bit unsigned short channel image absolute difference with constant.

- NppStatus nppiAbsDiffC_32f_C1R (const Npp32f ∗pSrc1, int nSrc1Step, Npp32f ∗pDst, int nDstStep, NppiSize oSizeROI, Npp32f nConstant)

  One 32-bit floating point channel image absolute difference with constant.

7.12.1 Detailed Description

Determines absolute difference between each pixel of an image and a constant value.

7.12.2 Function Documentation

7.12.2.1 NppStatus nppiAbsDiffC_16u_C1R (const Npp16u ∗ *pSrc1*, int *nSrc1Step*, Npp16u ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, Npp16u *nConstant*)

One 16-bit unsigned short channel image absolute difference with constant.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

nConstant Constant.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.12.2.2 NppStatus nppiAbsDiffC_32f_C1R (const Npp32f ∗ *pSrc1*, int *nSrc1Step*, Npp32f ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, Npp32f *nConstant*)

One 32-bit floating point channel image absolute difference with constant.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

nConstant Constant.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.12.2.3 NppStatus nppiAbsDiffC_8u_C1R (const Npp8u ∗ *pSrc1*, int *nSrc1Step*, Npp8u ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, Npp8u *nConstant*)

One 8-bit unsigned char channel image absolute difference with constant.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

nConstant Constant.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.13 Add

Pixel by pixel addition of two images.

Functions

- NppStatus nppiAdd_8u_C1RSfs (const Npp8u ∗pSrc1, int nSrc1Step, const Npp8u ∗pSrc2, int nSrc2Step, Npp8u ∗pDst, int nDstStep, NppiSize oSizeROI, int nScaleFactor)

  One 8-bit unsigned char channel image addition, scale by 2^(-nScaleFactor), then clamp to saturated value.

- NppStatus nppiAdd_8u_C1IRSfs (const Npp8u ∗pSrc, int nSrcStep, Npp8u ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI, int nScaleFactor)

  One 8-bit unsigned char channel in place image addition, scale by 2^(-nScaleFactor), then clamp to saturated value.

- NppStatus nppiAdd_8u_C3RSfs (const Npp8u ∗pSrc1, int nSrc1Step, const Npp8u ∗pSrc2, int nSrc2Step, Npp8u ∗pDst, int nDstStep, NppiSize oSizeROI, int nScaleFactor)

  Three 8-bit unsigned char channel image addition, scale by 2^(-nScaleFactor), then clamp to saturated value.

- NppStatus nppiAdd_8u_C3IRSfs (const Npp8u ∗pSrc, int nSrcStep, Npp8u ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI, int nScaleFactor)

  One 8-bit unsigned char channel in place image addition, scale by 2^(-nScaleFactor), then clamp to saturated value.

- NppStatus nppiAdd_8u_AC4RSfs (const Npp8u ∗pSrc1, int nSrc1Step, const Npp8u ∗pSrc2, int nSrc2Step, Npp8u ∗pDst, int nDstStep, NppiSize oSizeROI, int nScaleFactor)

  Four 8-bit unsigned char channel with unmodified alpha image addition, scale by 2^(-nScaleFactor), then clamp to saturated value.

- NppStatus nppiAdd_8u_AC4IRSfs (const Npp8u ∗pSrc, int nSrcStep, Npp8u ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI, int nScaleFactor)

  Four 8-bit unsigned char channel with unmodified alpha in place image addition, scale by 2^(-nScaleFactor), then clamp to saturated value.

- NppStatus nppiAdd_8u_C4RSfs (const Npp8u ∗pSrc1, int nSrc1Step, const Npp8u ∗pSrc2, int nSrc2Step, Npp8u ∗pDst, int nDstStep, NppiSize oSizeROI, int nScaleFactor)

  Four 8-bit unsigned char channel image addition, scale by 2^(-nScaleFactor), then clamp to saturated value.

- NppStatus nppiAdd_8u_C4IRSfs (const Npp8u ∗pSrc, int nSrcStep, Npp8u ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI, int nScaleFactor)

  Four 8-bit unsigned char channel in place image addition, scale by 2^(-nScaleFactor), then clamp to saturated value.

- NppStatus nppiAdd_16u_C1RSfs (const Npp16u ∗pSrc1, int nSrc1Step, const Npp16u ∗pSrc2, int nSrc2Step, Npp16u ∗pDst, int nDstStep, NppiSize oSizeROI, int nScaleFactor)

  One 16-bit unsigned short channel image addition, scale by 2^(-nScaleFactor), then clamp to saturated value.

- NppStatus nppiAdd_16u_C1IRSfs (const Npp16u ∗pSrc, int nSrcStep, Npp16u ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI, int nScaleFactor)

  One 16-bit unsigned short channel in place image addition, scale by 2^(-nScaleFactor), then clamp to saturated value.

- NppStatus nppiAdd_16u_C3RSfs (const Npp16u ∗pSrc1, int nSrc1Step, const Npp16u ∗pSrc2, int nSrc2Step, Npp16u ∗pDst, int nDstStep, NppiSize oSizeROI, int nScaleFactor)

  Three 16-bit unsigned short channel image addition, scale by 2^(-nScaleFactor), then clamp to saturated value.

- NppStatus nppiAdd_16u_C3IRSfs (const Npp16u ∗pSrc, int nSrcStep, Npp16u ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI, int nScaleFactor)

  One 16-bit unsigned short channel in place image addition, scale by 2^(-nScaleFactor), then clamp to saturated value.

- NppStatus nppiAdd_16u_AC4RSfs (const Npp16u ∗pSrc1, int nSrc1Step, const Npp16u ∗pSrc2, int nSrc2Step, Npp16u ∗pDst, int nDstStep, NppiSize oSizeROI, int nScaleFactor)

  Four 16-bit unsigned short channel with unmodified alpha image addition, scale by 2^(-nScaleFactor), then clamp to saturated value.

- NppStatus nppiAdd_16u_AC4IRSfs (const Npp16u ∗pSrc, int nSrcStep, Npp16u ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI, int nScaleFactor)

  Four 16-bit unsigned short channel with unmodified alpha in place image addition, scale by 2^(-nScaleFactor), then clamp to saturated value.

- NppStatus nppiAdd_16u_C4RSfs (const Npp16u ∗pSrc1, int nSrc1Step, const Npp16u ∗pSrc2, int nSrc2Step, Npp16u ∗pDst, int nDstStep, NppiSize oSizeROI, int nScaleFactor)

  Four 16-bit unsigned short channel image addition, scale by 2^(-nScaleFactor), then clamp to saturated value.

- NppStatus nppiAdd_16u_C4IRSfs (const Npp16u ∗pSrc, int nSrcStep, Npp16u ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI, int nScaleFactor)

  Four 16-bit unsigned short channel in place image addition, scale by 2^(-nScaleFactor), then clamp to saturated value.

- NppStatus nppiAdd_16s_C1RSfs (const Npp16s ∗pSrc1, int nSrc1Step, const Npp16s ∗pSrc2, int nSrc2Step, Npp16s ∗pDst, int nDstStep, NppiSize oSizeROI, int nScaleFactor)

  One 16-bit signed short channel image addition, scale by 2^(-nScaleFactor), then clamp to saturated value.

- NppStatus nppiAdd_16s_C1IRSfs (const Npp16s ∗pSrc, int nSrcStep, Npp16s ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI, int nScaleFactor)

  One 16-bit signed short channel in place image addition, scale by 2^(-nScaleFactor), then clamp to saturated value.

- NppStatus nppiAdd_16s_C3RSfs (const Npp16s ∗pSrc1, int nSrc1Step, const Npp16s ∗pSrc2, int nSrc2Step, Npp16s ∗pDst, int nDstStep, NppiSize oSizeROI, int nScaleFactor)

  Three 16-bit signed short channel image addition, scale by 2^(-nScaleFactor), then clamp to saturated value.

- NppStatus nppiAdd_16s_C3IRSfs (const Npp16s ∗pSrc, int nSrcStep, Npp16s ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI, int nScaleFactor)

One 16-bit signed short channel in place image addition, scale by 2^(-nScaleFactor), then clamp to saturated value.

- NppStatus nppiAdd_16s_AC4RSfs (const Npp16s ∗pSrc1, int nSrc1Step, const Npp16s ∗pSrc2, int nSrc2Step, Npp16s ∗pDst, int nDstStep, NppiSize oSizeROI, int nScaleFactor)

  Four 16-bit signed short channel with unmodified alpha image addition, scale by 2^(-nScaleFactor), then clamp to saturated value.

- NppStatus nppiAdd_16s_AC4IRSfs (const Npp16s ∗pSrc, int nSrcStep, Npp16s ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI, int nScaleFactor)

  Four 16-bit signed short channel with unmodified alpha in place image addition, scale by 2^(-nScaleFactor), then clamp to saturated value.

- NppStatus nppiAdd_16s_C4RSfs (const Npp16s ∗pSrc1, int nSrc1Step, const Npp16s ∗pSrc2, int nSrc2Step, Npp16s ∗pDst, int nDstStep, NppiSize oSizeROI, int nScaleFactor)

  Four 16-bit signed short channel image addition, scale by 2^(-nScaleFactor), then clamp to saturated value.

- NppStatus nppiAdd_16s_C4IRSfs (const Npp16s ∗pSrc, int nSrcStep, Npp16s ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI, int nScaleFactor)

  Four 16-bit signed short channel in place image addition, scale by 2^(-nScaleFactor), then clamp to saturated value.

- NppStatus nppiAdd_16sc_C1RSfs (const Npp16sc ∗pSrc1, int nSrc1Step, const Npp16sc ∗pSrc2, int nSrc2Step, Npp16sc ∗pDst, int nDstStep, NppiSize oSizeROI, int nScaleFactor)

  One 16-bit signed short complex number (16-bit real, 16-bit imaginary) channel image addition, scale by 2^(-nScaleFactor), then clamp to saturated value.

- NppStatus nppiAdd_16sc_C1IRSfs (const Npp16sc ∗pSrc, int nSrcStep, Npp16sc ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI, int nScaleFactor)

  One 16-bit signed short complex number (16-bit real, 16-bit imaginary) channel in place image addition, scale by 2^(-nScaleFactor), then clamp to saturated value.

- NppStatus nppiAdd_16sc_C3RSfs (const Npp16sc ∗pSrc1, int nSrc1Step, const Npp16sc ∗pSrc2, int nSrc2Step, Npp16sc ∗pDst, int nDstStep, NppiSize oSizeROI, int nScaleFactor)

  Three 16-bit signed short complex number (16-bit real, 16-bit imaginary) channel image addition, scale by 2^(-nScaleFactor), then clamp to saturated value.

- NppStatus nppiAdd_16sc_C3IRSfs (const Npp16sc ∗pSrc, int nSrcStep, Npp16sc ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI, int nScaleFactor)

  One 16-bit signed short complex number (16-bit real, 16-bit imaginary) channel in place image addition, scale by 2^(-nScaleFactor), then clamp to saturated value.

- NppStatus nppiAdd_16sc_AC4RSfs (const Npp16sc ∗pSrc1, int nSrc1Step, const Npp16sc ∗pSrc2, int nSrc2Step, Npp16sc ∗pDst, int nDstStep, NppiSize oSizeROI, int nScaleFactor)

  Four 16-bit signed short complex number (16-bit real, 16-bit imaginary) channel with unmodified alpha image addition, scale by 2^(-nScaleFactor), then clamp to saturated value.

- NppStatus nppiAdd_16sc_AC4IRSfs (const Npp16sc ∗pSrc, int nSrcStep, Npp16sc ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI, int nScaleFactor)

  Four 16-bit signed short complex number (16-bit real, 16-bit imaginary) channel with unmodified alpha in place image addition, scale by 2^(-nScaleFactor), then clamp to saturated value.

- NppStatus nppiAdd_32s_C1RSfs (const Npp32s ∗pSrc1, int nSrc1Step, const Npp32s ∗pSrc2, int nSrc2Step, Npp32s ∗pDst, int nDstStep, NppiSize oSizeROI, int nScaleFactor)

  One 32-bit signed integer channel image addition, scale by 2^(-nScaleFactor), then clamp to saturated value.

- NppStatus nppiAdd_32s_C1R (const Npp32s ∗pSrc1, int nSrc1Step, const Npp32s ∗pSrc2, int nSrc2Step, Npp32s ∗pDst, int nDstStep, NppiSize oSizeROI)

  Note: This function is to be deprecated in future NPP releases, use the function above with a scale factor of 0 instead.

- NppStatus nppiAdd_32s_C1IRSfs (const Npp32s ∗pSrc, int nSrcStep, Npp32s ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI, int nScaleFactor)

  One 32-bit signed integer channel in place image addition, scale by 2^(-nScaleFactor), then clamp to saturated value.

- NppStatus nppiAdd_32s_C3RSfs (const Npp32s ∗pSrc1, int nSrc1Step, const Npp32s ∗pSrc2, int nSrc2Step, Npp32s ∗pDst, int nDstStep, NppiSize oSizeROI, int nScaleFactor)

  Three 32-bit signed integer channel image addition, scale by 2^(-nScaleFactor), then clamp to saturated value.

- NppStatus nppiAdd_32s_C3IRSfs (const Npp32s ∗pSrc, int nSrcStep, Npp32s ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI, int nScaleFactor)

  One 32-bit signed integer channel in place image addition, scale by 2^(-nScaleFactor), then clamp to saturated value.

- NppStatus nppiAdd_32sc_C1RSfs (const Npp32sc ∗pSrc1, int nSrc1Step, const Npp32sc ∗pSrc2, int nSrc2Step, Npp32sc ∗pDst, int nDstStep, NppiSize oSizeROI, int nScaleFactor)

  One 32-bit signed integer complex number (32-bit real, 32-bit imaginary) channel image addition, scale by 2^(-nScaleFactor), then clamp to saturated value.

- NppStatus nppiAdd_32sc_C1IRSfs (const Npp32sc ∗pSrc, int nSrcStep, Npp32sc ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI, int nScaleFactor)

  One 32-bit signed integer complex number (32-bit real, 32-bit imaginary) channel in place image addition, scale by 2^(-nScaleFactor), then clamp to saturated value.

- NppStatus nppiAdd_32sc_C3RSfs (const Npp32sc ∗pSrc1, int nSrc1Step, const Npp32sc ∗pSrc2, int nSrc2Step, Npp32sc ∗pDst, int nDstStep, NppiSize oSizeROI, int nScaleFactor)

  Three 32-bit signed integer complex number (32-bit real, 32-bit imaginary) channel image addition, scale by 2^(-nScaleFactor), then clamp to saturated value.

- NppStatus nppiAdd_32sc_C3IRSfs (const Npp32sc ∗pSrc, int nSrcStep, Npp32sc ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI, int nScaleFactor)

  One 32-bit signed integer complex number (32-bit real, 32-bit imaginary) channel in place image addition, scale by 2^(-nScaleFactor), then clamp to saturated value.

- NppStatus nppiAdd_32sc_AC4RSfs (const Npp32sc ∗pSrc1, int nSrc1Step, const Npp32sc ∗pSrc2, int nSrc2Step, Npp32sc ∗pDst, int nDstStep, NppiSize oSizeROI, int nScaleFactor)

  Four 32-bit signed integer complex number (32-bit real, 32-bit imaginary) channel with unmodified alpha image addition, scale by 2^(-nScaleFactor), then clamp to saturated value.

- NppStatus nppiAdd_32sc_AC4IRSfs (const Npp32sc ∗pSrc, int nSrcStep, Npp32sc ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI, int nScaleFactor)

Four 32-bit signed integer complex number (32-bit real, 32-bit imaginary) channel with unmodified alpha in place image addition, scale by 2^(-nScaleFactor), then clamp to saturated value.

- NppStatus nppiAdd_32f_C1R (const Npp32f ∗pSrc1, int nSrc1Step, const Npp32f ∗pSrc2, int nSrc2Step, Npp32f ∗pDst, int nDstStep, NppiSize oSizeROI)

  One 32-bit floating point channel image addition.

- NppStatus nppiAdd_32f_C1IR (const Npp32f ∗pSrc, int nSrcStep, Npp32f ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI)

  One 32-bit floating point channel in place image addition.

- NppStatus nppiAdd_32f_C3R (const Npp32f ∗pSrc1, int nSrc1Step, const Npp32f ∗pSrc2, int nSrc2Step, Npp32f ∗pDst, int nDstStep, NppiSize oSizeROI)

  Three 32-bit floating point channel image addition.

- NppStatus nppiAdd_32f_C3IR (const Npp32f ∗pSrc, int nSrcStep, Npp32f ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI)

  One 32-bit floating point channel in place image addition.

- NppStatus nppiAdd_32f_AC4R (const Npp32f ∗pSrc1, int nSrc1Step, const Npp32f ∗pSrc2, int nSrc2Step, Npp32f ∗pDst, int nDstStep, NppiSize oSizeROI)

  Four 32-bit floating point channel with unmodified alpha image addition.

- NppStatus nppiAdd_32f_AC4IR (const Npp32f ∗pSrc, int nSrcStep, Npp32f ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI)

  Four 32-bit floating point channel with unmodified alpha in place image addition.

- NppStatus nppiAdd_32f_C4R (const Npp32f ∗pSrc1, int nSrc1Step, const Npp32f ∗pSrc2, int nSrc2Step, Npp32f ∗pDst, int nDstStep, NppiSize oSizeROI)

  Four 32-bit floating point channel image addition.

- NppStatus nppiAdd_32f_C4IR (const Npp32f ∗pSrc, int nSrcStep, Npp32f ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI)

  Four 32-bit floating point channel in place image addition.

- NppStatus nppiAdd_32fc_C1R (const Npp32fc ∗pSrc1, int nSrc1Step, const Npp32fc ∗pSrc2, int nSrc2Step, Npp32fc ∗pDst, int nDstStep, NppiSize oSizeROI)

  One 32-bit floating point complex number (32-bit real, 32-bit imaginary) channel image addition.

- NppStatus nppiAdd_32fc_C1IR (const Npp32fc ∗pSrc, int nSrcStep, Npp32fc ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI)

  One 32-bit floating point complex number (32-bit real, 32-bit imaginary) channel in place image addition.

- NppStatus nppiAdd_32fc_C3R (const Npp32fc ∗pSrc1, int nSrc1Step, const Npp32fc ∗pSrc2, int nSrc2Step, Npp32fc ∗pDst, int nDstStep, NppiSize oSizeROI)

  Three 32-bit floating point complex number (32-bit real, 32-bit imaginary) channel image addition.

- NppStatus nppiAdd_32fc_C3IR (const Npp32fc ∗pSrc, int nSrcStep, Npp32fc ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI)

  One 32-bit floating point complex number (32-bit real, 32-bit imaginary) channel in place image addition.

- NppStatus nppiAdd_32fc_AC4R (const Npp32fc ∗pSrc1, int nSrc1Step, const Npp32fc ∗pSrc2, int nSrc2Step, Npp32fc ∗pDst, int nDstStep, NppiSize oSizeROI)

  Four 32-bit floating point complex number (32-bit real, 32-bit imaginary) channel with unmodified alpha image addition.

- NppStatus nppiAdd_32fc_AC4IR (const Npp32fc ∗pSrc, int nSrcStep, Npp32fc ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI)

  Four 32-bit floating point complex number (32-bit real, 32-bit imaginary) channel with unmodified alpha in place image addition.

- NppStatus nppiAdd_32fc_C4R (const Npp32fc ∗pSrc1, int nSrc1Step, const Npp32fc ∗pSrc2, int nSrc2Step, Npp32fc ∗pDst, int nDstStep, NppiSize oSizeROI)

  Four 32-bit floating point complex number (32-bit real, 32-bit imaginary) channel image addition.

- NppStatus nppiAdd_32fc_C4IR (const Npp32fc ∗pSrc, int nSrcStep, Npp32fc ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI)

  Four 32-bit floating point complex number (32-bit real, 32-bit imaginary) channel in place image addition.

7.13.1 Detailed Description

Pixel by pixel addition of two images.

7.13.2 Function Documentation

7.13.2.1 NppStatus nppiAdd_16s_AC4IRSfs (const Npp16s ∗ *pSrc*, int *nSrcStep*, Npp16s ∗ *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*, int *nScaleFactor*)

Four 16-bit signed short channel with unmodified alpha in place image addition, scale by 2^(-nScaleFactor), then clamp to saturated value.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oSizeROI Region-of-Interest (ROI).

nScaleFactor Integer Result Scaling.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.13.2.2 NppStatus nppiAdd_16s_AC4RSfs (const Npp16s ∗ *pSrc1*, int *nSrc1Step*, const Npp16s ∗ *pSrc2*, int *nSrc2Step*, Npp16s ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, int *nScaleFactor*)

Four 16-bit signed short channel with unmodified alpha image addition, scale by 2^(-nScaleFactor), then clamp to saturated value.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

nScaleFactor Integer Result Scaling.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.13.2.3 NppStatus nppiAdd_16s_C1IRSfs (const Npp16s ∗ *pSrc*, int *nSrcStep*, Npp16s ∗ *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*, int *nScaleFactor*)

One 16-bit signed short channel in place image addition, scale by 2^(-nScaleFactor), then clamp to saturated value.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oSizeROI Region-of-Interest (ROI).

nScaleFactor Integer Result Scaling.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.13.2.4 NppStatus nppiAdd_16s_C1RSfs (const Npp16s ∗ *pSrc1*, int *nSrc1Step*, const Npp16s ∗ *pSrc2*, int *nSrc2Step*, Npp16s ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, int *nScaleFactor*)

One 16-bit signed short channel image addition, scale by 2^(-nScaleFactor), then clamp to saturated value.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

nScaleFactor Integer Result Scaling.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.13.2.5 NppStatus nppiAdd_16s_C3IRSfs (const Npp16s ∗ *pSrc*, int *nSrcStep*, Npp16s ∗ *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*, int *nScaleFactor*)

One 16-bit signed short channel in place image addition, scale by 2^(-nScaleFactor), then clamp to saturated value.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oSizeROI Region-of-Interest (ROI).

nScaleFactor Integer Result Scaling.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.13.2.6 NppStatus nppiAdd_16s_C3RSfs (const Npp16s ∗ *pSrc1*, int *nSrc1Step*, const Npp16s ∗ *pSrc2*, int *nSrc2Step*, Npp16s ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, int *nScaleFactor*)

Three 16-bit signed short channel image addition, scale by 2^(-nScaleFactor), then clamp to saturated value.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

nScaleFactor Integer Result Scaling.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.13.2.7 NppStatus nppiAdd_16s_C4IRSfs (const Npp16s * *pSrc*, int *nSrcStep*, Npp16s * *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*, int *nScaleFactor*)

Four 16-bit signed short channel in place image addition, scale by 2^(-nScaleFactor), then clamp to saturated value.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oSizeROI Region-of-Interest (ROI).

nScaleFactor Integer Result Scaling.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.13.2.8 NppStatus nppiAdd_16s_C4RSfs (const Npp16s * *pSrc1*, int *nSrc1Step*, const Npp16s * *pSrc2*, int *nSrc2Step*, Npp16s * *pDst*, int *nDstStep*, NppiSize *oSizeROI*, int *nScaleFactor*)

Four 16-bit signed short channel image addition, scale by 2^(-nScaleFactor), then clamp to saturated value.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

nScaleFactor Integer Result Scaling.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.13.2.9 NppStatus nppiAdd_16sc_AC4IRSfs (const Npp16sc * *pSrc*, int *nSrcStep*, Npp16sc * *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*, int *nScaleFactor*)

Four 16-bit signed short complex number (16-bit real, 16-bit imaginary) channel with unmodified alpha in place image addition, scale by 2^(-nScaleFactor), then clamp to saturated value.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oSizeROI Region-of-Interest (ROI).

nScaleFactor Integer Result Scaling.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.13.2.10 NppStatus nppiAdd_16sc_AC4RSfs (const Npp16sc * *pSrc1*, int *nSrc1Step*, const Npp16sc * *pSrc2*, int *nSrc2Step*, Npp16sc * *pDst*, int *nDstStep*, NppiSize *oSizeROI*, int *nScaleFactor*)

Four 16-bit signed short complex number (16-bit real, 16-bit imaginary) channel with unmodified alpha image addition, scale by 2^(-nScaleFactor), then clamp to saturated value.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

nScaleFactor Integer Result Scaling.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.13.2.11 NppStatus nppiAdd_16sc_C1IRSfs (const Npp16sc * *pSrc*, int *nSrcStep*, Npp16sc * *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*, int *nScaleFactor*)

One 16-bit signed short complex number (16-bit real, 16-bit imaginary) channel in place image addition, scale by 2^(-nScaleFactor), then clamp to saturated value.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oSizeROI Region-of-Interest (ROI).

nScaleFactor Integer Result Scaling.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.13.2.12 NppStatus nppiAdd_16sc_C1RSfs (const Npp16sc ∗ *pSrc1*, int *nSrc1Step*, const Npp16sc ∗ *pSrc2*, int *nSrc2Step*, Npp16sc ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, int *nScaleFactor*)

One 16-bit signed short complex number (16-bit real, 16-bit imaginary) channel image addition, scale by 2^(-nScaleFactor), then clamp to saturated value.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

nScaleFactor Integer Result Scaling.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.13.2.13 NppStatus nppiAdd_16sc_C3IRSfs (const Npp16sc ∗ *pSrc*, int *nSrcStep*, Npp16sc ∗ *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*, int *nScaleFactor*)

One 16-bit signed short complex number (16-bit real, 16-bit imaginary) channel in place image addition, scale by 2^(-nScaleFactor), then clamp to saturated value.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oSizeROI Region-of-Interest (ROI).

nScaleFactor Integer Result Scaling.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.13.2.14 NppStatus nppiAdd_16sc_C3RSfs (const Npp16sc ∗ *pSrc1*, int *nSrc1Step*, const Npp16sc ∗ *pSrc2*, int *nSrc2Step*, Npp16sc ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, int *nScaleFactor*)

Three 16-bit signed short complex number (16-bit real, 16-bit imaginary) channel image addition, scale by 2^(-nScaleFactor), then clamp to saturated value.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

nScaleFactor Integer Result Scaling.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.13.2.15 NppStatus nppiAdd_16u_AC4IRSfs (const Npp16u ∗ *pSrc*, int *nSrcStep*, Npp16u ∗ *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*, int *nScaleFactor*)

Four 16-bit unsigned short channel with unmodified alpha in place image addition, scale by 2^(-nScaleFactor), then clamp to saturated value.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oSizeROI Region-of-Interest (ROI).

nScaleFactor Integer Result Scaling.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.13.2.16 NppStatus nppiAdd_16u_AC4RSfs (const Npp16u ∗ *pSrc1*, int *nSrc1Step*, const Npp16u ∗ *pSrc2*, int *nSrc2Step*, Npp16u ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, int *nScaleFactor*)

Four 16-bit unsigned short channel with unmodified alpha image addition, scale by 2^(-nScaleFactor), then clamp to saturated value.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

nScaleFactor Integer Result Scaling.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.13.2.17 NppStatus nppiAdd_16u_C1IRSfs (const Npp16u ∗ *pSrc*, int *nSrcStep*, Npp16u ∗ *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*, int *nScaleFactor*)

One 16-bit unsigned short channel in place image addition, scale by 2^(-nScaleFactor), then clamp to saturated value.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oSizeROI Region-of-Interest (ROI).

nScaleFactor Integer Result Scaling.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.13.2.18 NppStatus nppiAdd_16u_C1RSfs (const Npp16u ∗ *pSrc1*, int *nSrc1Step*, const Npp16u ∗ *pSrc2*, int *nSrc2Step*, Npp16u ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, int *nScaleFactor*)

One 16-bit unsigned short channel image addition, scale by 2^(-nScaleFactor), then clamp to saturated value.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

nScaleFactor Integer Result Scaling.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.13.2.19 NppStatus nppiAdd_16u_C3IRSfs (const Npp16u ∗ *pSrc*, int *nSrcStep*, Npp16u ∗ *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*, int *nScaleFactor*)

One 16-bit unsigned short channel in place image addition, scale by 2^(-nScaleFactor), then clamp to saturated value.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oSizeROI Region-of-Interest (ROI).

nScaleFactor Integer Result Scaling.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.13.2.20 NppStatus nppiAdd_16u_C3RSfs (const Npp16u ∗ *pSrc1*, int *nSrc1Step*, const Npp16u ∗ *pSrc2*, int *nSrc2Step*, Npp16u ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, int *nScaleFactor*)

Three 16-bit unsigned short channel image addition, scale by 2^(-nScaleFactor), then clamp to saturated value.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

nScaleFactor Integer Result Scaling.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.13.2.21 NppStatus nppiAdd_16u_C4IRSfs (const Npp16u ∗ *pSrc*, int *nSrcStep*, Npp16u ∗ *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*, int *nScaleFactor*)

Four 16-bit unsigned short channel in place image addition, scale by 2^(-nScaleFactor), then clamp to saturated value.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oSizeROI Region-of-Interest (ROI).

nScaleFactor Integer Result Scaling.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.13.2.22 NppStatus nppiAdd_16u_C4RSfs (const Npp16u ∗ *pSrc1*, int *nSrc1Step*, const Npp16u ∗ *pSrc2*, int *nSrc2Step*, Npp16u ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, int *nScaleFactor*)

Four 16-bit unsigned short channel image addition, scale by 2^(-nScaleFactor), then clamp to saturated value.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

nScaleFactor Integer Result Scaling.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.13.2.23 NppStatus nppiAdd_32f_AC4IR (const Npp32f ∗ *pSrc*, int *nSrcStep*, Npp32f ∗ *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*)

Four 32-bit floating point channel with unmodified alpha in place image addition.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.13.2.24 NppStatus nppiAdd_32f_AC4R (const Npp32f * *pSrc1*, int *nSrc1Step*, const Npp32f * *pSrc2*, int *nSrc2Step*, Npp32f * *pDst*, int *nDstStep*, NppiSize *oSizeROI*)

Four 32-bit floating point channel with unmodified alpha image addition.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.13.2.25 NppStatus nppiAdd_32f_C1IR (const Npp32f * *pSrc*, int *nSrcStep*, Npp32f * *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*)

One 32-bit floating point channel in place image addition.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.13.2.26 NppStatus nppiAdd_32f_C1R (const Npp32f * *pSrc1*, int *nSrc1Step*, const Npp32f * *pSrc2*, int *nSrc2Step*, Npp32f * *pDst*, int *nDstStep*, NppiSize *oSizeROI*)

One 32-bit floating point channel image addition.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.13.2.27 NppStatus nppiAdd_32f_C3IR (const Npp32f ∗ *pSrc*, int *nSrcStep*, Npp32f ∗ *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*)

One 32-bit floating point channel in place image addition.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.13.2.28 NppStatus nppiAdd_32f_C3R (const Npp32f ∗ *pSrc1*, int *nSrc1Step*, const Npp32f ∗ *pSrc2*, int *nSrc2Step*, Npp32f ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*)

Three 32-bit floating point channel image addition.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.13.2.29 NppStatus nppiAdd_32f_C4IR (const Npp32f ∗ *pSrc*, int *nSrcStep*, Npp32f ∗ *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*)

Four 32-bit floating point channel in place image addition.

Parameters:

pSrc Source-Image Pointer.
nSrcStep Source-Image Line Step.
pSrcDst In-Place Image Pointer.
nSrcDstStep In-Place-Image Line Step.
oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.13.2.30 NppStatus nppiAdd_32f_C4R (const Npp32f ∗ *pSrc1*, int *nSrc1Step*, const Npp32f ∗ *pSrc2*, int *nSrc2Step*, Npp32f ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*)

Four 32-bit floating point channel image addition.

Parameters:

pSrc1 Source-Image Pointer.
nSrc1Step Source-Image Line Step.
pSrc2 Source-Image Pointer.
nSrc2Step Source-Image Line Step.
pDst Destination-Image Pointer.
nDstStep Destination-Image Line Step.
oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.13.2.31 NppStatus nppiAdd_32fc_AC4IR (const Npp32fc ∗ *pSrc*, int *nSrcStep*, Npp32fc ∗ *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*)

Four 32-bit floating point complex number (32-bit real, 32-bit imaginary) channel with unmodified alpha in place image addition.

Parameters:

pSrc Source-Image Pointer.
nSrcStep Source-Image Line Step.
pSrcDst In-Place Image Pointer.
nSrcDstStep In-Place-Image Line Step.
oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.13.2.32 NppStatus nppiAdd_32fc_AC4R (const Npp32fc ∗ *pSrc1*, int *nSrc1Step*, const Npp32fc ∗ *pSrc2*, int *nSrc2Step*, Npp32fc ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*)

Four 32-bit floating point complex number (32-bit real, 32-bit imaginary) channel with unmodified alpha image addition.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.13.2.33 NppStatus nppiAdd_32fc_C1IR (const Npp32fc ∗ *pSrc*, int *nSrcStep*, Npp32fc ∗ *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*)

One 32-bit floating point complex number (32-bit real, 32-bit imaginary) channel in place image addition.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.13.2.34 NppStatus nppiAdd_32fc_C1R (const Npp32fc ∗ *pSrc1*, int *nSrc1Step*, const Npp32fc ∗ *pSrc2*, int *nSrc2Step*, Npp32fc ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*)

One 32-bit floating point complex number (32-bit real, 32-bit imaginary) channel image addition.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.13.2.35 NppStatus nppiAdd_32fc_C3IR (const Npp32fc ∗ *pSrc*, int *nSrcStep*, Npp32fc ∗ *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*)

One 32-bit floating point complex number (32-bit real, 32-bit imaginary) channel in place image addition.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.13.2.36 NppStatus nppiAdd_32fc_C3R (const Npp32fc ∗ *pSrc1*, int *nSrc1Step*, const Npp32fc ∗ *pSrc2*, int *nSrc2Step*, Npp32fc ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*)

Three 32-bit floating point complex number (32-bit real, 32-bit imaginary) channel image addition.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.13.2.37 NppStatus nppiAdd_32fc_C4IR (const Npp32fc * *pSrc*, int *nSrcStep*, Npp32fc * *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*)

Four 32-bit floating point complex number (32-bit real, 32-bit imaginary) channel in place image addition.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.13.2.38 NppStatus nppiAdd_32fc_C4R (const Npp32fc * *pSrc1*, int *nSrc1Step*, const Npp32fc * *pSrc2*, int *nSrc2Step*, Npp32fc * *pDst*, int *nDstStep*, NppiSize *oSizeROI*)

Four 32-bit floating point complex number (32-bit real, 32-bit imaginary) channel image addition.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.13.2.39 NppStatus nppiAdd_32s_C1IRSfs (const Npp32s * *pSrc*, int *nSrcStep*, Npp32s * *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*, int *nScaleFactor*)

One 32-bit signed integer channel in place image addition, scale by 2^(-nScaleFactor), then clamp to saturated value.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oSizeROI Region-of-Interest (ROI).

nScaleFactor Integer Result Scaling.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.13.2.40 NppStatus nppiAdd_32s_C1R (const Npp32s * *pSrc1*, int *nSrc1Step*, const Npp32s * *pSrc2*, int *nSrc2Step*, Npp32s * *pDst*, int *nDstStep*, NppiSize *oSizeROI*)

Note: This function is to be deprecated in future NPP releases, use the function above with a scale factor of 0 instead.

32-bit image add. Add the pixel values of corresponding pixels in the ROI and write them to the output image.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.13.2.41 NppStatus nppiAdd_32s_C1RSfs (const Npp32s * *pSrc1*, int *nSrc1Step*, const Npp32s * *pSrc2*, int *nSrc2Step*, Npp32s * *pDst*, int *nDstStep*, NppiSize *oSizeROI*, int *nScaleFactor*)

One 32-bit signed integer channel image addition, scale by 2^(-nScaleFactor), then clamp to saturated value.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

nScaleFactor Integer Result Scaling.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.13.2.42 NppStatus nppiAdd_32s_C3IRSfs (const Npp32s ∗ *pSrc*, int *nSrcStep*, Npp32s ∗ *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*, int *nScaleFactor*)

One 32-bit signed integer channel in place image addition, scale by 2^(-nScaleFactor), then clamp to saturated value.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oSizeROI Region-of-Interest (ROI).

nScaleFactor Integer Result Scaling.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.13.2.43 NppStatus nppiAdd_32s_C3RSfs (const Npp32s ∗ *pSrc1*, int *nSrc1Step*, const Npp32s ∗ *pSrc2*, int *nSrc2Step*, Npp32s ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, int *nScaleFactor*)

Three 32-bit signed integer channel image addition, scale by 2^(-nScaleFactor), then clamp to saturated value.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

nScaleFactor Integer Result Scaling.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.13.2.44 NppStatus nppiAdd_32sc_AC4IRSfs (const Npp32sc ∗ *pSrc*, int *nSrcStep*, Npp32sc ∗ *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*, int *nScaleFactor*)

Four 32-bit signed integer complex number (32-bit real, 32-bit imaginary) channel with unmodified alpha in place image addition, scale by 2^(-nScaleFactor), then clamp to saturated value.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oSizeROI Region-of-Interest (ROI).

nScaleFactor Integer Result Scaling.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.13.2.45 NppStatus nppiAdd_32sc_AC4RSfs (const Npp32sc ∗ *pSrc1*, int *nSrc1Step*, const Npp32sc ∗ *pSrc2*, int *nSrc2Step*, Npp32sc ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, int *nScaleFactor*)

Four 32-bit signed integer complex number (32-bit real, 32-bit imaginary) channel with unmodified alpha image addition, scale by 2^(-nScaleFactor), then clamp to saturated value.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

nScaleFactor Integer Result Scaling.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.13.2.46 NppStatus nppiAdd_32sc_C1IRSfs (const Npp32sc ∗ *pSrc*, int *nSrcStep*, Npp32sc ∗ *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*, int *nScaleFactor*)

One 32-bit signed integer complex number (32-bit real, 32-bit imaginary) channel in place image addition, scale by 2^(-nScaleFactor), then clamp to saturated value.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oSizeROI Region-of-Interest (ROI).

nScaleFactor Integer Result Scaling.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.13.2.47 NppStatus nppiAdd_32sc_C1RSfs (const Npp32sc ∗ *pSrc1*, int *nSrc1Step*, const Npp32sc ∗ *pSrc2*, int *nSrc2Step*, Npp32sc ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, int *nScaleFactor*)

One 32-bit signed integer complex number (32-bit real, 32-bit imaginary) channel image addition, scale by 2^(-nScaleFactor), then clamp to saturated value.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

nScaleFactor Integer Result Scaling.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.13.2.48 NppStatus nppiAdd_32sc_C3IRSfs (const Npp32sc ∗ *pSrc*, int *nSrcStep*, Npp32sc ∗ *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*, int *nScaleFactor*)

One 32-bit signed integer complex number (32-bit real, 32-bit imaginary) channel in place image addition, scale by 2^(-nScaleFactor), then clamp to saturated value.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oSizeROI Region-of-Interest (ROI).

nScaleFactor Integer Result Scaling.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.13.2.49 NppStatus nppiAdd_32sc_C3RSfs (const Npp32sc ∗ *pSrc1*, int *nSrc1Step*, const Npp32sc ∗ *pSrc2*, int *nSrc2Step*, Npp32sc ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, int *nScaleFactor*)

Three 32-bit signed integer complex number (32-bit real, 32-bit imaginary) channel image addition, scale by 2^(-nScaleFactor), then clamp to saturated value.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

nScaleFactor Integer Result Scaling.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.13.2.50 NppStatus nppiAdd_8u_AC4IRSfs (const Npp8u ∗ *pSrc*, int *nSrcStep*, Npp8u ∗ *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*, int *nScaleFactor*)

Four 8-bit unsigned char channel with unmodified alpha in place image addition, scale by 2^(-nScaleFactor), then clamp to saturated value.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oSizeROI Region-of-Interest (ROI).

nScaleFactor Integer Result Scaling.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.13.2.51 NppStatus nppiAdd_8u_AC4RSfs (const Npp8u ∗ *pSrc1*, int *nSrc1Step*, const Npp8u ∗ *pSrc2*, int *nSrc2Step*, Npp8u ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, int *nScaleFactor*)

Four 8-bit unsigned char channel with unmodified alpha image addition, scale by 2^(-nScaleFactor), then clamp to saturated value.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

nScaleFactor Integer Result Scaling.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.13.2.52 NppStatus nppiAdd_8u_C1IRSfs (const Npp8u * *pSrc*, int *nSrcStep*, Npp8u * *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*, int *nScaleFactor*)

One 8-bit unsigned char channel in place image addition, scale by 2^(-nScaleFactor), then clamp to saturated value.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oSizeROI Region-of-Interest (ROI).

nScaleFactor Integer Result Scaling.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.13.2.53 NppStatus nppiAdd_8u_C1RSfs (const Npp8u * *pSrc1*, int *nSrc1Step*, const Npp8u * *pSrc2*, int *nSrc2Step*, Npp8u * *pDst*, int *nDstStep*, NppiSize *oSizeROI*, int *nScaleFactor*)

One 8-bit unsigned char channel image addition, scale by 2^(-nScaleFactor), then clamp to saturated value.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

nScaleFactor Integer Result Scaling.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.13.2.54 NppStatus nppiAdd_8u_C3IRSfs (const Npp8u ∗ *pSrc*, int *nSrcStep*, Npp8u ∗ *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*, int *nScaleFactor*)

One 8-bit unsigned char channel in place image addition, scale by 2^(-nScaleFactor), then clamp to saturated value.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oSizeROI Region-of-Interest (ROI).

nScaleFactor Integer Result Scaling.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.13.2.55 NppStatus nppiAdd_8u_C3RSfs (const Npp8u ∗ *pSrc1*, int *nSrc1Step*, const Npp8u ∗ *pSrc2*, int *nSrc2Step*, Npp8u ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, int *nScaleFactor*)

Three 8-bit unsigned char channel image addition, scale by 2^(-nScaleFactor), then clamp to saturated value.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

nScaleFactor Integer Result Scaling.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.13.2.56 NppStatus nppiAdd_8u_C4IRSfs (const Npp8u ∗ *pSrc*, int *nSrcStep*, Npp8u ∗ *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*, int *nScaleFactor*)

Four 8-bit unsigned char channel in place image addition, scale by 2^(-nScaleFactor), then clamp to saturated value.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oSizeROI Region-of-Interest (ROI).

nScaleFactor Integer Result Scaling.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.13.2.57 NppStatus nppiAdd_8u_C4RSfs (const Npp8u * *pSrc1*, int *nSrc1Step*, const Npp8u * *pSrc2*, int *nSrc2Step*, Npp8u * *pDst*, int *nDstStep*, NppiSize *oSizeROI*, int *nScaleFactor*)

Four 8-bit unsigned char channel image addition, scale by 2^(-nScaleFactor), then clamp to saturated value.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

nScaleFactor Integer Result Scaling.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.14 AddSquare

Pixel by pixel addition of squared pixels from source image to floating point pixel values of destination image.

Functions

- NppStatus nppiAddSquare_8u32f_C1IMR (const Npp8u ∗pSrc, int nSrcStep, const Npp8u ∗pMask, int nMaskStep, Npp32f ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI)

  One 8-bit unsigned char channel image squared then added to in place floating point destination image using filter mask (updates destination when mask is non-zero).

- NppStatus nppiAddSquare_8u32f_C1IR (const Npp8u ∗pSrc, int nSrcStep, Npp32f ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI)

  One 8-bit unsigned char channel image squared then added to in place floating point destination image.

- NppStatus nppiAddSquare_16u32f_C1IMR (const Npp16u ∗pSrc, int nSrcStep, const Npp8u ∗pMask, int nMaskStep, Npp32f ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI)

  One 16-bit unsigned short channel image squared then added to in place floating point destination image using filter mask (updates destination when mask is non-zero).

- NppStatus nppiAddSquare_16u32f_C1IR (const Npp16u ∗pSrc, int nSrcStep, Npp32f ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI)

  One 16-bit unsigned short channel image squared then added to in place floating point destination image.

- NppStatus nppiAddSquare_32f_C1IMR (const Npp32f ∗pSrc, int nSrcStep, const Npp8u ∗pMask, int nMaskStep, Npp32f ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI)

  One 32-bit floating point channel image squared then added to in place floating point destination image using filter mask (updates destination when mask is non-zero).

- NppStatus nppiAddSquare_32f_C1IR (const Npp32f ∗pSrc, int nSrcStep, Npp32f ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI)

  One 32-bit floating point channel image squared then added to in place floating point destination image.

7.14.1 Detailed Description

Pixel by pixel addition of squared pixels from source image to floating point pixel values of destination image.

7.14.2 Function Documentation

7.14.2.1 NppStatus nppiAddSquare_16u32f_C1IMR (const Npp16u ∗ *pSrc*, int *nSrcStep*, const Npp8u ∗ *pMask*, int *nMaskStep*, Npp32f ∗ *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*)

One 16-bit unsigned short channel image squared then added to in place floating point destination image using filter mask (updates destination when mask is non-zero).

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pMask Mask-Image Pointer.

nMaskStep Mask-Image Line Step.

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.14.2.2 NppStatus nppiAddSquare_16u32f_C1IR (const Npp16u ∗ *pSrc*, int *nSrcStep*, Npp32f ∗ *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*)

One 16-bit unsigned short channel image squared then added to in place floating point destination image.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.14.2.3 NppStatus nppiAddSquare_32f_C1IMR (const Npp32f ∗ *pSrc*, int *nSrcStep*, const Npp8u ∗ *pMask*, int *nMaskStep*, Npp32f ∗ *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*)

One 32-bit floating point channel image squared then added to in place floating point destination image using filter mask (updates destination when mask is non-zero).

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pMask Mask-Image Pointer.

nMaskStep Mask-Image Line Step.

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.14.2.4 NppStatus nppiAddSquare_32f_C1IR (const Npp32f ∗ *pSrc*, int *nSrcStep*, Npp32f ∗ *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*)

One 32-bit floating point channel image squared then added to in place floating point destination image.

Parameters:

pSrc Source-Image Pointer.
nSrcStep Source-Image Line Step.
pSrcDst In-Place Image Pointer.
nSrcDstStep In-Place-Image Line Step.
oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.14.2.5 NppStatus nppiAddSquare_8u32f_C1IMR (const Npp8u ∗ *pSrc*, int *nSrcStep*, const Npp8u ∗ *pMask*, int *nMaskStep*, Npp32f ∗ *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*)

One 8-bit unsigned char channel image squared then added to in place floating point destination image using filter mask (updates destination when mask is non-zero).

Parameters:

pSrc Source-Image Pointer.
nSrcStep Source-Image Line Step.
pMask Mask-Image Pointer.
nMaskStep Mask-Image Line Step.
pSrcDst In-Place Image Pointer.
nSrcDstStep In-Place-Image Line Step.
oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.14.2.6 NppStatus nppiAddSquare_8u32f_C1IR (const Npp8u ∗ *pSrc*, int *nSrcStep*, Npp32f ∗ *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*)

One 8-bit unsigned char channel image squared then added to in place floating point destination image.

Parameters:

pSrc Source-Image Pointer.
nSrcStep Source-Image Line Step.
pSrcDst In-Place Image Pointer.
nSrcDstStep In-Place-Image Line Step.
oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.15 AddProduct

Pixel by pixel addition of product of pixels from two source images to floating point pixel values of destination image.

Functions

- NppStatus nppiAddProduct_8u32f_C1IMR (const Npp8u ∗pSrc1, int nSrc1Step, const Npp8u ∗pSrc2, int nSrc2Step, const Npp8u ∗pMask, int nMaskStep, Npp32f ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI)

  One 8-bit unsigned char channel image product added to in place floating point destination image using filter mask (updates destination when mask is non-zero).

- NppStatus nppiAddProduct_8u32f_C1IR (const Npp8u ∗pSrc1, int nSrc1Step, const Npp8u ∗pSrc2, int nSrc2Step, Npp32f ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI)

  One 8-bit unsigned char channel image product added to in place floating point destination image.

- NppStatus nppiAddProduct_16u32f_C1IMR (const Npp16u ∗pSrc1, int nSrc1Step, const Npp16u ∗pSrc2, int nSrc2Step, const Npp8u ∗pMask, int nMaskStep, Npp32f ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI)

  One 16-bit unsigned short channel image product added to in place floating point destination image using filter mask (updates destination when mask is non-zero).

- NppStatus nppiAddProduct_16u32f_C1IR (const Npp16u ∗pSrc1, int nSrc1Step, const Npp16u ∗pSrc2, int nSrc2Step, Npp32f ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI)

  One 16-bit unsigned short channel image product added to in place floating point destination image.

- NppStatus nppiAddProduct_32f_C1IMR (const Npp32f ∗pSrc1, int nSrc1Step, const Npp32f ∗pSrc2, int nSrc2Step, const Npp8u ∗pMask, int nMaskStep, Npp32f ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI)

  One 32-bit floating point channel image product added to in place floating point destination image using filter mask (updates destination when mask is non-zero).

- NppStatus nppiAddProduct_32f_C1IR (const Npp32f ∗pSrc1, int nSrc1Step, const Npp32f ∗pSrc2, int nSrc2Step, Npp32f ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI)

  One 32-bit floating point channel image product added to in place floating point destination image.

7.15.1 Detailed Description

Pixel by pixel addition of product of pixels from two source images to floating point pixel values of destination image.

7.15.2 Function Documentation

7.15.2.1 NppStatus nppiAddProduct_16u32f_C1IMR (const Npp16u ∗ *pSrc1*, int *nSrc1Step*, const Npp16u ∗ *pSrc2*, int *nSrc2Step*, const Npp8u ∗ *pMask*, int *nMaskStep*, Npp32f ∗ *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*)

One 16-bit unsigned short channel image product added to in place floating point destination image using filter mask (updates destination when mask is non-zero).

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

pMask Mask-Image Pointer.

nMaskStep Mask-Image Line Step.

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.15.2.2 NppStatus nppiAddProduct_16u32f_C1IR (const Npp16u $*$ *pSrc1*, int *nSrc1Step*, const Npp16u $*$ *pSrc2*, int *nSrc2Step*, Npp32f $*$ *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*)

One 16-bit unsigned short channel image product added to in place floating point destination image.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.15.2.3 NppStatus nppiAddProduct_32f_C1IMR (const Npp32f $*$ *pSrc1*, int *nSrc1Step*, const Npp32f $*$ *pSrc2*, int *nSrc2Step*, const Npp8u $*$ *pMask*, int *nMaskStep*, Npp32f $*$ *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*)

One 32-bit floating point channel image product added to in place floating point destination image using filter mask (updates destination when mask is non-zero).

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

pMask Mask-Image Pointer.
nMaskStep Mask-Image Line Step.
pSrcDst In-Place Image Pointer.
nSrcDstStep In-Place-Image Line Step.
oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.15.2.4 NppStatus nppiAddProduct_32f_C1IR (const Npp32f ∗ *pSrc1*, int *nSrc1Step*, const Npp32f ∗ *pSrc2*, int *nSrc2Step*, Npp32f ∗ *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*)

One 32-bit floating point channel image product added to in place floating point destination image.

Parameters:

pSrc1 Source-Image Pointer.
nSrc1Step Source-Image Line Step.
pSrc2 Source-Image Pointer.
nSrc2Step Source-Image Line Step.
pSrcDst In-Place Image Pointer.
nSrcDstStep In-Place-Image Line Step.
oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.15.2.5 NppStatus nppiAddProduct_8u32f_C1IMR (const Npp8u ∗ *pSrc1*, int *nSrc1Step*, const Npp8u ∗ *pSrc2*, int *nSrc2Step*, const Npp8u ∗ *pMask*, int *nMaskStep*, Npp32f ∗ *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*)

One 8-bit unsigned char channel image product added to in place floating point destination image using filter mask (updates destination when mask is non-zero).

Parameters:

pSrc1 Source-Image Pointer.
nSrc1Step Source-Image Line Step.
pSrc2 Source-Image Pointer.
nSrc2Step Source-Image Line Step.
pMask Mask-Image Pointer.
nMaskStep Mask-Image Line Step.
pSrcDst In-Place Image Pointer.
nSrcDstStep In-Place-Image Line Step.
oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.15.2.6 NppStatus nppiAddProduct_8u32f_C1IR (const Npp8u ∗ *pSrc1*, int *nSrc1Step*, const Npp8u ∗ *pSrc2*, int *nSrc2Step*, Npp32f ∗ *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*)

One 8-bit unsigned char channel image product added to in place floating point destination image.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.16 AddWeighted

Pixel by pixel addition of alpha weighted pixel values from a source image to floating point pixel values of destination image.

Functions

- NppStatus nppiAddWeighted_8u32f_C1IMR (const Npp8u ∗pSrc, int nSrcStep, const Npp8u ∗pMask, int nMaskStep, Npp32f ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI, Npp32f nAlpha)

  One 8-bit unsigned char channel alpha weighted image added to in place floating point destination image using filter mask (updates destination when mask is non-zero).

- NppStatus nppiAddWeighted_8u32f_C1IR (const Npp8u ∗pSrc, int nSrcStep, Npp32f ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI, Npp32f nAlpha)

  One 8-bit unsigned char channel alpha weighted image added to in place floating point destination image.

- NppStatus nppiAddWeighted_16u32f_C1IMR (const Npp16u ∗pSrc, int nSrcStep, const Npp8u ∗pMask, int nMaskStep, Npp32f ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI, Npp32f nAlpha)

  One 16-bit unsigned short channel alpha weighted image added to in place floating point destination image using filter mask (updates destination when mask is non-zero).

- NppStatus nppiAddWeighted_16u32f_C1IR (const Npp16u ∗pSrc, int nSrcStep, Npp32f ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI, Npp32f nAlpha)

  One 16-bit unsigned short channel alpha weighted image added to in place floating point destination image.

- NppStatus nppiAddWeighted_32f_C1IMR (const Npp32f ∗pSrc, int nSrcStep, const Npp8u ∗pMask, int nMaskStep, Npp32f ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI, Npp32f nAlpha)

  One 32-bit floating point channel alpha weighted image added to in place floating point destination image using filter mask (updates destination when mask is non-zero).

- NppStatus nppiAddWeighted_32f_C1IR (const Npp32f ∗pSrc, int nSrcStep, Npp32f ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI, Npp32f nAlpha)

  One 32-bit floating point channel alpha weighted image added to in place floating point destination image.

7.16.1 Detailed Description

Pixel by pixel addition of alpha weighted pixel values from a source image to floating point pixel values of destination image.

7.16.2 Function Documentation

7.16.2.1 NppStatus nppiAddWeighted_16u32f_C1IMR (const Npp16u ∗ *pSrc*, int *nSrcStep*, const Npp8u ∗ *pMask*, int *nMaskStep*, Npp32f ∗ *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*, Npp32f *nAlpha*)

One 16-bit unsigned short channel alpha weighted image added to in place floating point destination image using filter mask (updates destination when mask is non-zero).

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pMask Mask-Image Pointer.

nMaskStep Mask-Image Line Step.

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oSizeROI Region-of-Interest (ROI).

nAlpha Alpha weight to be applied to source image pixels (0.0F to 1.0F)

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.16.2.2 NppStatus nppiAddWeighted_16u32f_C1IR (const Npp16u ∗ *pSrc*, int *nSrcStep*, Npp32f ∗ *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*, Npp32f *nAlpha*)

One 16-bit unsigned short channel alpha weighted image added to in place floating point destination image.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oSizeROI Region-of-Interest (ROI).

nAlpha Alpha weight to be applied to source image pixels (0.0F to 1.0F)

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.16.2.3 NppStatus nppiAddWeighted_32f_C1IMR (const Npp32f ∗ *pSrc*, int *nSrcStep*, const Npp8u ∗ *pMask*, int *nMaskStep*, Npp32f ∗ *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*, Npp32f *nAlpha*)

One 32-bit floating point channel alpha weighted image added to in place floating point destination image using filter mask (updates destination when mask is non-zero).

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pMask Mask-Image Pointer.

nMaskStep Mask-Image Line Step.

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oSizeROI Region-of-Interest (ROI).

nAlpha Alpha weight to be applied to source image pixels (0.0F to 1.0F)

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.16.2.4 NppStatus nppiAddWeighted_32f_C1IR (const Npp32f ∗ *pSrc*, int *nSrcStep*, Npp32f ∗ *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*, Npp32f *nAlpha*)

One 32-bit floating point channel alpha weighted image added to in place floating point destination image.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oSizeROI Region-of-Interest (ROI).

nAlpha Alpha weight to be applied to source image pixels (0.0F to 1.0F)

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.16.2.5 NppStatus nppiAddWeighted_8u32f_C1IMR (const Npp8u ∗ *pSrc*, int *nSrcStep*, const Npp8u ∗ *pMask*, int *nMaskStep*, Npp32f ∗ *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*, Npp32f *nAlpha*)

One 8-bit unsigned char channel alpha weighted image added to in place floating point destination image using filter mask (updates destination when mask is non-zero).

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pMask Mask-Image Pointer.

nMaskStep Mask-Image Line Step.

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oSizeROI Region-of-Interest (ROI).

nAlpha Alpha weight to be applied to source image pixels (0.0F to 1.0F)

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.16.2.6 NppStatus nppiAddWeighted_8u32f_C1IR (const Npp8u $*$ *pSrc*, int *nSrcStep*, Npp32f $*$ *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*, Npp32f *nAlpha*)

One 8-bit unsigned char channel alpha weighted image added to in place floating point destination image.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oSizeROI Region-of-Interest (ROI).

nAlpha Alpha weight to be applied to source image pixels (0.0F to 1.0F)

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.17 Mul

Pixel by pixel multiply of two images.

Functions

- NppStatus nppiMul_8u_C1RSfs (const Npp8u ∗pSrc1, int nSrc1Step, const Npp8u ∗pSrc2, int nSrc2Step, Npp8u ∗pDst, int nDstStep, NppiSize oSizeROI, int nScaleFactor)

  One 8-bit unsigned char channel image multiplication, scale by 2^(-nScaleFactor), then clamp to saturated value.

- NppStatus nppiMul_8u_C1IRSfs (const Npp8u ∗pSrc, int nSrcStep, Npp8u ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI, int nScaleFactor)

  One 8-bit unsigned char channel in place image multiplication, scale by 2^(-nScaleFactor), then clamp to saturated value.

- NppStatus nppiMul_8u_C3RSfs (const Npp8u ∗pSrc1, int nSrc1Step, const Npp8u ∗pSrc2, int nSrc2Step, Npp8u ∗pDst, int nDstStep, NppiSize oSizeROI, int nScaleFactor)

  Three 8-bit unsigned char channel image multiplication, scale by 2^(-nScaleFactor), then clamp to saturated value.

- NppStatus nppiMul_8u_C3IRSfs (const Npp8u ∗pSrc, int nSrcStep, Npp8u ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI, int nScaleFactor)

  One 8-bit unsigned char channel in place image multiplication, scale by 2^(-nScaleFactor), then clamp to saturated value.

- NppStatus nppiMul_8u_AC4RSfs (const Npp8u ∗pSrc1, int nSrc1Step, const Npp8u ∗pSrc2, int nSrc2Step, Npp8u ∗pDst, int nDstStep, NppiSize oSizeROI, int nScaleFactor)

  Four 8-bit unsigned char channel with unmodified alpha image multiplication, scale by 2^(-nScaleFactor), then clamp to saturated value.

- NppStatus nppiMul_8u_AC4IRSfs (const Npp8u ∗pSrc, int nSrcStep, Npp8u ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI, int nScaleFactor)

  Four 8-bit unsigned char channel with unmodified alpha in place image multiplication, scale by 2^(-nScaleFactor), then clamp to saturated value.

- NppStatus nppiMul_8u_C4RSfs (const Npp8u ∗pSrc1, int nSrc1Step, const Npp8u ∗pSrc2, int nSrc2Step, Npp8u ∗pDst, int nDstStep, NppiSize oSizeROI, int nScaleFactor)

  Four 8-bit unsigned char channel image multiplication, scale by 2^(-nScaleFactor), then clamp to saturated value.

- NppStatus nppiMul_8u_C4IRSfs (const Npp8u ∗pSrc, int nSrcStep, Npp8u ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI, int nScaleFactor)

  Four 8-bit unsigned char channel in place image multiplication, scale by 2^(-nScaleFactor), then clamp to saturated value.

- NppStatus nppiMul_16u_C1RSfs (const Npp16u ∗pSrc1, int nSrc1Step, const Npp16u ∗pSrc2, int nSrc2Step, Npp16u ∗pDst, int nDstStep, NppiSize oSizeROI, int nScaleFactor)

  One 16-bit unsigned short channel image multiplication, scale by 2^(-nScaleFactor), then clamp to saturated value.

- NppStatus nppiMul_16u_C1IRSfs (const Npp16u ∗pSrc, int nSrcStep, Npp16u ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI, int nScaleFactor)

  One 16-bit unsigned short channel in place image multiplication, scale by 2^(-nScaleFactor), then clamp to saturated value.

- NppStatus nppiMul_16u_C3RSfs (const Npp16u ∗pSrc1, int nSrc1Step, const Npp16u ∗pSrc2, int nSrc2Step, Npp16u ∗pDst, int nDstStep, NppiSize oSizeROI, int nScaleFactor)

  Three 16-bit unsigned short channel image multiplication, scale by 2^(-nScaleFactor), then clamp to saturated value.

- NppStatus nppiMul_16u_C3IRSfs (const Npp16u ∗pSrc, int nSrcStep, Npp16u ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI, int nScaleFactor)

  One 16-bit unsigned short channel in place image multiplication, scale by 2^(-nScaleFactor), then clamp to saturated value.

- NppStatus nppiMul_16u_AC4RSfs (const Npp16u ∗pSrc1, int nSrc1Step, const Npp16u ∗pSrc2, int nSrc2Step, Npp16u ∗pDst, int nDstStep, NppiSize oSizeROI, int nScaleFactor)

  Four 16-bit unsigned short channel with unmodified alpha image multiplication, scale by 2^(-nScaleFactor), then clamp to saturated value.

- NppStatus nppiMul_16u_AC4IRSfs (const Npp16u ∗pSrc, int nSrcStep, Npp16u ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI, int nScaleFactor)

  Four 16-bit unsigned short channel with unmodified alpha in place image multiplication, scale by 2^(-nScaleFactor), then clamp to saturated value.

- NppStatus nppiMul_16u_C4RSfs (const Npp16u ∗pSrc1, int nSrc1Step, const Npp16u ∗pSrc2, int nSrc2Step, Npp16u ∗pDst, int nDstStep, NppiSize oSizeROI, int nScaleFactor)

  Four 16-bit unsigned short channel image multiplication, scale by 2^(-nScaleFactor), then clamp to saturated value.

- NppStatus nppiMul_16u_C4IRSfs (const Npp16u ∗pSrc, int nSrcStep, Npp16u ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI, int nScaleFactor)

  Four 16-bit unsigned short channel in place image multiplication, scale by 2^(-nScaleFactor), then clamp to saturated value.

- NppStatus nppiMul_16s_C1RSfs (const Npp16s ∗pSrc1, int nSrc1Step, const Npp16s ∗pSrc2, int nSrc2Step, Npp16s ∗pDst, int nDstStep, NppiSize oSizeROI, int nScaleFactor)

  One 16-bit signed short channel image multiplication, scale by 2^(-nScaleFactor), then clamp to saturated value.

- NppStatus nppiMul_16s_C1IRSfs (const Npp16s ∗pSrc, int nSrcStep, Npp16s ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI, int nScaleFactor)

  One 16-bit signed short channel in place image multiplication, scale by 2^(-nScaleFactor), then clamp to saturated value.

- NppStatus nppiMul_16s_C3RSfs (const Npp16s ∗pSrc1, int nSrc1Step, const Npp16s ∗pSrc2, int nSrc2Step, Npp16s ∗pDst, int nDstStep, NppiSize oSizeROI, int nScaleFactor)

  Three 16-bit signed short channel image multiplication, scale by 2^(-nScaleFactor), then clamp to saturated value.

- NppStatus nppiMul_16s_C3IRSfs (const Npp16s ∗pSrc, int nSrcStep, Npp16s ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI, int nScaleFactor)

One 16-bit signed short channel in place image multiplication, scale by 2^(-nScaleFactor), then clamp to saturated value.

- NppStatus nppiMul_16s_AC4RSfs (const Npp16s ∗pSrc1, int nSrc1Step, const Npp16s ∗pSrc2, int nSrc2Step, Npp16s ∗pDst, int nDstStep, NppiSize oSizeROI, int nScaleFactor)

  Four 16-bit signed short channel with unmodified alpha image multiplication, scale by 2^(-nScaleFactor), then clamp to saturated value.

- NppStatus nppiMul_16s_AC4IRSfs (const Npp16s ∗pSrc, int nSrcStep, Npp16s ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI, int nScaleFactor)

  Four 16-bit signed short channel with unmodified alpha in place image multiplication, scale by 2^(-nScaleFactor), then clamp to saturated value.

- NppStatus nppiMul_16s_C4RSfs (const Npp16s ∗pSrc1, int nSrc1Step, const Npp16s ∗pSrc2, int nSrc2Step, Npp16s ∗pDst, int nDstStep, NppiSize oSizeROI, int nScaleFactor)

  Four 16-bit signed short channel image multiplication, scale by 2^(-nScaleFactor), then clamp to saturated value.

- NppStatus nppiMul_16s_C4IRSfs (const Npp16s ∗pSrc, int nSrcStep, Npp16s ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI, int nScaleFactor)

  Four 16-bit signed short channel in place image multiplication, scale by 2^(-nScaleFactor), then clamp to saturated value.

- NppStatus nppiMul_16sc_C1RSfs (const Npp16sc ∗pSrc1, int nSrc1Step, const Npp16sc ∗pSrc2, int nSrc2Step, Npp16sc ∗pDst, int nDstStep, NppiSize oSizeROI, int nScaleFactor)

  One 16-bit signed short complex number (16-bit real, 16-bit imaginary) channel image multiplication, scale by 2^(-nScaleFactor), then clamp to saturated value.

- NppStatus nppiMul_16sc_C1IRSfs (const Npp16sc ∗pSrc, int nSrcStep, Npp16sc ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI, int nScaleFactor)

  One 16-bit signed short complex number (16-bit real, 16-bit imaginary) channel in place image multiplication, scale by 2^(-nScaleFactor), then clamp to saturated value.

- NppStatus nppiMul_16sc_C3RSfs (const Npp16sc ∗pSrc1, int nSrc1Step, const Npp16sc ∗pSrc2, int nSrc2Step, Npp16sc ∗pDst, int nDstStep, NppiSize oSizeROI, int nScaleFactor)

  Three 16-bit signed short complex number (16-bit real, 16-bit imaginary) channel image multiplication, scale by 2^(-nScaleFactor), then clamp to saturated value.

- NppStatus nppiMul_16sc_C3IRSfs (const Npp16sc ∗pSrc, int nSrcStep, Npp16sc ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI, int nScaleFactor)

  One 16-bit signed short complex number (16-bit real, 16-bit imaginary) channel in place image multiplication, scale by 2^(-nScaleFactor), then clamp to saturated value.

- NppStatus nppiMul_16sc_AC4RSfs (const Npp16sc ∗pSrc1, int nSrc1Step, const Npp16sc ∗pSrc2, int nSrc2Step, Npp16sc ∗pDst, int nDstStep, NppiSize oSizeROI, int nScaleFactor)

  Four 16-bit signed short complex number (16-bit real, 16-bit imaginary) channel with unmodified alpha image multiplication, scale by 2^(-nScaleFactor), then clamp to saturated value.

- NppStatus nppiMul_16sc_AC4IRSfs (const Npp16sc ∗pSrc, int nSrcStep, Npp16sc ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI, int nScaleFactor)

  Four 16-bit signed short complex number (16-bit real, 16-bit imaginary) channel with unmodified alpha in place image multiplication, scale by 2^(-nScaleFactor), then clamp to saturated value.

- NppStatus nppiMul_32s_C1RSfs (const Npp32s ∗pSrc1, int nSrc1Step, const Npp32s ∗pSrc2, int nSrc2Step, Npp32s ∗pDst, int nDstStep, NppiSize oSizeROI, int nScaleFactor)

  One 32-bit signed integer channel image multiplication, scale by 2^(-nScaleFactor), then clamp to saturated value.

- NppStatus nppiMul_32s_C1R (const Npp32s ∗pSrc1, int nSrc1Step, const Npp32s ∗pSrc2, int nSrc2Step, Npp32s ∗pDst, int nDstStep, NppiSize oSizeROI)

  Note: This function is to be deprecated in future NPP releases, use the function above with a scale factor of 0 instead.

- NppStatus nppiMul_32s_C1IRSfs (const Npp32s ∗pSrc, int nSrcStep, Npp32s ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI, int nScaleFactor)

  One 32-bit signed integer channel in place image multiplication, scale by 2^(-nScaleFactor), then clamp to saturated value.

- NppStatus nppiMul_32s_C3RSfs (const Npp32s ∗pSrc1, int nSrc1Step, const Npp32s ∗pSrc2, int nSrc2Step, Npp32s ∗pDst, int nDstStep, NppiSize oSizeROI, int nScaleFactor)

  Three 32-bit signed integer channel image multiplication, scale by 2^(-nScaleFactor), then clamp to saturated value.

- NppStatus nppiMul_32s_C3IRSfs (const Npp32s ∗pSrc, int nSrcStep, Npp32s ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI, int nScaleFactor)

  One 32-bit signed integer channel in place image multiplication, scale by 2^(-nScaleFactor), then clamp to saturated value.

- NppStatus nppiMul_32sc_C1RSfs (const Npp32sc ∗pSrc1, int nSrc1Step, const Npp32sc ∗pSrc2, int nSrc2Step, Npp32sc ∗pDst, int nDstStep, NppiSize oSizeROI, int nScaleFactor)

  One 32-bit signed integer complex number (32-bit real, 32-bit imaginary) channel image multiplication, scale by 2^(-nScaleFactor), then clamp to saturated value.

- NppStatus nppiMul_32sc_C1IRSfs (const Npp32sc ∗pSrc, int nSrcStep, Npp32sc ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI, int nScaleFactor)

  One 32-bit signed integer complex number (32-bit real, 32-bit imaginary) channel in place image multiplication, scale by 2^(-nScaleFactor), then clamp to saturated value.

- NppStatus nppiMul_32sc_C3RSfs (const Npp32sc ∗pSrc1, int nSrc1Step, const Npp32sc ∗pSrc2, int nSrc2Step, Npp32sc ∗pDst, int nDstStep, NppiSize oSizeROI, int nScaleFactor)

  Three 32-bit signed integer complex number (32-bit real, 32-bit imaginary) channel image multiplication, scale by 2^(-nScaleFactor), then clamp to saturated value.

- NppStatus nppiMul_32sc_C3IRSfs (const Npp32sc ∗pSrc, int nSrcStep, Npp32sc ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI, int nScaleFactor)

  One 32-bit signed integer complex number (32-bit real, 32-bit imaginary) channel in place image multiplication, scale by 2^(-nScaleFactor), then clamp to saturated value.

- NppStatus nppiMul_32sc_AC4RSfs (const Npp32sc ∗pSrc1, int nSrc1Step, const Npp32sc ∗pSrc2, int nSrc2Step, Npp32sc ∗pDst, int nDstStep, NppiSize oSizeROI, int nScaleFactor)

  Four 32-bit signed integer complex number (32-bit real, 32-bit imaginary) channel with unmodified alpha image multiplication, scale by 2^(-nScaleFactor), then clamp to saturated value.

- NppStatus nppiMul_32sc_AC4IRSfs (const Npp32sc ∗pSrc, int nSrcStep, Npp32sc ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI, int nScaleFactor)

  Four 32-bit signed integer complex number (32-bit real, 32-bit imaginary) channel with unmodified alpha in place image multiplication, scale by 2^(-nScaleFactor), then clamp to saturated value.

- NppStatus nppiMul_32f_C1R (const Npp32f ∗pSrc1, int nSrc1Step, const Npp32f ∗pSrc2, int nSrc2Step, Npp32f ∗pDst, int nDstStep, NppiSize oSizeROI)

  One 32-bit floating point channel image multiplication.

- NppStatus nppiMul_32f_C1IR (const Npp32f ∗pSrc, int nSrcStep, Npp32f ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI)

  One 32-bit floating point channel in place image multiplication.

- NppStatus nppiMul_32f_C3R (const Npp32f ∗pSrc1, int nSrc1Step, const Npp32f ∗pSrc2, int nSrc2Step, Npp32f ∗pDst, int nDstStep, NppiSize oSizeROI)

  Three 32-bit floating point channel image multiplication.

- NppStatus nppiMul_32f_C3IR (const Npp32f ∗pSrc, int nSrcStep, Npp32f ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI)

  One 32-bit floating point channel in place image multiplication.

- NppStatus nppiMul_32f_AC4R (const Npp32f ∗pSrc1, int nSrc1Step, const Npp32f ∗pSrc2, int nSrc2Step, Npp32f ∗pDst, int nDstStep, NppiSize oSizeROI)

  Four 32-bit floating point channel with unmodified alpha image multiplication.

- NppStatus nppiMul_32f_AC4IR (const Npp32f ∗pSrc, int nSrcStep, Npp32f ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI)

  Four 32-bit floating point channel with unmodified alpha in place image multiplication.

- NppStatus nppiMul_32f_C4R (const Npp32f ∗pSrc1, int nSrc1Step, const Npp32f ∗pSrc2, int nSrc2Step, Npp32f ∗pDst, int nDstStep, NppiSize oSizeROI)

  Four 32-bit floating point channel image multiplication.

- NppStatus nppiMul_32f_C4IR (const Npp32f ∗pSrc, int nSrcStep, Npp32f ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI)

  Four 32-bit floating point channel in place image multiplication.

- NppStatus nppiMul_32fc_C1R (const Npp32fc ∗pSrc1, int nSrc1Step, const Npp32fc ∗pSrc2, int nSrc2Step, Npp32fc ∗pDst, int nDstStep, NppiSize oSizeROI)

  One 32-bit floating point complex number (32-bit real, 32-bit imaginary) channel image multiplication.

- NppStatus nppiMul_32fc_C1IR (const Npp32fc ∗pSrc, int nSrcStep, Npp32fc ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI)

  One 32-bit floating point complex number (32-bit real, 32-bit imaginary) channel in place image multiplication.

- NppStatus nppiMul_32fc_C3R (const Npp32fc ∗pSrc1, int nSrc1Step, const Npp32fc ∗pSrc2, int nSrc2Step, Npp32fc ∗pDst, int nDstStep, NppiSize oSizeROI)

  Three 32-bit floating point complex number (32-bit real, 32-bit imaginary) channel image multiplication.

- NppStatus nppiMul_32fc_C3IR (const Npp32fc ∗pSrc, int nSrcStep, Npp32fc ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI)

  One 32-bit floating point complex number (32-bit real, 32-bit imaginary) channel in place image multiplication.

- NppStatus nppiMul_32fc_AC4R (const Npp32fc ∗pSrc1, int nSrc1Step, const Npp32fc ∗pSrc2, int nSrc2Step, Npp32fc ∗pDst, int nDstStep, NppiSize oSizeROI)

  Four 32-bit floating point complex number (32-bit real, 32-bit imaginary) channel with unmodified alpha image multiplication.

- NppStatus nppiMul_32fc_AC4IR (const Npp32fc ∗pSrc, int nSrcStep, Npp32fc ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI)

  Four 32-bit floating point complex number (32-bit real, 32-bit imaginary) channel with unmodified alpha in place image multiplication.

- NppStatus nppiMul_32fc_C4R (const Npp32fc ∗pSrc1, int nSrc1Step, const Npp32fc ∗pSrc2, int nSrc2Step, Npp32fc ∗pDst, int nDstStep, NppiSize oSizeROI)

  Four 32-bit floating point complex number (32-bit real, 32-bit imaginary) channel image multiplication.

- NppStatus nppiMul_32fc_C4IR (const Npp32fc ∗pSrc, int nSrcStep, Npp32fc ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI)

  Four 32-bit floating point complex number (32-bit real, 32-bit imaginary) channel in place image multiplication.

7.17.1 Detailed Description

Pixel by pixel multiply of two images.

7.17.2 Function Documentation

7.17.2.1 NppStatus nppiMul_16s_AC4IRSfs (const Npp16s ∗ *pSrc*, int *nSrcStep*, Npp16s ∗ *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*, int *nScaleFactor*)

Four 16-bit signed short channel with unmodified alpha in place image multiplication, scale by 2^(-nScaleFactor), then clamp to saturated value.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oSizeROI Region-of-Interest (ROI).

nScaleFactor Integer Result Scaling.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.17.2.2 NppStatus nppiMul_16s_AC4RSfs (const Npp16s * *pSrc1*, int *nSrc1Step*, const Npp16s * *pSrc2*, int *nSrc2Step*, Npp16s * *pDst*, int *nDstStep*, NppiSize *oSizeROI*, int *nScaleFactor*)

Four 16-bit signed short channel with unmodified alpha image multiplication, scale by 2^(-nScaleFactor), then clamp to saturated value.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

nScaleFactor Integer Result Scaling.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.17.2.3 NppStatus nppiMul_16s_C1IRSfs (const Npp16s * *pSrc*, int *nSrcStep*, Npp16s * *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*, int *nScaleFactor*)

One 16-bit signed short channel in place image multiplication, scale by 2^(-nScaleFactor), then clamp to saturated value.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oSizeROI Region-of-Interest (ROI).

nScaleFactor Integer Result Scaling.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.17.2.4 NppStatus nppiMul_16s_C1RSfs (const Npp16s * *pSrc1*, int *nSrc1Step*, const Npp16s * *pSrc2*, int *nSrc2Step*, Npp16s * *pDst*, int *nDstStep*, NppiSize *oSizeROI*, int *nScaleFactor*)

One 16-bit signed short channel image multiplication, scale by 2^(-nScaleFactor), then clamp to saturated value.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

nScaleFactor Integer Result Scaling.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.17.2.5 NppStatus nppiMul_16s_C3IRSfs (const Npp16s * *pSrc*, int *nSrcStep*, Npp16s * *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*, int *nScaleFactor*)

One 16-bit signed short channel in place image multiplication, scale by 2^(-nScaleFactor), then clamp to saturated value.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oSizeROI Region-of-Interest (ROI).

nScaleFactor Integer Result Scaling.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.17.2.6 NppStatus nppiMul_16s_C3RSfs (const Npp16s * *pSrc1*, int *nSrc1Step*, const Npp16s * *pSrc2*, int *nSrc2Step*, Npp16s * *pDst*, int *nDstStep*, NppiSize *oSizeROI*, int *nScaleFactor*)

Three 16-bit signed short channel image multiplication, scale by 2^(-nScaleFactor), then clamp to saturated value.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

nScaleFactor Integer Result Scaling.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.17.2.7 NppStatus nppiMul_16s_C4IRSfs (const Npp16s ∗ *pSrc*, int *nSrcStep*, Npp16s ∗ *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*, int *nScaleFactor*)

Four 16-bit signed short channel in place image multiplication, scale by 2^(-nScaleFactor), then clamp to saturated value.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oSizeROI Region-of-Interest (ROI).

nScaleFactor Integer Result Scaling.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.17.2.8 NppStatus nppiMul_16s_C4RSfs (const Npp16s ∗ *pSrc1*, int *nSrc1Step*, const Npp16s ∗ *pSrc2*, int *nSrc2Step*, Npp16s ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, int *nScaleFactor*)

Four 16-bit signed short channel image multiplication, scale by 2^(-nScaleFactor), then clamp to saturated value.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

nScaleFactor Integer Result Scaling.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.17.2.9 NppStatus nppiMul_16sc_AC4IRSfs (const Npp16sc ∗ *pSrc*, int *nSrcStep*, Npp16sc ∗ *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*, int *nScaleFactor*)

Four 16-bit signed short complex number (16-bit real, 16-bit imaginary) channel with unmodified alpha in place image multiplication, scale by 2^(-nScaleFactor), then clamp to saturated value.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oSizeROI Region-of-Interest (ROI).

nScaleFactor Integer Result Scaling.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.17.2.10 NppStatus nppiMul_16sc_AC4RSfs (const Npp16sc ∗ *pSrc1*, int *nSrc1Step*, const Npp16sc ∗ *pSrc2*, int *nSrc2Step*, Npp16sc ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, int *nScaleFactor*)

Four 16-bit signed short complex number (16-bit real, 16-bit imaginary) channel with unmodified alpha image multiplication, scale by 2^(-nScaleFactor), then clamp to saturated value.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

nScaleFactor Integer Result Scaling.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.17.2.11 NppStatus nppiMul_16sc_C1IRSfs (const Npp16sc ∗ *pSrc*, int *nSrcStep*, Npp16sc ∗ *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*, int *nScaleFactor*)

One 16-bit signed short complex number (16-bit real, 16-bit imaginary) channel in place image multiplication, scale by 2^(-nScaleFactor), then clamp to saturated value.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oSizeROI Region-of-Interest (ROI).

nScaleFactor Integer Result Scaling.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.17.2.12 NppStatus nppiMul_16sc_C1RSfs (const Npp16sc ∗ *pSrc1*, int *nSrc1Step*, const Npp16sc ∗ *pSrc2*, int *nSrc2Step*, Npp16sc ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, int *nScaleFactor*)

One 16-bit signed short complex number (16-bit real, 16-bit imaginary) channel image multiplication, scale by 2^(-nScaleFactor), then clamp to saturated value.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

nScaleFactor Integer Result Scaling.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.17.2.13 NppStatus nppiMul_16sc_C3IRSfs (const Npp16sc ∗ *pSrc*, int *nSrcStep*, Npp16sc ∗ *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*, int *nScaleFactor*)

One 16-bit signed short complex number (16-bit real, 16-bit imaginary) channel in place image multiplication, scale by 2^(-nScaleFactor), then clamp to saturated value.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oSizeROI Region-of-Interest (ROI).

nScaleFactor Integer Result Scaling.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.17.2.14 NppStatus nppiMul_16sc_C3RSfs (const Npp16sc ∗ *pSrc1*, int *nSrc1Step*, const Npp16sc ∗ *pSrc2*, int *nSrc2Step*, Npp16sc ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, int *nScaleFactor*)

Three 16-bit signed short complex number (16-bit real, 16-bit imaginary) channel image multiplication, scale by 2^(-nScaleFactor), then clamp to saturated value.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

nScaleFactor Integer Result Scaling.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.17.2.15 NppStatus nppiMul_16u_AC4IRSfs (const Npp16u * *pSrc*, int *nSrcStep*, Npp16u * *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*, int *nScaleFactor*)

Four 16-bit unsigned short channel with unmodified alpha in place image multiplication, scale by 2^(-nScaleFactor), then clamp to saturated value.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oSizeROI Region-of-Interest (ROI).

nScaleFactor Integer Result Scaling.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.17.2.16 NppStatus nppiMul_16u_AC4RSfs (const Npp16u * *pSrc1*, int *nSrc1Step*, const Npp16u * *pSrc2*, int *nSrc2Step*, Npp16u * *pDst*, int *nDstStep*, NppiSize *oSizeROI*, int *nScaleFactor*)

Four 16-bit unsigned short channel with unmodified alpha image multiplication, scale by 2^(-nScaleFactor), then clamp to saturated value.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

nScaleFactor Integer Result Scaling.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.17.2.17 NppStatus nppiMul_16u_C1IRSfs (const Npp16u ∗ *pSrc*, int *nSrcStep*, Npp16u ∗ *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*, int *nScaleFactor*)

One 16-bit unsigned short channel in place image multiplication, scale by 2^(-nScaleFactor), then clamp to saturated value.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oSizeROI Region-of-Interest (ROI).

nScaleFactor Integer Result Scaling.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.17.2.18 NppStatus nppiMul_16u_C1RSfs (const Npp16u ∗ *pSrc1*, int *nSrc1Step*, const Npp16u ∗ *pSrc2*, int *nSrc2Step*, Npp16u ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, int *nScaleFactor*)

One 16-bit unsigned short channel image multiplication, scale by 2^(-nScaleFactor), then clamp to saturated value.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

nScaleFactor Integer Result Scaling.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.17.2.19 NppStatus nppiMul_16u_C3IRSfs (const Npp16u ∗ *pSrc*, int *nSrcStep*, Npp16u ∗ *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*, int *nScaleFactor*)

One 16-bit unsigned short channel in place image multiplication, scale by 2^(-nScaleFactor), then clamp to saturated value.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oSizeROI Region-of-Interest (ROI).

nScaleFactor Integer Result Scaling.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.17.2.20 NppStatus nppiMul_16u_C3RSfs (const Npp16u ∗ *pSrc1*, int *nSrc1Step*, const Npp16u ∗ *pSrc2*, int *nSrc2Step*, Npp16u ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, int *nScaleFactor*)

Three 16-bit unsigned short channel image multiplication, scale by 2^(-nScaleFactor), then clamp to saturated value.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

nScaleFactor Integer Result Scaling.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.17.2.21 NppStatus nppiMul_16u_C4IRSfs (const Npp16u ∗ *pSrc*, int *nSrcStep*, Npp16u ∗ *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*, int *nScaleFactor*)

Four 16-bit unsigned short channel in place image multiplication, scale by 2^(-nScaleFactor), then clamp to saturated value.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oSizeROI Region-of-Interest (ROI).

nScaleFactor Integer Result Scaling.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.17.2.22 NppStatus nppiMul_16u_C4RSfs (const Npp16u * *pSrc1*, int *nSrc1Step*, const Npp16u * *pSrc2*, int *nSrc2Step*, Npp16u * *pDst*, int *nDstStep*, NppiSize *oSizeROI*, int *nScaleFactor*)

Four 16-bit unsigned short channel image multiplication, scale by 2^(-nScaleFactor), then clamp to saturated value.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

nScaleFactor Integer Result Scaling.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.17.2.23 NppStatus nppiMul_32f_AC4IR (const Npp32f * *pSrc*, int *nSrcStep*, Npp32f * *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*)

Four 32-bit floating point channel with unmodified alpha in place image multiplication.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.17.2.24 NppStatus nppiMul_32f_AC4R (const Npp32f ∗ *pSrc1*, int *nSrc1Step*, const Npp32f ∗ *pSrc2*, int *nSrc2Step*, Npp32f ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*)

Four 32-bit floating point channel with unmodified alpha image multiplication.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.17.2.25 NppStatus nppiMul_32f_C1IR (const Npp32f ∗ *pSrc*, int *nSrcStep*, Npp32f ∗ *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*)

One 32-bit floating point channel in place image multiplication.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.17.2.26 NppStatus nppiMul_32f_C1R (const Npp32f ∗ *pSrc1*, int *nSrc1Step*, const Npp32f ∗ *pSrc2*, int *nSrc2Step*, Npp32f ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*)

One 32-bit floating point channel image multiplication.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.17.2.27 NppStatus nppiMul_32f_C3IR (const Npp32f * *pSrc*, int *nSrcStep*, Npp32f * *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*)

One 32-bit floating point channel in place image multiplication.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.17.2.28 NppStatus nppiMul_32f_C3R (const Npp32f * *pSrc1*, int *nSrc1Step*, const Npp32f * *pSrc2*, int *nSrc2Step*, Npp32f * *pDst*, int *nDstStep*, NppiSize *oSizeROI*)

Three 32-bit floating point channel image multiplication.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.17.2.29 NppStatus nppiMul_32f_C4IR (const Npp32f $*$ *pSrc*, int *nSrcStep*, Npp32f $*$ *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*)

Four 32-bit floating point channel in place image multiplication.

Parameters:

pSrc Source-Image Pointer.
nSrcStep Source-Image Line Step.
pSrcDst In-Place Image Pointer.
nSrcDstStep In-Place-Image Line Step.
oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.17.2.30 NppStatus nppiMul_32f_C4R (const Npp32f $*$ *pSrc1*, int *nSrc1Step*, const Npp32f $*$ *pSrc2*, int *nSrc2Step*, Npp32f $*$ *pDst*, int *nDstStep*, NppiSize *oSizeROI*)

Four 32-bit floating point channel image multiplication.

Parameters:

pSrc1 Source-Image Pointer.
nSrc1Step Source-Image Line Step.
pSrc2 Source-Image Pointer.
nSrc2Step Source-Image Line Step.
pDst Destination-Image Pointer.
nDstStep Destination-Image Line Step.
oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.17.2.31 NppStatus nppiMul_32fc_AC4IR (const Npp32fc $*$ *pSrc*, int *nSrcStep*, Npp32fc $*$ *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*)

Four 32-bit floating point complex number (32-bit real, 32-bit imaginary) channel with unmodified alpha in place image multiplication.

Parameters:

pSrc Source-Image Pointer.
nSrcStep Source-Image Line Step.
pSrcDst In-Place Image Pointer.
nSrcDstStep In-Place-Image Line Step.
oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.17.2.32 NppStatus nppiMul_32fc_AC4R (const Npp32fc ∗ *pSrc1*, int *nSrc1Step*, const Npp32fc ∗ *pSrc2*, int *nSrc2Step*, Npp32fc ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*)

Four 32-bit floating point complex number (32-bit real, 32-bit imaginary) channel with unmodified alpha image multiplication.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.17.2.33 NppStatus nppiMul_32fc_C1IR (const Npp32fc ∗ *pSrc*, int *nSrcStep*, Npp32fc ∗ *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*)

One 32-bit floating point complex number (32-bit real, 32-bit imaginary) channel in place image multiplication.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.17.2.34 NppStatus nppiMul_32fc_C1R (const Npp32fc ∗ *pSrc1*, int *nSrc1Step*, const Npp32fc ∗ *pSrc2*, int *nSrc2Step*, Npp32fc ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*)

One 32-bit floating point complex number (32-bit real, 32-bit imaginary) channel image multiplication.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.17.2.35 NppStatus nppiMul_32fc_C3IR (const Npp32fc * *pSrc*, int *nSrcStep*, Npp32fc * *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*)

One 32-bit floating point complex number (32-bit real, 32-bit imaginary) channel in place image multiplication.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.17.2.36 NppStatus nppiMul_32fc_C3R (const Npp32fc * *pSrc1*, int *nSrc1Step*, const Npp32fc * *pSrc2*, int *nSrc2Step*, Npp32fc * *pDst*, int *nDstStep*, NppiSize *oSizeROI*)

Three 32-bit floating point complex number (32-bit real, 32-bit imaginary) channel image multiplication.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.17.2.37 NppStatus nppiMul_32fc_C4IR (const Npp32fc ∗ *pSrc*, int *nSrcStep*, Npp32fc ∗ *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*)

Four 32-bit floating point complex number (32-bit real, 32-bit imaginary) channel in place image multiplication.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.17.2.38 NppStatus nppiMul_32fc_C4R (const Npp32fc ∗ *pSrc1*, int *nSrc1Step*, const Npp32fc ∗ *pSrc2*, int *nSrc2Step*, Npp32fc ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*)

Four 32-bit floating point complex number (32-bit real, 32-bit imaginary) channel image multiplication.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.17.2.39 NppStatus nppiMul_32s_C1IRSfs (const Npp32s ∗ *pSrc*, int *nSrcStep*, Npp32s ∗ *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*, int *nScaleFactor*)

One 32-bit signed integer channel in place image multiplication, scale by 2^(-nScaleFactor), then clamp to saturated value.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oSizeROI Region-of-Interest (ROI).

nScaleFactor Integer Result Scaling.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.17.2.40 NppStatus nppiMul_32s_C1R (const Npp32s ∗ *pSrc1*, int *nSrc1Step*, const Npp32s ∗ *pSrc2*, int *nSrc2Step*, Npp32s ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*)

Note: This function is to be deprecated in future NPP releases, use the function above with a scale factor of 0 instead.

1 channel 32-bit image multiplication. Multiply corresponding pixels in ROI.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.17.2.41 NppStatus nppiMul_32s_C1RSfs (const Npp32s ∗ *pSrc1*, int *nSrc1Step*, const Npp32s ∗ *pSrc2*, int *nSrc2Step*, Npp32s ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, int *nScaleFactor*)

One 32-bit signed integer channel image multiplication, scale by 2^(-nScaleFactor), then clamp to saturated value.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

nScaleFactor Integer Result Scaling.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.17.2.42 NppStatus nppiMul_32s_C3IRSfs (const Npp32s * *pSrc*, int *nSrcStep*, Npp32s * *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*, int *nScaleFactor*)

One 32-bit signed integer channel in place image multiplication, scale by 2^(-nScaleFactor), then clamp to saturated value.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oSizeROI Region-of-Interest (ROI).

nScaleFactor Integer Result Scaling.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.17.2.43 NppStatus nppiMul_32s_C3RSfs (const Npp32s * *pSrc1*, int *nSrc1Step*, const Npp32s * *pSrc2*, int *nSrc2Step*, Npp32s * *pDst*, int *nDstStep*, NppiSize *oSizeROI*, int *nScaleFactor*)

Three 32-bit signed integer channel image multiplication, scale by 2^(-nScaleFactor), then clamp to saturated value.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

nScaleFactor Integer Result Scaling.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.17.2.44 NppStatus nppiMul_32sc_AC4IRSfs (const Npp32sc * *pSrc*, int *nSrcStep*, Npp32sc * *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*, int *nScaleFactor*)

Four 32-bit signed integer complex number (32-bit real, 32-bit imaginary) channel with unmodified alpha in place image multiplication, scale by 2^(-nScaleFactor), then clamp to saturated value.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oSizeROI Region-of-Interest (ROI).

nScaleFactor Integer Result Scaling.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.17.2.45 NppStatus nppiMul_32sc_AC4RSfs (const Npp32sc * *pSrc1*, int *nSrc1Step*, const Npp32sc * *pSrc2*, int *nSrc2Step*, Npp32sc * *pDst*, int *nDstStep*, NppiSize *oSizeROI*, int *nScaleFactor*)

Four 32-bit signed integer complex number (32-bit real, 32-bit imaginary) channel with unmodified alpha image multiplication, scale by 2^(-nScaleFactor), then clamp to saturated value.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

nScaleFactor Integer Result Scaling.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.17.2.46 NppStatus nppiMul_32sc_C1IRSfs (const Npp32sc * *pSrc*, int *nSrcStep*, Npp32sc * *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*, int *nScaleFactor*)

One 32-bit signed integer complex number (32-bit real, 32-bit imaginary) channel in place image multiplication, scale by 2^(-nScaleFactor), then clamp to saturated value.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oSizeROI Region-of-Interest (ROI).

nScaleFactor Integer Result Scaling.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.17.2.47 NppStatus nppiMul_32sc_C1RSfs (const Npp32sc $*$ *pSrc1*, int *nSrc1Step*, const Npp32sc $*$ *pSrc2*, int *nSrc2Step*, Npp32sc $*$ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, int *nScaleFactor*)

One 32-bit signed integer complex number (32-bit real, 32-bit imaginary) channel image multiplication, scale by 2^(-nScaleFactor), then clamp to saturated value.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

nScaleFactor Integer Result Scaling.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.17.2.48 NppStatus nppiMul_32sc_C3IRSfs (const Npp32sc $*$ *pSrc*, int *nSrcStep*, Npp32sc $*$ *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*, int *nScaleFactor*)

One 32-bit signed integer complex number (32-bit real, 32-bit imaginary) channel in place image multiplication, scale by 2^(-nScaleFactor), then clamp to saturated value.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oSizeROI Region-of-Interest (ROI).

nScaleFactor Integer Result Scaling.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.17.2.49 NppStatus nppiMul_32sc_C3RSfs (const Npp32sc $*$ *pSrc1*, int *nSrc1Step*, const Npp32sc $*$ *pSrc2*, int *nSrc2Step*, Npp32sc $*$ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, int *nScaleFactor*)

Three 32-bit signed integer complex number (32-bit real, 32-bit imaginary) channel image multiplication, scale by 2^(-nScaleFactor), then clamp to saturated value.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

nScaleFactor Integer Result Scaling.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.17.2.50 NppStatus nppiMul_8u_AC4IRSfs (const Npp8u ∗ *pSrc*, int *nSrcStep*, Npp8u ∗ *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*, int *nScaleFactor*)

Four 8-bit unsigned char channel with unmodified alpha in place image multiplication, scale by 2^(-nScaleFactor), then clamp to saturated value.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oSizeROI Region-of-Interest (ROI).

nScaleFactor Integer Result Scaling.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.17.2.51 NppStatus nppiMul_8u_AC4RSfs (const Npp8u ∗ *pSrc1*, int *nSrc1Step*, const Npp8u ∗ *pSrc2*, int *nSrc2Step*, Npp8u ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, int *nScaleFactor*)

Four 8-bit unsigned char channel with unmodified alpha image multiplication, scale by 2^(-nScaleFactor), then clamp to saturated value.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

nScaleFactor Integer Result Scaling.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.17.2.52 NppStatus nppiMul_8u_C1IRSfs (const Npp8u $*$ *pSrc*, int *nSrcStep*, Npp8u $*$ *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*, int *nScaleFactor*)

One 8-bit unsigned char channel in place image multiplication, scale by 2^(-nScaleFactor), then clamp to saturated value.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oSizeROI Region-of-Interest (ROI).

nScaleFactor Integer Result Scaling.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.17.2.53 NppStatus nppiMul_8u_C1RSfs (const Npp8u $*$ *pSrc1*, int *nSrc1Step*, const Npp8u $*$ *pSrc2*, int *nSrc2Step*, Npp8u $*$ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, int *nScaleFactor*)

One 8-bit unsigned char channel image multiplication, scale by 2^(-nScaleFactor), then clamp to saturated value.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

nScaleFactor Integer Result Scaling.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.17.2.54 NppStatus nppiMul_8u_C3IRSfs (const Npp8u $*$ *pSrc*, int *nSrcStep*, Npp8u $*$ *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*, int *nScaleFactor*)

One 8-bit unsigned char channel in place image multiplication, scale by 2^(-nScaleFactor), then clamp to saturated value.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oSizeROI Region-of-Interest (ROI).

nScaleFactor Integer Result Scaling.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.17.2.55 NppStatus nppiMul_8u_C3RSfs (const Npp8u $*$ *pSrc1*, int *nSrc1Step*, const Npp8u $*$ *pSrc2*, int *nSrc2Step*, Npp8u $*$ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, int *nScaleFactor*)

Three 8-bit unsigned char channel image multiplication, scale by 2^(-nScaleFactor), then clamp to saturated value.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

nScaleFactor Integer Result Scaling.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.17.2.56 NppStatus nppiMul_8u_C4IRSfs (const Npp8u $*$ *pSrc*, int *nSrcStep*, Npp8u $*$ *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*, int *nScaleFactor*)

Four 8-bit unsigned char channel in place image multiplication, scale by 2^(-nScaleFactor), then clamp to saturated value.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oSizeROI Region-of-Interest (ROI).

nScaleFactor Integer Result Scaling.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.17.2.57 NppStatus nppiMul_8u_C4RSfs (const Npp8u ∗ *pSrc1*, int *nSrc1Step*, const Npp8u ∗ *pSrc2*, int *nSrc2Step*, Npp8u ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, int *nScaleFactor*)

Four 8-bit unsigned char channel image multiplication, scale by 2^(-nScaleFactor), then clamp to saturated value.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

nScaleFactor Integer Result Scaling.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.18 MulScale

Pixel by pixel multiplies each pixel of two images then scales the result by the maximum value for the data bit width.

Functions

- NppStatus nppiMulScale_8u_C1R (const Npp8u ∗pSrc1, int nSrc1Step, const Npp8u ∗pSrc2, int nSrc2Step, Npp8u ∗pDst, int nDstStep, NppiSize oSizeROI)

  One 8-bit unsigned char channel image multiplication then scale by maximum value for pixel bit width.

- NppStatus nppiMulScale_8u_C1IR (const Npp8u ∗pSrc, int nSrcStep, Npp8u ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI)

  One 8-bit unsigned char channel in place image multiplication then scale by maximum value for pixel bit width.

- NppStatus nppiMulScale_8u_C3R (const Npp8u ∗pSrc1, int nSrc1Step, const Npp8u ∗pSrc2, int nSrc2Step, Npp8u ∗pDst, int nDstStep, NppiSize oSizeROI)

  Three 8-bit unsigned char channel image multiplication then scale by maximum value for pixel bit width.

- NppStatus nppiMulScale_8u_C3IR (const Npp8u ∗pSrc, int nSrcStep, Npp8u ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI)

  One 8-bit unsigned char channel in place image multiplication then scale by maximum value for pixel bit width.

- NppStatus nppiMulScale_8u_AC4R (const Npp8u ∗pSrc1, int nSrc1Step, const Npp8u ∗pSrc2, int nSrc2Step, Npp8u ∗pDst, int nDstStep, NppiSize oSizeROI)

  Four 8-bit unsigned char channel with unmodified alpha image multiplication then scale by maximum value for pixel bit width.

- NppStatus nppiMulScale_8u_AC4IR (const Npp8u ∗pSrc, int nSrcStep, Npp8u ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI)

  Four 8-bit unsigned char channel with unmodified alpha in place image multiplication then scale by maximum value for pixel bit width.

- NppStatus nppiMulScale_8u_C4R (const Npp8u ∗pSrc1, int nSrc1Step, const Npp8u ∗pSrc2, int nSrc2Step, Npp8u ∗pDst, int nDstStep, NppiSize oSizeROI)

  Four 8-bit unsigned char channel image multiplication then scale by maximum value for pixel bit width.

- NppStatus nppiMulScale_8u_C4IR (const Npp8u ∗pSrc, int nSrcStep, Npp8u ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI)

  Four 8-bit unsigned char channel in place image multiplication then scale by maximum value for pixel bit width.

- NppStatus nppiMulScale_16u_C1R (const Npp16u ∗pSrc1, int nSrc1Step, const Npp16u ∗pSrc2, int nSrc2Step, Npp16u ∗pDst, int nDstStep, NppiSize oSizeROI)

  One 16-bit unsigned short channel image multiplication then scale by maximum value for pixel bit width.

- NppStatus nppiMulScale_16u_C1IR (const Npp16u ∗pSrc, int nSrcStep, Npp16u ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI)

One 16-bit unsigned short channel in place image multiplication then scale by maximum value for pixel bit width.

- NppStatus nppiMulScale_16u_C3R (const Npp16u ∗pSrc1, int nSrc1Step, const Npp16u ∗pSrc2, int nSrc2Step, Npp16u ∗pDst, int nDstStep, NppiSize oSizeROI)

  Three 16-bit unsigned short channel image multiplication then scale by maximum value for pixel bit width.

- NppStatus nppiMulScale_16u_C3IR (const Npp16u ∗pSrc, int nSrcStep, Npp16u ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI)

  One 16-bit unsigned short channel in place image multiplication then scale by maximum value for pixel bit width.

- NppStatus nppiMulScale_16u_AC4R (const Npp16u ∗pSrc1, int nSrc1Step, const Npp16u ∗pSrc2, int nSrc2Step, Npp16u ∗pDst, int nDstStep, NppiSize oSizeROI)

  Four 16-bit unsigned short channel with unmodified alpha image multiplication then scale by maximum value for pixel bit width.

- NppStatus nppiMulScale_16u_AC4IR (const Npp16u ∗pSrc, int nSrcStep, Npp16u ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI)

  Four 16-bit unsigned short channel with unmodified alpha in place image multiplication then scale by maximum value for pixel bit width.

- NppStatus nppiMulScale_16u_C4R (const Npp16u ∗pSrc1, int nSrc1Step, const Npp16u ∗pSrc2, int nSrc2Step, Npp16u ∗pDst, int nDstStep, NppiSize oSizeROI)

  Four 16-bit unsigned short channel image multiplication then scale by maximum value for pixel bit width.

- NppStatus nppiMulScale_16u_C4IR (const Npp16u ∗pSrc, int nSrcStep, Npp16u ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI)

  Four 16-bit unsigned short channel in place image multiplication then scale by maximum value for pixel bit width.

7.18.1 Detailed Description

Pixel by pixel multiplies each pixel of two images then scales the result by the maximum value for the data bit width.

7.18.2 Function Documentation

7.18.2.1 NppStatus nppiMulScale_16u_AC4IR (const Npp16u ∗ *pSrc*, int *nSrcStep*, Npp16u ∗ *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*)

Four 16-bit unsigned short channel with unmodified alpha in place image multiplication then scale by maximum value for pixel bit width.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.18.2.2 NppStatus nppiMulScale_16u_AC4R (const Npp16u ∗ *pSrc1*, int *nSrc1Step*, const Npp16u ∗ *pSrc2*, int *nSrc2Step*, Npp16u ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*)

Four 16-bit unsigned short channel with unmodified alpha image multiplication then scale by maximum value for pixel bit width.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.18.2.3 NppStatus nppiMulScale_16u_C1IR (const Npp16u ∗ *pSrc*, int *nSrcStep*, Npp16u ∗ *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*)

One 16-bit unsigned short channel in place image multiplication then scale by maximum value for pixel bit width.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.18.2.4 NppStatus nppiMulScale_16u_C1R (const Npp16u ∗ *pSrc1*, int *nSrc1Step*, const Npp16u ∗ *pSrc2*, int *nSrc2Step*, Npp16u ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*)

One 16-bit unsigned short channel image multiplication then scale by maximum value for pixel bit width.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.18.2.5 NppStatus nppiMulScale_16u_C3IR (const Npp16u ∗ *pSrc*, int *nSrcStep*, Npp16u ∗ *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*)

One 16-bit unsigned short channel in place image multiplication then scale by maximum value for pixel bit width.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.18.2.6 NppStatus nppiMulScale_16u_C3R (const Npp16u ∗ *pSrc1*, int *nSrc1Step*, const Npp16u ∗ *pSrc2*, int *nSrc2Step*, Npp16u ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*)

Three 16-bit unsigned short channel image multiplication then scale by maximum value for pixel bit width.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.18.2.7 NppStatus nppiMulScale_16u_C4IR (const Npp16u * *pSrc*, int *nSrcStep*, Npp16u * *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*)

Four 16-bit unsigned short channel in place image multiplication then scale by maximum value for pixel bit width.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.18.2.8 NppStatus nppiMulScale_16u_C4R (const Npp16u * *pSrc1*, int *nSrc1Step*, const Npp16u * *pSrc2*, int *nSrc2Step*, Npp16u * *pDst*, int *nDstStep*, NppiSize *oSizeROI*)

Four 16-bit unsigned short channel image multiplication then scale by maximum value for pixel bit width.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.18.2.9 NppStatus nppiMulScale_8u_AC4IR (const Npp8u ∗ *pSrc*, int *nSrcStep*, Npp8u ∗ *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*)

Four 8-bit unsigned char channel with unmodified alpha in place image multiplication then scale by maximum value for pixel bit width.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.18.2.10 NppStatus nppiMulScale_8u_AC4R (const Npp8u ∗ *pSrc1*, int *nSrc1Step*, const Npp8u ∗ *pSrc2*, int *nSrc2Step*, Npp8u ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*)

Four 8-bit unsigned char channel with unmodified alpha image multiplication then scale by maximum value for pixel bit width.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.18.2.11 NppStatus nppiMulScale_8u_C1IR (const Npp8u ∗ *pSrc*, int *nSrcStep*, Npp8u ∗ *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*)

One 8-bit unsigned char channel in place image multiplication then scale by maximum value for pixel bit width.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.18.2.12 NppStatus nppiMulScale_8u_C1R (const Npp8u * *pSrc1*, int *nSrc1Step*, const Npp8u * *pSrc2*, int *nSrc2Step*, Npp8u * *pDst*, int *nDstStep*, NppiSize *oSizeROI*)

One 8-bit unsigned char channel image multiplication then scale by maximum value for pixel bit width.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.18.2.13 NppStatus nppiMulScale_8u_C3IR (const Npp8u * *pSrc*, int *nSrcStep*, Npp8u * *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*)

One 8-bit unsigned char channel in place image multiplication then scale by maximum value for pixel bit width.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.18.2.14 NppStatus nppiMulScale_8u_C3R (const Npp8u * *pSrc1*, int *nSrc1Step*, const Npp8u * *pSrc2*, int *nSrc2Step*, Npp8u * *pDst*, int *nDstStep*, NppiSize *oSizeROI*)

Three 8-bit unsigned char channel image multiplication then scale by maximum value for pixel bit width.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.18.2.15 NppStatus nppiMulScale_8u_C4IR (const Npp8u * *pSrc*, int *nSrcStep*, Npp8u * *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*)

Four 8-bit unsigned char channel in place image multiplication then scale by maximum value for pixel bit width.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.18.2.16 NppStatus nppiMulScale_8u_C4R (const Npp8u * *pSrc1*, int *nSrc1Step*, const Npp8u * *pSrc2*, int *nSrc2Step*, Npp8u * *pDst*, int *nDstStep*, NppiSize *oSizeROI*)

Four 8-bit unsigned char channel image multiplication then scale by maximum value for pixel bit width.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.19 Sub

Pixel by pixel subtraction of two images.

Functions

- NppStatus nppiSub_8u_C1RSfs (const Npp8u ∗pSrc1, int nSrc1Step, const Npp8u ∗pSrc2, int nSrc2Step, Npp8u ∗pDst, int nDstStep, NppiSize oSizeROI, int nScaleFactor)

  One 8-bit unsigned char channel image subtraction, scale by 2^(-nScaleFactor), then clamp to saturated value.

- NppStatus nppiSub_8u_C1IRSfs (const Npp8u ∗pSrc, int nSrcStep, Npp8u ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI, int nScaleFactor)

  One 8-bit unsigned char channel in place image subtraction, scale by 2^(-nScaleFactor), then clamp to saturated value.

- NppStatus nppiSub_8u_C3RSfs (const Npp8u ∗pSrc1, int nSrc1Step, const Npp8u ∗pSrc2, int nSrc2Step, Npp8u ∗pDst, int nDstStep, NppiSize oSizeROI, int nScaleFactor)

  Three 8-bit unsigned char channel image subtraction, scale by 2^(-nScaleFactor), then clamp to saturated value.

- NppStatus nppiSub_8u_C3IRSfs (const Npp8u ∗pSrc, int nSrcStep, Npp8u ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI, int nScaleFactor)

  One 8-bit unsigned char channel in place image subtraction, scale by 2^(-nScaleFactor), then clamp to saturated value.

- NppStatus nppiSub_8u_AC4RSfs (const Npp8u ∗pSrc1, int nSrc1Step, const Npp8u ∗pSrc2, int nSrc2Step, Npp8u ∗pDst, int nDstStep, NppiSize oSizeROI, int nScaleFactor)

  Four 8-bit unsigned char channel with unmodified alpha image subtraction, scale by 2^(-nScaleFactor), then clamp to saturated value.

- NppStatus nppiSub_8u_AC4IRSfs (const Npp8u ∗pSrc, int nSrcStep, Npp8u ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI, int nScaleFactor)

  Four 8-bit unsigned char channel with unmodified alpha in place image subtraction, scale by 2^(-nScaleFactor), then clamp to saturated value.

- NppStatus nppiSub_8u_C4RSfs (const Npp8u ∗pSrc1, int nSrc1Step, const Npp8u ∗pSrc2, int nSrc2Step, Npp8u ∗pDst, int nDstStep, NppiSize oSizeROI, int nScaleFactor)

  Four 8-bit unsigned char channel image subtraction, scale by 2^(-nScaleFactor), then clamp to saturated value.

- NppStatus nppiSub_8u_C4IRSfs (const Npp8u ∗pSrc, int nSrcStep, Npp8u ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI, int nScaleFactor)

  Four 8-bit unsigned char channel in place image subtraction, scale by 2^(-nScaleFactor), then clamp to saturated value.

- NppStatus nppiSub_16u_C1RSfs (const Npp16u ∗pSrc1, int nSrc1Step, const Npp16u ∗pSrc2, int nSrc2Step, Npp16u ∗pDst, int nDstStep, NppiSize oSizeROI, int nScaleFactor)

  One 16-bit unsigned short channel image subtraction, scale by 2^(-nScaleFactor), then clamp to saturated value.

- NppStatus nppiSub_16u_C1IRSfs (const Npp16u ∗pSrc, int nSrcStep, Npp16u ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI, int nScaleFactor)

  One 16-bit unsigned short channel in place image subtraction, scale by 2^(-nScaleFactor), then clamp to saturated value.

- NppStatus nppiSub_16u_C3RSfs (const Npp16u ∗pSrc1, int nSrc1Step, const Npp16u ∗pSrc2, int nSrc2Step, Npp16u ∗pDst, int nDstStep, NppiSize oSizeROI, int nScaleFactor)

  Three 16-bit unsigned short channel image subtraction, scale by 2^(-nScaleFactor), then clamp to saturated value.

- NppStatus nppiSub_16u_C3IRSfs (const Npp16u ∗pSrc, int nSrcStep, Npp16u ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI, int nScaleFactor)

  One 16-bit unsigned short channel in place image subtraction, scale by 2^(-nScaleFactor), then clamp to saturated value.

- NppStatus nppiSub_16u_AC4RSfs (const Npp16u ∗pSrc1, int nSrc1Step, const Npp16u ∗pSrc2, int nSrc2Step, Npp16u ∗pDst, int nDstStep, NppiSize oSizeROI, int nScaleFactor)

  Four 16-bit unsigned short channel with unmodified alpha image subtraction, scale by 2^(-nScaleFactor), then clamp to saturated value.

- NppStatus nppiSub_16u_AC4IRSfs (const Npp16u ∗pSrc, int nSrcStep, Npp16u ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI, int nScaleFactor)

  Four 16-bit unsigned short channel with unmodified alpha in place image subtraction, scale by 2^(-nScaleFactor), then clamp to saturated value.

- NppStatus nppiSub_16u_C4RSfs (const Npp16u ∗pSrc1, int nSrc1Step, const Npp16u ∗pSrc2, int nSrc2Step, Npp16u ∗pDst, int nDstStep, NppiSize oSizeROI, int nScaleFactor)

  Four 16-bit unsigned short channel image subtraction, scale by 2^(-nScaleFactor), then clamp to saturated value.

- NppStatus nppiSub_16u_C4IRSfs (const Npp16u ∗pSrc, int nSrcStep, Npp16u ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI, int nScaleFactor)

  Four 16-bit unsigned short channel in place image subtraction, scale by 2^(-nScaleFactor), then clamp to saturated value.

- NppStatus nppiSub_16s_C1RSfs (const Npp16s ∗pSrc1, int nSrc1Step, const Npp16s ∗pSrc2, int nSrc2Step, Npp16s ∗pDst, int nDstStep, NppiSize oSizeROI, int nScaleFactor)

  One 16-bit signed short channel image subtraction, scale by 2^(-nScaleFactor), then clamp to saturated value.

- NppStatus nppiSub_16s_C1IRSfs (const Npp16s ∗pSrc, int nSrcStep, Npp16s ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI, int nScaleFactor)

  One 16-bit signed short channel in place image subtraction, scale by 2^(-nScaleFactor), then clamp to saturated value.

- NppStatus nppiSub_16s_C3RSfs (const Npp16s ∗pSrc1, int nSrc1Step, const Npp16s ∗pSrc2, int nSrc2Step, Npp16s ∗pDst, int nDstStep, NppiSize oSizeROI, int nScaleFactor)

  Three 16-bit signed short channel image subtraction, scale by 2^(-nScaleFactor), then clamp to saturated value.

- NppStatus nppiSub_16s_C3IRSfs (const Npp16s ∗pSrc, int nSrcStep, Npp16s ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI, int nScaleFactor)

One 16-bit signed short channel in place image subtraction, scale by 2^(-nScaleFactor), then clamp to saturated value.

- NppStatus nppiSub_16s_AC4RSfs (const Npp16s ∗pSrc1, int nSrc1Step, const Npp16s ∗pSrc2, int nSrc2Step, Npp16s ∗pDst, int nDstStep, NppiSize oSizeROI, int nScaleFactor)

  Four 16-bit signed short channel with unmodified alpha image subtraction, scale by 2^(-nScaleFactor), then clamp to saturated value.

- NppStatus nppiSub_16s_AC4IRSfs (const Npp16s ∗pSrc, int nSrcStep, Npp16s ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI, int nScaleFactor)

  Four 16-bit signed short channel with unmodified alpha in place image subtraction, scale by 2^(-nScaleFactor), then clamp to saturated value.

- NppStatus nppiSub_16s_C4RSfs (const Npp16s ∗pSrc1, int nSrc1Step, const Npp16s ∗pSrc2, int nSrc2Step, Npp16s ∗pDst, int nDstStep, NppiSize oSizeROI, int nScaleFactor)

  Four 16-bit signed short channel image subtraction, scale by 2^(-nScaleFactor), then clamp to saturated value.

- NppStatus nppiSub_16s_C4IRSfs (const Npp16s ∗pSrc, int nSrcStep, Npp16s ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI, int nScaleFactor)

  Four 16-bit signed short channel in place image subtraction, scale by 2^(-nScaleFactor), then clamp to saturated value.

- NppStatus nppiSub_16sc_C1RSfs (const Npp16sc ∗pSrc1, int nSrc1Step, const Npp16sc ∗pSrc2, int nSrc2Step, Npp16sc ∗pDst, int nDstStep, NppiSize oSizeROI, int nScaleFactor)

  One 16-bit signed short complex number (16-bit real, 16-bit imaginary) channel image subtraction, scale by 2^(-nScaleFactor), then clamp to saturated value.

- NppStatus nppiSub_16sc_C1IRSfs (const Npp16sc ∗pSrc, int nSrcStep, Npp16sc ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI, int nScaleFactor)

  One 16-bit signed short complex number (16-bit real, 16-bit imaginary) channel in place image subtraction, scale by 2^(-nScaleFactor), then clamp to saturated value.

- NppStatus nppiSub_16sc_C3RSfs (const Npp16sc ∗pSrc1, int nSrc1Step, const Npp16sc ∗pSrc2, int nSrc2Step, Npp16sc ∗pDst, int nDstStep, NppiSize oSizeROI, int nScaleFactor)

  Three 16-bit signed short complex number (16-bit real, 16-bit imaginary) channel image subtraction, scale by 2^(-nScaleFactor), then clamp to saturated value.

- NppStatus nppiSub_16sc_C3IRSfs (const Npp16sc ∗pSrc, int nSrcStep, Npp16sc ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI, int nScaleFactor)

  One 16-bit signed short complex number (16-bit real, 16-bit imaginary) channel in place image subtraction, scale by 2^(-nScaleFactor), then clamp to saturated value.

- NppStatus nppiSub_16sc_AC4RSfs (const Npp16sc ∗pSrc1, int nSrc1Step, const Npp16sc ∗pSrc2, int nSrc2Step, Npp16sc ∗pDst, int nDstStep, NppiSize oSizeROI, int nScaleFactor)

  Four 16-bit signed short complex number (16-bit real, 16-bit imaginary) channel with unmodified alpha image subtraction, scale by 2^(-nScaleFactor), then clamp to saturated value.

- NppStatus nppiSub_16sc_AC4IRSfs (const Npp16sc ∗pSrc, int nSrcStep, Npp16sc ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI, int nScaleFactor)

  Four 16-bit signed short complex number (16-bit real, 16-bit imaginary) channel with unmodified alpha in place image subtraction, scale by 2^(-nScaleFactor), then clamp to saturated value.

- NppStatus nppiSub_32s_C1RSfs (const Npp32s ∗pSrc1, int nSrc1Step, const Npp32s ∗pSrc2, int nSrc2Step, Npp32s ∗pDst, int nDstStep, NppiSize oSizeROI, int nScaleFactor)

  One 32-bit signed integer channel image subtraction, scale by 2^(-nScaleFactor), then clamp to saturated value.

- NppStatus nppiSub_32s_C1R (const Npp32s ∗pSrc1, int nSrc1Step, const Npp32s ∗pSrc2, int nSrc2Step, Npp32s ∗pDst, int nDstStep, NppiSize oSizeROI)

  Note: This function is to be deprecated in future NPP releases, use the function above with a scale factor of 0 instead.

- NppStatus nppiSub_32s_C1IRSfs (const Npp32s ∗pSrc, int nSrcStep, Npp32s ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI, int nScaleFactor)

  One 32-bit signed integer channel in place image subtraction, scale by 2^(-nScaleFactor), then clamp to saturated value.

- NppStatus nppiSub_32s_C3RSfs (const Npp32s ∗pSrc1, int nSrc1Step, const Npp32s ∗pSrc2, int nSrc2Step, Npp32s ∗pDst, int nDstStep, NppiSize oSizeROI, int nScaleFactor)

  Three 32-bit signed integer channel image subtraction, scale by 2^(-nScaleFactor), then clamp to saturated value.

- NppStatus nppiSub_32s_C3IRSfs (const Npp32s ∗pSrc, int nSrcStep, Npp32s ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI, int nScaleFactor)

  One 32-bit signed integer channel in place image subtraction, scale by 2^(-nScaleFactor), then clamp to saturated value.

- NppStatus nppiSub_32s_C4RSfs (const Npp32s ∗pSrc1, int nSrc1Step, const Npp32s ∗pSrc2, int nSrc2Step, Npp32s ∗pDst, int nDstStep, NppiSize oSizeROI, int nScaleFactor)

  Four 32-bit signed integer channel image subtraction, scale by 2^(-nScaleFactor), then clamp to saturated value.

- NppStatus nppiSub_32s_C4IRSfs (const Npp32s ∗pSrc, int nSrcStep, Npp32s ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI, int nScaleFactor)

  Four 32-bit signed integer channel in place image subtraction, scale by 2^(-nScaleFactor), then clamp to saturated value.

- NppStatus nppiSub_32sc_C1RSfs (const Npp32sc ∗pSrc1, int nSrc1Step, const Npp32sc ∗pSrc2, int nSrc2Step, Npp32sc ∗pDst, int nDstStep, NppiSize oSizeROI, int nScaleFactor)

  One 32-bit signed integer complex number (32-bit real, 32-bit imaginary) channel image subtraction, scale by 2^(-nScaleFactor), then clamp to saturated value.

- NppStatus nppiSub_32sc_C1IRSfs (const Npp32sc ∗pSrc, int nSrcStep, Npp32sc ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI, int nScaleFactor)

  One 32-bit signed integer complex number (32-bit real, 32-bit imaginary) channel in place image subtraction, scale by 2^(-nScaleFactor), then clamp to saturated value.

- NppStatus nppiSub_32sc_C3RSfs (const Npp32sc ∗pSrc1, int nSrc1Step, const Npp32sc ∗pSrc2, int nSrc2Step, Npp32sc ∗pDst, int nDstStep, NppiSize oSizeROI, int nScaleFactor)

  Three 32-bit signed integer complex number (32-bit real, 32-bit imaginary) channel image subtraction, scale by 2^(-nScaleFactor), then clamp to saturated value.

- NppStatus nppiSub_32sc_C3IRSfs (const Npp32sc ∗pSrc, int nSrcStep, Npp32sc ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI, int nScaleFactor)

  One 32-bit signed integer complex number (32-bit real, 32-bit imaginary) channel in place image subtraction, scale by 2^(-nScaleFactor), then clamp to saturated value.

- NppStatus nppiSub_32sc_AC4RSfs (const Npp32sc ∗pSrc1, int nSrc1Step, const Npp32sc ∗pSrc2, int nSrc2Step, Npp32sc ∗pDst, int nDstStep, NppiSize oSizeROI, int nScaleFactor)

  Four 32-bit signed integer complex number (32-bit real, 32-bit imaginary) channel with unmodified alpha image subtraction, scale by 2^(-nScaleFactor), then clamp to saturated value.

- NppStatus nppiSub_32sc_AC4IRSfs (const Npp32sc ∗pSrc, int nSrcStep, Npp32sc ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI, int nScaleFactor)

  Four 32-bit signed integer complex number (32-bit real, 32-bit imaginary) channel with unmodified alpha in place image subtraction, scale by 2^(-nScaleFactor), then clamp to saturated value.

- NppStatus nppiSub_32f_C1R (const Npp32f ∗pSrc1, int nSrc1Step, const Npp32f ∗pSrc2, int nSrc2Step, Npp32f ∗pDst, int nDstStep, NppiSize oSizeROI)

  One 32-bit floating point channel image subtraction.

- NppStatus nppiSub_32f_C1IR (const Npp32f ∗pSrc, int nSrcStep, Npp32f ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI)

  One 32-bit floating point channel in place image subtraction.

- NppStatus nppiSub_32f_C3R (const Npp32f ∗pSrc1, int nSrc1Step, const Npp32f ∗pSrc2, int nSrc2Step, Npp32f ∗pDst, int nDstStep, NppiSize oSizeROI)

  Three 32-bit floating point channel image subtraction.

- NppStatus nppiSub_32f_C3IR (const Npp32f ∗pSrc, int nSrcStep, Npp32f ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI)

  One 32-bit floating point channel in place image subtraction.

- NppStatus nppiSub_32f_AC4R (const Npp32f ∗pSrc1, int nSrc1Step, const Npp32f ∗pSrc2, int nSrc2Step, Npp32f ∗pDst, int nDstStep, NppiSize oSizeROI)

  Four 32-bit floating point channel with unmodified alpha image subtraction.

- NppStatus nppiSub_32f_AC4IR (const Npp32f ∗pSrc, int nSrcStep, Npp32f ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI)

  Four 32-bit floating point channel with unmodified alpha in place image subtraction.

- NppStatus nppiSub_32f_C4R (const Npp32f ∗pSrc1, int nSrc1Step, const Npp32f ∗pSrc2, int nSrc2Step, Npp32f ∗pDst, int nDstStep, NppiSize oSizeROI)

  Four 32-bit floating point channel image subtraction.

- NppStatus nppiSub_32f_C4IR (const Npp32f ∗pSrc, int nSrcStep, Npp32f ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI)

  Four 32-bit floating point channel in place image subtraction.

- NppStatus nppiSub_32fc_C1R (const Npp32fc ∗pSrc1, int nSrc1Step, const Npp32fc ∗pSrc2, int nSrc2Step, Npp32fc ∗pDst, int nDstStep, NppiSize oSizeROI)

  One 32-bit floating point complex number (32-bit real, 32-bit imaginary) channel image subtraction.

- NppStatus nppiSub_32fc_C1IR (const Npp32fc ∗pSrc, int nSrcStep, Npp32fc ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI)

  One 32-bit floating point complex number (32-bit real, 32-bit imaginary) channel in place image subtraction.

- NppStatus nppiSub_32fc_C3R (const Npp32fc ∗pSrc1, int nSrc1Step, const Npp32fc ∗pSrc2, int nSrc2Step, Npp32fc ∗pDst, int nDstStep, NppiSize oSizeROI)

  Three 32-bit floating point complex number (32-bit real, 32-bit imaginary) channel image subtraction.

- NppStatus nppiSub_32fc_C3IR (const Npp32fc ∗pSrc, int nSrcStep, Npp32fc ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI)

  One 32-bit floating point complex number (32-bit real, 32-bit imaginary) channel in place image subtraction.

- NppStatus nppiSub_32fc_AC4R (const Npp32fc ∗pSrc1, int nSrc1Step, const Npp32fc ∗pSrc2, int nSrc2Step, Npp32fc ∗pDst, int nDstStep, NppiSize oSizeROI)

  Four 32-bit floating point complex number (32-bit real, 32-bit imaginary) channel with unmodified alpha image subtraction.

- NppStatus nppiSub_32fc_AC4IR (const Npp32fc ∗pSrc, int nSrcStep, Npp32fc ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI)

  Four 32-bit floating point complex number (32-bit real, 32-bit imaginary) channel with unmodified alpha in place image subtraction.

- NppStatus nppiSub_32fc_C4R (const Npp32fc ∗pSrc1, int nSrc1Step, const Npp32fc ∗pSrc2, int nSrc2Step, Npp32fc ∗pDst, int nDstStep, NppiSize oSizeROI)

  Four 32-bit floating point complex number (32-bit real, 32-bit imaginary) channel image subtraction.

- NppStatus nppiSub_32fc_C4IR (const Npp32fc ∗pSrc, int nSrcStep, Npp32fc ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI)

  Four 32-bit floating point complex number (32-bit real, 32-bit imaginary) channel in place image subtraction.

7.19.1 Detailed Description

Pixel by pixel subtraction of two images.

7.19.2 Function Documentation

7.19.2.1 NppStatus nppiSub_16s_AC4IRSfs (const Npp16s ∗ *pSrc*, int *nSrcStep*, Npp16s ∗ *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*, int *nScaleFactor*)

Four 16-bit signed short channel with unmodified alpha in place image subtraction, scale by 2^(-nScaleFactor), then clamp to saturated value.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oSizeROI Region-of-Interest (ROI).

nScaleFactor Integer Result Scaling.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.19.2.2 NppStatus nppiSub_16s_AC4RSfs (const Npp16s ∗ *pSrc1*, int *nSrc1Step*, const Npp16s ∗ *pSrc2*, int *nSrc2Step*, Npp16s ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, int *nScaleFactor*)

Four 16-bit signed short channel with unmodified alpha image subtraction, scale by 2^(-nScaleFactor), then clamp to saturated value.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

nScaleFactor Integer Result Scaling.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.19.2.3 NppStatus nppiSub_16s_C1IRSfs (const Npp16s ∗ *pSrc*, int *nSrcStep*, Npp16s ∗ *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*, int *nScaleFactor*)

One 16-bit signed short channel in place image subtraction, scale by 2^(-nScaleFactor), then clamp to saturated value.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oSizeROI Region-of-Interest (ROI).

nScaleFactor Integer Result Scaling.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.19.2.4 NppStatus nppiSub_16s_C1RSfs (const Npp16s ∗ *pSrc1*, int *nSrc1Step*, const Npp16s ∗ *pSrc2*, int *nSrc2Step*, Npp16s ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, int *nScaleFactor*)

One 16-bit signed short channel image subtraction, scale by 2^(-nScaleFactor), then clamp to saturated value.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

nScaleFactor Integer Result Scaling.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.19.2.5 NppStatus nppiSub_16s_C3IRSfs (const Npp16s ∗ *pSrc*, int *nSrcStep*, Npp16s ∗ *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*, int *nScaleFactor*)

One 16-bit signed short channel in place image subtraction, scale by 2^(-nScaleFactor), then clamp to saturated value.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oSizeROI Region-of-Interest (ROI).

nScaleFactor Integer Result Scaling.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.19.2.6 NppStatus nppiSub_16s_C3RSfs (const Npp16s ∗ *pSrc1*, int *nSrc1Step*, const Npp16s ∗ *pSrc2*, int *nSrc2Step*, Npp16s ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, int *nScaleFactor*)

Three 16-bit signed short channel image subtraction, scale by 2^(-nScaleFactor), then clamp to saturated value.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

nScaleFactor Integer Result Scaling.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.19.2.7 NppStatus nppiSub_16s_C4IRSfs (const Npp16s ∗ *pSrc*, int *nSrcStep*, Npp16s ∗ *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*, int *nScaleFactor*)

Four 16-bit signed short channel in place image subtraction, scale by 2^(-nScaleFactor), then clamp to saturated value.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oSizeROI Region-of-Interest (ROI).

nScaleFactor Integer Result Scaling.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.19.2.8 NppStatus nppiSub_16s_C4RSfs (const Npp16s ∗ *pSrc1*, int *nSrc1Step*, const Npp16s ∗ *pSrc2*, int *nSrc2Step*, Npp16s ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, int *nScaleFactor*)

Four 16-bit signed short channel image subtraction, scale by 2^(-nScaleFactor), then clamp to saturated value.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

nScaleFactor Integer Result Scaling.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.19.2.9 NppStatus nppiSub_16sc_AC4IRSfs (const Npp16sc ∗ *pSrc*, int *nSrcStep*, Npp16sc ∗ *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*, int *nScaleFactor*)

Four 16-bit signed short complex number (16-bit real, 16-bit imaginary) channel with unmodified alpha in place image subtraction, scale by 2^(-nScaleFactor), then clamp to saturated value.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oSizeROI Region-of-Interest (ROI).

nScaleFactor Integer Result Scaling.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.19.2.10 NppStatus nppiSub_16sc_AC4RSfs (const Npp16sc ∗ *pSrc1*, int *nSrc1Step*, const Npp16sc ∗ *pSrc2*, int *nSrc2Step*, Npp16sc ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, int *nScaleFactor*)

Four 16-bit signed short complex number (16-bit real, 16-bit imaginary) channel with unmodified alpha image subtraction, scale by 2^(-nScaleFactor), then clamp to saturated value.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

nScaleFactor Integer Result Scaling.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.19.2.11 NppStatus nppiSub_16sc_C1IRSfs (const Npp16sc ∗ *pSrc*, int *nSrcStep*, Npp16sc ∗ *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*, int *nScaleFactor*)

One 16-bit signed short complex number (16-bit real, 16-bit imaginary) channel in place image subtraction, scale by 2^(-nScaleFactor), then clamp to saturated value.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oSizeROI Region-of-Interest (ROI).

nScaleFactor Integer Result Scaling.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.19.2.12 NppStatus nppiSub_16sc_C1RSfs (const Npp16sc * *pSrc1*, int *nSrc1Step*, const Npp16sc * *pSrc2*, int *nSrc2Step*, Npp16sc * *pDst*, int *nDstStep*, NppiSize *oSizeROI*, int *nScaleFactor*)

One 16-bit signed short complex number (16-bit real, 16-bit imaginary) channel image subtraction, scale by 2^(-nScaleFactor), then clamp to saturated value.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

nScaleFactor Integer Result Scaling.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.19.2.13 NppStatus nppiSub_16sc_C3IRSfs (const Npp16sc * *pSrc*, int *nSrcStep*, Npp16sc * *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*, int *nScaleFactor*)

One 16-bit signed short complex number (16-bit real, 16-bit imaginary) channel in place image subtraction, scale by 2^(-nScaleFactor), then clamp to saturated value.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oSizeROI Region-of-Interest (ROI).

nScaleFactor Integer Result Scaling.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.19.2.14 NppStatus nppiSub_16sc_C3RSfs (const Npp16sc ∗ *pSrc1*, int *nSrc1Step*, const Npp16sc ∗ *pSrc2*, int *nSrc2Step*, Npp16sc ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, int *nScaleFactor*)

Three 16-bit signed short complex number (16-bit real, 16-bit imaginary) channel image subtraction, scale by 2^(-nScaleFactor), then clamp to saturated value.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

nScaleFactor Integer Result Scaling.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.19.2.15 NppStatus nppiSub_16u_AC4IRSfs (const Npp16u ∗ *pSrc*, int *nSrcStep*, Npp16u ∗ *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*, int *nScaleFactor*)

Four 16-bit unsigned short channel with unmodified alpha in place image subtraction, scale by 2^(-nScaleFactor), then clamp to saturated value.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oSizeROI Region-of-Interest (ROI).

nScaleFactor Integer Result Scaling.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.19.2.16 NppStatus nppiSub_16u_AC4RSfs (const Npp16u ∗ *pSrc1*, int *nSrc1Step*, const Npp16u ∗ *pSrc2*, int *nSrc2Step*, Npp16u ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, int *nScaleFactor*)

Four 16-bit unsigned short channel with unmodified alpha image subtraction, scale by 2^(-nScaleFactor), then clamp to saturated value.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

nScaleFactor Integer Result Scaling.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.19.2.17 NppStatus nppiSub_16u_C1IRSfs (const Npp16u * *pSrc*, int *nSrcStep*, Npp16u * *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*, int *nScaleFactor*)

One 16-bit unsigned short channel in place image subtraction, scale by 2^(-nScaleFactor), then clamp to saturated value.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oSizeROI Region-of-Interest (ROI).

nScaleFactor Integer Result Scaling.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.19.2.18 NppStatus nppiSub_16u_C1RSfs (const Npp16u * *pSrc1*, int *nSrc1Step*, const Npp16u * *pSrc2*, int *nSrc2Step*, Npp16u * *pDst*, int *nDstStep*, NppiSize *oSizeROI*, int *nScaleFactor*)

One 16-bit unsigned short channel image subtraction, scale by 2^(-nScaleFactor), then clamp to saturated value.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

nScaleFactor Integer Result Scaling.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.19.2.19 NppStatus nppiSub_16u_C3IRSfs (const Npp16u ∗ *pSrc*, int *nSrcStep*, Npp16u ∗ *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*, int *nScaleFactor*)

One 16-bit unsigned short channel in place image subtraction, scale by 2^(-nScaleFactor), then clamp to saturated value.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oSizeROI Region-of-Interest (ROI).

nScaleFactor Integer Result Scaling.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.19.2.20 NppStatus nppiSub_16u_C3RSfs (const Npp16u ∗ *pSrc1*, int *nSrc1Step*, const Npp16u ∗ *pSrc2*, int *nSrc2Step*, Npp16u ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, int *nScaleFactor*)

Three 16-bit unsigned short channel image subtraction, scale by 2^(-nScaleFactor), then clamp to saturated value.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

nScaleFactor Integer Result Scaling.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.19.2.21 NppStatus nppiSub_16u_C4IRSfs (const Npp16u ∗ *pSrc*, int *nSrcStep*, Npp16u ∗ *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*, int *nScaleFactor*)

Four 16-bit unsigned short channel in place image subtraction, scale by 2^(-nScaleFactor), then clamp to saturated value.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oSizeROI Region-of-Interest (ROI).

nScaleFactor Integer Result Scaling.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.19.2.22 NppStatus nppiSub_16u_C4RSfs (const Npp16u ∗ *pSrc1*, int *nSrc1Step*, const Npp16u ∗ *pSrc2*, int *nSrc2Step*, Npp16u ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, int *nScaleFactor*)

Four 16-bit unsigned short channel image subtraction, scale by 2^(-nScaleFactor), then clamp to saturated value.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

nScaleFactor Integer Result Scaling.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.19.2.23 NppStatus nppiSub_32f_AC4IR (const Npp32f ∗ *pSrc*, int *nSrcStep*, Npp32f ∗ *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*)

Four 32-bit floating point channel with unmodified alpha in place image subtraction.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.19.2.24 NppStatus nppiSub_32f_AC4R (const Npp32f ∗ *pSrc1*, int *nSrc1Step*, const Npp32f ∗ *pSrc2*, int *nSrc2Step*, Npp32f ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*)

Four 32-bit floating point channel with unmodified alpha image subtraction.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.19.2.25 NppStatus nppiSub_32f_C1IR (const Npp32f ∗ *pSrc*, int *nSrcStep*, Npp32f ∗ *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*)

One 32-bit floating point channel in place image subtraction.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.19.2.26 NppStatus nppiSub_32f_C1R (const Npp32f ∗ *pSrc1*, int *nSrc1Step*, const Npp32f ∗ *pSrc2*, int *nSrc2Step*, Npp32f ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*)

One 32-bit floating point channel image subtraction.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.19.2.27 NppStatus nppiSub_32f_C3IR (const Npp32f ∗ *pSrc*, int *nSrcStep*, Npp32f ∗ *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*)

One 32-bit floating point channel in place image subtraction.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.19.2.28 NppStatus nppiSub_32f_C3R (const Npp32f ∗ *pSrc1*, int *nSrc1Step*, const Npp32f ∗ *pSrc2*, int *nSrc2Step*, Npp32f ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*)

Three 32-bit floating point channel image subtraction.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.19.2.29 NppStatus nppiSub_32f_C4IR (const Npp32f ∗ *pSrc*, int *nSrcStep*, Npp32f ∗ *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*)

Four 32-bit floating point channel in place image subtraction.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.19.2.30 NppStatus nppiSub_32f_C4R (const Npp32f ∗ *pSrc1*, int *nSrc1Step*, const Npp32f ∗ *pSrc2*, int *nSrc2Step*, Npp32f ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*)

Four 32-bit floating point channel image subtraction.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.19.2.31 NppStatus nppiSub_32fc_AC4IR (const Npp32fc ∗ *pSrc*, int *nSrcStep*, Npp32fc ∗ *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*)

Four 32-bit floating point complex number (32-bit real, 32-bit imaginary) channel with unmodified alpha in place image subtraction.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.19.2.32 NppStatus nppiSub_32fc_AC4R (const Npp32fc ∗ *pSrc1*, int *nSrc1Step*, const Npp32fc ∗ *pSrc2*, int *nSrc2Step*, Npp32fc ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*)

Four 32-bit floating point complex number (32-bit real, 32-bit imaginary) channel with unmodified alpha image subtraction.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.19.2.33 NppStatus nppiSub_32fc_C1IR (const Npp32fc ∗ *pSrc*, int *nSrcStep*, Npp32fc ∗ *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*)

One 32-bit floating point complex number (32-bit real, 32-bit imaginary) channel in place image subtraction.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.19.2.34 NppStatus nppiSub_32fc_C1R (const Npp32fc ∗ *pSrc1*, int *nSrc1Step*, const Npp32fc ∗ *pSrc2*, int *nSrc2Step*, Npp32fc ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*)

One 32-bit floating point complex number (32-bit real, 32-bit imaginary) channel image subtraction.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.19.2.35 NppStatus nppiSub_32fc_C3IR (const Npp32fc ∗ *pSrc*, int *nSrcStep*, Npp32fc ∗ *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*)

One 32-bit floating point complex number (32-bit real, 32-bit imaginary) channel in place image subtraction.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.19.2.36 NppStatus nppiSub_32fc_C3R (const Npp32fc * *pSrc1*, int *nSrc1Step*, const Npp32fc * *pSrc2*, int *nSrc2Step*, Npp32fc * *pDst*, int *nDstStep*, NppiSize *oSizeROI*)

Three 32-bit floating point complex number (32-bit real, 32-bit imaginary) channel image subtraction.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.19.2.37 NppStatus nppiSub_32fc_C4IR (const Npp32fc * *pSrc*, int *nSrcStep*, Npp32fc * *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*)

Four 32-bit floating point complex number (32-bit real, 32-bit imaginary) channel in place image subtraction.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.19.2.38 NppStatus nppiSub_32fc_C4R (const Npp32fc * *pSrc1*, int *nSrc1Step*, const Npp32fc * *pSrc2*, int *nSrc2Step*, Npp32fc * *pDst*, int *nDstStep*, NppiSize *oSizeROI*)

Four 32-bit floating point complex number (32-bit real, 32-bit imaginary) channel image subtraction.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.19.2.39 NppStatus nppiSub_32s_C1IRSfs (const Npp32s ∗ *pSrc*, int *nSrcStep*, Npp32s ∗ *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*, int *nScaleFactor*)

One 32-bit signed integer channel in place image subtraction, scale by 2^(-nScaleFactor), then clamp to saturated value.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oSizeROI Region-of-Interest (ROI).

nScaleFactor Integer Result Scaling.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.19.2.40 NppStatus nppiSub_32s_C1R (const Npp32s ∗ *pSrc1*, int *nSrc1Step*, const Npp32s ∗ *pSrc2*, int *nSrc2Step*, Npp32s ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*)

Note: This function is to be deprecated in future NPP releases, use the function above with a scale factor of 0 instead.

32-bit image subtraction. Subtract pSrc1's pixels from corresponding pixels in pSrc2.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.19.2.41 NppStatus nppiSub_32s_C1RSfs (const Npp32s * *pSrc1*, int *nSrc1Step*, const Npp32s * *pSrc2*, int *nSrc2Step*, Npp32s * *pDst*, int *nDstStep*, NppiSize *oSizeROI*, int *nScaleFactor*)

One 32-bit signed integer channel image subtraction, scale by 2^(-nScaleFactor), then clamp to saturated value.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

nScaleFactor Integer Result Scaling.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.19.2.42 NppStatus nppiSub_32s_C3IRSfs (const Npp32s * *pSrc*, int *nSrcStep*, Npp32s * *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*, int *nScaleFactor*)

One 32-bit signed integer channel in place image subtraction, scale by 2^(-nScaleFactor), then clamp to saturated value.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oSizeROI Region-of-Interest (ROI).

nScaleFactor Integer Result Scaling.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.19.2.43 NppStatus nppiSub_32s_C3RSfs (const Npp32s * *pSrc1*, int *nSrc1Step*, const Npp32s * *pSrc2*, int *nSrc2Step*, Npp32s * *pDst*, int *nDstStep*, NppiSize *oSizeROI*, int *nScaleFactor*)

Three 32-bit signed integer channel image subtraction, scale by 2^(-nScaleFactor), then clamp to saturated value.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

nScaleFactor Integer Result Scaling.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.19.2.44 NppStatus nppiSub_32s_C4IRSfs (const Npp32s * *pSrc*, int *nSrcStep*, Npp32s * *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*, int *nScaleFactor*)

Four 32-bit signed integer channel in place image subtraction, scale by 2^(-nScaleFactor), then clamp to saturated value.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oSizeROI Region-of-Interest (ROI).

nScaleFactor Integer Result Scaling.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.19.2.45 NppStatus nppiSub_32s_C4RSfs (const Npp32s * *pSrc1*, int *nSrc1Step*, const Npp32s * *pSrc2*, int *nSrc2Step*, Npp32s * *pDst*, int *nDstStep*, NppiSize *oSizeROI*, int *nScaleFactor*)

Four 32-bit signed integer channel image subtraction, scale by 2^(-nScaleFactor), then clamp to saturated value.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

nScaleFactor Integer Result Scaling.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.19.2.46 NppStatus nppiSub_32sc_AC4IRSfs (const Npp32sc * *pSrc*, int *nSrcStep*, Npp32sc * *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*, int *nScaleFactor*)

Four 32-bit signed integer complex number (32-bit real, 32-bit imaginary) channel with unmodified alpha in place image subtraction, scale by 2^(-nScaleFactor), then clamp to saturated value.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oSizeROI Region-of-Interest (ROI).

nScaleFactor Integer Result Scaling.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.19.2.47 NppStatus nppiSub_32sc_AC4RSfs (const Npp32sc * *pSrc1*, int *nSrc1Step*, const Npp32sc * *pSrc2*, int *nSrc2Step*, Npp32sc * *pDst*, int *nDstStep*, NppiSize *oSizeROI*, int *nScaleFactor*)

Four 32-bit signed integer complex number (32-bit real, 32-bit imaginary) channel with unmodified alpha image subtraction, scale by 2^(-nScaleFactor), then clamp to saturated value.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

nScaleFactor Integer Result Scaling.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.19.2.48 NppStatus nppiSub_32sc_C1IRSfs (const Npp32sc ∗ *pSrc*, int *nSrcStep*, Npp32sc ∗ *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*, int *nScaleFactor*)

One 32-bit signed integer complex number (32-bit real, 32-bit imaginary) channel in place image subtraction, scale by 2^(-nScaleFactor), then clamp to saturated value.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oSizeROI Region-of-Interest (ROI).

nScaleFactor Integer Result Scaling.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.19.2.49 NppStatus nppiSub_32sc_C1RSfs (const Npp32sc ∗ *pSrc1*, int *nSrc1Step*, const Npp32sc ∗ *pSrc2*, int *nSrc2Step*, Npp32sc ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, int *nScaleFactor*)

One 32-bit signed integer complex number (32-bit real, 32-bit imaginary) channel image subtraction, scale by 2^(-nScaleFactor), then clamp to saturated value.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

nScaleFactor Integer Result Scaling.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.19.2.50 NppStatus nppiSub_32sc_C3IRSfs (const Npp32sc ∗ *pSrc*, int *nSrcStep*, Npp32sc ∗ *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*, int *nScaleFactor*)

One 32-bit signed integer complex number (32-bit real, 32-bit imaginary) channel in place image subtraction, scale by 2^(-nScaleFactor), then clamp to saturated value.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oSizeROI Region-of-Interest (ROI).

nScaleFactor Integer Result Scaling.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.19.2.51 NppStatus nppiSub_32sc_C3RSfs (const Npp32sc ∗ *pSrc1*, int *nSrc1Step*, const Npp32sc ∗ *pSrc2*, int *nSrc2Step*, Npp32sc ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, int *nScaleFactor*)

Three 32-bit signed integer complex number (32-bit real, 32-bit imaginary) channel image subtraction, scale by 2^(-nScaleFactor), then clamp to saturated value.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

nScaleFactor Integer Result Scaling.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.19.2.52 NppStatus nppiSub_8u_AC4IRSfs (const Npp8u ∗ *pSrc*, int *nSrcStep*, Npp8u ∗ *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*, int *nScaleFactor*)

Four 8-bit unsigned char channel with unmodified alpha in place image subtraction, scale by 2^(-nScaleFactor), then clamp to saturated value.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oSizeROI Region-of-Interest (ROI).

nScaleFactor Integer Result Scaling.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.19.2.53 NppStatus nppiSub_8u_AC4RSfs (const Npp8u ∗ *pSrc1*, int *nSrc1Step*, const Npp8u ∗ *pSrc2*, int *nSrc2Step*, Npp8u ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, int *nScaleFactor*)

Four 8-bit unsigned char channel with unmodified alpha image subtraction, scale by 2^(-nScaleFactor), then clamp to saturated value.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

nScaleFactor Integer Result Scaling.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.19.2.54 NppStatus nppiSub_8u_C1IRSfs (const Npp8u ∗ *pSrc*, int *nSrcStep*, Npp8u ∗ *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*, int *nScaleFactor*)

One 8-bit unsigned char channel in place image subtraction, scale by 2^(-nScaleFactor), then clamp to saturated value.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oSizeROI Region-of-Interest (ROI).

nScaleFactor Integer Result Scaling.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.19.2.55 NppStatus nppiSub_8u_C1RSfs (const Npp8u ∗ *pSrc1*, int *nSrc1Step*, const Npp8u ∗ *pSrc2*, int *nSrc2Step*, Npp8u ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, int *nScaleFactor*)

One 8-bit unsigned char channel image subtraction, scale by 2^(-nScaleFactor), then clamp to saturated value.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

nScaleFactor Integer Result Scaling.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.19.2.56 NppStatus nppiSub_8u_C3IRSfs (const Npp8u ∗ *pSrc*, int *nSrcStep*, Npp8u ∗ *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*, int *nScaleFactor*)

One 8-bit unsigned char channel in place image subtraction, scale by 2^(-nScaleFactor), then clamp to saturated value.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oSizeROI Region-of-Interest (ROI).

nScaleFactor Integer Result Scaling.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.19.2.57 NppStatus nppiSub_8u_C3RSfs (const Npp8u ∗ *pSrc1*, int *nSrc1Step*, const Npp8u ∗ *pSrc2*, int *nSrc2Step*, Npp8u ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, int *nScaleFactor*)

Three 8-bit unsigned char channel image subtraction, scale by 2^(-nScaleFactor), then clamp to saturated value.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

nScaleFactor Integer Result Scaling.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.19.2.58 NppStatus nppiSub_8u_C4IRSfs (const Npp8u ∗ *pSrc*, int *nSrcStep*, Npp8u ∗ *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*, int *nScaleFactor*)

Four 8-bit unsigned char channel in place image subtraction, scale by 2^(-nScaleFactor), then clamp to saturated value.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oSizeROI Region-of-Interest (ROI).

nScaleFactor Integer Result Scaling.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.19.2.59 NppStatus nppiSub_8u_C4RSfs (const Npp8u ∗ *pSrc1*, int *nSrc1Step*, const Npp8u ∗ *pSrc2*, int *nSrc2Step*, Npp8u ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, int *nScaleFactor*)

Four 8-bit unsigned char channel image subtraction, scale by 2^(-nScaleFactor), then clamp to saturated value.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

nScaleFactor Integer Result Scaling.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.20 Div

Pixel by pixel division of two images.

Functions

- NppStatus nppiDiv_8u_C1RSfs (const Npp8u ∗pSrc1, int nSrc1Step, const Npp8u ∗pSrc2, int nSrc2Step, Npp8u ∗pDst, int nDstStep, NppiSize oSizeROI, int nScaleFactor)

  One 8-bit unsigned char channel image division, scale by 2^(-nScaleFactor), then clamp to saturated value.

- NppStatus nppiDiv_8u_C1IRSfs (const Npp8u ∗pSrc, int nSrcStep, Npp8u ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI, int nScaleFactor)

  One 8-bit unsigned char channel in place image division, scale by 2^(-nScaleFactor), then clamp to saturated value.

- NppStatus nppiDiv_8u_C3RSfs (const Npp8u ∗pSrc1, int nSrc1Step, const Npp8u ∗pSrc2, int nSrc2Step, Npp8u ∗pDst, int nDstStep, NppiSize oSizeROI, int nScaleFactor)

  Three 8-bit unsigned char channel image division, scale by 2^(-nScaleFactor), then clamp to saturated value.

- NppStatus nppiDiv_8u_C3IRSfs (const Npp8u ∗pSrc, int nSrcStep, Npp8u ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI, int nScaleFactor)

  One 8-bit unsigned char channel in place image division, scale by 2^(-nScaleFactor), then clamp to saturated value.

- NppStatus nppiDiv_8u_AC4RSfs (const Npp8u ∗pSrc1, int nSrc1Step, const Npp8u ∗pSrc2, int nSrc2Step, Npp8u ∗pDst, int nDstStep, NppiSize oSizeROI, int nScaleFactor)

  Four 8-bit unsigned char channel with unmodified alpha image division, scale by 2^(-nScaleFactor), then clamp to saturated value.

- NppStatus nppiDiv_8u_AC4IRSfs (const Npp8u ∗pSrc, int nSrcStep, Npp8u ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI, int nScaleFactor)

  Four 8-bit unsigned char channel with unmodified alpha in place image division, scale by 2^(-nScaleFactor), then clamp to saturated value.

- NppStatus nppiDiv_8u_C4RSfs (const Npp8u ∗pSrc1, int nSrc1Step, const Npp8u ∗pSrc2, int nSrc2Step, Npp8u ∗pDst, int nDstStep, NppiSize oSizeROI, int nScaleFactor)

  Four 8-bit unsigned char channel image division, scale by 2^(-nScaleFactor), then clamp to saturated value.

- NppStatus nppiDiv_8u_C4IRSfs (const Npp8u ∗pSrc, int nSrcStep, Npp8u ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI, int nScaleFactor)

  Four 8-bit unsigned char channel in place image division, scale by 2^(-nScaleFactor), then clamp to saturated value.

- NppStatus nppiDiv_16u_C1RSfs (const Npp16u ∗pSrc1, int nSrc1Step, const Npp16u ∗pSrc2, int nSrc2Step, Npp16u ∗pDst, int nDstStep, NppiSize oSizeROI, int nScaleFactor)

  One 16-bit unsigned short channel image division, scale by 2^(-nScaleFactor), then clamp to saturated value.

- NppStatus nppiDiv_16u_C1IRSfs (const Npp16u ∗pSrc, int nSrcStep, Npp16u ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI, int nScaleFactor)

One 16-bit unsigned short channel in place image division, scale by 2^(-nScaleFactor), then clamp to saturated value.

- NppStatus nppiDiv_16u_C3RSfs (const Npp16u ∗pSrc1, int nSrc1Step, const Npp16u ∗pSrc2, int nSrc2Step, Npp16u ∗pDst, int nDstStep, NppiSize oSizeROI, int nScaleFactor)

  Three 16-bit unsigned short channel image division, scale by 2^(-nScaleFactor), then clamp to saturated value.

- NppStatus nppiDiv_16u_C3IRSfs (const Npp16u ∗pSrc, int nSrcStep, Npp16u ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI, int nScaleFactor)

  One 16-bit unsigned short channel in place image division, scale by 2^(-nScaleFactor), then clamp to saturated value.

- NppStatus nppiDiv_16u_AC4RSfs (const Npp16u ∗pSrc1, int nSrc1Step, const Npp16u ∗pSrc2, int nSrc2Step, Npp16u ∗pDst, int nDstStep, NppiSize oSizeROI, int nScaleFactor)

  Four 16-bit unsigned short channel with unmodified alpha image division, scale by 2^(-nScaleFactor), then clamp to saturated value.

- NppStatus nppiDiv_16u_AC4IRSfs (const Npp16u ∗pSrc, int nSrcStep, Npp16u ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI, int nScaleFactor)

  Four 16-bit unsigned short channel with unmodified alpha in place image division, scale by 2^(-nScaleFactor), then clamp to saturated value.

- NppStatus nppiDiv_16u_C4RSfs (const Npp16u ∗pSrc1, int nSrc1Step, const Npp16u ∗pSrc2, int nSrc2Step, Npp16u ∗pDst, int nDstStep, NppiSize oSizeROI, int nScaleFactor)

  Four 16-bit unsigned short channel image division, scale by 2^(-nScaleFactor), then clamp to saturated value.

- NppStatus nppiDiv_16u_C4IRSfs (const Npp16u ∗pSrc, int nSrcStep, Npp16u ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI, int nScaleFactor)

  Four 16-bit unsigned short channel in place image division, scale by 2^(-nScaleFactor), then clamp to saturated value.

- NppStatus nppiDiv_16s_C1RSfs (const Npp16s ∗pSrc1, int nSrc1Step, const Npp16s ∗pSrc2, int nSrc2Step, Npp16s ∗pDst, int nDstStep, NppiSize oSizeROI, int nScaleFactor)

  One 16-bit signed short channel image division, scale by 2^(-nScaleFactor), then clamp to saturated value.

- NppStatus nppiDiv_16s_C1IRSfs (const Npp16s ∗pSrc, int nSrcStep, Npp16s ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI, int nScaleFactor)

  One 16-bit signed short channel in place image division, scale by 2^(-nScaleFactor), then clamp to saturated value.

- NppStatus nppiDiv_16s_C3RSfs (const Npp16s ∗pSrc1, int nSrc1Step, const Npp16s ∗pSrc2, int nSrc2Step, Npp16s ∗pDst, int nDstStep, NppiSize oSizeROI, int nScaleFactor)

  Three 16-bit signed short channel image division, scale by 2^(-nScaleFactor), then clamp to saturated value.

- NppStatus nppiDiv_16s_C3IRSfs (const Npp16s ∗pSrc, int nSrcStep, Npp16s ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI, int nScaleFactor)

  One 16-bit signed short channel in place image division, scale by 2^(-nScaleFactor), then clamp to saturated value.

- NppStatus nppiDiv_16s_AC4RSfs (const Npp16s ∗pSrc1, int nSrc1Step, const Npp16s ∗pSrc2, int nSrc2Step, Npp16s ∗pDst, int nDstStep, NppiSize oSizeROI, int nScaleFactor)

  Four 16-bit signed short channel with unmodified alpha image division, scale by 2^(-nScaleFactor), then clamp to saturated value.

- NppStatus nppiDiv_16s_AC4IRSfs (const Npp16s ∗pSrc, int nSrcStep, Npp16s ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI, int nScaleFactor)

  Four 16-bit signed short channel with unmodified alpha in place image division, scale by 2^(-nScaleFactor), then clamp to saturated value.

- NppStatus nppiDiv_16s_C4RSfs (const Npp16s ∗pSrc1, int nSrc1Step, const Npp16s ∗pSrc2, int nSrc2Step, Npp16s ∗pDst, int nDstStep, NppiSize oSizeROI, int nScaleFactor)

  Four 16-bit signed short channel image division, scale by 2^(-nScaleFactor), then clamp to saturated value.

- NppStatus nppiDiv_16s_C4IRSfs (const Npp16s ∗pSrc, int nSrcStep, Npp16s ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI, int nScaleFactor)

  Four 16-bit signed short channel in place image division, scale by 2^(-nScaleFactor), then clamp to saturated value.

- NppStatus nppiDiv_16sc_C1RSfs (const Npp16sc ∗pSrc1, int nSrc1Step, const Npp16sc ∗pSrc2, int nSrc2Step, Npp16sc ∗pDst, int nDstStep, NppiSize oSizeROI, int nScaleFactor)

  One 16-bit signed short complex number (16-bit real, 16-bit imaginary) channel image division, scale by 2^(-nScaleFactor), then clamp to saturated value.

- NppStatus nppiDiv_16sc_C1IRSfs (const Npp16sc ∗pSrc, int nSrcStep, Npp16sc ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI, int nScaleFactor)

  One 16-bit signed short complex number (16-bit real, 16-bit imaginary) channel in place image division, scale by 2^(-nScaleFactor), then clamp to saturated value.

- NppStatus nppiDiv_16sc_C3RSfs (const Npp16sc ∗pSrc1, int nSrc1Step, const Npp16sc ∗pSrc2, int nSrc2Step, Npp16sc ∗pDst, int nDstStep, NppiSize oSizeROI, int nScaleFactor)

  Three 16-bit signed short complex number (16-bit real, 16-bit imaginary) channel image division, scale by 2^(-nScaleFactor), then clamp to saturated value.

- NppStatus nppiDiv_16sc_C3IRSfs (const Npp16sc ∗pSrc, int nSrcStep, Npp16sc ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI, int nScaleFactor)

  One 16-bit signed short complex number (16-bit real, 16-bit imaginary) channel in place image division, scale by 2^(-nScaleFactor), then clamp to saturated value.

- NppStatus nppiDiv_16sc_AC4RSfs (const Npp16sc ∗pSrc1, int nSrc1Step, const Npp16sc ∗pSrc2, int nSrc2Step, Npp16sc ∗pDst, int nDstStep, NppiSize oSizeROI, int nScaleFactor)

  Four 16-bit signed short complex number (16-bit real, 16-bit imaginary) channel with unmodified alpha image division, scale by 2^(-nScaleFactor), then clamp to saturated value.

- NppStatus nppiDiv_16sc_AC4IRSfs (const Npp16sc ∗pSrc, int nSrcStep, Npp16sc ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI, int nScaleFactor)

  Four 16-bit signed short complex number (16-bit real, 16-bit imaginary) channel with unmodified alpha in place image division, scale by 2^(-nScaleFactor), then clamp to saturated value.

- NppStatus nppiDiv_32s_C1RSfs (const Npp32s ∗pSrc1, int nSrc1Step, const Npp32s ∗pSrc2, int nSrc2Step, Npp32s ∗pDst, int nDstStep, NppiSize oSizeROI, int nScaleFactor)

One 32-bit signed integer channel image division, scale by 2^(-nScaleFactor), then clamp to saturated value.

- NppStatus nppiDiv_32s_C1R (const Npp32s *pSrc1, int nSrc1Step, const Npp32s *pSrc2, int nSrc2Step, Npp32s *pDst, int nDstStep, NppiSize oSizeROI)

  Note: This function is to be deprecated in future NPP releases, use the function above with a scale factor of 0 instead.

- NppStatus nppiDiv_32s_C1IRSfs (const Npp32s *pSrc, int nSrcStep, Npp32s *pSrcDst, int nSrcDstStep, NppiSize oSizeROI, int nScaleFactor)

  One 32-bit signed integer channel in place image division, scale by 2^(-nScaleFactor), then clamp to saturated value.

- NppStatus nppiDiv_32s_C3RSfs (const Npp32s *pSrc1, int nSrc1Step, const Npp32s *pSrc2, int nSrc2Step, Npp32s *pDst, int nDstStep, NppiSize oSizeROI, int nScaleFactor)

  Three 32-bit signed integer channel image division, scale by 2^(-nScaleFactor), then clamp to saturated value.

- NppStatus nppiDiv_32s_C3IRSfs (const Npp32s *pSrc, int nSrcStep, Npp32s *pSrcDst, int nSrcDstStep, NppiSize oSizeROI, int nScaleFactor)

  One 32-bit signed integer channel in place image division, scale by 2^(-nScaleFactor), then clamp to saturated value.

- NppStatus nppiDiv_32sc_C1RSfs (const Npp32sc *pSrc1, int nSrc1Step, const Npp32sc *pSrc2, int nSrc2Step, Npp32sc *pDst, int nDstStep, NppiSize oSizeROI, int nScaleFactor)

  One 32-bit signed integer complex number (32-bit real, 32-bit imaginary) channel image division, scale by 2^(-nScaleFactor), then clamp to saturated value.

- NppStatus nppiDiv_32sc_C1IRSfs (const Npp32sc *pSrc, int nSrcStep, Npp32sc *pSrcDst, int nSrcDstStep, NppiSize oSizeROI, int nScaleFactor)

  One 32-bit signed integer complex number (32-bit real, 32-bit imaginary) channel in place image division, scale by 2^(-nScaleFactor), then clamp to saturated value.

- NppStatus nppiDiv_32sc_C3RSfs (const Npp32sc *pSrc1, int nSrc1Step, const Npp32sc *pSrc2, int nSrc2Step, Npp32sc *pDst, int nDstStep, NppiSize oSizeROI, int nScaleFactor)

  Three 32-bit signed integer complex number (32-bit real, 32-bit imaginary) channel image division, scale by 2^(-nScaleFactor), then clamp to saturated value.

- NppStatus nppiDiv_32sc_C3IRSfs (const Npp32sc *pSrc, int nSrcStep, Npp32sc *pSrcDst, int nSrcDstStep, NppiSize oSizeROI, int nScaleFactor)

  One 32-bit signed integer complex number (32-bit real, 32-bit imaginary) channel in place image division, scale by 2^(-nScaleFactor), then clamp to saturated value.

- NppStatus nppiDiv_32sc_AC4RSfs (const Npp32sc *pSrc1, int nSrc1Step, const Npp32sc *pSrc2, int nSrc2Step, Npp32sc *pDst, int nDstStep, NppiSize oSizeROI, int nScaleFactor)

  Four 32-bit signed integer complex number (32-bit real, 32-bit imaginary) channel with unmodified alpha image division, scale by 2^(-nScaleFactor), then clamp to saturated value.

- NppStatus nppiDiv_32sc_AC4IRSfs (const Npp32sc *pSrc, int nSrcStep, Npp32sc *pSrcDst, int nSrcDstStep, NppiSize oSizeROI, int nScaleFactor)

  Four 32-bit signed integer complex number (32-bit real, 32-bit imaginary) channel with unmodified alpha in place image division, scale by 2^(-nScaleFactor), then clamp to saturated value.

- NppStatus nppiDiv_32f_C1R (const Npp32f ∗pSrc1, int nSrc1Step, const Npp32f ∗pSrc2, int nSrc2Step, Npp32f ∗pDst, int nDstStep, NppiSize oSizeROI)

  One 32-bit floating point channel image division.

- NppStatus nppiDiv_32f_C1IR (const Npp32f ∗pSrc, int nSrcStep, Npp32f ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI)

  One 32-bit floating point channel in place image division.

- NppStatus nppiDiv_32f_C3R (const Npp32f ∗pSrc1, int nSrc1Step, const Npp32f ∗pSrc2, int nSrc2Step, Npp32f ∗pDst, int nDstStep, NppiSize oSizeROI)

  Three 32-bit floating point channel image division.

- NppStatus nppiDiv_32f_C3IR (const Npp32f ∗pSrc, int nSrcStep, Npp32f ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI)

  One 32-bit floating point channel in place image division.

- NppStatus nppiDiv_32f_AC4R (const Npp32f ∗pSrc1, int nSrc1Step, const Npp32f ∗pSrc2, int nSrc2Step, Npp32f ∗pDst, int nDstStep, NppiSize oSizeROI)

  Four 32-bit floating point channel with unmodified alpha image division.

- NppStatus nppiDiv_32f_AC4IR (const Npp32f ∗pSrc, int nSrcStep, Npp32f ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI)

  Four 32-bit floating point channel with unmodified alpha in place image division.

- NppStatus nppiDiv_32f_C4R (const Npp32f ∗pSrc1, int nSrc1Step, const Npp32f ∗pSrc2, int nSrc2Step, Npp32f ∗pDst, int nDstStep, NppiSize oSizeROI)

  Four 32-bit floating point channel image division.

- NppStatus nppiDiv_32f_C4IR (const Npp32f ∗pSrc, int nSrcStep, Npp32f ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI)

  Four 32-bit floating point channel in place image division.

- NppStatus nppiDiv_32fc_C1R (const Npp32fc ∗pSrc1, int nSrc1Step, const Npp32fc ∗pSrc2, int nSrc2Step, Npp32fc ∗pDst, int nDstStep, NppiSize oSizeROI)

  One 32-bit floating point complex number (32-bit real, 32-bit imaginary) channel image division.

- NppStatus nppiDiv_32fc_C1IR (const Npp32fc ∗pSrc, int nSrcStep, Npp32fc ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI)

  One 32-bit floating point complex number (32-bit real, 32-bit imaginary) channel in place image division.

- NppStatus nppiDiv_32fc_C3R (const Npp32fc ∗pSrc1, int nSrc1Step, const Npp32fc ∗pSrc2, int nSrc2Step, Npp32fc ∗pDst, int nDstStep, NppiSize oSizeROI)

  Three 32-bit floating point complex number (32-bit real, 32-bit imaginary) channel image division.

- NppStatus nppiDiv_32fc_C3IR (const Npp32fc ∗pSrc, int nSrcStep, Npp32fc ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI)

  One 32-bit floating point complex number (32-bit real, 32-bit imaginary) channel in place image division.

- NppStatus nppiDiv_32fc_AC4R (const Npp32fc ∗pSrc1, int nSrc1Step, const Npp32fc ∗pSrc2, int nSrc2Step, Npp32fc ∗pDst, int nDstStep, NppiSize oSizeROI)

Four 32-bit floating point complex number (32-bit real, 32-bit imaginary) channel with unmodified alpha image division.

- NppStatus nppiDiv_32fc_AC4IR (const Npp32fc ∗pSrc, int nSrcStep, Npp32fc ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI)

  Four 32-bit floating point complex number (32-bit real, 32-bit imaginary) channel with unmodified alpha in place image division.

- NppStatus nppiDiv_32fc_C4R (const Npp32fc ∗pSrc1, int nSrc1Step, const Npp32fc ∗pSrc2, int nSrc2Step, Npp32fc ∗pDst, int nDstStep, NppiSize oSizeROI)

  Four 32-bit floating point complex number (32-bit real, 32-bit imaginary) channel image division.

- NppStatus nppiDiv_32fc_C4IR (const Npp32fc ∗pSrc, int nSrcStep, Npp32fc ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI)

  Four 32-bit floating point complex number (32-bit real, 32-bit imaginary) channel in place image division.

7.20.1 Detailed Description

Pixel by pixel division of two images.

7.20.2 Function Documentation

7.20.2.1 NppStatus nppiDiv_16s_AC4IRSfs (const Npp16s ∗ *pSrc*, int *nSrcStep*, Npp16s ∗ *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*, int *nScaleFactor*)

Four 16-bit signed short channel with unmodified alpha in place image division, scale by 2^(-nScaleFactor), then clamp to saturated value.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oSizeROI Region-of-Interest (ROI).

nScaleFactor Integer Result Scaling.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.20.2.2 NppStatus nppiDiv_16s_AC4RSfs (const Npp16s ∗ *pSrc1*, int *nSrc1Step*, const Npp16s ∗ *pSrc2*, int *nSrc2Step*, Npp16s ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, int *nScaleFactor*)

Four 16-bit signed short channel with unmodified alpha image division, scale by 2^(-nScaleFactor), then clamp to saturated value.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

nScaleFactor Integer Result Scaling.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.20.2.3 NppStatus nppiDiv_16s_C1IRSfs (const Npp16s * *pSrc*, int *nSrcStep*, Npp16s * *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*, int *nScaleFactor*)

One 16-bit signed short channel in place image division, scale by 2^(-nScaleFactor), then clamp to saturated value.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oSizeROI Region-of-Interest (ROI).

nScaleFactor Integer Result Scaling.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.20.2.4 NppStatus nppiDiv_16s_C1RSfs (const Npp16s * *pSrc1*, int *nSrc1Step*, const Npp16s * *pSrc2*, int *nSrc2Step*, Npp16s * *pDst*, int *nDstStep*, NppiSize *oSizeROI*, int *nScaleFactor*)

One 16-bit signed short channel image division, scale by 2^(-nScaleFactor), then clamp to saturated value.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

nScaleFactor Integer Result Scaling.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.20.2.5 NppStatus nppiDiv_16s_C3IRSfs (const Npp16s * *pSrc*, int *nSrcStep*, Npp16s * *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*, int *nScaleFactor*)

One 16-bit signed short channel in place image division, scale by 2^(-nScaleFactor), then clamp to saturated value.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oSizeROI Region-of-Interest (ROI).

nScaleFactor Integer Result Scaling.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.20.2.6 NppStatus nppiDiv_16s_C3RSfs (const Npp16s * *pSrc1*, int *nSrc1Step*, const Npp16s * *pSrc2*, int *nSrc2Step*, Npp16s * *pDst*, int *nDstStep*, NppiSize *oSizeROI*, int *nScaleFactor*)

Three 16-bit signed short channel image division, scale by 2^(-nScaleFactor), then clamp to saturated value.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

nScaleFactor Integer Result Scaling.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.20.2.7 NppStatus nppiDiv_16s_C4IRSfs (const Npp16s * *pSrc*, int *nSrcStep*, Npp16s * *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*, int *nScaleFactor*)

Four 16-bit signed short channel in place image division, scale by 2^(-nScaleFactor), then clamp to saturated value.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oSizeROI Region-of-Interest (ROI).

nScaleFactor Integer Result Scaling.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.20.2.8 NppStatus nppiDiv_16s_C4RSfs (const Npp16s * *pSrc1*, int *nSrc1Step*, const Npp16s * *pSrc2*, int *nSrc2Step*, Npp16s * *pDst*, int *nDstStep*, NppiSize *oSizeROI*, int *nScaleFactor*)

Four 16-bit signed short channel image division, scale by 2^(-nScaleFactor), then clamp to saturated value.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

nScaleFactor Integer Result Scaling.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.20.2.9 NppStatus nppiDiv_16sc_AC4IRSfs (const Npp16sc * *pSrc*, int *nSrcStep*, Npp16sc * *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*, int *nScaleFactor*)

Four 16-bit signed short complex number (16-bit real, 16-bit imaginary) channel with unmodified alpha in place image division, scale by 2^(-nScaleFactor), then clamp to saturated value.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oSizeROI Region-of-Interest (ROI).

nScaleFactor Integer Result Scaling.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.20.2.10 NppStatus nppiDiv_16sc_AC4RSfs (const Npp16sc * *pSrc1*, int *nSrc1Step*, const Npp16sc * *pSrc2*, int *nSrc2Step*, Npp16sc * *pDst*, int *nDstStep*, NppiSize *oSizeROI*, int *nScaleFactor*)

Four 16-bit signed short complex number (16-bit real, 16-bit imaginary) channel with unmodified alpha image division, scale by 2^(-nScaleFactor), then clamp to saturated value.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

nScaleFactor Integer Result Scaling.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.20.2.11 NppStatus nppiDiv_16sc_C1IRSfs (const Npp16sc * *pSrc*, int *nSrcStep*, Npp16sc * *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*, int *nScaleFactor*)

One 16-bit signed short complex number (16-bit real, 16-bit imaginary) channel in place image division, scale by 2^(-nScaleFactor), then clamp to saturated value.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oSizeROI Region-of-Interest (ROI).

nScaleFactor Integer Result Scaling.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.20.2.12 NppStatus nppiDiv_16sc_C1RSfs (const Npp16sc * *pSrc1*, int *nSrc1Step*, const Npp16sc * *pSrc2*, int *nSrc2Step*, Npp16sc * *pDst*, int *nDstStep*, NppiSize *oSizeROI*, int *nScaleFactor*)

One 16-bit signed short complex number (16-bit real, 16-bit imaginary) channel image division, scale by 2^(-nScaleFactor), then clamp to saturated value.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

nScaleFactor Integer Result Scaling.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.20.2.13 NppStatus nppiDiv_16sc_C3IRSfs (const Npp16sc ∗ *pSrc*, int *nSrcStep*, Npp16sc ∗ *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*, int *nScaleFactor*)

One 16-bit signed short complex number (16-bit real, 16-bit imaginary) channel in place image division, scale by 2^(-nScaleFactor), then clamp to saturated value.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oSizeROI Region-of-Interest (ROI).

nScaleFactor Integer Result Scaling.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.20.2.14 NppStatus nppiDiv_16sc_C3RSfs (const Npp16sc ∗ *pSrc1*, int *nSrc1Step*, const Npp16sc ∗ *pSrc2*, int *nSrc2Step*, Npp16sc ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, int *nScaleFactor*)

Three 16-bit signed short complex number (16-bit real, 16-bit imaginary) channel image division, scale by 2^(-nScaleFactor), then clamp to saturated value.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

nScaleFactor Integer Result Scaling.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.20.2.15 NppStatus nppiDiv_16u_AC4IRSfs (const Npp16u * *pSrc*, int *nSrcStep*, Npp16u * *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*, int *nScaleFactor*)

Four 16-bit unsigned short channel with unmodified alpha in place image division, scale by 2^(-nScaleFactor), then clamp to saturated value.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oSizeROI Region-of-Interest (ROI).

nScaleFactor Integer Result Scaling.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.20.2.16 NppStatus nppiDiv_16u_AC4RSfs (const Npp16u * *pSrc1*, int *nSrc1Step*, const Npp16u * *pSrc2*, int *nSrc2Step*, Npp16u * *pDst*, int *nDstStep*, NppiSize *oSizeROI*, int *nScaleFactor*)

Four 16-bit unsigned short channel with unmodified alpha image division, scale by 2^(-nScaleFactor), then clamp to saturated value.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

nScaleFactor Integer Result Scaling.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.20.2.17 NppStatus nppiDiv_16u_C1IRSfs (const Npp16u ∗ *pSrc*, int *nSrcStep*, Npp16u ∗ *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*, int *nScaleFactor*)

One 16-bit unsigned short channel in place image division, scale by 2^(-nScaleFactor), then clamp to saturated value.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oSizeROI Region-of-Interest (ROI).

nScaleFactor Integer Result Scaling.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.20.2.18 NppStatus nppiDiv_16u_C1RSfs (const Npp16u ∗ *pSrc1*, int *nSrc1Step*, const Npp16u ∗ *pSrc2*, int *nSrc2Step*, Npp16u ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, int *nScaleFactor*)

One 16-bit unsigned short channel image division, scale by 2^(-nScaleFactor), then clamp to saturated value.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

nScaleFactor Integer Result Scaling.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.20.2.19 NppStatus nppiDiv_16u_C3IRSfs (const Npp16u ∗ *pSrc*, int *nSrcStep*, Npp16u ∗ *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*, int *nScaleFactor*)

One 16-bit unsigned short channel in place image division, scale by 2^(-nScaleFactor), then clamp to saturated value.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oSizeROI Region-of-Interest (ROI).

nScaleFactor Integer Result Scaling.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.20.2.20 NppStatus nppiDiv_16u_C3RSfs (const Npp16u * *pSrc1*, int *nSrc1Step*, const Npp16u * *pSrc2*, int *nSrc2Step*, Npp16u * *pDst*, int *nDstStep*, NppiSize *oSizeROI*, int *nScaleFactor*)

Three 16-bit unsigned short channel image division, scale by 2^(-nScaleFactor), then clamp to saturated value.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

nScaleFactor Integer Result Scaling.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.20.2.21 NppStatus nppiDiv_16u_C4IRSfs (const Npp16u * *pSrc*, int *nSrcStep*, Npp16u * *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*, int *nScaleFactor*)

Four 16-bit unsigned short channel in place image division, scale by 2^(-nScaleFactor), then clamp to saturated value.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oSizeROI Region-of-Interest (ROI).

nScaleFactor Integer Result Scaling.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.20.2.22 NppStatus nppiDiv_16u_C4RSfs (const Npp16u * *pSrc1*, int *nSrc1Step*, const Npp16u * *pSrc2*, int *nSrc2Step*, Npp16u * *pDst*, int *nDstStep*, NppiSize *oSizeROI*, int *nScaleFactor*)

Four 16-bit unsigned short channel image division, scale by 2^(-nScaleFactor), then clamp to saturated value.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

nScaleFactor Integer Result Scaling.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.20.2.23 NppStatus nppiDiv_32f_AC4IR (const Npp32f * *pSrc*, int *nSrcStep*, Npp32f * *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*)

Four 32-bit floating point channel with unmodified alpha in place image division.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.20.2.24 NppStatus nppiDiv_32f_AC4R (const Npp32f * *pSrc1*, int *nSrc1Step*, const Npp32f * *pSrc2*, int *nSrc2Step*, Npp32f * *pDst*, int *nDstStep*, NppiSize *oSizeROI*)

Four 32-bit floating point channel with unmodified alpha image division.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.20.2.25 NppStatus nppiDiv_32f_C1IR (const Npp32f ∗ *pSrc*, int *nSrcStep*, Npp32f ∗ *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*)

One 32-bit floating point channel in place image division.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.20.2.26 NppStatus nppiDiv_32f_C1R (const Npp32f ∗ *pSrc1*, int *nSrc1Step*, const Npp32f ∗ *pSrc2*, int *nSrc2Step*, Npp32f ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*)

One 32-bit floating point channel image division.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.20.2.27 NppStatus nppiDiv_32f_C3IR (const Npp32f * *pSrc*, int *nSrcStep*, Npp32f * *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*)

One 32-bit floating point channel in place image division.

Parameters:

pSrc Source-Image Pointer.
nSrcStep Source-Image Line Step.
pSrcDst In-Place Image Pointer.
nSrcDstStep In-Place-Image Line Step.
oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.20.2.28 NppStatus nppiDiv_32f_C3R (const Npp32f * *pSrc1*, int *nSrc1Step*, const Npp32f * *pSrc2*, int *nSrc2Step*, Npp32f * *pDst*, int *nDstStep*, NppiSize *oSizeROI*)

Three 32-bit floating point channel image division.

Parameters:

pSrc1 Source-Image Pointer.
nSrc1Step Source-Image Line Step.
pSrc2 Source-Image Pointer.
nSrc2Step Source-Image Line Step.
pDst Destination-Image Pointer.
nDstStep Destination-Image Line Step.
oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.20.2.29 NppStatus nppiDiv_32f_C4IR (const Npp32f * *pSrc*, int *nSrcStep*, Npp32f * *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*)

Four 32-bit floating point channel in place image division.

Parameters:

pSrc Source-Image Pointer.
nSrcStep Source-Image Line Step.
pSrcDst In-Place Image Pointer.
nSrcDstStep In-Place-Image Line Step.
oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.20.2.30 NppStatus nppiDiv_32f_C4R (const Npp32f ∗ *pSrc1*, int *nSrc1Step*, const Npp32f ∗ *pSrc2*, int *nSrc2Step*, Npp32f ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*)

Four 32-bit floating point channel image division.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.20.2.31 NppStatus nppiDiv_32fc_AC4IR (const Npp32fc ∗ *pSrc*, int *nSrcStep*, Npp32fc ∗ *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*)

Four 32-bit floating point complex number (32-bit real, 32-bit imaginary) channel with unmodified alpha in place image division.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.20.2.32 NppStatus nppiDiv_32fc_AC4R (const Npp32fc ∗ *pSrc1*, int *nSrc1Step*, const Npp32fc ∗ *pSrc2*, int *nSrc2Step*, Npp32fc ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*)

Four 32-bit floating point complex number (32-bit real, 32-bit imaginary) channel with unmodified alpha image division.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.20.2.33 NppStatus nppiDiv_32fc_C1IR (const Npp32fc ∗ *pSrc*, int *nSrcStep*, Npp32fc ∗ *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*)

One 32-bit floating point complex number (32-bit real, 32-bit imaginary) channel in place image division.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.20.2.34 NppStatus nppiDiv_32fc_C1R (const Npp32fc ∗ *pSrc1*, int *nSrc1Step*, const Npp32fc ∗ *pSrc2*, int *nSrc2Step*, Npp32fc ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*)

One 32-bit floating point complex number (32-bit real, 32-bit imaginary) channel image division.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.20.2.35 NppStatus nppiDiv_32fc_C3IR (const Npp32fc ∗ *pSrc*, int *nSrcStep*, Npp32fc ∗ *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*)

One 32-bit floating point complex number (32-bit real, 32-bit imaginary) channel in place image division.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.20.2.36 NppStatus nppiDiv_32fc_C3R (const Npp32fc ∗ *pSrc1*, int *nSrc1Step*, const Npp32fc ∗ *pSrc2*, int *nSrc2Step*, Npp32fc ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*)

Three 32-bit floating point complex number (32-bit real, 32-bit imaginary) channel image division.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.20.2.37 NppStatus nppiDiv_32fc_C4IR (const Npp32fc ∗ *pSrc*, int *nSrcStep*, Npp32fc ∗ *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*)

Four 32-bit floating point complex number (32-bit real, 32-bit imaginary) channel in place image division.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.20.2.38 NppStatus nppiDiv_32fc_C4R (const Npp32fc ∗ *pSrc1*, int *nSrc1Step*, const Npp32fc ∗ *pSrc2*, int *nSrc2Step*, Npp32fc ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*)

Four 32-bit floating point complex number (32-bit real, 32-bit imaginary) channel image division.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.20.2.39 NppStatus nppiDiv_32s_C1IRSfs (const Npp32s ∗ *pSrc*, int *nSrcStep*, Npp32s ∗ *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*, int *nScaleFactor*)

One 32-bit signed integer channel in place image division, scale by 2^(-nScaleFactor), then clamp to saturated value.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oSizeROI Region-of-Interest (ROI).

nScaleFactor Integer Result Scaling.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.20.2.40 NppStatus nppiDiv_32s_C1R (const Npp32s ∗ *pSrc1*, int *nSrc1Step*, const Npp32s ∗ *pSrc2*, int *nSrc2Step*, Npp32s ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*)

Note: This function is to be deprecated in future NPP releases, use the function above with a scale factor of 0 instead.

32-bit image division. Divide pixels in pSrc2 by pSrc1's pixels.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.20.2.41 NppStatus nppiDiv_32s_C1RSfs (const Npp32s ∗ *pSrc1*, int *nSrc1Step*, const Npp32s ∗ *pSrc2*, int *nSrc2Step*, Npp32s ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, int *nScaleFactor*)

One 32-bit signed integer channel image division, scale by 2^(-nScaleFactor), then clamp to saturated value.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

nScaleFactor Integer Result Scaling.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.20.2.42 NppStatus nppiDiv_32s_C3IRSfs (const Npp32s ∗ *pSrc*, int *nSrcStep*, Npp32s ∗ *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*, int *nScaleFactor*)

One 32-bit signed integer channel in place image division, scale by 2^(-nScaleFactor), then clamp to saturated value.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oSizeROI Region-of-Interest (ROI).

nScaleFactor Integer Result Scaling.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.20.2.43 NppStatus nppiDiv_32s_C3RSfs (const Npp32s ∗ *pSrc1*, int *nSrc1Step*, const Npp32s ∗ *pSrc2*, int *nSrc2Step*, Npp32s ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, int *nScaleFactor*)

Three 32-bit signed integer channel image division, scale by 2^(-nScaleFactor), then clamp to saturated value.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

nScaleFactor Integer Result Scaling.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.20.2.44 NppStatus nppiDiv_32sc_AC4IRSfs (const Npp32sc ∗ *pSrc*, int *nSrcStep*, Npp32sc ∗ *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*, int *nScaleFactor*)

Four 32-bit signed integer complex number (32-bit real, 32-bit imaginary) channel with unmodified alpha in place image division, scale by 2^(-nScaleFactor), then clamp to saturated value.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oSizeROI Region-of-Interest (ROI).

nScaleFactor Integer Result Scaling.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.20.2.45 NppStatus nppiDiv_32sc_AC4RSfs (const Npp32sc ∗ *pSrc1*, int *nSrc1Step*, const Npp32sc ∗ *pSrc2*, int *nSrc2Step*, Npp32sc ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, int *nScaleFactor*)

Four 32-bit signed integer complex number (32-bit real, 32-bit imaginary) channel with unmodified alpha image division, scale by 2^(-nScaleFactor), then clamp to saturated value.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

nScaleFactor Integer Result Scaling.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.20.2.46 NppStatus nppiDiv_32sc_C1IRSfs (const Npp32sc ∗ *pSrc*, int *nSrcStep*, Npp32sc ∗ *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*, int *nScaleFactor*)

One 32-bit signed integer complex number (32-bit real, 32-bit imaginary) channel in place image division, scale by 2^(-nScaleFactor), then clamp to saturated value.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oSizeROI Region-of-Interest (ROI).

nScaleFactor Integer Result Scaling.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.20.2.47 NppStatus nppiDiv_32sc_C1RSfs (const Npp32sc ∗ *pSrc1*, int *nSrc1Step*, const Npp32sc ∗ *pSrc2*, int *nSrc2Step*, Npp32sc ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, int *nScaleFactor*)

One 32-bit signed integer complex number (32-bit real, 32-bit imaginary) channel image division, scale by 2^(-nScaleFactor), then clamp to saturated value.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

nScaleFactor Integer Result Scaling.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.20.2.48 NppStatus nppiDiv_32sc_C3IRSfs (const Npp32sc ∗ *pSrc*, int *nSrcStep*, Npp32sc ∗ *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*, int *nScaleFactor*)

One 32-bit signed integer complex number (32-bit real, 32-bit imaginary) channel in place image division, scale by 2^(-nScaleFactor), then clamp to saturated value.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oSizeROI Region-of-Interest (ROI).

nScaleFactor Integer Result Scaling.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.20.2.49 NppStatus nppiDiv_32sc_C3RSfs (const Npp32sc ∗ *pSrc1*, int *nSrc1Step*, const Npp32sc ∗ *pSrc2*, int *nSrc2Step*, Npp32sc ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, int *nScaleFactor*)

Three 32-bit signed integer complex number (32-bit real, 32-bit imaginary) channel image division, scale by 2^(-nScaleFactor), then clamp to saturated value.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

nScaleFactor Integer Result Scaling.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.20.2.50 NppStatus nppiDiv_8u_AC4IRSfs (const Npp8u ∗ *pSrc*, int *nSrcStep*, Npp8u ∗ *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*, int *nScaleFactor*)

Four 8-bit unsigned char channel with unmodified alpha in place image division, scale by 2^(-nScaleFactor), then clamp to saturated value.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oSizeROI Region-of-Interest (ROI).

nScaleFactor Integer Result Scaling.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.20.2.51 NppStatus nppiDiv_8u_AC4RSfs (const Npp8u ∗ *pSrc1*, int *nSrc1Step*, const Npp8u ∗ *pSrc2*, int *nSrc2Step*, Npp8u ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, int *nScaleFactor*)

Four 8-bit unsigned char channel with unmodified alpha image division, scale by 2^(-nScaleFactor), then clamp to saturated value.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

nScaleFactor Integer Result Scaling.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.20.2.52 NppStatus nppiDiv_8u_C1IRSfs (const Npp8u ∗ *pSrc*, int *nSrcStep*, Npp8u ∗ *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*, int *nScaleFactor*)

One 8-bit unsigned char channel in place image division, scale by 2^(-nScaleFactor), then clamp to saturated value.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oSizeROI Region-of-Interest (ROI).

nScaleFactor Integer Result Scaling.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.20.2.53 NppStatus nppiDiv_8u_C1RSfs (const Npp8u ∗ *pSrc1*, int *nSrc1Step*, const Npp8u ∗ *pSrc2*, int *nSrc2Step*, Npp8u ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, int *nScaleFactor*)

One 8-bit unsigned char channel image division, scale by 2^(-nScaleFactor), then clamp to saturated value.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

nScaleFactor Integer Result Scaling.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.20.2.54 NppStatus nppiDiv_8u_C3IRSfs (const Npp8u ∗ *pSrc*, int *nSrcStep*, Npp8u ∗ *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*, int *nScaleFactor*)

One 8-bit unsigned char channel in place image division, scale by 2^(-nScaleFactor), then clamp to saturated value.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oSizeROI Region-of-Interest (ROI).

nScaleFactor Integer Result Scaling.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.20.2.55 NppStatus nppiDiv_8u_C3RSfs (const Npp8u ∗ *pSrc1*, int *nSrc1Step*, const Npp8u ∗ *pSrc2*, int *nSrc2Step*, Npp8u ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, int *nScaleFactor*)

Three 8-bit unsigned char channel image division, scale by 2^(-nScaleFactor), then clamp to saturated value.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

nScaleFactor Integer Result Scaling.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.20.2.56 NppStatus nppiDiv_8u_C4IRSfs (const Npp8u ∗ *pSrc*, int *nSrcStep*, Npp8u ∗ *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*, int *nScaleFactor*)

Four 8-bit unsigned char channel in place image division, scale by 2^(-nScaleFactor), then clamp to saturated value.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oSizeROI Region-of-Interest (ROI).

nScaleFactor Integer Result Scaling.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.20.2.57 NppStatus nppiDiv_8u_C4RSfs (const Npp8u ∗ *pSrc1*, int *nSrc1Step*, const Npp8u ∗ *pSrc2*, int *nSrc2Step*, Npp8u ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, int *nScaleFactor*)

Four 8-bit unsigned char channel image division, scale by 2^(-nScaleFactor), then clamp to saturated value.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

nScaleFactor Integer Result Scaling.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.21 Div_Round

Pixel by pixel division of two images using result rounding modes.

Functions

- NppStatus nppiDiv_Round_8u_C1RSfs (const Npp8u ∗pSrc1, int nSrc1Step, const Npp8u ∗pSrc2, int nSrc2Step, Npp8u ∗pDst, int nDstStep, NppiSize oSizeROI, NppRoundMode rndMode, int nScaleFactor)

  One 8-bit unsigned char channel image division, scale by 2^(-nScaleFactor), then clamp to saturated value.

- NppStatus nppiDiv_Round_8u_C1IRSfs (const Npp8u ∗pSrc, int nSrcStep, Npp8u ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI, NppRoundMode rndMode, int nScaleFactor)

  One 8-bit unsigned char channel in place image division, scale by 2^(-nScaleFactor), then clamp to saturated value.

- NppStatus nppiDiv_Round_8u_C3RSfs (const Npp8u ∗pSrc1, int nSrc1Step, const Npp8u ∗pSrc2, int nSrc2Step, Npp8u ∗pDst, int nDstStep, NppiSize oSizeROI, NppRoundMode rndMode, int nScaleFactor)

  Three 8-bit unsigned char channel image division, scale by 2^(-nScaleFactor), then clamp to saturated value.

- NppStatus nppiDiv_Round_8u_C3IRSfs (const Npp8u ∗pSrc, int nSrcStep, Npp8u ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI, NppRoundMode rndMode, int nScaleFactor)

  Three 8-bit unsigned char channel in place image division, scale by 2^(-nScaleFactor), then clamp to saturated value.

- NppStatus nppiDiv_Round_8u_AC4RSfs (const Npp8u ∗pSrc1, int nSrc1Step, const Npp8u ∗pSrc2, int nSrc2Step, Npp8u ∗pDst, int nDstStep, NppiSize oSizeROI, NppRoundMode rndMode, int nScaleFactor)

  Four 8-bit unsigned char channel image division with unmodified alpha, scale by 2^(-nScaleFactor), then clamp to saturated value.

- NppStatus nppiDiv_Round_8u_AC4IRSfs (const Npp8u ∗pSrc, int nSrcStep, Npp8u ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI, NppRoundMode rndMode, int nScaleFactor)

  Four 8-bit unsigned char channel in place image division with unmodified alpha, scale by 2^(-nScaleFactor), then clamp to saturated value.

- NppStatus nppiDiv_Round_8u_C4RSfs (const Npp8u ∗pSrc1, int nSrc1Step, const Npp8u ∗pSrc2, int nSrc2Step, Npp8u ∗pDst, int nDstStep, NppiSize oSizeROI, NppRoundMode rndMode, int nScaleFactor)

  Four 8-bit unsigned char channel image division, scale by 2^(-nScaleFactor), then clamp to saturated value.

- NppStatus nppiDiv_Round_8u_C4IRSfs (const Npp8u ∗pSrc, int nSrcStep, Npp8u ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI, NppRoundMode rndMode, int nScaleFactor)

  Four 8-bit unsigned char channel in place image division, scale by 2^(-nScaleFactor), then clamp to saturated value.

- NppStatus nppiDiv_Round_16u_C1RSfs (const Npp16u ∗pSrc1, int nSrc1Step, const Npp16u ∗pSrc2, int nSrc2Step, Npp16u ∗pDst, int nDstStep, NppiSize oSizeROI, NppRoundMode rndMode, int nScaleFactor)

One 16-bit unsigned short channel image division, scale by 2^(-nScaleFactor), then clamp to saturated value.

- NppStatus nppiDiv_Round_16u_C1IRSfs (const Npp16u ∗pSrc, int nSrcStep, Npp16u ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI, NppRoundMode rndMode, int nScaleFactor)

  One 16-bit unsigned short channel in place image division, scale by 2^(-nScaleFactor), then clamp to saturated value.

- NppStatus nppiDiv_Round_16u_C3RSfs (const Npp16u ∗pSrc1, int nSrc1Step, const Npp16u ∗pSrc2, int nSrc2Step, Npp16u ∗pDst, int nDstStep, NppiSize oSizeROI, NppRoundMode rndMode, int nScaleFactor)

  Three 16-bit unsigned short channel image division, scale by 2^(-nScaleFactor), then clamp to saturated value.

- NppStatus nppiDiv_Round_16u_C3IRSfs (const Npp16u ∗pSrc, int nSrcStep, Npp16u ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI, NppRoundMode rndMode, int nScaleFactor)

  Three 16-bit unsigned short channel in place image division, scale by 2^(-nScaleFactor), then clamp to saturated value.

- NppStatus nppiDiv_Round_16u_AC4RSfs (const Npp16u ∗pSrc1, int nSrc1Step, const Npp16u ∗pSrc2, int nSrc2Step, Npp16u ∗pDst, int nDstStep, NppiSize oSizeROI, NppRoundMode rndMode, int nScaleFactor)

  Four 16-bit unsigned short channel image division with unmodified alpha, scale by 2^(-nScaleFactor), then clamp to saturated value.

- NppStatus nppiDiv_Round_16u_AC4IRSfs (const Npp16u ∗pSrc, int nSrcStep, Npp16u ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI, NppRoundMode rndMode, int nScaleFactor)

  Four 16-bit unsigned short channel in place image division with unmodified alpha, scale by 2^(-nScaleFactor), then clamp to saturated value.

- NppStatus nppiDiv_Round_16u_C4RSfs (const Npp16u ∗pSrc1, int nSrc1Step, const Npp16u ∗pSrc2, int nSrc2Step, Npp16u ∗pDst, int nDstStep, NppiSize oSizeROI, NppRoundMode rndMode, int nScaleFactor)

  Four 16-bit unsigned short channel image division, scale by 2^(-nScaleFactor), then clamp to saturated value.

- NppStatus nppiDiv_Round_16u_C4IRSfs (const Npp16u ∗pSrc, int nSrcStep, Npp16u ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI, NppRoundMode rndMode, int nScaleFactor)

  Four 16-bit unsigned short channel in place image division, scale by 2^(-nScaleFactor), then clamp to saturated value.

- NppStatus nppiDiv_Round_16s_C1RSfs (const Npp16s ∗pSrc1, int nSrc1Step, const Npp16s ∗pSrc2, int nSrc2Step, Npp16s ∗pDst, int nDstStep, NppiSize oSizeROI, NppRoundMode rndMode, int nScaleFactor)

  One 16-bit signed short channel image division, scale by 2^(-nScaleFactor), then clamp to saturated value.

- NppStatus nppiDiv_Round_16s_C1IRSfs (const Npp16s ∗pSrc, int nSrcStep, Npp16s ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI, NppRoundMode rndMode, int nScaleFactor)

  One 16-bit signed short channel in place image division, scale by 2^(-nScaleFactor), then clamp to saturated value.

- NppStatus nppiDiv_Round_16s_C3RSfs (const Npp16s ∗pSrc1, int nSrc1Step, const Npp16s ∗pSrc2, int nSrc2Step, Npp16s ∗pDst, int nDstStep, NppiSize oSizeROI, NppRoundMode rndMode, int nScaleFactor)

  Three 16-bit signed short channel image division, scale by 2^(-nScaleFactor), then clamp to saturated value.

- NppStatus nppiDiv_Round_16s_C3IRSfs (const Npp16s ∗pSrc, int nSrcStep, Npp16s ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI, NppRoundMode rndMode, int nScaleFactor)

  Three 16-bit signed short channel in place image division, scale by 2^(-nScaleFactor), then clamp to saturated value.

- NppStatus nppiDiv_Round_16s_AC4RSfs (const Npp16s ∗pSrc1, int nSrc1Step, const Npp16s ∗pSrc2, int nSrc2Step, Npp16s ∗pDst, int nDstStep, NppiSize oSizeROI, NppRoundMode rndMode, int nScaleFactor)

  Four 16-bit signed short channel image division with unmodified alpha, scale by 2^(-nScaleFactor), then clamp to saturated value.

- NppStatus nppiDiv_Round_16s_AC4IRSfs (const Npp16s ∗pSrc, int nSrcStep, Npp16s ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI, NppRoundMode rndMode, int nScaleFactor)

  Four 16-bit signed short channel in place image division with unmodified alpha, scale by 2^(-nScaleFactor), then clamp to saturated value.

- NppStatus nppiDiv_Round_16s_C4RSfs (const Npp16s ∗pSrc1, int nSrc1Step, const Npp16s ∗pSrc2, int nSrc2Step, Npp16s ∗pDst, int nDstStep, NppiSize oSizeROI, NppRoundMode rndMode, int nScaleFactor)

  Four 16-bit signed short channel image division, scale by 2^(-nScaleFactor), then clamp to saturated value.

- NppStatus nppiDiv_Round_16s_C4IRSfs (const Npp16s ∗pSrc, int nSrcStep, Npp16s ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI, NppRoundMode rndMode, int nScaleFactor)

  Four 16-bit signed short channel in place image division, scale by 2^(-nScaleFactor), then clamp to saturated value.

7.21.1 Detailed Description

Pixel by pixel division of two images using result rounding modes.

7.21.2 Function Documentation

7.21.2.1 NppStatus nppiDiv_Round_16s_AC4IRSfs (const Npp16s ∗ *pSrc*, int *nSrcStep*, Npp16s ∗ *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*, NppRoundMode *rndMode*, int *nScaleFactor*)

Four 16-bit signed short channel in place image division with unmodified alpha, scale by 2^(-nScaleFactor), then clamp to saturated value.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oSizeROI Region-of-Interest (ROI).

rndMode Result Rounding mode to be used (NPP_RND_ZERO, NPP_RND_NEAR, or NP_RND_-FINANCIAL)

nScaleFactor Integer Result Scaling.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.21.2.2 NppStatus nppiDiv_Round_16s_AC4RSfs (const Npp16s ∗ *pSrc1*, int *nSrc1Step*, const Npp16s ∗ *pSrc2*, int *nSrc2Step*, Npp16s ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, NppRoundMode *rndMode*, int *nScaleFactor*)

Four 16-bit signed short channel image division with unmodified alpha, scale by 2^(-nScaleFactor), then clamp to saturated value.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

rndMode Result Rounding mode to be used (NPP_RND_ZERO, NPP_RND_NEAR, or NP_RND_-FINANCIAL)

nScaleFactor Integer Result Scaling.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.21.2.3 NppStatus nppiDiv_Round_16s_C1IRSfs (const Npp16s ∗ *pSrc*, int *nSrcStep*, Npp16s ∗ *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*, NppRoundMode *rndMode*, int *nScaleFactor*)

One 16-bit signed short channel in place image division, scale by 2^(-nScaleFactor), then clamp to saturated value.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oSizeROI Region-of-Interest (ROI).

rndMode Result Rounding mode to be used (NPP_RND_ZERO, NPP_RND_NEAR, or NP_RND_FINANCIAL)

nScaleFactor Integer Result Scaling.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.21.2.4 NppStatus nppiDiv_Round_16s_C1RSfs (const Npp16s ∗ *pSrc1*, int *nSrc1Step*, const Npp16s ∗ *pSrc2*, int *nSrc2Step*, Npp16s ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, NppRoundMode *rndMode*, int *nScaleFactor*)

One 16-bit signed short channel image division, scale by 2^(-nScaleFactor), then clamp to saturated value.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

rndMode Result Rounding mode to be used (NPP_RND_ZERO, NPP_RND_NEAR, or NP_RND_FINANCIAL)

nScaleFactor Integer Result Scaling.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.21.2.5 NppStatus nppiDiv_Round_16s_C3IRSfs (const Npp16s ∗ *pSrc*, int *nSrcStep*, Npp16s ∗ *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*, NppRoundMode *rndMode*, int *nScaleFactor*)

Three 16-bit signed short channel in place image division, scale by 2^(-nScaleFactor), then clamp to saturated value.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oSizeROI Region-of-Interest (ROI).

rndMode Result Rounding mode to be used (NPP_RND_ZERO, NPP_RND_NEAR, or NP_RND_FINANCIAL)

nScaleFactor Integer Result Scaling.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.21.2.6 NppStatus nppiDiv_Round_16s_C3RSfs (const Npp16s ∗ *pSrc1*, int *nSrc1Step*, const Npp16s ∗ *pSrc2*, int *nSrc2Step*, Npp16s ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, NppRoundMode *rndMode*, int *nScaleFactor*)

Three 16-bit signed short channel image division, scale by 2^(-nScaleFactor), then clamp to saturated value.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

rndMode Result Rounding mode to be used (NPP_RND_ZERO, NPP_RND_NEAR, or NP_RND_-FINANCIAL)

nScaleFactor Integer Result Scaling.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.21.2.7 NppStatus nppiDiv_Round_16s_C4IRSfs (const Npp16s ∗ *pSrc*, int *nSrcStep*, Npp16s ∗ *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*, NppRoundMode *rndMode*, int *nScaleFactor*)

Four 16-bit signed short channel in place image division, scale by 2^(-nScaleFactor), then clamp to saturated value.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oSizeROI Region-of-Interest (ROI).

rndMode Result Rounding mode to be used (NPP_RND_ZERO, NPP_RND_NEAR, or NP_RND_-FINANCIAL)

nScaleFactor Integer Result Scaling.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.21.2.8 NppStatus nppiDiv_Round_16s_C4RSfs (const Npp16s ∗ *pSrc1*, int *nSrc1Step*, const Npp16s ∗ *pSrc2*, int *nSrc2Step*, Npp16s ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, NppRoundMode *rndMode*, int *nScaleFactor*)

Four 16-bit signed short channel image division, scale by 2^(-nScaleFactor), then clamp to saturated value.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

rndMode Result Rounding mode to be used (NPP_RND_ZERO, NPP_RND_NEAR, or NP_RND_-FINANCIAL)

nScaleFactor Integer Result Scaling.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.21.2.9 NppStatus nppiDiv_Round_16u_AC4IRSfs (const Npp16u ∗ *pSrc*, int *nSrcStep*, Npp16u ∗ *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*, NppRoundMode *rndMode*, int *nScaleFactor*)

Four 16-bit unsigned short channel in place image division with unmodified alpha, scale by 2^(-nScaleFactor), then clamp to saturated value.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oSizeROI Region-of-Interest (ROI).

rndMode Result Rounding mode to be used (NPP_RND_ZERO, NPP_RND_NEAR, or NP_RND_-FINANCIAL)

nScaleFactor Integer Result Scaling.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.21.2.10 NppStatus nppiDiv_Round_16u_AC4RSfs (const Npp16u ∗ *pSrc1*, int *nSrc1Step*, const Npp16u ∗ *pSrc2*, int *nSrc2Step*, Npp16u ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, NppRoundMode *rndMode*, int *nScaleFactor*)

Four 16-bit unsigned short channel image division with unmodified alpha, scale by 2^(-nScaleFactor), then clamp to saturated value.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

rndMode Result Rounding mode to be used (NPP_RND_ZERO, NPP_RND_NEAR, or NP_RND_-FINANCIAL)

nScaleFactor Integer Result Scaling.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.21.2.11 NppStatus nppiDiv_Round_16u_C1IRSfs (const Npp16u ∗ *pSrc*, int *nSrcStep*, Npp16u ∗ *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*, NppRoundMode *rndMode*, int *nScaleFactor*)

One 16-bit unsigned short channel in place image division, scale by 2^(-nScaleFactor), then clamp to saturated value.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oSizeROI Region-of-Interest (ROI).

rndMode Result Rounding mode to be used (NPP_RND_ZERO, NPP_RND_NEAR, or NP_RND_-FINANCIAL)

nScaleFactor Integer Result Scaling.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.21.2.12 NppStatus nppiDiv_Round_16u_C1RSfs (const Npp16u ∗ *pSrc1*, int *nSrc1Step*, const Npp16u ∗ *pSrc2*, int *nSrc2Step*, Npp16u ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, NppRoundMode *rndMode*, int *nScaleFactor*)

One 16-bit unsigned short channel image division, scale by 2^(-nScaleFactor), then clamp to saturated value.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

rndMode Result Rounding mode to be used (NPP_RND_ZERO, NPP_RND_NEAR, or NP_RND_-FINANCIAL)

nScaleFactor Integer Result Scaling.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.21.2.13 NppStatus nppiDiv_Round_16u_C3IRSfs (const Npp16u ∗ *pSrc*, int *nSrcStep*, Npp16u ∗ *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*, NppRoundMode *rndMode*, int *nScaleFactor*)

Three 16-bit unsigned short channel in place image division, scale by 2^(-nScaleFactor), then clamp to saturated value.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oSizeROI Region-of-Interest (ROI).

rndMode Result Rounding mode to be used (NPP_RND_ZERO, NPP_RND_NEAR, or NP_RND_-FINANCIAL)

nScaleFactor Integer Result Scaling.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.21.2.14 NppStatus nppiDiv_Round_16u_C3RSfs (const Npp16u * *pSrc1*, int *nSrc1Step*, const Npp16u * *pSrc2*, int *nSrc2Step*, Npp16u * *pDst*, int *nDstStep*, NppiSize *oSizeROI*, NppRoundMode *rndMode*, int *nScaleFactor*)

Three 16-bit unsigned short channel image division, scale by 2^(-nScaleFactor), then clamp to saturated value.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

rndMode Result Rounding mode to be used (NPP_RND_ZERO, NPP_RND_NEAR, or NP_RND_-FINANCIAL)

nScaleFactor Integer Result Scaling.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.21.2.15 NppStatus nppiDiv_Round_16u_C4IRSfs (const Npp16u * *pSrc*, int *nSrcStep*, Npp16u * *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*, NppRoundMode *rndMode*, int *nScaleFactor*)

Four 16-bit unsigned short channel in place image division, scale by 2^(-nScaleFactor), then clamp to saturated value.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oSizeROI Region-of-Interest (ROI).

rndMode Result Rounding mode to be used (NPP_RND_ZERO, NPP_RND_NEAR, or NP_RND_-FINANCIAL)

nScaleFactor Integer Result Scaling.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.21.2.16 NppStatus nppiDiv_Round_16u_C4RSfs (const Npp16u ∗ *pSrc1*, int *nSrc1Step*, const Npp16u ∗ *pSrc2*, int *nSrc2Step*, Npp16u ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, NppRoundMode *rndMode*, int *nScaleFactor*)

Four 16-bit unsigned short channel image division, scale by 2^(-nScaleFactor), then clamp to saturated value.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

rndMode Result Rounding mode to be used (NPP_RND_ZERO, NPP_RND_NEAR, or NP_RND_-FINANCIAL)

nScaleFactor Integer Result Scaling.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.21.2.17 NppStatus nppiDiv_Round_8u_AC4IRSfs (const Npp8u ∗ *pSrc*, int *nSrcStep*, Npp8u ∗ *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*, NppRoundMode *rndMode*, int *nScaleFactor*)

Four 8-bit unsigned char channel in place image division with unmodified alpha, scale by 2^(-nScaleFactor), then clamp to saturated value.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oSizeROI Region-of-Interest (ROI).

rndMode Result Rounding mode to be used (NPP_RND_ZERO, NPP_RND_NEAR, or NP_RND_-FINANCIAL)

nScaleFactor Integer Result Scaling.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.21.2.18 NppStatus nppiDiv_Round_8u_AC4RSfs (const Npp8u ∗ *pSrc1*, int *nSrc1Step*, const Npp8u ∗ *pSrc2*, int *nSrc2Step*, Npp8u ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, NppRoundMode *rndMode*, int *nScaleFactor*)

Four 8-bit unsigned char channel image division with unmodified alpha, scale by 2^(-nScaleFactor), then clamp to saturated value.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

rndMode Result Rounding mode to be used (NPP_RND_ZERO, NPP_RND_NEAR, or NP_RND_-FINANCIAL)

nScaleFactor Integer Result Scaling.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.21.2.19 NppStatus nppiDiv_Round_8u_C1IRSfs (const Npp8u ∗ *pSrc*, int *nSrcStep*, Npp8u ∗ *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*, NppRoundMode *rndMode*, int *nScaleFactor*)

One 8-bit unsigned char channel in place image division, scale by 2^(-nScaleFactor), then clamp to saturated value.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oSizeROI Region-of-Interest (ROI).

rndMode Result Rounding mode to be used (NPP_RND_ZERO, NPP_RND_NEAR, or NP_RND_-FINANCIAL)

nScaleFactor Integer Result Scaling.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.21.2.20 NppStatus nppiDiv_Round_8u_C1RSfs (const Npp8u * *pSrc1*, int *nSrc1Step*, const Npp8u * *pSrc2*, int *nSrc2Step*, Npp8u * *pDst*, int *nDstStep*, NppiSize *oSizeROI*, NppRoundMode *rndMode*, int *nScaleFactor*)

One 8-bit unsigned char channel image division, scale by 2^(-nScaleFactor), then clamp to saturated value.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

rndMode Result Rounding mode to be used (NPP_RND_ZERO, NPP_RND_NEAR, or NP_RND_-FINANCIAL)

nScaleFactor Integer Result Scaling.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.21.2.21 NppStatus nppiDiv_Round_8u_C3IRSfs (const Npp8u * *pSrc*, int *nSrcStep*, Npp8u * *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*, NppRoundMode *rndMode*, int *nScaleFactor*)

Three 8-bit unsigned char channel in place image division, scale by 2^(-nScaleFactor), then clamp to saturated value.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oSizeROI Region-of-Interest (ROI).

rndMode Result Rounding mode to be used (NPP_RND_ZERO, NPP_RND_NEAR, or NP_RND_-FINANCIAL)

nScaleFactor Integer Result Scaling.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.21.2.22 NppStatus nppiDiv_Round_8u_C3RSfs (const Npp8u ∗ *pSrc1*, int *nSrc1Step*, const Npp8u ∗ *pSrc2*, int *nSrc2Step*, Npp8u ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, NppRoundMode *rndMode*, int *nScaleFactor*)

Three 8-bit unsigned char channel image division, scale by 2^(-nScaleFactor), then clamp to saturated value.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

rndMode Result Rounding mode to be used (NPP_RND_ZERO, NPP_RND_NEAR, or NP_RND_-FINANCIAL)

nScaleFactor Integer Result Scaling.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.21.2.23 NppStatus nppiDiv_Round_8u_C4IRSfs (const Npp8u ∗ *pSrc*, int *nSrcStep*, Npp8u ∗ *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*, NppRoundMode *rndMode*, int *nScaleFactor*)

Four 8-bit unsigned char channel in place image division, scale by 2^(-nScaleFactor), then clamp to saturated value.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oSizeROI Region-of-Interest (ROI).

rndMode Result Rounding mode to be used (NPP_RND_ZERO, NPP_RND_NEAR, or NP_RND_-FINANCIAL)

nScaleFactor Integer Result Scaling.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.21.2.24 NppStatus nppiDiv_Round_8u_C4RSfs (const Npp8u ∗ *pSrc1*, int *nSrc1Step*, const Npp8u ∗ *pSrc2*, int *nSrc2Step*, Npp8u ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, NppRoundMode *rndMode*, int *nScaleFactor*)

Four 8-bit unsigned char channel image division, scale by 2^(-nScaleFactor), then clamp to saturated value.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

rndMode Result Rounding mode to be used (NPP_RND_ZERO, NPP_RND_NEAR, or NP_RND_-FINANCIAL)

nScaleFactor Integer Result Scaling.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.22 Abs

Absolute value of each pixel value in an image.

Functions

- NppStatus nppiAbs_16s_C1R (const Npp16s ∗pSrc, int nSrcStep, Npp16s ∗pDst, int nDstStep, NppiSize oSizeROI)

  One 16-bit signed short channel image absolute value.

- NppStatus nppiAbs_16s_C1IR (Npp16s ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI)

  One 16-bit signed short channel in place image absolute value.

- NppStatus nppiAbs_16s_C3R (const Npp16s ∗pSrc, int nSrcStep, Npp16s ∗pDst, int nDstStep, NppiSize oSizeROI)

  Three 16-bit signed short channel image absolute value.

- NppStatus nppiAbs_16s_C3IR (Npp16s ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI)

  Three 16-bit signed short channel in place image absolute value.

- NppStatus nppiAbs_16s_AC4R (const Npp16s ∗pSrc, int nSrcStep, Npp16s ∗pDst, int nDstStep, NppiSize oSizeROI)

  Four 16-bit signed short channel image absolute value with unmodified alpha.

- NppStatus nppiAbs_16s_AC4IR (Npp16s ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI)

  Four 16-bit signed short channel in place image absolute value with unmodified alpha.

- NppStatus nppiAbs_16s_C4R (const Npp16s ∗pSrc, int nSrcStep, Npp16s ∗pDst, int nDstStep, NppiSize oSizeROI)

  Four 16-bit signed short channel image absolute value.

- NppStatus nppiAbs_16s_C4IR (Npp16s ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI)

  Four 16-bit signed short channel in place image absolute value.

- NppStatus nppiAbs_32f_C1R (const Npp32f ∗pSrc, int nSrcStep, Npp32f ∗pDst, int nDstStep, NppiSize oSizeROI)

  One 32-bit floating point channel image absolute value.

- NppStatus nppiAbs_32f_C1IR (Npp32f ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI)

  One 32-bit floating point channel in place image absolute value.

- NppStatus nppiAbs_32f_C3R (const Npp32f ∗pSrc, int nSrcStep, Npp32f ∗pDst, int nDstStep, NppiSize oSizeROI)

  Three 32-bit floating point channel image absolute value.

- NppStatus nppiAbs_32f_C3IR (Npp32f ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI)

  Three 32-bit floating point channel in place image absolute value.

- NppStatus nppiAbs_32f_AC4R (const Npp32f ∗pSrc, int nSrcStep, Npp32f ∗pDst, int nDstStep, NppiSize oSizeROI)

Four 32-bit floating point channel image absolute value with unmodified alpha.

- NppStatus nppiAbs_32f_AC4IR (Npp32f *pSrcDst, int nSrcDstStep, NppiSize oSizeROI)

  Four 32-bit floating point channel in place image absolute value with unmodified alpha.

- NppStatus nppiAbs_32f_C4R (const Npp32f *pSrc, int nSrcStep, Npp32f *pDst, int nDstStep, NppiSize oSizeROI)

  Four 32-bit floating point channel image absolute value.

- NppStatus nppiAbs_32f_C4IR (Npp32f *pSrcDst, int nSrcDstStep, NppiSize oSizeROI)

  Four 32-bit floating point channel in place image absolute value.

7.22.1 Detailed Description

Absolute value of each pixel value in an image.

7.22.2 Function Documentation

7.22.2.1 NppStatus nppiAbs_16s_AC4IR (Npp16s * *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*)

Four 16-bit signed short channel in place image absolute value with unmodified alpha.

Parameters:

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.22.2.2 NppStatus nppiAbs_16s_AC4R (const Npp16s * *pSrc*, int *nSrcStep*, Npp16s * *pDst*, int *nDstStep*, NppiSize *oSizeROI*)

Four 16-bit signed short channel image absolute value with unmodified alpha.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.22.2.3 NppStatus nppiAbs_16s_C1IR (Npp16s ∗ *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*)

One 16-bit signed short channel in place image absolute value.

Parameters:

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.22.2.4 NppStatus nppiAbs_16s_C1R (const Npp16s ∗ *pSrc*, int *nSrcStep*, Npp16s ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*)

One 16-bit signed short channel image absolute value.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.22.2.5 NppStatus nppiAbs_16s_C3IR (Npp16s ∗ *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*)

Three 16-bit signed short channel in place image absolute value.

Parameters:

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.22.2.6 NppStatus nppiAbs_16s_C3R (const Npp16s * *pSrc*, int *nSrcStep*, Npp16s * *pDst*, int *nDstStep*, NppiSize *oSizeROI*)

Three 16-bit signed short channel image absolute value.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.22.2.7 NppStatus nppiAbs_16s_C4IR (Npp16s * *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*)

Four 16-bit signed short channel in place image absolute value.

Parameters:

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.22.2.8 NppStatus nppiAbs_16s_C4R (const Npp16s * *pSrc*, int *nSrcStep*, Npp16s * *pDst*, int *nDstStep*, NppiSize *oSizeROI*)

Four 16-bit signed short channel image absolute value.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.22.2.9 NppStatus nppiAbs_32f_AC4IR (Npp32f $*$ *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*)

Four 32-bit floating point channel in place image absolute value with unmodified alpha.

Parameters:

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.22.2.10 NppStatus nppiAbs_32f_AC4R (const Npp32f $*$ *pSrc*, int *nSrcStep*, Npp32f $*$ *pDst*, int *nDstStep*, NppiSize *oSizeROI*)

Four 32-bit floating point channel image absolute value with unmodified alpha.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.22.2.11 NppStatus nppiAbs_32f_C1IR (Npp32f $*$ *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*)

One 32-bit floating point channel in place image absolute value.

Parameters:

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.22.2.12 NppStatus nppiAbs_32f_C1R (const Npp32f * *pSrc*, int *nSrcStep*, Npp32f * *pDst*, int *nDstStep*, NppiSize *oSizeROI*)

One 32-bit floating point channel image absolute value.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.22.2.13 NppStatus nppiAbs_32f_C3IR (Npp32f * *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*)

Three 32-bit floating point channel in place image absolute value.

Parameters:

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.22.2.14 NppStatus nppiAbs_32f_C3R (const Npp32f * *pSrc*, int *nSrcStep*, Npp32f * *pDst*, int *nDstStep*, NppiSize *oSizeROI*)

Three 32-bit floating point channel image absolute value.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.22.2.15 NppStatus nppiAbs_32f_C4IR (Npp32f * *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*)

Four 32-bit floating point channel in place image absolute value.

Parameters:

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.22.2.16 NppStatus nppiAbs_32f_C4R (const Npp32f * *pSrc*, int *nSrcStep*, Npp32f * *pDst*, int *nDstStep*, NppiSize *oSizeROI*)

Four 32-bit floating point channel image absolute value.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.23 AbsDiff

Pixel by pixel absolute difference between two images.

Functions

- NppStatus nppiAbsDiff_8u_C1R (const Npp8u ∗pSrc1, int nSrc1Step, const Npp8u ∗pSrc2, int nSrc2Step, Npp8u ∗pDst, int nDstStep, NppiSize oSizeROI)

  One 8-bit unsigned char channel absolute difference of image1 minus image2.

- NppStatus nppiAbsDiff_8u_C3R (const Npp8u ∗pSrc1, int nSrc1Step, const Npp8u ∗pSrc2, int nSrc2Step, Npp8u ∗pDst, int nDstStep, NppiSize oSizeROI)

  Three 8-bit unsigned char channels absolute difference of image1 minus image2.

- NppStatus nppiAbsDiff_8u_C4R (const Npp8u ∗pSrc1, int nSrc1Step, const Npp8u ∗pSrc2, int nSrc2Step, Npp8u ∗pDst, int nDstStep, NppiSize oSizeROI)

  Four 8-bit unsigned char channels absolute difference of image1 minus image2.

- NppStatus nppiAbsDiff_16u_C1R (const Npp16u ∗pSrc1, int nSrc1Step, const Npp16u ∗pSrc2, int nSrc2Step, Npp16u ∗pDst, int nDstStep, NppiSize oSizeROI)

  One 16-bit unsigned short channel absolute difference of image1 minus image2.

- NppStatus nppiAbsDiff_32f_C1R (const Npp32f ∗pSrc1, int nSrc1Step, const Npp32f ∗pSrc2, int nSrc2Step, Npp32f ∗pDst, int nDstStep, NppiSize oSizeROI)

  One 32-bit floating point channel absolute difference of image1 minus image2.

7.23.1 Detailed Description

Pixel by pixel absolute difference between two images.

7.23.2 Function Documentation

7.23.2.1 NppStatus nppiAbsDiff_16u_C1R (const Npp16u ∗ *pSrc1*, int *nSrc1Step*, const Npp16u ∗ *pSrc2*, int *nSrc2Step*, Npp16u ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*)

One 16-bit unsigned short channel absolute difference of image1 minus image2.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.23.2.2 NppStatus nppiAbsDiff_32f_C1R (const Npp32f * *pSrc1*, int *nSrc1Step*, const Npp32f * *pSrc2*, int *nSrc2Step*, Npp32f * *pDst*, int *nDstStep*, NppiSize *oSizeROI*)

One 32-bit floating point channel absolute difference of image1 minus image2.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.23.2.3 NppStatus nppiAbsDiff_8u_C1R (const Npp8u * *pSrc1*, int *nSrc1Step*, const Npp8u * *pSrc2*, int *nSrc2Step*, Npp8u * *pDst*, int *nDstStep*, NppiSize *oSizeROI*)

One 8-bit unsigned char channel absolute difference of image1 minus image2.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.23.2.4 NppStatus nppiAbsDiff_8u_C3R (const Npp8u * *pSrc1*, int *nSrc1Step*, const Npp8u * *pSrc2*, int *nSrc2Step*, Npp8u * *pDst*, int *nDstStep*, NppiSize *oSizeROI*)

Three 8-bit unsigned char channels absolute difference of image1 minus image2.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.23.2.5 NppStatus nppiAbsDiff_8u_C4R (const Npp8u $*$ *pSrc1*, int *nSrc1Step*, const Npp8u $*$ *pSrc2*, int *nSrc2Step*, Npp8u $*$ *pDst*, int *nDstStep*, NppiSize *oSizeROI*)

Four 8-bit unsigned char channels absolute difference of image1 minus image2.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.24 Sqr

Square each pixel in an image.

Functions

- NppStatus nppiSqr_8u_C1RSfs (const Npp8u ∗pSrc, int nSrcStep, Npp8u ∗pDst, int nDstStep, NppiSize oSizeROI, int nScaleFactor)

  One 8-bit unsigned char channel image squared, scale by 2^(-nScaleFactor), then clamp to saturated value.

- NppStatus nppiSqr_8u_C1IRSfs (Npp8u ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI, int nScaleFactor)

  One 8-bit unsigned char channel in place image squared, scale by 2^(-nScaleFactor), then clamp to saturated value.

- NppStatus nppiSqr_8u_C3RSfs (const Npp8u ∗pSrc, int nSrcStep, Npp8u ∗pDst, int nDstStep, NppiSize oSizeROI, int nScaleFactor)

  Three 8-bit unsigned char channel image squared, scale by 2^(-nScaleFactor), then clamp to saturated value.

- NppStatus nppiSqr_8u_C3IRSfs (Npp8u ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI, int nScaleFactor)

  Three 8-bit unsigned char channel in place image squared, scale by 2^(-nScaleFactor), then clamp to saturated value.

- NppStatus nppiSqr_8u_AC4RSfs (const Npp8u ∗pSrc, int nSrcStep, Npp8u ∗pDst, int nDstStep, NppiSize oSizeROI, int nScaleFactor)

  Four 8-bit unsigned char channel image squared with unmodified alpha, scale by 2^(-nScaleFactor), then clamp to saturated value.

- NppStatus nppiSqr_8u_AC4IRSfs (Npp8u ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI, int nScaleFactor)

  Four 8-bit unsigned char channel in place image squared with unmodified alpha, scale by 2^(-nScaleFactor), then clamp to saturated value.

- NppStatus nppiSqr_8u_C4RSfs (const Npp8u ∗pSrc, int nSrcStep, Npp8u ∗pDst, int nDstStep, NppiSize oSizeROI, int nScaleFactor)

  Four 8-bit unsigned char channel image squared, scale by 2^(-nScaleFactor), then clamp to saturated value.

- NppStatus nppiSqr_8u_C4IRSfs (Npp8u ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI, int nScaleFactor)

  Four 8-bit unsigned char channel in place image squared, scale by 2^(-nScaleFactor), then clamp to saturated value.

- NppStatus nppiSqr_16u_C1RSfs (const Npp16u ∗pSrc, int nSrcStep, Npp16u ∗pDst, int nDstStep, NppiSize oSizeROI, int nScaleFactor)

  One 16-bit unsigned short channel image squared, scale by 2^(-nScaleFactor), then clamp to saturated value.

- NppStatus nppiSqr_16u_C1IRSfs (Npp16u ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI, int nScaleFactor)

One 16-bit unsigned short channel in place image squared, scale by 2^(-nScaleFactor), then clamp to saturated value.

- NppStatus nppiSqr_16u_C3RSfs (const Npp16u ∗pSrc, int nSrcStep, Npp16u ∗pDst, int nDstStep, NppiSize oSizeROI, int nScaleFactor)

  Three 16-bit unsigned short channel image squared, scale by 2^(-nScaleFactor), then clamp to saturated value.

- NppStatus nppiSqr_16u_C3IRSfs (Npp16u ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI, int nScaleFactor)

  Three 16-bit unsigned short channel in place image squared, scale by 2^(-nScaleFactor), then clamp to saturated value.

- NppStatus nppiSqr_16u_AC4RSfs (const Npp16u ∗pSrc, int nSrcStep, Npp16u ∗pDst, int nDstStep, NppiSize oSizeROI, int nScaleFactor)

  Four 16-bit unsigned short channel image squared with unmodified alpha, scale by 2^(-nScaleFactor), then clamp to saturated value.

- NppStatus nppiSqr_16u_AC4IRSfs (Npp16u ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI, int nScaleFactor)

  Four 16-bit unsigned short channel in place image squared with unmodified alpha, scale by 2^(-nScaleFactor), then clamp to saturated value.

- NppStatus nppiSqr_16u_C4RSfs (const Npp16u ∗pSrc, int nSrcStep, Npp16u ∗pDst, int nDstStep, NppiSize oSizeROI, int nScaleFactor)

  Four 16-bit unsigned short channel image squared, scale by 2^(-nScaleFactor), then clamp to saturated value.

- NppStatus nppiSqr_16u_C4IRSfs (Npp16u ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI, int nScaleFactor)

  Four 16-bit unsigned short channel in place image squared, scale by 2^(-nScaleFactor), then clamp to saturated value.

- NppStatus nppiSqr_16s_C1RSfs (const Npp16s ∗pSrc, int nSrcStep, Npp16s ∗pDst, int nDstStep, NppiSize oSizeROI, int nScaleFactor)

  One 16-bit signed short channel image squared, scale by 2^(-nScaleFactor), then clamp to saturated value.

- NppStatus nppiSqr_16s_C1IRSfs (Npp16s ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI, int nScaleFactor)

  One 16-bit signed short channel in place image squared, scale by 2^(-nScaleFactor), then clamp to saturated value.

- NppStatus nppiSqr_16s_C3RSfs (const Npp16s ∗pSrc, int nSrcStep, Npp16s ∗pDst, int nDstStep, NppiSize oSizeROI, int nScaleFactor)

  Three 16-bit signed short channel image squared, scale by 2^(-nScaleFactor), then clamp to saturated value.

- NppStatus nppiSqr_16s_C3IRSfs (Npp16s ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI, int nScaleFactor)

  Three 16-bit signed short channel in place image squared, scale by 2^(-nScaleFactor), then clamp to saturated value.

- NppStatus nppiSqr_16s_AC4RSfs (const Npp16s ∗pSrc, int nSrcStep, Npp16s ∗pDst, int nDstStep, NppiSize oSizeROI, int nScaleFactor)

  Four 16-bit signed short channel image squared with unmodified alpha, scale by 2^(-nScaleFactor), then clamp to saturated value.

- NppStatus nppiSqr_16s_AC4IRSfs (Npp16s ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI, int nScaleFactor)

  Four 16-bit signed short channel in place image squared with unmodified alpha, scale by 2^(-nScaleFactor), then clamp to saturated value.

- NppStatus nppiSqr_16s_C4RSfs (const Npp16s ∗pSrc, int nSrcStep, Npp16s ∗pDst, int nDstStep, NppiSize oSizeROI, int nScaleFactor)

  Four 16-bit signed short channel image squared, scale by 2^(-nScaleFactor), then clamp to saturated value.

- NppStatus nppiSqr_16s_C4IRSfs (Npp16s ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI, int nScaleFactor)

  Four 16-bit signed short channel in place image squared, scale by 2^(-nScaleFactor), then clamp to saturated value.

- NppStatus nppiSqr_32f_C1R (const Npp32f ∗pSrc, int nSrcStep, Npp32f ∗pDst, int nDstStep, NppiSize oSizeROI)

  One 32-bit floating point channel image squared.

- NppStatus nppiSqr_32f_C1IR (Npp32f ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI)

  One 32-bit floating point channel in place image squared.

- NppStatus nppiSqr_32f_C3R (const Npp32f ∗pSrc, int nSrcStep, Npp32f ∗pDst, int nDstStep, NppiSize oSizeROI)

  Three 32-bit floating point channel image squared.

- NppStatus nppiSqr_32f_C3IR (Npp32f ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI)

  Three 32-bit floating point channel in place image squared.

- NppStatus nppiSqr_32f_AC4R (const Npp32f ∗pSrc, int nSrcStep, Npp32f ∗pDst, int nDstStep, NppiSize oSizeROI)

  Four 32-bit floating point channel image squared with unmodified alpha.

- NppStatus nppiSqr_32f_AC4IR (Npp32f ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI)

  Four 32-bit floating point channel in place image squared with unmodified alpha.

- NppStatus nppiSqr_32f_C4R (const Npp32f ∗pSrc, int nSrcStep, Npp32f ∗pDst, int nDstStep, NppiSize oSizeROI)

  Four 32-bit floating point channel image squared.

- NppStatus nppiSqr_32f_C4IR (Npp32f ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI)

  Four 32-bit floating point channel in place image squared.

7.24.1 Detailed Description

Square each pixel in an image.

7.24.2 Function Documentation

7.24.2.1 NppStatus nppiSqr_16s_AC4IRSfs (Npp16s ∗ *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*, int *nScaleFactor*)

Four 16-bit signed short channel in place image squared with unmodified alpha, scale by 2^(-nScaleFactor), then clamp to saturated value.

Parameters:

pSrcDst In-Place Image Pointer.
nSrcDstStep In-Place-Image Line Step.
oSizeROI Region-of-Interest (ROI).
nScaleFactor Integer Result Scaling.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.24.2.2 NppStatus nppiSqr_16s_AC4RSfs (const Npp16s ∗ *pSrc*, int *nSrcStep*, Npp16s ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, int *nScaleFactor*)

Four 16-bit signed short channel image squared with unmodified alpha, scale by 2^(-nScaleFactor), then clamp to saturated value.

Parameters:

pSrc Source-Image Pointer.
nSrcStep Source-Image Line Step.
pDst Destination-Image Pointer.
nDstStep Destination-Image Line Step.
oSizeROI Region-of-Interest (ROI).
nScaleFactor Integer Result Scaling.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.24.2.3 NppStatus nppiSqr_16s_C1IRSfs (Npp16s ∗ *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*, int *nScaleFactor*)

One 16-bit signed short channel in place image squared, scale by 2^(-nScaleFactor), then clamp to saturated value.

Parameters:

pSrcDst In-Place Image Pointer.
nSrcDstStep In-Place-Image Line Step.
oSizeROI Region-of-Interest (ROI).
nScaleFactor Integer Result Scaling.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.24.2.4 NppStatus nppiSqr_16s_C1RSfs (const Npp16s ∗ *pSrc*, int *nSrcStep*, Npp16s ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, int *nScaleFactor*)

One 16-bit signed short channel image squared, scale by 2^(-nScaleFactor), then clamp to saturated value.

Parameters:

pSrc Source-Image Pointer.
nSrcStep Source-Image Line Step.
pDst Destination-Image Pointer.
nDstStep Destination-Image Line Step.
oSizeROI Region-of-Interest (ROI).
nScaleFactor Integer Result Scaling.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.24.2.5 NppStatus nppiSqr_16s_C3IRSfs (Npp16s ∗ *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*, int *nScaleFactor*)

Three 16-bit signed short channel in place image squared, scale by 2^(-nScaleFactor), then clamp to saturated value.

Parameters:

pSrcDst In-Place Image Pointer.
nSrcDstStep In-Place-Image Line Step.
oSizeROI Region-of-Interest (ROI).
nScaleFactor Integer Result Scaling.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.24.2.6 NppStatus nppiSqr_16s_C3RSfs (const Npp16s ∗ *pSrc*, int *nSrcStep*, Npp16s ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, int *nScaleFactor*)

Three 16-bit signed short channel image squared, scale by 2^(-nScaleFactor), then clamp to saturated value.

Parameters:

pSrc Source-Image Pointer.
nSrcStep Source-Image Line Step.
pDst Destination-Image Pointer.
nDstStep Destination-Image Line Step.
oSizeROI Region-of-Interest (ROI).
nScaleFactor Integer Result Scaling.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.24.2.7 NppStatus nppiSqr_16s_C4IRSfs (Npp16s ∗ *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*, int *nScaleFactor*)

Four 16-bit signed short channel in place image squared, scale by 2^(-nScaleFactor), then clamp to saturated value.

Parameters:

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oSizeROI Region-of-Interest (ROI).

nScaleFactor Integer Result Scaling.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.24.2.8 NppStatus nppiSqr_16s_C4RSfs (const Npp16s ∗ *pSrc*, int *nSrcStep*, Npp16s ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, int *nScaleFactor*)

Four 16-bit signed short channel image squared, scale by 2^(-nScaleFactor), then clamp to saturated value.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

nScaleFactor Integer Result Scaling.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.24.2.9 NppStatus nppiSqr_16u_AC4IRSfs (Npp16u ∗ *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*, int *nScaleFactor*)

Four 16-bit unsigned short channel in place image squared with unmodified alpha, scale by 2^(-nScaleFactor), then clamp to saturated value.

Parameters:

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oSizeROI Region-of-Interest (ROI).

nScaleFactor Integer Result Scaling.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.24.2.10 NppStatus nppiSqr_16u_AC4RSfs (const Npp16u * *pSrc*, int *nSrcStep*, Npp16u * *pDst*, int *nDstStep*, NppiSize *oSizeROI*, int *nScaleFactor*)

Four 16-bit unsigned short channel image squared with unmodified alpha, scale by 2^(-nScaleFactor), then clamp to saturated value.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

nScaleFactor Integer Result Scaling.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.24.2.11 NppStatus nppiSqr_16u_C1IRSfs (Npp16u * *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*, int *nScaleFactor*)

One 16-bit unsigned short channel in place image squared, scale by 2^(-nScaleFactor), then clamp to saturated value.

Parameters:

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oSizeROI Region-of-Interest (ROI).

nScaleFactor Integer Result Scaling.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.24.2.12 NppStatus nppiSqr_16u_C1RSfs (const Npp16u * *pSrc*, int *nSrcStep*, Npp16u * *pDst*, int *nDstStep*, NppiSize *oSizeROI*, int *nScaleFactor*)

One 16-bit unsigned short channel image squared, scale by 2^(-nScaleFactor), then clamp to saturated value.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

nScaleFactor Integer Result Scaling.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.24.2.13 NppStatus nppiSqr_16u_C3IRSfs (Npp16u * *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*, int *nScaleFactor*)

Three 16-bit unsigned short channel in place image squared, scale by 2^(-nScaleFactor), then clamp to saturated value.

Parameters:

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oSizeROI Region-of-Interest (ROI).

nScaleFactor Integer Result Scaling.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.24.2.14 NppStatus nppiSqr_16u_C3RSfs (const Npp16u * *pSrc*, int *nSrcStep*, Npp16u * *pDst*, int *nDstStep*, NppiSize *oSizeROI*, int *nScaleFactor*)

Three 16-bit unsigned short channel image squared, scale by 2^(-nScaleFactor), then clamp to saturated value.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

nScaleFactor Integer Result Scaling.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.24.2.15 NppStatus nppiSqr_16u_C4IRSfs (Npp16u * *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*, int *nScaleFactor*)

Four 16-bit unsigned short channel in place image squared, scale by 2^(-nScaleFactor), then clamp to saturated value.

Parameters:

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oSizeROI Region-of-Interest (ROI).

nScaleFactor Integer Result Scaling.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.24.2.16 NppStatus nppiSqr_16u_C4RSfs (const Npp16u ∗ *pSrc*, int *nSrcStep*, Npp16u ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, int *nScaleFactor*)

Four 16-bit unsigned short channel image squared, scale by 2^(-nScaleFactor), then clamp to saturated value.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

nScaleFactor Integer Result Scaling.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.24.2.17 NppStatus nppiSqr_32f_AC4IR (Npp32f ∗ *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*)

Four 32-bit floating point channel in place image squared with unmodified alpha.

Parameters:

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.24.2.18 NppStatus nppiSqr_32f_AC4R (const Npp32f ∗ *pSrc*, int *nSrcStep*, Npp32f ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*)

Four 32-bit floating point channel image squared with unmodified alpha.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.
pDst Destination-Image Pointer.
nDstStep Destination-Image Line Step.
oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.24.2.19 NppStatus nppiSqr_32f_C1IR (Npp32f ∗ *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*)

One 32-bit floating point channel in place image squared.

Parameters:

pSrcDst In-Place Image Pointer.
nSrcDstStep In-Place-Image Line Step.
oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.24.2.20 NppStatus nppiSqr_32f_C1R (const Npp32f ∗ *pSrc*, int *nSrcStep*, Npp32f ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*)

One 32-bit floating point channel image squared.

Parameters:

pSrc Source-Image Pointer.
nSrcStep Source-Image Line Step.
pDst Destination-Image Pointer.
nDstStep Destination-Image Line Step.
oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.24.2.21 NppStatus nppiSqr_32f_C3IR (Npp32f ∗ *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*)

Three 32-bit floating point channel in place image squared.

Parameters:

pSrcDst In-Place Image Pointer.
nSrcDstStep In-Place-Image Line Step.
oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.24.2.22 NppStatus nppiSqr_32f_C3R (const Npp32f ∗ *pSrc*, int *nSrcStep*, Npp32f ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*)

Three 32-bit floating point channel image squared.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.24.2.23 NppStatus nppiSqr_32f_C4IR (Npp32f ∗ *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*)

Four 32-bit floating point channel in place image squared.

Parameters:

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.24.2.24 NppStatus nppiSqr_32f_C4R (const Npp32f ∗ *pSrc*, int *nSrcStep*, Npp32f ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*)

Four 32-bit floating point channel image squared.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.24.2.25 NppStatus nppiSqr_8u_AC4IRSfs (Npp8u ∗ *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*, int *nScaleFactor*)

Four 8-bit unsigned char channel in place image squared with unmodified alpha, scale by 2^(-nScaleFactor), then clamp to saturated value.

Parameters:

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oSizeROI Region-of-Interest (ROI).

nScaleFactor Integer Result Scaling.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.24.2.26 NppStatus nppiSqr_8u_AC4RSfs (const Npp8u ∗ *pSrc*, int *nSrcStep*, Npp8u ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, int *nScaleFactor*)

Four 8-bit unsigned char channel image squared with unmodified alpha, scale by 2^(-nScaleFactor), then clamp to saturated value.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

nScaleFactor Integer Result Scaling.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.24.2.27 NppStatus nppiSqr_8u_C1IRSfs (Npp8u ∗ *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*, int *nScaleFactor*)

One 8-bit unsigned char channel in place image squared, scale by 2^(-nScaleFactor), then clamp to saturated value.

Parameters:

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oSizeROI Region-of-Interest (ROI).

nScaleFactor Integer Result Scaling.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.24.2.28 NppStatus nppiSqr_8u_C1RSfs (const Npp8u ∗ *pSrc*, int *nSrcStep*, Npp8u ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, int *nScaleFactor*)

One 8-bit unsigned char channel image squared, scale by 2^(-nScaleFactor), then clamp to saturated value.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

nScaleFactor Integer Result Scaling.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.24.2.29 NppStatus nppiSqr_8u_C3IRSfs (Npp8u ∗ *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*, int *nScaleFactor*)

Three 8-bit unsigned char channel in place image squared, scale by 2^(-nScaleFactor), then clamp to saturated value.

Parameters:

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oSizeROI Region-of-Interest (ROI).

nScaleFactor Integer Result Scaling.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.24.2.30 NppStatus nppiSqr_8u_C3RSfs (const Npp8u ∗ *pSrc*, int *nSrcStep*, Npp8u ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, int *nScaleFactor*)

Three 8-bit unsigned char channel image squared, scale by 2^(-nScaleFactor), then clamp to saturated value.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

nScaleFactor Integer Result Scaling.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.24.2.31 NppStatus nppiSqr_8u_C4IRSfs (Npp8u * *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*, int *nScaleFactor*)

Four 8-bit unsigned char channel in place image squared, scale by 2^(-nScaleFactor), then clamp to saturated value.

Parameters:

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oSizeROI Region-of-Interest (ROI).

nScaleFactor Integer Result Scaling.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.24.2.32 NppStatus nppiSqr_8u_C4RSfs (const Npp8u * *pSrc*, int *nSrcStep*, Npp8u * *pDst*, int *nDstStep*, NppiSize *oSizeROI*, int *nScaleFactor*)

Four 8-bit unsigned char channel image squared, scale by 2^(-nScaleFactor), then clamp to saturated value.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

nScaleFactor Integer Result Scaling.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.25 Sqrt

Pixel by pixel square root of each pixel in an image.

Functions

- NppStatus nppiSqrt_8u_C1RSfs (const Npp8u ∗pSrc, int nSrcStep, Npp8u ∗pDst, int nDstStep, NppiSize oSizeROI, int nScaleFactor)

  One 8-bit unsigned char channel image square root, scale by 2^(-nScaleFactor), then clamp to saturated value.

- NppStatus nppiSqrt_8u_C1IRSfs (Npp8u ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI, int nScaleFactor)

  One 8-bit unsigned char channel in place image square root, scale by 2^(-nScaleFactor), then clamp to saturated value.

- NppStatus nppiSqrt_8u_C3RSfs (const Npp8u ∗pSrc, int nSrcStep, Npp8u ∗pDst, int nDstStep, NppiSize oSizeROI, int nScaleFactor)

  Three 8-bit unsigned char channel image square root, scale by 2^(-nScaleFactor), then clamp to saturated value.

- NppStatus nppiSqrt_8u_C3IRSfs (Npp8u ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI, int nScaleFactor)

  Three 8-bit unsigned char channel in place image square root, scale by 2^(-nScaleFactor), then clamp to saturated value.

- NppStatus nppiSqrt_8u_AC4RSfs (const Npp8u ∗pSrc, int nSrcStep, Npp8u ∗pDst, int nDstStep, NppiSize oSizeROI, int nScaleFactor)

  Four 8-bit unsigned char channel image square root with unmodified alpha, scale by 2^(-nScaleFactor), then clamp to saturated value.

- NppStatus nppiSqrt_8u_AC4IRSfs (Npp8u ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI, int nScaleFactor)

  Four 8-bit unsigned char channel in place image square root with unmodified alpha, scale by 2^(-nScaleFactor), then clamp to saturated value.

- NppStatus nppiSqrt_16u_C1RSfs (const Npp16u ∗pSrc, int nSrcStep, Npp16u ∗pDst, int nDstStep, NppiSize oSizeROI, int nScaleFactor)

  One 16-bit unsigned short channel image square root, scale by 2^(-nScaleFactor), then clamp to saturated value.

- NppStatus nppiSqrt_16u_C1IRSfs (Npp16u ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI, int nScaleFactor)

  One 16-bit unsigned short channel in place image square root, scale by 2^(-nScaleFactor), then clamp to saturated value.

- NppStatus nppiSqrt_16u_C3RSfs (const Npp16u ∗pSrc, int nSrcStep, Npp16u ∗pDst, int nDstStep, NppiSize oSizeROI, int nScaleFactor)

  Three 16-bit unsigned short channel image square root, scale by 2^(-nScaleFactor), then clamp to saturated value.

- NppStatus nppiSqrt_16u_C3IRSfs (Npp16u ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI, int nScaleFactor)

  Three 16-bit unsigned short channel in place image square root, scale by 2^(-nScaleFactor), then clamp to saturated value.

- NppStatus nppiSqrt_16u_AC4RSfs (const Npp16u ∗pSrc, int nSrcStep, Npp16u ∗pDst, int nDstStep, NppiSize oSizeROI, int nScaleFactor)

  Four 16-bit unsigned short channel image square root with unmodified alpha, scale by 2^(-nScaleFactor), then clamp to saturated value.

- NppStatus nppiSqrt_16u_AC4IRSfs (Npp16u ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI, int nScaleFactor)

  Four 16-bit unsigned short channel in place image square root with unmodified alpha, scale by 2^(-nScaleFactor), then clamp to saturated value.

- NppStatus nppiSqrt_16s_C1RSfs (const Npp16s ∗pSrc, int nSrcStep, Npp16s ∗pDst, int nDstStep, NppiSize oSizeROI, int nScaleFactor)

  One 16-bit signed short channel image square root, scale by 2^(-nScaleFactor), then clamp to saturated value.

- NppStatus nppiSqrt_16s_C1IRSfs (Npp16s ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI, int nScaleFactor)

  One 16-bit signed short channel in place image square root, scale by 2^(-nScaleFactor), then clamp to saturated value.

- NppStatus nppiSqrt_16s_C3RSfs (const Npp16s ∗pSrc, int nSrcStep, Npp16s ∗pDst, int nDstStep, NppiSize oSizeROI, int nScaleFactor)

  Three 16-bit signed short channel image square root, scale by 2^(-nScaleFactor), then clamp to saturated value.

- NppStatus nppiSqrt_16s_C3IRSfs (Npp16s ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI, int nScaleFactor)

  Three 16-bit signed short channel in place image square root, scale by 2^(-nScaleFactor), then clamp to saturated value.

- NppStatus nppiSqrt_16s_AC4RSfs (const Npp16s ∗pSrc, int nSrcStep, Npp16s ∗pDst, int nDstStep, NppiSize oSizeROI, int nScaleFactor)

  Four 16-bit signed short channel image square root with unmodified alpha, scale by 2^(-nScaleFactor), then clamp to saturated value.

- NppStatus nppiSqrt_16s_AC4IRSfs (Npp16s ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI, int nScaleFactor)

  Four 16-bit signed short channel in place image square root with unmodified alpha, scale by 2^(-nScaleFactor), then clamp to saturated value.

- NppStatus nppiSqrt_32f_C1R (const Npp32f ∗pSrc, int nSrcStep, Npp32f ∗pDst, int nDstStep, NppiSize oSizeROI)

  One 32-bit floating point channel image square root.

- NppStatus nppiSqrt_32f_C1IR (Npp32f ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI)

  One 32-bit floating point channel in place image square root.

- NppStatus nppiSqrt_32f_C3R (const Npp32f ∗pSrc, int nSrcStep, Npp32f ∗pDst, int nDstStep, NppiSize oSizeROI)

  Three 32-bit floating point channel image square root.

- NppStatus nppiSqrt_32f_C3IR (Npp32f ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI)

  Three 32-bit floating point channel in place image square root.

- NppStatus nppiSqrt_32f_AC4R (const Npp32f ∗pSrc, int nSrcStep, Npp32f ∗pDst, int nDstStep, NppiSize oSizeROI)

  Four 32-bit floating point channel image square root with unmodified alpha.

- NppStatus nppiSqrt_32f_AC4IR (Npp32f ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI)

  Four 32-bit floating point channel in place image square root with unmodified alpha.

- NppStatus nppiSqrt_32f_C4R (const Npp32f ∗pSrc, int nSrcStep, Npp32f ∗pDst, int nDstStep, NppiSize oSizeROI)

  Four 32-bit floating point channel image square root.

- NppStatus nppiSqrt_32f_C4IR (Npp32f ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI)

  Four 32-bit floating point channel in place image square root.

7.25.1 Detailed Description

Pixel by pixel square root of each pixel in an image.

7.25.2 Function Documentation

7.25.2.1 NppStatus nppiSqrt_16s_AC4IRSfs (Npp16s ∗ *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*, int *nScaleFactor*)

Four 16-bit signed short channel in place image square root with unmodified alpha, scale by 2^(-nScaleFactor), then clamp to saturated value.

Parameters:

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oSizeROI Region-of-Interest (ROI).

nScaleFactor Integer Result Scaling.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.25.2.2 NppStatus nppiSqrt_16s_AC4RSfs (const Npp16s ∗ *pSrc*, int *nSrcStep*, Npp16s ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, int *nScaleFactor*)

Four 16-bit signed short channel image square root with unmodified alpha, scale by 2^(-nScaleFactor), then clamp to saturated value.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

nScaleFactor Integer Result Scaling.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.25.2.3 NppStatus nppiSqrt_16s_C1IRSfs (Npp16s ∗ *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*, int *nScaleFactor*)

One 16-bit signed short channel in place image square root, scale by 2^(-nScaleFactor), then clamp to saturated value.

Parameters:

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oSizeROI Region-of-Interest (ROI).

nScaleFactor Integer Result Scaling.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.25.2.4 NppStatus nppiSqrt_16s_C1RSfs (const Npp16s ∗ *pSrc*, int *nSrcStep*, Npp16s ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, int *nScaleFactor*)

One 16-bit signed short channel image square root, scale by 2^(-nScaleFactor), then clamp to saturated value.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

nScaleFactor Integer Result Scaling.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.25.2.5 NppStatus nppiSqrt_16s_C3IRSfs (Npp16s ∗ *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*, int *nScaleFactor*)

Three 16-bit signed short channel in place image square root, scale by 2^(-nScaleFactor), then clamp to saturated value.

Parameters:

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oSizeROI Region-of-Interest (ROI).

nScaleFactor Integer Result Scaling.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.25.2.6 NppStatus nppiSqrt_16s_C3RSfs (const Npp16s ∗ *pSrc*, int *nSrcStep*, Npp16s ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, int *nScaleFactor*)

Three 16-bit signed short channel image square root, scale by 2^(-nScaleFactor), then clamp to saturated value.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

nScaleFactor Integer Result Scaling.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.25.2.7 NppStatus nppiSqrt_16u_AC4IRSfs (Npp16u ∗ *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*, int *nScaleFactor*)

Four 16-bit unsigned short channel in place image square root with unmodified alpha, scale by 2^(-nScaleFactor), then clamp to saturated value.

Parameters:

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oSizeROI Region-of-Interest (ROI).

nScaleFactor Integer Result Scaling.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.25.2.8 NppStatus nppiSqrt_16u_AC4RSfs (const Npp16u ∗ *pSrc*, int *nSrcStep*, Npp16u ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, int *nScaleFactor*)

Four 16-bit unsigned short channel image square root with unmodified alpha, scale by 2^(-nScaleFactor), then clamp to saturated value.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

nScaleFactor Integer Result Scaling.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.25.2.9 NppStatus nppiSqrt_16u_C1IRSfs (Npp16u ∗ *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*, int *nScaleFactor*)

One 16-bit unsigned short channel in place image square root, scale by 2^(-nScaleFactor), then clamp to saturated value.

Parameters:

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oSizeROI Region-of-Interest (ROI).

nScaleFactor Integer Result Scaling.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.25.2.10 NppStatus nppiSqrt_16u_C1RSfs (const Npp16u ∗ *pSrc*, int *nSrcStep*, Npp16u ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, int *nScaleFactor*)

One 16-bit unsigned short channel image square root, scale by 2^(-nScaleFactor), then clamp to saturated value.

Parameters:

pSrc Source-Image Pointer.
nSrcStep Source-Image Line Step.
pDst Destination-Image Pointer.
nDstStep Destination-Image Line Step.
oSizeROI Region-of-Interest (ROI).
nScaleFactor Integer Result Scaling.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.25.2.11 NppStatus nppiSqrt_16u_C3IRSfs (Npp16u ∗ *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*, int *nScaleFactor*)

Three 16-bit unsigned short channel in place image square root, scale by 2^(-nScaleFactor), then clamp to saturated value.

Parameters:

pSrcDst In-Place Image Pointer.
nSrcDstStep In-Place-Image Line Step.
oSizeROI Region-of-Interest (ROI).
nScaleFactor Integer Result Scaling.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.25.2.12 NppStatus nppiSqrt_16u_C3RSfs (const Npp16u ∗ *pSrc*, int *nSrcStep*, Npp16u ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, int *nScaleFactor*)

Three 16-bit unsigned short channel image square root, scale by 2^(-nScaleFactor), then clamp to saturated value.

Parameters:

pSrc Source-Image Pointer.
nSrcStep Source-Image Line Step.
pDst Destination-Image Pointer.
nDstStep Destination-Image Line Step.
oSizeROI Region-of-Interest (ROI).
nScaleFactor Integer Result Scaling.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.25.2.13 NppStatus nppiSqrt_32f_AC4IR (Npp32f * *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*)

Four 32-bit floating point channel in place image square root with unmodified alpha.

Parameters:

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.25.2.14 NppStatus nppiSqrt_32f_AC4R (const Npp32f * *pSrc*, int *nSrcStep*, Npp32f * *pDst*, int *nDstStep*, NppiSize *oSizeROI*)

Four 32-bit floating point channel image square root with unmodified alpha.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.25.2.15 NppStatus nppiSqrt_32f_C1IR (Npp32f * *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*)

One 32-bit floating point channel in place image square root.

Parameters:

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.25.2.16 NppStatus nppiSqrt_32f_C1R (const Npp32f ∗ *pSrc*, int *nSrcStep*, Npp32f ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*)

One 32-bit floating point channel image square root.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.25.2.17 NppStatus nppiSqrt_32f_C3IR (Npp32f ∗ *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*)

Three 32-bit floating point channel in place image square root.

Parameters:

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.25.2.18 NppStatus nppiSqrt_32f_C3R (const Npp32f ∗ *pSrc*, int *nSrcStep*, Npp32f ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*)

Three 32-bit floating point channel image square root.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.25.2.19 NppStatus nppiSqrt_32f_C4IR (Npp32f ∗ *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*)

Four 32-bit floating point channel in place image square root.

Parameters:

- ***pSrcDst*** In-Place Image Pointer.
- ***nSrcDstStep*** In-Place-Image Line Step.
- ***oSizeROI*** Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.25.2.20 NppStatus nppiSqrt_32f_C4R (const Npp32f ∗ *pSrc*, int *nSrcStep*, Npp32f ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*)

Four 32-bit floating point channel image square root.

Parameters:

- ***pSrc*** Source-Image Pointer.
- ***nSrcStep*** Source-Image Line Step.
- ***pDst*** Destination-Image Pointer.
- ***nDstStep*** Destination-Image Line Step.
- ***oSizeROI*** Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.25.2.21 NppStatus nppiSqrt_8u_AC4IRSfs (Npp8u ∗ *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*, int *nScaleFactor*)

Four 8-bit unsigned char channel in place image square root with unmodified alpha, scale by 2^(-nScaleFactor), then clamp to saturated value.

Parameters:

- ***pSrcDst*** In-Place Image Pointer.
- ***nSrcDstStep*** In-Place-Image Line Step.
- ***oSizeROI*** Region-of-Interest (ROI).
- ***nScaleFactor*** Integer Result Scaling.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.25.2.22 NppStatus nppiSqrt_8u_AC4RSfs (const Npp8u ∗ *pSrc*, int *nSrcStep*, Npp8u ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, int *nScaleFactor*)

Four 8-bit unsigned char channel image square root with unmodified alpha, scale by 2^(-nScaleFactor), then clamp to saturated value.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

nScaleFactor Integer Result Scaling.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.25.2.23 NppStatus nppiSqrt_8u_C1IRSfs (Npp8u ∗ *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*, int *nScaleFactor*)

One 8-bit unsigned char channel in place image square root, scale by 2^(-nScaleFactor), then clamp to saturated value.

Parameters:

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oSizeROI Region-of-Interest (ROI).

nScaleFactor Integer Result Scaling.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.25.2.24 NppStatus nppiSqrt_8u_C1RSfs (const Npp8u ∗ *pSrc*, int *nSrcStep*, Npp8u ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, int *nScaleFactor*)

One 8-bit unsigned char channel image square root, scale by 2^(-nScaleFactor), then clamp to saturated value.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

nScaleFactor Integer Result Scaling.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.25.2.25 NppStatus nppiSqrt_8u_C3IRSfs (Npp8u ∗ *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*, int *nScaleFactor*)

Three 8-bit unsigned char channel in place image square root, scale by 2^(-nScaleFactor), then clamp to saturated value.

Parameters:

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oSizeROI Region-of-Interest (ROI).

nScaleFactor Integer Result Scaling.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.25.2.26 NppStatus nppiSqrt_8u_C3RSfs (const Npp8u ∗ *pSrc*, int *nSrcStep*, Npp8u ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, int *nScaleFactor*)

Three 8-bit unsigned char channel image square root, scale by 2^(-nScaleFactor), then clamp to saturated value.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

nScaleFactor Integer Result Scaling.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.26 Ln

Pixel by pixel natural logarithm of each pixel in an image.

Functions

- NppStatus nppiLn_8u_C1RSfs (const Npp8u ∗pSrc, int nSrcStep, Npp8u ∗pDst, int nDstStep, NppiSize oSizeROI, int nScaleFactor)

  One 8-bit unsigned char channel image natural logarithm, scale by 2^(-nScaleFactor), then clamp to saturated value.

- NppStatus nppiLn_8u_C1IRSfs (Npp8u ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI, int nScaleFactor)

  One 8-bit unsigned char channel in place image natural logarithm, scale by 2^(-nScaleFactor), then clamp to saturated value.

- NppStatus nppiLn_8u_C3RSfs (const Npp8u ∗pSrc, int nSrcStep, Npp8u ∗pDst, int nDstStep, NppiSize oSizeROI, int nScaleFactor)

  Three 8-bit unsigned char channel image natural logarithm, scale by 2^(-nScaleFactor), then clamp to saturated value.

- NppStatus nppiLn_8u_C3IRSfs (Npp8u ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI, int nScaleFactor)

  Three 8-bit unsigned char channel in place image natural logarithm, scale by 2^(-nScaleFactor), then clamp to saturated value.

- NppStatus nppiLn_16u_C1RSfs (const Npp16u ∗pSrc, int nSrcStep, Npp16u ∗pDst, int nDstStep, NppiSize oSizeROI, int nScaleFactor)

  One 16-bit unsigned short channel image natural logarithm, scale by 2^(-nScaleFactor), then clamp to saturated value.

- NppStatus nppiLn_16u_C1IRSfs (Npp16u ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI, int nScaleFactor)

  One 16-bit unsigned short channel in place image natural logarithm, scale by 2^(-nScaleFactor), then clamp to saturated value.

- NppStatus nppiLn_16u_C3RSfs (const Npp16u ∗pSrc, int nSrcStep, Npp16u ∗pDst, int nDstStep, NppiSize oSizeROI, int nScaleFactor)

  Three 16-bit unsigned short channel image natural logarithm, scale by 2^(-nScaleFactor), then clamp to saturated value.

- NppStatus nppiLn_16u_C3IRSfs (Npp16u ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI, int nScaleFactor)

  Three 16-bit unsigned short channel in place image natural logarithm, scale by 2^(-nScaleFactor), then clamp to saturated value.

- NppStatus nppiLn_16s_C1RSfs (const Npp16s ∗pSrc, int nSrcStep, Npp16s ∗pDst, int nDstStep, NppiSize oSizeROI, int nScaleFactor)

  One 16-bit signed short channel image natural logarithm, scale by 2^(-nScaleFactor), then clamp to saturated value.

- NppStatus nppiLn_16s_C1IRSfs (Npp16s ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI, int nScaleFactor)

  One 16-bit signed short channel in place image natural logarithm, scale by 2^(-nScaleFactor), then clamp to saturated value.

- NppStatus nppiLn_16s_C3RSfs (const Npp16s ∗pSrc, int nSrcStep, Npp16s ∗pDst, int nDstStep, NppiSize oSizeROI, int nScaleFactor)

  Three 16-bit signed short channel image natural logarithm, scale by 2^(-nScaleFactor), then clamp to saturated value.

- NppStatus nppiLn_16s_C3IRSfs (Npp16s ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI, int nScaleFactor)

  Three 16-bit signed short channel in place image natural logarithm, scale by 2^(-nScaleFactor), then clamp to saturated value.

- NppStatus nppiLn_32f_C1R (const Npp32f ∗pSrc, int nSrcStep, Npp32f ∗pDst, int nDstStep, NppiSize oSizeROI)

  One 32-bit floating point channel image natural logarithm.

- NppStatus nppiLn_32f_C1IR (Npp32f ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI)

  One 32-bit floating point channel in place image natural logarithm.

- NppStatus nppiLn_32f_C3R (const Npp32f ∗pSrc, int nSrcStep, Npp32f ∗pDst, int nDstStep, NppiSize oSizeROI)

  Three 32-bit floating point channel image natural logarithm.

- NppStatus nppiLn_32f_C3IR (Npp32f ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI)

  Three 32-bit floating point channel in place image natural logarithm.

7.26.1 Detailed Description

Pixel by pixel natural logarithm of each pixel in an image.

7.26.2 Function Documentation

7.26.2.1 NppStatus nppiLn_16s_C1IRSfs (Npp16s ∗ *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*, int *nScaleFactor*)

One 16-bit signed short channel in place image natural logarithm, scale by 2^(-nScaleFactor), then clamp to saturated value.

Parameters:

pSrcDst In-Place Image Pointer.
nSrcDstStep In-Place-Image Line Step.
oSizeROI Region-of-Interest (ROI).
nScaleFactor Integer Result Scaling.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.26.2.2 NppStatus nppiLn_16s_C1RSfs (const Npp16s ∗ *pSrc*, int *nSrcStep*, Npp16s ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, int *nScaleFactor*)

One 16-bit signed short channel image natural logarithm, scale by 2^(-nScaleFactor), then clamp to saturated value.

Parameters:

pSrc Source-Image Pointer.
nSrcStep Source-Image Line Step.
pDst Destination-Image Pointer.
nDstStep Destination-Image Line Step.
oSizeROI Region-of-Interest (ROI).
nScaleFactor Integer Result Scaling.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.26.2.3 NppStatus nppiLn_16s_C3IRSfs (Npp16s ∗ *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*, int *nScaleFactor*)

Three 16-bit signed short channel in place image natural logarithm, scale by 2^(-nScaleFactor), then clamp to saturated value.

Parameters:

pSrcDst In-Place Image Pointer.
nSrcDstStep In-Place-Image Line Step.
oSizeROI Region-of-Interest (ROI).
nScaleFactor Integer Result Scaling.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.26.2.4 NppStatus nppiLn_16s_C3RSfs (const Npp16s ∗ *pSrc*, int *nSrcStep*, Npp16s ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, int *nScaleFactor*)

Three 16-bit signed short channel image natural logarithm, scale by 2^(-nScaleFactor), then clamp to saturated value.

Parameters:

pSrc Source-Image Pointer.
nSrcStep Source-Image Line Step.
pDst Destination-Image Pointer.
nDstStep Destination-Image Line Step.
oSizeROI Region-of-Interest (ROI).
nScaleFactor Integer Result Scaling.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.26.2.5 NppStatus nppiLn_16u_C1IRSfs (Npp16u $*$ *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*, int *nScaleFactor*)

One 16-bit unsigned short channel in place image natural logarithm, scale by 2^(-nScaleFactor), then clamp to saturated value.

Parameters:

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oSizeROI Region-of-Interest (ROI).

nScaleFactor Integer Result Scaling.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.26.2.6 NppStatus nppiLn_16u_C1RSfs (const Npp16u $*$ *pSrc*, int *nSrcStep*, Npp16u $*$ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, int *nScaleFactor*)

One 16-bit unsigned short channel image natural logarithm, scale by 2^(-nScaleFactor), then clamp to saturated value.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

nScaleFactor Integer Result Scaling.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.26.2.7 NppStatus nppiLn_16u_C3IRSfs (Npp16u $*$ *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*, int *nScaleFactor*)

Three 16-bit unsigned short channel in place image natural logarithm, scale by 2^(-nScaleFactor), then clamp to saturated value.

Parameters:

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oSizeROI Region-of-Interest (ROI).

nScaleFactor Integer Result Scaling.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.26.2.8 NppStatus nppiLn_16u_C3RSfs (const Npp16u ∗ *pSrc*, int *nSrcStep*, Npp16u ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, int *nScaleFactor*)

Three 16-bit unsigned short channel image natural logarithm, scale by 2^(-nScaleFactor), then clamp to saturated value.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

nScaleFactor Integer Result Scaling.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.26.2.9 NppStatus nppiLn_32f_C1IR (Npp32f ∗ *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*)

One 32-bit floating point channel in place image natural logarithm.

Parameters:

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.26.2.10 NppStatus nppiLn_32f_C1R (const Npp32f ∗ *pSrc*, int *nSrcStep*, Npp32f ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*)

One 32-bit floating point channel image natural logarithm.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.26.2.11 NppStatus nppiLn_32f_C3IR (Npp32f * *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*)

Three 32-bit floating point channel in place image natural logarithm.

Parameters:

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.26.2.12 NppStatus nppiLn_32f_C3R (const Npp32f * *pSrc*, int *nSrcStep*, Npp32f * *pDst*, int *nDstStep*, NppiSize *oSizeROI*)

Three 32-bit floating point channel image natural logarithm.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.26.2.13 NppStatus nppiLn_8u_C1IRSfs (Npp8u * *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*, int *nScaleFactor*)

One 8-bit unsigned char channel in place image natural logarithm, scale by 2^(-nScaleFactor), then clamp to saturated value.

Parameters:

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oSizeROI Region-of-Interest (ROI).

nScaleFactor Integer Result Scaling.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.26.2.14 NppStatus nppiLn_8u_C1RSfs (const Npp8u * *pSrc*, int *nSrcStep*, Npp8u * *pDst*, int *nDstStep*, NppiSize *oSizeROI*, int *nScaleFactor*)

One 8-bit unsigned char channel image natural logarithm, scale by 2^(-nScaleFactor), then clamp to saturated value.

Parameters:

pSrc Source-Image Pointer.
nSrcStep Source-Image Line Step.
pDst Destination-Image Pointer.
nDstStep Destination-Image Line Step.
oSizeROI Region-of-Interest (ROI).
nScaleFactor Integer Result Scaling.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.26.2.15 NppStatus nppiLn_8u_C3IRSfs (Npp8u * *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*, int *nScaleFactor*)

Three 8-bit unsigned char channel in place image natural logarithm, scale by 2^(-nScaleFactor), then clamp to saturated value.

Parameters:

pSrcDst In-Place Image Pointer.
nSrcDstStep In-Place-Image Line Step.
oSizeROI Region-of-Interest (ROI).
nScaleFactor Integer Result Scaling.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.26.2.16 NppStatus nppiLn_8u_C3RSfs (const Npp8u * *pSrc*, int *nSrcStep*, Npp8u * *pDst*, int *nDstStep*, NppiSize *oSizeROI*, int *nScaleFactor*)

Three 8-bit unsigned char channel image natural logarithm, scale by 2^(-nScaleFactor), then clamp to saturated value.

Parameters:

pSrc Source-Image Pointer.
nSrcStep Source-Image Line Step.
pDst Destination-Image Pointer.
nDstStep Destination-Image Line Step.
oSizeROI Region-of-Interest (ROI).
nScaleFactor Integer Result Scaling.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.27 Exp

Exponential value of each pixel in an image.

Functions

- NppStatus nppiExp_8u_C1RSfs (const Npp8u ∗pSrc, int nSrcStep, Npp8u ∗pDst, int nDstStep, NppiSize oSizeROI, int nScaleFactor)

  One 8-bit unsigned char channel image exponential, scale by 2^(-nScaleFactor), then clamp to saturated value.

- NppStatus nppiExp_8u_C1IRSfs (Npp8u ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI, int nScaleFactor)

  One 8-bit unsigned char channel in place image exponential, scale by 2^(-nScaleFactor), then clamp to saturated value.

- NppStatus nppiExp_8u_C3RSfs (const Npp8u ∗pSrc, int nSrcStep, Npp8u ∗pDst, int nDstStep, NppiSize oSizeROI, int nScaleFactor)

  Three 8-bit unsigned char channel image exponential, scale by 2^(-nScaleFactor), then clamp to saturated value.

- NppStatus nppiExp_8u_C3IRSfs (Npp8u ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI, int nScaleFactor)

  Three 8-bit unsigned char channel in place image exponential, scale by 2^(-nScaleFactor), then clamp to saturated value.

- NppStatus nppiExp_16u_C1RSfs (const Npp16u ∗pSrc, int nSrcStep, Npp16u ∗pDst, int nDstStep, NppiSize oSizeROI, int nScaleFactor)

  One 16-bit unsigned short channel image exponential, scale by 2^(-nScaleFactor), then clamp to saturated value.

- NppStatus nppiExp_16u_C1IRSfs (Npp16u ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI, int nScaleFactor)

  One 16-bit unsigned short channel in place image exponential, scale by 2^(-nScaleFactor), then clamp to saturated value.

- NppStatus nppiExp_16u_C3RSfs (const Npp16u ∗pSrc, int nSrcStep, Npp16u ∗pDst, int nDstStep, NppiSize oSizeROI, int nScaleFactor)

  Three 16-bit unsigned short channel image exponential, scale by 2^(-nScaleFactor), then clamp to saturated value.

- NppStatus nppiExp_16u_C3IRSfs (Npp16u ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI, int nScaleFactor)

  Three 16-bit unsigned short channel in place image exponential, scale by 2^(-nScaleFactor), then clamp to saturated value.

- NppStatus nppiExp_16s_C1RSfs (const Npp16s ∗pSrc, int nSrcStep, Npp16s ∗pDst, int nDstStep, NppiSize oSizeROI, int nScaleFactor)

  One 16-bit signed short channel image exponential, scale by 2^(-nScaleFactor), then clamp to saturated value.

- NppStatus nppiExp_16s_C1IRSfs (Npp16s ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI, int nScaleFactor)

  One 16-bit signed short channel in place image exponential, scale by 2^(-nScaleFactor), then clamp to saturated value.

- NppStatus nppiExp_16s_C3RSfs (const Npp16s ∗pSrc, int nSrcStep, Npp16s ∗pDst, int nDstStep, NppiSize oSizeROI, int nScaleFactor)

  Three 16-bit signed short channel image exponential, scale by 2^(-nScaleFactor), then clamp to saturated value.

- NppStatus nppiExp_16s_C3IRSfs (Npp16s ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI, int nScaleFactor)

  Three 16-bit signed short channel in place image exponential, scale by 2^(-nScaleFactor), then clamp to saturated value.

- NppStatus nppiExp_32f_C1R (const Npp32f ∗pSrc, int nSrcStep, Npp32f ∗pDst, int nDstStep, NppiSize oSizeROI)

  One 32-bit floating point channel image exponential.

- NppStatus nppiExp_32f_C1IR (Npp32f ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI)

  One 32-bit floating point channel in place image exponential.

- NppStatus nppiExp_32f_C3R (const Npp32f ∗pSrc, int nSrcStep, Npp32f ∗pDst, int nDstStep, NppiSize oSizeROI)

  Three 32-bit floating point channel image exponential.

- NppStatus nppiExp_32f_C3IR (Npp32f ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI)

  Three 32-bit floating point channel in place image exponential.

7.27.1 Detailed Description

Exponential value of each pixel in an image.

7.27.2 Function Documentation

7.27.2.1 NppStatus nppiExp_16s_C1IRSfs (Npp16s ∗ *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*, int *nScaleFactor*)

One 16-bit signed short channel in place image exponential, scale by 2^(-nScaleFactor), then clamp to saturated value.

Parameters:

pSrcDst In-Place Image Pointer.
nSrcDstStep In-Place-Image Line Step.
oSizeROI Region-of-Interest (ROI).
nScaleFactor Integer Result Scaling.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.27.2.2 NppStatus nppiExp_16s_C1RSfs (const Npp16s * *pSrc*, int *nSrcStep*, Npp16s * *pDst*, int *nDstStep*, NppiSize *oSizeROI*, int *nScaleFactor*)

One 16-bit signed short channel image exponential, scale by 2^(-nScaleFactor), then clamp to saturated value.

Parameters:

pSrc Source-Image Pointer.
nSrcStep Source-Image Line Step.
pDst Destination-Image Pointer.
nDstStep Destination-Image Line Step.
oSizeROI Region-of-Interest (ROI).
nScaleFactor Integer Result Scaling.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.27.2.3 NppStatus nppiExp_16s_C3IRSfs (Npp16s * *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*, int *nScaleFactor*)

Three 16-bit signed short channel in place image exponential, scale by 2^(-nScaleFactor), then clamp to saturated value.

Parameters:

pSrcDst In-Place Image Pointer.
nSrcDstStep In-Place-Image Line Step.
oSizeROI Region-of-Interest (ROI).
nScaleFactor Integer Result Scaling.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.27.2.4 NppStatus nppiExp_16s_C3RSfs (const Npp16s * *pSrc*, int *nSrcStep*, Npp16s * *pDst*, int *nDstStep*, NppiSize *oSizeROI*, int *nScaleFactor*)

Three 16-bit signed short channel image exponential, scale by 2^(-nScaleFactor), then clamp to saturated value.

Parameters:

pSrc Source-Image Pointer.
nSrcStep Source-Image Line Step.
pDst Destination-Image Pointer.
nDstStep Destination-Image Line Step.
oSizeROI Region-of-Interest (ROI).
nScaleFactor Integer Result Scaling.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.27.2.5 NppStatus nppiExp_16u_C1IRSfs (Npp16u * *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*, int *nScaleFactor*)

One 16-bit unsigned short channel in place image exponential, scale by 2^(-nScaleFactor), then clamp to saturated value.

Parameters:

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oSizeROI Region-of-Interest (ROI).

nScaleFactor Integer Result Scaling.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.27.2.6 NppStatus nppiExp_16u_C1RSfs (const Npp16u * *pSrc*, int *nSrcStep*, Npp16u * *pDst*, int *nDstStep*, NppiSize *oSizeROI*, int *nScaleFactor*)

One 16-bit unsigned short channel image exponential, scale by 2^(-nScaleFactor), then clamp to saturated value.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

nScaleFactor Integer Result Scaling.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.27.2.7 NppStatus nppiExp_16u_C3IRSfs (Npp16u * *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*, int *nScaleFactor*)

Three 16-bit unsigned short channel in place image exponential, scale by 2^(-nScaleFactor), then clamp to saturated value.

Parameters:

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oSizeROI Region-of-Interest (ROI).

nScaleFactor Integer Result Scaling.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.27.2.8 NppStatus nppiExp_16u_C3RSfs (const Npp16u ∗ *pSrc*, int *nSrcStep*, Npp16u ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, int *nScaleFactor*)

Three 16-bit unsigned short channel image exponential, scale by 2^(-nScaleFactor), then clamp to saturated value.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

nScaleFactor Integer Result Scaling.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.27.2.9 NppStatus nppiExp_32f_C1IR (Npp32f ∗ *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*)

One 32-bit floating point channel in place image exponential.

Parameters:

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.27.2.10 NppStatus nppiExp_32f_C1R (const Npp32f ∗ *pSrc*, int *nSrcStep*, Npp32f ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*)

One 32-bit floating point channel image exponential.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.27.2.11 NppStatus nppiExp_32f_C3IR (Npp32f ∗ *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*)

Three 32-bit floating point channel in place image exponential.

Parameters:

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.27.2.12 NppStatus nppiExp_32f_C3R (const Npp32f ∗ *pSrc*, int *nSrcStep*, Npp32f ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*)

Three 32-bit floating point channel image exponential.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.27.2.13 NppStatus nppiExp_8u_C1IRSfs (Npp8u ∗ *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*, int *nScaleFactor*)

One 8-bit unsigned char channel in place image exponential, scale by 2^(-nScaleFactor), then clamp to saturated value.

Parameters:

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oSizeROI Region-of-Interest (ROI).

nScaleFactor Integer Result Scaling.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.27.2.14 NppStatus nppiExp_8u_C1RSfs (const Npp8u * *pSrc*, int *nSrcStep*, Npp8u * *pDst*, int *nDstStep*, NppiSize *oSizeROI*, int *nScaleFactor*)

One 8-bit unsigned char channel image exponential, scale by 2^(-nScaleFactor), then clamp to saturated value.

Parameters:

pSrc Source-Image Pointer.
nSrcStep Source-Image Line Step.
pDst Destination-Image Pointer.
nDstStep Destination-Image Line Step.
oSizeROI Region-of-Interest (ROI).
nScaleFactor Integer Result Scaling.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.27.2.15 NppStatus nppiExp_8u_C3IRSfs (Npp8u * *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*, int *nScaleFactor*)

Three 8-bit unsigned char channel in place image exponential, scale by 2^(-nScaleFactor), then clamp to saturated value.

Parameters:

pSrcDst In-Place Image Pointer.
nSrcDstStep In-Place-Image Line Step.
oSizeROI Region-of-Interest (ROI).
nScaleFactor Integer Result Scaling.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.27.2.16 NppStatus nppiExp_8u_C3RSfs (const Npp8u * *pSrc*, int *nSrcStep*, Npp8u * *pDst*, int *nDstStep*, NppiSize *oSizeROI*, int *nScaleFactor*)

Three 8-bit unsigned char channel image exponential, scale by 2^(-nScaleFactor), then clamp to saturated value.

Parameters:

pSrc Source-Image Pointer.
nSrcStep Source-Image Line Step.
pDst Destination-Image Pointer.
nDstStep Destination-Image Line Step.
oSizeROI Region-of-Interest (ROI).
nScaleFactor Integer Result Scaling.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.28 Logical Operations

Modules

- AndC

  Pixel by pixel logical and of an image with a constant.
- OrC

  Pixel by pixel logical or of an image with a constant.
- XorC

  Pixel by pixel logical exclusive or of an image with a constant.
- RShiftC

  Pixel by pixel right shift of an image by a constant value.
- LShiftC

  Pixel by pixel left shift of an image by a constant value.
- And

  Pixel by pixel logical and of images.
- Or

  Pixel by pixel logical or of images.
- Xor

  Pixel by pixel logical exclusive or of images.
- Not

  Pixel by pixel logical not of image.

7.29 AndC

Pixel by pixel logical and of an image with a constant.

Functions

- NppStatus nppiAndC_8u_C1R (const Npp8u ∗pSrc1, int nSrc1Step, const Npp8u nConstant, Npp8u ∗pDst, int nDstStep, NppiSize oSizeROI)

  One 8-bit unsigned char channel image logical and with constant.

- NppStatus nppiAndC_8u_C1IR (const Npp8u nConstant, Npp8u ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI)

  One 8-bit unsigned char channel in place image logical and with constant.

- NppStatus nppiAndC_8u_C3R (const Npp8u ∗pSrc1, int nSrc1Step, const Npp8u aConstants[3], Npp8u ∗pDst, int nDstStep, NppiSize oSizeROI)

  Three 8-bit unsigned char channel image logical and with constant.

- NppStatus nppiAndC_8u_C3IR (const Npp8u aConstants[3], Npp8u ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI)

  Three 8-bit unsigned char channel in place image logical and with constant.

- NppStatus nppiAndC_8u_AC4R (const Npp8u ∗pSrc1, int nSrc1Step, const Npp8u aConstants[3], Npp8u ∗pDst, int nDstStep, NppiSize oSizeROI)

  Four 8-bit unsigned char channel image logical and with constant with unmodified alpha.

- NppStatus nppiAndC_8u_AC4IR (const Npp8u aConstants[3], Npp8u ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI)

  Four 8-bit unsigned char channel in place image logical and with constant with unmodified alpha.

- NppStatus nppiAndC_8u_C4R (const Npp8u ∗pSrc1, int nSrc1Step, const Npp8u aConstants[4], Npp8u ∗pDst, int nDstStep, NppiSize oSizeROI)

  Four 8-bit unsigned char channel image logical and with constant.

- NppStatus nppiAndC_8u_C4IR (const Npp8u aConstants[4], Npp8u ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI)

  Four 8-bit unsigned char channel in place image logical and with constant.

- NppStatus nppiAndC_16u_C1R (const Npp16u ∗pSrc1, int nSrc1Step, const Npp16u nConstant, Npp16u ∗pDst, int nDstStep, NppiSize oSizeROI)

  One 16-bit unsigned short channel image logical and with constant.

- NppStatus nppiAndC_16u_C1IR (const Npp16u nConstant, Npp16u ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI)

  One 16-bit unsigned short channel in place image logical and with constant.

- NppStatus nppiAndC_16u_C3R (const Npp16u ∗pSrc1, int nSrc1Step, const Npp16u aConstants[3], Npp16u ∗pDst, int nDstStep, NppiSize oSizeROI)

  Three 16-bit unsigned short channel image logical and with constant.

- NppStatus nppiAndC_16u_C3IR (const Npp16u aConstants[3], Npp16u ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI)

    Three 16-bit unsigned short channel in place image logical and with constant.

- NppStatus nppiAndC_16u_AC4R (const Npp16u ∗pSrc1, int nSrc1Step, const Npp16u aConstants[3], Npp16u ∗pDst, int nDstStep, NppiSize oSizeROI)

    Four 16-bit unsigned short channel image logical and with constant with unmodified alpha.

- NppStatus nppiAndC_16u_AC4IR (const Npp16u aConstants[3], Npp16u ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI)

    Four 16-bit unsigned short channel in place image logical and with constant with unmodified alpha.

- NppStatus nppiAndC_16u_C4R (const Npp16u ∗pSrc1, int nSrc1Step, const Npp16u aConstants[4], Npp16u ∗pDst, int nDstStep, NppiSize oSizeROI)

    Four 16-bit unsigned short channel image logical and with constant.

- NppStatus nppiAndC_16u_C4IR (const Npp16u aConstants[4], Npp16u ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI)

    Four 16-bit unsigned short channel in place image logical and with constant.

- NppStatus nppiAndC_32s_C1R (const Npp32s ∗pSrc1, int nSrc1Step, const Npp32s nConstant, Npp32s ∗pDst, int nDstStep, NppiSize oSizeROI)

    One 32-bit signed integer channel image logical and with constant.

- NppStatus nppiAndC_32s_C1IR (const Npp32s nConstant, Npp32s ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI)

    One 32-bit signed integer channel in place image logical and with constant.

- NppStatus nppiAndC_32s_C3R (const Npp32s ∗pSrc1, int nSrc1Step, const Npp32s aConstants[3], Npp32s ∗pDst, int nDstStep, NppiSize oSizeROI)

    Three 32-bit signed integer channel image logical and with constant.

- NppStatus nppiAndC_32s_C3IR (const Npp32s aConstants[3], Npp32s ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI)

    Three 32-bit signed integer channel in place image logical and with constant.

- NppStatus nppiAndC_32s_AC4R (const Npp32s ∗pSrc1, int nSrc1Step, const Npp32s aConstants[3], Npp32s ∗pDst, int nDstStep, NppiSize oSizeROI)

    Four 32-bit signed integer channel image logical and with constant with unmodified alpha.

- NppStatus nppiAndC_32s_AC4IR (const Npp32s aConstants[3], Npp32s ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI)

    Four 32-bit signed integer channel in place image logical and with constant with unmodified alpha.

- NppStatus nppiAndC_32s_C4R (const Npp32s ∗pSrc1, int nSrc1Step, const Npp32s aConstants[4], Npp32s ∗pDst, int nDstStep, NppiSize oSizeROI)

    Four 32-bit signed integer channel image logical and with constant.

- NppStatus nppiAndC_32s_C4IR (const Npp32s aConstants[4], Npp32s ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI)

    Four 32-bit signed integer channel in place image logical and with constant.

7.29.1 Detailed Description

Pixel by pixel logical and of an image with a constant.

7.29.2 Function Documentation

7.29.2.1 NppStatus nppiAndC_16u_AC4IR (const Npp16u *aConstants*[3], Npp16u ∗ *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*)

Four 16-bit unsigned short channel in place image logical and with constant with unmodified alpha.

Parameters:

aConstants fixed size array of constant values, one per channel.

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.29.2.2 NppStatus nppiAndC_16u_AC4R (const Npp16u ∗ *pSrc1*, int *nSrc1Step*, const Npp16u *aConstants*[3], Npp16u ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*)

Four 16-bit unsigned short channel image logical and with constant with unmodified alpha.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

aConstants fixed size array of constant values, one per channel.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.29.2.3 NppStatus nppiAndC_16u_C1IR (const Npp16u *nConstant*, Npp16u ∗ *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*)

One 16-bit unsigned short channel in place image logical and with constant.

Parameters:

nConstant Constant.

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.29.2.4 NppStatus nppiAndC_16u_C1R (const Npp16u ∗ *pSrc1*, int *nSrc1Step*, const Npp16u *nConstant*, Npp16u ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*)

One 16-bit unsigned short channel image logical and with constant.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

nConstant Constant.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.29.2.5 NppStatus nppiAndC_16u_C3IR (const Npp16u *aConstants*[3], Npp16u ∗ *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*)

Three 16-bit unsigned short channel in place image logical and with constant.

Parameters:

aConstants fixed size array of constant values, one per channel.

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.29.2.6 NppStatus nppiAndC_16u_C3R (const Npp16u ∗ *pSrc1*, int *nSrc1Step*, const Npp16u *aConstants*[3], Npp16u ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*)

Three 16-bit unsigned short channel image logical and with constant.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

aConstants fixed size array of constant values, one per channel.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.29.2.7 NppStatus nppiAndC_16u_C4IR (const Npp16u *aConstants*[4], Npp16u ∗ *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*)

Four 16-bit unsigned short channel in place image logical and with constant.

Parameters:

aConstants fixed size array of constant values, one per channel.

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.29.2.8 NppStatus nppiAndC_16u_C4R (const Npp16u ∗ *pSrc1*, int *nSrc1Step*, const Npp16u *aConstants*[4], Npp16u ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*)

Four 16-bit unsigned short channel image logical and with constant.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

aConstants fixed size array of constant values, one per channel.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.29.2.9 NppStatus nppiAndC_32s_AC4IR (const Npp32s *aConstants*[3], Npp32s * *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*)

Four 32-bit signed integer channel in place image logical and with constant with unmodified alpha.

Parameters:

aConstants fixed size array of constant values, one per channel.

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.29.2.10 NppStatus nppiAndC_32s_AC4R (const Npp32s * *pSrc1*, int *nSrc1Step*, const Npp32s *aConstants*[3], Npp32s * *pDst*, int *nDstStep*, NppiSize *oSizeROI*)

Four 32-bit signed integer channel image logical and with constant with unmodified alpha.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

aConstants fixed size array of constant values, one per channel.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.29.2.11 NppStatus nppiAndC_32s_C1IR (const Npp32s *nConstant*, Npp32s * *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*)

One 32-bit signed integer channel in place image logical and with constant.

Parameters:

nConstant Constant.

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.29.2.12 NppStatus nppiAndC_32s_C1R (const Npp32s ∗ *pSrc1*, int *nSrc1Step*, const Npp32s *nConstant*, Npp32s ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*)

One 32-bit signed integer channel image logical and with constant.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

nConstant Constant.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.29.2.13 NppStatus nppiAndC_32s_C3IR (const Npp32s *aConstants*[3], Npp32s ∗ *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*)

Three 32-bit signed integer channel in place image logical and with constant.

Parameters:

aConstants fixed size array of constant values, one per channel.

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.29.2.14 NppStatus nppiAndC_32s_C3R (const Npp32s ∗ *pSrc1*, int *nSrc1Step*, const Npp32s *aConstants*[3], Npp32s ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*)

Three 32-bit signed integer channel image logical and with constant.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

aConstants fixed size array of constant values, one per channel.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.29.2.15 NppStatus nppiAndC_32s_C4IR (const Npp32s *aConstants*[4], Npp32s ∗ *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*)

Four 32-bit signed integer channel in place image logical and with constant.

Parameters:

aConstants fixed size array of constant values, one per channel.

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.29.2.16 NppStatus nppiAndC_32s_C4R (const Npp32s ∗ *pSrc1*, int *nSrc1Step*, const Npp32s *aConstants*[4], Npp32s ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*)

Four 32-bit signed integer channel image logical and with constant.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

aConstants fixed size array of constant values, one per channel.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.29.2.17 NppStatus nppiAndC_8u_AC4IR (const Npp8u *aConstants*[3], Npp8u ∗ *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*)

Four 8-bit unsigned char channel in place image logical and with constant with unmodified alpha.

Parameters:

aConstants fixed size array of constant values, one per channel.

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.29.2.18 NppStatus nppiAndC_8u_AC4R (const Npp8u ∗ *pSrc1*, int *nSrc1Step*, const Npp8u *aConstants*[3], Npp8u ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*)

Four 8-bit unsigned char channel image logical and with constant with unmodified alpha.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

aConstants fixed size array of constant values, one per channel.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.29.2.19 NppStatus nppiAndC_8u_C1IR (const Npp8u *nConstant*, Npp8u ∗ *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*)

One 8-bit unsigned char channel in place image logical and with constant.

Parameters:

nConstant Constant.

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.29.2.20 NppStatus nppiAndC_8u_C1R (const Npp8u ∗ *pSrc1*, int *nSrc1Step*, const Npp8u *nConstant*, Npp8u ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*)

One 8-bit unsigned char channel image logical and with constant.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

nConstant Constant.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.29.2.21 NppStatus nppiAndC_8u_C3IR (const Npp8u *aConstants*[3], Npp8u ∗ *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*)

Three 8-bit unsigned char channel in place image logical and with constant.

Parameters:

aConstants fixed size array of constant values, one per channel.

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.29.2.22 NppStatus nppiAndC_8u_C3R (const Npp8u ∗ *pSrc1*, int *nSrc1Step*, const Npp8u *aConstants*[3], Npp8u ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*)

Three 8-bit unsigned char channel image logical and with constant.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

aConstants fixed size array of constant values, one per channel.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.29.2.23 NppStatus nppiAndC_8u_C4IR (const Npp8u *aConstants*[4], Npp8u ∗ *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*)

Four 8-bit unsigned char channel in place image logical and with constant.

Parameters:

aConstants fixed size array of constant values, one per channel.

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.29.2.24 NppStatus nppiAndC_8u_C4R (const Npp8u * *pSrc1*, int *nSrc1Step*, const Npp8u *aConstants*[4], Npp8u * *pDst*, int *nDstStep*, NppiSize *oSizeROI*)

Four 8-bit unsigned char channel image logical and with constant.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

aConstants fixed size array of constant values, one per channel.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.30 OrC

Pixel by pixel logical or of an image with a constant.

Functions

- NppStatus nppiOrC_8u_C1R (const Npp8u ∗pSrc1, int nSrc1Step, const Npp8u nConstant, Npp8u ∗pDst, int nDstStep, NppiSize oSizeROI)

  One 8-bit unsigned char channel image logical or with constant.

- NppStatus nppiOrC_8u_C1IR (const Npp8u nConstant, Npp8u ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI)

  One 8-bit unsigned char channel in place image logical or with constant.

- NppStatus nppiOrC_8u_C3R (const Npp8u ∗pSrc1, int nSrc1Step, const Npp8u aConstants[3], Npp8u ∗pDst, int nDstStep, NppiSize oSizeROI)

  Three 8-bit unsigned char channel image logical or with constant.

- NppStatus nppiOrC_8u_C3IR (const Npp8u aConstants[3], Npp8u ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI)

  Three 8-bit unsigned char channel in place image logical or with constant.

- NppStatus nppiOrC_8u_AC4R (const Npp8u ∗pSrc1, int nSrc1Step, const Npp8u aConstants[3], Npp8u ∗pDst, int nDstStep, NppiSize oSizeROI)

  Four 8-bit unsigned char channel image logical or with constant with unmodified alpha.

- NppStatus nppiOrC_8u_AC4IR (const Npp8u aConstants[3], Npp8u ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI)

  Four 8-bit unsigned char channel in place image logical or with constant with unmodified alpha.

- NppStatus nppiOrC_8u_C4R (const Npp8u ∗pSrc1, int nSrc1Step, const Npp8u aConstants[4], Npp8u ∗pDst, int nDstStep, NppiSize oSizeROI)

  Four 8-bit unsigned char channel image logical or with constant.

- NppStatus nppiOrC_8u_C4IR (const Npp8u aConstants[4], Npp8u ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI)

  Four 8-bit unsigned char channel in place image logical or with constant.

- NppStatus nppiOrC_16u_C1R (const Npp16u ∗pSrc1, int nSrc1Step, const Npp16u nConstant, Npp16u ∗pDst, int nDstStep, NppiSize oSizeROI)

  One 16-bit unsigned short channel image logical or with constant.

- NppStatus nppiOrC_16u_C1IR (const Npp16u nConstant, Npp16u ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI)

  One 16-bit unsigned short channel in place image logical or with constant.

- NppStatus nppiOrC_16u_C3R (const Npp16u ∗pSrc1, int nSrc1Step, const Npp16u aConstants[3], Npp16u ∗pDst, int nDstStep, NppiSize oSizeROI)

  Three 16-bit unsigned short channel image logical or with constant.

- NppStatus nppiOrC_16u_C3IR (const Npp16u aConstants[3], Npp16u ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI)

  Three 16-bit unsigned short channel in place image logical or with constant.

- NppStatus nppiOrC_16u_AC4R (const Npp16u ∗pSrc1, int nSrc1Step, const Npp16u aConstants[3], Npp16u ∗pDst, int nDstStep, NppiSize oSizeROI)

  Four 16-bit unsigned short channel image logical or with constant with unmodified alpha.

- NppStatus nppiOrC_16u_AC4IR (const Npp16u aConstants[3], Npp16u ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI)

  Four 16-bit unsigned short channel in place image logical or with constant with unmodified alpha.

- NppStatus nppiOrC_16u_C4R (const Npp16u ∗pSrc1, int nSrc1Step, const Npp16u aConstants[4], Npp16u ∗pDst, int nDstStep, NppiSize oSizeROI)

  Four 16-bit unsigned short channel image logical or with constant.

- NppStatus nppiOrC_16u_C4IR (const Npp16u aConstants[4], Npp16u ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI)

  Four 16-bit unsigned short channel in place image logical or with constant.

- NppStatus nppiOrC_32s_C1R (const Npp32s ∗pSrc1, int nSrc1Step, const Npp32s nConstant, Npp32s ∗pDst, int nDstStep, NppiSize oSizeROI)

  One 32-bit signed integer channel image logical or with constant.

- NppStatus nppiOrC_32s_C1IR (const Npp32s nConstant, Npp32s ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI)

  One 32-bit signed integer channel in place image logical or with constant.

- NppStatus nppiOrC_32s_C3R (const Npp32s ∗pSrc1, int nSrc1Step, const Npp32s aConstants[3], Npp32s ∗pDst, int nDstStep, NppiSize oSizeROI)

  Three 32-bit signed integer channel image logical or with constant.

- NppStatus nppiOrC_32s_C3IR (const Npp32s aConstants[3], Npp32s ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI)

  Three 32-bit signed integer channel in place image logical or with constant.

- NppStatus nppiOrC_32s_AC4R (const Npp32s ∗pSrc1, int nSrc1Step, const Npp32s aConstants[3], Npp32s ∗pDst, int nDstStep, NppiSize oSizeROI)

  Four 32-bit signed integer channel image logical or with constant with unmodified alpha.

- NppStatus nppiOrC_32s_AC4IR (const Npp32s aConstants[3], Npp32s ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI)

  Four 32-bit signed integer channel in place image logical or with constant with unmodified alpha.

- NppStatus nppiOrC_32s_C4R (const Npp32s ∗pSrc1, int nSrc1Step, const Npp32s aConstants[4], Npp32s ∗pDst, int nDstStep, NppiSize oSizeROI)

  Four 32-bit signed integer channel image logical or with constant.

- NppStatus nppiOrC_32s_C4IR (const Npp32s aConstants[4], Npp32s ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI)

  Four 32-bit signed integer channel in place image logical or with constant.

7.30.1 Detailed Description

Pixel by pixel logical or of an image with a constant.

7.30.2 Function Documentation

7.30.2.1 NppStatus nppiOrC_16u_AC4IR (const Npp16u *aConstants*[3], Npp16u ∗ *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*)

Four 16-bit unsigned short channel in place image logical or with constant with unmodified alpha.

Parameters:

aConstants fixed size array of constant values, one per channel.

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.30.2.2 NppStatus nppiOrC_16u_AC4R (const Npp16u ∗ *pSrc1*, int *nSrc1Step*, const Npp16u *aConstants*[3], Npp16u ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*)

Four 16-bit unsigned short channel image logical or with constant with unmodified alpha.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

aConstants fixed size array of constant values, one per channel.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.30.2.3 NppStatus nppiOrC_16u_C1IR (const Npp16u *nConstant*, Npp16u ∗ *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*)

One 16-bit unsigned short channel in place image logical or with constant.

Parameters:

nConstant Constant.

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.30.2.4 NppStatus nppiOrC_16u_C1R (const Npp16u ∗ *pSrc1*, int *nSrc1Step*, const Npp16u *nConstant*, Npp16u ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*)

One 16-bit unsigned short channel image logical or with constant.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

nConstant Constant.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.30.2.5 NppStatus nppiOrC_16u_C3IR (const Npp16u *aConstants*[3], Npp16u ∗ *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*)

Three 16-bit unsigned short channel in place image logical or with constant.

Parameters:

aConstants fixed size array of constant values, one per channel.

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.30.2.6 NppStatus nppiOrC_16u_C3R (const Npp16u ∗ *pSrc1*, int *nSrc1Step*, const Npp16u *aConstants*[3], Npp16u ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*)

Three 16-bit unsigned short channel image logical or with constant.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

aConstants fixed size array of constant values, one per channel.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.30.2.7 NppStatus nppiOrC_16u_C4IR (const Npp16u *aConstants*[4], Npp16u * *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*)

Four 16-bit unsigned short channel in place image logical or with constant.

Parameters:

aConstants fixed size array of constant values, one per channel.

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.30.2.8 NppStatus nppiOrC_16u_C4R (const Npp16u * *pSrc1*, int *nSrc1Step*, const Npp16u *aConstants*[4], Npp16u * *pDst*, int *nDstStep*, NppiSize *oSizeROI*)

Four 16-bit unsigned short channel image logical or with constant.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

aConstants fixed size array of constant values, one per channel.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.30.2.9 NppStatus nppiOrC_32s_AC4IR (const Npp32s *aConstants*[3], Npp32s ∗ *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*)

Four 32-bit signed integer channel in place image logical or with constant with unmodified alpha.

Parameters:

aConstants fixed size array of constant values, one per channel.

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.30.2.10 NppStatus nppiOrC_32s_AC4R (const Npp32s ∗ *pSrc1*, int *nSrc1Step*, const Npp32s *aConstants*[3], Npp32s ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*)

Four 32-bit signed integer channel image logical or with constant with unmodified alpha.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

aConstants fixed size array of constant values, one per channel.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.30.2.11 NppStatus nppiOrC_32s_C1IR (const Npp32s *nConstant*, Npp32s ∗ *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*)

One 32-bit signed integer channel in place image logical or with constant.

Parameters:

nConstant Constant.

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.30.2.12 NppStatus nppiOrC_32s_C1R (const Npp32s ∗ *pSrc1*, int *nSrc1Step*, const Npp32s *nConstant*, Npp32s ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*)

One 32-bit signed integer channel image logical or with constant.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

nConstant Constant.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.30.2.13 NppStatus nppiOrC_32s_C3IR (const Npp32s *aConstants*[3], Npp32s ∗ *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*)

Three 32-bit signed integer channel in place image logical or with constant.

Parameters:

aConstants fixed size array of constant values, one per channel.

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.30.2.14 NppStatus nppiOrC_32s_C3R (const Npp32s ∗ *pSrc1*, int *nSrc1Step*, const Npp32s *aConstants*[3], Npp32s ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*)

Three 32-bit signed integer channel image logical or with constant.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

aConstants fixed size array of constant values, one per channel.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.30.2.15 NppStatus nppiOrC_32s_C4IR (const Npp32s *aConstants*[4], Npp32s ∗ *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*)

Four 32-bit signed integer channel in place image logical or with constant.

Parameters:

aConstants fixed size array of constant values, one per channel.

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.30.2.16 NppStatus nppiOrC_32s_C4R (const Npp32s ∗ *pSrc1*, int *nSrc1Step*, const Npp32s *aConstants*[4], Npp32s ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*)

Four 32-bit signed integer channel image logical or with constant.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

aConstants fixed size array of constant values, one per channel.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.30.2.17 NppStatus nppiOrC_8u_AC4IR (const Npp8u *aConstants*[3], Npp8u ∗ *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*)

Four 8-bit unsigned char channel in place image logical or with constant with unmodified alpha.

Parameters:

aConstants fixed size array of constant values, one per channel.

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.30.2.18 NppStatus nppiOrC_8u_AC4R (const Npp8u ∗ *pSrc1*, int *nSrc1Step*, const Npp8u *aConstants*[3], Npp8u ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*)

Four 8-bit unsigned char channel image logical or with constant with unmodified alpha.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

aConstants fixed size array of constant values, one per channel.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.30.2.19 NppStatus nppiOrC_8u_C1IR (const Npp8u *nConstant*, Npp8u ∗ *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*)

One 8-bit unsigned char channel in place image logical or with constant.

Parameters:

nConstant Constant.

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.30.2.20 NppStatus nppiOrC_8u_C1R (const Npp8u ∗ *pSrc1*, int *nSrc1Step*, const Npp8u *nConstant*, Npp8u ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*)

One 8-bit unsigned char channel image logical or with constant.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

nConstant Constant.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.30.2.21 NppStatus nppiOrC_8u_C3IR (const Npp8u *aConstants*[3], Npp8u ∗ *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*)

Three 8-bit unsigned char channel in place image logical or with constant.

Parameters:

aConstants fixed size array of constant values, one per channel.

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.30.2.22 NppStatus nppiOrC_8u_C3R (const Npp8u ∗ *pSrc1*, int *nSrc1Step*, const Npp8u *aConstants*[3], Npp8u ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*)

Three 8-bit unsigned char channel image logical or with constant.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

aConstants fixed size array of constant values, one per channel.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.30.2.23 NppStatus nppiOrC_8u_C4IR (const Npp8u *aConstants*[4], Npp8u ∗ *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*)

Four 8-bit unsigned char channel in place image logical or with constant.

Parameters:

aConstants fixed size array of constant values, one per channel.

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.30.2.24 NppStatus nppiOrC_8u_C4R (const Npp8u * *pSrc1*, int *nSrc1Step*, const Npp8u *aConstants*[4], Npp8u * *pDst*, int *nDstStep*, NppiSize *oSizeROI*)

Four 8-bit unsigned char channel image logical or with constant.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

aConstants fixed size array of constant values, one per channel.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.31 XorC

Pixel by pixel logical exclusive or of an image with a constant.

Functions

- NppStatus nppiXorC_8u_C1R (const Npp8u ∗pSrc1, int nSrc1Step, const Npp8u nConstant, Npp8u ∗pDst, int nDstStep, NppiSize oSizeROI)

  One 8-bit unsigned char channel image logical exclusive or with constant.

- NppStatus nppiXorC_8u_C1IR (const Npp8u nConstant, Npp8u ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI)

  One 8-bit unsigned char channel in place image logical exclusive or with constant.

- NppStatus nppiXorC_8u_C3R (const Npp8u ∗pSrc1, int nSrc1Step, const Npp8u aConstants[3], Npp8u ∗pDst, int nDstStep, NppiSize oSizeROI)

  Three 8-bit unsigned char channel image logical exclusive or with constant.

- NppStatus nppiXorC_8u_C3IR (const Npp8u aConstants[3], Npp8u ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI)

  Three 8-bit unsigned char channel in place image logical exclusive or with constant.

- NppStatus nppiXorC_8u_AC4R (const Npp8u ∗pSrc1, int nSrc1Step, const Npp8u aConstants[3], Npp8u ∗pDst, int nDstStep, NppiSize oSizeROI)

  Four 8-bit unsigned char channel image logical exclusive or with constant with unmodified alpha.

- NppStatus nppiXorC_8u_AC4IR (const Npp8u aConstants[3], Npp8u ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI)

  Four 8-bit unsigned char channel in place image logical exclusive or with constant with unmodified alpha.

- NppStatus nppiXorC_8u_C4R (const Npp8u ∗pSrc1, int nSrc1Step, const Npp8u aConstants[4], Npp8u ∗pDst, int nDstStep, NppiSize oSizeROI)

  Four 8-bit unsigned char channel image logical exclusive or with constant.

- NppStatus nppiXorC_8u_C4IR (const Npp8u aConstants[4], Npp8u ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI)

  Four 8-bit unsigned char channel in place image logical exclusive or with constant.

- NppStatus nppiXorC_16u_C1R (const Npp16u ∗pSrc1, int nSrc1Step, const Npp16u nConstant, Npp16u ∗pDst, int nDstStep, NppiSize oSizeROI)

  One 16-bit unsigned short channel image logical exclusive or with constant.

- NppStatus nppiXorC_16u_C1IR (const Npp16u nConstant, Npp16u ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI)

  One 16-bit unsigned short channel in place image logical exclusive or with constant.

- NppStatus nppiXorC_16u_C3R (const Npp16u ∗pSrc1, int nSrc1Step, const Npp16u aConstants[3], Npp16u ∗pDst, int nDstStep, NppiSize oSizeROI)

  Three 16-bit unsigned short channel image logical exclusive or with constant.

- NppStatus nppiXorC_16u_C3IR (const Npp16u aConstants[3], Npp16u ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI)

  Three 16-bit unsigned short channel in place image logical exclusive or with constant.

- NppStatus nppiXorC_16u_AC4R (const Npp16u ∗pSrc1, int nSrc1Step, const Npp16u aConstants[3], Npp16u ∗pDst, int nDstStep, NppiSize oSizeROI)

  Four 16-bit unsigned short channel image logical exclusive or with constant with unmodified alpha.

- NppStatus nppiXorC_16u_AC4IR (const Npp16u aConstants[3], Npp16u ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI)

  Four 16-bit unsigned short channel in place image logical exclusive or with constant with unmodified alpha.

- NppStatus nppiXorC_16u_C4R (const Npp16u ∗pSrc1, int nSrc1Step, const Npp16u aConstants[4], Npp16u ∗pDst, int nDstStep, NppiSize oSizeROI)

  Four 16-bit unsigned short channel image logical exclusive or with constant.

- NppStatus nppiXorC_16u_C4IR (const Npp16u aConstants[4], Npp16u ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI)

  Four 16-bit unsigned short channel in place image logical exclusive or with constant.

- NppStatus nppiXorC_32s_C1R (const Npp32s ∗pSrc1, int nSrc1Step, const Npp32s nConstant, Npp32s ∗pDst, int nDstStep, NppiSize oSizeROI)

  One 32-bit signed integer channel image logical exclusive or with constant.

- NppStatus nppiXorC_32s_C1IR (const Npp32s nConstant, Npp32s ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI)

  One 32-bit signed integer channel in place image logical exclusive or with constant.

- NppStatus nppiXorC_32s_C3R (const Npp32s ∗pSrc1, int nSrc1Step, const Npp32s aConstants[3], Npp32s ∗pDst, int nDstStep, NppiSize oSizeROI)

  Three 32-bit signed integer channel image logical exclusive or with constant.

- NppStatus nppiXorC_32s_C3IR (const Npp32s aConstants[3], Npp32s ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI)

  Three 32-bit signed integer channel in place image logical exclusive or with constant.

- NppStatus nppiXorC_32s_AC4R (const Npp32s ∗pSrc1, int nSrc1Step, const Npp32s aConstants[3], Npp32s ∗pDst, int nDstStep, NppiSize oSizeROI)

  Four 32-bit signed integer channel image logical exclusive or with constant with unmodified alpha.

- NppStatus nppiXorC_32s_AC4IR (const Npp32s aConstants[3], Npp32s ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI)

  Four 32-bit signed integer channel in place image logical exclusive or with constant with unmodified alpha.

- NppStatus nppiXorC_32s_C4R (const Npp32s ∗pSrc1, int nSrc1Step, const Npp32s aConstants[4], Npp32s ∗pDst, int nDstStep, NppiSize oSizeROI)

  Four 32-bit signed integer channel image logical exclusive or with constant.

- NppStatus nppiXorC_32s_C4IR (const Npp32s aConstants[4], Npp32s ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI)

  Four 32-bit signed integer channel in place image logical exclusive or with constant.

7.31.1 Detailed Description

Pixel by pixel logical exclusive or of an image with a constant.

7.31.2 Function Documentation

7.31.2.1 NppStatus nppiXorC_16u_AC4IR (const Npp16u *aConstants*[3], Npp16u ∗ *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*)

Four 16-bit unsigned short channel in place image logical exclusive or with constant with unmodified alpha.

Parameters:

aConstants fixed size array of constant values, one per channel.

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.31.2.2 NppStatus nppiXorC_16u_AC4R (const Npp16u ∗ *pSrc1*, int *nSrc1Step*, const Npp16u *aConstants*[3], Npp16u ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*)

Four 16-bit unsigned short channel image logical exclusive or with constant with unmodified alpha.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

aConstants fixed size array of constant values, one per channel.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.31.2.3 NppStatus nppiXorC_16u_C1IR (const Npp16u *nConstant*, Npp16u ∗ *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*)

One 16-bit unsigned short channel in place image logical exclusive or with constant.

Parameters:

nConstant Constant.

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.31.2.4 NppStatus nppiXorC_16u_C1R (const Npp16u ∗ *pSrc1*, int *nSrc1Step*, const Npp16u *nConstant*, Npp16u ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*)

One 16-bit unsigned short channel image logical exclusive or with constant.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

nConstant Constant.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.31.2.5 NppStatus nppiXorC_16u_C3IR (const Npp16u *aConstants*[3], Npp16u ∗ *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*)

Three 16-bit unsigned short channel in place image logical exclusive or with constant.

Parameters:

aConstants fixed size array of constant values, one per channel.

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.31.2.6 NppStatus nppiXorC_16u_C3R (const Npp16u ∗ *pSrc1*, int *nSrc1Step*, const Npp16u *aConstants*[3], Npp16u ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*)

Three 16-bit unsigned short channel image logical exclusive or with constant.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

aConstants fixed size array of constant values, one per channel.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.31.2.7 NppStatus nppiXorC_16u_C4IR (const Npp16u *aConstants*[4], Npp16u ∗ *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*)

Four 16-bit unsigned short channel in place image logical exclusive or with constant.

Parameters:

aConstants fixed size array of constant values, one per channel.

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.31.2.8 NppStatus nppiXorC_16u_C4R (const Npp16u ∗ *pSrc1*, int *nSrc1Step*, const Npp16u *aConstants*[4], Npp16u ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*)

Four 16-bit unsigned short channel image logical exclusive or with constant.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

aConstants fixed size array of constant values, one per channel.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.31.2.9 NppStatus nppiXorC_32s_AC4IR (const Npp32s *aConstants*[3], Npp32s ∗ *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*)

Four 32-bit signed integer channel in place image logical exclusive or with constant with unmodified alpha.

Parameters:

aConstants fixed size array of constant values, one per channel.

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.31.2.10 NppStatus nppiXorC_32s_AC4R (const Npp32s ∗ *pSrc1*, int *nSrc1Step*, const Npp32s *aConstants*[3], Npp32s ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*)

Four 32-bit signed integer channel image logical exclusive or with constant with unmodified alpha.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

aConstants fixed size array of constant values, one per channel.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.31.2.11 NppStatus nppiXorC_32s_C1IR (const Npp32s *nConstant*, Npp32s ∗ *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*)

One 32-bit signed integer channel in place image logical exclusive or with constant.

Parameters:

nConstant Constant.

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.31.2.12 NppStatus nppiXorC_32s_C1R (const Npp32s ∗ *pSrc1*, int *nSrc1Step*, const Npp32s *nConstant*, Npp32s ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*)

One 32-bit signed integer channel image logical exclusive or with constant.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

nConstant Constant.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.31.2.13 NppStatus nppiXorC_32s_C3IR (const Npp32s *aConstants*[3], Npp32s ∗ *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*)

Three 32-bit signed integer channel in place image logical exclusive or with constant.

Parameters:

aConstants fixed size array of constant values, one per channel.

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.31.2.14 NppStatus nppiXorC_32s_C3R (const Npp32s ∗ *pSrc1*, int *nSrc1Step*, const Npp32s *aConstants*[3], Npp32s ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*)

Three 32-bit signed integer channel image logical exclusive or with constant.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

aConstants fixed size array of constant values, one per channel.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.31.2.15 NppStatus nppiXorC_32s_C4IR (const Npp32s *aConstants*[4], Npp32s ∗ *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*)

Four 32-bit signed integer channel in place image logical exclusive or with constant.

Parameters:

aConstants fixed size array of constant values, one per channel.

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.31.2.16 NppStatus nppiXorC_32s_C4R (const Npp32s ∗ *pSrc1*, int *nSrc1Step*, const Npp32s *aConstants*[4], Npp32s ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*)

Four 32-bit signed integer channel image logical exclusive or with constant.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

aConstants fixed size array of constant values, one per channel.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.31.2.17 NppStatus nppiXorC_8u_AC4IR (const Npp8u *aConstants*[3], Npp8u ∗ *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*)

Four 8-bit unsigned char channel in place image logical exclusive or with constant with unmodified alpha.

Parameters:

aConstants fixed size array of constant values, one per channel.

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.31.2.18 NppStatus nppiXorC_8u_AC4R (const Npp8u ∗ *pSrc1*, int *nSrc1Step*, const Npp8u *aConstants*[3], Npp8u ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*)

Four 8-bit unsigned char channel image logical exclusive or with constant with unmodified alpha.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

aConstants fixed size array of constant values, one per channel.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.31.2.19 NppStatus nppiXorC_8u_C1IR (const Npp8u *nConstant*, Npp8u ∗ *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*)

One 8-bit unsigned char channel in place image logical exclusive or with constant.

Parameters:

nConstant Constant.

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.31.2.20 NppStatus nppiXorC_8u_C1R (const Npp8u ∗ *pSrc1*, int *nSrc1Step*, const Npp8u *nConstant*, Npp8u ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*)

One 8-bit unsigned char channel image logical exclusive or with constant.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

nConstant Constant.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.31.2.21 NppStatus nppiXorC_8u_C3IR (const Npp8u *aConstants*[3], Npp8u ∗ *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*)

Three 8-bit unsigned char channel in place image logical exclusive or with constant.

Parameters:

aConstants fixed size array of constant values, one per channel.

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.31.2.22 NppStatus nppiXorC_8u_C3R (const Npp8u ∗ *pSrc1*, int *nSrc1Step*, const Npp8u *aConstants*[3], Npp8u ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*)

Three 8-bit unsigned char channel image logical exclusive or with constant.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

aConstants fixed size array of constant values, one per channel.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.31.2.23 NppStatus nppiXorC_8u_C4IR (const Npp8u *aConstants*[4], Npp8u ∗ *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*)

Four 8-bit unsigned char channel in place image logical exclusive or with constant.

Parameters:

aConstants fixed size array of constant values, one per channel.

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.31.2.24 NppStatus nppiXorC_8u_C4R (const Npp8u ∗ *pSrc1*, int *nSrc1Step*, const Npp8u *aConstants*[4], Npp8u ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*)

Four 8-bit unsigned char channel image logical exclusive or with constant.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

aConstants fixed size array of constant values, one per channel.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.32 RShiftC

Pixel by pixel right shift of an image by a constant value.

Functions

- NppStatus nppiRShiftC_8u_C1R (const Npp8u ∗pSrc1, int nSrc1Step, const Npp32u nConstant, Npp8u ∗pDst, int nDstStep, NppiSize oSizeROI)

  One 8-bit unsigned char channel image right shift by constant.

- NppStatus nppiRShiftC_8u_C1IR (const Npp32u nConstant, Npp8u ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI)

  One 8-bit unsigned char channel in place image right shift by constant.

- NppStatus nppiRShiftC_8u_C3R (const Npp8u ∗pSrc1, int nSrc1Step, const Npp32u aConstants[3], Npp8u ∗pDst, int nDstStep, NppiSize oSizeROI)

  Three 8-bit unsigned char channel image right shift by constant.

- NppStatus nppiRShiftC_8u_C3IR (const Npp32u aConstants[3], Npp8u ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI)

  Three 8-bit unsigned char channel in place image right shift by constant.

- NppStatus nppiRShiftC_8u_AC4R (const Npp8u ∗pSrc1, int nSrc1Step, const Npp32u aConstants[3], Npp8u ∗pDst, int nDstStep, NppiSize oSizeROI)

  Four 8-bit unsigned char channel image right shift by constant with unmodified alpha.

- NppStatus nppiRShiftC_8u_AC4IR (const Npp32u aConstants[3], Npp8u ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI)

  Four 8-bit unsigned char channel in place image right shift by constant with unmodified alpha.

- NppStatus nppiRShiftC_8u_C4R (const Npp8u ∗pSrc1, int nSrc1Step, const Npp32u aConstants[4], Npp8u ∗pDst, int nDstStep, NppiSize oSizeROI)

  Four 8-bit unsigned char channel image right shift by constant.

- NppStatus nppiRShiftC_8u_C4IR (const Npp32u aConstants[4], Npp8u ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI)

  Four 8-bit unsigned char channel in place image right shift by constant.

- NppStatus nppiRShiftC_8s_C1R (const Npp8s ∗pSrc1, int nSrc1Step, const Npp32u nConstant, Npp8s ∗pDst, int nDstStep, NppiSize oSizeROI)

  One 8-bit signed char channel image right shift by constant.

- NppStatus nppiRShiftC_8s_C1IR (const Npp32u nConstant, Npp8s ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI)

  One 8-bit signed char channel in place image right shift by constant.

- NppStatus nppiRShiftC_8s_C3R (const Npp8s ∗pSrc1, int nSrc1Step, const Npp32u aConstants[3], Npp8s ∗pDst, int nDstStep, NppiSize oSizeROI)

  Three 8-bit signed char channel image right shift by constant.

- NppStatus nppiRShiftC_8s_C3IR (const Npp32u aConstants[3], Npp8s ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI)

  Three 8-bit signed char channel in place image right shift by constant.

- NppStatus nppiRShiftC_8s_AC4R (const Npp8s ∗pSrc1, int nSrc1Step, const Npp32u aConstants[3], Npp8s ∗pDst, int nDstStep, NppiSize oSizeROI)

  Four 8-bit signed char channel image right shift by constant with unmodified alpha.

- NppStatus nppiRShiftC_8s_AC4IR (const Npp32u aConstants[3], Npp8s ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI)

  Four 8-bit signed char channel in place image right shift by constant with unmodified alpha.

- NppStatus nppiRShiftC_8s_C4R (const Npp8s ∗pSrc1, int nSrc1Step, const Npp32u aConstants[4], Npp8s ∗pDst, int nDstStep, NppiSize oSizeROI)

  Four 8-bit signed char channel image right shift by constant.

- NppStatus nppiRShiftC_8s_C4IR (const Npp32u aConstants[4], Npp8s ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI)

  Four 8-bit signed char channel in place image right shift by constant.

- NppStatus nppiRShiftC_16u_C1R (const Npp16u ∗pSrc1, int nSrc1Step, const Npp32u nConstant, Npp16u ∗pDst, int nDstStep, NppiSize oSizeROI)

  One 16-bit unsigned short channel image right shift by constant.

- NppStatus nppiRShiftC_16u_C1IR (const Npp32u nConstant, Npp16u ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI)

  One 16-bit unsigned short channel in place image right shift by constant.

- NppStatus nppiRShiftC_16u_C3R (const Npp16u ∗pSrc1, int nSrc1Step, const Npp32u aConstants[3], Npp16u ∗pDst, int nDstStep, NppiSize oSizeROI)

  Three 16-bit unsigned short channel image right shift by constant.

- NppStatus nppiRShiftC_16u_C3IR (const Npp32u aConstants[3], Npp16u ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI)

  Three 16-bit unsigned short channel in place image right shift by constant.

- NppStatus nppiRShiftC_16u_AC4R (const Npp16u ∗pSrc1, int nSrc1Step, const Npp32u aConstants[3], Npp16u ∗pDst, int nDstStep, NppiSize oSizeROI)

  Four 16-bit unsigned short channel image right shift by constant with unmodified alpha.

- NppStatus nppiRShiftC_16u_AC4IR (const Npp32u aConstants[3], Npp16u ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI)

  Four 16-bit unsigned short channel in place image right shift by constant with unmodified alpha.

- NppStatus nppiRShiftC_16u_C4R (const Npp16u ∗pSrc1, int nSrc1Step, const Npp32u aConstants[4], Npp16u ∗pDst, int nDstStep, NppiSize oSizeROI)

  Four 16-bit unsigned short channel image right shift by constant.

- NppStatus nppiRShiftC_16u_C4IR (const Npp32u aConstants[4], Npp16u ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI)

  Four 16-bit unsigned short channel in place image right shift by constant.

- NppStatus nppiRShiftC_16s_C1R (const Npp16s ∗pSrc1, int nSrc1Step, const Npp32u nConstant, Npp16s ∗pDst, int nDstStep, NppiSize oSizeROI)

  One 16-bit signed short channel image right shift by constant.

- NppStatus nppiRShiftC_16s_C1IR (const Npp32u nConstant, Npp16s ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI)

  One 16-bit signed short channel in place image right shift by constant.

- NppStatus nppiRShiftC_16s_C3R (const Npp16s ∗pSrc1, int nSrc1Step, const Npp32u aConstants[3], Npp16s ∗pDst, int nDstStep, NppiSize oSizeROI)

  Three 16-bit signed short channel image right shift by constant.

- NppStatus nppiRShiftC_16s_C3IR (const Npp32u aConstants[3], Npp16s ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI)

  Three 16-bit signed short channel in place image right shift by constant.

- NppStatus nppiRShiftC_16s_AC4R (const Npp16s ∗pSrc1, int nSrc1Step, const Npp32u aConstants[3], Npp16s ∗pDst, int nDstStep, NppiSize oSizeROI)

  Four 16-bit signed short channel image right shift by constant with unmodified alpha.

- NppStatus nppiRShiftC_16s_AC4IR (const Npp32u aConstants[3], Npp16s ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI)

  Four 16-bit signed short channel in place image right shift by constant with unmodified alpha.

- NppStatus nppiRShiftC_16s_C4R (const Npp16s ∗pSrc1, int nSrc1Step, const Npp32u aConstants[4], Npp16s ∗pDst, int nDstStep, NppiSize oSizeROI)

  Four 16-bit signed short channel image right shift by constant.

- NppStatus nppiRShiftC_16s_C4IR (const Npp32u aConstants[4], Npp16s ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI)

  Four 16-bit signed short channel in place image right shift by constant.

- NppStatus nppiRShiftC_32s_C1R (const Npp32s ∗pSrc1, int nSrc1Step, const Npp32u nConstant, Npp32s ∗pDst, int nDstStep, NppiSize oSizeROI)

  One 32-bit signed integer channel image right shift by constant.

- NppStatus nppiRShiftC_32s_C1IR (const Npp32u nConstant, Npp32s ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI)

  One 32-bit signed integer channel in place image right shift by constant.

- NppStatus nppiRShiftC_32s_C3R (const Npp32s ∗pSrc1, int nSrc1Step, const Npp32u aConstants[3], Npp32s ∗pDst, int nDstStep, NppiSize oSizeROI)

  Three 32-bit signed integer channel image right shift by constant.

- NppStatus nppiRShiftC_32s_C3IR (const Npp32u aConstants[3], Npp32s ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI)

  Three 32-bit signed integer channel in place image right shift by constant.

- NppStatus nppiRShiftC_32s_AC4R (const Npp32s ∗pSrc1, int nSrc1Step, const Npp32u aConstants[3], Npp32s ∗pDst, int nDstStep, NppiSize oSizeROI)

Four 32-bit signed integer channel image right shift by constant with unmodified alpha.

- NppStatus nppiRShiftC_32s_AC4IR (const Npp32u aConstants[3], Npp32s ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI)

  Four 32-bit signed integer channel in place image right shift by constant with unmodified alpha.

- NppStatus nppiRShiftC_32s_C4R (const Npp32s ∗pSrc1, int nSrc1Step, const Npp32u aConstants[4], Npp32s ∗pDst, int nDstStep, NppiSize oSizeROI)

  Four 32-bit signed integer channel image right shift by constant.

- NppStatus nppiRShiftC_32s_C4IR (const Npp32u aConstants[4], Npp32s ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI)

  Four 32-bit signed integer channel in place image right shift by constant.

7.32.1 Detailed Description

Pixel by pixel right shift of an image by a constant value.

7.32.2 Function Documentation

7.32.2.1 NppStatus nppiRShiftC_16s_AC4IR (const Npp32u *aConstants*[3], Npp16s ∗ *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*)

Four 16-bit signed short channel in place image right shift by constant with unmodified alpha.

Parameters:

aConstants fixed size array of constant values, one per channel.

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.32.2.2 NppStatus nppiRShiftC_16s_AC4R (const Npp16s ∗ *pSrc1*, int *nSrc1Step*, const Npp32u *aConstants*[3], Npp16s ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*)

Four 16-bit signed short channel image right shift by constant with unmodified alpha.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

aConstants fixed size array of constant values, one per channel.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.32.2.3 NppStatus nppiRShiftC_16s_C1IR (const Npp32u *nConstant*, Npp16s * *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*)

One 16-bit signed short channel in place image right shift by constant.

Parameters:

nConstant Constant.

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.32.2.4 NppStatus nppiRShiftC_16s_C1R (const Npp16s * *pSrc1*, int *nSrc1Step*, const Npp32u *nConstant*, Npp16s * *pDst*, int *nDstStep*, NppiSize *oSizeROI*)

One 16-bit signed short channel image right shift by constant.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

nConstant Constant.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.32.2.5 NppStatus nppiRShiftC_16s_C3IR (const Npp32u *aConstants*[3], Npp16s * *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*)

Three 16-bit signed short channel in place image right shift by constant.

Parameters:

aConstants fixed size array of constant values, one per channel.

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.32.2.6 NppStatus nppiRShiftC_16s_C3R (const Npp16s ∗ *pSrc1*, int *nSrc1Step*, const Npp32u *aConstants*[3], Npp16s ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*)

Three 16-bit signed short channel image right shift by constant.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

aConstants fixed size array of constant values, one per channel.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.32.2.7 NppStatus nppiRShiftC_16s_C4IR (const Npp32u *aConstants*[4], Npp16s ∗ *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*)

Four 16-bit signed short channel in place image right shift by constant.

Parameters:

aConstants fixed size array of constant values, one per channel.

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.32.2.8 NppStatus nppiRShiftC_16s_C4R (const Npp16s ∗ *pSrc1*, int *nSrc1Step*, const Npp32u *aConstants*[4], Npp16s ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*)

Four 16-bit signed short channel image right shift by constant.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

aConstants fixed size array of constant values, one per channel.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.32.2.9 NppStatus nppiRShiftC_16u_AC4IR (const Npp32u *aConstants*[3], Npp16u ∗ *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*)

Four 16-bit unsigned short channel in place image right shift by constant with unmodified alpha.

Parameters:

aConstants fixed size array of constant values, one per channel.

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.32.2.10 NppStatus nppiRShiftC_16u_AC4R (const Npp16u ∗ *pSrc1*, int *nSrc1Step*, const Npp32u *aConstants*[3], Npp16u ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*)

Four 16-bit unsigned short channel image right shift by constant with unmodified alpha.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

aConstants fixed size array of constant values, one per channel.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.32.2.11 NppStatus nppiRShiftC_16u_C1IR (const Npp32u *nConstant*, Npp16u * *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*)

One 16-bit unsigned short channel in place image right shift by constant.

Parameters:

nConstant Constant.

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.32.2.12 NppStatus nppiRShiftC_16u_C1R (const Npp16u * *pSrc1*, int *nSrc1Step*, const Npp32u *nConstant*, Npp16u * *pDst*, int *nDstStep*, NppiSize *oSizeROI*)

One 16-bit unsigned short channel image right shift by constant.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

nConstant Constant.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.32.2.13 NppStatus nppiRShiftC_16u_C3IR (const Npp32u *aConstants*[3], Npp16u * *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*)

Three 16-bit unsigned short channel in place image right shift by constant.

Parameters:

aConstants fixed size array of constant values, one per channel.

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.32.2.14 NppStatus nppiRShiftC_16u_C3R (const Npp16u ∗ *pSrc1*, int *nSrc1Step*, const Npp32u *aConstants*[3], Npp16u ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*)

Three 16-bit unsigned short channel image right shift by constant.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

aConstants fixed size array of constant values, one per channel.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.32.2.15 NppStatus nppiRShiftC_16u_C4IR (const Npp32u *aConstants*[4], Npp16u ∗ *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*)

Four 16-bit unsigned short channel in place image right shift by constant.

Parameters:

aConstants fixed size array of constant values, one per channel.

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.32.2.16 NppStatus nppiRShiftC_16u_C4R (const Npp16u ∗ *pSrc1*, int *nSrc1Step*, const Npp32u *aConstants*[4], Npp16u ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*)

Four 16-bit unsigned short channel image right shift by constant.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

aConstants fixed size array of constant values, one per channel.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.32.2.17 NppStatus nppiRShiftC_32s_AC4IR (const Npp32u *aConstants*[3], Npp32s ∗ *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*)

Four 32-bit signed integer channel in place image right shift by constant with unmodified alpha.

Parameters:

aConstants fixed size array of constant values, one per channel.

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.32.2.18 NppStatus nppiRShiftC_32s_AC4R (const Npp32s ∗ *pSrc1*, int *nSrc1Step*, const Npp32u *aConstants*[3], Npp32s ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*)

Four 32-bit signed integer channel image right shift by constant with unmodified alpha.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

aConstants fixed size array of constant values, one per channel.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.32.2.19 NppStatus nppiRShiftC_32s_C1IR (const Npp32u *nConstant*, Npp32s ∗ *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*)

One 32-bit signed integer channel in place image right shift by constant.

Parameters:

nConstant Constant.

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.32.2.20 NppStatus nppiRShiftC_32s_C1R (const Npp32s ∗ *pSrc1*, int *nSrc1Step*, const Npp32u *nConstant*, Npp32s ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*)

One 32-bit signed integer channel image right shift by constant.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

nConstant Constant.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.32.2.21 NppStatus nppiRShiftC_32s_C3IR (const Npp32u *aConstants*[3], Npp32s ∗ *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*)

Three 32-bit signed integer channel in place image right shift by constant.

Parameters:

aConstants fixed size array of constant values, one per channel.

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.32.2.22 NppStatus nppiRShiftC_32s_C3R (const Npp32s ∗ *pSrc1*, int *nSrc1Step*, const Npp32u *aConstants*[3], Npp32s ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*)

Three 32-bit signed integer channel image right shift by constant.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

aConstants fixed size array of constant values, one per channel.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.32.2.23 NppStatus nppiRShiftC_32s_C4IR (const Npp32u *aConstants*[4], Npp32s ∗ *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*)

Four 32-bit signed integer channel in place image right shift by constant.

Parameters:

aConstants fixed size array of constant values, one per channel.

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.32.2.24 NppStatus nppiRShiftC_32s_C4R (const Npp32s ∗ *pSrc1*, int *nSrc1Step*, const Npp32u *aConstants*[4], Npp32s ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*)

Four 32-bit signed integer channel image right shift by constant.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

aConstants fixed size array of constant values, one per channel.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.32.2.25 NppStatus nppiRShiftC_8s_AC4IR (const Npp32u *aConstants*[3], Npp8s ∗ *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*)

Four 8-bit signed char channel in place image right shift by constant with unmodified alpha.

Parameters:

aConstants fixed size array of constant values, one per channel.

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.32.2.26 NppStatus nppiRShiftC_8s_AC4R (const Npp8s ∗ *pSrc1*, int *nSrc1Step*, const Npp32u *aConstants*[3], Npp8s ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*)

Four 8-bit signed char channel image right shift by constant with unmodified alpha.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

aConstants fixed size array of constant values, one per channel.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.32.2.27 NppStatus nppiRShiftC_8s_C1IR (const Npp32u *nConstant*, Npp8s ∗ *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*)

One 8-bit signed char channel in place image right shift by constant.

Parameters:

nConstant Constant.

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.32.2.28 NppStatus nppiRShiftC_8s_C1R (const Npp8s ∗ *pSrc1*, int *nSrc1Step*, const Npp32u *nConstant*, Npp8s ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*)

One 8-bit signed char channel image right shift by constant.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

nConstant Constant.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.32.2.29 NppStatus nppiRShiftC_8s_C3IR (const Npp32u *aConstants*[3], Npp8s ∗ *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*)

Three 8-bit signed char channel in place image right shift by constant.

Parameters:

aConstants fixed size array of constant values, one per channel.

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.32.2.30 NppStatus nppiRShiftC_8s_C3R (const Npp8s ∗ *pSrc1*, int *nSrc1Step*, const Npp32u *aConstants*[3], Npp8s ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*)

Three 8-bit signed char channel image right shift by constant.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

aConstants fixed size array of constant values, one per channel.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.32.2.31 NppStatus nppiRShiftC_8s_C4IR (const Npp32u *aConstants*[4], Npp8s ∗ *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*)

Four 8-bit signed char channel in place image right shift by constant.

Parameters:

aConstants fixed size array of constant values, one per channel.

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.32.2.32 NppStatus nppiRShiftC_8s_C4R (const Npp8s * *pSrc1*, int *nSrc1Step*, const Npp32u *aConstants*[4], Npp8s * *pDst*, int *nDstStep*, NppiSize *oSizeROI*)

Four 8-bit signed char channel image right shift by constant.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

aConstants fixed size array of constant values, one per channel.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.32.2.33 NppStatus nppiRShiftC_8u_AC4IR (const Npp32u *aConstants*[3], Npp8u * *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*)

Four 8-bit unsigned char channel in place image right shift by constant with unmodified alpha.

Parameters:

aConstants fixed size array of constant values, one per channel.

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.32.2.34 NppStatus nppiRShiftC_8u_AC4R (const Npp8u * *pSrc1*, int *nSrc1Step*, const Npp32u *aConstants*[3], Npp8u * *pDst*, int *nDstStep*, NppiSize *oSizeROI*)

Four 8-bit unsigned char channel image right shift by constant with unmodified alpha.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

aConstants fixed size array of constant values, one per channel.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.32.2.35 NppStatus nppiRShiftC_8u_C1IR (const Npp32u *nConstant*, Npp8u ∗ *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*)

One 8-bit unsigned char channel in place image right shift by constant.

Parameters:

nConstant Constant.

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.32.2.36 NppStatus nppiRShiftC_8u_C1R (const Npp8u ∗ *pSrc1*, int *nSrc1Step*, const Npp32u *nConstant*, Npp8u ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*)

One 8-bit unsigned char channel image right shift by constant.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

nConstant Constant.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.32.2.37 NppStatus nppiRShiftC_8u_C3IR (const Npp32u *aConstants*[3], Npp8u ∗ *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*)

Three 8-bit unsigned char channel in place image right shift by constant.

Parameters:

aConstants fixed size array of constant values, one per channel.

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.32.2.38 NppStatus nppiRShiftC_8u_C3R (const Npp8u ∗ *pSrc1*, int *nSrc1Step*, const Npp32u *aConstants*[3], Npp8u ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*)

Three 8-bit unsigned char channel image right shift by constant.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

aConstants fixed size array of constant values, one per channel.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.32.2.39 NppStatus nppiRShiftC_8u_C4IR (const Npp32u *aConstants*[4], Npp8u ∗ *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*)

Four 8-bit unsigned char channel in place image right shift by constant.

Parameters:

aConstants fixed size array of constant values, one per channel.

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.32.2.40 NppStatus nppiRShiftC_8u_C4R (const Npp8u ∗ *pSrc1*, int *nSrc1Step*, const Npp32u *aConstants*[4], Npp8u ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*)

Four 8-bit unsigned char channel image right shift by constant.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

aConstants fixed size array of constant values, one per channel.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.33 LShiftC

Pixel by pixel left shift of an image by a constant value.

Functions

- NppStatus nppiLShiftC_8u_C1R (const Npp8u ∗pSrc1, int nSrc1Step, const Npp32u nConstant, Npp8u ∗pDst, int nDstStep, NppiSize oSizeROI)

  One 8-bit unsigned char channel image left shift by constant.

- NppStatus nppiLShiftC_8u_C1IR (const Npp32u nConstant, Npp8u ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI)

  One 8-bit unsigned char channel in place image left shift by constant.

- NppStatus nppiLShiftC_8u_C3R (const Npp8u ∗pSrc1, int nSrc1Step, const Npp32u aConstants[3], Npp8u ∗pDst, int nDstStep, NppiSize oSizeROI)

  Three 8-bit unsigned char channel image left shift by constant.

- NppStatus nppiLShiftC_8u_C3IR (const Npp32u aConstants[3], Npp8u ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI)

  Three 8-bit unsigned char channel in place image left shift by constant.

- NppStatus nppiLShiftC_8u_AC4R (const Npp8u ∗pSrc1, int nSrc1Step, const Npp32u aConstants[3], Npp8u ∗pDst, int nDstStep, NppiSize oSizeROI)

  Four 8-bit unsigned char channel image left shift by constant with unmodified alpha.

- NppStatus nppiLShiftC_8u_AC4IR (const Npp32u aConstants[3], Npp8u ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI)

  Four 8-bit unsigned char channel in place image left shift by constant with unmodified alpha.

- NppStatus nppiLShiftC_8u_C4R (const Npp8u ∗pSrc1, int nSrc1Step, const Npp32u aConstants[4], Npp8u ∗pDst, int nDstStep, NppiSize oSizeROI)

  Four 8-bit unsigned char channel image left shift by constant.

- NppStatus nppiLShiftC_8u_C4IR (const Npp32u aConstants[4], Npp8u ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI)

  Four 8-bit unsigned char channel in place image left shift by constant.

- NppStatus nppiLShiftC_16u_C1R (const Npp16u ∗pSrc1, int nSrc1Step, const Npp32u nConstant, Npp16u ∗pDst, int nDstStep, NppiSize oSizeROI)

  One 16-bit unsigned short channel image left shift by constant.

- NppStatus nppiLShiftC_16u_C1IR (const Npp32u nConstant, Npp16u ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI)

  One 16-bit unsigned short channel in place image left shift by constant.

- NppStatus nppiLShiftC_16u_C3R (const Npp16u ∗pSrc1, int nSrc1Step, const Npp32u aConstants[3], Npp16u ∗pDst, int nDstStep, NppiSize oSizeROI)

  Three 16-bit unsigned short channel image left shift by constant.

- NppStatus nppiLShiftC_16u_C3IR (const Npp32u aConstants[3], Npp16u ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI)

  Three 16-bit unsigned short channel in place image left shift by constant.

- NppStatus nppiLShiftC_16u_AC4R (const Npp16u ∗pSrc1, int nSrc1Step, const Npp32u aConstants[3], Npp16u ∗pDst, int nDstStep, NppiSize oSizeROI)

  Four 16-bit unsigned short channel image left shift by constant with unmodified alpha.

- NppStatus nppiLShiftC_16u_AC4IR (const Npp32u aConstants[3], Npp16u ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI)

  Four 16-bit unsigned short channel in place image left shift by constant with unmodified alpha.

- NppStatus nppiLShiftC_16u_C4R (const Npp16u ∗pSrc1, int nSrc1Step, const Npp32u aConstants[4], Npp16u ∗pDst, int nDstStep, NppiSize oSizeROI)

  Four 16-bit unsigned short channel image left shift by constant.

- NppStatus nppiLShiftC_16u_C4IR (const Npp32u aConstants[4], Npp16u ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI)

  Four 16-bit unsigned short channel in place image left shift by constant.

- NppStatus nppiLShiftC_32s_C1R (const Npp32s ∗pSrc1, int nSrc1Step, const Npp32u nConstant, Npp32s ∗pDst, int nDstStep, NppiSize oSizeROI)

  One 32-bit signed integer channel image left shift by constant.

- NppStatus nppiLShiftC_32s_C1IR (const Npp32u nConstant, Npp32s ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI)

  One 32-bit signed integer channel in place image left shift by constant.

- NppStatus nppiLShiftC_32s_C3R (const Npp32s ∗pSrc1, int nSrc1Step, const Npp32u aConstants[3], Npp32s ∗pDst, int nDstStep, NppiSize oSizeROI)

  Three 32-bit signed integer channel image left shift by constant.

- NppStatus nppiLShiftC_32s_C3IR (const Npp32u aConstants[3], Npp32s ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI)

  Three 32-bit signed integer channel in place image left shift by constant.

- NppStatus nppiLShiftC_32s_AC4R (const Npp32s ∗pSrc1, int nSrc1Step, const Npp32u aConstants[3], Npp32s ∗pDst, int nDstStep, NppiSize oSizeROI)

  Four 32-bit signed integer channel image left shift by constant with unmodified alpha.

- NppStatus nppiLShiftC_32s_AC4IR (const Npp32u aConstants[3], Npp32s ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI)

  Four 32-bit signed integer channel in place image left shift by constant with unmodified alpha.

- NppStatus nppiLShiftC_32s_C4R (const Npp32s ∗pSrc1, int nSrc1Step, const Npp32u aConstants[4], Npp32s ∗pDst, int nDstStep, NppiSize oSizeROI)

  Four 32-bit signed integer channel image left shift by constant.

- NppStatus nppiLShiftC_32s_C4IR (const Npp32u aConstants[4], Npp32s ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI)

  Four 32-bit signed integer channel in place image left shift by constant.

7.33.1 Detailed Description

Pixel by pixel left shift of an image by a constant value.

7.33.2 Function Documentation

7.33.2.1 NppStatus nppiLShiftC_16u_AC4IR (const Npp32u *aConstants*[3], Npp16u * *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*)

Four 16-bit unsigned short channel in place image left shift by constant with unmodified alpha.

Parameters:

aConstants fixed size array of constant values, one per channel.

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.33.2.2 NppStatus nppiLShiftC_16u_AC4R (const Npp16u * *pSrc1*, int *nSrc1Step*, const Npp32u *aConstants*[3], Npp16u * *pDst*, int *nDstStep*, NppiSize *oSizeROI*)

Four 16-bit unsigned short channel image left shift by constant with unmodified alpha.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

aConstants fixed size array of constant values, one per channel.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.33.2.3 NppStatus nppiLShiftC_16u_C1IR (const Npp32u *nConstant*, Npp16u * *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*)

One 16-bit unsigned short channel in place image left shift by constant.

Parameters:

nConstant Constant.

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.33.2.4 NppStatus nppiLShiftC_16u_C1R (const Npp16u ∗ *pSrc1*, int *nSrc1Step*, const Npp32u *nConstant*, Npp16u ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*)

One 16-bit unsigned short channel image left shift by constant.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

nConstant Constant

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.33.2.5 NppStatus nppiLShiftC_16u_C3IR (const Npp32u *aConstants*[3], Npp16u ∗ *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*)

Three 16-bit unsigned short channel in place image left shift by constant.

Parameters:

aConstants fixed size array of constant values, one per channel.

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.33.2.6 NppStatus nppiLShiftC_16u_C3R (const Npp16u ∗ *pSrc1*, int *nSrc1Step*, const Npp32u *aConstants*[3], Npp16u ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*)

Three 16-bit unsigned short channel image left shift by constant.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

aConstants fixed size array of constant values, one per channel.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.33.2.7 NppStatus nppiLShiftC_16u_C4IR (const Npp32u *aConstants*[4], Npp16u $*$ *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*)

Four 16-bit unsigned short channel in place image left shift by constant.

Parameters:

aConstants fixed size array of constant values, one per channel.

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.33.2.8 NppStatus nppiLShiftC_16u_C4R (const Npp16u $*$ *pSrc1*, int *nSrc1Step*, const Npp32u *aConstants*[4], Npp16u $*$ *pDst*, int *nDstStep*, NppiSize *oSizeROI*)

Four 16-bit unsigned short channel image left shift by constant.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

aConstants fixed size array of constant values, one per channel.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.33.2.9 NppStatus nppiLShiftC_32s_AC4IR (const Npp32u *aConstants*[3], Npp32s ∗ *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*)

Four 32-bit signed integer channel in place image left shift by constant with unmodified alpha.

Parameters:

aConstants fixed size array of constant values, one per channel.

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.33.2.10 NppStatus nppiLShiftC_32s_AC4R (const Npp32s ∗ *pSrc1*, int *nSrc1Step*, const Npp32u *aConstants*[3], Npp32s ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*)

Four 32-bit signed integer channel image left shift by constant with unmodified alpha.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

aConstants fixed size array of constant values, one per channel.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.33.2.11 NppStatus nppiLShiftC_32s_C1IR (const Npp32u *nConstant*, Npp32s ∗ *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*)

One 32-bit signed integer channel in place image left shift by constant.

Parameters:

nConstant Constant.

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.33.2.12 NppStatus nppiLShiftC_32s_C1R (const Npp32s * *pSrc1*, int *nSrc1Step*, const Npp32u *nConstant*, Npp32s * *pDst*, int *nDstStep*, NppiSize *oSizeROI*)

One 32-bit signed integer channel image left shift by constant.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

nConstant Constant.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.33.2.13 NppStatus nppiLShiftC_32s_C3IR (const Npp32u *aConstants*[3], Npp32s * *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*)

Three 32-bit signed integer channel in place image left shift by constant.

Parameters:

aConstants fixed size array of constant values, one per channel.

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.33.2.14 NppStatus nppiLShiftC_32s_C3R (const Npp32s * *pSrc1*, int *nSrc1Step*, const Npp32u *aConstants*[3], Npp32s * *pDst*, int *nDstStep*, NppiSize *oSizeROI*)

Three 32-bit signed integer channel image left shift by constant.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

aConstants fixed size array of constant values, one per channel.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.33.2.15 NppStatus nppiLShiftC_32s_C4IR (const Npp32u *aConstants*[4], Npp32s ∗ *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*)

Four 32-bit signed integer channel in place image left shift by constant.

Parameters:

aConstants fixed size array of constant values, one per channel.

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.33.2.16 NppStatus nppiLShiftC_32s_C4R (const Npp32s ∗ *pSrc1*, int *nSrc1Step*, const Npp32u *aConstants*[4], Npp32s ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*)

Four 32-bit signed integer channel image left shift by constant.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

aConstants fixed size array of constant values, one per channel.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.33.2.17 NppStatus nppiLShiftC_8u_AC4IR (const Npp32u *aConstants*[3], Npp8u ∗ *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*)

Four 8-bit unsigned char channel in place image left shift by constant with unmodified alpha.

Parameters:

aConstants fixed size array of constant values, one per channel.

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.33.2.18 NppStatus nppiLShiftC_8u_AC4R (const Npp8u ∗ *pSrc1*, int *nSrc1Step*, const Npp32u *aConstants*[3], Npp8u ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*)

Four 8-bit unsigned char channel image left shift by constant with unmodified alpha.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

aConstants fixed size array of constant values, one per channel.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.33.2.19 NppStatus nppiLShiftC_8u_C1IR (const Npp32u *nConstant*, Npp8u ∗ *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*)

One 8-bit unsigned char channel in place image left shift by constant.

Parameters:

nConstant Constant.

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.33.2.20 NppStatus nppiLShiftC_8u_C1R (const Npp8u ∗ *pSrc1*, int *nSrc1Step*, const Npp32u *nConstant*, Npp8u ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*)

One 8-bit unsigned char channel image left shift by constant.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

nConstant Constant.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.33.2.21 NppStatus nppiLShiftC_8u_C3IR (const Npp32u *aConstants*[3], Npp8u ∗ *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*)

Three 8-bit unsigned char channel in place image left shift by constant.

Parameters:

aConstants fixed size array of constant values, one per channel.

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.33.2.22 NppStatus nppiLShiftC_8u_C3R (const Npp8u ∗ *pSrc1*, int *nSrc1Step*, const Npp32u *aConstants*[3], Npp8u ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*)

Three 8-bit unsigned char channel image left shift by constant.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

aConstants fixed size array of constant values, one per channel.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.33.2.23 NppStatus nppiLShiftC_8u_C4IR (const Npp32u *aConstants*[4], Npp8u ∗ *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*)

Four 8-bit unsigned char channel in place image left shift by constant.

Parameters:

aConstants fixed size array of constant values, one per channel.

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.33.2.24 NppStatus nppiLShiftC_8u_C4R (const Npp8u * *pSrc1*, int *nSrc1Step*, const Npp32u *aConstants*[4], Npp8u * *pDst*, int *nDstStep*, NppiSize *oSizeROI*)

Four 8-bit unsigned char channel image left shift by constant.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

aConstants fixed size array of constant values, one per channel.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.34 And

Pixel by pixel logical and of images.

Functions

- NppStatus nppiAnd_8u_C1R (const Npp8u ∗pSrc1, int nSrc1Step, const Npp8u ∗pSrc2, int nSrc2Step, Npp8u ∗pDst, int nDstStep, NppiSize oSizeROI)

  One 8-bit unsigned char channel image logical and.

- NppStatus nppiAnd_8u_C1IR (const Npp8u ∗pSrc, int nSrcStep, Npp8u ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI)

  One 8-bit unsigned char channel in place image logical and.

- NppStatus nppiAnd_8u_C3R (const Npp8u ∗pSrc1, int nSrc1Step, const Npp8u ∗pSrc2, int nSrc2Step, Npp8u ∗pDst, int nDstStep, NppiSize oSizeROI)

  Three 8-bit unsigned char channel image logical and.

- NppStatus nppiAnd_8u_C3IR (const Npp8u ∗pSrc, int nSrcStep, Npp8u ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI)

  Three 8-bit unsigned char channel in place image logical and.

- NppStatus nppiAnd_8u_AC4R (const Npp8u ∗pSrc1, int nSrc1Step, const Npp8u ∗pSrc2, int nSrc2Step, Npp8u ∗pDst, int nDstStep, NppiSize oSizeROI)

  Four 8-bit unsigned char channel image logical and with unmodified alpha.

- NppStatus nppiAnd_8u_AC4IR (const Npp8u ∗pSrc, int nSrcStep, Npp8u ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI)

  Four 8-bit unsigned char channel in place image logical and with unmodified alpha.

- NppStatus nppiAnd_8u_C4R (const Npp8u ∗pSrc1, int nSrc1Step, const Npp8u ∗pSrc2, int nSrc2Step, Npp8u ∗pDst, int nDstStep, NppiSize oSizeROI)

  Four 8-bit unsigned char channel image logical and.

- NppStatus nppiAnd_8u_C4IR (const Npp8u ∗pSrc, int nSrcStep, Npp8u ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI)

  Four 8-bit unsigned char channel in place image logical and.

- NppStatus nppiAnd_16u_C1R (const Npp16u ∗pSrc1, int nSrc1Step, const Npp16u ∗pSrc2, int nSrc2Step, Npp16u ∗pDst, int nDstStep, NppiSize oSizeROI)

  One 16-bit unsigned short channel image logical and.

- NppStatus nppiAnd_16u_C1IR (const Npp16u ∗pSrc, int nSrcStep, Npp16u ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI)

  One 16-bit unsigned short channel in place image logical and.

- NppStatus nppiAnd_16u_C3R (const Npp16u ∗pSrc1, int nSrc1Step, const Npp16u ∗pSrc2, int nSrc2Step, Npp16u ∗pDst, int nDstStep, NppiSize oSizeROI)

  Three 16-bit unsigned short channel image logical and.

- NppStatus nppiAnd_16u_C3IR (const Npp16u ∗pSrc, int nSrcStep, Npp16u ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI)

  Three 16-bit unsigned short channel in place image logical and.

- NppStatus nppiAnd_16u_AC4R (const Npp16u ∗pSrc1, int nSrc1Step, const Npp16u ∗pSrc2, int nSrc2Step, Npp16u ∗pDst, int nDstStep, NppiSize oSizeROI)

  Four 16-bit unsigned short channel image logical and with unmodified alpha.

- NppStatus nppiAnd_16u_AC4IR (const Npp16u ∗pSrc, int nSrcStep, Npp16u ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI)

  Four 16-bit unsigned short channel in place image logical and with unmodified alpha.

- NppStatus nppiAnd_16u_C4R (const Npp16u ∗pSrc1, int nSrc1Step, const Npp16u ∗pSrc2, int nSrc2Step, Npp16u ∗pDst, int nDstStep, NppiSize oSizeROI)

  Four 16-bit unsigned short channel image logical and.

- NppStatus nppiAnd_16u_C4IR (const Npp16u ∗pSrc, int nSrcStep, Npp16u ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI)

  Four 16-bit unsigned short channel in place image logical and.

- NppStatus nppiAnd_32s_C1R (const Npp32s ∗pSrc1, int nSrc1Step, const Npp32s ∗pSrc2, int nSrc2Step, Npp32s ∗pDst, int nDstStep, NppiSize oSizeROI)

  One 32-bit signed integer channel image logical and.

- NppStatus nppiAnd_32s_C1IR (const Npp32s ∗pSrc, int nSrcStep, Npp32s ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI)

  One 32-bit signed integer channel in place image logical and.

- NppStatus nppiAnd_32s_C3R (const Npp32s ∗pSrc1, int nSrc1Step, const Npp32s ∗pSrc2, int nSrc2Step, Npp32s ∗pDst, int nDstStep, NppiSize oSizeROI)

  Three 32-bit signed integer channel image logical and.

- NppStatus nppiAnd_32s_C3IR (const Npp32s ∗pSrc, int nSrcStep, Npp32s ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI)

  Three 32-bit signed integer channel in place image logical and.

- NppStatus nppiAnd_32s_AC4R (const Npp32s ∗pSrc1, int nSrc1Step, const Npp32s ∗pSrc2, int nSrc2Step, Npp32s ∗pDst, int nDstStep, NppiSize oSizeROI)

  Four 32-bit signed integer channel image logical and with unmodified alpha.

- NppStatus nppiAnd_32s_AC4IR (const Npp32s ∗pSrc, int nSrcStep, Npp32s ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI)

  Four 32-bit signed integer channel in place image logical and with unmodified alpha.

- NppStatus nppiAnd_32s_C4R (const Npp32s ∗pSrc1, int nSrc1Step, const Npp32s ∗pSrc2, int nSrc2Step, Npp32s ∗pDst, int nDstStep, NppiSize oSizeROI)

  Four 32-bit signed integer channel image logical and.

- NppStatus nppiAnd_32s_C4IR (const Npp32s ∗pSrc, int nSrcStep, Npp32s ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI)

  Four 32-bit signed integer channel in place image logical and.

7.34.1 Detailed Description

Pixel by pixel logical and of images.

7.34.2 Function Documentation

7.34.2.1 NppStatus nppiAnd_16u_AC4IR (const Npp16u ∗ *pSrc*, int *nSrcStep*, Npp16u ∗ *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*)

Four 16-bit unsigned short channel in place image logical and with unmodified alpha.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.34.2.2 NppStatus nppiAnd_16u_AC4R (const Npp16u ∗ *pSrc1*, int *nSrc1Step*, const Npp16u ∗ *pSrc2*, int *nSrc2Step*, Npp16u ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*)

Four 16-bit unsigned short channel image logical and with unmodified alpha.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.34.2.3 NppStatus nppiAnd_16u_C1IR (const Npp16u ∗ *pSrc*, int *nSrcStep*, Npp16u ∗ *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*)

One 16-bit unsigned short channel in place image logical and.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.34.2.4 NppStatus nppiAnd_16u_C1R (const Npp16u ∗ *pSrc1*, int *nSrc1Step*, const Npp16u ∗ *pSrc2*, int *nSrc2Step*, Npp16u ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*)

One 16-bit unsigned short channel image logical and.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.34.2.5 NppStatus nppiAnd_16u_C3IR (const Npp16u ∗ *pSrc*, int *nSrcStep*, Npp16u ∗ *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*)

Three 16-bit unsigned short channel in place image logical and.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.34.2.6 NppStatus nppiAnd_16u_C3R (const Npp16u ∗ *pSrc1*, int *nSrc1Step*, const Npp16u ∗ *pSrc2*, int *nSrc2Step*, Npp16u ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*)

Three 16-bit unsigned short channel image logical and.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.34.2.7 NppStatus nppiAnd_16u_C4IR (const Npp16u ∗ *pSrc*, int *nSrcStep*, Npp16u ∗ *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*)

Four 16-bit unsigned short channel in place image logical and.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.34.2.8 NppStatus nppiAnd_16u_C4R (const Npp16u ∗ *pSrc1*, int *nSrc1Step*, const Npp16u ∗ *pSrc2*, int *nSrc2Step*, Npp16u ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*)

Four 16-bit unsigned short channel image logical and.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.34.2.9 NppStatus nppiAnd_32s_AC4IR (const Npp32s $*$ *pSrc*, int *nSrcStep*, Npp32s $*$ *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*)

Four 32-bit signed integer channel in place image logical and with unmodified alpha.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.34.2.10 NppStatus nppiAnd_32s_AC4R (const Npp32s $*$ *pSrc1*, int *nSrc1Step*, const Npp32s $*$ *pSrc2*, int *nSrc2Step*, Npp32s $*$ *pDst*, int *nDstStep*, NppiSize *oSizeROI*)

Four 32-bit signed integer channel image logical and with unmodified alpha.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.34.2.11 NppStatus nppiAnd_32s_C1IR (const Npp32s ∗ *pSrc*, int *nSrcStep*, Npp32s ∗ *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*)

One 32-bit signed integer channel in place image logical and.

Parameters:

pSrc Source-Image Pointer.
nSrcStep Source-Image Line Step.
pSrcDst In-Place Image Pointer.
nSrcDstStep In-Place-Image Line Step.
oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.34.2.12 NppStatus nppiAnd_32s_C1R (const Npp32s ∗ *pSrc1*, int *nSrc1Step*, const Npp32s ∗ *pSrc2*, int *nSrc2Step*, Npp32s ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*)

One 32-bit signed integer channel image logical and.

Parameters:

pSrc1 Source-Image Pointer.
nSrc1Step Source-Image Line Step.
pSrc2 Source-Image Pointer.
nSrc2Step Source-Image Line Step.
pDst Destination-Image Pointer.
nDstStep Destination-Image Line Step.
oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.34.2.13 NppStatus nppiAnd_32s_C3IR (const Npp32s ∗ *pSrc*, int *nSrcStep*, Npp32s ∗ *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*)

Three 32-bit signed integer channel in place image logical and.

Parameters:

pSrc Source-Image Pointer.
nSrcStep Source-Image Line Step.
pSrcDst In-Place Image Pointer.
nSrcDstStep In-Place-Image Line Step.
oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.34.2.14 NppStatus nppiAnd_32s_C3R (const Npp32s $*$ *pSrc1*, int *nSrc1Step*, const Npp32s $*$ *pSrc2*, int *nSrc2Step*, Npp32s $*$ *pDst*, int *nDstStep*, NppiSize *oSizeROI*)

Three 32-bit signed integer channel image logical and.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.34.2.15 NppStatus nppiAnd_32s_C4IR (const Npp32s $*$ *pSrc*, int *nSrcStep*, Npp32s $*$ *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*)

Four 32-bit signed integer channel in place image logical and.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.34.2.16 NppStatus nppiAnd_32s_C4R (const Npp32s $*$ *pSrc1*, int *nSrc1Step*, const Npp32s $*$ *pSrc2*, int *nSrc2Step*, Npp32s $*$ *pDst*, int *nDstStep*, NppiSize *oSizeROI*)

Four 32-bit signed integer channel image logical and.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.34.2.17 NppStatus nppiAnd_8u_AC4IR (const Npp8u * *pSrc*, int *nSrcStep*, Npp8u * *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*)

Four 8-bit unsigned char channel in place image logical and with unmodified alpha.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.34.2.18 NppStatus nppiAnd_8u_AC4R (const Npp8u * *pSrc1*, int *nSrc1Step*, const Npp8u * *pSrc2*, int *nSrc2Step*, Npp8u * *pDst*, int *nDstStep*, NppiSize *oSizeROI*)

Four 8-bit unsigned char channel image logical and with unmodified alpha.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.34.2.19 NppStatus nppiAnd_8u_C1IR (const Npp8u ∗ *pSrc*, int *nSrcStep*, Npp8u ∗ *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*)

One 8-bit unsigned char channel in place image logical and.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.34.2.20 NppStatus nppiAnd_8u_C1R (const Npp8u ∗ *pSrc1*, int *nSrc1Step*, const Npp8u ∗ *pSrc2*, int *nSrc2Step*, Npp8u ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*)

One 8-bit unsigned char channel image logical and.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.34.2.21 NppStatus nppiAnd_8u_C3IR (const Npp8u ∗ *pSrc*, int *nSrcStep*, Npp8u ∗ *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*)

Three 8-bit unsigned char channel in place image logical and.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.34.2.22 NppStatus nppiAnd_8u_C3R (const Npp8u ∗ *pSrc1*, int *nSrc1Step*, const Npp8u ∗ *pSrc2*, int *nSrc2Step*, Npp8u ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*)

Three 8-bit unsigned char channel image logical and.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.34.2.23 NppStatus nppiAnd_8u_C4IR (const Npp8u ∗ *pSrc*, int *nSrcStep*, Npp8u ∗ *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*)

Four 8-bit unsigned char channel in place image logical and.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.34.2.24 NppStatus nppiAnd_8u_C4R (const Npp8u ∗ *pSrc1*, int *nSrc1Step*, const Npp8u ∗ *pSrc2*, int *nSrc2Step*, Npp8u ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*)

Four 8-bit unsigned char channel image logical and.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.35 Or

Pixel by pixel logical or of images.

Functions

- NppStatus nppiOr_8u_C1R (const Npp8u ∗pSrc1, int nSrc1Step, const Npp8u ∗pSrc2, int nSrc2Step, Npp8u ∗pDst, int nDstStep, NppiSize oSizeROI)

  One 8-bit unsigned char channel image logical or.

- NppStatus nppiOr_8u_C1IR (const Npp8u ∗pSrc, int nSrcStep, Npp8u ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI)

  One 8-bit unsigned char channel in place image logical or.

- NppStatus nppiOr_8u_C3R (const Npp8u ∗pSrc1, int nSrc1Step, const Npp8u ∗pSrc2, int nSrc2Step, Npp8u ∗pDst, int nDstStep, NppiSize oSizeROI)

  Three 8-bit unsigned char channel image logical or.

- NppStatus nppiOr_8u_C3IR (const Npp8u ∗pSrc, int nSrcStep, Npp8u ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI)

  Three 8-bit unsigned char channel in place image logical or.

- NppStatus nppiOr_8u_AC4R (const Npp8u ∗pSrc1, int nSrc1Step, const Npp8u ∗pSrc2, int nSrc2Step, Npp8u ∗pDst, int nDstStep, NppiSize oSizeROI)

  Four 8-bit unsigned char channel image logical or with unmodified alpha.

- NppStatus nppiOr_8u_AC4IR (const Npp8u ∗pSrc, int nSrcStep, Npp8u ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI)

  Four 8-bit unsigned char channel in place image logical or with unmodified alpha.

- NppStatus nppiOr_8u_C4R (const Npp8u ∗pSrc1, int nSrc1Step, const Npp8u ∗pSrc2, int nSrc2Step, Npp8u ∗pDst, int nDstStep, NppiSize oSizeROI)

  Four 8-bit unsigned char channel image logical or.

- NppStatus nppiOr_8u_C4IR (const Npp8u ∗pSrc, int nSrcStep, Npp8u ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI)

  Four 8-bit unsigned char channel in place image logical or.

- NppStatus nppiOr_16u_C1R (const Npp16u ∗pSrc1, int nSrc1Step, const Npp16u ∗pSrc2, int nSrc2Step, Npp16u ∗pDst, int nDstStep, NppiSize oSizeROI)

  One 16-bit unsigned short channel image logical or.

- NppStatus nppiOr_16u_C1IR (const Npp16u ∗pSrc, int nSrcStep, Npp16u ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI)

  One 16-bit unsigned short channel in place image logical or.

- NppStatus nppiOr_16u_C3R (const Npp16u ∗pSrc1, int nSrc1Step, const Npp16u ∗pSrc2, int nSrc2Step, Npp16u ∗pDst, int nDstStep, NppiSize oSizeROI)

  Three 16-bit unsigned short channel image logical or.

- NppStatus nppiOr_16u_C3IR (const Npp16u ∗pSrc, int nSrcStep, Npp16u ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI)

  Three 16-bit unsigned short channel in place image logical or.

- NppStatus nppiOr_16u_AC4R (const Npp16u ∗pSrc1, int nSrc1Step, const Npp16u ∗pSrc2, int nSrc2Step, Npp16u ∗pDst, int nDstStep, NppiSize oSizeROI)

  Four 16-bit unsigned short channel image logical or with unmodified alpha.

- NppStatus nppiOr_16u_AC4IR (const Npp16u ∗pSrc, int nSrcStep, Npp16u ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI)

  Four 16-bit unsigned short channel in place image logical or with unmodified alpha.

- NppStatus nppiOr_16u_C4R (const Npp16u ∗pSrc1, int nSrc1Step, const Npp16u ∗pSrc2, int nSrc2Step, Npp16u ∗pDst, int nDstStep, NppiSize oSizeROI)

  Four 16-bit unsigned short channel image logical or.

- NppStatus nppiOr_16u_C4IR (const Npp16u ∗pSrc, int nSrcStep, Npp16u ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI)

  Four 16-bit unsigned short channel in place image logical or.

- NppStatus nppiOr_32s_C1R (const Npp32s ∗pSrc1, int nSrc1Step, const Npp32s ∗pSrc2, int nSrc2Step, Npp32s ∗pDst, int nDstStep, NppiSize oSizeROI)

  One 32-bit signed integer channel image logical or.

- NppStatus nppiOr_32s_C1IR (const Npp32s ∗pSrc, int nSrcStep, Npp32s ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI)

  One 32-bit signed integer channel in place image logical or.

- NppStatus nppiOr_32s_C3R (const Npp32s ∗pSrc1, int nSrc1Step, const Npp32s ∗pSrc2, int nSrc2Step, Npp32s ∗pDst, int nDstStep, NppiSize oSizeROI)

  Three 32-bit signed integer channel image logical or.

- NppStatus nppiOr_32s_C3IR (const Npp32s ∗pSrc, int nSrcStep, Npp32s ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI)

  Three 32-bit signed integer channel in place image logical or.

- NppStatus nppiOr_32s_AC4R (const Npp32s ∗pSrc1, int nSrc1Step, const Npp32s ∗pSrc2, int nSrc2Step, Npp32s ∗pDst, int nDstStep, NppiSize oSizeROI)

  Four 32-bit signed integer channel image logical or with unmodified alpha.

- NppStatus nppiOr_32s_AC4IR (const Npp32s ∗pSrc, int nSrcStep, Npp32s ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI)

  Four 32-bit signed integer channel in place image logical or with unmodified alpha.

- NppStatus nppiOr_32s_C4R (const Npp32s ∗pSrc1, int nSrc1Step, const Npp32s ∗pSrc2, int nSrc2Step, Npp32s ∗pDst, int nDstStep, NppiSize oSizeROI)

  Four 32-bit signed integer channel image logical or.

- NppStatus nppiOr_32s_C4IR (const Npp32s ∗pSrc, int nSrcStep, Npp32s ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI)

  Four 32-bit signed integer channel in place image logical or.

7.35.1 Detailed Description

Pixel by pixel logical or of images.

7.35.2 Function Documentation

7.35.2.1 NppStatus nppiOr_16u_AC4IR (const Npp16u ∗ *pSrc*, int *nSrcStep*, Npp16u ∗ *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*)

Four 16-bit unsigned short channel in place image logical or with unmodified alpha.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.35.2.2 NppStatus nppiOr_16u_AC4R (const Npp16u ∗ *pSrc1*, int *nSrc1Step*, const Npp16u ∗ *pSrc2*, int *nSrc2Step*, Npp16u ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*)

Four 16-bit unsigned short channel image logical or with unmodified alpha.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.35.2.3 NppStatus nppiOr_16u_C1IR (const Npp16u ∗ *pSrc*, int *nSrcStep*, Npp16u ∗ *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*)

One 16-bit unsigned short channel in place image logical or.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.35.2.4 NppStatus nppiOr_16u_C1R (const Npp16u * *pSrc1*, int *nSrc1Step*, const Npp16u * *pSrc2*, int *nSrc2Step*, Npp16u * *pDst*, int *nDstStep*, NppiSize *oSizeROI*)

One 16-bit unsigned short channel image logical or.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.35.2.5 NppStatus nppiOr_16u_C3IR (const Npp16u * *pSrc*, int *nSrcStep*, Npp16u * *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*)

Three 16-bit unsigned short channel in place image logical or.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.35.2.6 NppStatus nppiOr_16u_C3R (const Npp16u ∗ *pSrc1*, int *nSrc1Step*, const Npp16u ∗ *pSrc2*, int *nSrc2Step*, Npp16u ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*)

Three 16-bit unsigned short channel image logical or.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.35.2.7 NppStatus nppiOr_16u_C4IR (const Npp16u ∗ *pSrc*, int *nSrcStep*, Npp16u ∗ *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*)

Four 16-bit unsigned short channel in place image logical or.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.35.2.8 NppStatus nppiOr_16u_C4R (const Npp16u ∗ *pSrc1*, int *nSrc1Step*, const Npp16u ∗ *pSrc2*, int *nSrc2Step*, Npp16u ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*)

Four 16-bit unsigned short channel image logical or.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.35.2.9 NppStatus nppiOr_32s_AC4IR (const Npp32s ∗ *pSrc*, int *nSrcStep*, Npp32s ∗ *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*)

Four 32-bit signed integer channel in place image logical or with unmodified alpha.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.35.2.10 NppStatus nppiOr_32s_AC4R (const Npp32s ∗ *pSrc1*, int *nSrc1Step*, const Npp32s ∗ *pSrc2*, int *nSrc2Step*, Npp32s ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*)

Four 32-bit signed integer channel image logical or with unmodified alpha.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.35.2.11 NppStatus nppiOr_32s_C1IR (const Npp32s ∗ *pSrc*, int *nSrcStep*, Npp32s ∗ *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*)

One 32-bit signed integer channel in place image logical or.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.35.2.12 NppStatus nppiOr_32s_C1R (const Npp32s ∗ *pSrc1*, int *nSrc1Step*, const Npp32s ∗ *pSrc2*, int *nSrc2Step*, Npp32s ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*)

One 32-bit signed integer channel image logical or.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.35.2.13 NppStatus nppiOr_32s_C3IR (const Npp32s ∗ *pSrc*, int *nSrcStep*, Npp32s ∗ *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*)

Three 32-bit signed integer channel in place image logical or.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.35.2.14 NppStatus nppiOr_32s_C3R (const Npp32s ∗ *pSrc1*, int *nSrc1Step*, const Npp32s ∗ *pSrc2*, int *nSrc2Step*, Npp32s ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*)

Three 32-bit signed integer channel image logical or.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.35.2.15 NppStatus nppiOr_32s_C4IR (const Npp32s ∗ *pSrc*, int *nSrcStep*, Npp32s ∗ *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*)

Four 32-bit signed integer channel in place image logical or.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.35.2.16 NppStatus nppiOr_32s_C4R (const Npp32s ∗ *pSrc1*, int *nSrc1Step*, const Npp32s ∗ *pSrc2*, int *nSrc2Step*, Npp32s ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*)

Four 32-bit signed integer channel image logical or.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.35.2.17 NppStatus nppiOr_8u_AC4IR (const Npp8u ∗ *pSrc*, int *nSrcStep*, Npp8u ∗ *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*)

Four 8-bit unsigned char channel in place image logical or with unmodified alpha.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.35.2.18 NppStatus nppiOr_8u_AC4R (const Npp8u ∗ *pSrc1*, int *nSrc1Step*, const Npp8u ∗ *pSrc2*, int *nSrc2Step*, Npp8u ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*)

Four 8-bit unsigned char channel image logical or with unmodified alpha.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.35.2.19 NppStatus nppiOr_8u_C1IR (const Npp8u ∗ *pSrc*, int *nSrcStep*, Npp8u ∗ *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*)

One 8-bit unsigned char channel in place image logical or.

Parameters:

pSrc Source-Image Pointer.
nSrcStep Source-Image Line Step.
pSrcDst In-Place Image Pointer.
nSrcDstStep In-Place-Image Line Step.
oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.35.2.20 NppStatus nppiOr_8u_C1R (const Npp8u ∗ *pSrc1*, int *nSrc1Step*, const Npp8u ∗ *pSrc2*, int *nSrc2Step*, Npp8u ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*)

One 8-bit unsigned char channel image logical or.

Parameters:

pSrc1 Source-Image Pointer.
nSrc1Step Source-Image Line Step.
pSrc2 Source-Image Pointer.
nSrc2Step Source-Image Line Step.
pDst Destination-Image Pointer.
nDstStep Destination-Image Line Step.
oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.35.2.21 NppStatus nppiOr_8u_C3IR (const Npp8u ∗ *pSrc*, int *nSrcStep*, Npp8u ∗ *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*)

Three 8-bit unsigned char channel in place image logical or.

Parameters:

pSrc Source-Image Pointer.
nSrcStep Source-Image Line Step.
pSrcDst In-Place Image Pointer.
nSrcDstStep In-Place-Image Line Step.
oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.35.2.22 NppStatus nppiOr_8u_C3R (const Npp8u ∗ *pSrc1*, int *nSrc1Step*, const Npp8u ∗ *pSrc2*, int *nSrc2Step*, Npp8u ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*)

Three 8-bit unsigned char channel image logical or.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.35.2.23 NppStatus nppiOr_8u_C4IR (const Npp8u ∗ *pSrc*, int *nSrcStep*, Npp8u ∗ *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*)

Four 8-bit unsigned char channel in place image logical or.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.35.2.24 NppStatus nppiOr_8u_C4R (const Npp8u ∗ *pSrc1*, int *nSrc1Step*, const Npp8u ∗ *pSrc2*, int *nSrc2Step*, Npp8u ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*)

Four 8-bit unsigned char channel image logical or.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.36 Xor

Pixel by pixel logical exclusive or of images.

Functions

- NppStatus nppiXor_8u_C1R (const Npp8u ∗pSrc1, int nSrc1Step, const Npp8u ∗pSrc2, int nSrc2Step, Npp8u ∗pDst, int nDstStep, NppiSize oSizeROI)

  One 8-bit unsigned char channel image logical exclusive or.

- NppStatus nppiXor_8u_C1IR (const Npp8u ∗pSrc, int nSrcStep, Npp8u ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI)

  One 8-bit unsigned char channel in place image logical exclusive or.

- NppStatus nppiXor_8u_C3R (const Npp8u ∗pSrc1, int nSrc1Step, const Npp8u ∗pSrc2, int nSrc2Step, Npp8u ∗pDst, int nDstStep, NppiSize oSizeROI)

  Three 8-bit unsigned char channel image logical exclusive or.

- NppStatus nppiXor_8u_C3IR (const Npp8u ∗pSrc, int nSrcStep, Npp8u ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI)

  Three 8-bit unsigned char channel in place image logical exclusive or.

- NppStatus nppiXor_8u_AC4R (const Npp8u ∗pSrc1, int nSrc1Step, const Npp8u ∗pSrc2, int nSrc2Step, Npp8u ∗pDst, int nDstStep, NppiSize oSizeROI)

  Four 8-bit unsigned char channel image logical exclusive or with unmodified alpha.

- NppStatus nppiXor_8u_AC4IR (const Npp8u ∗pSrc, int nSrcStep, Npp8u ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI)

  Four 8-bit unsigned char channel in place image logical exclusive or with unmodified alpha.

- NppStatus nppiXor_8u_C4R (const Npp8u ∗pSrc1, int nSrc1Step, const Npp8u ∗pSrc2, int nSrc2Step, Npp8u ∗pDst, int nDstStep, NppiSize oSizeROI)

  Four 8-bit unsigned char channel image logical exclusive or.

- NppStatus nppiXor_8u_C4IR (const Npp8u ∗pSrc, int nSrcStep, Npp8u ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI)

  Four 8-bit unsigned char channel in place image logical exclusive or.

- NppStatus nppiXor_16u_C1R (const Npp16u ∗pSrc1, int nSrc1Step, const Npp16u ∗pSrc2, int nSrc2Step, Npp16u ∗pDst, int nDstStep, NppiSize oSizeROI)

  One 16-bit unsigned short channel image logical exclusive or.

- NppStatus nppiXor_16u_C1IR (const Npp16u ∗pSrc, int nSrcStep, Npp16u ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI)

  One 16-bit unsigned short channel in place image logical exclusive or.

- NppStatus nppiXor_16u_C3R (const Npp16u ∗pSrc1, int nSrc1Step, const Npp16u ∗pSrc2, int nSrc2Step, Npp16u ∗pDst, int nDstStep, NppiSize oSizeROI)

  Three 16-bit unsigned short channel image logical exclusive or.

- NppStatus nppiXor_16u_C3IR (const Npp16u ∗pSrc, int nSrcStep, Npp16u ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI)

  Three 16-bit unsigned short channel in place image logical exclusive or.

- NppStatus nppiXor_16u_AC4R (const Npp16u ∗pSrc1, int nSrc1Step, const Npp16u ∗pSrc2, int nSrc2Step, Npp16u ∗pDst, int nDstStep, NppiSize oSizeROI)

  Four 16-bit unsigned short channel image logical exclusive or with unmodified alpha.

- NppStatus nppiXor_16u_AC4IR (const Npp16u ∗pSrc, int nSrcStep, Npp16u ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI)

  Four 16-bit unsigned short channel in place image logical exclusive or with unmodified alpha.

- NppStatus nppiXor_16u_C4R (const Npp16u ∗pSrc1, int nSrc1Step, const Npp16u ∗pSrc2, int nSrc2Step, Npp16u ∗pDst, int nDstStep, NppiSize oSizeROI)

  Four 16-bit unsigned short channel image logical exclusive or.

- NppStatus nppiXor_16u_C4IR (const Npp16u ∗pSrc, int nSrcStep, Npp16u ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI)

  Four 16-bit unsigned short channel in place image logical exclusive or.

- NppStatus nppiXor_32s_C1R (const Npp32s ∗pSrc1, int nSrc1Step, const Npp32s ∗pSrc2, int nSrc2Step, Npp32s ∗pDst, int nDstStep, NppiSize oSizeROI)

  One 32-bit signed integer channel image logical exclusive or.

- NppStatus nppiXor_32s_C1IR (const Npp32s ∗pSrc, int nSrcStep, Npp32s ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI)

  One 32-bit signed integer channel in place image logical exclusive or.

- NppStatus nppiXor_32s_C3R (const Npp32s ∗pSrc1, int nSrc1Step, const Npp32s ∗pSrc2, int nSrc2Step, Npp32s ∗pDst, int nDstStep, NppiSize oSizeROI)

  Three 32-bit signed integer channel image logical exclusive or.

- NppStatus nppiXor_32s_C3IR (const Npp32s ∗pSrc, int nSrcStep, Npp32s ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI)

  Three 32-bit signed integer channel in place image logical exclusive or.

- NppStatus nppiXor_32s_AC4R (const Npp32s ∗pSrc1, int nSrc1Step, const Npp32s ∗pSrc2, int nSrc2Step, Npp32s ∗pDst, int nDstStep, NppiSize oSizeROI)

  Four 32-bit signed integer channel image logical exclusive or with unmodified alpha.

- NppStatus nppiXor_32s_AC4IR (const Npp32s ∗pSrc, int nSrcStep, Npp32s ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI)

  Four 32-bit signed integer channel in place image logical exclusive or with unmodified alpha.

- NppStatus nppiXor_32s_C4R (const Npp32s ∗pSrc1, int nSrc1Step, const Npp32s ∗pSrc2, int nSrc2Step, Npp32s ∗pDst, int nDstStep, NppiSize oSizeROI)

  Four 32-bit signed integer channel image logical exclusive or.

- NppStatus nppiXor_32s_C4IR (const Npp32s ∗pSrc, int nSrcStep, Npp32s ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI)

  Four 32-bit signed integer channel in place image logical exclusive or.

7.36.1 Detailed Description

Pixel by pixel logical exclusive or of images.

7.36.2 Function Documentation

7.36.2.1 NppStatus nppiXor_16u_AC4IR (const Npp16u ∗ *pSrc*, int *nSrcStep*, Npp16u ∗ *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*)

Four 16-bit unsigned short channel in place image logical exclusive or with unmodified alpha.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.36.2.2 NppStatus nppiXor_16u_AC4R (const Npp16u ∗ *pSrc1*, int *nSrc1Step*, const Npp16u ∗ *pSrc2*, int *nSrc2Step*, Npp16u ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*)

Four 16-bit unsigned short channel image logical exclusive or with unmodified alpha.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.36.2.3 NppStatus nppiXor_16u_C1IR (const Npp16u ∗ *pSrc*, int *nSrcStep*, Npp16u ∗ *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*)

One 16-bit unsigned short channel in place image logical exclusive or.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.36.2.4 NppStatus nppiXor_16u_C1R (const Npp16u ∗ *pSrc1*, int *nSrc1Step*, const Npp16u ∗ *pSrc2*, int *nSrc2Step*, Npp16u ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*)

One 16-bit unsigned short channel image logical exclusive or.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.36.2.5 NppStatus nppiXor_16u_C3IR (const Npp16u ∗ *pSrc*, int *nSrcStep*, Npp16u ∗ *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*)

Three 16-bit unsigned short channel in place image logical exclusive or.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.36.2.6 NppStatus nppiXor_16u_C3R (const Npp16u ∗ *pSrc1*, int *nSrc1Step*, const Npp16u ∗ *pSrc2*, int *nSrc2Step*, Npp16u ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*)

Three 16-bit unsigned short channel image logical exclusive or.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.36.2.7 NppStatus nppiXor_16u_C4IR (const Npp16u ∗ *pSrc*, int *nSrcStep*, Npp16u ∗ *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*)

Four 16-bit unsigned short channel in place image logical exclusive or.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.36.2.8 NppStatus nppiXor_16u_C4R (const Npp16u ∗ *pSrc1*, int *nSrc1Step*, const Npp16u ∗ *pSrc2*, int *nSrc2Step*, Npp16u ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*)

Four 16-bit unsigned short channel image logical exclusive or.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.36.2.9 NppStatus nppiXor_32s_AC4IR (const Npp32s ∗ *pSrc*, int *nSrcStep*, Npp32s ∗ *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*)

Four 32-bit signed integer channel in place image logical exclusive or with unmodified alpha.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.36.2.10 NppStatus nppiXor_32s_AC4R (const Npp32s ∗ *pSrc1*, int *nSrc1Step*, const Npp32s ∗ *pSrc2*, int *nSrc2Step*, Npp32s ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*)

Four 32-bit signed integer channel image logical exclusive or with unmodified alpha.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.36.2.11 NppStatus nppiXor_32s_C1IR (const Npp32s * *pSrc*, int *nSrcStep*, Npp32s * *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*)

One 32-bit signed integer channel in place image logical exclusive or.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.36.2.12 NppStatus nppiXor_32s_C1R (const Npp32s * *pSrc1*, int *nSrc1Step*, const Npp32s * *pSrc2*, int *nSrc2Step*, Npp32s * *pDst*, int *nDstStep*, NppiSize *oSizeROI*)

One 32-bit signed integer channel image logical exclusive or.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.36.2.13 NppStatus nppiXor_32s_C3IR (const Npp32s * *pSrc*, int *nSrcStep*, Npp32s * *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*)

Three 32-bit signed integer channel in place image logical exclusive or.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.36.2.14 NppStatus nppiXor_32s_C3R (const Npp32s * *pSrc1*, int *nSrc1Step*, const Npp32s * *pSrc2*, int *nSrc2Step*, Npp32s * *pDst*, int *nDstStep*, NppiSize *oSizeROI*)

Three 32-bit signed integer channel image logical exclusive or.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.36.2.15 NppStatus nppiXor_32s_C4IR (const Npp32s * *pSrc*, int *nSrcStep*, Npp32s * *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*)

Four 32-bit signed integer channel in place image logical exclusive or.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.36.2.16 NppStatus nppiXor_32s_C4R (const Npp32s * *pSrc1*, int *nSrc1Step*, const Npp32s * *pSrc2*, int *nSrc2Step*, Npp32s * *pDst*, int *nDstStep*, NppiSize *oSizeROI*)

Four 32-bit signed integer channel image logical exclusive or.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.36.2.17 NppStatus nppiXor_8u_AC4IR (const Npp8u * *pSrc*, int *nSrcStep*, Npp8u * *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*)

Four 8-bit unsigned char channel in place image logical exclusive or with unmodified alpha.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.36.2.18 NppStatus nppiXor_8u_AC4R (const Npp8u * *pSrc1*, int *nSrc1Step*, const Npp8u * *pSrc2*, int *nSrc2Step*, Npp8u * *pDst*, int *nDstStep*, NppiSize *oSizeROI*)

Four 8-bit unsigned char channel image logical exclusive or with unmodified alpha.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.36.2.19 NppStatus nppiXor_8u_C1IR (const Npp8u ∗ *pSrc*, int *nSrcStep*, Npp8u ∗ *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*)

One 8-bit unsigned char channel in place image logical exclusive or.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.36.2.20 NppStatus nppiXor_8u_C1R (const Npp8u ∗ *pSrc1*, int *nSrc1Step*, const Npp8u ∗ *pSrc2*, int *nSrc2Step*, Npp8u ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*)

One 8-bit unsigned char channel image logical exclusive or.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.36.2.21 NppStatus nppiXor_8u_C3IR (const Npp8u ∗ *pSrc*, int *nSrcStep*, Npp8u ∗ *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*)

Three 8-bit unsigned char channel in place image logical exclusive or.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.36.2.22 NppStatus nppiXor_8u_C3R (const Npp8u ∗ *pSrc1*, int *nSrc1Step*, const Npp8u ∗ *pSrc2*, int *nSrc2Step*, Npp8u ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*)

Three 8-bit unsigned char channel image logical exclusive or.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.36.2.23 NppStatus nppiXor_8u_C4IR (const Npp8u ∗ *pSrc*, int *nSrcStep*, Npp8u ∗ *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*)

Four 8-bit unsigned char channel in place image logical exclusive or.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.36.2.24 NppStatus nppiXor_8u_C4R (const Npp8u ∗ *pSrc1*, int *nSrc1Step*, const Npp8u ∗ *pSrc2*, int *nSrc2Step*, Npp8u ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*)

Four 8-bit unsigned char channel image logical exclusive or.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.37 Not

Pixel by pixel logical not of image.

Functions

- NppStatus nppiNot_8u_C1R (const Npp8u ∗pSrc, int nSrcStep, Npp8u ∗pDst, int nDstStep, NppiSize oSizeROI)

  One 8-bit unsigned char channel image logical not.

- NppStatus nppiNot_8u_C1IR (Npp8u ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI)

  One 8-bit unsigned char channel in place image logical not.

- NppStatus nppiNot_8u_C3R (const Npp8u ∗pSrc, int nSrcStep, Npp8u ∗pDst, int nDstStep, NppiSize oSizeROI)

  Three 8-bit unsigned char channel image logical not.

- NppStatus nppiNot_8u_C3IR (Npp8u ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI)

  Three 8-bit unsigned char channel in place image logical not.

- NppStatus nppiNot_8u_AC4R (const Npp8u ∗pSrc, int nSrcStep, Npp8u ∗pDst, int nDstStep, NppiSize oSizeROI)

  Four 8-bit unsigned char channel image logical not with unmodified alpha.

- NppStatus nppiNot_8u_AC4IR (Npp8u ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI)

  Four 8-bit unsigned char channel in place image logical not with unmodified alpha.

- NppStatus nppiNot_8u_C4R (const Npp8u ∗pSrc, int nSrcStep, Npp8u ∗pDst, int nDstStep, NppiSize oSizeROI)

  Four 8-bit unsigned char channel image logical not.

- NppStatus nppiNot_8u_C4IR (Npp8u ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI)

  Four 8-bit unsigned char channel in place image logical not.

7.37.1 Detailed Description

Pixel by pixel logical not of image.

7.37.2 Function Documentation

7.37.2.1 NppStatus nppiNot_8u_AC4IR (Npp8u ∗ *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*)

Four 8-bit unsigned char channel in place image logical not with unmodified alpha.

Parameters:

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.37.2.2 NppStatus nppiNot_8u_AC4R (const Npp8u ∗ *pSrc*, int *nSrcStep*, Npp8u ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*)

Four 8-bit unsigned char channel image logical not with unmodified alpha.

Parameters:

pSrc Source-Image Pointer.
nSrcStep Source-Image Line Step.
pDst Destination-Image Pointer.
nDstStep Destination-Image Line Step.
oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.37.2.3 NppStatus nppiNot_8u_C1IR (Npp8u ∗ *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*)

One 8-bit unsigned char channel in place image logical not.

Parameters:

pSrcDst In-Place Image Pointer.
nSrcDstStep In-Place-Image Line Step.
oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.37.2.4 NppStatus nppiNot_8u_C1R (const Npp8u ∗ *pSrc*, int *nSrcStep*, Npp8u ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*)

One 8-bit unsigned char channel image logical not.

Parameters:

pSrc Source-Image Pointer.
nSrcStep Source-Image Line Step.
pDst Destination-Image Pointer.
nDstStep Destination-Image Line Step.
oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.37.2.5 NppStatus nppiNot_8u_C3IR (Npp8u ∗ *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*)

Three 8-bit unsigned char channel in place image logical not.

Parameters:

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.37.2.6 NppStatus nppiNot_8u_C3R (const Npp8u ∗ *pSrc*, int *nSrcStep*, Npp8u ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*)

Three 8-bit unsigned char channel image logical not.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.37.2.7 NppStatus nppiNot_8u_C4IR (Npp8u ∗ *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*)

Four 8-bit unsigned char channel in place image logical not.

Parameters:

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.37.2.8 NppStatus nppiNot_8u_C4R (const Npp8u $*$ *pSrc*, int *nSrcStep*, Npp8u $*$ *pDst*, int *nDstStep*, NppiSize *oSizeROI*)

Four 8-bit unsigned char channel image logical not.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.38 Alpha Composition

Modules

- AlphaCompC

  Composite two images using constant alpha values.

- AlphaPremulC

  Premultiplies pixels of an image using a constant alpha value.

- AlphaComp

  Composite two images using alpha opacity values contained in each image.

- AlphaPremul

  Premultiplies image pixels by image alpha opacity values.

7.39 AlphaCompC

Composite two images using constant alpha values.

Functions

- NppStatus nppiAlphaCompC_8u_C1R (const Npp8u ∗pSrc1, int nSrc1Step, Npp8u nAlpha1, const Npp8u ∗pSrc2, int nSrc2Step, Npp8u nAlpha2, Npp8u ∗pDst, int nDstStep, NppiSize oSizeROI, NppiAlphaOp eAlphaOp)

  One 8-bit unsigned char channel image composition using constant alpha.

- NppStatus nppiAlphaCompC_8u_C3R (const Npp8u ∗pSrc1, int nSrc1Step, Npp8u nAlpha1, const Npp8u ∗pSrc2, int nSrc2Step, Npp8u nAlpha2, Npp8u ∗pDst, int nDstStep, NppiSize oSizeROI, NppiAlphaOp eAlphaOp)

  Three 8-bit unsigned char channel image composition using constant alpha.

- NppStatus nppiAlphaCompC_8u_C4R (const Npp8u ∗pSrc1, int nSrc1Step, Npp8u nAlpha1, const Npp8u ∗pSrc2, int nSrc2Step, Npp8u nAlpha2, Npp8u ∗pDst, int nDstStep, NppiSize oSizeROI, NppiAlphaOp eAlphaOp)

  Four 8-bit unsigned char channel image composition using constant alpha.

- NppStatus nppiAlphaCompC_8u_AC4R (const Npp8u ∗pSrc1, int nSrc1Step, Npp8u nAlpha1, const Npp8u ∗pSrc2, int nSrc2Step, Npp8u nAlpha2, Npp8u ∗pDst, int nDstStep, NppiSize oSizeROI, NppiAlphaOp eAlphaOp)

  Four 8-bit unsigned char channel image composition with alpha using constant source alpha.

- NppStatus nppiAlphaCompC_8s_C1R (const Npp8s ∗pSrc1, int nSrc1Step, Npp8s nAlpha1, const Npp8s ∗pSrc2, int nSrc2Step, Npp8s nAlpha2, Npp8s ∗pDst, int nDstStep, NppiSize oSizeROI, NppiAlphaOp eAlphaOp)

  One 8-bit signed char channel image composition using constant alpha.

- NppStatus nppiAlphaCompC_16u_C1R (const Npp16u ∗pSrc1, int nSrc1Step, Npp16u nAlpha1, const Npp16u ∗pSrc2, int nSrc2Step, Npp16u nAlpha2, Npp16u ∗pDst, int nDstStep, NppiSize oSizeROI, NppiAlphaOp eAlphaOp)

  One 16-bit unsigned short channel image composition using constant alpha.

- NppStatus nppiAlphaCompC_16u_C3R (const Npp16u ∗pSrc1, int nSrc1Step, Npp16u nAlpha1, const Npp16u ∗pSrc2, int nSrc2Step, Npp16u nAlpha2, Npp16u ∗pDst, int nDstStep, NppiSize oSizeROI, NppiAlphaOp eAlphaOp)

  Three 16-bit unsigned short channel image composition using constant alpha.

- NppStatus nppiAlphaCompC_16u_C4R (const Npp16u ∗pSrc1, int nSrc1Step, Npp16u nAlpha1, const Npp16u ∗pSrc2, int nSrc2Step, Npp16u nAlpha2, Npp16u ∗pDst, int nDstStep, NppiSize oSizeROI, NppiAlphaOp eAlphaOp)

  Four 16-bit unsigned short channel image composition using constant alpha.

- NppStatus nppiAlphaCompC_16u_AC4R (const Npp16u ∗pSrc1, int nSrc1Step, Npp16u nAlpha1, const Npp16u ∗pSrc2, int nSrc2Step, Npp16u nAlpha2, Npp16u ∗pDst, int nDstStep, NppiSize oSizeROI, NppiAlphaOp eAlphaOp)

  Four 16-bit unsigned short channel image composition with alpha using constant source alpha.

- NppStatus nppiAlphaCompC_16s_C1R (const Npp16s ∗pSrc1, int nSrc1Step, Npp16s nAlpha1, const Npp16s ∗pSrc2, int nSrc2Step, Npp16s nAlpha2, Npp16s ∗pDst, int nDstStep, NppiSize oSizeROI, NppiAlphaOp eAlphaOp)

  One 16-bit signed short channel image composition using constant alpha.

- NppStatus nppiAlphaCompC_32u_C1R (const Npp32u ∗pSrc1, int nSrc1Step, Npp32u nAlpha1, const Npp32u ∗pSrc2, int nSrc2Step, Npp32u nAlpha2, Npp32u ∗pDst, int nDstStep, NppiSize oSizeROI, NppiAlphaOp eAlphaOp)

  One 32-bit unsigned integer channel image composition using constant alpha.

- NppStatus nppiAlphaCompC_32s_C1R (const Npp32s ∗pSrc1, int nSrc1Step, Npp32s nAlpha1, const Npp32s ∗pSrc2, int nSrc2Step, Npp32s nAlpha2, Npp32s ∗pDst, int nDstStep, NppiSize oSizeROI, NppiAlphaOp eAlphaOp)

  One 32-bit signed integer channel image composition using constant alpha.

- NppStatus nppiAlphaCompC_32f_C1R (const Npp32f ∗pSrc1, int nSrc1Step, Npp32f nAlpha1, const Npp32f ∗pSrc2, int nSrc2Step, Npp32f nAlpha2, Npp32f ∗pDst, int nDstStep, NppiSize oSizeROI, NppiAlphaOp eAlphaOp)

  One 32-bit floating point channel image composition using constant alpha.

7.39.1 Detailed Description

Composite two images using constant alpha values.

7.39.2 Function Documentation

7.39.2.1 NppStatus nppiAlphaCompC_16s_C1R (const Npp16s ∗ *pSrc1*, int *nSrc1Step*, Npp16s *nAlpha1*, const Npp16s ∗ *pSrc2*, int *nSrc2Step*, Npp16s *nAlpha2*, Npp16s ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, NppiAlphaOp *eAlphaOp*)

One 16-bit signed short channel image composition using constant alpha.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

nAlpha1 Image alpha opacity (0 - max channel pixel value).

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

nAlpha2 Image alpha opacity (0 - max channel pixel value).

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

eAlphaOp alpha-blending operation..

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.39.2.2 NppStatus nppiAlphaCompC_16u_AC4R (const Npp16u ∗ *pSrc1*, int *nSrc1Step*, Npp16u *nAlpha1*, const Npp16u ∗ *pSrc2*, int *nSrc2Step*, Npp16u *nAlpha2*, Npp16u ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, NppiAlphaOp *eAlphaOp*)

Four 16-bit unsigned short channel image composition with alpha using constant source alpha.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

nAlpha1 Image alpha opacity (0 - max channel pixel value).

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

nAlpha2 Image alpha opacity (0 - max channel pixel value).

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

eAlphaOp alpha-blending operation..

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.39.2.3 NppStatus nppiAlphaCompC_16u_C1R (const Npp16u ∗ *pSrc1*, int *nSrc1Step*, Npp16u *nAlpha1*, const Npp16u ∗ *pSrc2*, int *nSrc2Step*, Npp16u *nAlpha2*, Npp16u ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, NppiAlphaOp *eAlphaOp*)

One 16-bit unsigned short channel image composition using constant alpha.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

nAlpha1 Image alpha opacity (0 - max channel pixel value).

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

nAlpha2 Image alpha opacity (0 - max channel pixel value).

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

eAlphaOp alpha-blending operation..

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.39.2.4 NppStatus nppiAlphaCompC_16u_C3R (const Npp16u * *pSrc1*, int *nSrc1Step*, Npp16u *nAlpha1*, const Npp16u * *pSrc2*, int *nSrc2Step*, Npp16u *nAlpha2*, Npp16u * *pDst*, int *nDstStep*, NppiSize *oSizeROI*, NppiAlphaOp *eAlphaOp*)

Three 16-bit unsigned short channel image composition using constant alpha.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

nAlpha1 Image alpha opacity (0 - max channel pixel value).

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

nAlpha2 Image alpha opacity (0 - max channel pixel value).

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

eAlphaOp alpha-blending operation..

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.39.2.5 NppStatus nppiAlphaCompC_16u_C4R (const Npp16u * *pSrc1*, int *nSrc1Step*, Npp16u *nAlpha1*, const Npp16u * *pSrc2*, int *nSrc2Step*, Npp16u *nAlpha2*, Npp16u * *pDst*, int *nDstStep*, NppiSize *oSizeROI*, NppiAlphaOp *eAlphaOp*)

Four 16-bit unsigned short channel image composition using constant alpha.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

nAlpha1 Image alpha opacity (0 - max channel pixel value).

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

nAlpha2 Image alpha opacity (0 - max channel pixel value).

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

eAlphaOp alpha-blending operation..

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.39.2.6 NppStatus nppiAlphaCompC_32f_C1R (const Npp32f * *pSrc1*, int *nSrc1Step*, Npp32f *nAlpha1*, const Npp32f * *pSrc2*, int *nSrc2Step*, Npp32f *nAlpha2*, Npp32f * *pDst*, int *nDstStep*, NppiSize *oSizeROI*, NppiAlphaOp *eAlphaOp*)

One 32-bit floating point channel image composition using constant alpha.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

nAlpha1 Image alpha opacity (0.0 - 1.0).

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

nAlpha2 Image alpha opacity (0.0 - 1.0).

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

eAlphaOp alpha-blending operation..

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.39.2.7 NppStatus nppiAlphaCompC_32s_C1R (const Npp32s * *pSrc1*, int *nSrc1Step*, Npp32s *nAlpha1*, const Npp32s * *pSrc2*, int *nSrc2Step*, Npp32s *nAlpha2*, Npp32s * *pDst*, int *nDstStep*, NppiSize *oSizeROI*, NppiAlphaOp *eAlphaOp*)

One 32-bit signed integer channel image composition using constant alpha.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

nAlpha1 Image alpha opacity (0 - max channel pixel value).

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

nAlpha2 Image alpha opacity (0 - max channel pixel value).

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

eAlphaOp alpha-blending operation..

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.39.2.8 NppStatus nppiAlphaCompC_32u_C1R (const Npp32u ∗ *pSrc1*, int *nSrc1Step*, Npp32u *nAlpha1*, const Npp32u ∗ *pSrc2*, int *nSrc2Step*, Npp32u *nAlpha2*, Npp32u ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, NppiAlphaOp *eAlphaOp*)

One 32-bit unsigned integer channel image composition using constant alpha.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

nAlpha1 Image alpha opacity (0 - max channel pixel value).

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

nAlpha2 Image alpha opacity (0 - max channel pixel value).

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

eAlphaOp alpha-blending operation..

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.39.2.9 NppStatus nppiAlphaCompC_8s_C1R (const Npp8s ∗ *pSrc1*, int *nSrc1Step*, Npp8s *nAlpha1*, const Npp8s ∗ *pSrc2*, int *nSrc2Step*, Npp8s *nAlpha2*, Npp8s ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, NppiAlphaOp *eAlphaOp*)

One 8-bit signed char channel image composition using constant alpha.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

nAlpha1 Image alpha opacity (0 - max channel pixel value).

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

nAlpha2 Image alpha opacity (0 - max channel pixel value).

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

eAlphaOp alpha-blending operation..

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.39.2.10 NppStatus nppiAlphaCompC_8u_AC4R (const Npp8u * *pSrc1*, int *nSrc1Step*, Npp8u *nAlpha1*, const Npp8u * *pSrc2*, int *nSrc2Step*, Npp8u *nAlpha2*, Npp8u * *pDst*, int *nDstStep*, NppiSize *oSizeROI*, NppiAlphaOp *eAlphaOp*)

Four 8-bit unsigned char channel image composition with alpha using constant source alpha.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

nAlpha1 Image alpha opacity (0 - max channel pixel value).

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

nAlpha2 Image alpha opacity (0 - max channel pixel value).

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

eAlphaOp alpha-blending operation..

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.39.2.11 NppStatus nppiAlphaCompC_8u_C1R (const Npp8u * *pSrc1*, int *nSrc1Step*, Npp8u *nAlpha1*, const Npp8u * *pSrc2*, int *nSrc2Step*, Npp8u *nAlpha2*, Npp8u * *pDst*, int *nDstStep*, NppiSize *oSizeROI*, NppiAlphaOp *eAlphaOp*)

One 8-bit unsigned char channel image composition using constant alpha.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

nAlpha1 Image alpha opacity (0 - max channel pixel value).

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

nAlpha2 Image alpha opacity (0 - max channel pixel value).

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

eAlphaOp alpha-blending operation..

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.39.2.12 NppStatus nppiAlphaCompC_8u_C3R (const Npp8u ∗ *pSrc1*, int *nSrc1Step*, Npp8u *nAlpha1*, const Npp8u ∗ *pSrc2*, int *nSrc2Step*, Npp8u *nAlpha2*, Npp8u ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, NppiAlphaOp *eAlphaOp*)

Three 8-bit unsigned char channel image composition using constant alpha.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

nAlpha1 Image alpha opacity (0 - max channel pixel value).

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

nAlpha2 Image alpha opacity (0 - max channel pixel value).

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

eAlphaOp alpha-blending operation..

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.39.2.13 NppStatus nppiAlphaCompC_8u_C4R (const Npp8u ∗ *pSrc1*, int *nSrc1Step*, Npp8u *nAlpha1*, const Npp8u ∗ *pSrc2*, int *nSrc2Step*, Npp8u *nAlpha2*, Npp8u ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, NppiAlphaOp *eAlphaOp*)

Four 8-bit unsigned char channel image composition using constant alpha.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

nAlpha1 Image alpha opacity (0 - max channel pixel value).

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

nAlpha2 Image alpha opacity (0 - max channel pixel value).

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

eAlphaOp alpha-blending operation..

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.40 AlphaPremulC

Premultiplies pixels of an image using a constant alpha value.

Functions

- NppStatus nppiAlphaPremulC_8u_C1R (const Npp8u ∗pSrc1, int nSrc1Step, Npp8u nAlpha1, Npp8u ∗pDst, int nDstStep, NppiSize oSizeROI)

  One 8-bit unsigned char channel image premultiplication using constant alpha.

- NppStatus nppiAlphaPremulC_8u_C1IR (Npp8u nAlpha1, Npp8u ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI)

  One 8-bit unsigned char channel in place image premultiplication using constant alpha.

- NppStatus nppiAlphaPremulC_8u_C3R (const Npp8u ∗pSrc1, int nSrc1Step, Npp8u nAlpha1, Npp8u ∗pDst, int nDstStep, NppiSize oSizeROI)

  Three 8-bit unsigned char channel image premultiplication using constant alpha.

- NppStatus nppiAlphaPremulC_8u_C3IR (Npp8u nAlpha1, Npp8u ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI)

  Three 8-bit unsigned char channel in place image premultiplication using constant alpha.

- NppStatus nppiAlphaPremulC_8u_C4R (const Npp8u ∗pSrc1, int nSrc1Step, Npp8u nAlpha1, Npp8u ∗pDst, int nDstStep, NppiSize oSizeROI)

  Four 8-bit unsigned char channel image premultiplication using constant alpha.

- NppStatus nppiAlphaPremulC_8u_C4IR (Npp8u nAlpha1, Npp8u ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI)

  Four 8-bit unsigned char channel in place image premultiplication using constant alpha.

- NppStatus nppiAlphaPremulC_8u_AC4R (const Npp8u ∗pSrc1, int nSrc1Step, Npp8u nAlpha1, Npp8u ∗pDst, int nDstStep, NppiSize oSizeROI)

  Four 8-bit unsigned char channel image premultiplication with alpha using constant alpha.

- NppStatus nppiAlphaPremulC_8u_AC4IR (Npp8u nAlpha1, Npp8u ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI)

  Four 8-bit unsigned char channel in place image premultiplication with alpha using constant alpha.

- NppStatus nppiAlphaPremulC_16u_C1R (const Npp16u ∗pSrc1, int nSrc1Step, Npp16u nAlpha1, Npp16u ∗pDst, int nDstStep, NppiSize oSizeROI)

  One 16-bit unsigned short channel image premultiplication using constant alpha.

- NppStatus nppiAlphaPremulC_16u_C1IR (Npp16u nAlpha1, Npp16u ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI)

  One 16-bit unsigned short channel in place image premultiplication using constant alpha.

- NppStatus nppiAlphaPremulC_16u_C3R (const Npp16u ∗pSrc1, int nSrc1Step, Npp16u nAlpha1, Npp16u ∗pDst, int nDstStep, NppiSize oSizeROI)

  Three 16-bit unsigned short channel image premultiplication using constant alpha.

- NppStatus nppiAlphaPremulC_16u_C3IR (Npp16u nAlpha1, Npp16u ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI)

  Three 16-bit unsigned short channel in place image premultiplication using constant alpha.
- NppStatus nppiAlphaPremulC_16u_C4R (const Npp16u ∗pSrc1, int nSrc1Step, Npp16u nAlpha1, Npp16u ∗pDst, int nDstStep, NppiSize oSizeROI)

  Four 16-bit unsigned short channel image premultiplication using constant alpha.
- NppStatus nppiAlphaPremulC_16u_C4IR (Npp16u nAlpha1, Npp16u ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI)

  Four 16-bit unsigned short channel in place image premultiplication using constant alpha.
- NppStatus nppiAlphaPremulC_16u_AC4R (const Npp16u ∗pSrc1, int nSrc1Step, Npp16u nAlpha1, Npp16u ∗pDst, int nDstStep, NppiSize oSizeROI)

  Four 16-bit unsigned short channel image premultiplication with alpha using constant alpha.
- NppStatus nppiAlphaPremulC_16u_AC4IR (Npp16u nAlpha1, Npp16u ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI)

  Four 16-bit unsigned short channel in place image premultiplication with alpha using constant alpha.

7.40.1 Detailed Description

Premultiplies pixels of an image using a constant alpha value.

7.40.2 Function Documentation

7.40.2.1 NppStatus nppiAlphaPremulC_16u_AC4IR (Npp16u *nAlpha1*, Npp16u ∗ *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*)

Four 16-bit unsigned short channel in place image premultiplication with alpha using constant alpha.

Parameters:

nAlpha1 Image alpha opacity (0 - max channel pixel value).

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.40.2.2 NppStatus nppiAlphaPremulC_16u_AC4R (const Npp16u ∗ *pSrc1*, int *nSrc1Step*, Npp16u *nAlpha1*, Npp16u ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*)

Four 16-bit unsigned short channel image premultiplication with alpha using constant alpha.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

nAlpha1 Image alpha opacity (0 - max channel pixel value).

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.40.2.3 NppStatus nppiAlphaPremulC_16u_C1IR (Npp16u *nAlpha1*, Npp16u ∗ *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*)

One 16-bit unsigned short channel in place image premultiplication using constant alpha.

Parameters:

nAlpha1 Image alpha opacity (0 - max channel pixel value).

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.40.2.4 NppStatus nppiAlphaPremulC_16u_C1R (const Npp16u ∗ *pSrc1*, int *nSrc1Step*, Npp16u *nAlpha1*, Npp16u ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*)

One 16-bit unsigned short channel image premultiplication using constant alpha.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

nAlpha1 Image alpha opacity (0 - max channel pixel value).

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.40.2.5 NppStatus nppiAlphaPremulC_16u_C3IR (Npp16u *nAlpha1*, Npp16u ∗ *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*)

Three 16-bit unsigned short channel in place image premultiplication using constant alpha.

Parameters:

nAlpha1 Image alpha opacity (0 - max channel pixel value).

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.40.2.6 NppStatus nppiAlphaPremulC_16u_C3R (const Npp16u ∗ *pSrc1*, int *nSrc1Step*, Npp16u *nAlpha1*, Npp16u ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*)

Three 16-bit unsigned short channel image premultiplication using constant alpha.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

nAlpha1 Image alpha opacity (0 - max channel pixel value).

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.40.2.7 NppStatus nppiAlphaPremulC_16u_C4IR (Npp16u *nAlpha1*, Npp16u ∗ *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*)

Four 16-bit unsigned short channel in place image premultiplication using constant alpha.

Parameters:

nAlpha1 Image alpha opacity (0 - max channel pixel value).

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.40.2.8 NppStatus nppiAlphaPremulC_16u_C4R (const Npp16u * *pSrc1*, int *nSrc1Step*, Npp16u *nAlpha1*, Npp16u * *pDst*, int *nDstStep*, NppiSize *oSizeROI*)

Four 16-bit unsigned short channel image premultiplication using constant alpha.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

nAlpha1 Image alpha opacity (0 - max channel pixel value).

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.40.2.9 NppStatus nppiAlphaPremulC_8u_AC4IR (Npp8u *nAlpha1*, Npp8u * *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*)

Four 8-bit unsigned char channel in place image premultiplication with alpha using constant alpha.

Parameters:

nAlpha1 Image alpha opacity (0 - max channel pixel value).

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.40.2.10 NppStatus nppiAlphaPremulC_8u_AC4R (const Npp8u * *pSrc1*, int *nSrc1Step*, Npp8u *nAlpha1*, Npp8u * *pDst*, int *nDstStep*, NppiSize *oSizeROI*)

Four 8-bit unsigned char channel image premultiplication with alpha using constant alpha.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

nAlpha1 Image alpha opacity (0 - max channel pixel value).

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.40.2.11 NppStatus nppiAlphaPremulC_8u_C1IR (Npp8u *nAlpha1*, Npp8u ∗ *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*)

One 8-bit unsigned char channel in place image premultiplication using constant alpha.

Parameters:

nAlpha1 Image alpha opacity (0 - max channel pixel value).

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.40.2.12 NppStatus nppiAlphaPremulC_8u_C1R (const Npp8u ∗ *pSrc1*, int *nSrc1Step*, Npp8u *nAlpha1*, Npp8u ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*)

One 8-bit unsigned char channel image premultiplication using constant alpha.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

nAlpha1 Image alpha opacity (0 - max channel pixel value).

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.40.2.13 NppStatus nppiAlphaPremulC_8u_C3IR (Npp8u *nAlpha1*, Npp8u ∗ *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*)

Three 8-bit unsigned char channel in place image premultiplication using constant alpha.

Parameters:

nAlpha1 Image alpha opacity (0 - max channel pixel value).

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.40.2.14 NppStatus nppiAlphaPremulC_8u_C3R (const Npp8u ∗ *pSrc1*, int *nSrc1Step*, Npp8u *nAlpha1*, Npp8u ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*)

Three 8-bit unsigned char channel image premultiplication using constant alpha.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

nAlpha1 Image alpha opacity (0 - max channel pixel value).

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.40.2.15 NppStatus nppiAlphaPremulC_8u_C4IR (Npp8u *nAlpha1*, Npp8u ∗ *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*)

Four 8-bit unsigned char channel in place image premultiplication using constant alpha.

Parameters:

nAlpha1 Image alpha opacity (0 - max channel pixel value).

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.40.2.16 NppStatus nppiAlphaPremulC_8u_C4R (const Npp8u ∗ *pSrc1*, int *nSrc1Step*, Npp8u *nAlpha1*, Npp8u ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*)

Four 8-bit unsigned char channel image premultiplication using constant alpha.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

nAlpha1 Image alpha opacity (0 - max channel pixel value).

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.41 AlphaComp

Composite two images using alpha opacity values contained in each image.

Functions

- NppStatus nppiAlphaComp_8u_AC1R (const Npp8u ∗pSrc1, int nSrc1Step, const Npp8u ∗pSrc2, int nSrc2Step, Npp8u ∗pDst, int nDstStep, NppiSize oSizeROI, NppiAlphaOp eAlphaOp)

  One 8-bit unsigned char channel image composition using image alpha values (0 - max channel pixel value).

- NppStatus nppiAlphaComp_8u_AC4R (const Npp8u ∗pSrc1, int nSrc1Step, const Npp8u ∗pSrc2, int nSrc2Step, Npp8u ∗pDst, int nDstStep, NppiSize oSizeROI, NppiAlphaOp eAlphaOp)

  Four 8-bit unsigned char channel image composition using image alpha values (0 - max channel pixel value).

- NppStatus nppiAlphaComp_8s_AC1R (const Npp8s ∗pSrc1, int nSrc1Step, const Npp8s ∗pSrc2, int nSrc2Step, Npp8s ∗pDst, int nDstStep, NppiSize oSizeROI, NppiAlphaOp eAlphaOp)

  One 8-bit signed char channel image composition using image alpha values (0 - max channel pixel value).

- NppStatus nppiAlphaComp_16u_AC1R (const Npp16u ∗pSrc1, int nSrc1Step, const Npp16u ∗pSrc2, int nSrc2Step, Npp16u ∗pDst, int nDstStep, NppiSize oSizeROI, NppiAlphaOp eAlphaOp)

  One 16-bit unsigned short channel image composition using image alpha values (0 - max channel pixel value).

- NppStatus nppiAlphaComp_16u_AC4R (const Npp16u ∗pSrc1, int nSrc1Step, const Npp16u ∗pSrc2, int nSrc2Step, Npp16u ∗pDst, int nDstStep, NppiSize oSizeROI, NppiAlphaOp eAlphaOp)

  Four 16-bit unsigned short channel image composition using image alpha values (0 - max channel pixel value).

- NppStatus nppiAlphaComp_16s_AC1R (const Npp16s ∗pSrc1, int nSrc1Step, const Npp16s ∗pSrc2, int nSrc2Step, Npp16s ∗pDst, int nDstStep, NppiSize oSizeROI, NppiAlphaOp eAlphaOp)

  One 16-bit signed short channel image composition using image alpha values (0 - max channel pixel value).

- NppStatus nppiAlphaComp_32u_AC1R (const Npp32u ∗pSrc1, int nSrc1Step, const Npp32u ∗pSrc2, int nSrc2Step, Npp32u ∗pDst, int nDstStep, NppiSize oSizeROI, NppiAlphaOp eAlphaOp)

  One 32-bit unsigned integer channel image composition using image alpha values (0 - max channel pixel value).

- NppStatus nppiAlphaComp_32u_AC4R (const Npp32u ∗pSrc1, int nSrc1Step, const Npp32u ∗pSrc2, int nSrc2Step, Npp32u ∗pDst, int nDstStep, NppiSize oSizeROI, NppiAlphaOp eAlphaOp)

  Four 32-bit unsigned integer channel image composition using image alpha values (0 - max channel pixel value).

- NppStatus nppiAlphaComp_32s_AC1R (const Npp32s ∗pSrc1, int nSrc1Step, const Npp32s ∗pSrc2, int nSrc2Step, Npp32s ∗pDst, int nDstStep, NppiSize oSizeROI, NppiAlphaOp eAlphaOp)

  One 32-bit signed integer channel image composition using image alpha values (0 - max channel pixel value).

- NppStatus nppiAlphaComp_32s_AC4R (const Npp32s ∗pSrc1, int nSrc1Step, const Npp32s ∗pSrc2, int nSrc2Step, Npp32s ∗pDst, int nDstStep, NppiSize oSizeROI, NppiAlphaOp eAlphaOp)

  Four 32-bit signed integer channel image composition using image alpha values (0 - max channel pixel value).

- NppStatus nppiAlphaComp_32f_AC1R (const Npp32f ∗pSrc1, int nSrc1Step, const Npp32f ∗pSrc2, int nSrc2Step, Npp32f ∗pDst, int nDstStep, NppiSize oSizeROI, NppiAlphaOp eAlphaOp)

  One 32-bit floating point channel image composition using image alpha values (0.0 - 1.0).

- NppStatus nppiAlphaComp_32f_AC4R (const Npp32f ∗pSrc1, int nSrc1Step, const Npp32f ∗pSrc2, int nSrc2Step, Npp32f ∗pDst, int nDstStep, NppiSize oSizeROI, NppiAlphaOp eAlphaOp)

  Four 32-bit floating point channel image composition using image alpha values (0.0 - 1.0).

7.41.1 Detailed Description

Composite two images using alpha opacity values contained in each image.

7.41.2 Function Documentation

7.41.2.1 NppStatus nppiAlphaComp_16s_AC1R (const Npp16s ∗ *pSrc1*, int *nSrc1Step*, const Npp16s ∗ *pSrc2*, int *nSrc2Step*, Npp16s ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, NppiAlphaOp *eAlphaOp*)

One 16-bit signed short channel image composition using image alpha values (0 - max channel pixel value).

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

eAlphaOp alpha-blending operation..

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.41.2.2 NppStatus nppiAlphaComp_16u_AC1R (const Npp16u ∗ *pSrc1*, int *nSrc1Step*, const Npp16u ∗ *pSrc2*, int *nSrc2Step*, Npp16u ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, NppiAlphaOp *eAlphaOp*)

One 16-bit unsigned short channel image composition using image alpha values (0 - max channel pixel value).

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

eAlphaOp alpha-blending operation..

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.41.2.3 NppStatus nppiAlphaComp_16u_AC4R (const Npp16u * *pSrc1*, int *nSrc1Step*, const Npp16u * *pSrc2*, int *nSrc2Step*, Npp16u * *pDst*, int *nDstStep*, NppiSize *oSizeROI*, NppiAlphaOp *eAlphaOp*)

Four 16-bit unsigned short channel image composition using image alpha values (0 - max channel pixel value).

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

eAlphaOp alpha-blending operation..

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.41.2.4 NppStatus nppiAlphaComp_32f_AC1R (const Npp32f * *pSrc1*, int *nSrc1Step*, const Npp32f * *pSrc2*, int *nSrc2Step*, Npp32f * *pDst*, int *nDstStep*, NppiSize *oSizeROI*, NppiAlphaOp *eAlphaOp*)

One 32-bit floating point channel image composition using image alpha values (0.0 - 1.0).

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

eAlphaOp alpha-blending operation..

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.41.2.5 NppStatus nppiAlphaComp_32f_AC4R (const Npp32f ∗ *pSrc1*, int *nSrc1Step*, const Npp32f ∗ *pSrc2*, int *nSrc2Step*, Npp32f ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, NppiAlphaOp *eAlphaOp*)

Four 32-bit floating point channel image composition using image alpha values (0.0 - 1.0).

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

eAlphaOp alpha-blending operation..

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.41.2.6 NppStatus nppiAlphaComp_32s_AC1R (const Npp32s ∗ *pSrc1*, int *nSrc1Step*, const Npp32s ∗ *pSrc2*, int *nSrc2Step*, Npp32s ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, NppiAlphaOp *eAlphaOp*)

One 32-bit signed integer channel image composition using image alpha values (0 - max channel pixel value).

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

eAlphaOp alpha-blending operation..

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.41.2.7 NppStatus nppiAlphaComp_32s_AC4R (const Npp32s ∗ *pSrc1*, int *nSrc1Step*, const Npp32s ∗ *pSrc2*, int *nSrc2Step*, Npp32s ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, NppiAlphaOp *eAlphaOp*)

Four 32-bit signed integer channel image composition using image alpha values (0 - max channel pixel value).

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

eAlphaOp alpha-blending operation..

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.41.2.8 NppStatus nppiAlphaComp_32u_AC1R (const Npp32u ∗ *pSrc1*, int *nSrc1Step*, const Npp32u ∗ *pSrc2*, int *nSrc2Step*, Npp32u ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, NppiAlphaOp *eAlphaOp*)

One 32-bit unsigned integer channel image composition using image alpha values (0 - max channel pixel value).

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

eAlphaOp alpha-blending operation..

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.41.2.9 NppStatus nppiAlphaComp_32u_AC4R (const Npp32u ∗ *pSrc1*, int *nSrc1Step*, const Npp32u ∗ *pSrc2*, int *nSrc2Step*, Npp32u ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, NppiAlphaOp *eAlphaOp*)

Four 32-bit unsigned integer channel image composition using image alpha values (0 - max channel pixel value).

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

eAlphaOp alpha-blending operation..

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.41.2.10 NppStatus nppiAlphaComp_8s_AC1R (const Npp8s ∗ *pSrc1*, int *nSrc1Step*, const Npp8s ∗ *pSrc2*, int *nSrc2Step*, Npp8s ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, NppiAlphaOp *eAlphaOp*)

One 8-bit signed char channel image composition using image alpha values (0 - max channel pixel value).

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

eAlphaOp alpha-blending operation..

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.41.2.11 NppStatus nppiAlphaComp_8u_AC1R (const Npp8u ∗ *pSrc1*, int *nSrc1Step*, const Npp8u ∗ *pSrc2*, int *nSrc2Step*, Npp8u ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, NppiAlphaOp *eAlphaOp*)

One 8-bit unsigned char channel image composition using image alpha values (0 - max channel pixel value).

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

eAlphaOp alpha-blending operation..

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.41.2.12 NppStatus nppiAlphaComp_8u_AC4R (const Npp8u ∗ *pSrc1*, int *nSrc1Step*, const Npp8u ∗ *pSrc2*, int *nSrc2Step*, Npp8u ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, NppiAlphaOp *eAlphaOp*)

Four 8-bit unsigned char channel image composition using image alpha values (0 - max channel pixel value).

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

eAlphaOp alpha-blending operation..

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.42 AlphaPremul

Premultiplies image pixels by image alpha opacity values.

Functions

- NppStatus nppiAlphaPremul_8u_AC4R (const Npp8u ∗pSrc1, int nSrc1Step, Npp8u ∗pDst, int nDstStep, NppiSize oSizeROI)

  Four 8-bit unsigned char channel image premultiplication with pixel alpha (0 - max channel pixel value).

- NppStatus nppiAlphaPremul_8u_AC4IR (Npp8u ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI)

  Four 8-bit unsigned char channel in place image premultiplication with pixel alpha (0 - max channel pixel value).

- NppStatus nppiAlphaPremul_16u_AC4R (const Npp16u ∗pSrc1, int nSrc1Step, Npp16u ∗pDst, int nDstStep, NppiSize oSizeROI)

  Four 16-bit unsigned short channel image premultiplication with pixel alpha (0 - max channel pixel value).

- NppStatus nppiAlphaPremul_16u_AC4IR (Npp16u ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI)

  Four 16-bit unsigned short channel in place image premultiplication with pixel alpha (0 - max channel pixel value).

7.42.1 Detailed Description

Premultiplies image pixels by image alpha opacity values.

7.42.2 Function Documentation

7.42.2.1 NppStatus nppiAlphaPremul_16u_AC4IR (Npp16u ∗ *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*)

Four 16-bit unsigned short channel in place image premultiplication with pixel alpha (0 - max channel pixel value).

Parameters:

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.42.2.2 NppStatus nppiAlphaPremul_16u_AC4R (const Npp16u ∗ *pSrc1*, int *nSrc1Step*, Npp16u ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*)

Four 16-bit unsigned short channel image premultiplication with pixel alpha (0 - max channel pixel value).

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.42.2.3 NppStatus nppiAlphaPremul_8u_AC4IR (Npp8u ∗ *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*)

Four 8-bit unsigned char channel in place image premultiplication with pixel alpha (0 - max channel pixel value).

Parameters:

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.42.2.4 NppStatus nppiAlphaPremul_8u_AC4R (const Npp8u ∗ *pSrc1*, int *nSrc1Step*, Npp8u ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*)

Four 8-bit unsigned char channel image premultiplication with pixel alpha (0 - max channel pixel value).

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.43 Color and Sampling Conversion

Routines manipulating an image's color model and sampling format.

Modules

- Color Model Conversion

  Routines for converting between various image color models.

- Color Sampling Format Conversion

  Routines for converting between various image color sampling formats.

- Color Gamma Correction

  Routines for correcting image color gamma.

- Complement Color Key

  Routines for performing complement color key replacement.

- Color Processing

  Routines for performing image color manipulation.

7.43.1 Detailed Description

Routines manipulating an image's color model and sampling format.

7.44 Color Model Conversion

Routines for converting between various image color models.

RGBToYUV

RGB to YUV color conversion.

Here is how NPP converts gamma corrected RGB or BGR to YUV. For digital RGB values in the range [0..255], Y has the range [0..255], U varies in the range [-112..+112], and V in the range [-157..+157]. To fit in the range of [0..255], a constant value of 128 is added to computed U and V values, and V is then saturated.

```
Npp32f nY =  0.299F * R + 0.587F * G + 0.114F * B;
Npp32f nU = (0.492F * ((Npp32f)nB - nY)) + 128.0F;
Npp32f nV = (0.877F * ((Npp32f)nR - nY)) + 128.0F;
if (nV > 255.0F)
    nV = 255.0F;
```

- NppStatus nppiRGBToYUV_8u_C3R (const Npp8u ∗pSrc, int nSrcStep, Npp8u ∗pDst, int nDstStep, NppiSize oSizeROI)

  3 channel 8-bit unsigned packed RGB to 3 channel 8-bit unsigned packed YUV color conversion.

- NppStatus nppiRGBToYUV_8u_AC4R (const Npp8u ∗pSrc, int nSrcStep, Npp8u ∗pDst, int nDstStep, NppiSize oSizeROI)

  4 channel 8-bit unsigned packed RGB with alpha to 4 channel 8-bit unsigned packed YUV color conversion with alpha, not affecting alpha.

- NppStatus nppiRGBToYUV_8u_P3R (const Npp8u ∗const pSrc[3], int nSrcStep, Npp8u ∗pDst[3], int nDstStep, NppiSize oSizeROI)

  3 channel 8-bit unsigned planar RGB to 3 channel 8-bit unsigned planar YUV color conversion.

- NppStatus nppiRGBToYUV_8u_C3P3R (const Npp8u ∗pSrc, int nSrcStep, Npp8u ∗pDst[3], int nDstStep, NppiSize oSizeROI)

  3 channel 8-bit unsigned packed RGB to 3 channel 8-bit unsigned planar YUV color conversion.

- NppStatus nppiRGBToYUV_8u_AC4P4R (const Npp8u ∗pSrc, int nSrcStep, Npp8u ∗pDst[4], int nDstStep, NppiSize oSizeROI)

  4 channel 8-bit unsigned packed RGB with alpha to 4 channel 8-bit unsigned planar YUV color conversion with alpha.

BGRToYUV

BGR to YUV color conversion.

Here is how NPP converts gamma corrected RGB or BGR to YUV. For digital RGB values in the range [0..255], Y has the range [0..255], U varies in the range [-112..+112], and V in the range [-157..+157]. To fit in the range of [0..255], a constant value of 128 is added to computed U and V values, and V is then saturated.

```
Npp32f nY =  0.299F * R + 0.587F * G + 0.114F * B;
Npp32f nU = (0.492F * ((Npp32f)nB - nY)) + 128.0F;
Npp32f nV = (0.877F * ((Npp32f)nR - nY)) + 128.0F;
if (nV > 255.0F)
    nV = 255.0F;
```

- NppStatus nppiBGRToYUV_8u_C3R (const Npp8u ∗pSrc, int nSrcStep, Npp8u ∗pDst, int nDstStep, NppiSize oSizeROI)

  3 channel 8-bit unsigned packed BGR to 3 channel 8-bit unsigned packed YUV color conversion.

- NppStatus nppiBGRToYUV_8u_AC4R (const Npp8u ∗pSrc, int nSrcStep, Npp8u ∗pDst, int nDstStep, NppiSize oSizeROI)

  4 channel 8-bit unsigned packed BGR with alpha to 4 channel 8-bit unsigned packed YUV color conversion with alpha, not affecting alpha.

- NppStatus nppiBGRToYUV_8u_P3R (const Npp8u ∗const pSrc[3], int nSrcStep, Npp8u ∗pDst[3], int nDstStep, NppiSize oSizeROI)

  3 channel 8-bit unsigned planar BGR to 3 channel 8-bit unsigned planar YUV color conversion.

- NppStatus nppiBGRToYUV_8u_C3P3R (const Npp8u ∗pSrc, int nSrcStep, Npp8u ∗pDst[3], int nDstStep, NppiSize oSizeROI)

  3 channel 8-bit unsigned packed BGR to 3 channel 8-bit unsigned planar YUV color conversion.

- NppStatus nppiBGRToYUV_8u_AC4P4R (const Npp8u ∗pSrc, int nSrcStep, Npp8u ∗pDst[4], int nDstStep, NppiSize oSizeROI)

  4 channel 8-bit unsigned packed BGR with alpha to 4 channel 8-bit unsigned planar YUV color conversion with alpha.

YUVToRGB

YUV to RGB color conversion.

Here is how NPP converts YUV to gamma corrected RGB or BGR.

```
Npp32f nY = (Npp32f)Y;
Npp32f nU = (Npp32f)U - 128.0F;
Npp32f nV = (Npp32f)V - 128.0F;
Npp32f nR = nY + 1.140F * nV;
if (nR < 0.0F)
    nR = 0.0F;
if (nR > 255.0F)
    nR = 255.0F;
Npp32f nG = nY - 0.394F * nU - 0.581F * nV;
if (nG < 0.0F)
    nG = 0.0F;
if (nG > 255.0F)
    nG = 255.0F;
Npp32f nB = nY + 2.032F * nU;
if (nB < 0.0F)
    nB = 0.0F;
if (nB > 255.0F)
    nB = 255.0F;
```

- NppStatus nppiYUVToRGB_8u_C3R (const Npp8u ∗pSrc, int nSrcStep, Npp8u ∗pDst, int nDstStep, NppiSize oSizeROI)

3 channel 8-bit unsigned packed YUV to 3 channel 8-bit unsigned packed RGB color conversion.

- NppStatus nppiYUVToRGB_8u_AC4R (const Npp8u ∗pSrc, int nSrcStep, Npp8u ∗pDst, int nDstStep, NppiSize oSizeROI)

  4 channel 8-bit packed YUV with alpha to 4 channel 8-bit unsigned packed RGB color conversion with alpha, not affecting alpha.

- NppStatus nppiYUVToRGB_8u_P3R (const Npp8u ∗const pSrc[3], int nSrcStep, Npp8u ∗pDst[3], int nDstStep, NppiSize oSizeROI)

  3 channel 8-bit unsigned planar YUV to 3 channel 8-bit unsigned planar RGB color conversion.

- NppStatus nppiYUVToRGB_8u_P3C3R (const Npp8u ∗const pSrc[3], int nSrcStep, Npp8u ∗pDst, int nDstStep, NppiSize oSizeROI)

  3 channel 8-bit unsigned planar YUV to 3 channel 8-bit unsigned packed RGB color conversion.

YUVToBGR

YUV to BGR color conversion.

Here is how NPP converts YUV to gamma corrected RGB or BGR.

```
Npp32f nY = (Npp32f)Y;
Npp32f nU = (Npp32f)U - 128.0F;
Npp32f nV = (Npp32f)V - 128.0F;
Npp32f nR = nY + 1.140F * nV;
if (nR < 0.0F)
    nR = 0.0F;
if (nR > 255.0F)
    nR = 255.0F;
Npp32f nG = nY - 0.394F * nU - 0.581F * nV;
if (nG < 0.0F)
    nG = 0.0F;
if (nG > 255.0F)
    nG = 255.0F;
Npp32f nB = nY + 2.032F * nU;
if (nB < 0.0F)
    nB = 0.0F;
if (nB > 255.0F)
    nB = 255.0F;
```

- NppStatus nppiYUVToBGR_8u_C3R (const Npp8u ∗pSrc, int nSrcStep, Npp8u ∗pDst, int nDstStep, NppiSize oSizeROI)

  3 channel 8-bit unsigned packed YUV to 3 channel 8-bit unsigned packed BGR color conversion.

- NppStatus nppiYUVToBGR_8u_AC4R (const Npp8u ∗pSrc, int nSrcStep, Npp8u ∗pDst, int nDstStep, NppiSize oSizeROI)

  4 channel 8-bit packed YUV with alpha to 4 channel 8-bit unsigned packed BGR color conversion with alpha, not affecting alpha.

- NppStatus nppiYUVToBGR_8u_P3R (const Npp8u ∗const pSrc[3], int nSrcStep, Npp8u ∗pDst[3], int nDstStep, NppiSize oSizeROI)

  3 channel 8-bit unsigned planar YUV to 3 channel 8-bit unsigned planar BGR color conversion.

- NppStatus nppiYUVToBGR_8u_P3C3R (const Npp8u ∗const pSrc[3], int nSrcStep, Npp8u ∗pDst, int nDstStep, NppiSize oSizeROI)

3 channel 8-bit unsigned planar YUV to 3 channel 8-bit unsigned packed BGR color conversion.

RGBToYUV422

RGB to YUV422 color conversion.

- NppStatus nppiRGBToYUV422_8u_C3C2R (const Npp8u ∗pSrc, int nSrcStep, Npp8u ∗pDst, int nDstStep, NppiSize oSizeROI)

  3 channel 8-bit unsigned packed RGB to 2 channel 8-bit unsigned packed YUV422 color conversion.

- NppStatus nppiRGBToYUV422_8u_P3R (const Npp8u ∗const pSrc[3], int nSrcStep, Npp8u ∗pDst[3], int rDstStep[3], NppiSize oSizeROI)

  3 channel 8-bit unsigned planar RGB to 3 channel 8-bit unsigned planar YUV422 color conversion.

- NppStatus nppiRGBToYUV422_8u_C3P3R (const Npp8u ∗pSrc, int nSrcStep, Npp8u ∗pDst[3], int rDstStep[3], NppiSize oSizeROI)

  3 channel 8-bit unsigned packed RGB to 3 channel 8-bit unsigned planar YUV422 color conversion.

YUV422ToRGB

YUV422 to RGB color conversion.

- NppStatus nppiYUV422ToRGB_8u_C2C3R (const Npp8u ∗pSrc, int nSrcStep, Npp8u ∗pDst, int nDstStep, NppiSize oSizeROI)

  2 channel 8-bit unsigned packed YUV422 to 3 channel 8-bit unsigned packed RGB color conversion.

- NppStatus nppiYUV422ToRGB_8u_P3R (const Npp8u ∗const pSrc[3], int rSrcStep[3], Npp8u ∗pDst[3], int nDstStep, NppiSize oSizeROI)

  3 channel 8-bit unsigned planar YUV422 to 3 channel 8-bit unsigned planar RGB color conversion.

- NppStatus nppiYUV422ToRGB_8u_P3C3R (const Npp8u ∗const pSrc[3], int rSrcStep[3], Npp8u ∗pDst, int nDstStep, NppiSize oSizeROI)

  3 channel 8-bit unsigned planar YUV422 to 3 channel 8-bit unsigned packed RGB color conversion.

- NppStatus nppiYUV422ToRGB_8u_P3AC4R (const Npp8u ∗const pSrc[3], int rSrcStep[3], Npp8u ∗pDst, int nDstStep, NppiSize oSizeROI)

  3 channel 8-bit unsigned planar YUV422 to 4 channel 8-bit unsigned packed RGB color conversion with alpha.

RGBToYUV420

RGB to YUV420 color conversion.

- NppStatus nppiRGBToYUV420_8u_P3R (const Npp8u ∗const pSrc[3], int nSrcStep, Npp8u ∗pDst[3], int rDstStep[3], NppiSize oSizeROI)

  3 channel 8-bit unsigned planar RGB to 3 channel 8-bit unsigned planar YUV420 color conversion.

- NppStatus nppiRGBToYUV420_8u_C3P3R (const Npp8u ∗pSrc, int nSrcStep, Npp8u ∗pDst[3], int rDstStep[3], NppiSize oSizeROI)

  3 channel 8-bit unsigned packed RGB to 3 channel 8-bit unsigned planar YUV420 color conversion.

YUV420ToRGB

YUV420 to RGB color conversion.

- NppStatus nppiYUV420ToRGB_8u_P3R (const Npp8u ∗const pSrc[3], int rSrcStep[3], Npp8u ∗pDst[3], int nDstStep, NppiSize oSizeROI)

  3 channel 8-bit unsigned planar YUV420 to 3 channel 8-bit unsigned planar RGB color conversion.

- NppStatus nppiYUV420ToRGB_8u_P3C3R (const Npp8u ∗const pSrc[3], int rSrcStep[3], Npp8u ∗pDst, int nDstStep, NppiSize oSizeROI)

  3 channel 8-bit unsigned planar YUV420 to 3 channel 8-bit unsigned packed RGB color conversion.

- NppStatus nppiYUV420ToRGB_8u_P3C4R (const Npp8u ∗const pSrc[3], int rSrcStep[3], Npp8u ∗pDst, int nDstStep, NppiSize oSizeROI)

  3 channel 8-bit unsigned planar YUV420 to 4 channel 8-bit unsigned packed RGB color conversion with constant alpha (0xFF).

- NppStatus nppiYUV420ToRGB_8u_P3AC4R (const Npp8u ∗const pSrc[3], int rSrcStep[3], Npp8u ∗pDst, int nDstStep, NppiSize oSizeROI)

  3 channel 8-bit unsigned planar YUV420 to 4 channel 8-bit unsigned packed RGB color conversion with alpha.

NV21ToRGB

NV21 to RGB color conversion.

- NppStatus nppiNV21ToRGB_8u_P2C4R (const Npp8u ∗const pSrc[2], int rSrcStep, Npp8u ∗pDst, int nDstStep, NppiSize oSizeROI)

  2 channel 8-bit unsigned planar NV21 to 4 channel 8-bit unsigned packed ARGB color conversion with constant alpha (0xFF).

BGRToYUV420

BGR to YUV420 color conversion.

- NppStatus nppiBGRToYUV420_8u_AC4P3R (const Npp8u ∗pSrc, int nSrcStep, Npp8u ∗pDst[3], int rDstStep[3], NppiSize oSizeROI)

  4 channel 8-bit unsigned pacmed BGR with alpha to 3 channel 8-bit unsigned planar YUV420 color conversion.

YUV420ToBGR

YUV420 to BGR color conversion.

- NppStatus nppiYUV420ToBGR_8u_P3C3R (const Npp8u ∗const pSrc[3], int rSrcStep[3], Npp8u ∗pDst, int nDstStep, NppiSize oSizeROI)

  3 channel 8-bit unsigned planar YUV420 to 3 channel 8-bit unsigned packed BGR color conversion.

- NppStatus nppiYUV420ToBGR_8u_P3C4R (const Npp8u ∗const pSrc[3], int rSrcStep[3], Npp8u ∗pDst, int nDstStep, NppiSize oSizeROI)

  3 channel 8-bit unsigned planar YUV420 to 4 channel 8-bit unsigned packed BGR color conversion with constant alpha (0xFF).

NV21ToBGR

NV21 to BGR color conversion.

- NppStatus nppiNV21ToBGR_8u_P2C4R (const Npp8u ∗const pSrc[2], int rSrcStep, Npp8u ∗pDst, int nDstStep, NppiSize oSizeROI)

  2 channel 8-bit unsigned planar NV21 to 4 channel 8-bit unsigned packed BGRA color conversion with constant alpha (0xFF).

RGBToYCbCr

RGB to YCbCr color conversion.

Here is how NPP converts gamma corrected RGB or BGR to YCbCr. In the YCbCr model, Y is defined to have a nominal range [16..235], while Cb and Cr are defined to have a range [16..240], with the value of 128 as corresponding to zero.

```
Npp32f nY  =  0.257F * R + 0.504F * G + 0.098F * B + 16.0F;
Npp32f nCb = -0.148F * R - 0.291F * G + 0.439F * B + 128.0F;
Npp32f nCr =  0.439F * R - 0.368F * G - 0.071F * B + 128.0F;
```

- NppStatus nppiRGBToYCbCr_8u_C3R (const Npp8u ∗pSrc, int nSrcStep, Npp8u ∗pDst, int nDstStep, NppiSize oSizeROI)

  3 channel 8-bit unsigned packed RGB to 3 channel unsigned 8-bit packed YCbCr color conversion.

- NppStatus nppiRGBToYCbCr_8u_AC4R (const Npp8u ∗pSrc, int nSrcStep, Npp8u ∗pDst, int nDstStep, NppiSize oSizeROI)

  4 channel 8-bit unsigned packed RGB with alpha to 4 channel unsigned 8-bit packed YCbCr with alpha color conversion, not affecting alpha.

- NppStatus nppiRGBToYCbCr_8u_P3R (const Npp8u ∗const pSrc[3], int nSrcStep, Npp8u ∗pDst[3], int nDstStep, NppiSize oSizeROI)

  3 channel planar 8-bit unsigned RGB to 3 channel planar 8-bit YCbCr color conversion.

- NppStatus nppiRGBToYCbCr_8u_C3P3R (const Npp8u ∗pSrc, int nSrcStep, Npp8u ∗pDst[3], int nDstStep, NppiSize oSizeROI)

3 channel 8-bit unsigned packed RGB to 3 channel unsigned 8-bit planar YCbCr color conversion.

- NppStatus nppiRGBToYCbCr_8u_AC4P3R (const Npp8u ∗pSrc, int nSrcStep, Npp8u ∗pDst[3], int nDstStep, NppiSize oSizeROI)

  4 channel 8-bit unsigned packed RGB with alpha to 3 channel 8-bit unsigned planar YCbCr color conversion.

YCbCrToRGB

YCbCr to RGB color conversion.

Here is how NPP converts YCbCr to gamma corrected RGB or BGR. The output RGB values are saturated to the range [0..255].

```
Npp32f nY = 1.164F * ((Npp32f)Y - 16.0F);
Npp32f nR = ((Npp32f)Cr - 128.0F);
Npp32f nB = ((Npp32f)Cb - 128.0F);
Npp32f nG = nY - 0.813F * nR - 0.392F * nB;
if (nG > 255.0F)
    nG = 255.0F;
nR = nY + 1.596F * nR;
if (nR > 255.0F)
    nR = 255.0F;
nB = nY + 2.017F * nB;
if (nB > 255.0F)
    nB = 255.0F;
```

- NppStatus nppiYCbCrToRGB_8u_C3R (const Npp8u ∗pSrc, int nSrcStep, Npp8u ∗pDst, int nDstStep, NppiSize oSizeROI)

  3 channel 8-bit unsigned packed YCbCr to 3 channel 8-bit unsigned packed RGB color conversion.

- NppStatus nppiYCbCrToRGB_8u_AC4R (const Npp8u ∗pSrc, int nSrcStep, Npp8u ∗pDst, int nDstStep, NppiSize oSizeROI)

  4 channel 8-bit unsigned packed YCbCr with alpha to 4 channel 8-bit unsigned packed RGB with alpha color conversion, not affecting alpha.

- NppStatus nppiYCbCrToRGB_8u_P3R (const Npp8u ∗const pSrc[3], int nSrcStep, Npp8u ∗pDst[3], int nDstStep, NppiSize oSizeROI)

  3 channel 8-bit unsigned planar YCbCr to 3 channel 8-bit unsigned planar RGB color conversion.

- NppStatus nppiYCbCrToRGB_8u_P3C3R (const Npp8u ∗const pSrc[3], int nSrcStep, Npp8u ∗pDst, int nDstStep, NppiSize oSizeROI)

  3 channel 8-bit unsigned planar YCbCr to 3 channel 8-bit unsigned packed RGB color conversion.

- NppStatus nppiYCbCrToRGB_8u_P3C4R (const Npp8u ∗const pSrc[3], int nSrcStep, Npp8u ∗pDst, int nDstStep, NppiSize oSizeROI, Npp8u nAval)

  3 channel 8-bit unsigned planar YCbCr to 4 channel 8-bit unsigned packed RGB color conversion with constant alpha.

YCbCrToBGR

YCbCr to BGR color conversion.

- NppStatus nppiYCbCrToBGR_8u_P3C3R (const Npp8u ∗const pSrc[3], int nSrcStep, Npp8u ∗pDst, int nDstStep, NppiSize oSizeROI)

  3 channel 8-bit unsigned planar YCbCr to 3 channel 8-bit unsigned packed BGR color conversion.

- NppStatus nppiYCbCrToBGR_8u_P3C4R (const Npp8u ∗const pSrc[3], int nSrcStep, Npp8u ∗pDst, int nDstStep, NppiSize oSizeROI, Npp8u nAval)

  3 channel 8-bit unsigned planar YCbCr to 4 channel 8-bit unsigned packed BGR color conversion with constant alpha.

YCbCrToBGR_709CSC

YCbCr to BGR_709CSC color conversion.

- NppStatus nppiYCbCrToBGR_709CSC_8u_P3C3R (const Npp8u ∗const pSrc[3], int nSrcStep, Npp8u ∗pDst, int nDstStep, NppiSize oSizeROI)

  3 channel 8-bit unsigned planar YCbCr to 3 channel 8-bit unsigned packed BGR_709CSC color conversion.

- NppStatus nppiYCbCrToBGR_709CSC_8u_P3C4R (const Npp8u ∗const pSrc[3], int nSrcStep, Npp8u ∗pDst, int nDstStep, NppiSize oSizeROI, Npp8u nAval)

  3 channel 8-bit unsigned planar YCbCr to 4 channel 8-bit unsigned packed BGR_709CSC color conversion with constant alpha.

RGBToYCbCr422

RGB to YCbCr422 color conversion.

- NppStatus nppiRGBToYCbCr422_8u_C3C2R (const Npp8u ∗pSrc, int nSrcStep, Npp8u ∗pDst, int nDstStep, NppiSize oSizeROI)

  3 channel 8-bit unsigned packed RGB to 2 channel 8-bit unsigned packed YCbCr422 color conversion.

- NppStatus nppiRGBToYCbCr422_8u_C3P3R (const Npp8u ∗pSrc, int nSrcStep, Npp8u ∗pDst[3], int rDstStep[3], NppiSize oSizeROI)

  3 channel 8-bit unsigned packed RGB to 3 channel 8-bit unsigned planar YCbCr422 color conversion.

- NppStatus nppiRGBToYCbCr422_8u_P3C2R (const Npp8u ∗const pSrc[3], int nSrcStep, Npp8u ∗pDst, int nDstStep, NppiSize oSizeROI)

  3 channel 8-bit unsigned planar RGB to 2 channel 8-bit unsigned packed YCbCr422 color conversion.

YCbCr422ToRGB

YCbCr422 to RGB color conversion.

- NppStatus nppiYCbCr422ToRGB_8u_C2C3R (const Npp8u ∗pSrc, int nSrcStep, Npp8u ∗pDst, int nDstStep, NppiSize oSizeROI)

  2 channel 8-bit unsigned packed YCbCr422 to 3 channel 8-bit unsigned packed RGB color conversion.

- NppStatus nppiYCbCr422ToRGB_8u_C2P3R (const Npp8u ∗pSrc, int nSrcStep, Npp8u ∗pDst[3], int nDstStep, NppiSize oSizeROI)

  2 channel 8-bit unsigned packed YCbCr422 to 3 channel 8-bit unsigned planar RGB color conversion.

- NppStatus nppiYCbCr422ToRGB_8u_P3C3R (const Npp8u ∗const pSrc[3], int rSrcStep[3], Npp8u ∗pDst, int nDstStep, NppiSize oSizeROI)

  3 channel 8-bit unsigned planar YCbCr422 to 3 channel 8-bit unsigned packed RGB color conversion.

RGBToYCrCb422

RGB to YCrCb422 color conversion.

- NppStatus nppiRGBToYCrCb422_8u_C3C2R (const Npp8u ∗pSrc, int nSrcStep, Npp8u ∗pDst, int nDstStep, NppiSize oSizeROI)

  3 channel 8-bit unsigned packed RGB to 2 channel 8-bit unsigned packed YCrCb422 color conversion.

- NppStatus nppiRGBToYCrCb422_8u_P3C2R (const Npp8u ∗const pSrc[3], int nSrcStep, Npp8u ∗pDst, int nDstStep, NppiSize oSizeROI)

  3 channel 8-bit unsigned planar RGB to 2 channel 8-bit unsigned packed YCrCb422 color conversion.

YCrCb422ToRGB

YCrCb422 to RGB color conversion.

- NppStatus nppiYCrCb422ToRGB_8u_C2C3R (const Npp8u ∗pSrc, int nSrcStep, Npp8u ∗pDst, int nDstStep, NppiSize oSizeROI)

  2 channel 8-bit unsigned packed YCrCb422 to 3 channel 8-bit unsigned packed RGB color conversion.

- NppStatus nppiYCrCb422ToRGB_8u_C2P3R (const Npp8u ∗pSrc, int nSrcStep, Npp8u ∗pDst[3], int nDstStep, NppiSize oSizeROI)

  2 channel 8-bit unsigned packed YCrCb422 to 3 channel 8-bit unsigned planar RGB color conversion.

BGRToYCbCr422

BGR to YCbCr422 color conversion.

- NppStatus nppiBGRToYCbCr422_8u_C3C2R (const Npp8u ∗pSrc, int nSrcStep, Npp8u ∗pDst, int nDstStep, NppiSize oSizeROI)

  3 channel 8-bit unsigned packed BGR to 2 channel 8-bit unsigned packed YCrCb422 color conversion.

- NppStatus nppiBGRToYCbCr422_8u_AC4C2R (const Npp8u ∗pSrc, int nSrcStep, Npp8u ∗pDst, int nDstStep, NppiSize oSizeROI)

  4 channel 8-bit unsigned packed BGR with alpha to 2 channel 8-bit unsigned packed YCrCb422 color conversion.

- NppStatus nppiBGRToYCbCr422_8u_C3P3R (const Npp8u ∗pSrc, int nSrcStep, Npp8u ∗pDst[3], int rDstStep[3], NppiSize oSizeROI)

3 channel 8-bit unsigned packed BGR to 3 channel 8-bit unsigned planar YCbCr422 color conversion.

- NppStatus nppiBGRToYCbCr422_8u_AC4P3R (const Npp8u ∗pSrc, int nSrcStep, Npp8u ∗pDst[3], int rDstStep[3], NppiSize oSizeROI)

  4 channel 8-bit unsigned packed BGR with alpha to 3 channel 8-bit unsigned planar YCbCr422 color conversion.

YCbCr422ToBGR

YCbCr422 to BGR color conversion.

- NppStatus nppiYCbCr422ToBGR_8u_C2C3R (const Npp8u ∗pSrc, int nSrcStep, Npp8u ∗pDst, int nDstStep, NppiSize oSizeROI)

  2 channel 8-bit unsigned packed YCrCb422 to 3 channel 8-bit unsigned packed BGR color conversion.

- NppStatus nppiYCbCr422ToBGR_8u_C2C4R (const Npp8u ∗pSrc, int nSrcStep, Npp8u ∗pDst, int nDstStep, NppiSize oSizeROI, Npp8u nAval)

  2 channel 8-bit unsigned packed YCrCb422 to 4 channel 8-bit unsigned packed BGR color conversion with constant alpha.

- NppStatus nppiYCbCr422ToBGR_8u_P3C3R (const Npp8u ∗const pSrc[3], int rSrcStep[3], Npp8u ∗pDst, int nDstStep, NppiSize oSizeROI)

  3 channel 8-bit unsigned planar YCbCr422 to 3 channel 8-bit unsigned packed BGR color conversion.

RGBToCbYCr422

RGB to CbYCr422 color conversion.

- NppStatus nppiRGBToCbYCr422_8u_C3C2R (const Npp8u ∗pSrc, int nSrcStep, Npp8u ∗pDst, int nDstStep, NppiSize oSizeROI)

  3 channel 8-bit unsigned packed RGB to 2 channel 8-bit unsigned packed CbYCr422 color conversion.

- NppStatus nppiRGBToCbYCr422Gamma_8u_C3C2R (const Npp8u ∗pSrc, int nSrcStep, Npp8u ∗pDst, int nDstStep, NppiSize oSizeROI)

  3 channel 8-bit unsigned packed RGB first gets forward gamma corrected then converted to 2 channel 8-bit unsigned packed CbYCr422 color conversion.

CbYCr422ToRGB

CbYCr422 to RGB color conversion.

- NppStatus nppiCbYCr422ToRGB_8u_C2C3R (const Npp8u ∗pSrc, int nSrcStep, Npp8u ∗pDst, int nDstStep, NppiSize oSizeROI)

  2 channel 8-bit unsigned packed CbYCrC22 to 3 channel 8-bit unsigned packed RGB color conversion.

BGRToCbYCr422

BGR to CbYCr422 color conversion.

- NppStatus nppiBGRToCbYCr422_8u_AC4C2R (const Npp8u ∗pSrc, int nSrcStep, Npp8u ∗pDst, int nDstStep, NppiSize oSizeROI)

  4 channel 8-bit unsigned packed BGR with alpha to 2 channel 8-bit unsigned packed CbYCr422 color conversion.

BGRToCbYCr422_709HDTV

BGR to CbYCr422_709HDTV color conversion.

- NppStatus nppiBGRToCbYCr422_709HDTV_8u_C3C2R (const Npp8u ∗pSrc, int nSrcStep, Npp8u ∗pDst, int nDstStep, NppiSize oSizeROI)

  3 channel 8-bit unsigned packed BGR to 2 channel 8-bit unsigned packed CbYCr422_709HDTV color conversion.

- NppStatus nppiBGRToCbYCr422_709HDTV_8u_AC4C2R (const Npp8u ∗pSrc, int nSrcStep, Npp8u ∗pDst, int nDstStep, NppiSize oSizeROI)

  4 channel 8-bit unsigned packed BGR with alpha to 2 channel 8-bit unsigned packed CbYCr422_709HDTV color conversion.

CbYCr422ToBGR

CbYCr422 to BGR color conversion.

- NppStatus nppiCbYCr422ToBGR_8u_C2C4R (const Npp8u ∗pSrc, int nSrcStep, Npp8u ∗pDst, int nDstStep, NppiSize oSizeROI, Npp8u nAval)

  2 channel 8-bit unsigned packed CbYCr422 to 4 channel 8-bit unsigned packed BGR color conversion with alpha.

CbYCr422ToBGR_709HDTV

CbYCr422 to BGR_709HDTV color conversion.

- NppStatus nppiCbYCr422ToBGR_709HDTV_8u_C2C3R (const Npp8u ∗pSrc, int nSrcStep, Npp8u ∗pDst, int nDstStep, NppiSize oSizeROI)

  2 channel 8-bit unsigned packed CbYCr422 to 3 channel 8-bit unsigned packed BGR_709HDTV color conversion.

- NppStatus nppiCbYCr422ToBGR_709HDTV_8u_C2C4R (const Npp8u ∗pSrc, int nSrcStep, Npp8u ∗pDst, int nDstStep, NppiSize oSizeROI, Npp8u nAval)

  2 channel 8-bit unsigned packed CbYCr422 to 4 channel 8-bit unsigned packed BGR_709HDTV color conversion with constant alpha.

RGBToYCbCr420

RGB to YCbCr420 color conversion.

- NppStatus nppiRGBToYCbCr420_8u_C3P3R (const Npp8u ∗pSrc, int nSrcStep, Npp8u ∗pDst[3], int rDstStep[3], NppiSize oSizeROI)

  3 channel 8-bit unsigned packed RGB to 3 channel 8-bit unsigned planar YCbCr420 color conversion.

YCbCr420ToRGB

YCbCr420 to RGB color conversion.

- NppStatus nppiYCbCr420ToRGB_8u_P3C3R (const Npp8u ∗const pSrc[3], int rSrcStep[3], Npp8u ∗pDst, int nDstStep, NppiSize oSizeROI)

  3 channel 8-bit unsigned planar YCbCr420 to 3 channel 8-bit unsigned packed RGB color conversion.

RGBToYCrCb420

RGB to YCrCb420 color conversion.

- NppStatus nppiRGBToYCrCb420_8u_AC4P3R (const Npp8u ∗pSrc, int nSrcStep, Npp8u ∗pDst[3], int rDstStep[3], NppiSize oSizeROI)

  4 channel 8-bit unsigned packed RGB with alpha to 3 channel 8-bit unsigned planar YCrCb420 color conversion.

YCrCb420ToRGB

YCrCb420 to RGB color conversion.

- NppStatus nppiYCrCb420ToRGB_8u_P3C4R (const Npp8u ∗const pSrc[3], int rSrcStep[3], Npp8u ∗pDst, int nDstStep, NppiSize oSizeROI, Npp8u nAval)

  3 channel 8-bit unsigned planar YCrCb420 to 4 channel 8-bit unsigned packed RGB color conversion with constant alpha.

BGRToYCbCr420

BGR to YCbCr420 color conversion.

- NppStatus nppiBGRToYCbCr420_8u_C3P3R (const Npp8u ∗pSrc, int nSrcStep, Npp8u ∗pDst[3], int rDstStep[3], NppiSize oSizeROI)

  3 channel 8-bit unsigned packed BGR to 3 channel 8-bit unsigned planar YCbCr420 color conversion.

- NppStatus nppiBGRToYCbCr420_8u_AC4P3R (const Npp8u ∗pSrc, int nSrcStep, Npp8u ∗pDst[3], int rDstStep[3], NppiSize oSizeROI)

  4 channel 8-bit unsigned packed BGR with alpha to 3 channel 8-bit unsigned planar YCbCr420 color conversion.

BGRToYCbCr420_709CSC

BGR to YCbCr420_709CSC color conversion.

- NppStatus nppiBGRToYCbCr420_709CSC_8u_C3P3R (const Npp8u ∗pSrc, int nSrcStep, Npp8u ∗pDst[3], int rDstStep[3], NppiSize oSizeROI)

  3 channel 8-bit unsigned packed BGR to 3 channel 8-bit unsigned planar YCbCr420_709CSC color conversion.

- NppStatus nppiBGRToYCbCr420_709CSC_8u_AC4P3R (const Npp8u ∗pSrc, int nSrcStep, Npp8u ∗pDst[3], int rDstStep[3], NppiSize oSizeROI)

  4 channel 8-bit unsigned packed BGR with alpha to 3 channel 8-bit unsigned planar YCbCr420_709CSC color conversion.

BGRToYCbCr420_709HDTV

BGR to YCbCr420_709HDTV color conversion.

- NppStatus nppiBGRToYCbCr420_709HDTV_8u_AC4P3R (const Npp8u ∗pSrc, int nSrcStep, Npp8u ∗pDst[3], int rDstStep[3], NppiSize oSizeROI)

  4 channel 8-bit unsigned packed BGR with alpha to 3 channel 8-bit unsigned planar YCbCr420_709HDTV color conversion.

BGRToYCrCb420_709CSC

BGR to YCrCb420_709CSC color conversion.

- NppStatus nppiBGRToYCrCb420_709CSC_8u_C3P3R (const Npp8u ∗pSrc, int nSrcStep, Npp8u ∗pDst[3], int rDstStep[3], NppiSize oSizeROI)

  3 channel 8-bit unsigned packed BGR to 3 channel 8-bit unsigned planar YCrCb420_709CSC color conversion.

- NppStatus nppiBGRToYCrCb420_709CSC_8u_AC4P3R (const Npp8u ∗pSrc, int nSrcStep, Npp8u ∗pDst[3], int rDstStep[3], NppiSize oSizeROI)

  4 channel 8-bit unsigned packed BGR with alpha to 3 channel 8-bit unsigned planar YCrCb420_709CSC color conversion.

YCbCr420ToBGR

YCbCr420 to BGR color conversion.

- NppStatus nppiYCbCr420ToBGR_8u_P3C3R (const Npp8u ∗const pSrc[3], int rSrcStep[3], Npp8u ∗pDst, int nDstStep, NppiSize oSizeROI)

  3 channel 8-bit unsigned planar YCbCr420 to 3 channel 8-bit unsigned packed BGR color conversion.

- NppStatus nppiYCbCr420ToBGR_8u_P3C4R (const Npp8u ∗const pSrc[3], int rSrcStep[3], Npp8u ∗pDst, int nDstStep, NppiSize oSizeROI, Npp8u nAval)

3 channel 8-bit unsigned planar YCbCr420 to 4 channel 8-bit unsigned packed BGR color conversion with constant alpha.

YCbCr420ToBGR_709CSC

YCbCr420_709CSC to BGR color conversion.

- NppStatus nppiYCbCr420ToBGR_709CSC_8u_P3C3R (const Npp8u ∗const pSrc[3], int rSrcStep[3], Npp8u ∗pDst, int nDstStep, NppiSize oSizeROI)

  3 channel 8-bit unsigned planar YCbCr420 to 3 channel 8-bit unsigned packed BGR_709CSC color conversion.

YCbCr420ToBGR_709HDTV

YCbCr420_709HDTV to BGR color conversion.

- NppStatus nppiYCbCr420ToBGR_709HDTV_8u_P3C4R (const Npp8u ∗const pSrc[3], int rSrcStep[3], Npp8u ∗pDst, int nDstStep, NppiSize oSizeROI, Npp8u nAval)

  3 channel 8-bit unsigned planar YCbCr420 to 4 channel 8-bit unsigned packed BGR_709HDTV color conversion with constant alpha.

BGRToYCrCb420

BGR to YCrCb420 color conversion.

- NppStatus nppiBGRToYCrCb420_8u_C3P3R (const Npp8u ∗pSrc, int nSrcStep, Npp8u ∗pDst[3], int rDstStep[3], NppiSize oSizeROI)

  3 channel 8-bit unsigned packed BGR to 3 channel 8-bit unsigned planar YCrCb420 color conversion.

- NppStatus nppiBGRToYCrCb420_8u_AC4P3R (const Npp8u ∗pSrc, int nSrcStep, Npp8u ∗pDst[3], int rDstStep[3], NppiSize oSizeROI)

  4 channel 8-bit unsigned packed BGR with alpha to 3 channel 8-bit unsigned planar YCrCb420 color conversion.

BGRToYCbCr411

BGR to YCbCr411 color conversion.

- NppStatus nppiBGRToYCbCr411_8u_C3P3R (const Npp8u ∗pSrc, int nSrcStep, Npp8u ∗pDst[3], int rDstStep[3], NppiSize oSizeROI)

  3 channel 8-bit unsigned packed BGR to 3 channel 8-bit unsigned planar YCbCr411 color conversion.

- NppStatus nppiBGRToYCbCr411_8u_AC4P3R (const Npp8u ∗pSrc, int nSrcStep, Npp8u ∗pDst[3], int rDstStep[3], NppiSize oSizeROI)

  4 channel 8-bit unsigned packed BGR with alpha to 3 channel 8-bit unsigned planar YCbCr411 color conversion.

BGRToYCbCr

BGR to YCbCr color conversion.

- NppStatus nppiBGRToYCbCr_8u_C3P3R (const Npp8u ∗pSrc, int nSrcStep, Npp8u ∗pDst[3], int nDstStep, NppiSize oSizeROI)

  3 channel 8-bit unsigned packed BGR to 3 channel 8-bit unsigned planar YCbCr color conversion.

- NppStatus nppiBGRToYCbCr_8u_AC4P3R (const Npp8u ∗pSrc, int nSrcStep, Npp8u ∗pDst[3], int nDstStep, NppiSize oSizeROI)

  4 channel 8-bit unsigned packed BGR with alpha to 3 channel 8-bit unsigned planar YCbCr color conversion.

- NppStatus nppiBGRToYCbCr_8u_AC4P4R (const Npp8u ∗pSrc, int nSrcStep, Npp8u ∗pDst[4], int nDstStep, NppiSize oSizeROI)

  4 channel 8-bit unsigned packed BGR with alpha to 4 channel 8-bit unsigned planar YCbCr color conversion.

YCbCr411ToBGR

YCbCr411 to BGR color conversion.

- NppStatus nppiYCbCr411ToBGR_8u_P3C3R (const Npp8u ∗const pSrc[3], int rSrcStep[3], Npp8u ∗pDst, int nDstStep, NppiSize oSizeROI)

  3 channel 8-bit unsigned planar YCbCr411 to 3 channel 8-bit unsigned packed BGR color conversion.

- NppStatus nppiYCbCr411ToBGR_8u_P3C4R (const Npp8u ∗const pSrc[3], int rSrcStep[3], Npp8u ∗pDst, int nDstStep, NppiSize oSizeROI, Npp8u nAval)

  3 channel 8-bit unsigned planar YCbCr411 to 4 channel 8-bit unsigned packed BGR color conversion with constant alpha.

RGBToXYZ

RGB to XYZ color conversion.

Here is how NPP converts gamma corrected RGB or BGR to XYZ.

```
Npp32f nNormalizedR = (Npp32f)R * 0.003921569F; // / 255.0F
Npp32f nNormalizedG = (Npp32f)G * 0.003921569F;
Npp32f nNormalizedB = (Npp32f)B * 0.003921569F;
Npp32f nX = 0.412453F * nNormalizedR + 0.35758F  * nNormalizedG + 0.180423F * nNormalizedB;
if (nX > 1.0F)
    nX = 1.0F;
Npp32f nY = 0.212671F * nNormalizedR + 0.71516F  * nNormalizedG + 0.072169F * nNormalizedB;
if (nY > 1.0F)
    nY = 1.0F;
Npp32f nZ = 0.019334F * nNormalizedR + 0.119193F * nNormalizedG + 0.950227F * nNormalizedB;
if (nZ > 1.0F)
    nZ = 1.0F;
X = (Npp8u)(nX * 255.0F);
Y = (Npp8u)(nY * 255.0F);
Z = (Npp8u)(nZ * 255.0F);
```

- NppStatus nppiRGBToXYZ_8u_C3R (const Npp8u ∗pSrc, int nSrcStep, Npp8u ∗pDst, int nDstStep, NppiSize oSizeROI)

  3 channel 8-bit unsigned packed RGB to 3 channel 8-bit unsigned packed XYZ color conversion.

- NppStatus nppiRGBToXYZ_8u_AC4R (const Npp8u ∗pSrc, int nSrcStep, Npp8u ∗pDst, int nDstStep, NppiSize oSizeROI)

  4 channel 8-bit unsigned packed RGB with alpha to 4 channel 8-bit unsigned packed XYZ with alpha color conversion.

XYZToRGB

XYZ to RGB color conversion.

Here is how NPP converts XYZ to gamma corrected RGB or BGR. The code assumes that X,Y, and Z values are in the range [0..1].

```
Npp32f nNormalizedX = (Npp32f)X * 0.003921569F; // / 255.0F
Npp32f nNormalizedY = (Npp32f)Y * 0.003921569F;
Npp32f nNormalizedZ = (Npp32f)Z * 0.003921569F;
Npp32f nR = 3.240479F * nNormalizedX - 1.53715F  * nNormalizedY - 0.498535F * nNormalizedZ;
if (nR > 1.0F)
    nR = 1.0F;
Npp32f nG = -0.969256F * nNormalizedX + 1.875991F  * nNormalizedY + 0.041556F * nNormalizedZ;
if (nG > 1.0F)
    nG = 1.0F;
Npp32f nB = 0.055648F * nNormalizedX - 0.204043F * nNormalizedY + 1.057311F * nNormalizedZ;
if (nB > 1.0F)
    nB = 1.0F;
R = (Npp8u)(nR * 255.0F);
G = (Npp8u)(nG * 255.0F);
B = (Npp8u)(nB * 255.0F);
```

- NppStatus nppiXYZToRGB_8u_C3R (const Npp8u ∗pSrc, int nSrcStep, Npp8u ∗pDst, int nDstStep, NppiSize oSizeROI)

  3 channel 8-bit unsigned packed XYZ to 3 channel 8-bit unsigned packed RGB color conversion.

- NppStatus nppiXYZToRGB_8u_AC4R (const Npp8u ∗pSrc, int nSrcStep, Npp8u ∗pDst, int nDstStep, NppiSize oSizeROI)

  4 channel 8-bit unsigned packed XYZ with alpha to 4 channel 8-bit unsigned packed RGB with alpha color conversion.

RGBToLUV

RGB to LUV color conversion.

Here is how NPP converts gamma corrected RGB or BGR to CIE LUV using the CIE XYZ D65 white point with a Y luminance of 1.0. The computed values of the L component are in the range [0..100], U component in the range [-134..220], and V component in the range [-140..122]. The code uses cbrtf() the 32 bit floating point cube root math function.

```
// use CIE D65 chromaticity coordinates
#define nCIE_XYZ_D65_xn 0.312713F
#define nCIE_XYZ_D65_yn 0.329016F
```

```
#define nn_DIVISOR (-2.0F * nCIE_XYZ_D65_xn + 12.0F * nCIE_XYZ_D65_yn + 3.0F)
#define nun (4.0F * nCIE_XYZ_D65_xn / nn_DIVISOR)
#define nvn (9.0F * nCIE_XYZ_D65_yn / nn_DIVISOR)

// First convert to XYZ
Npp32f nNormalizedR = (Npp32f)R * 0.003921569F; // / 255.0F
Npp32f nNormalizedG = (Npp32f)G * 0.003921569F;
Npp32f nNormalizedB = (Npp32f)B * 0.003921569F;
Npp32f nX = 0.412453F * nNormalizedR + 0.35758F  * nNormalizedG + 0.180423F * nNormalizedB;
Npp32f nY = 0.212671F * nNormalizedR + 0.71516F  * nNormalizedG + 0.072169F * nNormalizedB;
Npp32f nZ = 0.019334F * nNormalizedR + 0.119193F * nNormalizedG + 0.950227F * nNormalizedB;
// Now calculate LUV from the XYZ value
Npp32f nTemp = nX + 15.0F * nY + 3.0F * nZ;
Npp32f nu = 4.0F * nX / nTemp;
Npp32f nv = 9.0F * nY / nTemp;
Npp32f nL = 116.0F * cbrtf(nY) - 16.0F;
if (nL < 0.0F)
    nL = 0.0F;
if (nL > 100.0F)
    nL = 100.0F;
nTemp = 13.0F * nL;
Npp32f nU = nTemp * (nu - nun);
if (nU < -134.0F)
    nU = -134.0F;
if (nU > 220.0F)
    nU = 220.0F;
Npp32f nV = nTemp * (nv - nvn);
if (nV < -140.0F)
    nV = -140.0F;
if (nV > 122.0F)
    nV = 122.0F;
L = (Npp8u)(nL * 255.0F * 0.01F); // / 100.0F
U = (Npp8u)((nU + 134.0F) * 255.0F * 0.0028249F); // / 354.0F
V = (Npp8u)((nV + 140.0F) * 255.0F * 0.0038168F); // / 262.0F
```

- NppStatus nppiRGBToLUV_8u_C3R (const Npp8u *pSrc, int nSrcStep, Npp8u *pDst, int nDstStep, NppiSize oSizeROI)

  3 channel 8-bit unsigned packed RGB to 3 channel 8-bit unsigned packed LUV color conversion.

- NppStatus nppiRGBToLUV_8u_AC4R (const Npp8u *pSrc, int nSrcStep, Npp8u *pDst, int nDstStep, NppiSize oSizeROI)

  4 channel 8-bit unsigned packed RGB with alpha to 4 channel 8-bit unsigned packed LUV with alpha color conversion.

LUVToRGB

LUV to RGB color conversion.

Here is how NPP converts CIE LUV to gamma corrected RGB or BGR using the CIE XYZ D65 white point with a Y luminance of 1.0. The code uses powf() the 32 bit floating point power math function.

```
// use CIE D65 chromaticity coordinates
#define nCIE_XYZ_D65_xn 0.312713F
#define nCIE_XYZ_D65_yn 0.329016F
#define nn_DIVISOR (-2.0F * nCIE_XYZ_D65_xn + 12.0F * nCIE_XYZ_D65_yn + 3.0F)
#define nun (4.0F * nCIE_XYZ_D65_xn / nn_DIVISOR)
#define nvn (9.0F * nCIE_XYZ_D65_yn / nn_DIVISOR)

// First convert normalized LUV back to original CIE LUV range
Npp32f nL = (Npp32f)L * 100.0F * 0.003921569F;  // / 255.0F
Npp32f nU = ((Npp32f)U * 354.0F * 0.003921569F) - 134.0F;
```

```
Npp32f nV = ((Npp32f)V * 262.0F * 0.003921569F) - 140.0F;
// Now convert LUV to CIE XYZ
Npp32f nTemp = 13.0F * nL;
Npp32f nu = nU / nTemp + nun;
Npp32f nv = nV / nTemp + nvn;
Npp32f nNormalizedY;
if (nL > 7.9996248F)
{
    nNormalizedY = (nL + 16.0F) * 0.008621F; // / 116.0F
    nNormalizedY = powf(nNormalizedY, 3.0F);
}
else
{
    nNormalizedY = nL * 0.001107F; // / 903.3F
}
Npp32f nNormalizedX = (-9.0F * nNormalizedY * nu) / ((nu - 4.0F) * nv - nu * nv);
Npp32f nNormalizedZ = (9.0F * nNormalizedY - 15.0F * nv * nNormalizedY - nv * nNormalizedX) / (3.0F * nv
Npp32f nR = 3.240479F * nNormalizedX - 1.53715F  * nNormalizedY - 0.498535F * nNormalizedZ;
if (nR > 1.0F)
    nR = 1.0F;
if (nR < 0.0F)
    nR = 0.0F;
Npp32f nG = -0.969256F * nNormalizedX + 1.875991F  * nNormalizedY + 0.041556F * nNormalizedZ;
if (nG > 1.0F)
    nG = 1.0F;
if (nG < 0.0F)
    nG = 0.0F;
Npp32f nB = 0.055648F * nNormalizedX - 0.204043F * nNormalizedY + 1.057311F * nNormalizedZ;
if (nB > 1.0F)
    nB = 1.0F;
if (nB < 0.0F)
    nB = 0.0F;
R = (Npp8u)(nR * 255.0F);
G = (Npp8u)(nG * 255.0F);
B = (Npp8u)(nB * 255.0F);
```

- NppStatus nppiLUVToRGB_8u_C3R (const Npp8u ∗pSrc, int nSrcStep, Npp8u ∗pDst, int nDstStep, NppiSize oSizeROI)

    3 channel 8-bit unsigned packed LUV to 3 channel 8-bit unsigned packed RGB color conversion.

- NppStatus nppiLUVToRGB_8u_AC4R (const Npp8u ∗pSrc, int nSrcStep, Npp8u ∗pDst, int nDstStep, NppiSize oSizeROI)

    4 channel 8-bit unsigned packed LUV with alpha to 4 channel 8-bit unsigned packed RGB with alpha color conversion.

BGRToLab

BGR to Lab color conversion.

This is how NPP converts gamma corrected BGR or RGB to Lab using the CIE Lab D65 white point with a Y luminance of 1.0. The computed values of the L component are in the range [0..100], a and b component values are in the range [-128..127]. The code uses cbrtf() the 32 bit floating point cube root math function.

```
// use CIE Lab chromaticity coordinates
#define nCIE_LAB_D65_xn 0.950455F
#define nCIE_LAB_D65_yn 1.0F
#define nCIE_LAB_D65_zn 1.088753F
// First convert to XYZ
Npp32f nNormalizedR = (Npp32f)R * 0.003921569F; // / 255.0F
Npp32f nNormalizedG = (Npp32f)G * 0.003921569F;
```

```
Npp32f nNormalizedB = (Npp32f)B * 0.003921569F;
Npp32f nX = 0.412453F * nNormalizedR + 0.35758F  * nNormalizedG + 0.180423F * nNormalizedB;
Npp32f nY = 0.212671F * nNormalizedR + 0.71516F  * nNormalizedG + 0.072169F * nNormalizedB;
Npp32f nZ = 0.019334F * nNormalizedR + 0.119193F * nNormalizedG + 0.950227F * nNormalizedB;
Npp32f nL = cbrtf(nY);
Npp32f nA;
Npp32f nB;
Npp32f nfX = nX * 1.052128F; // / nCIE_LAB_D65_xn;
Npp32f nfY = nY;
Npp32f nfZ = nZ * 0.918482F; // / nCIE_LAB_D65_zn;
nfY = nL - 16.0F;
nL = 116.0F * nL - 16.0F;
nA = cbrtf(nfX) - 16.0F;
nA = 500.0F * (nA - nfY);
nB = cbrtf(nfZ) - 16.0F;
nB = 200.0F * (nfY - nB);
// Now scale Lab range
nL = nL * 255.0F * 0.01F; // / 100.0F
nA = nA + 128.0F;
nB = nB + 128.0F;
L = (Npp8u)nL;
a = (Npp8u)nA;
b = (Npp8u)nB;
```

- NppStatus nppiBGRToLab_8u_C3R (const Npp8u *pSrc, int nSrcStep, Npp8u *pDst, int nDstStep, NppiSize oSizeROI)

  3 channel 8-bit unsigned packed BGR to 3 channel 8-bit unsigned packed Lab color conversion.

LabToBGR

Lab to BGR color conversion.

This is how NPP converts Lab to gamma corrected BGR or RGB using the CIE Lab D65 white point with a Y luminance of 1.0. The code uses powf() the 32 bit floating point power math function.

```
// use CIE Lab chromaticity coordinates
#define nCIE_LAB_D65_xn 0.950455F
#define nCIE_LAB_D65_yn 1.0F
#define nCIE_LAB_D65_zn 1.088753F
// First convert Lab back to original range then to CIE XYZ
Npp32f nL = (Npp32f)L * 100.0F * 0.003921569F;  // / 255.0F
Npp32f nA = (Npp32f)a - 128.0F;
Npp32f nB = (Npp32f)b - 128.0F;
Npp32f nP = (nL + 16.0F) * 0.008621F; // / 116.0F
Npp32f nNormalizedY = nP * nP * nP; // powf(nP, 3.0F);
Npp32f nNormalizedX = nCIE_LAB_D65_xn * powf((nP + nA * 0.002F), 3.0F); // / 500.0F
Npp32f nNormalizedZ = nCIE_LAB_D65_zn * powf((nP - nB * 0.005F), 3.0F); // / 200.0F
Npp32f nR = 3.240479F * nNormalizedX - 1.53715F  * nNormalizedY - 0.498535F * nNormalizedZ;
if (nR > 1.0F)
    nR = 1.0F;
Npp32f nG = -0.969256F * nNormalizedX + 1.875991F  * nNormalizedY + 0.041556F * nNormalizedZ;
if (nG > 1.0F)
    nG = 1.0F;
nB = 0.055648F * nNormalizedX - 0.204043F * nNormalizedY + 1.057311F * nNormalizedZ;
if (nB > 1.0F)
    nB = 1.0F;
R = (Npp8u)(nR * 255.0F);
G = (Npp8u)(nG * 255.0F);
B = (Npp8u)(nB * 255.0F);
```

- NppStatus nppiLabToBGR_8u_C3R (const Npp8u *pSrc, int nSrcStep, Npp8u *pDst, int nDstStep, NppiSize oSizeROI)

3 channel 8-bit unsigned packed Lab to 3 channel 8-bit unsigned packed BGR color conversion.

RGBToYCC

RGB to PhotoYCC color conversion.

This is how NPP converts gamma corrected BGR or RGB to PhotoYCC. The computed Y, C1, C2 values are then quantized and converted to fit in the range [0..1] before expanding to 8 bits.

```
Npp32f nNormalizedR = (Npp32f)R * 0.003921569F; // / 255.0F
Npp32f nNormalizedG = (Npp32f)G * 0.003921569F;
Npp32f nNormalizedB = (Npp32f)B * 0.003921569F;
Npp32f nY = 0.299F * nNormalizedR + 0.587F  * nNormalizedG + 0.114F * nNormalizedB;
Npp32f nC1 = nNormalizedB - nY;
nC1 = 111.4F * 0.003921569F * nC1 + 156.0F * 0.003921569F;
Npp32f nC2 = nNormalizedR - nY;
nC2 = 135.64F * 0.003921569F * nC2 + 137.0F * 0.003921569F;
nY = 1.0F * 0.713267F * nY; // / 1.402F
Y = (Npp8u)(nY  * 255.0F);
C1 = (Npp8u)(nC1 * 255.0F);
C2 = (Npp8u)(nC2 * 255.0F);
```

- NppStatus nppiRGBToYCC_8u_C3R (const Npp8u *pSrc, int nSrcStep, Npp8u *pDst, int nDstStep, NppiSize oSizeROI)

  3 channel 8-bit unsigned packed RGB to 3 channel 8-bit unsigned packed YCC color conversion.

- NppStatus nppiRGBToYCC_8u_AC4R (const Npp8u *pSrc, int nSrcStep, Npp8u *pDst, int nDstStep, NppiSize oSizeROI)

  4 channel 8-bit unsigned packed RGB with alpha to 4 channel 8-bit unsigned packed YCC with alpha color conversion.

YCCToRGB

PhotoYCC to RGB color conversion.

This is how NPP converts PhotoYCC to gamma corrected RGB or BGR.

```
Npp32f nNormalizedY  = ((Npp32f)Y * 0.003921569F) * 1.3584F;  // / 255.0F
Npp32f nNormalizedC1 = (((Npp32f)C1 * 0.003921569F) - 156.0F * 0.003921569F) * 2.2179F;
Npp32f nNormalizedC2 = (((Npp32f)C2 * 0.003921569F) - 137.0F * 0.003921569F) * 1.8215F;
Npp32f nR = nNormalizedY + nNormalizedC2;
if (nR > 1.0F)
    nR = 1.0F;
Npp32f nG = nNormalizedY - 0.194F  * nNormalizedC1 - 0.509F * nNormalizedC2;
if (nG > 1.0F)
    nG = 1.0F;
Npp32f nB = nNormalizedY + nNormalizedC1;
if (nB > 1.0F)
    nB = 1.0F;
R = (Npp8u)(nR * 255.0F);
G = (Npp8u)(nG * 255.0F);
B = (Npp8u)(nB * 255.0F);
```

- NppStatus nppiYCCToRGB_8u_C3R (const Npp8u *pSrc, int nSrcStep, Npp8u *pDst, int nDstStep, NppiSize oSizeROI)

3 channel 8-bit unsigned packed YCC to 3 channel 8-bit unsigned packed RGB color conversion.

- NppStatus nppiYCCToRGB_8u_AC4R (const Npp8u ∗pSrc, int nSrcStep, Npp8u ∗pDst, int nDstStep, NppiSize oSizeROI)

  4 channel 8-bit unsigned packed YCC with alpha to 4 channel 8-bit unsigned packed RGB with alpha color conversion.

RGBToHLS

RGB to HLS color conversion.

This is how NPP converts gamma corrected RGB or BGR to HLS. This code uses the fmaxf() and fminf() 32 bit floating point math functions.

```
Npp32f nNormalizedR = (Npp32f)R * 0.003921569F;  // / 255.0F
Npp32f nNormalizedG = (Npp32f)G * 0.003921569F;
Npp32f nNormalizedB = (Npp32f)B * 0.003921569F;
Npp32f nS;
Npp32f nH;
// Lightness
Npp32f nMax = fmaxf(nNormalizedR, nNormalizedG);
       nMax = fmaxf(nMax, nNormalizedB);
Npp32f nMin = fminf(nNormalizedR, nNormalizedG);
       nMin = fminf(nMin, nNormalizedB);
Npp32f nL = (nMax + nMin) * 0.5F;
Npp32f nDivisor = nMax - nMin;
// Saturation
if (nDivisor == 0.0F) // achromatics case
{
    nS = 0.0F;
    nH = 0.0F;
}
else // chromatics case
{
    if (nL > 0.5F)
        nS = nDivisor / (1.0F - (nMax + nMin - 1.0F));
    else
        nS = nDivisor / (nMax + nMin);
}
// Hue
Npp32f nCr = (nMax - nNormalizedR) / nDivisor;
Npp32f nCg = (nMax - nNormalizedG) / nDivisor;
Npp32f nCb = (nMax - nNormalizedB) / nDivisor;
if (nNormalizedR == nMax)
    nH = nCb - nCg;
else if (nNormalizedG == nMax)
    nH = 2.0F + nCr - nCb;
else if (nNormalizedB == nMax)
    nH = 4.0F + nCg - nCr;
nH = nH * 0.166667F; // / 6.0F
if (nH < 0.0F)
    nH = nH + 1.0F;
H = (Npp8u)(nH * 255.0F);
L = (Npp8u)(nL * 255.0F);
S = (Npp8u)(nS * 255.0F);
```

- NppStatus nppiRGBToHLS_8u_C3R (const Npp8u ∗pSrc, int nSrcStep, Npp8u ∗pDst, int nDstStep, NppiSize oSizeROI)

  3 channel 8-bit unsigned packed RGB to 3 channel 8-bit unsigned packed HLS color conversion.

- NppStatus nppiRGBToHLS_8u_AC4R (const Npp8u ∗pSrc, int nSrcStep, Npp8u ∗pDst, int nDstStep, NppiSize oSizeROI)

  4 channel 8-bit unsigned packed RGB with alpha to 4 channel 8-bit unsigned packed HLS with alpha color conversion.

HLSToRGB

HLS to RGB color conversion.

This is how NPP converts HLS to gamma corrected RGB or BGR.

```
Npp32f nNormalizedH = (Npp32f)H * 0.003921569F;  // / 255.0F
Npp32f nNormalizedL = (Npp32f)L * 0.003921569F;
Npp32f nNormalizedS = (Npp32f)S * 0.003921569F;
Npp32f nM1;
Npp32f nM2;
Npp32f nR;
Npp32f nG;
Npp32f nB;
Npp32f nh = 0.0F;
if (nNormalizedL <= 0.5F)
    nM2 = nNormalizedL * (1.0F + nNormalizedS);
else
    nM2 = nNormalizedL + nNormalizedS - nNormalizedL * nNormalizedS;
nM1 = 2.0F * nNormalizedL - nM2;
if (nNormalizedS == 0.0F)
    nR = nG = nB = nNormalizedL;
else
{
    nh = nNormalizedH + 0.3333F;
    if (nh > 1.0F)
        nh -= 1.0F;
}
Npp32f nMDiff = nM2 - nM1;
if (0.6667F < nh)
    nR = nM1;
else
{
    if (nh < 0.1667F)
        nR = (nM1 + nMDiff * nh * 6.0F); // / 0.1667F
    else if (nh < 0.5F)
        nR = nM2;
    else
        nR = nM1 + nMDiff * ( 0.6667F - nh ) * 6.0F; // / 0.1667F
}
if (nR > 1.0F)
    nR = 1.0F;
nh = nNormalizedH;
if (0.6667F < nh)
    nG = nM1;
else
{
    if (nh < 0.1667F)
        nG = (nM1 + nMDiff * nh * 6.0F); // / 0.1667F
    else if (nh < 0.5F)
        nG = nM2;
    else
        nG = nM1 + nMDiff * (0.6667F - nh ) * 6.0F; // / 0.1667F
}
if (nG > 1.0F)
    nG = 1.0F;
nh = nNormalizedH - 0.3333F;
if (nh < 0.0F)
```

```
    nh += 1.0F;
if (0.6667F < nh)
    nB = nM1;
else
{
    if (nh < 0.1667F)
        nB = (nM1 + nMDiff * nh * 6.0F); // / 0.1667F
    else if (nh < 0.5F)
        nB = nM2;
    else
        nB = nM1 + nMDiff * (0.6667F - nh ) * 6.0F; // / 0.1667F
}
if (nB > 1.0F)
    nB = 1.0F;
R = (Npp8u)(nR * 255.0F);
G = (Npp8u)(nG * 255.0F);
B = (Npp8u)(nB * 255.0F);
```

- NppStatus nppiHLSToRGB_8u_C3R (const Npp8u ∗pSrc, int nSrcStep, Npp8u ∗pDst, int nDstStep, NppiSize oSizeROI)

  3 channel 8-bit unsigned packed HLS to 3 channel 8-bit unsigned packed RGB color conversion.

- NppStatus nppiHLSToRGB_8u_AC4R (const Npp8u ∗pSrc, int nSrcStep, Npp8u ∗pDst, int nDstStep, NppiSize oSizeROI)

  4 channel 8-bit unsigned packed HLS with alpha to 4 channel 8-bit unsigned packed RGB with alpha color conversion.

BGRToHLS

BGR to HLS color conversion.

- NppStatus nppiBGRToHLS_8u_AC4R (const Npp8u ∗pSrc, int nSrcStep, Npp8u ∗pDst, int nDstStep, NppiSize oSizeROI)

  4 channel 8-bit unsigned packed BGR with alpha to 4 channel 8-bit unsigned packed HLS with alpha color conversion.

- NppStatus nppiBGRToHLS_8u_C3P3R (const Npp8u ∗pSrc, int nSrcStep, Npp8u ∗pDst[3], int nDstStep, NppiSize oSizeROI)

  3 channel 8-bit unsigned packed BGR to 3 channel 8-bit unsigned planar HLS color conversion.

- NppStatus nppiBGRToHLS_8u_AC4P4R (const Npp8u ∗pSrc, int nSrcStep, Npp8u ∗pDst[4], int nDstStep, NppiSize oSizeROI)

  4 channel 8-bit unsigned packed BGR with alpha to 4 channel 8-bit unsigned planar HLS with alpha color conversion.

- NppStatus nppiBGRToHLS_8u_P3C3R (const Npp8u ∗const pSrc[3], int nSrcStep, Npp8u ∗pDst, int nDstStep, NppiSize oSizeROI)

  3 channel 8-bit unsigned planar BGR to 3 channel 8-bit unsigned packed HLS color conversion.

- NppStatus nppiBGRToHLS_8u_AP4C4R (const Npp8u ∗const pSrc[4], int nSrcStep, Npp8u ∗pDst, int nDstStep, NppiSize oSizeROI)

  4 channel 8-bit unsigned planar BGR with alpha to 4 channel 8-bit unsigned packed HLS with alpha color conversion.

- NppStatus nppiBGRToHLS_8u_P3R (const Npp8u ∗const pSrc[3], int nSrcStep, Npp8u ∗pDst[3], int nDstStep, NppiSize oSizeROI)

  3 channel 8-bit unsigned planar BGR to 3 channel 8-bit unsigned planar HLS color conversion.

- NppStatus nppiBGRToHLS_8u_AP4R (const Npp8u ∗const pSrc[4], int nSrcStep, Npp8u ∗pDst[4], int nDstStep, NppiSize oSizeROI)

  4 channel 8-bit unsigned planar BGR with alpha to 4 channel 8-bit unsigned planar HLS with alpha color conversion.

HLSToBGR

HLS to BGR color conversion.

- NppStatus nppiHLSToBGR_8u_C3P3R (const Npp8u ∗pSrc, int nSrcStep, Npp8u ∗pDst[3], int nDstStep, NppiSize oSizeROI)

  3 channel 8-bit unsigned packed HLS to 3 channel 8-bit unsigned planar BGR color conversion.

- NppStatus nppiHLSToBGR_8u_AC4P4R (const Npp8u ∗pSrc, int nSrcStep, Npp8u ∗pDst[4], int nDstStep, NppiSize oSizeROI)

  4 channel 8-bit unsigned packed HLS with alpha to 4 channel 8-bit unsigned planar BGR with alpha color conversion.

- NppStatus nppiHLSToBGR_8u_P3R (const Npp8u ∗const pSrc[3], int nSrcStep, Npp8u ∗pDst[3], int nDstStep, NppiSize oSizeROI)

  3 channel 8-bit unsigned planar HLS to 3 channel 8-bit unsigned planar BGR color conversion.

- NppStatus nppiHLSToBGR_8u_AP4R (const Npp8u ∗const pSrc[4], int nSrcStep, Npp8u ∗pDst[4], int nDstStep, NppiSize oSizeROI)

  4 channel 8-bit unsigned planar HLS with alpha to 4 channel 8-bit unsigned planar BGR with alpha color conversion.

- NppStatus nppiHLSToBGR_8u_AC4R (const Npp8u ∗pSrc, int nSrcStep, Npp8u ∗pDst, int nDstStep, NppiSize oSizeROI)

  4 channel 8-bit unsigned packed HLS with alpha to 4 channel 8-bit unsigned packed BGR with alpha color conversion.

- NppStatus nppiHLSToBGR_8u_P3C3R (const Npp8u ∗const pSrc[3], int nSrcStep, Npp8u ∗pDst, int nDstStep, NppiSize oSizeROI)

  3 channel 8-bit unsigned planar HLS to 3 channel 8-bit unsigned packed BGR color conversion.

- NppStatus nppiHLSToBGR_8u_AP4C4R (const Npp8u ∗const pSrc[4], int nSrcStep, Npp8u ∗pDst, int nDstStep, NppiSize oSizeROI)

  4 channel 8-bit unsigned planar HLS with alpha to 4 channel 8-bit unsigned packed BGR with alpha color conversion.

RGBToHSV

RGB to HSV color conversion.

This is how NPP converts gamma corrected RGB or BGR to HSV. This code uses the fmaxf() and fminf() 32 bit floating point math functions.

```
Npp32f nNormalizedR = (Npp32f)R * 0.003921569F; // / 255.0F
Npp32f nNormalizedG = (Npp32f)G * 0.003921569F;
Npp32f nNormalizedB = (Npp32f)B * 0.003921569F;
Npp32f nS;
Npp32f nH;
// Value
Npp32f nV = fmaxf(nNormalizedR, nNormalizedG);
       nV = fmaxf(nV, nNormalizedB);
// Saturation
Npp32f nTemp = fminf(nNormalizedR, nNormalizedG);
       nTemp = fminf(nTemp, nNormalizedB);
Npp32f nDivisor = nV - nTemp;
if (nV == 0.0F) // achromatics case
{
    nS = 0.0F;
    nH = 0.0F;
}
else // chromatics case
    nS = nDivisor / nV;
// Hue:
Npp32f nCr = (nV - nNormalizedR) / nDivisor;
Npp32f nCg = (nV - nNormalizedG) / nDivisor;
Npp32f nCb = (nV - nNormalizedB) / nDivisor;
if (nNormalizedR == nV)
    nH = nCb - nCg;
else if (nNormalizedG == nV)
    nH = 2.0F + nCr - nCb;
else if (nNormalizedB == nV)
    nH = 4.0F + nCg - nCr;
nH = nH * 0.166667F; // / 6.0F
if (nH < 0.0F)
    nH = nH + 1.0F;
H = (Npp8u)(nH * 255.0F);
S = (Npp8u)(nS * 255.0F);
V = (Npp8u)(nV * 255.0F);
```

- NppStatus nppiRGBToHSV_8u_C3R (const Npp8u *pSrc, int nSrcStep, Npp8u *pDst, int nDstStep, NppiSize oSizeROI)

  3 channel 8-bit unsigned packed RGB to 3 channel 8-bit unsigned packed HSV color conversion.

- NppStatus nppiRGBToHSV_8u_AC4R (const Npp8u *pSrc, int nSrcStep, Npp8u *pDst, int nDstStep, NppiSize oSizeROI)

  4 channel 8-bit unsigned packed RGB with alpha to 4 channel 8-bit unsigned packed HSV with alpha color conversion.

HSVToRGB

HSV to RGB color conversion.

This is how NPP converts HSV to gamma corrected RGB or BGR. This code uses the floorf() 32 bit floating point math function.

```
Npp32f nNormalizedH = (Npp32f)H * 0.003921569F; // / 255.0F
Npp32f nNormalizedS = (Npp32f)S * 0.003921569F;
Npp32f nNormalizedV = (Npp32f)V * 0.003921569F;
Npp32f nR;
Npp32f nG;
```

```
Npp32f nB;
if (nNormalizedS == 0.0F)
{
    nR = nG = nB = nNormalizedV;
}
else
{
    if (nNormalizedH == 1.0F)
        nNormalizedH = 0.0F;
    else
        nNormalizedH = nNormalizedH * 6.0F; // / 0.1667F
}
Npp32f nI = floorf(nNormalizedH);
Npp32f nF = nNormalizedH - nI;
Npp32f nM = nNormalizedV * (1.0F - nNormalizedS);
Npp32f nN = nNormalizedV * (1.0F - nNormalizedS * nF);
Npp32f nK = nNormalizedV * (1.0F - nNormalizedS * (1.0F - nF));
if (nI == 0.0F)
    { nR = nNormalizedV; nG = nK; nB = nM; }
else if (nI == 1.0F)
    { nR = nN; nG = nNormalizedV; nB = nM; }
else if (nI == 2.0F)
    { nR = nM; nG = nNormalizedV; nB = nK; }
else if (nI == 3.0F)
    { nR = nM; nG = nN; nB = nNormalizedV; }
else if (nI == 4.0F)
    { nR = nK; nG = nM; nB = nNormalizedV; }
else if (nI == 5.0F)
    { nR = nNormalizedV; nG = nM; nB = nN; }
R = (Npp8u)(nR * 255.0F);
G = (Npp8u)(nG * 255.0F);
B = (Npp8u)(nB * 255.0F);
```

- NppStatus nppiHSVToRGB_8u_C3R (const Npp8u ∗pSrc, int nSrcStep, Npp8u ∗pDst, int nDstStep, NppiSize oSizeROI)

  3 channel 8-bit unsigned packed HSV to 3 channel 8-bit unsigned packed RGB color conversion.

- NppStatus nppiHSVToRGB_8u_AC4R (const Npp8u ∗pSrc, int nSrcStep, Npp8u ∗pDst, int nDstStep, NppiSize oSizeROI)

  4 channel 8-bit unsigned packed HSV with alpha to 4 channel 8-bit unsigned packed RGB with alpha color conversion.

RGBToGray

RGB to CCIR601 Gray conversion.

Here is how NPP converts gamma corrected RGB to CCIR601 Gray.

```
nGray =  0.299F * R + 0.587F * G + 0.114F * B;
```

- NppStatus nppiRGBToGray_8u_C3C1R (const Npp8u ∗pSrc, int nSrcStep, Npp8u ∗pDst, int nDstStep, NppiSize oSizeROI)

  3 channel 8-bit unsigned packed RGB to 1 channel 8-bit unsigned packed Gray conversion.

- NppStatus nppiRGBToGray_8u_AC4C1R (const Npp8u ∗pSrc, int nSrcStep, Npp8u ∗pDst, int nDstStep, NppiSize oSizeROI)

  4 channel 8-bit unsigned packed RGB with alpha to 1 channel 8-bit unsigned packed Gray conversion.

- NppStatus nppiRGBToGray_16u_C3C1R (const Npp16u ∗pSrc, int nSrcStep, Npp16u ∗pDst, int nDstStep, NppiSize oSizeROI)

  3 channel 16-bit unsigned packed RGB to 1 channel 16-bit unsigned packed Gray conversion.

- NppStatus nppiRGBToGray_16u_AC4C1R (const Npp16u ∗pSrc, int nSrcStep, Npp16u ∗pDst, int nDstStep, NppiSize oSizeROI)

  4 channel 16-bit unsigned packed RGB with alpha to 1 channel 16-bit unsigned packed Gray conversion.

- NppStatus nppiRGBToGray_16s_C3C1R (const Npp16s ∗pSrc, int nSrcStep, Npp16s ∗pDst, int nDstStep, NppiSize oSizeROI)

  3 channel 16-bit signed packed RGB to 1 channel 16-bit signed packed Gray conversion.

- NppStatus nppiRGBToGray_16s_AC4C1R (const Npp16s ∗pSrc, int nSrcStep, Npp16s ∗pDst, int nDstStep, NppiSize oSizeROI)

  4 channel 16-bit signed packed RGB with alpha to 1 channel 16-bit signed packed Gray conversion.

- NppStatus nppiRGBToGray_32f_C3C1R (const Npp32f ∗pSrc, int nSrcStep, Npp32f ∗pDst, int nDstStep, NppiSize oSizeROI)

  3 channel 32-bit floating point packed RGB to 1 channel 32-bit floating point packed Gray conversion.

- NppStatus nppiRGBToGray_32f_AC4C1R (const Npp32f ∗pSrc, int nSrcStep, Npp32f ∗pDst, int nDstStep, NppiSize oSizeROI)

  4 channel 32-bit floating point packed RGB with alpha to 1 channel 32-bit floating point packed Gray conversion.

ColorToGray

RGB Color to Gray conversion using user supplied conversion coefficients.

Here is how NPP converts gamma corrected RGB Color to Gray using user supplied conversion coefficients.

```
nGray =  aCoeffs[0] * R + aCoeffs[1] * G + aCoeffs[2] * B;
```

- NppStatus nppiColorToGray_8u_C3C1R (const Npp8u ∗pSrc, int nSrcStep, Npp8u ∗pDst, int nDstStep, NppiSize oSizeROI, const Npp32f aCoeffs[3])

  3 channel 8-bit unsigned packed RGB to 1 channel 8-bit unsigned packed Gray conversion.

- NppStatus nppiColorToGray_8u_AC4C1R (const Npp8u ∗pSrc, int nSrcStep, Npp8u ∗pDst, int nDstStep, NppiSize oSizeROI, const Npp32f aCoeffs[3])

  4 channel 8-bit unsigned packed RGB with alpha to 1 channel 8-bit unsigned packed Gray conversion.

- NppStatus nppiColorToGray_16u_C3C1R (const Npp16u ∗pSrc, int nSrcStep, Npp16u ∗pDst, int nDstStep, NppiSize oSizeROI, const Npp32f aCoeffs[3])

  3 channel 16-bit unsigned packed RGB to 1 channel 16-bit unsigned packed Gray conversion.

- NppStatus nppiColorToGray_16u_AC4C1R (const Npp16u ∗pSrc, int nSrcStep, Npp16u ∗pDst, int nDstStep, NppiSize oSizeROI, const Npp32f aCoeffs[3])

  4 channel 16-bit unsigned packed RGB with alpha to 1 channel 16-bit unsigned packed Gray conversion.

- NppStatus nppiColorToGray_16s_C3C1R (const Npp16s ∗pSrc, int nSrcStep, Npp16s ∗pDst, int nDstStep, NppiSize oSizeROI, const Npp32f aCoeffs[3])

  3 channel 16-bit signed packed RGB to 1 channel 16-bit signed packed Gray conversion.

- NppStatus nppiColorToGray_16s_AC4C1R (const Npp16s ∗pSrc, int nSrcStep, Npp16s ∗pDst, int nDstStep, NppiSize oSizeROI, const Npp32f aCoeffs[3])

  4 channel 16-bit signed packed RGB with alpha to 1 channel 16-bit signed packed Gray conversion.

- NppStatus nppiColorToGray_32f_C3C1R (const Npp32f ∗pSrc, int nSrcStep, Npp32f ∗pDst, int nDstStep, NppiSize oSizeROI, const Npp32f aCoeffs[3])

  3 channel 32-bit floating point packed RGB to 1 channel 32-bit floating point packed Gray conversion.

- NppStatus nppiColorToGray_32f_AC4C1R (const Npp32f ∗pSrc, int nSrcStep, Npp32f ∗pDst, int nDstStep, NppiSize oSizeROI, const Npp32f aCoeffs[3])

  4 channel 32-bit floating point packed RGB with alpha to 1 channel 32-bit floating point packed Gray conversion.

7.44.1 Detailed Description

Routines for converting between various image color models.

7.44.2 Function Documentation

7.44.2.1 NppStatus nppiBGRToCbYCr422_709HDTV_8u_AC4C2R (const Npp8u ∗ *pSrc*, int *nSrcStep*, Npp8u ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*)

4 channel 8-bit unsigned packed BGR with alpha to 2 channel 8-bit unsigned packed CbYCr422_709HDTV color conversion.

images.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.44.2.2 NppStatus nppiBGRToCbYCr422_709HDTV_8u_C3C2R (const Npp8u ∗ *pSrc*, int *nSrcStep*, Npp8u ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*)

3 channel 8-bit unsigned packed BGR to 2 channel 8-bit unsigned packed CbYCr422_709HDTV color conversion.

images.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.44.2.3 NppStatus nppiBGRToCbYCr422_8u_AC4C2R (const Npp8u ∗ *pSrc*, int *nSrcStep*, Npp8u ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*)

4 channel 8-bit unsigned packed BGR with alpha to 2 channel 8-bit unsigned packed CbYCr422 color conversion.

images.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.44.2.4 NppStatus nppiBGRToHLS_8u_AC4P4R (const Npp8u ∗ *pSrc*, int *nSrcStep*, Npp8u ∗ *pDst*[4], int *nDstStep*, NppiSize *oSizeROI*)

4 channel 8-bit unsigned packed BGR with alpha to 4 channel 8-bit unsigned planar HLS with alpha color conversion.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Planar-Image Pointer Array.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.44.2.5 NppStatus nppiBGRToHLS_8u_AC4R (const Npp8u $*$ *pSrc*, int *nSrcStep*, Npp8u $*$ *pDst*, int *nDstStep*, NppiSize *oSizeROI*)

4 channel 8-bit unsigned packed BGR with alpha to 4 channel 8-bit unsigned packed HLS with alpha color conversion.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.44.2.6 NppStatus nppiBGRToHLS_8u_AP4C4R (const Npp8u $*$const *pSrc*[4], int *nSrcStep*, Npp8u $*$ *pDst*, int *nDstStep*, NppiSize *oSizeROI*)

4 channel 8-bit unsigned planar BGR with alpha to 4 channel 8-bit unsigned packed HLS with alpha color conversion.

Parameters:

pSrc Source-Planar-Image Pointer Array.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.44.2.7 NppStatus nppiBGRToHLS_8u_AP4R (const Npp8u $*$const *pSrc*[4], int *nSrcStep*, Npp8u $*$ *pDst*[4], int *nDstStep*, NppiSize *oSizeROI*)

4 channel 8-bit unsigned planar BGR with alpha to 4 channel 8-bit unsigned planar HLS with alpha color conversion.

Parameters:

pSrc Source-Planar-Image Pointer Array.

nSrcStep Source-Image Line Step.

pDst Destination-Planar-Image Pointer Array.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.44.2.8 NppStatus nppiBGRToHLS_8u_C3P3R (const Npp8u ∗ *pSrc*, int *nSrcStep*, Npp8u ∗ *pDst*[3], int *nDstStep*, NppiSize *oSizeROI*)

3 channel 8-bit unsigned packed BGR to 3 channel 8-bit unsigned planar HLS color conversion.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Planar-Image Pointer Array.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.44.2.9 NppStatus nppiBGRToHLS_8u_P3C3R (const Npp8u ∗const *pSrc*[3], int *nSrcStep*, Npp8u ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*)

3 channel 8-bit unsigned planar BGR to 3 channel 8-bit unsigned packed HLS color conversion.

Parameters:

pSrc Source-Planar-Image Pointer Array.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.44.2.10 NppStatus nppiBGRToHLS_8u_P3R (const Npp8u ∗const *pSrc*[3], int *nSrcStep*, Npp8u ∗ *pDst*[3], int *nDstStep*, NppiSize *oSizeROI*)

3 channel 8-bit unsigned planar BGR to 3 channel 8-bit unsigned planar HLS color conversion.

Parameters:

pSrc Source-Planar-Image Pointer Array.

nSrcStep Source-Image Line Step.

pDst Destination-Planar-Image Pointer Array.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.44.2.11 NppStatus nppiBGRToLab_8u_C3R (const Npp8u ∗ *pSrc*, int *nSrcStep*, Npp8u ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*)

3 channel 8-bit unsigned packed BGR to 3 channel 8-bit unsigned packed Lab color conversion.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.44.2.12 NppStatus nppiBGRToYCbCr411_8u_AC4P3R (const Npp8u ∗ *pSrc*, int *nSrcStep*, Npp8u ∗ *pDst*[3], int *rDstStep*[3], NppiSize *oSizeROI*)

4 channel 8-bit unsigned packed BGR with alpha to 3 channel 8-bit unsigned planar YCbCr411 color conversion.

images.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Planar-Image Pointer Array.

rDstStep Destination-Planar-Image Line Step Array.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.44.2.13 NppStatus nppiBGRToYCbCr411_8u_C3P3R (const Npp8u ∗ *pSrc*, int *nSrcStep*, Npp8u ∗ *pDst*[3], int *rDstStep*[3], NppiSize *oSizeROI*)

3 channel 8-bit unsigned packed BGR to 3 channel 8-bit unsigned planar YCbCr411 color conversion.

images.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Planar-Image Pointer Array.

rDstStep Destination-Planar-Image Line Step Array.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.44.2.14 NppStatus nppiBGRToYCbCr420_709CSC_8u_AC4P3R (const Npp8u $*$ *pSrc*, int *nSrcStep*, Npp8u $*$ *pDst*[3], int *rDstStep*[3], NppiSize *oSizeROI*)

4 channel 8-bit unsigned packed BGR with alpha to 3 channel 8-bit unsigned planar YCbCr420_709CSC color conversion.

images.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Planar-Image Pointer Array.

rDstStep Destination-Planar-Image Line Step Array.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.44.2.15 NppStatus nppiBGRToYCbCr420_709CSC_8u_C3P3R (const Npp8u $*$ *pSrc*, int *nSrcStep*, Npp8u $*$ *pDst*[3], int *rDstStep*[3], NppiSize *oSizeROI*)

3 channel 8-bit unsigned packed BGR to 3 channel 8-bit unsigned planar YCbCr420_709CSC color conversion.

images.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Planar-Image Pointer Array.

rDstStep Destination-Planar-Image Line Step Array.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.44.2.16 NppStatus nppiBGRToYCbCr420_709HDTV_8u_AC4P3R (const Npp8u ∗ *pSrc*, int *nSrcStep*, Npp8u ∗ *pDst*[3], int *rDstStep*[3], NppiSize *oSizeROI*)

4 channel 8-bit unsigned packed BGR with alpha to 3 channel 8-bit unsigned planar YCbCr420_709HDTV color conversion.

images.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Planar-Image Pointer Array.

rDstStep Destination-Planar-Image Line Step Array.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.44.2.17 NppStatus nppiBGRToYCbCr420_8u_AC4P3R (const Npp8u ∗ *pSrc*, int *nSrcStep*, Npp8u ∗ *pDst*[3], int *rDstStep*[3], NppiSize *oSizeROI*)

4 channel 8-bit unsigned packed BGR with alpha to 3 channel 8-bit unsigned planar YCbCr420 color conversion.

images.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Planar-Image Pointer Array.

rDstStep Destination-Planar-Image Line Step Array.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.44.2.18 NppStatus nppiBGRToYCbCr420_8u_C3P3R (const Npp8u ∗ *pSrc*, int *nSrcStep*, Npp8u ∗ *pDst*[3], int *rDstStep*[3], NppiSize *oSizeROI*)

3 channel 8-bit unsigned packed BGR to 3 channel 8-bit unsigned planar YCbCr420 color conversion.

images.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Planar-Image Pointer Array.

rDstStep Destination-Planar-Image Line Step Array.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.44.2.19 NppStatus nppiBGRToYCbCr422_8u_AC4C2R (const Npp8u $*$ *pSrc*, int *nSrcStep*, Npp8u $*$ *pDst*, int *nDstStep*, NppiSize *oSizeROI*)

4 channel 8-bit unsigned packed BGR with alpha to 2 channel 8-bit unsigned packed YCrCb422 color conversion.

images.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.44.2.20 NppStatus nppiBGRToYCbCr422_8u_AC4P3R (const Npp8u $*$ *pSrc*, int *nSrcStep*, Npp8u $*$ *pDst*[3], int *rDstStep*[3], NppiSize *oSizeROI*)

4 channel 8-bit unsigned packed BGR with alpha to 3 channel 8-bit unsigned planar YCbCr422 color conversion.

images.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Planar-Image Pointer Array.

rDstStep Destination-Planar-Image Line Step Array.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.44.2.21 NppStatus nppiBGRToYCbCr422_8u_C3C2R (const Npp8u * *pSrc*, int *nSrcStep*, Npp8u * *pDst*, int *nDstStep*, NppiSize *oSizeROI*)

3 channel 8-bit unsigned packed BGR to 2 channel 8-bit unsigned packed YCrCb422 color conversion.

images.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.44.2.22 NppStatus nppiBGRToYCbCr422_8u_C3P3R (const Npp8u * *pSrc*, int *nSrcStep*, Npp8u * *pDst*[3], int *rDstStep*[3], NppiSize *oSizeROI*)

3 channel 8-bit unsigned packed BGR to 3 channel 8-bit unsigned planar YCbCr422 color conversion.

images.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Planar-Image Pointer Array.

rDstStep Destination-Planar-Image Line Step Array.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.44.2.23 NppStatus nppiBGRToYCbCr_8u_AC4P3R (const Npp8u * *pSrc*, int *nSrcStep*, Npp8u * *pDst*[3], int *nDstStep*, NppiSize *oSizeROI*)

4 channel 8-bit unsigned packed BGR with alpha to 3 channel 8-bit unsigned planar YCbCr color conversion.

images.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Planar-Image Pointer Array.

nDstStep Destination-Planar-Image Line Step Array.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.44.2.24 NppStatus nppiBGRToYCbCr_8u_AC4P4R (const Npp8u * *pSrc*, int *nSrcStep*, Npp8u * *pDst*[4], int *nDstStep*, NppiSize *oSizeROI*)

4 channel 8-bit unsigned packed BGR with alpha to 4 channel 8-bit unsigned planar YCbCr color conversion.

images.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Planar-Image Pointer Array.

nDstStep Destination-Planar-Image Line Step Array.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.44.2.25 NppStatus nppiBGRToYCbCr_8u_C3P3R (const Npp8u * *pSrc*, int *nSrcStep*, Npp8u * *pDst*[3], int *nDstStep*, NppiSize *oSizeROI*)

3 channel 8-bit unsigned packed BGR to 3 channel 8-bit unsigned planar YCbCr color conversion.

images.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Planar-Image Pointer Array.

nDstStep Destination-Planar-Image Line Step Array.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.44.2.26 NppStatus nppiBGRToYCrCb420_709CSC_8u_AC4P3R (const Npp8u ∗ *pSrc*, int *nSrcStep*, Npp8u ∗ *pDst*[3], int *rDstStep*[3], NppiSize *oSizeROI*)

4 channel 8-bit unsigned packed BGR with alpha to 3 channel 8-bit unsigned planar YCrCb420_709CSC color conversion.

images.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Planar-Image Pointer Array.

rDstStep Destination-Planar-Image Line Step Array.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.44.2.27 NppStatus nppiBGRToYCrCb420_709CSC_8u_C3P3R (const Npp8u ∗ *pSrc*, int *nSrcStep*, Npp8u ∗ *pDst*[3], int *rDstStep*[3], NppiSize *oSizeROI*)

3 channel 8-bit unsigned packed BGR to 3 channel 8-bit unsigned planar YCrCb420_709CSC color conversion.

images.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Planar-Image Pointer Array.

rDstStep Destination-Planar-Image Line Step Array.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.44.2.28 NppStatus nppiBGRToYCrCb420_8u_AC4P3R (const Npp8u ∗ *pSrc*, int *nSrcStep*, Npp8u ∗ *pDst*[3], int *rDstStep*[3], NppiSize *oSizeROI*)

4 channel 8-bit unsigned packed BGR with alpha to 3 channel 8-bit unsigned planar YCrCb420 color conversion.

images.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Planar-Image Pointer Array.

rDstStep Destination-Planar-Image Line Step Array.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.44.2.29 NppStatus nppiBGRToYCrCb420_8u_C3P3R (const Npp8u ∗ *pSrc*, int *nSrcStep*, Npp8u ∗ *pDst*[3], int *rDstStep*[3], NppiSize *oSizeROI*)

3 channel 8-bit unsigned packed BGR to 3 channel 8-bit unsigned planar YCrCb420 color conversion.

images.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Planar-Image Pointer Array.

rDstStep Destination-Planar-Image Line Step Array.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.44.2.30 NppStatus nppiBGRToYUV420_8u_AC4P3R (const Npp8u ∗ *pSrc*, int *nSrcStep*, Npp8u ∗ *pDst*[3], int *rDstStep*[3], NppiSize *oSizeROI*)

4 channel 8-bit unsigned pacmed BGR with alpha to 3 channel 8-bit unsigned planar YUV420 color conversion.

images.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Planar-Image Pointer Array.

rDstStep Destination-Planar-Image Line Step Array.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.44.2.31 NppStatus nppiBGRToYUV_8u_AC4P4R (const Npp8u ∗ *pSrc*, int *nSrcStep*, Npp8u ∗ *pDst*[4], int *nDstStep*, NppiSize *oSizeROI*)

4 channel 8-bit unsigned packed BGR with alpha to 4 channel 8-bit unsigned planar YUV color conversion with alpha.

images.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Planar-Image Pointer Array.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.44.2.32 NppStatus nppiBGRToYUV_8u_AC4R (const Npp8u ∗ *pSrc*, int *nSrcStep*, Npp8u ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*)

4 channel 8-bit unsigned packed BGR with alpha to 4 channel 8-bit unsigned packed YUV color conversion with alpha, not affecting alpha.

images.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.44.2.33 NppStatus nppiBGRToYUV_8u_C3P3R (const Npp8u ∗ *pSrc*, int *nSrcStep*, Npp8u ∗ *pDst*[3], int *nDstStep*, NppiSize *oSizeROI*)

3 channel 8-bit unsigned packed BGR to 3 channel 8-bit unsigned planar YUV color conversion.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Planar-Image Pointer Array.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.44.2.34 NppStatus nppiBGRToYUV_8u_C3R (const Npp8u * *pSrc*, int *nSrcStep*, Npp8u * *pDst*, int *nDstStep*, NppiSize *oSizeROI*)

3 channel 8-bit unsigned packed BGR to 3 channel 8-bit unsigned packed YUV color conversion.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.44.2.35 NppStatus nppiBGRToYUV_8u_P3R (const Npp8u *const *pSrc*[3], int *nSrcStep*, Npp8u * *pDst*[3], int *nDstStep*, NppiSize *oSizeROI*)

3 channel 8-bit unsigned planar BGR to 3 channel 8-bit unsigned planar YUV color conversion.

Parameters:

pSrc Source-Planar-Image Pointer Array.

nSrcStep Source-Image Line Step.

pDst Destination-Planar-Image Pointer Array.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.44.2.36 NppStatus nppiCbYCr422ToBGR_709HDTV_8u_C2C3R (const Npp8u * *pSrc*, int *nSrcStep*, Npp8u * *pDst*, int *nDstStep*, NppiSize *oSizeROI*)

2 channel 8-bit unsigned packed CbYCr422 to 3 channel 8-bit unsigned packed BGR_709HDTV color conversion.

images.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.44.2.37 NppStatus nppiCbYCr422ToBGR_709HDTV_8u_C2C4R (const Npp8u ∗ *pSrc*, int *nSrcStep*, Npp8u ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, Npp8u *nAval*)

2 channel 8-bit unsigned packed CbYCr422 to 4 channel 8-bit unsigned packed BGR_709HDTV color conversion with constant alpha.

images.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

nAval 8-bit unsigned alpha constant.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.44.2.38 NppStatus nppiCbYCr422ToBGR_8u_C2C4R (const Npp8u ∗ *pSrc*, int *nSrcStep*, Npp8u ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, Npp8u *nAval*)

2 channel 8-bit unsigned packed CbYCr422 to 4 channel 8-bit unsigned packed BGR color conversion with alpha.

images.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

nAval 8-bit unsigned alpha constant.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.44.2.39 NppStatus nppiCbYCr422ToRGB_8u_C2C3R (const Npp8u * *pSrc*, int *nSrcStep*, Npp8u * *pDst*, int *nDstStep*, NppiSize *oSizeROI*)

2 channel 8-bit unsigned packed CbYCrC22 to 3 channel 8-bit unsigned packed RGB color conversion.

images.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.44.2.40 NppStatus nppiColorToGray_16s_AC4C1R (const Npp16s * *pSrc*, int *nSrcStep*, Npp16s * *pDst*, int *nDstStep*, NppiSize *oSizeROI*, const Npp32f *aCoeffs*[3])

4 channel 16-bit signed packed RGB with alpha to 1 channel 16-bit signed packed Gray conversion.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

aCoeffs fixed size array of constant floating point conversion coefficient values, one per color channel.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.44.2.41 NppStatus nppiColorToGray_16s_C3C1R (const Npp16s * *pSrc*, int *nSrcStep*, Npp16s * *pDst*, int *nDstStep*, NppiSize *oSizeROI*, const Npp32f *aCoeffs*[3])

3 channel 16-bit signed packed RGB to 1 channel 16-bit signed packed Gray conversion.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

aCoeffs fixed size array of constant floating point conversion coefficient values, one per color channel.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.44.2.42 NppStatus nppiColorToGray_16u_AC4C1R (const Npp16u ∗ *pSrc*, int *nSrcStep*, Npp16u ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, const Npp32f *aCoeffs*[3])

4 channel 16-bit unsigned packed RGB with alpha to 1 channel 16-bit unsigned packed Gray conversion.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

aCoeffs fixed size array of constant floating point conversion coefficient values, one per color channel.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.44.2.43 NppStatus nppiColorToGray_16u_C3C1R (const Npp16u ∗ *pSrc*, int *nSrcStep*, Npp16u ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, const Npp32f *aCoeffs*[3])

3 channel 16-bit unsigned packed RGB to 1 channel 16-bit unsigned packed Gray conversion.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

aCoeffs fixed size array of constant floating point conversion coefficient values, one per color channel.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.44.2.44 NppStatus nppiColorToGray_32f_AC4C1R (const Npp32f ∗ *pSrc*, int *nSrcStep*, Npp32f ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, const Npp32f *aCoeffs*[3])

4 channel 32-bit floating point packed RGB with alpha to 1 channel 32-bit floating point packed Gray conversion.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

aCoeffs fixed size array of constant floating point conversion coefficient values, one per color channel.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.44.2.45 NppStatus nppiColorToGray_32f_C3C1R (const Npp32f ∗ *pSrc*, int *nSrcStep*, Npp32f ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, const Npp32f *aCoeffs*[3])

3 channel 32-bit floating point packed RGB to 1 channel 32-bit floating point packed Gray conversion.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

aCoeffs fixed size array of constant floating point conversion coefficient values, one per color channel.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.44.2.46 NppStatus nppiColorToGray_8u_AC4C1R (const Npp8u ∗ *pSrc*, int *nSrcStep*, Npp8u ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, const Npp32f *aCoeffs*[3])

4 channel 8-bit unsigned packed RGB with alpha to 1 channel 8-bit unsigned packed Gray conversion.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

aCoeffs fixed size array of constant floating point conversion coefficient values, one per color channel.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.44.2.47 NppStatus nppiColorToGray_8u_C3C1R (const Npp8u ∗ *pSrc*, int *nSrcStep*, Npp8u ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, const Npp32f *aCoeffs*[3])

3 channel 8-bit unsigned packed RGB to 1 channel 8-bit unsigned packed Gray conversion.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

aCoeffs fixed size array of constant floating point conversion coefficient values, one per color channel.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.44.2.48 NppStatus nppiHLSToBGR_8u_AC4P4R (const Npp8u ∗ *pSrc*, int *nSrcStep*, Npp8u ∗ *pDst*[4], int *nDstStep*, NppiSize *oSizeROI*)

4 channel 8-bit unsigned packed HLS with alpha to 4 channel 8-bit unsigned planar BGR with alpha color conversion.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Planar-Image Pointer Array.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.44.2.49 NppStatus nppiHLSToBGR_8u_AC4R (const Npp8u ∗ *pSrc*, int *nSrcStep*, Npp8u ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*)

4 channel 8-bit unsigned packed HLS with alpha to 4 channel 8-bit unsigned packed BGR with alpha color conversion.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.44.2.50 NppStatus nppiHLSToBGR_8u_AP4C4R (const Npp8u *const *pSrc*[4], int *nSrcStep*, Npp8u * *pDst*, int *nDstStep*, NppiSize *oSizeROI*)

4 channel 8-bit unsigned planar HLS with alpha to 4 channel 8-bit unsigned packed BGR with alpha color conversion.

Parameters:

pSrc Source-Planar-Image Pointer Array.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.44.2.51 NppStatus nppiHLSToBGR_8u_AP4R (const Npp8u *const *pSrc*[4], int *nSrcStep*, Npp8u * *pDst*[4], int *nDstStep*, NppiSize *oSizeROI*)

4 channel 8-bit unsigned planar HLS with alpha to 4 channel 8-bit unsigned planar BGR with alpha color conversion.

Parameters:

pSrc Source-Planar-Image Pointer Array.

nSrcStep Source-Image Line Step.

pDst Destination-Planar-Image Pointer Array.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.44.2.52 NppStatus nppiHLSToBGR_8u_C3P3R (const Npp8u * *pSrc*, int *nSrcStep*, Npp8u * *pDst*[3], int *nDstStep*, NppiSize *oSizeROI*)

3 channel 8-bit unsigned packed HLS to 3 channel 8-bit unsigned planar BGR color conversion.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Planar-Image Pointer Array.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.44.2.53 NppStatus nppiHLSToBGR_8u_P3C3R (const Npp8u ∗const *pSrc*[3], int *nSrcStep*, Npp8u ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*)

3 channel 8-bit unsigned planar HLS to 3 channel 8-bit unsigned packed BGR color conversion.

Parameters:

pSrc Source-Planar-Image Pointer Array.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.44.2.54 NppStatus nppiHLSToBGR_8u_P3R (const Npp8u ∗const *pSrc*[3], int *nSrcStep*, Npp8u ∗ *pDst*[3], int *nDstStep*, NppiSize *oSizeROI*)

3 channel 8-bit unsigned planar HLS to 3 channel 8-bit unsigned planar BGR color conversion.

Parameters:

pSrc Source-Planar-Image Pointer Array.

nSrcStep Source-Image Line Step.

pDst Destination-Planar-Image Pointer Array.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.44.2.55 NppStatus nppiHLSToRGB_8u_AC4R (const Npp8u ∗ *pSrc*, int *nSrcStep*, Npp8u ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*)

4 channel 8-bit unsigned packed HLS with alpha to 4 channel 8-bit unsigned packed RGB with alpha color conversion.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.44.2.56 NppStatus nppiHLSToRGB_8u_C3R (const Npp8u ∗ *pSrc*, int *nSrcStep*, Npp8u ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*)

3 channel 8-bit unsigned packed HLS to 3 channel 8-bit unsigned packed RGB color conversion.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.44.2.57 NppStatus nppiHSVToRGB_8u_AC4R (const Npp8u ∗ *pSrc*, int *nSrcStep*, Npp8u ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*)

4 channel 8-bit unsigned packed HSV with alpha to 4 channel 8-bit unsigned packed RGB with alpha color conversion.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.44.2.58 NppStatus nppiHSVToRGB_8u_C3R (const Npp8u ∗ *pSrc*, int *nSrcStep*, Npp8u ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*)

3 channel 8-bit unsigned packed HSV to 3 channel 8-bit unsigned packed RGB color conversion.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.44.2.59 NppStatus nppiLabToBGR_8u_C3R (const Npp8u * *pSrc*, int *nSrcStep*, Npp8u * *pDst*, int *nDstStep*, NppiSize *oSizeROI*)

3 channel 8-bit unsigned packed Lab to 3 channel 8-bit unsigned packed BGR color conversion.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.44.2.60 NppStatus nppiLUVToRGB_8u_AC4R (const Npp8u * *pSrc*, int *nSrcStep*, Npp8u * *pDst*, int *nDstStep*, NppiSize *oSizeROI*)

4 channel 8-bit unsigned packed LUV with alpha to 4 channel 8-bit unsigned packed RGB with alpha color conversion.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.44.2.61 NppStatus nppiLUVToRGB_8u_C3R (const Npp8u * *pSrc*, int *nSrcStep*, Npp8u * *pDst*, int *nDstStep*, NppiSize *oSizeROI*)

3 channel 8-bit unsigned packed LUV to 3 channel 8-bit unsigned packed RGB color conversion.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.44.2.62 NppStatus nppiNV21ToBGR_8u_P2C4R (const Npp8u ∗const *pSrc*[2], int *rSrcStep*, Npp8u ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*)

2 channel 8-bit unsigned planar NV21 to 4 channel 8-bit unsigned packed BGRA color conversion with constant alpha (0xFF).

Parameters:

pSrc Source-Planar-Image Pointer Array (one for Y plane, one for VU plane).
rSrcStep Source-Planar-Image Line Step Array.
pDst Destination-Image Pointer.
nDstStep Destination-Image Line Step.
oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.44.2.63 NppStatus nppiNV21ToRGB_8u_P2C4R (const Npp8u ∗const *pSrc*[2], int *rSrcStep*, Npp8u ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*)

2 channel 8-bit unsigned planar NV21 to 4 channel 8-bit unsigned packed ARGB color conversion with constant alpha (0xFF).

Parameters:

pSrc Source-Planar-Image Pointer Array (one for Y plane, one for VU plane).
rSrcStep Source-Planar-Image Line Step Array.
pDst Destination-Image Pointer.
nDstStep Destination-Image Line Step.
oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.44.2.64 NppStatus nppiRGBToCbYCr422_8u_C3C2R (const Npp8u ∗ *pSrc*, int *nSrcStep*, Npp8u ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*)

3 channel 8-bit unsigned packed RGB to 2 channel 8-bit unsigned packed CbYCr422 color conversion.

images.

Parameters:

pSrc Source-Image Pointer.
nSrcStep Source-Image Line Step.
pDst Destination-Image Pointer.
nDstStep Destination-Image Line Step.
oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.44.2.65 NppStatus nppiRGBToCbYCr422Gamma_8u_C3C2R (const Npp8u ∗ *pSrc*, int *nSrcStep*, Npp8u ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*)

3 channel 8-bit unsigned packed RGB first gets forward gamma corrected then converted to 2 channel 8-bit unsigned packed CbYCr422 color conversion.

images.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.44.2.66 NppStatus nppiRGBToGray_16s_AC4C1R (const Npp16s ∗ *pSrc*, int *nSrcStep*, Npp16s ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*)

4 channel 16-bit signed packed RGB with alpha to 1 channel 16-bit signed packed Gray conversion.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.44.2.67 NppStatus nppiRGBToGray_16s_C3C1R (const Npp16s ∗ *pSrc*, int *nSrcStep*, Npp16s ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*)

3 channel 16-bit signed packed RGB to 1 channel 16-bit signed packed Gray conversion.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.44.2.68 NppStatus nppiRGBToGray_16u_AC4C1R (const Npp16u ∗ *pSrc*, int *nSrcStep*, Npp16u ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*)

4 channel 16-bit unsigned packed RGB with alpha to 1 channel 16-bit unsigned packed Gray conversion.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.44.2.69 NppStatus nppiRGBToGray_16u_C3C1R (const Npp16u ∗ *pSrc*, int *nSrcStep*, Npp16u ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*)

3 channel 16-bit unsigned packed RGB to 1 channel 16-bit unsigned packed Gray conversion.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.44.2.70 NppStatus nppiRGBToGray_32f_AC4C1R (const Npp32f ∗ *pSrc*, int *nSrcStep*, Npp32f ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*)

4 channel 32-bit floating point packed RGB with alpha to 1 channel 32-bit floating point packed Gray conversion.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.44.2.71 NppStatus nppiRGBToGray_32f_C3C1R (const Npp32f ∗ *pSrc*, int *nSrcStep*, Npp32f ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*)

3 channel 32-bit floating point packed RGB to 1 channel 32-bit floating point packed Gray conversion.

Parameters:

pSrc Source-Image Pointer.
nSrcStep Source-Image Line Step.
pDst Destination-Image Pointer.
nDstStep Destination-Image Line Step.
oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.44.2.72 NppStatus nppiRGBToGray_8u_AC4C1R (const Npp8u ∗ *pSrc*, int *nSrcStep*, Npp8u ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*)

4 channel 8-bit unsigned packed RGB with alpha to 1 channel 8-bit unsigned packed Gray conversion.

Parameters:

pSrc Source-Image Pointer.
nSrcStep Source-Image Line Step.
pDst Destination-Image Pointer.
nDstStep Destination-Image Line Step.
oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.44.2.73 NppStatus nppiRGBToGray_8u_C3C1R (const Npp8u ∗ *pSrc*, int *nSrcStep*, Npp8u ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*)

3 channel 8-bit unsigned packed RGB to 1 channel 8-bit unsigned packed Gray conversion.

Parameters:

pSrc Source-Image Pointer.
nSrcStep Source-Image Line Step.
pDst Destination-Image Pointer.
nDstStep Destination-Image Line Step.
oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.44.2.74 NppStatus nppiRGBToHLS_8u_AC4R (const Npp8u * *pSrc*, int *nSrcStep*, Npp8u * *pDst*, int *nDstStep*, NppiSize *oSizeROI*)

4 channel 8-bit unsigned packed RGB with alpha to 4 channel 8-bit unsigned packed HLS with alpha color conversion.

Parameters:

pSrc Source-Image Pointer.
nSrcStep Source-Image Line Step.
pDst Destination-Image Pointer.
nDstStep Destination-Image Line Step.
oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.44.2.75 NppStatus nppiRGBToHLS_8u_C3R (const Npp8u * *pSrc*, int *nSrcStep*, Npp8u * *pDst*, int *nDstStep*, NppiSize *oSizeROI*)

3 channel 8-bit unsigned packed RGB to 3 channel 8-bit unsigned packed HLS color conversion.

Parameters:

pSrc Source-Image Pointer.
nSrcStep Source-Image Line Step.
pDst Destination-Image Pointer.
nDstStep Destination-Image Line Step.
oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.44.2.76 NppStatus nppiRGBToHSV_8u_AC4R (const Npp8u * *pSrc*, int *nSrcStep*, Npp8u * *pDst*, int *nDstStep*, NppiSize *oSizeROI*)

4 channel 8-bit unsigned packed RGB with alpha to 4 channel 8-bit unsigned packed HSV with alpha color conversion.

Parameters:

pSrc Source-Image Pointer.
nSrcStep Source-Image Line Step.
pDst Destination-Image Pointer.
nDstStep Destination-Image Line Step.
oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.44.2.77 NppStatus nppiRGBToHSV_8u_C3R (const Npp8u $*$ *pSrc*, int *nSrcStep*, Npp8u $*$ *pDst*, int *nDstStep*, NppiSize *oSizeROI*)

3 channel 8-bit unsigned packed RGB to 3 channel 8-bit unsigned packed HSV color conversion.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.44.2.78 NppStatus nppiRGBToLUV_8u_AC4R (const Npp8u $*$ *pSrc*, int *nSrcStep*, Npp8u $*$ *pDst*, int *nDstStep*, NppiSize *oSizeROI*)

4 channel 8-bit unsigned packed RGB with alpha to 4 channel 8-bit unsigned packed LUV with alpha color conversion.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.44.2.79 NppStatus nppiRGBToLUV_8u_C3R (const Npp8u $*$ *pSrc*, int *nSrcStep*, Npp8u $*$ *pDst*, int *nDstStep*, NppiSize *oSizeROI*)

3 channel 8-bit unsigned packed RGB to 3 channel 8-bit unsigned packed LUV color conversion.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.44.2.80 NppStatus nppiRGBToXYZ_8u_AC4R (const Npp8u ∗ *pSrc*, int *nSrcStep*, Npp8u ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*)

4 channel 8-bit unsigned packed RGB with alpha to 4 channel 8-bit unsigned packed XYZ with alpha color conversion.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.44.2.81 NppStatus nppiRGBToXYZ_8u_C3R (const Npp8u ∗ *pSrc*, int *nSrcStep*, Npp8u ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*)

3 channel 8-bit unsigned packed RGB to 3 channel 8-bit unsigned packed XYZ color conversion.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.44.2.82 NppStatus nppiRGBToYCbCr420_8u_C3P3R (const Npp8u ∗ *pSrc*, int *nSrcStep*, Npp8u ∗ *pDst*[3], int *rDstStep*[3], NppiSize *oSizeROI*)

3 channel 8-bit unsigned packed RGB to 3 channel 8-bit unsigned planar YCbCr420 color conversion.

images.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Planar-Image Pointer Array.

rDstStep Destination-Planar-Image Line Step Array.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.44.2.83 NppStatus nppiRGBToYCbCr422_8u_C3C2R (const Npp8u * *pSrc*, int *nSrcStep*, Npp8u * *pDst*, int *nDstStep*, NppiSize *oSizeROI*)

3 channel 8-bit unsigned packed RGB to 2 channel 8-bit unsigned packed YCbCr422 color conversion.

images.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.44.2.84 NppStatus nppiRGBToYCbCr422_8u_C3P3R (const Npp8u * *pSrc*, int *nSrcStep*, Npp8u * *pDst*[3], int *rDstStep*[3], NppiSize *oSizeROI*)

3 channel 8-bit unsigned packed RGB to 3 channel 8-bit unsigned planar YCbCr422 color conversion.

images.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Planar-Image Pointer Array.

rDstStep Destination-Planar-Image Line Step Array.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.44.2.85 NppStatus nppiRGBToYCbCr422_8u_P3C2R (const Npp8u *const *pSrc*[3], int *nSrcStep*, Npp8u * *pDst*, int *nDstStep*, NppiSize *oSizeROI*)

3 channel 8-bit unsigned planar RGB to 2 channel 8-bit unsigned packed YCbCr422 color conversion.

images.

Parameters:

pSrc Source-Planar-Image Pointer Array.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.44.2.86 NppStatus nppiRGBToYCbCr_8u_AC4P3R (const Npp8u ∗ *pSrc*, int *nSrcStep*, Npp8u ∗ *pDst*[3], int *nDstStep*, NppiSize *oSizeROI*)

4 channel 8-bit unsigned packed RGB with alpha to 3 channel 8-bit unsigned planar YCbCr color conversion.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Planar-Image Pointer Array.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.44.2.87 NppStatus nppiRGBToYCbCr_8u_AC4R (const Npp8u ∗ *pSrc*, int *nSrcStep*, Npp8u ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*)

4 channel 8-bit unsigned packed RGB with alpha to 4 channel unsigned 8-bit packed YCbCr with alpha color conversion, not affecting alpha.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.44.2.88 NppStatus nppiRGBToYCbCr_8u_C3P3R (const Npp8u ∗ *pSrc*, int *nSrcStep*, Npp8u ∗ *pDst*[3], int *nDstStep*, NppiSize *oSizeROI*)

3 channel 8-bit unsigned packed RGB to 3 channel unsigned 8-bit planar YCbCr color conversion.

images.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.44.2.89 NppStatus nppiRGBToYCbCr_8u_C3R (const Npp8u * *pSrc*, int *nSrcStep*, Npp8u * *pDst*, int *nDstStep*, NppiSize *oSizeROI*)

3 channel 8-bit unsigned packed RGB to 3 channel unsigned 8-bit packed YCbCr color conversion.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.44.2.90 NppStatus nppiRGBToYCbCr_8u_P3R (const Npp8u *const *pSrc*[3], int *nSrcStep*, Npp8u * *pDst*[3], int *nDstStep*, NppiSize *oSizeROI*)

3 channel planar 8-bit unsigned RGB to 3 channel planar 8-bit YCbCr color conversion.

Parameters:

pSrc Source-Planar-Image Pointer Array.

nSrcStep Source-Image Line Step.

pDst Destination-Planar-Image Pointer Array.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.44.2.91 NppStatus nppiRGBToYCC_8u_AC4R (const Npp8u ∗ *pSrc*, int *nSrcStep*, Npp8u ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*)

4 channel 8-bit unsigned packed RGB with alpha to 4 channel 8-bit unsigned packed YCC with alpha color conversion.

Parameters:

pSrc Source-Image Pointer.
nSrcStep Source-Image Line Step.
pDst Destination-Image Pointer.
nDstStep Destination-Image Line Step.
oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.44.2.92 NppStatus nppiRGBToYCC_8u_C3R (const Npp8u ∗ *pSrc*, int *nSrcStep*, Npp8u ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*)

3 channel 8-bit unsigned packed RGB to 3 channel 8-bit unsigned packed YCC color conversion.

Parameters:

pSrc Source-Image Pointer.
nSrcStep Source-Image Line Step.
pDst Destination-Image Pointer.
nDstStep Destination-Image Line Step.
oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.44.2.93 NppStatus nppiRGBToYCrCb420_8u_AC4P3R (const Npp8u ∗ *pSrc*, int *nSrcStep*, Npp8u ∗ *pDst*[3], int *rDstStep*[3], NppiSize *oSizeROI*)

4 channel 8-bit unsigned packed RGB with alpha to 3 channel 8-bit unsigned planar YCrCb420 color conversion.

images.

Parameters:

pSrc Source-Image Pointer.
nSrcStep Source-Image Line Step.
pDst Destination-Planar-Image Pointer Array.
rDstStep Destination-Planar-Image Line Step Array.
oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.44.2.94 NppStatus nppiRGBToYCrCb422_8u_C3C2R (const Npp8u ∗ *pSrc*, int *nSrcStep*, Npp8u ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*)

3 channel 8-bit unsigned packed RGB to 2 channel 8-bit unsigned packed YCrCb422 color conversion.

images.

Parameters:

pSrc Source-Image Pointer.
nSrcStep Source-Image Line Step.
pDst Destination-Image Pointer.
nDstStep Destination-Image Line Step.
oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.44.2.95 NppStatus nppiRGBToYCrCb422_8u_P3C2R (const Npp8u ∗const *pSrc*[3], int *nSrcStep*, Npp8u ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*)

3 channel 8-bit unsigned planar RGB to 2 channel 8-bit unsigned packed YCrCb422 color conversion.

images.

Parameters:

pSrc Source-Planar-Image Pointer Array.
nSrcStep Source-Image Line Step.
pDst Destination-Image Pointer.
nDstStep Destination-Image Line Step.
oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.44.2.96 NppStatus nppiRGBToYUV420_8u_C3P3R (const Npp8u ∗ *pSrc*, int *nSrcStep*, Npp8u ∗ *pDst*[3], int *rDstStep*[3], NppiSize *oSizeROI*)

3 channel 8-bit unsigned packed RGB to 3 channel 8-bit unsigned planar YUV420 color conversion.

Parameters:

pSrc Source-Image Pointer.
nSrcStep Source-Image Line Step.
pDst Destination-Planar-Image Pointer Array.
rDstStep Destination-Planar-Image Line Step Array.
oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.44.2.97 NppStatus nppiRGBToYUV420_8u_P3R (const Npp8u *const *pSrc*[3], int *nSrcStep*, Npp8u * *pDst*[3], int *rDstStep*[3], NppiSize *oSizeROI*)

3 channel 8-bit unsigned planar RGB to 3 channel 8-bit unsigned planar YUV420 color conversion.

images.

Parameters:

pSrc Source-Planar-Image Pointer Array.

nSrcStep Source-Image Line Step.

pDst Destination-Planar-Image Pointer Array.

rDstStep Destination-Planar-Image Line Step Array.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.44.2.98 NppStatus nppiRGBToYUV422_8u_C3C2R (const Npp8u * *pSrc*, int *nSrcStep*, Npp8u * *pDst*, int *nDstStep*, NppiSize *oSizeROI*)

3 channel 8-bit unsigned packed RGB to 2 channel 8-bit unsigned packed YUV422 color conversion.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.44.2.99 NppStatus nppiRGBToYUV422_8u_C3P3R (const Npp8u * *pSrc*, int *nSrcStep*, Npp8u * *pDst*[3], int *rDstStep*[3], NppiSize *oSizeROI*)

3 channel 8-bit unsigned packed RGB to 3 channel 8-bit unsigned planar YUV422 color conversion.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Planar-Image Pointer Array.

rDstStep Destination-Planar-Image Line Step Array.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.44.2.100 NppStatus nppiRGBToYUV422_8u_P3R (const Npp8u ∗const *pSrc*[3], int *nSrcStep*, Npp8u ∗ *pDst*[3], int *rDstStep*[3], NppiSize *oSizeROI*)

3 channel 8-bit unsigned planar RGB to 3 channel 8-bit unsigned planar YUV422 color conversion.

images.

Parameters:

pSrc Source-Planar-Image Pointer Array.

nSrcStep Source-Image Line Step.

pDst Destination-Planar-Image Pointer Array.

rDstStep Destination-Planar-Image Line Step Array.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.44.2.101 NppStatus nppiRGBToYUV_8u_AC4P4R (const Npp8u ∗ *pSrc*, int *nSrcStep*, Npp8u ∗ *pDst*[4], int *nDstStep*, NppiSize *oSizeROI*)

4 channel 8-bit unsigned packed RGB with alpha to 4 channel 8-bit unsigned planar YUV color conversion with alpha.

images.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Planar-Image Pointer Array.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.44.2.102 NppStatus nppiRGBToYUV_8u_AC4R (const Npp8u ∗ *pSrc*, int *nSrcStep*, Npp8u ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*)

4 channel 8-bit unsigned packed RGB with alpha to 4 channel 8-bit unsigned packed YUV color conversion with alpha, not affecting alpha.

images.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.44.2.103 NppStatus nppiRGBToYUV_8u_C3P3R (const Npp8u * *pSrc*, int *nSrcStep*, Npp8u * *pDst*[3], int *nDstStep*, NppiSize *oSizeROI*)

3 channel 8-bit unsigned packed RGB to 3 channel 8-bit unsigned planar YUV color conversion.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Planar-Image Pointer Array.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.44.2.104 NppStatus nppiRGBToYUV_8u_C3R (const Npp8u * *pSrc*, int *nSrcStep*, Npp8u * *pDst*, int *nDstStep*, NppiSize *oSizeROI*)

3 channel 8-bit unsigned packed RGB to 3 channel 8-bit unsigned packed YUV color conversion.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.44.2.105 NppStatus nppiRGBToYUV_8u_P3R (const Npp8u *const *pSrc*[3], int *nSrcStep*, Npp8u * *pDst*[3], int *nDstStep*, NppiSize *oSizeROI*)

3 channel 8-bit unsigned planar RGB to 3 channel 8-bit unsigned planar YUV color conversion.

Parameters:

pSrc Source-Planar-Image Pointer Array.

nSrcStep Source-Image Line Step.

pDst Destination-Planar-Image Pointer Array.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.44.2.106 NppStatus nppiXYZToRGB_8u_AC4R (const Npp8u ∗ *pSrc*, int *nSrcStep*, Npp8u ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*)

4 channel 8-bit unsigned packed XYZ with alpha to 4 channel 8-bit unsigned packed RGB with alpha color conversion.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.44.2.107 NppStatus nppiXYZToRGB_8u_C3R (const Npp8u ∗ *pSrc*, int *nSrcStep*, Npp8u ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*)

3 channel 8-bit unsigned packed XYZ to 3 channel 8-bit unsigned packed RGB color conversion.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.44.2.108 NppStatus nppiYCbCr411ToBGR_8u_P3C3R (const Npp8u *const *pSrc*[3], int *rSrcStep*[3], Npp8u * *pDst*, int *nDstStep*, NppiSize *oSizeROI*)

3 channel 8-bit unsigned planar YCbCr411 to 3 channel 8-bit unsigned packed BGR color conversion.

Parameters:

pSrc Source-Planar-Image Pointer Array.
rSrcStep Source-Planar-Image Line Step Array.
pDst Destination-Image Pointer.
nDstStep Destination-Image Line Step.
oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.44.2.109 NppStatus nppiYCbCr411ToBGR_8u_P3C4R (const Npp8u *const *pSrc*[3], int *rSrcStep*[3], Npp8u * *pDst*, int *nDstStep*, NppiSize *oSizeROI*, Npp8u *nAval*)

3 channel 8-bit unsigned planar YCbCr411 to 4 channel 8-bit unsigned packed BGR color conversion with constant alpha.

Parameters:

pSrc Source-Planar-Image Pointer Array.
rSrcStep Source-Planar-Image Line Step Array.
pDst Destination-Image Pointer.
nDstStep Destination-Image Line Step.
oSizeROI Region-of-Interest (ROI).
nAval 8-bit unsigned alpha constant.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.44.2.110 NppStatus nppiYCbCr420ToBGR_709CSC_8u_P3C3R (const Npp8u *const *pSrc*[3], int *rSrcStep*[3], Npp8u * *pDst*, int *nDstStep*, NppiSize *oSizeROI*)

3 channel 8-bit unsigned planar YCbCr420 to 3 channel 8-bit unsigned packed BGR_709CSC color conversion.

Parameters:

pSrc Source-Planar-Image Pointer Array.
rSrcStep Source-Planar-Image Line Step Array.
pDst Destination-Image Pointer.
nDstStep Destination-Image Line Step.
oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.44.2.111 NppStatus nppiYCbCr420ToBGR_709HDTV_8u_P3C4R (const Npp8u ∗const *pSrc*[3], int *rSrcStep*[3], Npp8u ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, Npp8u *nAval*)

3 channel 8-bit unsigned planar YCbCr420 to 4 channel 8-bit unsigned packed BGR_709HDTV color conversion with constant alpha.

Parameters:

- ***pSrc*** Source-Planar-Image Pointer Array.
- ***rSrcStep*** Source-Planar-Image Line Step Array.
- ***pDst*** Destination-Image Pointer.
- ***nDstStep*** Destination-Image Line Step.
- ***oSizeROI*** Region-of-Interest (ROI).
- ***nAval*** 8-bit unsigned alpha constant.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.44.2.112 NppStatus nppiYCbCr420ToBGR_8u_P3C3R (const Npp8u ∗const *pSrc*[3], int *rSrcStep*[3], Npp8u ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*)

3 channel 8-bit unsigned planar YCbCr420 to 3 channel 8-bit unsigned packed BGR color conversion.

Parameters:

- ***pSrc*** Source-Planar-Image Pointer Array.
- ***rSrcStep*** Source-Planar-Image Line Step Array.
- ***pDst*** Destination-Image Pointer.
- ***nDstStep*** Destination-Image Line Step.
- ***oSizeROI*** Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.44.2.113 NppStatus nppiYCbCr420ToBGR_8u_P3C4R (const Npp8u ∗const *pSrc*[3], int *rSrcStep*[3], Npp8u ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, Npp8u *nAval*)

3 channel 8-bit unsigned planar YCbCr420 to 4 channel 8-bit unsigned packed BGR color conversion with constant alpha.

Parameters:

- ***pSrc*** Source-Planar-Image Pointer Array.
- ***rSrcStep*** Source-Planar-Image Line Step Array.
- ***pDst*** Destination-Image Pointer.
- ***nDstStep*** Destination-Image Line Step.
- ***oSizeROI*** Region-of-Interest (ROI).

nAval 8-bit unsigned alpha constant.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.44.2.114 NppStatus nppiYCbCr420ToRGB_8u_P3C3R (const Npp8u ∗const *pSrc*[3], int *rSrcStep*[3], Npp8u ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*)

3 channel 8-bit unsigned planar YCbCr420 to 3 channel 8-bit unsigned packed RGB color conversion.

Parameters:

pSrc Source-Planar-Image Pointer Array.

rSrcStep Source-Planar-Image Line Step Array.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.44.2.115 NppStatus nppiYCbCr422ToBGR_8u_C2C3R (const Npp8u ∗ *pSrc*, int *nSrcStep*, Npp8u ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*)

2 channel 8-bit unsigned packed YCrCb422 to 3 channel 8-bit unsigned packed BGR color conversion.

images.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.44.2.116 NppStatus nppiYCbCr422ToBGR_8u_C2C4R (const Npp8u ∗ *pSrc*, int *nSrcStep*, Npp8u ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, Npp8u *nAval*)

2 channel 8-bit unsigned packed YCrCb422 to 4 channel 8-bit unsigned packed BGR color conversion with constant alpha.

images.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

nAval 8-bit unsigned alpha constant.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.44.2.117 NppStatus nppiYCbCr422ToBGR_8u_P3C3R (const Npp8u ∗const *pSrc*[3], int *rSrcStep*[3], Npp8u ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*)

3 channel 8-bit unsigned planar YCbCr422 to 3 channel 8-bit unsigned packed BGR color conversion.

images.

Parameters:

pSrc Source-Planar-Image Pointer Array.

rSrcStep Source-Planar-Image Line Step Array.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.44.2.118 NppStatus nppiYCbCr422ToRGB_8u_C2C3R (const Npp8u ∗ *pSrc*, int *nSrcStep*, Npp8u ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*)

2 channel 8-bit unsigned packed YCbCr422 to 3 channel 8-bit unsigned packed RGB color conversion.

images.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.44.2.119 NppStatus nppiYCbCr422ToRGB_8u_C2P3R (const Npp8u ∗ *pSrc*, int *nSrcStep*, Npp8u ∗ *pDst*[3], int *nDstStep*, NppiSize *oSizeROI*)

2 channel 8-bit unsigned packed YCbCr422 to 3 channel 8-bit unsigned planar RGB color conversion.

images.

Parameters:

pSrc Source-Image Pointer.
nSrcStep Source-Image Line Step.
pDst Destination-Planar-Image Pointer.
nDstStep Destination-Image Line Step.
oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.44.2.120 NppStatus nppiYCbCr422ToRGB_8u_P3C3R (const Npp8u ∗const *pSrc*[3], int *rSrcStep*[3], Npp8u ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*)

3 channel 8-bit unsigned planar YCbCr422 to 3 channel 8-bit unsigned packed RGB color conversion.

images.

Parameters:

pSrc Source-Planar-Image Pointer Array.
rSrcStep Source-Planar-Image Line Step Array.
pDst Destination-Image Pointer.
nDstStep Destination-Image Line Step.
oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.44.2.121 NppStatus nppiYCbCrToBGR_709CSC_8u_P3C3R (const Npp8u ∗const *pSrc*[3], int *nSrcStep*, Npp8u ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*)

3 channel 8-bit unsigned planar YCbCr to 3 channel 8-bit unsigned packed BGR_709CSC color conversion.

Parameters:

pSrc Source-Planar-Image Pointer Array.
nSrcStep Source-Image Line Step.
pDst Destination-Image Pointer.
nDstStep Destination-Image Line Step.
oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.44.2.122 NppStatus nppiYCbCrToBGR_709CSC_8u_P3C4R (const Npp8u ∗const *pSrc*[3], int *nSrcStep*, Npp8u ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, Npp8u *nAval*)

3 channel 8-bit unsigned planar YCbCr to 4 channel 8-bit unsigned packed BGR_709CSC color conversion with constant alpha.

Parameters:

pSrc Source-Planar-Image Pointer Array.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

nAval 8-bit unsigned alpha constant.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.44.2.123 NppStatus nppiYCbCrToBGR_8u_P3C3R (const Npp8u ∗const *pSrc*[3], int *nSrcStep*, Npp8u ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*)

3 channel 8-bit unsigned planar YCbCr to 3 channel 8-bit unsigned packed BGR color conversion.

Parameters:

pSrc Source-Planar-Image Pointer Array.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.44.2.124 NppStatus nppiYCbCrToBGR_8u_P3C4R (const Npp8u ∗const *pSrc*[3], int *nSrcStep*, Npp8u ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, Npp8u *nAval*)

3 channel 8-bit unsigned planar YCbCr to 4 channel 8-bit unsigned packed BGR color conversion with constant alpha.

Parameters:

pSrc Source-Planar-Image Pointer Array.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

nAval 8-bit unsigned alpha constant.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.44.2.125 NppStatus nppiYCbCrToRGB_8u_AC4R (const Npp8u * *pSrc*, int *nSrcStep*, Npp8u * *pDst*, int *nDstStep*, NppiSize *oSizeROI*)

4 channel 8-bit unsigned packed YCbCr with alpha to 4 channel 8-bit unsigned packed RGB with alpha color conversion, not affecting alpha.

Alpha channel is the last channel and is not processed.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.44.2.126 NppStatus nppiYCbCrToRGB_8u_C3R (const Npp8u * *pSrc*, int *nSrcStep*, Npp8u * *pDst*, int *nDstStep*, NppiSize *oSizeROI*)

3 channel 8-bit unsigned packed YCbCr to 3 channel 8-bit unsigned packed RGB color conversion.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.44.2.127 NppStatus nppiYCbCrToRGB_8u_P3C3R (const Npp8u *const *pSrc*[3], int *nSrcStep*, Npp8u * *pDst*, int *nDstStep*, NppiSize *oSizeROI*)

3 channel 8-bit unsigned planar YCbCr to 3 channel 8-bit unsigned packed RGB color conversion.

Parameters:

pSrc Source-Planar-Image Pointer Array.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.44.2.128 NppStatus nppiYCbCrToRGB_8u_P3C4R (const Npp8u ∗const *pSrc*[3], int *nSrcStep*, Npp8u ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, Npp8u *nAval*)

3 channel 8-bit unsigned planar YCbCr to 4 channel 8-bit unsigned packed RGB color conversion with constant alpha.

Parameters:

pSrc Source-Planar-Image Pointer Array.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

nAval 8-bit unsigned alpha constant.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.44.2.129 NppStatus nppiYCbCrToRGB_8u_P3R (const Npp8u ∗const *pSrc*[3], int *nSrcStep*, Npp8u ∗ *pDst*[3], int *nDstStep*, NppiSize *oSizeROI*)

3 channel 8-bit unsigned planar YCbCr to 3 channel 8-bit unsigned planar RGB color conversion.

Parameters:

pSrc Source-Planar-Image Pointer Array.

nSrcStep Source-Image Line Step.

pDst Destination-Planar-Image Pointer Array.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.44.2.130 NppStatus nppiYCCToRGB_8u_AC4R (const Npp8u ∗ *pSrc*, int *nSrcStep*, Npp8u ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*)

4 channel 8-bit unsigned packed YCC with alpha to 4 channel 8-bit unsigned packed RGB with alpha color conversion.

Parameters:

pSrc Source-Image Pointer.
nSrcStep Source-Image Line Step.
pDst Destination-Image Pointer.
nDstStep Destination-Image Line Step.
oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.44.2.131 NppStatus nppiYCCToRGB_8u_C3R (const Npp8u ∗ *pSrc*, int *nSrcStep*, Npp8u ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*)

3 channel 8-bit unsigned packed YCC to 3 channel 8-bit unsigned packed RGB color conversion.

Parameters:

pSrc Source-Image Pointer.
nSrcStep Source-Image Line Step.
pDst Destination-Image Pointer.
nDstStep Destination-Image Line Step.
oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.44.2.132 NppStatus nppiYCrCb420ToRGB_8u_P3C4R (const Npp8u ∗const *pSrc*[3], int *rSrcStep*[3], Npp8u ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, Npp8u *nAval*)

3 channel 8-bit unsigned planar YCrCb420 to 4 channel 8-bit unsigned packed RGB color conversion with constant alpha.

Parameters:

pSrc Source-Planar-Image Pointer Array.
rSrcStep Source-Planar-Image Line Step Array.
pDst Destination-Image Pointer.
nDstStep Destination-Image Line Step.
oSizeROI Region-of-Interest (ROI).
nAval 8-bit unsigned alpha constant.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.44.2.133 NppStatus nppiYCrCb422ToRGB_8u_C2C3R (const Npp8u ∗ *pSrc*, int *nSrcStep*, Npp8u ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*)

2 channel 8-bit unsigned packed YCrCb422 to 3 channel 8-bit unsigned packed RGB color conversion.

images.

Parameters:

pSrc Source-Image Pointer.
nSrcStep Source-Image Line Step.
pDst Destination-Image Pointer.
nDstStep Destination-Image Line Step.
oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.44.2.134 NppStatus nppiYCrCb422ToRGB_8u_C2P3R (const Npp8u ∗ *pSrc*, int *nSrcStep*, Npp8u ∗ *pDst*[3], int *nDstStep*, NppiSize *oSizeROI*)

2 channel 8-bit unsigned packed YCrCb422 to 3 channel 8-bit unsigned planar RGB color conversion.

images.

Parameters:

pSrc Source-Image Pointer.
nSrcStep Source-Image Line Step.
pDst Destination-Planar-Image Pointer.
nDstStep Destination-Image Line Step.
oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.44.2.135 NppStatus nppiYUV420ToBGR_8u_P3C3R (const Npp8u ∗const *pSrc*[3], int *rSrcStep*[3], Npp8u ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*)

3 channel 8-bit unsigned planar YUV420 to 3 channel 8-bit unsigned packed BGR color conversion.

Parameters:

pSrc Source-Planar-Image Pointer Array.
rSrcStep Source-Planar-Image Line Step Array.
pDst Destination-Image Pointer.
nDstStep Destination-Image Line Step.
oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.44.2.136 NppStatus nppiYUV420ToBGR_8u_P3C4R (const Npp8u ∗const *pSrc*[3], int *rSrcStep*[3], Npp8u ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*)

3 channel 8-bit unsigned planar YUV420 to 4 channel 8-bit unsigned packed BGR color conversion with constant alpha (0xFF).

Parameters:

pSrc Source-Planar-Image Pointer Array.

rSrcStep Source-Planar-Image Line Step Array.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.44.2.137 NppStatus nppiYUV420ToRGB_8u_P3AC4R (const Npp8u ∗const *pSrc*[3], int *rSrcStep*[3], Npp8u ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*)

3 channel 8-bit unsigned planar YUV420 to 4 channel 8-bit unsigned packed RGB color conversion with alpha.

Parameters:

pSrc Source-Planar-Image Pointer Array.

rSrcStep Source-Planar-Image Line Step Array.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.44.2.138 NppStatus nppiYUV420ToRGB_8u_P3C3R (const Npp8u ∗const *pSrc*[3], int *rSrcStep*[3], Npp8u ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*)

3 channel 8-bit unsigned planar YUV420 to 3 channel 8-bit unsigned packed RGB color conversion.

Parameters:

pSrc Source-Planar-Image Pointer Array.

rSrcStep Source-Planar-Image Line Step Array.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.44.2.139 NppStatus nppiYUV420ToRGB_8u_P3C4R (const Npp8u $*$const *pSrc*[3], int *rSrcStep*[3], Npp8u $*$ *pDst*, int *nDstStep*, NppiSize *oSizeROI*)

3 channel 8-bit unsigned planar YUV420 to 4 channel 8-bit unsigned packed RGB color conversion with constant alpha (0xFF).

Parameters:

pSrc Source-Planar-Image Pointer Array.

rSrcStep Source-Planar-Image Line Step Array.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.44.2.140 NppStatus nppiYUV420ToRGB_8u_P3R (const Npp8u $*$const *pSrc*[3], int *rSrcStep*[3], Npp8u $*$ *pDst*[3], int *nDstStep*, NppiSize *oSizeROI*)

3 channel 8-bit unsigned planar YUV420 to 3 channel 8-bit unsigned planar RGB color conversion.

Parameters:

pSrc Source-Planar-Image Pointer Array.

rSrcStep Source-Planar-Image Line Step Array.

pDst Destination-Planar-Image Pointer Array.

nDstStep Destination-Planar-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.44.2.141 NppStatus nppiYUV422ToRGB_8u_C2C3R (const Npp8u $*$ *pSrc*, int *nSrcStep*, Npp8u $*$ *pDst*, int *nDstStep*, NppiSize *oSizeROI*)

2 channel 8-bit unsigned packed YUV422 to 3 channel 8-bit unsigned packed RGB color conversion.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.44.2.142 NppStatus nppiYUV422ToRGB_8u_P3AC4R (const Npp8u *const *pSrc*[3], int *rSrcStep*[3], Npp8u * *pDst*, int *nDstStep*, NppiSize *oSizeROI*)

3 channel 8-bit unsigned planar YUV422 to 4 channel 8-bit unsigned packed RGB color conversion with alpha.

Parameters:

pSrc Source-Planar-Image Pointer Array.

rSrcStep Source-Planar-Image Line Step Array.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.44.2.143 NppStatus nppiYUV422ToRGB_8u_P3C3R (const Npp8u *const *pSrc*[3], int *rSrcStep*[3], Npp8u * *pDst*, int *nDstStep*, NppiSize *oSizeROI*)

3 channel 8-bit unsigned planar YUV422 to 3 channel 8-bit unsigned packed RGB color conversion.

Parameters:

pSrc Source-Planar-Image Pointer Array.

rSrcStep Source-Planar-Image Line Step Array.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.44.2.144 NppStatus nppiYUV422ToRGB_8u_P3R (const Npp8u *const *pSrc*[3], int *rSrcStep*[3], Npp8u * *pDst*[3], int *nDstStep*, NppiSize *oSizeROI*)

3 channel 8-bit unsigned planar YUV422 to 3 channel 8-bit unsigned planar RGB color conversion.

Parameters:

pSrc Source-Planar-Image Pointer Array.

rSrcStep Source-Planar-Image Line Step Array.

pDst Destination-Planar-Image Pointer Array.

nDstStep Destination-Planar-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.44.2.145 NppStatus nppiYUVToBGR_8u_AC4R (const Npp8u ∗ *pSrc*, int *nSrcStep*, Npp8u ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*)

4 channel 8-bit packed YUV with alpha to 4 channel 8-bit unsigned packed BGR color conversion with alpha, not affecting alpha.

images.

Parameters:

pSrc Source-Image Pointer.
nSrcStep Source-Image Line Step.
pDst Destination-Image Pointer.
nDstStep Destination-Image Line Step.
oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.44.2.146 NppStatus nppiYUVToBGR_8u_C3R (const Npp8u ∗ *pSrc*, int *nSrcStep*, Npp8u ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*)

3 channel 8-bit unsigned packed YUV to 3 channel 8-bit unsigned packed BGR color conversion.

Parameters:

pSrc Source-Image Pointer.
nSrcStep Source-Image Line Step.
pDst Destination-Image Pointer.
nDstStep Destination-Image Line Step.
oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.44.2.147 NppStatus nppiYUVToBGR_8u_P3C3R (const Npp8u ∗const *pSrc*[3], int *nSrcStep*, Npp8u ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*)

3 channel 8-bit unsigned planar YUV to 3 channel 8-bit unsigned packed BGR color conversion.

Parameters:

pSrc Source-Planar-Image Pointer Array.
nSrcStep Source-Image Line Step.
pDst Destination-Image Pointer.
nDstStep Destination-Image Line Step.
oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.44.2.148 NppStatus nppiYUVToBGR_8u_P3R (const Npp8u ∗const *pSrc*[3], int *nSrcStep*, Npp8u ∗ *pDst*[3], int *nDstStep*, NppiSize *oSizeROI*)

3 channel 8-bit unsigned planar YUV to 3 channel 8-bit unsigned planar BGR color conversion.

Parameters:

pSrc Source-Planar-Image Pointer Array.

nSrcStep Source-Image Line Step.

pDst Destination-Planar-Image Pointer Array.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.44.2.149 NppStatus nppiYUVToRGB_8u_AC4R (const Npp8u ∗ *pSrc*, int *nSrcStep*, Npp8u ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*)

4 channel 8-bit packed YUV with alpha to 4 channel 8-bit unsigned packed RGB color conversion with alpha, not affecting alpha.

images.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.44.2.150 NppStatus nppiYUVToRGB_8u_C3R (const Npp8u ∗ *pSrc*, int *nSrcStep*, Npp8u ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*)

3 channel 8-bit unsigned packed YUV to 3 channel 8-bit unsigned packed RGB color conversion.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.44.2.151 NppStatus nppiYUVToRGB_8u_P3C3R (const Npp8u ∗const *pSrc*[3], int *nSrcStep*, Npp8u ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*)

3 channel 8-bit unsigned planar YUV to 3 channel 8-bit unsigned packed RGB color conversion.

Parameters:

pSrc Source-Planar-Image Pointer Array.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.44.2.152 NppStatus nppiYUVToRGB_8u_P3R (const Npp8u ∗const *pSrc*[3], int *nSrcStep*, Npp8u ∗ *pDst*[3], int *nDstStep*, NppiSize *oSizeROI*)

3 channel 8-bit unsigned planar YUV to 3 channel 8-bit unsigned planar RGB color conversion.

Parameters:

pSrc Source-Planar-Image Pointer Array.

nSrcStep Source-Image Line Step.

pDst Destination-Planar-Image Pointer Array.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.45 Color Sampling Format Conversion

Routines for converting between various image color sampling formats.

YCbCr420ToYCbCr411

YCbCr420 to YCbCr411 sampling format conversion.

- NppStatus nppiYCbCr420ToYCbCr411_8u_P3P2R (const Npp8u ∗const pSrc[3], int rSrcStep[3], Npp8u ∗pDstY, int nDstYStep, Npp8u ∗pDstCbCr, int nDstCbCrStep, NppiSize oSizeROI)

  3 channel 8-bit unsigned planar YCbCr420 to 2 channel 8-bit unsigned planar YCbCr411 sampling format conversion.

- NppStatus nppiYCbCr420ToYCbCr411_8u_P2P3R (const Npp8u ∗pSrcY, int nSrcYStep, const Npp8u ∗pSrcCbCr, int nSrcCbCrStep, Npp8u ∗pDst[3], int rDstStep[3], NppiSize oSizeROI)

  2 channel 8-bit unsigned planar YCbCr420 to 3 channel 8-bit unsigned planar YCbCr411 sampling format conversion.

YCbCr422ToYCbCr422

YCbCr422 to YCbCr422 sampling format conversion.

- NppStatus nppiYCbCr422_8u_C2P3R (const Npp8u ∗pSrc, int nSrcStep, Npp8u ∗pDst[3], int rDstStep[3], NppiSize oSizeROI)

  2 channel 8-bit unsigned packed YCbCr422 to 3 channel 8-bit unsigned planar YCbCr422 sampling format conversion.

- NppStatus nppiYCbCr422_8u_P3C2R (const Npp8u ∗const pSrc[3], int rSrcStep[3], Npp8u ∗pDst, int nDstStep, NppiSize oSizeROI)

  3 channel 8-bit unsigned planar YCbCr422 to 2 channel 8-bit unsigned packed YCbCr422 sampling format conversion.

YCbCr422ToYCrCb422

YCbCr422 to YCrCb422 sampling format conversion.

- NppStatus nppiYCbCr422ToYCrCb422_8u_C2R (const Npp8u ∗pSrc, int nSrcStep, Npp8u ∗pDst, int nDstStep, NppiSize oSizeROI)

  2 channel 8-bit unsigned packed YCbCr422 to 2 channel 8-bit unsigned packed YCrCb422 sampling format conversion.

- NppStatus nppiYCbCr422ToYCrCb422_8u_P3C2R (const Npp8u ∗const pSrc[3], int rSrcStep[3], Npp8u ∗pDst, int nDstStep, NppiSize oSizeROI)

  3 channel 8-bit unsigned planar YCbCr422 to 2 channel 8-bit unsigned packed YCrCb422 sampling format conversion.

YCbCr422ToCbYCr422

YCbCr422 to CbYCr422 sampling format conversion.

- NppStatus nppiYCbCr422ToCbYCr422_8u_C2R (const Npp8u ∗pSrc, int nSrcStep, Npp8u ∗pDst, int nDstStep, NppiSize oSizeROI)

  2 channel 8-bit unsigned packed YCbCr422 to 2 channel 8-bit unsigned packed CbYCr422 sampling format conversion.

CbYCr422ToYCbCr411

CbYCr422 to YCbCr411 sampling format conversion.

- NppStatus nppiCbYCr422ToYCbCr411_8u_C2P3R (const Npp8u ∗pSrc, int nSrcStep, Npp8u ∗pDst[3], int rDstStep[3], NppiSize oSizeROI)

  2 channel 8-bit unsigned packed CbYCr422 to 3 channel 8-bit unsigned planar YCbCr411 sampling format conversion.

YCbCr422ToYCbCr420

YCbCr422 to YCbCr420 sampling format conversion.

- NppStatus nppiYCbCr422ToYCbCr420_8u_P3R (const Npp8u ∗const pSrc[3], int rSrcStep[3], Npp8u ∗pDst[3], int nDstStep[3], NppiSize oSizeROI)

  3 channel 8-bit unsigned planar YCbCr422 to 3 channel 8-bit unsigned planar YCbCr420 sampling format conversion.

- NppStatus nppiYCbCr422ToYCbCr420_8u_P3P2R (const Npp8u ∗const pSrc[3], int rSrcStep[3], Npp8u ∗pDstY, int nDstYStep, Npp8u ∗pDstCbCr, int nDstCbCrStep, NppiSize oSizeROI)

  3 channel 8-bit unsigned planar YCbCr422 to 2 channel 8-bit unsigned planar YCbCr420 sampling format conversion.

- NppStatus nppiYCbCr422ToYCbCr420_8u_C2P3R (const Npp8u ∗pSrc, int nSrcStep, Npp8u ∗pDst[3], int rDstStep[3], NppiSize oSizeROI)

  2 channel 8-bit unsigned packed YCbCr422 to 3 channel 8-bit unsigned planar YCbCr420 sampling format conversion.

- NppStatus nppiYCbCr422ToYCbCr420_8u_C2P2R (const Npp8u ∗pSrc, int nSrcStep, Npp8u ∗pDstY, int nDstYStep, Npp8u ∗pDstCbCr, int nDstCbCrStep, NppiSize oSizeROI)

  2 channel 8-bit unsigned packed YCbCr422 to 2 channel 8-bit unsigned planar YCbCr420 sampling format conversion.

YCrCb420ToYCbCr422

YCrCb420 to YCbCr422 sampling format conversion.

- NppStatus nppiYCrCb420ToYCbCr422_8u_P3R (const Npp8u ∗const pSrc[3], int rSrcStep[3], Npp8u ∗pDst[3], int rDstStep[3], NppiSize oSizeROI)

3 channel 8-bit unsigned planar YCrCb420 to 3 channel 8-bit unsigned planar YCbCr422 sampling format conversion.

- NppStatus nppiYCrCb420ToYCbCr422_8u_P3C2R (const Npp8u ∗const pSrc[3], int rSrcStep[3], Npp8u ∗pDst, int nDstStep, NppiSize oSizeROI)

  3 channel 8-bit unsigned planar YCrCb420 to 2 channel 8-bit unsigned packed YCbCr422 sampling format conversion.

YCbCr422ToYCrCb420

YCbCr422 to YCrCb420 sampling format conversion.

- NppStatus nppiYCbCr422ToYCrCb420_8u_C2P3R (const Npp8u ∗pSrc, int nSrcStep, Npp8u ∗pDst[3], int rDstStep[3], NppiSize oSizeROI)

  2 channel 8-bit unsigned packed YCbCr422 to 3 channel 8-bit unsigned planar YCrCb420 sampling format conversion.

YCbCr422ToYCbCr411

YCbCr422 to YCbCr411 sampling format conversion.

- NppStatus nppiYCbCr422ToYCbCr411_8u_P3R (const Npp8u ∗const pSrc[3], int rSrcStep[3], Npp8u ∗pDst[3], int rDstStep[3], NppiSize oSizeROI)

  3 channel 8-bit unsigned planar YCbCr422 to 3 channel 8-bit unsigned planar YCbCr411 sampling format conversion.

- NppStatus nppiYCbCr422ToYCbCr411_8u_P3P2R (const Npp8u ∗const pSrc[3], int rSrcStep[3], Npp8u ∗pDstY, int nDstYStep, Npp8u ∗pDstCbCr, int nDstCbCrStep, NppiSize oSizeROI)

  3 channel 8-bit unsigned planar YCbCr422 to 2 channel 8-bit unsigned planar YCbCr411 sampling format conversion.

- NppStatus nppiYCbCr422ToYCbCr411_8u_C2P3R (const Npp8u ∗pSrc, int nSrcStep, Npp8u ∗pDst[3], int rDstStep[3], NppiSize oSizeROI)

  2 channel 8-bit unsigned packed YCbCr422 to 3 channel 8-bit unsigned planar YCbCr411 sampling format conversion.

- NppStatus nppiYCbCr422ToYCbCr411_8u_C2P2R (const Npp8u ∗pSrc, int nSrcStep, Npp8u ∗pDstY, int nDstYStep, Npp8u ∗pDstCbCr, int nDstCbCrStep, NppiSize oSizeROI)

  2 channel 8-bit unsigned packed YCbCr422 to 2 channel 8-bit unsigned planar YCbCr411 sampling format conversion.

YCrCb422ToYCbCr422

YCrCb422 to YCbCr422 sampling format conversion.

- NppStatus nppiYCrCb422ToYCbCr422_8u_C2P3R (const Npp8u ∗pSrc, int nSrcStep, Npp8u ∗pDst[3], int rDstStep[3], NppiSize oSizeROI)

2 channel 8-bit unsigned packed YCrCb422 to 3 channel 8-bit unsigned planar YCbCr422 sampling format conversion.

YCrCb422ToYCbCr420

YCrCb422 to YCbCr420 sampling format conversion.

- NppStatus nppiYCrCb422ToYCbCr420_8u_C2P3R (const Npp8u ∗pSrc, int nSrcStep, Npp8u ∗pDst[3], int rDstStep[3], NppiSize oSizeROI)

  2 channel 8-bit unsigned packed YCrCb422 to 3 channel 8-bit unsigned planar YCbCr420 sampling format conversion.

YCrCb422ToYCbCr411

YCrCb422 to YCbCr411 sampling format conversion.

- NppStatus nppiYCrCb422ToYCbCr411_8u_C2P3R (const Npp8u ∗pSrc, int nSrcStep, Npp8u ∗pDst[3], int rDstStep[3], NppiSize oSizeROI)

  2 channel 8-bit unsigned packed YCrCb422 to 3 channel 8-bit unsigned planar YCbCr411 sampling format conversion.

CbYCr422ToYCbCr422

CbYCr422 to YCbCr422 sampling format conversion.

- NppStatus nppiCbYCr422ToYCbCr422_8u_C2R (const Npp8u ∗pSrc, int nSrcStep, Npp8u ∗pDst, int nDstStep, NppiSize oSizeROI)

  2 channel 8-bit unsigned packed CbYCr422 to 2 channel 8-bit unsigned packed YCbCr422 sampling format conversion.

- NppStatus nppiCbYCr422ToYCbCr422_8u_C2P3R (const Npp8u ∗pSrc, int nSrcStep, Npp8u ∗pDst[3], int rDstStep[3], NppiSize oSizeROI)

  2 channel 8-bit unsigned packed CbYCr422 to 3 channel 8-bit unsigned planar YCbCr422 sampling format conversion.

CbYCr422ToYCbCr420

CbYCr422 to YCbCr420 sampling format conversion.

- NppStatus nppiCbYCr422ToYCbCr420_8u_C2P3R (const Npp8u ∗pSrc, int nSrcStep, Npp8u ∗pDst[3], int rDstStep[3], NppiSize oSizeROI)

  2 channel 8-bit unsigned packed CbYCr422 to 3 channel 8-bit unsigned planar YCbCr420 sampling format conversion.

- NppStatus nppiCbYCr422ToYCbCr420_8u_C2P2R (const Npp8u ∗pSrc, int nSrcStep, Npp8u ∗pDstY, int nDstYStep, Npp8u ∗pDstCbCr, int nDstCbCrStep, NppiSize oSizeROI)

2 channel 8-bit unsigned packed CbYCr422 to 2 channel 8-bit unsigned planar YCbCr420 sampling format conversion.

CbYCr422ToYCrCb420

CbYCr422 to YCrCb420 sampling format conversion.

- NppStatus nppiCbYCr422ToYCrCb420_8u_C2P3R (const Npp8u ∗pSrc, int nSrcStep, Npp8u ∗pDst[3], int rDstStep[3], NppiSize oSizeROI)

  2 channel 8-bit unsigned packed CbYCr422 to 3 channel 8-bit unsigned planar YCrCb420 sampling format conversion.

YCbCr420ToYCbCr420

YCbCr420 to YCbCr420 sampling format conversion.

- NppStatus nppiYCbCr420_8u_P3P2R (const Npp8u ∗const pSrc[3], int rSrcStep[3], Npp8u ∗pDstY, int nDstYStep, Npp8u ∗pDstCbCr, int nDstCbCrStep, NppiSize oSizeROI)

  3 channel 8-bit unsigned planar YCbCr420 to 2 channel 8-bit unsigned planar YCbCr420 sampling format conversion.

- NppStatus nppiYCbCr420_8u_P2P3R (const Npp8u ∗const pSrcY, int nSrcYStep, const Npp8u ∗pSrcCbCr, int nSrcCbCrStep, Npp8u ∗pDst[3], int rDstStep[3], NppiSize oSizeROI)

  2 channel 8-bit unsigned planar YCbCr420 to 3 channel 8-bit unsigned planar YCbCr420 sampling format conversion.

YCbCr420ToYCbCr422

YCbCr420 to YCbCr422 sampling format conversion.

- NppStatus nppiYCbCr420ToYCbCr422_8u_P3R (const Npp8u ∗const pSrc[3], int rSrcStep[3], Npp8u ∗pDst[3], int nDstStep[3], NppiSize oSizeROI)

  3 channel 8-bit unsigned planar YCbCr420 to 3 channel 8-bit unsigned planar YCbCr422 sampling format conversion.

- NppStatus nppiYCbCr420ToYCbCr422_8u_P2P3R (const Npp8u ∗pSrcY, int nSrcYStep, const Npp8u ∗pSrcCbCr, int nSrcCbCrStep, Npp8u ∗pDst[3], int rDstStep[3], NppiSize oSizeROI)

  2 channel 8-bit unsigned planar YCbCr420 to 3 channel 8-bit unsigned planar YCbCr422 sampling format conversion.

- NppStatus nppiYCbCr420ToYCbCr422_8u_P2C2R (const Npp8u ∗pSrcY, int nSrcYStep, const Npp8u ∗pSrcCbCr, int nSrcCbCrStep, Npp8u ∗pDst, int nDstStep, NppiSize oSizeROI)

  2 channel 8-bit unsigned planar YCbCr420 to 2 channel 8-bit unsigned packed YCbCr422 sampling format conversion.

YCbCr420ToCbYCr422

YCbCr420 to CbYCr422 sampling format conversion.

- NppStatus nppiYCbCr420ToCbYCr422_8u_P2C2R (const Npp8u ∗pSrcY, int nSrcYStep, const Npp8u ∗pSrcCbCr, int nSrcCbCrStep, Npp8u ∗pDst, int nDstStep, NppiSize oSizeROI)

  2 channel 8-bit unsigned planar YCbCr420 to 2 channel 8-bit unsigned packed CbYCr422 sampling format conversion.

YCbCr420ToYCrCb420

YCbCr420 to YCrCb420 sampling format conversion.

- NppStatus nppiYCbCr420ToYCrCb420_8u_P2P3R (const Npp8u ∗pSrcY, int nSrcYStep, const Npp8u ∗pSrcCbCr, int nSrcCbCrStep, Npp8u ∗pDst[3], int rDstStep[3], NppiSize oSizeROI)

  2 channel 8-bit unsigned planar YCbCr420 to 3 channel 8-bit unsigned planar YCrCb420 sampling format conversion.

YCrCb420ToCbYCr422

YCrCb420 to CbYCr422 sampling format conversion.

- NppStatus nppiYCrCb420ToCbYCr422_8u_P3C2R (const Npp8u ∗const pSrc[3], int rSrcStep[3], Npp8u ∗pDst, int nDstStep, NppiSize oSizeROI)

  3 channel 8-bit unsigned planar YCrCb420 to 2 channel 8-bit unsigned packed CbYCr422 sampling format conversion.

YCrCb420ToYCbCr420

YCrCb420 to YCbCr420 sampling format conversion.

- NppStatus nppiYCrCb420ToYCbCr420_8u_P3P2R (const Npp8u ∗const pSrc[3], int rSrcStep[3], Npp8u ∗pDstY, int nDstYStep, Npp8u ∗pDstCbCr, int nDstCbCrStep, NppiSize oSizeROI)

  3 channel 8-bit unsigned planar YCrCb420 to 2 channel 8-bit unsigned planar YCbCr420 sampling format conversion.

YCrCb420ToYCbCr411

YCrCb420 to YCbCr411 sampling format conversion.

- NppStatus nppiYCrCb420ToYCbCr411_8u_P3P2R (const Npp8u ∗const pSrc[3], int rSrcStep[3], Npp8u ∗pDstY, int nDstYStep, Npp8u ∗pDstCbCr, int nDstCbCrStep, NppiSize oSizeROI)

  3 channel 8-bit unsigned planar YCrCb420 to 2 channel 8-bit unsigned planar YCbCr411 sampling format conversion.

YCbCr411ToYCbCr411

YCbCr411 to YCbCr411 sampling format conversion.

- NppStatus nppiYCbCr411_8u_P3P2R (const Npp8u ∗const pSrc[3], int rSrcStep[3], Npp8u ∗pDstY, int nDstYStep, Npp8u ∗pDstCbCr, int nDstCbCrStep, NppiSize oSizeROI)

  3 channel 8-bit unsigned planar YCbCr411 to 2 channel 8-bit unsigned planar YCbCr411 sampling format conversion.

- NppStatus nppiYCbCr411_8u_P2P3R (const Npp8u ∗pSrcY, int nSrcYStep, const Npp8u ∗pSrcCbCr, int nSrcCbCrStep, Npp8u ∗pDst[3], int rDstStep[3], NppiSize oSizeROI)

  2 channel 8-bit unsigned planar YCbCr411 to 3 channel 8-bit unsigned planar YCbCr411 sampling format conversion.

YCbCr411ToYCbCr422

YCbCr411 to YCbCr422 sampling format conversion.

- NppStatus nppiYCbCr411ToYCbCr422_8u_P3R (const Npp8u ∗const pSrc[3], int rSrcStep[3], Npp8u ∗pDst[3], int nDstStep[3], NppiSize oSizeROI)

  3 channel 8-bit unsigned planar YCbCr411 to 3 channel 8-bit unsigned planar YCbCr422 sampling format conversion.

- NppStatus nppiYCbCr411ToYCbCr422_8u_P3C2R (const Npp8u ∗const pSrc[3], int rSrcStep[3], Npp8u ∗pDst, int nDstStep, NppiSize oSizeROI)

  3 channel 8-bit unsigned planar YCbCr411 to 2 channel 8-bit unsigned packed YCbCr422 sampling format conversion.

- NppStatus nppiYCbCr411ToYCbCr422_8u_P2P3R (const Npp8u ∗const pSrcY, int nSrcYStep, const Npp8u ∗pSrcCbCr, int nSrcCbCrStep, Npp8u ∗pDst[3], int rDstStep[3], NppiSize oSizeROI)

  2 channel 8-bit unsigned planar YCbCr411 to 3 channel 8-bit unsigned planar YCbCr422 sampling format conversion.

- NppStatus nppiYCbCr411ToYCbCr422_8u_P2C2R (const Npp8u ∗pSrcY, int nSrcYStep, const Npp8u ∗pSrcCbCr, int nSrcCbCrStep, Npp8u ∗pDst, int nDstStep, NppiSize oSizeROI)

  2 channel 8-bit unsigned planar YCbCr411 to 2 channel 8-bit unsigned packed YCbCr422 sampling format conversion.

YCbCr411ToYCrCb422

YCbCr411 to YCrCb422 sampling format conversion.

- NppStatus nppiYCbCr411ToYCrCb422_8u_P3R (const Npp8u ∗const pSrc[3], int rSrcStep[3], Npp8u ∗pDst[3], int nDstStep[3], NppiSize oSizeROI)

  3 channel 8-bit unsigned planar YCbCr411 to 3 channel 8-bit unsigned planar YCrCb422 sampling format conversion.

- NppStatus nppiYCbCr411ToYCrCb422_8u_P3C2R (const Npp8u ∗const pSrc[3], int rSrcStep[3], Npp8u ∗pDst, int nDstStep, NppiSize oSizeROI)

3 channel 8-bit unsigned planar YCbCr411 to 2 channel 8-bit unsigned packed YCrCb422 sampling format conversion.

YCbCr411ToYCbCr420

YCbCr411 to YCbCr420 sampling format conversion.

- NppStatus nppiYCbCr411ToYCbCr420_8u_P3R (const Npp8u ∗const pSrc[3], int rSrcStep[3], Npp8u ∗pDst[3], int nDstStep[3], NppiSize oSizeROI)

  3 channel 8-bit unsigned planar YCbCr411 to 3 channel 8-bit unsigned planar YCbCr420 sampling format conversion.

- NppStatus nppiYCbCr411ToYCbCr420_8u_P3P2R (const Npp8u ∗const pSrc[3], int rSrcStep[3], Npp8u ∗pDstY, int nDstYStep, Npp8u ∗pDstCbCr, int nDstCbCrStep, NppiSize oSizeROI)

  3 channel 8-bit unsigned planar YCbCr411 to 2 channel 8-bit unsigned planar YCbCr420 sampling format conversion.

- NppStatus nppiYCbCr411ToYCbCr420_8u_P2P3R (const Npp8u ∗pSrcY, int nSrcYStep, const Npp8u ∗pSrcCbCr, int nSrcCbCrStep, Npp8u ∗pDst[3], int rDstStep[3], NppiSize oSizeROI)

  2 channel 8-bit unsigned planar YCbCr411 to 3 channel 8-bit unsigned planar YCbCr420 sampling format conversion.

YCbCr411ToYCrCb420

YCbCr411 to YCrCb420 sampling format conversion.

- NppStatus nppiYCbCr411ToYCrCb420_8u_P2P3R (const Npp8u ∗pSrcY, int nSrcYStep, const Npp8u ∗pSrcCbCr, int nSrcCbCrStep, Npp8u ∗pDst[3], int rDstStep[3], NppiSize oSizeROI)

  2 channel 8-bit unsigned planar YCbCr411 to 3 channel 8-bit unsigned planar YCrCb420 sampling format conversion.

7.45.1 Detailed Description

Routines for converting between various image color sampling formats.

7.45.2 Function Documentation

7.45.2.1 NppStatus nppiCbYCr422ToYCbCr411_8u_C2P3R (const Npp8u ∗ *pSrc*, int *nSrcStep*, Npp8u ∗ *pDst*[3], int *rDstStep*[3], NppiSize *oSizeROI*)

2 channel 8-bit unsigned packed CbYCr422 to 3 channel 8-bit unsigned planar YCbCr411 sampling format conversion.

images.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Planar-Image Pointer Array.

rDstStep Destination-Planar-Image Line Step Array.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.45.2.2 NppStatus nppiCbYCr422ToYCbCr420_8u_C2P2R (const Npp8u ∗ *pSrc*, int *nSrcStep*, Npp8u ∗ *pDstY*, int *nDstYStep*, Npp8u ∗ *pDstCbCr*, int *nDstCbCrStep*, NppiSize *oSizeROI*)

2 channel 8-bit unsigned packed CbYCr422 to 2 channel 8-bit unsigned planar YCbCr420 sampling format conversion.

images.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDstY Destination-Planar-Image Pointer.

nDstYStep Destination-Planar-Image Line Step.

pDstCbCr Destination-Planar-Image Pointer.

nDstCbCrStep Destination-Planar-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.45.2.3 NppStatus nppiCbYCr422ToYCbCr420_8u_C2P3R (const Npp8u ∗ *pSrc*, int *nSrcStep*, Npp8u ∗ *pDst*[3], int *rDstStep*[3], NppiSize *oSizeROI*)

2 channel 8-bit unsigned packed CbYCr422 to 3 channel 8-bit unsigned planar YCbCr420 sampling format conversion.

images.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Planar-Image Pointer Array.

rDstStep Destination-Planar-Image Line Step Array.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.45.2.4 NppStatus nppiCbYCr422ToYCbCr422_8u_C2P3R (const Npp8u ∗ *pSrc*, int *nSrcStep*, Npp8u ∗ *pDst*[3], int *rDstStep*[3], NppiSize *oSizeROI*)

2 channel 8-bit unsigned packed CbYCr422 to 3 channel 8-bit unsigned planar YCbCr422 sampling format conversion.

images.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Planar-Image Pointer Array.

rDstStep Destination-Planar-Image Line Step Array.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.45.2.5 NppStatus nppiCbYCr422ToYCbCr422_8u_C2R (const Npp8u ∗ *pSrc*, int *nSrcStep*, Npp8u ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*)

2 channel 8-bit unsigned packed CbYCr422 to 2 channel 8-bit unsigned packed YCbCr422 sampling format conversion.

images.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.45.2.6 NppStatus nppiCbYCr422ToYCrCb420_8u_C2P3R (const Npp8u ∗ *pSrc*, int *nSrcStep*, Npp8u ∗ *pDst*[3], int *rDstStep*[3], NppiSize *oSizeROI*)

2 channel 8-bit unsigned packed CbYCr422 to 3 channel 8-bit unsigned planar YCrCb420 sampling format conversion.

images.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Planar-Image Pointer Array.

rDstStep Destination-Planar-Image Line Step Array.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.45.2.7 NppStatus nppiYCbCr411_8u_P2P3R (const Npp8u ∗ *pSrcY*, int *nSrcYStep*, const Npp8u ∗ *pSrcCbCr*, int *nSrcCbCrStep*, Npp8u ∗ *pDst*[3], int *rDstStep*[3], NppiSize *oSizeROI*)

2 channel 8-bit unsigned planar YCbCr411 to 3 channel 8-bit unsigned planar YCbCr411 sampling format conversion.

Parameters:

pSrcY Source-Planar-Image Pointer.

nSrcYStep Source-Planar-Image Line Step.

pSrcCbCr Source-Planar-Image Pointer.

nSrcCbCrStep Source-Planar-Image Line Step.

pDst Destination-Planar-Image Pointer Array.

rDstStep Destination-Planar-Image Line Step Array.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.45.2.8 NppStatus nppiYCbCr411_8u_P3P2R (const Npp8u ∗const *pSrc*[3], int *rSrcStep*[3], Npp8u ∗ *pDstY*, int *nDstYStep*, Npp8u ∗ *pDstCbCr*, int *nDstCbCrStep*, NppiSize *oSizeROI*)

3 channel 8-bit unsigned planar YCbCr411 to 2 channel 8-bit unsigned planar YCbCr411 sampling format conversion.

images.

Parameters:

pSrc Source-Planar-Image Pointer Array.

rSrcStep Source-Planar-Image Line Step Array.

pDstY Destination-Planar-Image Pointer.

nDstYStep Destination-Planar-Image Line Step.

pDstCbCr Destination-Planar-Image Pointer.

nDstCbCrStep Destination-Planar-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.45.2.9 NppStatus nppiYCbCr411ToYCbCr420_8u_P2P3R (const Npp8u ∗ *pSrcY*, int *nSrcYStep*, const Npp8u ∗ *pSrcCbCr*, int *nSrcCbCrStep*, Npp8u ∗ *pDst*[3], int *rDstStep*[3], NppiSize *oSizeROI*)

2 channel 8-bit unsigned planar YCbCr411 to 3 channel 8-bit unsigned planar YCbCr420 sampling format conversion.

Parameters:

pSrcY Source-Planar-Image Pointer.

nSrcYStep Source-Planar-Image Line Step.

pSrcCbCr Source-Planar-Image Pointer.

nSrcCbCrStep Source-Planar-Image Line Step.

pDst Destination-Planar-Image Pointer Array.

rDstStep Destination-Planar-Image Line Step Array.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.45.2.10 NppStatus nppiYCbCr411ToYCbCr420_8u_P3P2R (const Npp8u ∗const *pSrc*[3], int *rSrcStep*[3], Npp8u ∗ *pDstY*, int *nDstYStep*, Npp8u ∗ *pDstCbCr*, int *nDstCbCrStep*, NppiSize *oSizeROI*)

3 channel 8-bit unsigned planar YCbCr411 to 2 channel 8-bit unsigned planar YCbCr420 sampling format conversion.

images.

Parameters:

pSrc Source-Planar-Image Pointer Array.

rSrcStep Source-Planar-Image Line Step Array.

pDstY Destination-Planar-Image Pointer.

nDstYStep Destination-Planar-Image Line Step.

pDstCbCr Destination-Planar-Image Pointer.

nDstCbCrStep Destination-Planar-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.45.2.11 NppStatus nppiYCbCr411ToYCbCr420_8u_P3R (const Npp8u ∗const *pSrc*[3], int *rSrcStep*[3], Npp8u ∗ *pDst*[3], int *nDstStep*[3], NppiSize *oSizeROI*)

3 channel 8-bit unsigned planar YCbCr411 to 3 channel 8-bit unsigned planar YCbCr420 sampling format conversion.

images.

Parameters:

pSrc Source-Planar-Image Pointer Array.
rSrcStep Source-Planar-Image Line Step Array.
pDst Destination-Planar-Image Pointer Array.
nDstStep Destination-Planar-Image Line Step Array.
oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.45.2.12 NppStatus nppiYCbCr411ToYCbCr422_8u_P2C2R (const Npp8u ∗ *pSrcY*, int *nSrcYStep*, const Npp8u ∗ *pSrcCbCr*, int *nSrcCbCrStep*, Npp8u ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*)

2 channel 8-bit unsigned planar YCbCr411 to 2 channel 8-bit unsigned packed YCbCr422 sampling format conversion.

Parameters:

pSrcY Source-Planar-Image Pointer.
nSrcYStep Source-Planar-Image Line Step.
pSrcCbCr Source-Planar-Image Pointer.
nSrcCbCrStep Source-Planar-Image Line Step.
pDst Destination-Image Pointer.
nDstStep Destination-Image Line Step.
oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.45.2.13 NppStatus nppiYCbCr411ToYCbCr422_8u_P2P3R (const Npp8u ∗const *pSrcY*, int *nSrcYStep*, const Npp8u ∗ *pSrcCbCr*, int *nSrcCbCrStep*, Npp8u ∗ *pDst*[3], int *rDstStep*[3], NppiSize *oSizeROI*)

2 channel 8-bit unsigned planar YCbCr411 to 3 channel 8-bit unsigned planar YCbCr422 sampling format conversion.

Parameters:

pSrcY Source-Planar-Image Pointer.
nSrcYStep Source-Planar-Image Line Step.
pSrcCbCr Source-Planar-Image Pointer.
nSrcCbCrStep Source-Planar-Image Line Step.
pDst Destination-Planar-Image Pointer Array.
rDstStep Destination-Planar-Image Line Step Array.
oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.45.2.14 NppStatus nppiYCbCr411ToYCbCr422_8u_P3C2R (const Npp8u ∗const *pSrc*[3], int *rSrcStep*[3], Npp8u ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*)

3 channel 8-bit unsigned planar YCbCr411 to 2 channel 8-bit unsigned packed YCbCr422 sampling format conversion.

images.

Parameters:

pSrc Source-Planar-Image Pointer Array.

rSrcStep Source-Planar-Image Line Step Array.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.45.2.15 NppStatus nppiYCbCr411ToYCbCr422_8u_P3R (const Npp8u ∗const *pSrc*[3], int *rSrcStep*[3], Npp8u ∗ *pDst*[3], int *nDstStep*[3], NppiSize *oSizeROI*)

3 channel 8-bit unsigned planar YCbCr411 to 3 channel 8-bit unsigned planar YCbCr422 sampling format conversion.

images.

Parameters:

pSrc Source-Planar-Image Pointer Array.

rSrcStep Source-Planar-Image Line Step Array.

pDst Destination-Planar-Image Pointer Array.

nDstStep Destination-Planar-Image Line Step Array.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.45.2.16 NppStatus nppiYCbCr411ToYCrCb420_8u_P2P3R (const Npp8u ∗ *pSrcY*, int *nSrcYStep*, const Npp8u ∗ *pSrcCbCr*, int *nSrcCbCrStep*, Npp8u ∗ *pDst*[3], int *rDstStep*[3], NppiSize *oSizeROI*)

2 channel 8-bit unsigned planar YCbCr411 to 3 channel 8-bit unsigned planar YCrCb420 sampling format conversion.

Parameters:

pSrcY Source-Planar-Image Pointer.

nSrcYStep Source-Planar-Image Line Step.

pSrcCbCr Source-Planar-Image Pointer.

nSrcCbCrStep Source-Planar-Image Line Step.

pDst Destination-Planar-Image Pointer Array.

rDstStep Destination-Planar-Image Line Step Array.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.45.2.17 NppStatus nppiYCbCr411ToYCrCb422_8u_P3C2R (const Npp8u *const *pSrc*[3], int *rSrcStep*[3], Npp8u * *pDst*, int *nDstStep*, NppiSize *oSizeROI*)

3 channel 8-bit unsigned planar YCbCr411 to 2 channel 8-bit unsigned packed YCrCb422 sampling format conversion.

images.

Parameters:

pSrc Source-Planar-Image Pointer Array.

rSrcStep Source-Planar-Image Line Step Array.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.45.2.18 NppStatus nppiYCbCr411ToYCrCb422_8u_P3R (const Npp8u *const *pSrc*[3], int *rSrcStep*[3], Npp8u * *pDst*[3], int *nDstStep*[3], NppiSize *oSizeROI*)

3 channel 8-bit unsigned planar YCbCr411 to 3 channel 8-bit unsigned planar YCrCb422 sampling format conversion.

images.

Parameters:

pSrc Source-Planar-Image Pointer Array.

rSrcStep Source-Planar-Image Line Step Array.

pDst Destination-Planar-Image Pointer Array.

nDstStep Destination-Planar-Image Line Step Array.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.45.2.19 NppStatus nppiYCbCr420_8u_P2P3R (const Npp8u *const *pSrcY*, int *nSrcYStep*, const Npp8u * *pSrcCbCr*, int *nSrcCbCrStep*, Npp8u * *pDst*[3], int *rDstStep*[3], NppiSize *oSizeROI*)

2 channel 8-bit unsigned planar YCbCr420 to 3 channel 8-bit unsigned planar YCbCr420 sampling format conversion.

Parameters:

pSrcY Source-Planar-Image Pointer.

nSrcYStep Source-Planar-Image Line Step.

pSrcCbCr Source-Planar-Image Pointer.

nSrcCbCrStep Source-Planar-Image Line Step.

pDst Destination-Planar-Image Pointer Array.

rDstStep Destination-Planar-Image Line Step Array.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.45.2.20 NppStatus nppiYCbCr420_8u_P3P2R (const Npp8u *const *pSrc*[3], int *rSrcStep*[3], Npp8u * *pDstY*, int *nDstYStep*, Npp8u * *pDstCbCr*, int *nDstCbCrStep*, NppiSize *oSizeROI*)

3 channel 8-bit unsigned planar YCbCr420 to 2 channel 8-bit unsigned planar YCbCr420 sampling format conversion.

images.

Parameters:

pSrc Source-Planar-Image Pointer Array.

rSrcStep Source-Planar-Image Line Step Array.

pDstY Destination-Planar-Image Pointer.

nDstYStep Destination-Planar-Image Line Step.

pDstCbCr Destination-Planar-Image Pointer.

nDstCbCrStep Destination-Planar-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.45.2.21 NppStatus nppiYCbCr420ToCbYCr422_8u_P2C2R (const Npp8u * *pSrcY*, int *nSrcYStep*, const Npp8u * *pSrcCbCr*, int *nSrcCbCrStep*, Npp8u * *pDst*, int *nDstStep*, NppiSize *oSizeROI*)

2 channel 8-bit unsigned planar YCbCr420 to 2 channel 8-bit unsigned packed CbYCr422 sampling format conversion.

Parameters:

pSrcY Source-Planar-Image Pointer.

nSrcYStep Source-Planar-Image Line Step.

pSrcCbCr Source-Planar-Image Pointer.

nSrcCbCrStep Source-Planar-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.45.2.22 NppStatus nppiYCbCr420ToYCbCr411_8u_P2P3R (const Npp8u ∗ *pSrcY*, int *nSrcYStep*, const Npp8u ∗ *pSrcCbCr*, int *nSrcCbCrStep*, Npp8u ∗ *pDst*[3], int *rDstStep*[3], NppiSize *oSizeROI*)

2 channel 8-bit unsigned planar YCbCr420 to 3 channel 8-bit unsigned planar YCbCr411 sampling format conversion.

Parameters:

pSrcY Source-Planar-Image Pointer.

nSrcYStep Source-Planar-Image Line Step.

pSrcCbCr Source-Planar-Image Pointer.

nSrcCbCrStep Source-Planar-Image Line Step.

pDst Destination-Planar-Image Pointer Array.

rDstStep Destination-Planar-Image Line Step Array.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.45.2.23 NppStatus nppiYCbCr420ToYCbCr411_8u_P3P2R (const Npp8u ∗const *pSrc*[3], int *rSrcStep*[3], Npp8u ∗ *pDstY*, int *nDstYStep*, Npp8u ∗ *pDstCbCr*, int *nDstCbCrStep*, NppiSize *oSizeROI*)

3 channel 8-bit unsigned planar YCbCr420 to 2 channel 8-bit unsigned planar YCbCr411 sampling format conversion.

Parameters:

pSrc Source-Planar-Image Pointer Array.

rSrcStep Source-Planar-Image Line Step Array.

pDstY Destination-Planar-Image Pointer.

nDstYStep Destination-Planar-Image Line Step.

pDstCbCr Destination-Planar-Image Pointer.

nDstCbCrStep Destination-Planar-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.45.2.24 NppStatus nppiYCbCr420ToYCbCr422_8u_P2C2R (const Npp8u ∗ *pSrcY*, int *nSrcYStep*, const Npp8u ∗ *pSrcCbCr*, int *nSrcCbCrStep*, Npp8u ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*)

2 channel 8-bit unsigned planar YCbCr420 to 2 channel 8-bit unsigned packed YCbCr422 sampling format conversion.

Parameters:

pSrcY Source-Planar-Image Pointer.

nSrcYStep Source-Planar-Image Line Step.

pSrcCbCr Source-Planar-Image Pointer.

nSrcCbCrStep Source-Planar-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.45.2.25 NppStatus nppiYCbCr420ToYCbCr422_8u_P2P3R (const Npp8u ∗ *pSrcY*, int *nSrcYStep*, const Npp8u ∗ *pSrcCbCr*, int *nSrcCbCrStep*, Npp8u ∗ *pDst*[3], int *rDstStep*[3], NppiSize *oSizeROI*)

2 channel 8-bit unsigned planar YCbCr420 to 3 channel 8-bit unsigned planar YCbCr422 sampling format conversion.

Parameters:

pSrcY Source-Planar-Image Pointer.

nSrcYStep Source-Planar-Image Line Step.

pSrcCbCr Source-Planar-Image Pointer.

nSrcCbCrStep Source-Planar-Image Line Step.

pDst Destination-Planar-Image Pointer Array.

rDstStep Destination-Planar-Image Line Step Array.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.45.2.26 NppStatus nppiYCbCr420ToYCbCr422_8u_P3R (const Npp8u *const *pSrc*[3], int *rSrcStep*[3], Npp8u * *pDst*[3], int *nDstStep*[3], NppiSize *oSizeROI*)

3 channel 8-bit unsigned planar YCbCr420 to 3 channel 8-bit unsigned planar YCbCr422 sampling format conversion.

images.

Parameters:

pSrc Source-Planar-Image Pointer Array.

rSrcStep Source-Planar-Image Line Step Array.

pDst Destination-Planar-Image Pointer Array.

nDstStep Destination-Planar-Image Line Step Array.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.45.2.27 NppStatus nppiYCbCr420ToYCrCb420_8u_P2P3R (const Npp8u * *pSrcY*, int *nSrcYStep*, const Npp8u * *pSrcCbCr*, int *nSrcCbCrStep*, Npp8u * *pDst*[3], int *rDstStep*[3], NppiSize *oSizeROI*)

2 channel 8-bit unsigned planar YCbCr420 to 3 channel 8-bit unsigned planar YCrCb420 sampling format conversion.

Parameters:

pSrcY Source-Planar-Image Pointer.

nSrcYStep Source-Planar-Image Line Step.

pSrcCbCr Source-Planar-Image Pointer.

nSrcCbCrStep Source-Planar-Image Line Step.

pDst Destination-Planar-Image Pointer Array.

rDstStep Destination-Planar-Image Line Step Array.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.45.2.28 NppStatus nppiYCbCr422_8u_C2P3R (const Npp8u * *pSrc*, int *nSrcStep*, Npp8u * *pDst*[3], int *rDstStep*[3], NppiSize *oSizeROI*)

2 channel 8-bit unsigned packed YCbCr422 to 3 channel 8-bit unsigned planar YCbCr422 sampling format conversion.

images.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Planar-Image Pointer Array.

rDstStep Destination-Planar-Image Line Step Array.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.45.2.29 NppStatus nppiYCbCr422_8u_P3C2R (const Npp8u ∗const *pSrc*[3], int *rSrcStep*[3], Npp8u ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*)

3 channel 8-bit unsigned planar YCbCr422 to 2 channel 8-bit unsigned packed YCbCr422 sampling format conversion.

images.

Parameters:

pSrc Source-Planar-Image Pointer Array.

rSrcStep Source-Planar-Image Line Step Array.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.45.2.30 NppStatus nppiYCbCr422ToCbYCr422_8u_C2R (const Npp8u ∗ *pSrc*, int *nSrcStep*, Npp8u ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*)

2 channel 8-bit unsigned packed YCbCr422 to 2 channel 8-bit unsigned packed CbYCr422 sampling format conversion.

images.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.45.2.31 NppStatus nppiYCbCr422ToYCbCr411_8u_C2P2R (const Npp8u * *pSrc*, int *nSrcStep*, Npp8u * *pDstY*, int *nDstYStep*, Npp8u * *pDstCbCr*, int *nDstCbCrStep*, NppiSize *oSizeROI*)

2 channel 8-bit unsigned packed YCbCr422 to 2 channel 8-bit unsigned planar YCbCr411 sampling format conversion.

images.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDstY Destination-Planar-Image Pointer.

nDstYStep Destination-Planar-Image Line Step.

pDstCbCr Destination-Planar-Image Pointer.

nDstCbCrStep Destination-Planar-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.45.2.32 NppStatus nppiYCbCr422ToYCbCr411_8u_C2P3R (const Npp8u * *pSrc*, int *nSrcStep*, Npp8u * *pDst*[3], int *rDstStep*[3], NppiSize *oSizeROI*)

2 channel 8-bit unsigned packed YCbCr422 to 3 channel 8-bit unsigned planar YCbCr411 sampling format conversion.

images.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Planar-Image Pointer Array.

rDstStep Destination-Planar-Image Line Step Array.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.45.2.33 NppStatus nppiYCbCr422ToYCbCr411_8u_P3P2R (const Npp8u *const *pSrc*[3], int *rSrcStep*[3], Npp8u * *pDstY*, int *nDstYStep*, Npp8u * *pDstCbCr*, int *nDstCbCrStep*, NppiSize *oSizeROI*)

3 channel 8-bit unsigned planar YCbCr422 to 2 channel 8-bit unsigned planar YCbCr411 sampling format conversion.

images.

Parameters:

pSrc Source-Planar-Image Pointer Array.

rSrcStep Source-Planar-Image Line Step Array.

pDstY Destination-Planar-Image Pointer.

nDstYStep Destination-Planar-Image Line Step.

pDstCbCr Destination-Planar-Image Pointer.

nDstCbCrStep Destination-Planar-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.45.2.34 NppStatus nppiYCbCr422ToYCbCr411_8u_P3R (const Npp8u *const *pSrc*[3], int *rSrcStep*[3], Npp8u * *pDst*[3], int *rDstStep*[3], NppiSize *oSizeROI*)

3 channel 8-bit unsigned planar YCbCr422 to 3 channel 8-bit unsigned planar YCbCr411 sampling format conversion.

images.

Parameters:

pSrc Source-Planar-Image Pointer Array.

rSrcStep Source-Planar-Image Line Step Array.

pDst Destination-Planar-Image Pointer Array.

rDstStep Destination-Planar-Image Line Step Array.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.45.2.35 NppStatus nppiYCbCr422ToYCbCr420_8u_C2P2R (const Npp8u * *pSrc*, int *nSrcStep*, Npp8u * *pDstY*, int *nDstYStep*, Npp8u * *pDstCbCr*, int *nDstCbCrStep*, NppiSize *oSizeROI*)

2 channel 8-bit unsigned packed YCbCr422 to 2 channel 8-bit unsigned planar YCbCr420 sampling format conversion.

images.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDstY Destination-Planar-Image Pointer.

nDstYStep Destination-Planar-Image Line Step.

pDstCbCr Destination-Planar-Image Pointer.

nDstCbCrStep Destination-Planar-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.45.2.36 NppStatus nppiYCbCr422ToYCbCr420_8u_C2P3R (const Npp8u * *pSrc*, int *nSrcStep*, Npp8u * *pDst*[3], int *rDstStep*[3], NppiSize *oSizeROI*)

2 channel 8-bit unsigned packed YCbCr422 to 3 channel 8-bit unsigned planar YCbCr420 sampling format conversion.

images.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Planar-Image Pointer Array.

rDstStep Destination-Planar-Image Line Step Array.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.45.2.37 NppStatus nppiYCbCr422ToYCbCr420_8u_P3P2R (const Npp8u *const *pSrc*[3], int *rSrcStep*[3], Npp8u * *pDstY*, int *nDstYStep*, Npp8u * *pDstCbCr*, int *nDstCbCrStep*, NppiSize *oSizeROI*)

3 channel 8-bit unsigned planar YCbCr422 to 2 channel 8-bit unsigned planar YCbCr420 sampling format conversion.

images.

Parameters:

pSrc Source-Planar-Image Pointer Array.

rSrcStep Source-Planar-Image Line Step Array.

pDstY Destination-Planar-Image Pointer.

nDstYStep Destination-Planar-Image Line Step.

pDstCbCr Destination-Planar-Image Pointer.

nDstCbCrStep Destination-Planar-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.45.2.38 NppStatus nppiYCbCr422ToYCbCr420_8u_P3R (const Npp8u ∗const *pSrc*[3], int *rSrcStep*[3], Npp8u ∗ *pDst*[3], int *nDstStep*[3], NppiSize *oSizeROI*)

3 channel 8-bit unsigned planar YCbCr422 to 3 channel 8-bit unsigned planar YCbCr420 sampling format conversion.

images.

Parameters:

pSrc Source-Planar-Image Pointer Array.

rSrcStep Source-Planar-Image Line Step Array.

pDst Destination-Planar-Image Pointer Array.

nDstStep Destination-Planar-Image Line Step Array.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.45.2.39 NppStatus nppiYCbCr422ToYCrCb420_8u_C2P3R (const Npp8u ∗ *pSrc*, int *nSrcStep*, Npp8u ∗ *pDst*[3], int *rDstStep*[3], NppiSize *oSizeROI*)

2 channel 8-bit unsigned packed YCbCr422 to 3 channel 8-bit unsigned planar YCrCb420 sampling format conversion.

images.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Planar-Image Pointer Array.

rDstStep Destination-Planar-Image Line Step Array.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.45.2.40 NppStatus nppiYCbCr422ToYCrCb422_8u_C2R (const Npp8u ∗ *pSrc*, int *nSrcStep*, Npp8u ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*)

2 channel 8-bit unsigned packed YCbCr422 to 2 channel 8-bit unsigned packed YCrCb422 sampling format conversion.

images.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.45.2.41 NppStatus nppiYCbCr422ToYCrCb422_8u_P3C2R (const Npp8u ∗const *pSrc*[3], int *rSrcStep*[3], Npp8u ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*)

3 channel 8-bit unsigned planar YCbCr422 to 2 channel 8-bit unsigned packed YCrCb422 sampling format conversion.

images.

Parameters:

pSrc Source-Planar-Image Pointer Array.

rSrcStep Source-Planar-Image Line Step Array.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.45.2.42 NppStatus nppiYCrCb420ToCbYCr422_8u_P3C2R (const Npp8u ∗const *pSrc*[3], int *rSrcStep*[3], Npp8u ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*)

3 channel 8-bit unsigned planar YCrCb420 to 2 channel 8-bit unsigned packed CbYCr422 sampling format conversion.

images.

Parameters:

pSrc Source-Planar-Image Pointer Array.

rSrcStep Source-Planar-Image Line Step Array.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.45.2.43 NppStatus nppiYCrCb420ToYCbCr411_8u_P3P2R (const Npp8u $*$const *pSrc*[3], int *rSrcStep*[3], Npp8u $*$ *pDstY*, int *nDstYStep*, Npp8u $*$ *pDstCbCr*, int *nDstCbCrStep*, NppiSize *oSizeROI*)

3 channel 8-bit unsigned planar YCrCb420 to 2 channel 8-bit unsigned planar YCbCr411 sampling format conversion.

images.

Parameters:

pSrc Source-Planar-Image Pointer Array.

rSrcStep Source-Planar-Image Line Step Array.

pDstY Destination-Planar-Image Pointer.

nDstYStep Destination-Planar-Image Line Step.

pDstCbCr Destination-Planar-Image Pointer.

nDstCbCrStep Destination-Planar-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.45.2.44 NppStatus nppiYCrCb420ToYCbCr420_8u_P3P2R (const Npp8u $*$const *pSrc*[3], int *rSrcStep*[3], Npp8u $*$ *pDstY*, int *nDstYStep*, Npp8u $*$ *pDstCbCr*, int *nDstCbCrStep*, NppiSize *oSizeROI*)

3 channel 8-bit unsigned planar YCrCb420 to 2 channel 8-bit unsigned planar YCbCr420 sampling format conversion.

images.

Parameters:

pSrc Source-Planar-Image Pointer Array.

rSrcStep Source-Planar-Image Line Step Array.

pDstY Destination-Planar-Image Pointer.

nDstYStep Destination-Planar-Image Line Step.

pDstCbCr Destination-Planar-Image Pointer.

nDstCbCrStep Destination-Planar-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.45.2.45 NppStatus nppiYCrCb420ToYCbCr422_8u_P3C2R (const Npp8u ∗const *pSrc*[3], int *rSrcStep*[3], Npp8u ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*)

3 channel 8-bit unsigned planar YCrCb420 to 2 channel 8-bit unsigned packed YCbCr422 sampling format conversion.

images.

Parameters:

pSrc Source-Planar-Image Pointer Array.

rSrcStep Source-Planar-Image Line Step Array.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.45.2.46 NppStatus nppiYCrCb420ToYCbCr422_8u_P3R (const Npp8u ∗const *pSrc*[3], int *rSrcStep*[3], Npp8u ∗ *pDst*[3], int *rDstStep*[3], NppiSize *oSizeROI*)

3 channel 8-bit unsigned planar YCrCb420 to 3 channel 8-bit unsigned planar YCbCr422 sampling format conversion.

images.

Parameters:

pSrc Source-Planar-Image Pointer Array.

rSrcStep Source-Planar-Image Line Step Array.

pDst Destination-Planar-Image Pointer Array.

rDstStep Destination-Planar-Image Line Step Array.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.45.2.47 NppStatus nppiYCrCb422ToYCbCr411_8u_C2P3R (const Npp8u ∗ *pSrc*, int *nSrcStep*, Npp8u ∗ *pDst*[3], int *rDstStep*[3], NppiSize *oSizeROI*)

2 channel 8-bit unsigned packed YCrCb422 to 3 channel 8-bit unsigned planar YCbCr411 sampling format conversion.

images.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Planar-Image Pointer Array.

rDstStep Destination-Planar-Image Line Step Array.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.45.2.48 NppStatus nppiYCrCb422ToYCbCr420_8u_C2P3R (const Npp8u $*$ *pSrc*, int *nSrcStep*, Npp8u $*$ *pDst*[3], int *rDstStep*[3], NppiSize *oSizeROI*)

2 channel 8-bit unsigned packed YCrCb422 to 3 channel 8-bit unsigned planar YCbCr420 sampling format conversion.

images.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Planar-Image Pointer Array.

rDstStep Destination-Planar-Image Line Step Array.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.45.2.49 NppStatus nppiYCrCb422ToYCbCr422_8u_C2P3R (const Npp8u $*$ *pSrc*, int *nSrcStep*, Npp8u $*$ *pDst*[3], int *rDstStep*[3], NppiSize *oSizeROI*)

2 channel 8-bit unsigned packed YCrCb422 to 3 channel 8-bit unsigned planar YCbCr422 sampling format conversion.

images.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Planar-Image Pointer Array.

rDstStep Destination-Planar-Image Line Step Array.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.46 Color Gamma Correction

Routines for correcting image color gamma.

GammaFwd

Forward gamma correction.

- NppStatus nppiGammaFwd_8u_C3R (const Npp8u ∗pSrc, int nSrcStep, Npp8u ∗pDst, int nDstStep, NppiSize oSizeROI)

  3 channel 8-bit unsigned packed color not in place forward gamma correction.
- NppStatus nppiGammaFwd_8u_C3IR (Npp8u ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI)

  3 channel 8-bit unsigned packed color in place forward gamma correction.
- NppStatus nppiGammaFwd_8u_AC4R (const Npp8u ∗pSrc, int nSrcStep, Npp8u ∗pDst, int nDstStep, NppiSize oSizeROI)

  4 channel 8-bit unsigned packed color with alpha not in place forward gamma correction.
- NppStatus nppiGammaFwd_8u_AC4IR (Npp8u ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI)

  4 channel 8-bit unsigned packed color with alpha in place forward gamma correction.
- NppStatus nppiGammaFwd_8u_P3R (const Npp8u ∗const pSrc[3], int nSrcStep, Npp8u ∗pDst[3], int nDstStep, NppiSize oSizeROI)

  3 channel 8-bit unsigned planar color not in place forward gamma correction.
- NppStatus nppiGammaFwd_8u_IP3R (Npp8u ∗const pSrcDst[3], int nSrcDstStep, NppiSize oSizeROI)

  3 channel 8-bit unsigned planar color in place forward gamma correction.

GammaInv

Inverse gamma correction.

- NppStatus nppiGammaInv_8u_C3R (const Npp8u ∗pSrc, int nSrcStep, Npp8u ∗pDst, int nDstStep, NppiSize oSizeROI)

  3 channel 8-bit unsigned packed color not in place inverse gamma correction.
- NppStatus nppiGammaInv_8u_C3IR (Npp8u ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI)

  3 channel 8-bit unsigned packed color in place inverse gamma correction.
- NppStatus nppiGammaInv_8u_AC4R (const Npp8u ∗pSrc, int nSrcStep, Npp8u ∗pDst, int nDstStep, NppiSize oSizeROI)

  4 channel 8-bit unsigned packed color with alpha not in place inverse gamma correction.
- NppStatus nppiGammaInv_8u_AC4IR (Npp8u ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI)

  4 channel 8-bit unsigned packed color with alpha in place inverse gamma correction.

- NppStatus nppiGammaInv_8u_P3R (const Npp8u ∗const pSrc[3], int nSrcStep, Npp8u ∗pDst[3], int nDstStep, NppiSize oSizeROI)

  3 channel 8-bit unsigned planar color not in place inverse gamma correction.

- NppStatus nppiGammaInv_8u_IP3R (Npp8u ∗const pSrcDst[3], int nSrcDstStep, NppiSize oSizeROI)

  3 channel 8-bit unsigned planar color in place inverse gamma correction.

7.46.1 Detailed Description

Routines for correcting image color gamma.

7.46.2 Function Documentation

7.46.2.1 NppStatus nppiGammaFwd_8u_AC4IR (Npp8u ∗ *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*)

4 channel 8-bit unsigned packed color with alpha in place forward gamma correction.

Parameters:

pSrcDst in place packed pixel format image pointer.

nSrcDstStep in place packed pixel format image line step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.46.2.2 NppStatus nppiGammaFwd_8u_AC4R (const Npp8u ∗ *pSrc*, int *nSrcStep*, Npp8u ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*)

4 channel 8-bit unsigned packed color with alpha not in place forward gamma correction.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.46.2.3 NppStatus nppiGammaFwd_8u_C3IR (Npp8u ∗ *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*)

3 channel 8-bit unsigned packed color in place forward gamma correction.

Parameters:

pSrcDst in place packed pixel image pointer.

nSrcDstStep in place packed pixel format image line step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.46.2.4 NppStatus nppiGammaFwd_8u_C3R (const Npp8u ∗ *pSrc*, int *nSrcStep*, Npp8u ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*)

3 channel 8-bit unsigned packed color not in place forward gamma correction.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.46.2.5 NppStatus nppiGammaFwd_8u_IP3R (Npp8u ∗const *pSrcDst*[3], int *nSrcDstStep*, NppiSize *oSizeROI*)

3 channel 8-bit unsigned planar color in place forward gamma correction.

Parameters:

pSrcDst in place planar pixel format image pointer array.

nSrcDstStep in place planar pixel format image line step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.46.2.6 NppStatus nppiGammaFwd_8u_P3R (const Npp8u ∗const *pSrc*[3], int *nSrcStep*, Npp8u ∗ *pDst*[3], int *nDstStep*, NppiSize *oSizeROI*)

3 channel 8-bit unsigned planar color not in place forward gamma correction.

Parameters:

pSrc source planar pixel format image pointer array.

nSrcStep source planar pixel format image line step.

pDst destination planar pixel format image pointer array.

nDstStep destination planar pixel format image line step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.46.2.7 NppStatus nppiGammaInv_8u_AC4IR (Npp8u ∗ *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*)

4 channel 8-bit unsigned packed color with alpha in place inverse gamma correction.

Parameters:

pSrcDst in place packed pixel format image pointer.

nSrcDstStep in place packed pixel format image line step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.46.2.8 NppStatus nppiGammaInv_8u_AC4R (const Npp8u ∗ *pSrc*, int *nSrcStep*, Npp8u ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*)

4 channel 8-bit unsigned packed color with alpha not in place inverse gamma correction.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.46.2.9 NppStatus nppiGammaInv_8u_C3IR (Npp8u ∗ *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*)

3 channel 8-bit unsigned packed color in place inverse gamma correction.

Parameters:

pSrcDst in place packed pixel format image pointer.

nSrcDstStep in place packed pixel format image line step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.46.2.10 NppStatus nppiGammaInv_8u_C3R (const Npp8u ∗ *pSrc*, int *nSrcStep*, Npp8u ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*)

3 channel 8-bit unsigned packed color not in place inverse gamma correction.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.46.2.11 NppStatus nppiGammaInv_8u_IP3R (Npp8u ∗const *pSrcDst*[3], int *nSrcDstStep*, NppiSize *oSizeROI*)

3 channel 8-bit unsigned planar color in place inverse gamma correction.

Parameters:

pSrcDst in place planar pixel format image pointer array.

nSrcDstStep in place planar pixel format image line step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.46.2.12 NppStatus nppiGammaInv_8u_P3R (const Npp8u ∗const *pSrc*[3], int *nSrcStep*, Npp8u ∗ *pDst*[3], int *nDstStep*, NppiSize *oSizeROI*)

3 channel 8-bit unsigned planar color not in place inverse gamma correction.

Parameters:

pSrc source planar pixel format image pointer array.

nSrcStep source planar pixel format image line step.

pDst destination planar pixel format image pointer array.

nDstStep destination planar pixel format image line step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.47 Complement Color Key

Routines for performing complement color key replacement.

CompColorKey

Complement color key replacement.

- NppStatus nppiCompColorKey_8u_C1R (const Npp8u ∗pSrc1, int nSrc1Step, const Npp8u ∗pSrc2, int nSrc2Step, Npp8u ∗pDst, int nDstStep, NppiSize oSizeROI, Npp8u nColorKeyConst)

  1 channel 8-bit unsigned packed color complement color key replacement of source image 1 by source image 2.

- NppStatus nppiCompColorKey_8u_C3R (const Npp8u ∗pSrc1, int nSrc1Step, const Npp8u ∗pSrc2, int nSrc2Step, Npp8u ∗pDst, int nDstStep, NppiSize oSizeROI, Npp8u nColorKeyConst[3])

  3 channel 8-bit unsigned packed color complement color key replacement of source image 1 by source image 2.

- NppStatus nppiCompColorKey_8u_C4R (const Npp8u ∗pSrc1, int nSrc1Step, const Npp8u ∗pSrc2, int nSrc2Step, Npp8u ∗pDst, int nDstStep, NppiSize oSizeROI, Npp8u nColorKeyConst[4])

  4 channel 8-bit unsigned packed color complement color key replacement of source image 1 by source image 2.

- NppStatus nppiAlphaCompColorKey_8u_AC4R (const Npp8u ∗pSrc1, int nSrc1Step, Npp8u nAlpha1, const Npp8u ∗pSrc2, int nSrc2Step, Npp8u nAlpha2, Npp8u ∗pDst, int nDstStep, NppiSize oSizeROI, Npp8u nColorKeyConst[4], NppiAlphaOp nppAlphaOp)

  4 channel 8-bit unsigned packed color complement color key replacement of source image 1 by source image 2 with alpha blending.

7.47.1 Detailed Description

Routines for performing complement color key replacement.

7.47.2 Function Documentation

7.47.2.1 NppStatus nppiAlphaCompColorKey_8u_AC4R (const Npp8u ∗ *pSrc1*, int *nSrc1Step*, Npp8u *nAlpha1*, const Npp8u ∗ *pSrc2*, int *nSrc2Step*, Npp8u *nAlpha2*, Npp8u ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, Npp8u *nColorKeyConst*[4], NppiAlphaOp *nppAlphaOp*)

4 channel 8-bit unsigned packed color complement color key replacement of source image 1 by source image 2 with alpha blending.

Parameters:

pSrc1 source1 packed pixel format image pointer.

nSrc1Step source1 packed pixel format image line step.

nAlpha1 source1 image alpha opacity (0 - max channel pixel value).

pSrc2 source2 packed pixel format image pointer.

nSrc2Step source2 packed pixel format image line step.

nAlpha2 source2 image alpha opacity (0 - max channel pixel value).

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

nColorKeyConst color key constant array

nppAlphaOp NppiAlphaOp alpha compositing operation selector (excluding premul ops).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.47.2.2 NppStatus nppiCompColorKey_8u_C1R (const Npp8u ∗ *pSrc1*, int *nSrc1Step*, const Npp8u ∗ *pSrc2*, int *nSrc2Step*, Npp8u ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, Npp8u *nColorKeyConst*)

1 channel 8-bit unsigned packed color complement color key replacement of source image 1 by source image 2.

Parameters:

pSrc1 source1 packed pixel format image pointer.

nSrc1Step source1 packed pixel format image line step.

pSrc2 source2 packed pixel format image pointer.

nSrc2Step source2 packed pixel format image line step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

nColorKeyConst color key constant

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.47.2.3 NppStatus nppiCompColorKey_8u_C3R (const Npp8u ∗ *pSrc1*, int *nSrc1Step*, const Npp8u ∗ *pSrc2*, int *nSrc2Step*, Npp8u ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, Npp8u *nColorKeyConst*[3])

3 channel 8-bit unsigned packed color complement color key replacement of source image 1 by source image 2.

Parameters:

pSrc1 source1 packed pixel format image pointer.

nSrc1Step source1 packed pixel format image line step.

pSrc2 source2 packed pixel format image pointer.

nSrc2Step source2 packed pixel format image line step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

nColorKeyConst color key constant array

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.47.2.4 NppStatus nppiCompColorKey_8u_C4R (const Npp8u * *pSrc1*, int *nSrc1Step*, const Npp8u * *pSrc2*, int *nSrc2Step*, Npp8u * *pDst*, int *nDstStep*, NppiSize *oSizeROI*, Npp8u *nColorKeyConst*[4])

4 channel 8-bit unsigned packed color complement color key replacement of source image 1 by source image 2.

Parameters:

pSrc1 source1 packed pixel format image pointer.

nSrc1Step source1 packed pixel format image line step.

pSrc2 source2 packed pixel format image pointer.

nSrc2Step source2 packed pixel format image line step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

nColorKeyConst color key constant array

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.48 Color Processing

Routines for performing image color manipulation.

ColorTwist

Perform color twist pixel processing.

Color twist consists of applying the following formula to each image pixel using coefficients from the user supplied color twist host matrix array as follows where dst[x] and src[x] represent destination pixel and source pixel channel or plane x. The full sized coefficient matrix should be sent for all pixel channel sizes, the function will process the appropriate coefficients and channels for the corresponding pixel size.

```
dst[0] = aTwist[0][0] * src[0] + aTwist[0][1] * src[1] + aTwist[0][2] * src[2] + aTwist[0][3]
dst[1] = aTwist[1][0] * src[0] + aTwist[1][1] * src[1] + aTwist[1][2] * src[2] + aTwist[1][3]
dst[2] = aTwist[2][0] * src[0] + aTwist[2][1] * src[1] + aTwist[2][2] * src[2] + aTwist[2][3]
```

- NppStatus nppiColorTwist32f_8u_C1R (const Npp8u ∗pSrc, int nSrcStep, Npp8u ∗pDst, int nDstStep, NppiSize oSizeROI, const Npp32f aTwist[3][4])

  1 channel 8-bit unsigned color twist.

- NppStatus nppiColorTwist32f_8u_C1IR (Npp8u ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI, const Npp32f aTwist[3][4])

  1 channel 8-bit unsigned in place color twist.

- NppStatus nppiColorTwist32f_8u_C2R (const Npp8u ∗pSrc, int nSrcStep, Npp8u ∗pDst, int nDstStep, NppiSize oSizeROI, const Npp32f aTwist[3][4])

  2 channel 8-bit unsigned color twist.

- NppStatus nppiColorTwist32f_8u_C2IR (Npp8u ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI, const Npp32f aTwist[3][4])

  2 channel 8-bit unsigned in place color twist.

- NppStatus nppiColorTwist32f_8u_C3R (const Npp8u ∗pSrc, int nSrcStep, Npp8u ∗pDst, int nDstStep, NppiSize oSizeROI, const Npp32f aTwist[3][4])

  3 channel 8-bit unsigned color twist.

- NppStatus nppiColorTwist32f_8u_C3IR (Npp8u ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI, const Npp32f aTwist[3][4])

  3 channel 8-bit unsigned in place color twist.

- NppStatus nppiColorTwist32f_8u_C4R (const Npp8u ∗pSrc, int nSrcStep, Npp8u ∗pDst, int nDstStep, NppiSize oSizeROI, const Npp32f aTwist[3][4])

  4 channel 8-bit unsigned color twist, with alpha copy.

- NppStatus nppiColorTwist32f_8u_C4IR (Npp8u ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI, const Npp32f aTwist[3][4])

  4 channel 8-bit unsigned in place color twist, not affecting Alpha.

- NppStatus nppiColorTwist32f_8u_AC4R (const Npp8u ∗pSrc, int nSrcStep, Npp8u ∗pDst, int nDstStep, NppiSize oSizeROI, const Npp32f aTwist[3][4])

4 channel 8-bit unsigned color twist, not affecting Alpha.

- NppStatus nppiColorTwist32f_8u_AC4IR (Npp8u ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI, const Npp32f aTwist[3][4])

  4 channel 8-bit unsigned in place color twist, not affecting Alpha.

- NppStatus nppiColorTwist32fC_8u_C4R (const Npp8u ∗pSrc, int nSrcStep, Npp8u ∗pDst, int nDstStep, NppiSize oSizeROI, const Npp32f aTwist[4][4], const Npp32f aConstants[4])

  4 channel 8-bit unsigned color twist with 4x4 matrix and constant vector addition.

- NppStatus nppiColorTwist32fC_8u_C4IR (Npp8u ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI, const Npp32f aTwist[4][4], const Npp32f aConstants[4])

  4 channel 8-bit unsigned in place color twist with 4x4 matrix and an additional constant vector addition.

- NppStatus nppiColorTwist32f_8u_P3R (const Npp8u ∗const pSrc[3], int nSrcStep, Npp8u ∗const pDst[3], int nDstStep, NppiSize oSizeROI, const Npp32f aTwist[3][4])

  3 channel 8-bit unsigned planar color twist.

- NppStatus nppiColorTwist32f_8u_IP3R (Npp8u ∗const pSrcDst[3], int nSrcDstStep, NppiSize oSizeROI, const Npp32f aTwist[3][4])

  3 channel 8-bit unsigned planar in place color twist.

- NppStatus nppiColorTwist32f_8s_C1R (const Npp8s ∗pSrc, int nSrcStep, Npp8s ∗pDst, int nDstStep, NppiSize oSizeROI, const Npp32f aTwist[3][4])

  1 channel 8-bit signed color twist.

- NppStatus nppiColorTwist32f_8s_C1IR (Npp8s ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI, const Npp32f aTwist[3][4])

  1 channel 8-bit signed in place color twist.

- NppStatus nppiColorTwist32f_8s_C2R (const Npp8s ∗pSrc, int nSrcStep, Npp8s ∗pDst, int nDstStep, NppiSize oSizeROI, const Npp32f aTwist[3][4])

  2 channel 8-bit signed color twist.

- NppStatus nppiColorTwist32f_8s_C2IR (Npp8s ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI, const Npp32f aTwist[3][4])

  2 channel 8-bit signed in place color twist.

- NppStatus nppiColorTwist32f_8s_C3R (const Npp8s ∗pSrc, int nSrcStep, Npp8s ∗pDst, int nDstStep, NppiSize oSizeROI, const Npp32f aTwist[3][4])

  3 channel 8-bit signed color twist.

- NppStatus nppiColorTwist32f_8s_C3IR (Npp8s ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI, const Npp32f aTwist[3][4])

  3 channel 8-bit signed in place color twist.

- NppStatus nppiColorTwist32f_8s_C4R (const Npp8s ∗pSrc, int nSrcStep, Npp8s ∗pDst, int nDstStep, NppiSize oSizeROI, const Npp32f aTwist[3][4])

  4 channel 8-bit signed color twist, with alpha copy.

- NppStatus nppiColorTwist32f_8s_C4IR (Npp8s ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI, const Npp32f aTwist[3][4])

  4 channel 8-bit signed in place color twist, not affecting Alpha.

- NppStatus nppiColorTwist32f_8s_AC4R (const Npp8s ∗pSrc, int nSrcStep, Npp8s ∗pDst, int nDstStep, NppiSize oSizeROI, const Npp32f aTwist[3][4])

  4 channel 8-bit signed color twist, not affecting Alpha.

- NppStatus nppiColorTwist32f_8s_AC4IR (Npp8s ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI, const Npp32f aTwist[3][4])

  4 channel 8-bit signed in place color twist, not affecting Alpha.

- NppStatus nppiColorTwist32f_8s_P3R (const Npp8s ∗const pSrc[3], int nSrcStep, Npp8s ∗const pDst[3], int nDstStep, NppiSize oSizeROI, const Npp32f aTwist[3][4])

  3 channel 8-bit signed planar color twist.

- NppStatus nppiColorTwist32f_8s_IP3R (Npp8s ∗const pSrcDst[3], int nSrcDstStep, NppiSize oSizeROI, const Npp32f aTwist[3][4])

  3 channel 8-bit signed planar in place color twist.

- NppStatus nppiColorTwist32f_16u_C1R (const Npp16u ∗pSrc, int nSrcStep, Npp16u ∗pDst, int nDstStep, NppiSize oSizeROI, const Npp32f aTwist[3][4])

  1 channel 16-bit unsigned color twist.

- NppStatus nppiColorTwist32f_16u_C1IR (Npp16u ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI, const Npp32f aTwist[3][4])

  1 channel 16-bit unsigned in place color twist.

- NppStatus nppiColorTwist32f_16u_C2R (const Npp16u ∗pSrc, int nSrcStep, Npp16u ∗pDst, int nDstStep, NppiSize oSizeROI, const Npp32f aTwist[3][4])

  2 channel 16-bit unsigned color twist.

- NppStatus nppiColorTwist32f_16u_C2IR (Npp16u ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI, const Npp32f aTwist[3][4])

  2 channel 16-bit unsigned in place color twist.

- NppStatus nppiColorTwist32f_16u_C3R (const Npp16u ∗pSrc, int nSrcStep, Npp16u ∗pDst, int nDstStep, NppiSize oSizeROI, const Npp32f aTwist[3][4])

  3 channel 16-bit unsigned color twist.

- NppStatus nppiColorTwist32f_16u_C3IR (Npp16u ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI, const Npp32f aTwist[3][4])

  3 channel 16-bit unsigned in place color twist.

- NppStatus nppiColorTwist32f_16u_AC4R (const Npp16u ∗pSrc, int nSrcStep, Npp16u ∗pDst, int nDstStep, NppiSize oSizeROI, const Npp32f aTwist[3][4])

  4 channel 16-bit unsigned color twist, not affecting Alpha.

- NppStatus nppiColorTwist32f_16u_AC4IR (Npp16u ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI, const Npp32f aTwist[3][4])

  4 channel 16-bit unsigned in place color twist, not affecting Alpha.

- NppStatus nppiColorTwist32f_16u_P3R (const Npp16u ∗const pSrc[3], int nSrcStep, Npp16u ∗const pDst[3], int nDstStep, NppiSize oSizeROI, const Npp32f aTwist[3][4])

  3 channel 16-bit unsigned planar color twist.

- NppStatus nppiColorTwist32f_16u_IP3R (Npp16u ∗const pSrcDst[3], int nSrcDstStep, NppiSize oSizeROI, const Npp32f aTwist[3][4])

  3 channel 16-bit unsigned planar in place color twist.

- NppStatus nppiColorTwist32f_16s_C1R (const Npp16s ∗pSrc, int nSrcStep, Npp16s ∗pDst, int nDstStep, NppiSize oSizeROI, const Npp32f aTwist[3][4])

  1 channel 16-bit signed color twist.

- NppStatus nppiColorTwist32f_16s_C1IR (Npp16s ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI, const Npp32f aTwist[3][4])

  1 channel 16-bit signed in place color twist.

- NppStatus nppiColorTwist32f_16s_C2R (const Npp16s ∗pSrc, int nSrcStep, Npp16s ∗pDst, int nDstStep, NppiSize oSizeROI, const Npp32f aTwist[3][4])

  2 channel 16-bit signed color twist.

- NppStatus nppiColorTwist32f_16s_C2IR (Npp16s ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI, const Npp32f aTwist[3][4])

  2 channel 16-bit signed in place color twist.

- NppStatus nppiColorTwist32f_16s_C3R (const Npp16s ∗pSrc, int nSrcStep, Npp16s ∗pDst, int nDstStep, NppiSize oSizeROI, const Npp32f aTwist[3][4])

  3 channel 16-bit signed color twist.

- NppStatus nppiColorTwist32f_16s_C3IR (Npp16s ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI, const Npp32f aTwist[3][4])

  3 channel 16-bit signed in place color twist.

- NppStatus nppiColorTwist32f_16s_AC4R (const Npp16s ∗pSrc, int nSrcStep, Npp16s ∗pDst, int nDstStep, NppiSize oSizeROI, const Npp32f aTwist[3][4])

  4 channel 16-bit signed color twist, not affecting Alpha.

- NppStatus nppiColorTwist32f_16s_AC4IR (Npp16s ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI, const Npp32f aTwist[3][4])

  4 channel 16-bit signed in place color twist, not affecting Alpha.

- NppStatus nppiColorTwist32f_16s_P3R (const Npp16s ∗const pSrc[3], int nSrcStep, Npp16s ∗const pDst[3], int nDstStep, NppiSize oSizeROI, const Npp32f aTwist[3][4])

  3 channel 16-bit signed planar color twist.

- NppStatus nppiColorTwist32f_16s_IP3R (Npp16s ∗const pSrcDst[3], int nSrcDstStep, NppiSize oSizeROI, const Npp32f aTwist[3][4])

  3 channel 16-bit signed planar in place color twist.

- NppStatus nppiColorTwist_32f_C1R (const Npp32f ∗pSrc, int nSrcStep, Npp32f ∗pDst, int nDstStep, NppiSize oSizeROI, const Npp32f aTwist[3][4])

1 channel 32-bit floating point color twist.

- NppStatus nppiColorTwist_32f_C1IR (Npp32f ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI, const Npp32f aTwist[3][4])

  1 channel 32-bit floating point in place color twist.

- NppStatus nppiColorTwist_32f_C2R (const Npp32f ∗pSrc, int nSrcStep, Npp32f ∗pDst, int nDstStep, NppiSize oSizeROI, const Npp32f aTwist[3][4])

  2 channel 32-bit floating point color twist.

- NppStatus nppiColorTwist_32f_C2IR (Npp32f ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI, const Npp32f aTwist[3][4])

  2 channel 32-bit floating point in place color twist.

- NppStatus nppiColorTwist_32f_C3R (const Npp32f ∗pSrc, int nSrcStep, Npp32f ∗pDst, int nDstStep, NppiSize oSizeROI, const Npp32f aTwist[3][4])

  3 channel 32-bit floating point color twist.

- NppStatus nppiColorTwist_32f_C3IR (Npp32f ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI, const Npp32f aTwist[3][4])

  3 channel 32-bit floating point in place color twist.

- NppStatus nppiColorTwist_32f_C4R (const Npp32f ∗pSrc, int nSrcStep, Npp32f ∗pDst, int nDstStep, NppiSize oSizeROI, const Npp32f aTwist[3][4])

  4 channel 32-bit floating point color twist, with alpha copy.

- NppStatus nppiColorTwist_32f_C4IR (Npp32f ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI, const Npp32f aTwist[3][4])

  4 channel 32-bit floating point in place color twist, not affecting Alpha.

- NppStatus nppiColorTwist_32f_AC4R (const Npp32f ∗pSrc, int nSrcStep, Npp32f ∗pDst, int nDstStep, NppiSize oSizeROI, const Npp32f aTwist[3][4])

  4 channel 32-bit floating point color twist, not affecting Alpha.

- NppStatus nppiColorTwist_32f_AC4IR (Npp32f ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI, const Npp32f aTwist[3][4])

  4 channel 32-bit floating point in place color twist, not affecting Alpha.

- NppStatus nppiColorTwist_32fC_C4R (const Npp32f ∗pSrc, int nSrcStep, Npp32f ∗pDst, int nDstStep, NppiSize oSizeROI, const Npp32f aTwist[4][4], const Npp32f aConstants[4])

  4 channel 32-bit floating point color twist with 4x4 matrix and constant vector addition.

- NppStatus nppiColorTwist_32fC_C4IR (Npp32f ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI, const Npp32f aTwist[4][4], const Npp32f aConstants[4])

  4 channel 32-bit floating point in place color twist with 4x4 matrix and an additional constant vector addition.

- NppStatus nppiColorTwist_32f_P3R (const Npp32f ∗const pSrc[3], int nSrcStep, Npp32f ∗const pDst[3], int nDstStep, NppiSize oSizeROI, const Npp32f aTwist[3][4])

  3 channel 32-bit floating point planar color twist.

- NppStatus nppiColorTwist_32f_IP3R (Npp32f ∗const pSrcDst[3], int nSrcDstStep, NppiSize oSizeROI, const Npp32f aTwist[3][4])

  3 channel 32-bit floating point planar in place color twist.

ColorLUT

Perform image color processing using members of various types of color look up tables.

- NppStatus nppiLUT_8u_C1R (const Npp8u ∗pSrc, int nSrcStep, Npp8u ∗pDst, int nDstStep, NppiSize oSizeROI, const Npp32s ∗pValues, const Npp32s ∗pLevels, int nLevels)

  8-bit unsigned look-up-table color conversion.

- NppStatus nppiLUT_8u_C1IR (Npp8u ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI, const Npp32s ∗pValues, const Npp32s ∗pLevels, int nLevels)

  8-bit unsigned look-up-table in place color conversion.

- NppStatus nppiLUT_8u_C3R (const Npp8u ∗pSrc, int nSrcStep, Npp8u ∗pDst, int nDstStep, NppiSize oSizeROI, const Npp32s ∗pValues[3], const Npp32s ∗pLevels[3], int nLevels[3])

  3 channel 8-bit unsigned look-up-table color conversion.

- NppStatus nppiLUT_8u_C3IR (Npp8u ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI, const Npp32s ∗pValues[3], const Npp32s ∗pLevels[3], int nLevels[3])

  3 channel 8-bit unsigned look-up-table in place color conversion.

- NppStatus nppiLUT_8u_C4R (const Npp8u ∗pSrc, int nSrcStep, Npp8u ∗pDst, int nDstStep, NppiSize oSizeROI, const Npp32s ∗pValues[4], const Npp32s ∗pLevels[4], int nLevels[4])

  4 channel 8-bit unsigned look-up-table color conversion.

- NppStatus nppiLUT_8u_C4IR (Npp8u ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI, const Npp32s ∗pValues[4], const Npp32s ∗pLevels[4], int nLevels[4])

  4 channel 8-bit unsigned look-up-table in place color conversion.

- NppStatus nppiLUT_8u_AC4R (const Npp8u ∗pSrc, int nSrcStep, Npp8u ∗pDst, int nDstStep, NppiSize oSizeROI, const Npp32s ∗pValues[3], const Npp32s ∗pLevels[3], int nLevels[3])

  4 channel 8-bit unsigned look-up-table color conversion, not affecting Alpha.

- NppStatus nppiLUT_8u_AC4IR (Npp8u ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI, const Npp32s ∗pValues[3], const Npp32s ∗pLevels[3], int nLevels[3])

  4 channel 8-bit unsigned look-up-table in place color conversion, not affecting Alpha.

- NppStatus nppiLUT_16u_C1R (const Npp16u ∗pSrc, int nSrcStep, Npp16u ∗pDst, int nDstStep, NppiSize oSizeROI, const Npp32s ∗pValues, const Npp32s ∗pLevels, int nLevels)

  16-bit unsigned look-up-table color conversion.

- NppStatus nppiLUT_16u_C1IR (Npp16u ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI, const Npp32s ∗pValues, const Npp32s ∗pLevels, int nLevels)

  16-bit unsigned look-up-table in place color conversion.

- NppStatus nppiLUT_16u_C3R (const Npp16u ∗pSrc, int nSrcStep, Npp16u ∗pDst, int nDstStep, NppiSize oSizeROI, const Npp32s ∗pValues[3], const Npp32s ∗pLevels[3], int nLevels[3])

3 channel 16-bit unsigned look-up-table color conversion.

- NppStatus nppiLUT_16u_C3IR (Npp16u ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI, const Npp32s ∗pValues[3], const Npp32s ∗pLevels[3], int nLevels[3])

  3 channel 16-bit unsigned look-up-table in place color conversion.

- NppStatus nppiLUT_16u_C4R (const Npp16u ∗pSrc, int nSrcStep, Npp16u ∗pDst, int nDstStep, NppiSize oSizeROI, const Npp32s ∗pValues[4], const Npp32s ∗pLevels[4], int nLevels[4])

  4 channel 16-bit unsigned look-up-table color conversion.

- NppStatus nppiLUT_16u_C4IR (Npp16u ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI, const Npp32s ∗pValues[4], const Npp32s ∗pLevels[4], int nLevels[4])

  4 channel 16-bit unsigned look-up-table in place color conversion.

- NppStatus nppiLUT_16u_AC4R (const Npp16u ∗pSrc, int nSrcStep, Npp16u ∗pDst, int nDstStep, NppiSize oSizeROI, const Npp32s ∗pValues[3], const Npp32s ∗pLevels[3], int nLevels[3])

  4 channel 16-bit unsigned look-up-table color conversion, not affecting Alpha.

- NppStatus nppiLUT_16u_AC4IR (Npp16u ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI, const Npp32s ∗pValues[3], const Npp32s ∗pLevels[3], int nLevels[3])

  4 channel 16-bit unsigned look-up-table in place color conversion, not affecting Alpha.

- NppStatus nppiLUT_16s_C1R (const Npp16s ∗pSrc, int nSrcStep, Npp16s ∗pDst, int nDstStep, NppiSize oSizeROI, const Npp32s ∗pValues, const Npp32s ∗pLevels, int nLevels)

  16-bit signed look-up-table color conversion.

- NppStatus nppiLUT_16s_C1IR (Npp16s ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI, const Npp32s ∗pValues, const Npp32s ∗pLevels, int nLevels)

  16-bit signed look-up-table in place color conversion.

- NppStatus nppiLUT_16s_C3R (const Npp16s ∗pSrc, int nSrcStep, Npp16s ∗pDst, int nDstStep, NppiSize oSizeROI, const Npp32s ∗pValues[3], const Npp32s ∗pLevels[3], int nLevels[3])

  3 channel 16-bit signed look-up-table color conversion.

- NppStatus nppiLUT_16s_C3IR (Npp16s ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI, const Npp32s ∗pValues[3], const Npp32s ∗pLevels[3], int nLevels[3])

  3 channel 16-bit signed look-up-table in place color conversion.

- NppStatus nppiLUT_16s_C4R (const Npp16s ∗pSrc, int nSrcStep, Npp16s ∗pDst, int nDstStep, NppiSize oSizeROI, const Npp32s ∗pValues[4], const Npp32s ∗pLevels[4], int nLevels[4])

  4 channel 16-bit signed look-up-table color conversion.

- NppStatus nppiLUT_16s_C4IR (Npp16s ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI, const Npp32s ∗pValues[4], const Npp32s ∗pLevels[4], int nLevels[4])

  4 channel 16-bit signed look-up-table in place color conversion.

- NppStatus nppiLUT_16s_AC4R (const Npp16s ∗pSrc, int nSrcStep, Npp16s ∗pDst, int nDstStep, NppiSize oSizeROI, const Npp32s ∗pValues[3], const Npp32s ∗pLevels[3], int nLevels[3])

  4 channel 16-bit signed look-up-table color conversion, not affecting Alpha.

- NppStatus nppiLUT_16s_AC4IR (Npp16s ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI, const Npp32s ∗pValues[3], const Npp32s ∗pLevels[3], int nLevels[3])

  4 channel 16-bit signed look-up-table in place color conversion, not affecting Alpha.

- NppStatus nppiLUT_32f_C1R (const Npp32f ∗pSrc, int nSrcStep, Npp32f ∗pDst, int nDstStep, NppiSize oSizeROI, const Npp32f ∗pValues, const Npp32f ∗pLevels, int nLevels)

  32-bit floating point look-up-table color conversion.

- NppStatus nppiLUT_32f_C1IR (Npp32f ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI, const Npp32f ∗pValues, const Npp32f ∗pLevels, int nLevels)

  32-bit floating point look-up-table in place color conversion.

- NppStatus nppiLUT_32f_C3R (const Npp32f ∗pSrc, int nSrcStep, Npp32f ∗pDst, int nDstStep, NppiSize oSizeROI, const Npp32f ∗pValues[3], const Npp32f ∗pLevels[3], int nLevels[3])

  3 channel 32-bit floating point look-up-table color conversion.

- NppStatus nppiLUT_32f_C3IR (Npp32f ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI, const Npp32f ∗pValues[3], const Npp32f ∗pLevels[3], int nLevels[3])

  3 channel 32-bit floating point look-up-table in place color conversion.

- NppStatus nppiLUT_32f_C4R (const Npp32f ∗pSrc, int nSrcStep, Npp32f ∗pDst, int nDstStep, NppiSize oSizeROI, const Npp32f ∗pValues[4], const Npp32f ∗pLevels[4], int nLevels[4])

  4 channel 32-bit floating point look-up-table color conversion.

- NppStatus nppiLUT_32f_C4IR (Npp32f ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI, const Npp32f ∗pValues[4], const Npp32f ∗pLevels[4], int nLevels[4])

  4 channel 32-bit floating point look-up-table in place color conversion.

- NppStatus nppiLUT_32f_AC4R (const Npp32f ∗pSrc, int nSrcStep, Npp32f ∗pDst, int nDstStep, NppiSize oSizeROI, const Npp32f ∗pValues[3], const Npp32f ∗pLevels[3], int nLevels[3])

  4 channel 32-bit floating point look-up-table color conversion, not affecting Alpha.

- NppStatus nppiLUT_32f_AC4IR (Npp32f ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI, const Npp32f ∗pValues[3], const Npp32f ∗pLevels[3], int nLevels[3])

  4 channel 32-bit floating point look-up-table in place color conversion, not affecting Alpha.

ColorLUT_Linear

Perform image color processing using linear interpolation between members of various types of color look up tables.

- NppStatus nppiLUT_Linear_8u_C1R (const Npp8u ∗pSrc, int nSrcStep, Npp8u ∗pDst, int nDstStep, NppiSize oSizeROI, const Npp32s ∗pValues, const Npp32s ∗pLevels, int nLevels)

  8-bit unsigned linear interpolated look-up-table color conversion.

- NppStatus nppiLUT_Linear_8u_C1IR (Npp8u ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI, const Npp32s ∗pValues, const Npp32s ∗pLevels, int nLevels)

  8-bit unsigned linear interpolated look-up-table in place color conversion.

- NppStatus nppiLUT_Linear_8u_C3R (const Npp8u ∗pSrc, int nSrcStep, Npp8u ∗pDst, int nDstStep, NppiSize oSizeROI, const Npp32s ∗pValues[3], const Npp32s ∗pLevels[3], int nLevels[3])

  3 channel 8-bit unsigned linear interpolated look-up-table color conversion.

- NppStatus nppiLUT_Linear_8u_C3IR (Npp8u ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI, const Npp32s ∗pValues[3], const Npp32s ∗pLevels[3], int nLevels[3])

  3 channel 8-bit unsigned linear interpolated look-up-table in place color conversion.

- NppStatus nppiLUT_Linear_8u_C4R (const Npp8u ∗pSrc, int nSrcStep, Npp8u ∗pDst, int nDstStep, NppiSize oSizeROI, const Npp32s ∗pValues[4], const Npp32s ∗pLevels[4], int nLevels[4])

  4 channel 8-bit unsigned linear interpolated look-up-table color conversion.

- NppStatus nppiLUT_Linear_8u_C4IR (Npp8u ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI, const Npp32s ∗pValues[4], const Npp32s ∗pLevels[4], int nLevels[4])

  4 channel 8-bit unsigned linear interpolated look-up-table in place color conversion.

- NppStatus nppiLUT_Linear_8u_AC4R (const Npp8u ∗pSrc, int nSrcStep, Npp8u ∗pDst, int nDstStep, NppiSize oSizeROI, const Npp32s ∗pValues[3], const Npp32s ∗pLevels[3], int nLevels[3])

  4 channel 8-bit unsigned linear interpolated look-up-table color conversion, not affecting Alpha.

- NppStatus nppiLUT_Linear_8u_AC4IR (Npp8u ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI, const Npp32s ∗pValues[3], const Npp32s ∗pLevels[3], int nLevels[3])

  4 channel 8-bit unsigned linear interpolated look-up-table in place color conversion, not affecting Alpha.

- NppStatus nppiLUT_Linear_16u_C1R (const Npp16u ∗pSrc, int nSrcStep, Npp16u ∗pDst, int nDstStep, NppiSize oSizeROI, const Npp32s ∗pValues, const Npp32s ∗pLevels, int nLevels)

  16-bit unsigned look-up-table color conversion.

- NppStatus nppiLUT_Linear_16u_C1IR (Npp16u ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI, const Npp32s ∗pValues, const Npp32s ∗pLevels, int nLevels)

  16-bit unsigned look-up-table in place color conversion.

- NppStatus nppiLUT_Linear_16u_C3R (const Npp16u ∗pSrc, int nSrcStep, Npp16u ∗pDst, int nDstStep, NppiSize oSizeROI, const Npp32s ∗pValues[3], const Npp32s ∗pLevels[3], int nLevels[3])

  3 channel 16-bit unsigned look-up-table color conversion.

- NppStatus nppiLUT_Linear_16u_C3IR (Npp16u ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI, const Npp32s ∗pValues[3], const Npp32s ∗pLevels[3], int nLevels[3])

  3 channel 16-bit unsigned look-up-table in place color conversion.

- NppStatus nppiLUT_Linear_16u_C4R (const Npp16u ∗pSrc, int nSrcStep, Npp16u ∗pDst, int nDstStep, NppiSize oSizeROI, const Npp32s ∗pValues[4], const Npp32s ∗pLevels[4], int nLevels[4])

  4 channel 16-bit unsigned look-up-table color conversion.

- NppStatus nppiLUT_Linear_16u_C4IR (Npp16u ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI, const Npp32s ∗pValues[4], const Npp32s ∗pLevels[4], int nLevels[4])

  4 channel 16-bit unsigned look-up-table in place color conversion.

- NppStatus nppiLUT_Linear_16u_AC4R (const Npp16u ∗pSrc, int nSrcStep, Npp16u ∗pDst, int nDstStep, NppiSize oSizeROI, const Npp32s ∗pValues[3], const Npp32s ∗pLevels[3], int nLevels[3])

  4 channel 16-bit unsigned look-up-table color conversion, not affecting Alpha.

- NppStatus nppiLUT_Linear_16u_AC4IR (Npp16u ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI, const Npp32s ∗pValues[3], const Npp32s ∗pLevels[3], int nLevels[3])

  4 channel 16-bit unsigned look-up-table in place color conversion, not affecting Alpha.

- NppStatus nppiLUT_Linear_16s_C1R (const Npp16s ∗pSrc, int nSrcStep, Npp16s ∗pDst, int nDstStep, NppiSize oSizeROI, const Npp32s ∗pValues, const Npp32s ∗pLevels, int nLevels)

  16-bit signed look-up-table color conversion.

- NppStatus nppiLUT_Linear_16s_C1IR (Npp16s ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI, const Npp32s ∗pValues, const Npp32s ∗pLevels, int nLevels)

  16-bit signed look-up-table in place color conversion.

- NppStatus nppiLUT_Linear_16s_C3R (const Npp16s ∗pSrc, int nSrcStep, Npp16s ∗pDst, int nDstStep, NppiSize oSizeROI, const Npp32s ∗pValues[3], const Npp32s ∗pLevels[3], int nLevels[3])

  3 channel 16-bit signed look-up-table color conversion.

- NppStatus nppiLUT_Linear_16s_C3IR (Npp16s ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI, const Npp32s ∗pValues[3], const Npp32s ∗pLevels[3], int nLevels[3])

  3 channel 16-bit signed look-up-table in place color conversion.

- NppStatus nppiLUT_Linear_16s_C4R (const Npp16s ∗pSrc, int nSrcStep, Npp16s ∗pDst, int nDstStep, NppiSize oSizeROI, const Npp32s ∗pValues[4], const Npp32s ∗pLevels[4], int nLevels[4])

  4 channel 16-bit signed look-up-table color conversion.

- NppStatus nppiLUT_Linear_16s_C4IR (Npp16s ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI, const Npp32s ∗pValues[4], const Npp32s ∗pLevels[4], int nLevels[4])

  4 channel 16-bit signed look-up-table in place color conversion.

- NppStatus nppiLUT_Linear_16s_AC4R (const Npp16s ∗pSrc, int nSrcStep, Npp16s ∗pDst, int nDstStep, NppiSize oSizeROI, const Npp32s ∗pValues[3], const Npp32s ∗pLevels[3], int nLevels[3])

  4 channel 16-bit signed look-up-table color conversion, not affecting Alpha.

- NppStatus nppiLUT_Linear_16s_AC4IR (Npp16s ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI, const Npp32s ∗pValues[3], const Npp32s ∗pLevels[3], int nLevels[3])

  4 channel 16-bit signed look-up-table in place color conversion, not affecting Alpha.

- NppStatus nppiLUT_Linear_32f_C1R (const Npp32f ∗pSrc, int nSrcStep, Npp32f ∗pDst, int nDstStep, NppiSize oSizeROI, const Npp32f ∗pValues, const Npp32f ∗pLevels, int nLevels)

  32-bit floating point look-up-table color conversion.

- NppStatus nppiLUT_Linear_32f_C1IR (Npp32f ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI, const Npp32f ∗pValues, const Npp32f ∗pLevels, int nLevels)

  32-bit floating point look-up-table in place color conversion.

- NppStatus nppiLUT_Linear_32f_C3R (const Npp32f ∗pSrc, int nSrcStep, Npp32f ∗pDst, int nDstStep, NppiSize oSizeROI, const Npp32f ∗pValues[3], const Npp32f ∗pLevels[3], int nLevels[3])

  3 channel 32-bit floating point look-up-table color conversion.

- NppStatus nppiLUT_Linear_32f_C3IR (Npp32f ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI, const Npp32f ∗pValues[3], const Npp32f ∗pLevels[3], int nLevels[3])

3 channel 32-bit floating point look-up-table in place color conversion.

- NppStatus nppiLUT_Linear_32f_C4R (const Npp32f ∗pSrc, int nSrcStep, Npp32f ∗pDst, int nDstStep, NppiSize oSizeROI, const Npp32f ∗pValues[4], const Npp32f ∗pLevels[4], int nLevels[4])

  4 channel 32-bit floating point look-up-table color conversion.

- NppStatus nppiLUT_Linear_32f_C4IR (Npp32f ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI, const Npp32f ∗pValues[4], const Npp32f ∗pLevels[4], int nLevels[4])

  4 channel 32-bit floating point look-up-table in place color conversion.

- NppStatus nppiLUT_Linear_32f_AC4R (const Npp32f ∗pSrc, int nSrcStep, Npp32f ∗pDst, int nDstStep, NppiSize oSizeROI, const Npp32f ∗pValues[3], const Npp32f ∗pLevels[3], int nLevels[3])

  4 channel 32-bit floating point look-up-table color conversion, not affecting Alpha.

- NppStatus nppiLUT_Linear_32f_AC4IR (Npp32f ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI, const Npp32f ∗pValues[3], const Npp32f ∗pLevels[3], int nLevels[3])

  4 channel 32-bit floating point look-up-table in place color conversion, not affecting Alpha.

ColorLUT_Cubic

Perform image color processing using linear interpolation between members of various types of color look up tables.

- NppStatus nppiLUT_Cubic_8u_C1R (const Npp8u ∗pSrc, int nSrcStep, Npp8u ∗pDst, int nDstStep, NppiSize oSizeROI, const Npp32s ∗pValues, const Npp32s ∗pLevels, int nLevels)

  8-bit unsigned cubic interpolated look-up-table color conversion.

- NppStatus nppiLUT_Cubic_8u_C1IR (Npp8u ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI, const Npp32s ∗pValues, const Npp32s ∗pLevels, int nLevels)

  8-bit unsigned cubic interpolated look-up-table in place color conversion.

- NppStatus nppiLUT_Cubic_8u_C3R (const Npp8u ∗pSrc, int nSrcStep, Npp8u ∗pDst, int nDstStep, NppiSize oSizeROI, const Npp32s ∗pValues[3], const Npp32s ∗pLevels[3], int nLevels[3])

  3 channel 8-bit unsigned cubic interpolated look-up-table color conversion.

- NppStatus nppiLUT_Cubic_8u_C3IR (Npp8u ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI, const Npp32s ∗pValues[3], const Npp32s ∗pLevels[3], int nLevels[3])

  3 channel 8-bit unsigned cubic interpolated look-up-table in place color conversion.

- NppStatus nppiLUT_Cubic_8u_C4R (const Npp8u ∗pSrc, int nSrcStep, Npp8u ∗pDst, int nDstStep, NppiSize oSizeROI, const Npp32s ∗pValues[4], const Npp32s ∗pLevels[4], int nLevels[4])

  4 channel 8-bit unsigned cubic interpolated look-up-table color conversion.

- NppStatus nppiLUT_Cubic_8u_C4IR (Npp8u ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI, const Npp32s ∗pValues[4], const Npp32s ∗pLevels[4], int nLevels[4])

  4 channel 8-bit unsigned cubic interpolated look-up-table in place color conversion.

- NppStatus nppiLUT_Cubic_8u_AC4R (const Npp8u ∗pSrc, int nSrcStep, Npp8u ∗pDst, int nDstStep, NppiSize oSizeROI, const Npp32s ∗pValues[3], const Npp32s ∗pLevels[3], int nLevels[3])

4 channel 8-bit unsigned cubic interpolated look-up-table color conversion, not affecting Alpha.

- NppStatus nppiLUT_Cubic_8u_AC4IR (Npp8u ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI, const Npp32s ∗pValues[3], const Npp32s ∗pLevels[3], int nLevels[3])

  4 channel 8-bit unsigned cubic interpolated look-up-table in place color conversion, not affecting Alpha.

- NppStatus nppiLUT_Cubic_16u_C1R (const Npp16u ∗pSrc, int nSrcStep, Npp16u ∗pDst, int nDstStep, NppiSize oSizeROI, const Npp32s ∗pValues, const Npp32s ∗pLevels, int nLevels)

  16-bit unsigned look-up-table color conversion.

- NppStatus nppiLUT_Cubic_16u_C1IR (Npp16u ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI, const Npp32s ∗pValues, const Npp32s ∗pLevels, int nLevels)

  16-bit unsigned look-up-table in place color conversion.

- NppStatus nppiLUT_Cubic_16u_C3R (const Npp16u ∗pSrc, int nSrcStep, Npp16u ∗pDst, int nDstStep, NppiSize oSizeROI, const Npp32s ∗pValues[3], const Npp32s ∗pLevels[3], int nLevels[3])

  3 channel 16-bit unsigned look-up-table color conversion.

- NppStatus nppiLUT_Cubic_16u_C3IR (Npp16u ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI, const Npp32s ∗pValues[3], const Npp32s ∗pLevels[3], int nLevels[3])

  3 channel 16-bit unsigned look-up-table in place color conversion.

- NppStatus nppiLUT_Cubic_16u_C4R (const Npp16u ∗pSrc, int nSrcStep, Npp16u ∗pDst, int nDstStep, NppiSize oSizeROI, const Npp32s ∗pValues[4], const Npp32s ∗pLevels[4], int nLevels[4])

  4 channel 16-bit unsigned look-up-table color conversion.

- NppStatus nppiLUT_Cubic_16u_C4IR (Npp16u ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI, const Npp32s ∗pValues[4], const Npp32s ∗pLevels[4], int nLevels[4])

  4 channel 16-bit unsigned look-up-table in place color conversion.

- NppStatus nppiLUT_Cubic_16u_AC4R (const Npp16u ∗pSrc, int nSrcStep, Npp16u ∗pDst, int nDstStep, NppiSize oSizeROI, const Npp32s ∗pValues[3], const Npp32s ∗pLevels[3], int nLevels[3])

  4 channel 16-bit unsigned look-up-table color conversion, not affecting Alpha.

- NppStatus nppiLUT_Cubic_16u_AC4IR (Npp16u ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI, const Npp32s ∗pValues[3], const Npp32s ∗pLevels[3], int nLevels[3])

  4 channel 16-bit unsigned look-up-table in place color conversion, not affecting Alpha.

- NppStatus nppiLUT_Cubic_16s_C1R (const Npp16s ∗pSrc, int nSrcStep, Npp16s ∗pDst, int nDstStep, NppiSize oSizeROI, const Npp32s ∗pValues, const Npp32s ∗pLevels, int nLevels)

  16-bit signed look-up-table color conversion.

- NppStatus nppiLUT_Cubic_16s_C1IR (Npp16s ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI, const Npp32s ∗pValues, const Npp32s ∗pLevels, int nLevels)

  16-bit signed look-up-table in place color conversion.

- NppStatus nppiLUT_Cubic_16s_C3R (const Npp16s ∗pSrc, int nSrcStep, Npp16s ∗pDst, int nDstStep, NppiSize oSizeROI, const Npp32s ∗pValues[3], const Npp32s ∗pLevels[3], int nLevels[3])

  3 channel 16-bit signed look-up-table color conversion.

- NppStatus nppiLUT_Cubic_16s_C3IR (Npp16s ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI, const Npp32s ∗pValues[3], const Npp32s ∗pLevels[3], int nLevels[3])

  3 channel 16-bit signed look-up-table in place color conversion.

- NppStatus nppiLUT_Cubic_16s_C4R (const Npp16s ∗pSrc, int nSrcStep, Npp16s ∗pDst, int nDstStep, NppiSize oSizeROI, const Npp32s ∗pValues[4], const Npp32s ∗pLevels[4], int nLevels[4])

  4 channel 16-bit signed look-up-table color conversion.

- NppStatus nppiLUT_Cubic_16s_C4IR (Npp16s ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI, const Npp32s ∗pValues[4], const Npp32s ∗pLevels[4], int nLevels[4])

  4 channel 16-bit signed look-up-table in place color conversion.

- NppStatus nppiLUT_Cubic_16s_AC4R (const Npp16s ∗pSrc, int nSrcStep, Npp16s ∗pDst, int nDstStep, NppiSize oSizeROI, const Npp32s ∗pValues[3], const Npp32s ∗pLevels[3], int nLevels[3])

  4 channel 16-bit signed look-up-table color conversion, not affecting Alpha.

- NppStatus nppiLUT_Cubic_16s_AC4IR (Npp16s ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI, const Npp32s ∗pValues[3], const Npp32s ∗pLevels[3], int nLevels[3])

  4 channel 16-bit signed look-up-table in place color conversion, not affecting Alpha.

- NppStatus nppiLUT_Cubic_32f_C1R (const Npp32f ∗pSrc, int nSrcStep, Npp32f ∗pDst, int nDstStep, NppiSize oSizeROI, const Npp32f ∗pValues, const Npp32f ∗pLevels, int nLevels)

  32-bit floating point look-up-table color conversion.

- NppStatus nppiLUT_Cubic_32f_C1IR (Npp32f ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI, const Npp32f ∗pValues, const Npp32f ∗pLevels, int nLevels)

  32-bit floating point look-up-table in place color conversion.

- NppStatus nppiLUT_Cubic_32f_C3R (const Npp32f ∗pSrc, int nSrcStep, Npp32f ∗pDst, int nDstStep, NppiSize oSizeROI, const Npp32f ∗pValues[3], const Npp32f ∗pLevels[3], int nLevels[3])

  3 channel 32-bit floating point look-up-table color conversion.

- NppStatus nppiLUT_Cubic_32f_C3IR (Npp32f ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI, const Npp32f ∗pValues[3], const Npp32f ∗pLevels[3], int nLevels[3])

  3 channel 32-bit floating point look-up-table in place color conversion.

- NppStatus nppiLUT_Cubic_32f_C4R (const Npp32f ∗pSrc, int nSrcStep, Npp32f ∗pDst, int nDstStep, NppiSize oSizeROI, const Npp32f ∗pValues[4], const Npp32f ∗pLevels[4], int nLevels[4])

  4 channel 32-bit floating point look-up-table color conversion.

- NppStatus nppiLUT_Cubic_32f_C4IR (Npp32f ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI, const Npp32f ∗pValues[4], const Npp32f ∗pLevels[4], int nLevels[4])

  4 channel 32-bit floating point look-up-table in place color conversion.

- NppStatus nppiLUT_Cubic_32f_AC4R (const Npp32f ∗pSrc, int nSrcStep, Npp32f ∗pDst, int nDstStep, NppiSize oSizeROI, const Npp32f ∗pValues[3], const Npp32f ∗pLevels[3], int nLevels[3])

  4 channel 32-bit floating point look-up-table color conversion, not affecting Alpha.

- NppStatus nppiLUT_Cubic_32f_AC4IR (Npp32f ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI, const Npp32f ∗pValues[3], const Npp32f ∗pLevels[3], int nLevels[3])

  4 channel 32-bit floating point look-up-table in place color conversion, not affecting Alpha.

ColorLUT_Trilinear

Perform image color processing using 3D trilinear interpolation between members of various types of color look up tables.

- NppStatus nppiLUT_Trilinear_8u_C4R (const Npp8u ∗pSrc, int nSrcStep, Npp8u ∗pDst, int nDstStep, NppiSize oSizeROI, Npp32u ∗pValues, Npp8u ∗pLevels[3], int aLevels[3])

  Four channel 8-bit unsigned 3D trilinear interpolated look-up-table color conversion, with alpha copy.

- NppStatus nppiLUT_Trilinear_8u_AC4R (const Npp8u ∗pSrc, int nSrcStep, Npp8u ∗pDst, int nDstStep, NppiSize oSizeROI, Npp32u ∗pValues, Npp8u ∗pLevels[3], int aLevels[3])

  Four channel 8-bit unsigned 3D trilinear interpolated look-up-table color conversion, not affecting alpha.

- NppStatus nppiLUT_Trilinear_8u_AC4IR (Npp8u ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI, Npp32u ∗pValues, Npp8u ∗pLevels[3], int aLevels[3])

  Four channel 8-bit unsigned 3D trilinear interpolated look-up-table in place color conversion, not affecting alpha.

ColorLUTPalette

Perform image color processing using various types of bit range restricted palette color look up tables.

- NppStatus nppiLUTPalette_8u_C1R (const Npp8u ∗pSrc, int nSrcStep, Npp8u ∗pDst, int nDstStep, NppiSize oSizeROI, const Npp8u ∗pTable, int nBitSize)

  One channel 8-bit unsigned bit range restricted palette look-up-table color conversion.

- NppStatus nppiLUTPalette_8u24u_C1R (const Npp8u ∗pSrc, int nSrcStep, Npp8u ∗pDst, int nDstStep, NppiSize oSizeROI, const Npp8u ∗pTable, int nBitSize)

  One channel 8-bit unsigned bit range restricted 24-bit palette look-up-table color conversion with 24-bit destination output per pixel.

- NppStatus nppiLUTPalette_8u32u_C1R (const Npp8u ∗pSrc, int nSrcStep, Npp32u ∗pDst, int nDstStep, NppiSize oSizeROI, const Npp32u ∗pTable, int nBitSize)

  One channel 8-bit unsigned bit range restricted 32-bit palette look-up-table color conversion with 32-bit destination output per pixel.

- NppStatus nppiLUTPalette_8u_C3R (const Npp8u ∗pSrc, int nSrcStep, Npp8u ∗pDst, int nDstStep, NppiSize oSizeROI, const Npp8u ∗pTables[3], int nBitSize)

  Three channel 8-bit unsigned bit range restricted palette look-up-table color conversion.

- NppStatus nppiLUTPalette_8u_C4R (const Npp8u ∗pSrc, int nSrcStep, Npp8u ∗pDst, int nDstStep, NppiSize oSizeROI, const Npp8u ∗pTables[4], int nBitSize)

  Four channel 8-bit unsigned bit range restricted palette look-up-table color conversion.

- NppStatus nppiLUTPalette_8u_AC4R (const Npp8u ∗pSrc, int nSrcStep, Npp8u ∗pDst, int nDstStep, NppiSize oSizeROI, const Npp8u ∗pTables[3], int nBitSize)

  Four channel 8-bit unsigned bit range restricted palette look-up-table color conversion, not affecting Alpha.

- NppStatus nppiLUTPalette_16u_C1R (const Npp16u ∗pSrc, int nSrcStep, Npp16u ∗pDst, int nDstStep, NppiSize oSizeROI, const Npp16u ∗pTable, int nBitSize)

One channel 16-bit unsigned bit range restricted palette look-up-table color conversion.

- NppStatus nppiLUTPalette_16u8u_C1R (const Npp16u ∗pSrc, int nSrcStep, Npp8u ∗pDst, int nDstStep, NppiSize oSizeROI, const Npp8u ∗pTable, int nBitSize)

  One channel 16-bit unsigned bit range restricted 8-bit unsigned palette look-up-table color conversion with 8-bit unsigned destination output per pixel.

- NppStatus nppiLUTPalette_16u24u_C1R (const Npp16u ∗pSrc, int nSrcStep, Npp8u ∗pDst, int nDstStep, NppiSize oSizeROI, const Npp8u ∗pTable, int nBitSize)

  One channel 16-bit unsigned bit range restricted 24-bit unsigned palette look-up-table color conversion with 24-bit unsigned destination output per pixel.

- NppStatus nppiLUTPalette_16u32u_C1R (const Npp16u ∗pSrc, int nSrcStep, Npp32u ∗pDst, int nDstStep, NppiSize oSizeROI, const Npp32u ∗pTable, int nBitSize)

  One channel 16-bit unsigned bit range restricted 32-bit palette look-up-table color conversion with 32-bit unsigned destination output per pixel.

- NppStatus nppiLUTPalette_16u_C3R (const Npp16u ∗pSrc, int nSrcStep, Npp16u ∗pDst, int nDstStep, NppiSize oSizeROI, const Npp16u ∗pTables[3], int nBitSize)

  Three channel 16-bit unsigned bit range restricted palette look-up-table color conversion.

- NppStatus nppiLUTPalette_16u_C4R (const Npp16u ∗pSrc, int nSrcStep, Npp16u ∗pDst, int nDstStep, NppiSize oSizeROI, const Npp16u ∗pTables[4], int nBitSize)

  Four channel 16-bit unsigned bit range restricted palette look-up-table color conversion.

- NppStatus nppiLUTPalette_16u_AC4R (const Npp16u ∗pSrc, int nSrcStep, Npp16u ∗pDst, int nDstStep, NppiSize oSizeROI, const Npp16u ∗pTables[3], int nBitSize)

  Four channel 16-bit unsigned bit range restricted palette look-up-table color conversion, not affecting Alpha.

- NppStatus nppiLUTPaletteSwap_8u_C3A0C4R (const Npp8u ∗pSrc, int nSrcStep, int nAlphaValue, Npp8u ∗pDst, int nDstStep, NppiSize oSizeROI, const Npp8u ∗pTables[3], int nBitSize)

  Three channel 8-bit unsigned source bit range restricted palette look-up-table color conversion to four channel 8-bit unsigned destination output with alpha.

- NppStatus nppiLUTPaletteSwap_16u_C3A0C4R (const Npp16u ∗pSrc, int nSrcStep, int nAlphaValue, Npp16u ∗pDst, int nDstStep, NppiSize oSizeROI, const Npp16u ∗pTables[3], int nBitSize)

  Three channel 16-bit unsigned source bit range restricted palette look-up-table color conversion to four channel 16-bit unsigned destination output with alpha.

7.48.1 Detailed Description

Routines for performing image color manipulation.

7.48.2 Function Documentation

7.48.2.1 NppStatus nppiColorTwist32f_16s_AC4IR (Npp16s ∗ *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*, const Npp32f *aTwist*[3][4])

4 channel 16-bit signed in place color twist, not affecting Alpha.

An input color twist matrix with floating-point coefficient values is applied with in ROI. Alpha channel is the last channel and is not processed.

Parameters:

pSrcDst in place packed pixel format image pointer.

nSrcDstStep in place packed pixel format image line step.

oSizeROI Region-of-Interest (ROI).

aTwist The color twist matrix with floating-point coefficient values.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.48.2.2 NppStatus nppiColorTwist32f_16s_AC4R (const Npp16s ∗ *pSrc*, int *nSrcStep*, Npp16s ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, const Npp32f *aTwist*[3][4])

4 channel 16-bit signed color twist, not affecting Alpha.

An input color twist matrix with floating-point coefficient values is applied with in ROI. Alpha channel is the last channel and is not processed.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

aTwist The color twist matrix with floating-point coefficient values.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.48.2.3 NppStatus nppiColorTwist32f_16s_C1IR (Npp16s ∗ *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*, const Npp32f *aTwist*[3][4])

1 channel 16-bit signed in place color twist.

An input color twist matrix with floating-point coefficient values is applied within ROI.

Parameters:

pSrcDst in place packed pixel format image pointer.

nSrcDstStep in place packed pixel format image line step.

oSizeROI Region-of-Interest (ROI).

aTwist The color twist matrix with floating-point coefficient values.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.48.2.4 NppStatus nppiColorTwist32f_16s_C1R (const Npp16s ∗ *pSrc*, int *nSrcStep*, Npp16s ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, const Npp32f *aTwist*[3][4])

1 channel 16-bit signed color twist.

An input color twist matrix with floating-point coefficient values is applied within ROI.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

aTwist The color twist matrix with floating-point coefficient values.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.48.2.5 NppStatus nppiColorTwist32f_16s_C2IR (Npp16s ∗ *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*, const Npp32f *aTwist*[3][4])

2 channel 16-bit signed in place color twist.

An input color twist matrix with floating-point coefficient values is applied within ROI.

Parameters:

pSrcDst in place packed pixel format image pointer.

nSrcDstStep in place packed pixel format image line step.

oSizeROI Region-of-Interest (ROI).

aTwist The color twist matrix with floating-point coefficient values.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.48.2.6 NppStatus nppiColorTwist32f_16s_C2R (const Npp16s ∗ *pSrc*, int *nSrcStep*, Npp16s ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, const Npp32f *aTwist*[3][4])

2 channel 16-bit signed color twist.

An input color twist matrix with floating-point coefficient values is applied within ROI.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

aTwist The color twist matrix with floating-point coefficient values.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.48.2.7 NppStatus nppiColorTwist32f_16s_C3IR (Npp16s ∗ *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*, const Npp32f *aTwist*[3][4])

3 channel 16-bit signed in place color twist.

An input color twist matrix with floating-point coefficient values is applied within ROI.

Parameters:

pSrcDst in place packed pixel format image pointer.

nSrcDstStep in place packed pixel format image line step.

oSizeROI Region-of-Interest (ROI).

aTwist The color twist matrix with floating-point coefficient values.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.48.2.8 NppStatus nppiColorTwist32f_16s_C3R (const Npp16s ∗ *pSrc*, int *nSrcStep*, Npp16s ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, const Npp32f *aTwist*[3][4])

3 channel 16-bit signed color twist.

An input color twist matrix with floating-point coefficient values is applied within ROI.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

aTwist The color twist matrix with floating-point coefficient values.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.48.2.9 NppStatus nppiColorTwist32f_16s_IP3R (Npp16s *const *pSrcDst*[3], int *nSrcDstStep*, NppiSize *oSizeROI*, const Npp32f *aTwist*[3][4])

3 channel 16-bit signed planar in place color twist.

An input color twist matrix with floating-point coefficient values is applied within ROI.

Parameters:

pSrcDst in place planar pixel format image pointer array, one pointer per plane.

nSrcDstStep in place planar pixel format image line step.

oSizeROI Region-of-Interest (ROI).

aTwist The color twist matrix with floating-point coefficient values.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.48.2.10 NppStatus nppiColorTwist32f_16s_P3R (const Npp16s *const *pSrc*[3], int *nSrcStep*, Npp16s *const *pDst*[3], int *nDstStep*, NppiSize *oSizeROI*, const Npp32f *aTwist*[3][4])

3 channel 16-bit signed planar color twist.

An input color twist matrix with floating-point coefficient values is applied within ROI.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

aTwist The color twist matrix with floating-point coefficient values.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.48.2.11 NppStatus nppiColorTwist32f_16u_AC4IR (Npp16u * *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*, const Npp32f *aTwist*[3][4])

4 channel 16-bit unsigned in place color twist, not affecting Alpha.

An input color twist matrix with floating-point coefficient values is applied with in ROI. Alpha channel is the last channel and is not processed.

Parameters:

pSrcDst in place packed pixel format image pointer.

nSrcDstStep in place packed pixel format image line step.

oSizeROI Region-of-Interest (ROI).

aTwist The color twist matrix with floating-point coefficient values.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.48.2.12 NppStatus nppiColorTwist32f_16u_AC4R (const Npp16u ∗ *pSrc*, int *nSrcStep*, Npp16u ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, const Npp32f *aTwist*[3][4])

4 channel 16-bit unsigned color twist, not affecting Alpha.

An input color twist matrix with floating-point coefficient values is applied with in ROI. Alpha channel is the last channel and is not processed.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

aTwist The color twist matrix with floating-point coefficient values.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.48.2.13 NppStatus nppiColorTwist32f_16u_C1IR (Npp16u ∗ *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*, const Npp32f *aTwist*[3][4])

1 channel 16-bit unsigned in place color twist.

An input color twist matrix with floating-point coefficient values is applied within ROI.

Parameters:

pSrcDst in place packed pixel format image pointer.

nSrcDstStep in place packed pixel format image line step.

oSizeROI Region-of-Interest (ROI).

aTwist The color twist matrix with floating-point coefficient values.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.48.2.14 NppStatus nppiColorTwist32f_16u_C1R (const Npp16u ∗ *pSrc*, int *nSrcStep*, Npp16u ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, const Npp32f *aTwist*[3][4])

1 channel 16-bit unsigned color twist.

An input color twist matrix with floating-point coefficient values is applied within ROI.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

aTwist The color twist matrix with floating-point coefficient values.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.48.2.15 NppStatus nppiColorTwist32f_16u_C2IR (Npp16u ∗ *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*, const Npp32f *aTwist*[3][4])

2 channel 16-bit unsigned in place color twist.

An input color twist matrix with floating-point coefficient values is applied within ROI.

Parameters:

pSrcDst in place packed pixel format image pointer.

nSrcDstStep in place packed pixel format image line step.

oSizeROI Region-of-Interest (ROI).

aTwist The color twist matrix with floating-point coefficient values.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.48.2.16 NppStatus nppiColorTwist32f_16u_C2R (const Npp16u ∗ *pSrc*, int *nSrcStep*, Npp16u ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, const Npp32f *aTwist*[3][4])

2 channel 16-bit unsigned color twist.

An input color twist matrix with floating-point coefficient values is applied within ROI.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

aTwist The color twist matrix with floating-point coefficient values.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.48.2.17 NppStatus nppiColorTwist32f_16u_C3IR (Npp16u ∗ *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*, const Npp32f *aTwist*[3][4])

3 channel 16-bit unsigned in place color twist.

An input color twist matrix with floating-point coefficient values is applied within ROI.

Parameters:

pSrcDst in place packed pixel format image pointer.
nSrcDstStep in place packed pixel format image line step.
oSizeROI Region-of-Interest (ROI).
aTwist The color twist matrix with floating-point coefficient values.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.48.2.18 NppStatus nppiColorTwist32f_16u_C3R (const Npp16u ∗ *pSrc*, int *nSrcStep*, Npp16u ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, const Npp32f *aTwist*[3][4])

3 channel 16-bit unsigned color twist.

An input color twist matrix with floating-point coefficient values is applied within ROI.

Parameters:

pSrc Source-Image Pointer.
nSrcStep Source-Image Line Step.
pDst Destination-Image Pointer.
nDstStep Destination-Image Line Step.
oSizeROI Region-of-Interest (ROI).
aTwist The color twist matrix with floating-point coefficient values.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.48.2.19 NppStatus nppiColorTwist32f_16u_IP3R (Npp16u ∗const *pSrcDst*[3], int *nSrcDstStep*, NppiSize *oSizeROI*, const Npp32f *aTwist*[3][4])

3 channel 16-bit unsigned planar in place color twist.

An input color twist matrix with floating-point coefficient values is applied within ROI.

Parameters:

pSrcDst in place planar pixel format image pointer array, one pointer per plane.
nSrcDstStep in place planar pixel format image line step.
oSizeROI Region-of-Interest (ROI).
aTwist The color twist matrix with floating-point coefficient values.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.48.2.20 NppStatus nppiColorTwist32f_16u_P3R (const Npp16u ∗const *pSrc*[3], int *nSrcStep*, Npp16u ∗const *pDst*[3], int *nDstStep*, NppiSize *oSizeROI*, const Npp32f *aTwist*[3][4])

3 channel 16-bit unsigned planar color twist.

An input color twist matrix with floating-point coefficient values is applied within ROI.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

aTwist The color twist matrix with floating-point coefficient values.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.48.2.21 NppStatus nppiColorTwist32f_8s_AC4IR (Npp8s ∗ *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*, const Npp32f *aTwist*[3][4])

4 channel 8-bit signed in place color twist, not affecting Alpha.

An input color twist matrix with floating-point coefficient values is applied with in ROI. Alpha channel is the last channel and is not processed.

Parameters:

pSrcDst in place packed pixel format image pointer.

nSrcDstStep in place packed pixel format image line step.

oSizeROI Region-of-Interest (ROI).

aTwist The color twist matrix with floating-point coefficient values.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.48.2.22 NppStatus nppiColorTwist32f_8s_AC4R (const Npp8s ∗ *pSrc*, int *nSrcStep*, Npp8s ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, const Npp32f *aTwist*[3][4])

4 channel 8-bit signed color twist, not affecting Alpha.

An input color twist matrix with floating-point coefficient values is applied with in ROI. Alpha channel is the last channel and is not processed.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

aTwist The color twist matrix with floating-point coefficient values.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.48.2.23 NppStatus nppiColorTwist32f_8s_C1IR (Npp8s ∗ *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*, const Npp32f *aTwist*[3][4])

1 channel 8-bit signed in place color twist.

An input color twist matrix with floating-point coefficient values is applied within ROI.

Parameters:

pSrcDst in place packed pixel format image pointer.

nSrcDstStep in place packed pixel format image line step.

oSizeROI Region-of-Interest (ROI).

aTwist The color twist matrix with floating-point coefficient values.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.48.2.24 NppStatus nppiColorTwist32f_8s_C1R (const Npp8s ∗ *pSrc*, int *nSrcStep*, Npp8s ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, const Npp32f *aTwist*[3][4])

1 channel 8-bit signed color twist.

An input color twist matrix with floating-point coefficient values is applied within ROI.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

aTwist The color twist matrix with floating-point coefficient values.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.48.2.25 NppStatus nppiColorTwist32f_8s_C2IR (Npp8s ∗ *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*, const Npp32f *aTwist*[3][4])

2 channel 8-bit signed in place color twist.

An input color twist matrix with floating-point coefficient values is applied within ROI.

Parameters:

pSrcDst in place packed pixel format image pointer.
nSrcDstStep in place packed pixel format image line step.
oSizeROI Region-of-Interest (ROI).
aTwist The color twist matrix with floating-point coefficient values.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.48.2.26 NppStatus nppiColorTwist32f_8s_C2R (const Npp8s ∗ *pSrc*, int *nSrcStep*, Npp8s ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, const Npp32f *aTwist*[3][4])

2 channel 8-bit signed color twist.

An input color twist matrix with floating-point coefficient values is applied within ROI.

Parameters:

pSrc Source-Image Pointer.
nSrcStep Source-Image Line Step.
pDst Destination-Image Pointer.
nDstStep Destination-Image Line Step.
oSizeROI Region-of-Interest (ROI).
aTwist The color twist matrix with floating-point coefficient values.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.48.2.27 NppStatus nppiColorTwist32f_8s_C3IR (Npp8s ∗ *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*, const Npp32f *aTwist*[3][4])

3 channel 8-bit signed in place color twist.

An input color twist matrix with floating-point coefficient values is applied within ROI.

Parameters:

pSrcDst in place packed pixel format image pointer.
nSrcDstStep in place packed pixel format image line step.
oSizeROI Region-of-Interest (ROI).
aTwist The color twist matrix with floating-point coefficient values.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.48.2.28 NppStatus nppiColorTwist32f_8s_C3R (const Npp8s ∗ *pSrc*, int *nSrcStep*, Npp8s ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, const Npp32f *aTwist*[3][4])

3 channel 8-bit signed color twist.

An input color twist matrix with floating-point coefficient values is applied within ROI.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

aTwist The color twist matrix with floating-point coefficient values.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.48.2.29 NppStatus nppiColorTwist32f_8s_C4IR (Npp8s ∗ *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*, const Npp32f *aTwist*[3][4])

4 channel 8-bit signed in place color twist, not affecting Alpha.

An input color twist matrix with floating-point coefficient values is applied with in ROI. Alpha channel is the last channel and is unmodified.

Parameters:

pSrcDst in place packed pixel format image pointer.

nSrcDstStep in place packed pixel format image line step.

oSizeROI Region-of-Interest (ROI).

aTwist The color twist matrix with floating-point coefficient values.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.48.2.30 NppStatus nppiColorTwist32f_8s_C4R (const Npp8s ∗ *pSrc*, int *nSrcStep*, Npp8s ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, const Npp32f *aTwist*[3][4])

4 channel 8-bit signed color twist, with alpha copy.

An input color twist matrix with floating-point coefficient values is applied with in ROI. Alpha channel is the last channel and is copied unmodified from the source pixel to the destination pixel.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

aTwist The color twist matrix with floating-point coefficient values.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.48.2.31 NppStatus nppiColorTwist32f_8s_IP3R (Npp8s ∗const *pSrcDst*[3], int *nSrcDstStep*, NppiSize *oSizeROI*, const Npp32f *aTwist*[3][4])

3 channel 8-bit signed planar in place color twist.

An input color twist matrix with floating-point coefficient values is applied within ROI.

Parameters:

pSrcDst in place planar pixel format image pointer array, one pointer per plane.

nSrcDstStep in place planar pixel format image line step.

oSizeROI Region-of-Interest (ROI).

aTwist The color twist matrix with floating-point coefficient values.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.48.2.32 NppStatus nppiColorTwist32f_8s_P3R (const Npp8s ∗const *pSrc*[3], int *nSrcStep*, Npp8s ∗const *pDst*[3], int *nDstStep*, NppiSize *oSizeROI*, const Npp32f *aTwist*[3][4])

3 channel 8-bit signed planar color twist.

An input color twist matrix with floating-point coefficient values is applied within ROI.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

aTwist The color twist matrix with floating-point coefficient values.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.48.2.33 NppStatus nppiColorTwist32f_8u_AC4IR (Npp8u ∗ *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*, const Npp32f *aTwist*[3][4])

4 channel 8-bit unsigned in place color twist, not affecting Alpha.

An input color twist matrix with floating-point coefficient values is applied with in ROI. Alpha channel is the last channel and is not processed.

Parameters:

pSrcDst in place packed pixel format image pointer.

nSrcDstStep in place packed pixel format image line step.

oSizeROI Region-of-Interest (ROI).

aTwist The color twist matrix with floating-point coefficient values.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.48.2.34 NppStatus nppiColorTwist32f_8u_AC4R (const Npp8u ∗ *pSrc*, int *nSrcStep*, Npp8u ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, const Npp32f *aTwist*[3][4])

4 channel 8-bit unsigned color twist, not affecting Alpha.

An input color twist matrix with floating-point coefficient values is applied with in ROI. Alpha channel is the last channel and is not processed.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

aTwist The color twist matrix with floating-point coefficient values.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.48.2.35 NppStatus nppiColorTwist32f_8u_C1IR (Npp8u ∗ *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*, const Npp32f *aTwist*[3][4])

1 channel 8-bit unsigned in place color twist.

An input color twist matrix with floating-point coefficient values is applied within ROI.

Parameters:

pSrcDst in place packed pixel format image pointer.

nSrcDstStep in place packed pixel format image line step.

oSizeROI Region-of-Interest (ROI).

aTwist The color twist matrix with floating-point coefficient values.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.48.2.36 NppStatus nppiColorTwist32f_8u_C1R (const Npp8u * *pSrc*, int *nSrcStep*, Npp8u * *pDst*, int *nDstStep*, NppiSize *oSizeROI*, const Npp32f *aTwist*[3][4])

1 channel 8-bit unsigned color twist.

An input color twist matrix with floating-point coefficient values is applied within ROI.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

aTwist The color twist matrix with floating-point coefficient values.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.48.2.37 NppStatus nppiColorTwist32f_8u_C2IR (Npp8u * *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*, const Npp32f *aTwist*[3][4])

2 channel 8-bit unsigned in place color twist.

An input color twist matrix with floating-point coefficient values is applied within ROI.

Parameters:

pSrcDst in place packed pixel format image pointer.

nSrcDstStep in place packed pixel format image line step.

oSizeROI Region-of-Interest (ROI).

aTwist The color twist matrix with floating-point coefficient values.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.48.2.38 NppStatus nppiColorTwist32f_8u_C2R (const Npp8u ∗ *pSrc*, int *nSrcStep*, Npp8u ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, const Npp32f *aTwist*[3][4])

2 channel 8-bit unsigned color twist.

An input color twist matrix with floating-point coefficient values is applied within ROI.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

aTwist The color twist matrix with floating-point coefficient values.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.48.2.39 NppStatus nppiColorTwist32f_8u_C3IR (Npp8u ∗ *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*, const Npp32f *aTwist*[3][4])

3 channel 8-bit unsigned in place color twist.

An input color twist matrix with floating-point coefficient values is applied within ROI.

Parameters:

pSrcDst in place packed pixel format image pointer.

nSrcDstStep in place packed pixel format image line step.

oSizeROI Region-of-Interest (ROI).

aTwist The color twist matrix with floating-point coefficient values.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.48.2.40 NppStatus nppiColorTwist32f_8u_C3R (const Npp8u ∗ *pSrc*, int *nSrcStep*, Npp8u ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, const Npp32f *aTwist*[3][4])

3 channel 8-bit unsigned color twist.

An input color twist matrix with floating-point coefficient values is applied within ROI.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

aTwist The color twist matrix with floating-point coefficient values.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.48.2.41 NppStatus nppiColorTwist32f_8u_C4IR (Npp8u ∗ *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*, const Npp32f *aTwist*[3][4])

4 channel 8-bit unsigned in place color twist, not affecting Alpha.

An input color twist matrix with floating-point coefficient values is applied with in ROI. Alpha channel is the last channel and is unmodified.

Parameters:

pSrcDst in place packed pixel format image pointer.

nSrcDstStep in place packed pixel format image line step.

oSizeROI Region-of-Interest (ROI).

aTwist The color twist matrix with floating-point coefficient values.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.48.2.42 NppStatus nppiColorTwist32f_8u_C4R (const Npp8u ∗ *pSrc*, int *nSrcStep*, Npp8u ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, const Npp32f *aTwist*[3][4])

4 channel 8-bit unsigned color twist, with alpha copy.

An input color twist matrix with floating-point coefficient values is applied with in ROI. Alpha channel is the last channel and is copied unmodified from the source pixel to the destination pixel.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

aTwist The color twist matrix with floating-point coefficient values.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.48.2.43 NppStatus nppiColorTwist32f_8u_IP3R (Npp8u ∗const *pSrcDst*[3], int *nSrcDstStep*, NppiSize *oSizeROI*, const Npp32f *aTwist*[3][4])

3 channel 8-bit unsigned planar in place color twist.

An input color twist matrix with floating-point coefficient values is applied within ROI.

Parameters:

pSrcDst in place planar pixel format image pointer array, one pointer per plane.

nSrcDstStep in place planar pixel format image line step.

oSizeROI Region-of-Interest (ROI).

aTwist The color twist matrix with floating-point coefficient values.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.48.2.44 NppStatus nppiColorTwist32f_8u_P3R (const Npp8u ∗const *pSrc*[3], int *nSrcStep*, Npp8u ∗const *pDst*[3], int *nDstStep*, NppiSize *oSizeROI*, const Npp32f *aTwist*[3][4])

3 channel 8-bit unsigned planar color twist.

An input color twist matrix with floating-point coefficient values is applied within ROI.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

aTwist The color twist matrix with floating-point coefficient values.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.48.2.45 NppStatus nppiColorTwist32fC_8u_C4IR (Npp8u ∗ *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*, const Npp32f *aTwist*[4][4], const Npp32f *aConstants*[4])

4 channel 8-bit unsigned in place color twist with 4x4 matrix and an additional constant vector addition.

An input 4x4 color twist matrix with floating-point coefficient values with an additional constant vector addition is applied within ROI. For this particular version of the function the result is generated as shown below.

```
dst[0] = aTwist[0][0] * src[0] + aTwist[0][1] * src[1] + aTwist[0][2] * src[2] + aTwist[0][3] * src[
dst[1] = aTwist[1][0] * src[0] + aTwist[1][1] * src[1] + aTwist[1][2] * src[2] + aTwist[1][3] * src[
dst[2] = aTwist[2][0] * src[0] + aTwist[2][1] * src[1] + aTwist[2][2] * src[2] + aTwist[2][3] * src[
dst[3] = aTwist[3][0] * src[0] + aTwist[3][1] * src[1] + aTwist[3][2] * src[2] + aTwist[3][3] * src[
```

Parameters:

pSrcDst in place packed pixel format image pointer.

nSrcDstStep in place packed pixel format image line step.

oSizeROI Region-of-Interest (ROI).

aTwist The color twist matrix with floating-point coefficient values.

aConstants fixed size array of constant values, one per channel..

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.48.2.46 NppStatus nppiColorTwist32fC_8u_C4R (const Npp8u ∗ *pSrc*, int *nSrcStep*, Npp8u ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, const Npp32f *aTwist*[4][4], const Npp32f *aConstants*[4])

4 channel 8-bit unsigned color twist with 4x4 matrix and constant vector addition.

An input 4x4 color twist matrix with floating-point coefficient values with an additional constant vector addition is applied within ROI. For this particular version of the function the result is generated as shown below.

```
dst[0] = aTwist[0][0] * src[0] + aTwist[0][1] * src[1] + aTwist[0][2] * src[2] + aTwist[0][3] * src[
dst[1] = aTwist[1][0] * src[0] + aTwist[1][1] * src[1] + aTwist[1][2] * src[2] + aTwist[1][3] * src[
dst[2] = aTwist[2][0] * src[0] + aTwist[2][1] * src[1] + aTwist[2][2] * src[2] + aTwist[2][3] * src[
dst[3] = aTwist[3][0] * src[0] + aTwist[3][1] * src[1] + aTwist[3][2] * src[2] + aTwist[3][3] * src[
```

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

aTwist The color twist matrix with floating-point coefficient values.

aConstants fixed size array of constant values, one per channel..

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.48.2.47 NppStatus nppiColorTwist_32f_AC4IR (Npp32f ∗ *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*, const Npp32f *aTwist*[3][4])

4 channel 32-bit floating point in place color twist, not affecting Alpha.

An input color twist matrix with floating-point coefficient values is applied with in ROI. Alpha channel is the last channel and is not processed.

Parameters:

pSrcDst in place packed pixel format image pointer.

nSrcDstStep in place packed pixel format image line step.

oSizeROI Region-of-Interest (ROI).

aTwist The color twist matrix with floating-point coefficient values.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.48.2.48 NppStatus nppiColorTwist_32f_AC4R (const Npp32f ∗ *pSrc*, int *nSrcStep*, Npp32f ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, const Npp32f *aTwist*[3][4])

4 channel 32-bit floating point color twist, not affecting Alpha.

An input color twist matrix with floating-point coefficient values is applied with in ROI. Alpha channel is the last channel and is not processed.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

aTwist The color twist matrix with floating-point coefficient values.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.48.2.49 NppStatus nppiColorTwist_32f_C1IR (Npp32f ∗ *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*, const Npp32f *aTwist*[3][4])

1 channel 32-bit floating point in place color twist.

An input color twist matrix with floating-point coefficient values is applied within ROI.

Parameters:

pSrcDst in place packed pixel format image pointer.

nSrcDstStep in place packed pixel format image line step.

oSizeROI Region-of-Interest (ROI).

aTwist The color twist matrix with floating-point coefficient values.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.48.2.50 NppStatus nppiColorTwist_32f_C1R (const Npp32f ∗ *pSrc*, int *nSrcStep*, Npp32f ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, const Npp32f *aTwist*[3][4])

1 channel 32-bit floating point color twist.

An input color twist matrix with floating-point coefficient values is applied within ROI.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

aTwist The color twist matrix with floating-point coefficient values.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.48.2.51 NppStatus nppiColorTwist_32f_C2IR (Npp32f ∗ *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*, const Npp32f *aTwist*[3][4])

2 channel 32-bit floating point in place color twist.

An input color twist matrix with floating-point coefficient values is applied within ROI.

Parameters:

pSrcDst in place packed pixel format image pointer.

nSrcDstStep in place packed pixel format image line step.

oSizeROI Region-of-Interest (ROI).

aTwist The color twist matrix with floating-point coefficient values.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.48.2.52 NppStatus nppiColorTwist_32f_C2R (const Npp32f ∗ *pSrc*, int *nSrcStep*, Npp32f ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, const Npp32f *aTwist*[3][4])

2 channel 32-bit floating point color twist.

An input color twist matrix with floating-point coefficient values is applied within ROI.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

aTwist The color twist matrix with floating-point coefficient values.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.48.2.53 NppStatus nppiColorTwist_32f_C3IR (Npp32f ∗ *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*, const Npp32f *aTwist*[3][4])

3 channel 32-bit floating point in place color twist.

An input color twist matrix with floating-point coefficient values is applied within ROI.

Parameters:

pSrcDst in place packed pixel format image pointer.

nSrcDstStep in place packed pixel format image line step.

oSizeROI Region-of-Interest (ROI).

aTwist The color twist matrix with floating-point coefficient values.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.48.2.54 NppStatus nppiColorTwist_32f_C3R (const Npp32f ∗ *pSrc*, int *nSrcStep*, Npp32f ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, const Npp32f *aTwist*[3][4])

3 channel 32-bit floating point color twist.

An input color twist matrix with floating-point coefficient values is applied within ROI.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

aTwist The color twist matrix with floating-point coefficient values.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.48.2.55 NppStatus nppiColorTwist_32f_C4IR (Npp32f * *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*, const Npp32f *aTwist*[3][4])

4 channel 32-bit floating point in place color twist, not affecting Alpha.

An input color twist matrix with floating-point coefficient values is applied with in ROI. Alpha channel is the last channel and is not modified.

Parameters:

pSrcDst in place packed pixel format image pointer.

nSrcDstStep in place packed pixel format image line step.

oSizeROI Region-of-Interest (ROI).

aTwist The color twist matrix with floating-point coefficient values.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.48.2.56 NppStatus nppiColorTwist_32f_C4R (const Npp32f * *pSrc*, int *nSrcStep*, Npp32f * *pDst*, int *nDstStep*, NppiSize *oSizeROI*, const Npp32f *aTwist*[3][4])

4 channel 32-bit floating point color twist, with alpha copy.

An input color twist matrix with floating-point coefficient values is applied with in ROI. Alpha channel is the last channel and is copied unmodified from the source pixel to the destination pixel.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

aTwist The color twist matrix with floating-point coefficient values.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.48.2.57 NppStatus nppiColorTwist_32f_IP3R (Npp32f *const *pSrcDst*[3], int *nSrcDstStep*, NppiSize *oSizeROI*, const Npp32f *aTwist*[3][4])

3 channel 32-bit floating point planar in place color twist.

An input color twist matrix with floating-point coefficient values is applied within ROI.

Parameters:

pSrcDst in place planar pixel format image pointer array, one pointer per plane.

nSrcDstStep in place planar pixel format image line step.

oSizeROI Region-of-Interest (ROI).

aTwist The color twist matrix with floating-point coefficient values.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.48.2.58 NppStatus nppiColorTwist_32f_P3R (const Npp32f *const *pSrc*[3], int *nSrcStep*, Npp32f *const *pDst*[3], int *nDstStep*, NppiSize *oSizeROI*, const Npp32f *aTwist*[3][4])

3 channel 32-bit floating point planar color twist.

An input color twist matrix with floating-point coefficient values is applied within ROI.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

aTwist The color twist matrix with floating-point coefficient values.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.48.2.59 NppStatus nppiColorTwist_32fC_C4IR (Npp32f * *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*, const Npp32f *aTwist*[4][4], const Npp32f *aConstants*[4])

4 channel 32-bit floating point in place color twist with 4x4 matrix and an additional constant vector addition.

An input 4x4 color twist matrix with floating-point coefficient values with an additional constant vector addition is applied within ROI. For this particular version of the function the result is generated as shown below.

```
dst[0] = aTwist[0][0] * src[0] + aTwist[0][1] * src[1] + aTwist[0][2] * src[2] + aTwist[0][3] * src[
dst[1] = aTwist[1][0] * src[0] + aTwist[1][1] * src[1] + aTwist[1][2] * src[2] + aTwist[1][3] * src[
dst[2] = aTwist[2][0] * src[0] + aTwist[2][1] * src[1] + aTwist[2][2] * src[2] + aTwist[2][3] * src[
dst[3] = aTwist[3][0] * src[0] + aTwist[3][1] * src[1] + aTwist[3][2] * src[2] + aTwist[3][3] * src[
```

Parameters:

pSrcDst in place packed pixel format image pointer.

nSrcDstStep in place packed pixel format image line step.

oSizeROI Region-of-Interest (ROI).

aTwist The color twist matrix with floating-point coefficient values.

aConstants fixed size array of constant values, one per channel..

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.48.2.60 NppStatus nppiColorTwist_32fC_C4R (const Npp32f * *pSrc*, int *nSrcStep*, Npp32f * *pDst*, int *nDstStep*, NppiSize *oSizeROI*, const Npp32f *aTwist*[4][4], const Npp32f *aConstants*[4])

4 channel 32-bit floating point color twist with 4x4 matrix and constant vector addition.

An input 4x4 color twist matrix with floating-point coefficient values with an additional constant vector addition is applied within ROI. For this particular version of the function the result is generated as shown below.

```
dst[0] = aTwist[0][0] * src[0] + aTwist[0][1] * src[1] + aTwist[0][2] * src[2] + aTwist[0][3] * src[
dst[1] = aTwist[1][0] * src[0] + aTwist[1][1] * src[1] + aTwist[1][2] * src[2] + aTwist[1][3] * src[
dst[2] = aTwist[2][0] * src[0] + aTwist[2][1] * src[1] + aTwist[2][2] * src[2] + aTwist[2][3] * src[
dst[3] = aTwist[3][0] * src[0] + aTwist[3][1] * src[1] + aTwist[3][2] * src[2] + aTwist[3][3] * src[
```

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

aTwist The color twist matrix with floating-point coefficient values.

aConstants fixed size array of constant values, one per channel..

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.48.2.61 NppStatus nppiLUT_16s_AC4IR (Npp16s * *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*, const Npp32s * *pValues*[3], const Npp32s * *pLevels*[3], int *nLevels*[3])

4 channel 16-bit signed look-up-table in place color conversion, not affecting Alpha.

The LUT is derived from a set of user defined mapping points using no interpolation. Alpha channel is the last channel and is not processed.

Parameters:

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pValues Host pointer to an array of 3 device memory pointers, one per color CHANNEL, pointing to user defined OUTPUT values.

pLevels Host pointer to an array of 3 device memory pointers, one per color CHANNEL, pointing to user defined INPUT values.

nLevels Host pointer to an array of 3 user defined number of input/output mapping points, one per color CHANNEL.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

- NPP_LUT_NUMBER_OF_LEVELS_ERROR if the number of levels is less than 2 or greater than 1024 (the current size limit).

7.48.2.62 NppStatus nppiLUT_16s_AC4R (const Npp16s ∗ *pSrc*, int *nSrcStep*, Npp16s ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, const Npp32s ∗ *pValues*[3], const Npp32s ∗ *pLevels*[3], int *nLevels*[3])

4 channel 16-bit signed look-up-table color conversion, not affecting Alpha.

The LUT is derived from a set of user defined mapping points using no interpolation. Alpha channel is the last channel and is not processed.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pValues Host pointer to an array of 3 device memory pointers, one per color CHANNEL, pointing to user defined OUTPUT values.

pLevels Host pointer to an array of 3 device memory pointers, one per color CHANNEL, pointing to user defined INPUT values.

nLevels Host pointer to an array of 3 user defined number of input/output mapping points, one per color CHANNEL.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

- NPP_LUT_NUMBER_OF_LEVELS_ERROR if the number of levels is less than 2 or greater than 1024 (the current size limit).

7.48.2.63 NppStatus nppiLUT_16s_C1IR (Npp16s ∗ *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*, const Npp32s ∗ *pValues*, const Npp32s ∗ *pLevels*, int *nLevels*)

16-bit signed look-up-table in place color conversion.

The LUT is derived from a set of user defined mapping points with no interpolation.

Parameters:

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pValues Pointer to an array of user defined OUTPUT values (this is a device memory pointer)

pLevels Pointer to an array of user defined INPUT values (this is a device memory pointer)

nLevels Number of user defined number of input/output mapping points (levels)

Returns:

Image Data Related Error Codes, ROI Related Error Codes

- NPP_LUT_NUMBER_OF_LEVELS_ERROR if the number of levels is less than 2 or greater than 1024 (the current size limit).

7.48.2.64 NppStatus nppiLUT_16s_C1R (const Npp16s ∗ *pSrc*, int *nSrcStep*, Npp16s ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, const Npp32s ∗ *pValues*, const Npp32s ∗ *pLevels*, int *nLevels*)

16-bit signed look-up-table color conversion.

The LUT is derived from a set of user defined mapping points with no interpolation.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pValues Pointer to an array of user defined OUTPUT values (this is a device memory pointer)

pLevels Pointer to an array of user defined INPUT values (this is a device memory pointer)

nLevels Number of user defined number of input/output mapping points (levels)

Returns:

Image Data Related Error Codes, ROI Related Error Codes

- NPP_LUT_NUMBER_OF_LEVELS_ERROR if the number of levels is less than 2 or greater than 1024 (the current size limit).

7.48.2.65 NppStatus nppiLUT_16s_C3IR (Npp16s ∗ *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*, const Npp32s ∗ *pValues*[3], const Npp32s ∗ *pLevels*[3], int *nLevels*[3])

3 channel 16-bit signed look-up-table in place color conversion.

The LUT is derived from a set of user defined mapping points with no interpolation.

Parameters:

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pValues Host pointer to an array of 3 device memory pointers, one per color CHANNEL, pointing to user defined OUTPUT values.

pLevels Host pointer to an array of 3 device memory pointers, one per color CHANNEL, pointing to user defined INPUT values.

nLevels Host pointer to an array of 3 user defined number of input/output mapping points, one per color CHANNEL.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

- NPP_LUT_NUMBER_OF_LEVELS_ERROR if the number of levels is less than 2 or greater than 1024 (the current size limit).

7.48.2.66 NppStatus nppiLUT_16s_C3R (const Npp16s ∗ *pSrc*, int *nSrcStep*, Npp16s ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, const Npp32s ∗ *pValues*[3], const Npp32s ∗ *pLevels*[3], int *nLevels*[3])

3 channel 16-bit signed look-up-table color conversion.

The LUT is derived from a set of user defined mapping points using no interpolation.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pValues Host pointer to an array of 3 device memory pointers, one per color CHANNEL, pointing to user defined OUTPUT values.

pLevels Host pointer to an array of 3 device memory pointers, one per color CHANNEL, pointing to user defined INPUT values.

nLevels Host pointer to an array of 3 user defined number of input/output mapping points, one per color CHANNEL.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

- NPP_LUT_NUMBER_OF_LEVELS_ERROR if the number of levels is less than 2 or greater than 1024 (the current size limit).

7.48.2.67 NppStatus nppiLUT_16s_C4IR (Npp16s ∗ *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*, const Npp32s ∗ *pValues*[4], const Npp32s ∗ *pLevels*[4], int *nLevels*[4])

4 channel 16-bit signed look-up-table in place color conversion.

The LUT is derived from a set of user defined mapping points using no interpolation.

Parameters:

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pValues Host pointer to an array of 4 device memory pointers, one per color CHANNEL, pointing to user defined OUTPUT values.

pLevels Host pointer to an array of 4 device memory pointers, one per color CHANNEL, pointing to user defined INPUT values.

nLevels Host pointer to an array of 4 user defined number of input/output mapping points, one per color CHANNEL.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

- NPP_LUT_NUMBER_OF_LEVELS_ERROR if the number of levels is less than 2 or greater than 1024 (the current size limit).

7.48.2.68 NppStatus nppiLUT_16s_C4R (const Npp16s * *pSrc*, int *nSrcStep*, Npp16s * *pDst*, int *nDstStep*, NppiSize *oSizeROI*, const Npp32s * *pValues*[4], const Npp32s * *pLevels*[4], int *nLevels*[4])

4 channel 16-bit signed look-up-table color conversion.

The LUT is derived from a set of user defined mapping points with no interpolation.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pValues Host pointer to an array of 4 device memory pointers, one per color CHANNEL, pointing to user defined OUTPUT values.

pLevels Host pointer to an array of 4 device memory pointers, one per color CHANNEL, pointing to user defined INPUT values.

nLevels Host pointer to an array of 4 user defined number of input/output mapping points, one per color CHANNEL.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

- NPP_LUT_NUMBER_OF_LEVELS_ERROR if the number of levels is less than 2 or greater than 1024 (the current size limit).

7.48.2.69 NppStatus nppiLUT_16u_AC4IR (Npp16u * *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*, const Npp32s * *pValues*[3], const Npp32s * *pLevels*[3], int *nLevels*[3])

4 channel 16-bit unsigned look-up-table in place color conversion, not affecting Alpha.

The LUT is derived from a set of user defined mapping points using no interpolation. Alpha channel is the last channel and is not processed.

Parameters:

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pValues Host pointer to an array of 3 device memory pointers, one per color CHANNEL, pointing to user defined OUTPUT values.

pLevels Host pointer to an array of 3 device memory pointers, one per color CHANNEL, pointing to user defined INPUT values.

nLevels Host pointer to an array of 3 user defined number of input/output mapping points, one per color CHANNEL.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

- NPP_LUT_NUMBER_OF_LEVELS_ERROR if the number of levels is less than 2 or greater than 1024 (the current size limit).

7.48.2.70 NppStatus nppiLUT_16u_AC4R (const Npp16u ∗ *pSrc*, int *nSrcStep*, Npp16u ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, const Npp32s ∗ *pValues*[3], const Npp32s ∗ *pLevels*[3], int *nLevels*[3])

4 channel 16-bit unsigned look-up-table color conversion, not affecting Alpha.

The LUT is derived from a set of user defined mapping points using no interpolation. Alpha channel is the last channel and is not processed.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pValues Host pointer to an array of 3 device memory pointers, one per color CHANNEL, pointing to user defined OUTPUT values.

pLevels Host pointer to an array of 3 device memory pointers, one per color CHANNEL, pointing to user defined INPUT values.

nLevels Host pointer to an array of 3 user defined number of input/output mapping points, one per color CHANNEL.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

- NPP_LUT_NUMBER_OF_LEVELS_ERROR if the number of levels is less than 2 or greater than 1024 (the current size limit).

7.48.2.71 NppStatus nppiLUT_16u_C1IR (Npp16u ∗ *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*, const Npp32s ∗ *pValues*, const Npp32s ∗ *pLevels*, int *nLevels*)

16-bit unsigned look-up-table in place color conversion.

The LUT is derived from a set of user defined mapping points with no interpolation.

Parameters:

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pValues Pointer to an array of user defined OUTPUT values (this is a device memory pointer)

pLevels Pointer to an array of user defined INPUT values (this is a device memory pointer)

nLevels Number of user defined number of input/output mapping points (levels)

Returns:

Image Data Related Error Codes, ROI Related Error Codes

- NPP_LUT_NUMBER_OF_LEVELS_ERROR if the number of levels is less than 2 or greater than 1024 (the current size limit).

7.48.2.72 NppStatus nppiLUT_16u_C1R (const Npp16u * *pSrc*, int *nSrcStep*, Npp16u * *pDst*, int *nDstStep*, NppiSize *oSizeROI*, const Npp32s * *pValues*, const Npp32s * *pLevels*, int *nLevels*)

16-bit unsigned look-up-table color conversion.

The LUT is derived from a set of user defined mapping points with no interpolation.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pValues Pointer to an array of user defined OUTPUT values (this is a device memory pointer)

pLevels Pointer to an array of user defined INPUT values (this is a device memory pointer)

nLevels Number of user defined number of input/output mapping points (levels)

Returns:

Image Data Related Error Codes, ROI Related Error Codes

- NPP_LUT_NUMBER_OF_LEVELS_ERROR if the number of levels is less than 2 or greater than 1024 (the current size limit).

7.48.2.73 NppStatus nppiLUT_16u_C3IR (Npp16u * *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*, const Npp32s * *pValues*[3], const Npp32s * *pLevels*[3], int *nLevels*[3])

3 channel 16-bit unsigned look-up-table in place color conversion.

The LUT is derived from a set of user defined mapping points with no interpolation.

Parameters:

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pValues Host pointer to an array of 3 device memory pointers, one per color CHANNEL, pointing to user defined OUTPUT values.

pLevels Host pointer to an array of 3 device memory pointers, one per color CHANNEL, pointing to user defined INPUT values.

nLevels Host pointer to an array of 3 user defined number of input/output mapping points, one per color CHANNEL.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

- NPP_LUT_NUMBER_OF_LEVELS_ERROR if the number of levels is less than 2 or greater than 1024 (the current size limit).

7.48.2.74 NppStatus nppiLUT_16u_C3R (const Npp16u ∗ *pSrc*, int *nSrcStep*, Npp16u ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, const Npp32s ∗ *pValues*[3], const Npp32s ∗ *pLevels*[3], int *nLevels*[3])

3 channel 16-bit unsigned look-up-table color conversion.

The LUT is derived from a set of user defined mapping points using no interpolation.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pValues Host pointer to an array of 3 device memory pointers, one per color CHANNEL, pointing to user defined OUTPUT values.

pLevels Host pointer to an array of 3 device memory pointers, one per color CHANNEL, pointing to user defined INPUT values.

nLevels Host pointer to an array of 3 user defined number of input/output mapping points, one per color CHANNEL.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

- NPP_LUT_NUMBER_OF_LEVELS_ERROR if the number of levels is less than 2 or greater than 1024 (the current size limit).

7.48.2.75 NppStatus nppiLUT_16u_C4IR (Npp16u ∗ *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*, const Npp32s ∗ *pValues*[4], const Npp32s ∗ *pLevels*[4], int *nLevels*[4])

4 channel 16-bit unsigned look-up-table in place color conversion.

The LUT is derived from a set of user defined mapping points using no interpolation.

Parameters:

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pValues Host pointer to an array of 4 device memory pointers, one per color CHANNEL, pointing to user defined OUTPUT values.

pLevels Host pointer to an array of 4 device memory pointers, one per color CHANNEL, pointing to user defined INPUT values.

nLevels Host pointer to an array of 4 user defined number of input/output mapping points, one per color CHANNEL.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

- NPP_LUT_NUMBER_OF_LEVELS_ERROR if the number of levels is less than 2 or greater than 1024 (the current size limit).

7.48.2.76 NppStatus nppiLUT_16u_C4R (const Npp16u * *pSrc*, int *nSrcStep*, Npp16u * *pDst*, int *nDstStep*, NppiSize *oSizeROI*, const Npp32s * *pValues*[4], const Npp32s * *pLevels*[4], int *nLevels*[4])

4 channel 16-bit unsigned look-up-table color conversion.

The LUT is derived from a set of user defined mapping points with no interpolation.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pValues Host pointer to an array of 4 device memory pointers, one per color CHANNEL, pointing to user defined OUTPUT values.

pLevels Host pointer to an array of 4 device memory pointers, one per color CHANNEL, pointing to user defined INPUT values.

nLevels Host pointer to an array of 4 user defined number of input/output mapping points, one per color CHANNEL.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

- NPP_LUT_NUMBER_OF_LEVELS_ERROR if the number of levels is less than 2 or greater than 1024 (the current size limit).

7.48.2.77 NppStatus nppiLUT_32f_AC4IR (Npp32f * *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*, const Npp32f * *pValues*[3], const Npp32f * *pLevels*[3], int *nLevels*[3])

4 channel 32-bit floating point look-up-table in place color conversion, not affecting Alpha.

The LUT is derived from a set of user defined mapping points using no interpolation. Alpha channel is the last channel and is not processed.

Parameters:

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pValues Host pointer to an array of 3 device memory pointers, one per color CHANNEL, pointing to user defined OUTPUT values.

pLevels Host pointer to an array of 3 device memory pointers, one per color CHANNEL, pointing to user defined INPUT values.

nLevels Host pointer to an array of 3 user defined number of input/output mapping points, one per color CHANNEL.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

- NPP_LUT_NUMBER_OF_LEVELS_ERROR if the number of levels is less than 2 or greater than 1024 (the current size limit).

7.48.2.78 NppStatus nppiLUT_32f_AC4R (const Npp32f ∗ *pSrc*, int *nSrcStep*, Npp32f ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, const Npp32f ∗ *pValues*[3], const Npp32f ∗ *pLevels*[3], int *nLevels*[3])

4 channel 32-bit floating point look-up-table color conversion, not affecting Alpha.

The LUT is derived from a set of user defined mapping points using no interpolation. Alpha channel is the last channel and is not processed.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pValues Host pointer to an array of 3 device memory pointers, one per color CHANNEL, pointing to user defined OUTPUT values.

pLevels Host pointer to an array of 3 device memory pointers, one per color CHANNEL, pointing to user defined INPUT values.

nLevels Host pointer to an array of 3 user defined number of input/output mapping points, one per color CHANNEL.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

- NPP_LUT_NUMBER_OF_LEVELS_ERROR if the number of levels is less than 2 or greater than 1024 (the current size limit).

7.48.2.79 NppStatus nppiLUT_32f_C1IR (Npp32f ∗ *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*, const Npp32f ∗ *pValues*, const Npp32f ∗ *pLevels*, int *nLevels*)

32-bit floating point look-up-table in place color conversion.

The LUT is derived from a set of user defined mapping points with no interpolation.

Parameters:

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pValues Pointer to an array of user defined OUTPUT values (this is a device memory pointer)

pLevels Pointer to an array of user defined INPUT values (this is a device memory pointer)

nLevels Number of user defined number of input/output mapping points (levels)

Returns:

Image Data Related Error Codes, ROI Related Error Codes

- NPP_LUT_NUMBER_OF_LEVELS_ERROR if the number of levels is less than 2 or greater than 1024 (the current size limit).

7.48.2.80 NppStatus nppiLUT_32f_C1R (const Npp32f ∗ *pSrc*, int *nSrcStep*, Npp32f ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, const Npp32f ∗ *pValues*, const Npp32f ∗ *pLevels*, int *nLevels*)

32-bit floating point look-up-table color conversion.

The LUT is derived from a set of user defined mapping points with no interpolation.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pValues Pointer to an array of user defined OUTPUT values (this is a device memory pointer)

pLevels Pointer to an array of user defined INPUT values (this is a device memory pointer)

nLevels Number of user defined number of input/output mapping points (levels)

Returns:

Image Data Related Error Codes, ROI Related Error Codes

- NPP_LUT_NUMBER_OF_LEVELS_ERROR if the number of levels is less than 2 or greater than 1024 (the current size limit).

7.48.2.81 NppStatus nppiLUT_32f_C3IR (Npp32f ∗ *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*, const Npp32f ∗ *pValues*[3], const Npp32f ∗ *pLevels*[3], int *nLevels*[3])

3 channel 32-bit floating point look-up-table in place color conversion.

The LUT is derived from a set of user defined mapping points with no interpolation.

Parameters:

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pValues Host pointer to an array of 3 device memory pointers, one per color CHANNEL, pointing to user defined OUTPUT values.

pLevels Host pointer to an array of 3 device memory pointers, one per color CHANNEL, pointing to user defined INPUT values.

nLevels Host pointer to an array of 3 user defined number of input/output mapping points, one per color CHANNEL.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

- NPP_LUT_NUMBER_OF_LEVELS_ERROR if the number of levels is less than 2 or greater than 1024 (the current size limit).

7.48.2.82 NppStatus nppiLUT_32f_C3R (const Npp32f $*$ *pSrc*, int *nSrcStep*, Npp32f $*$ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, const Npp32f $*$ *pValues*[3], const Npp32f $*$ *pLevels*[3], int *nLevels*[3])

3 channel 32-bit floating point look-up-table color conversion.

The LUT is derived from a set of user defined mapping points using no interpolation.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pValues Host pointer to an array of 3 device memory pointers, one per color CHANNEL, pointing to user defined OUTPUT values.

pLevels Host pointer to an array of 3 device memory pointers, one per color CHANNEL, pointing to user defined INPUT values.

nLevels Host pointer to an array of 3 user defined number of input/output mapping points, one per color CHANNEL.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

- NPP_LUT_NUMBER_OF_LEVELS_ERROR if the number of levels is less than 2 or greater than 1024 (the current size limit).

7.48.2.83 NppStatus nppiLUT_32f_C4IR (Npp32f $*$ *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*, const Npp32f $*$ *pValues*[4], const Npp32f $*$ *pLevels*[4], int *nLevels*[4])

4 channel 32-bit floating point look-up-table in place color conversion.

The LUT is derived from a set of user defined mapping points using no interpolation.

Parameters:

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pValues Host pointer to an array of 4 device memory pointers, one per color CHANNEL, pointing to user defined OUTPUT values.

pLevels Host pointer to an array of 4 device memory pointers, one per color CHANNEL, pointing to user defined INPUT values.

nLevels Host pointer to an array of 4 user defined number of input/output mapping points, one per color CHANNEL.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

- NPP_LUT_NUMBER_OF_LEVELS_ERROR if the number of levels is less than 2 or greater than 1024 (the current size limit).

7.48.2.84 NppStatus nppiLUT_32f_C4R (const Npp32f ∗ *pSrc*, int *nSrcStep*, Npp32f ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, const Npp32f ∗ *pValues*[4], const Npp32f ∗ *pLevels*[4], int *nLevels*[4])

4 channel 32-bit floating point look-up-table color conversion.

The LUT is derived from a set of user defined mapping points with no interpolation.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pValues Host pointer to an array of 4 device memory pointers, one per color CHANNEL, pointing to user defined OUTPUT values.

pLevels Host pointer to an array of 4 device memory pointers, one per color CHANNEL, pointing to user defined INPUT values.

nLevels Host pointer to an array of 4 user defined number of input/output mapping points, one per color CHANNEL.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

- NPP_LUT_NUMBER_OF_LEVELS_ERROR if the number of levels is less than 2 or greater than 1024 (the current size limit).

7.48.2.85 NppStatus nppiLUT_8u_AC4IR (Npp8u ∗ *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*, const Npp32s ∗ *pValues*[3], const Npp32s ∗ *pLevels*[3], int *nLevels*[3])

4 channel 8-bit unsigned look-up-table in place color conversion, not affecting Alpha.

The LUT is derived from a set of user defined mapping points using no interpolation. Alpha channel is the last channel and is not processed.

Parameters:

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pValues Host pointer to an array of 3 device memory pointers, one per color CHANNEL, pointing to user defined OUTPUT values.

pLevels Host pointer to an array of 3 device memory pointers, one per color CHANNEL, pointing to user defined INPUT values.

nLevels Host pointer to an array of 3 user defined number of input/output mapping points, one per color CHANNEL.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

- NPP_LUT_NUMBER_OF_LEVELS_ERROR if the number of levels is less than 2 or greater than 256.

7.48.2.86 NppStatus nppiLUT_8u_AC4R (const Npp8u ∗ *pSrc*, int *nSrcStep*, Npp8u ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, const Npp32s ∗ *pValues*[3], const Npp32s ∗ *pLevels*[3], int *nLevels*[3])

4 channel 8-bit unsigned look-up-table color conversion, not affecting Alpha.

The LUT is derived from a set of user defined mapping points using no interpolation. Alpha channel is the last channel and is not processed.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pValues Host pointer to an array of 3 device memory pointers, one per color CHANNEL, pointing to user defined OUTPUT values.

pLevels Host pointer to an array of 3 device memory pointers, one per color CHANNEL, pointing to user defined INPUT values.

nLevels Host pointer to an array of 3 user defined number of input/output mapping points, one per color CHANNEL.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

- NPP_LUT_NUMBER_OF_LEVELS_ERROR if the number of levels is less than 2 or greater than 256.

7.48.2.87 NppStatus nppiLUT_8u_C1IR (Npp8u ∗ *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*, const Npp32s ∗ *pValues*, const Npp32s ∗ *pLevels*, int *nLevels*)

8-bit unsigned look-up-table in place color conversion.

The LUT is derived from a set of user defined mapping points with no interpolation.

Parameters:

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pValues Pointer to an array of user defined OUTPUT values (this is a device memory pointer)

pLevels Pointer to an array of user defined INPUT values (this is a device memory pointer)

nLevels Number of user defined number of input/output mapping points (levels)

Returns:

Image Data Related Error Codes, ROI Related Error Codes

- NPP_LUT_NUMBER_OF_LEVELS_ERROR if the number of levels is less than 2 or greater than 256.

7.48.2.88 NppStatus nppiLUT_8u_C1R (const Npp8u ∗ *pSrc*, int *nSrcStep*, Npp8u ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, const Npp32s ∗ *pValues*, const Npp32s ∗ *pLevels*, int *nLevels*)

8-bit unsigned look-up-table color conversion.

The LUT is derived from a set of user defined mapping points with no interpolation.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pValues Pointer to an array of user defined OUTPUT values (this is a device memory pointer)

pLevels Pointer to an array of user defined INPUT values (this is a device memory pointer)

nLevels Number of user defined number of input/output mapping points (levels)

Returns:

Image Data Related Error Codes, ROI Related Error Codes

- NPP_LUT_NUMBER_OF_LEVELS_ERROR if the number of levels is less than 2 or greater than 256.

7.48.2.89 NppStatus nppiLUT_8u_C3IR (Npp8u ∗ *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*, const Npp32s ∗ *pValues*[3], const Npp32s ∗ *pLevels*[3], int *nLevels*[3])

3 channel 8-bit unsigned look-up-table in place color conversion.

The LUT is derived from a set of user defined mapping points with no interpolation.

Parameters:

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pValues Host pointer to an array of 3 device memory pointers, one per color CHANNEL, pointing to user defined OUTPUT values.

pLevels Host pointer to an array of 3 device memory pointers, one per color CHANNEL, pointing to user defined INPUT values.

nLevels Host pointer to an array of 3 user defined number of input/output mapping points, one per color CHANNEL.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

- NPP_LUT_NUMBER_OF_LEVELS_ERROR if the number of levels is less than 2 or greater than 256.

7.48.2.90 NppStatus nppiLUT_8u_C3R (const Npp8u ∗ *pSrc*, int *nSrcStep*, Npp8u ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, const Npp32s ∗ *pValues*[3], const Npp32s ∗ *pLevels*[3], int *nLevels*[3])

3 channel 8-bit unsigned look-up-table color conversion.

The LUT is derived from a set of user defined mapping points using no interpolation.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pValues Host pointer to an array of 3 device memory pointers, one per color CHANNEL, pointing to user defined OUTPUT values.

pLevels Host pointer to an array of 3 device memory pointers, one per color CHANNEL, pointing to user defined INPUT values.

nLevels Host pointer to an array of 3 user defined number of input/output mapping points, one per color CHANNEL.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

- NPP_LUT_NUMBER_OF_LEVELS_ERROR if the number of levels is less than 2 or greater than 256.

7.48.2.91 NppStatus nppiLUT_8u_C4IR (Npp8u ∗ *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*, const Npp32s ∗ *pValues*[4], const Npp32s ∗ *pLevels*[4], int *nLevels*[4])

4 channel 8-bit unsigned look-up-table in place color conversion.

The LUT is derived from a set of user defined mapping points using no interpolation.

Parameters:

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pValues Host pointer to an array of 4 device memory pointers, one per color CHANNEL, pointing to user defined OUTPUT values.

pLevels Host pointer to an array of 4 device memory pointers, one per color CHANNEL, pointing to user defined INPUT values.

nLevels Host pointer to an array of 4 user defined number of input/output mapping points, one per color CHANNEL.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

- NPP_LUT_NUMBER_OF_LEVELS_ERROR if the number of levels is less than 2 or greater than 256.

7.48.2.92 NppStatus nppiLUT_8u_C4R (const Npp8u ∗ *pSrc*, int *nSrcStep*, Npp8u ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, const Npp32s ∗ *pValues*[4], const Npp32s ∗ *pLevels*[4], int *nLevels*[4])

4 channel 8-bit unsigned look-up-table color conversion.

The LUT is derived from a set of user defined mapping points with no interpolation.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pValues Host pointer to an array of 4 device memory pointers, one per color CHANNEL, pointing to user defined OUTPUT values.

pLevels Host pointer to an array of 4 device memory pointers, one per color CHANNEL, pointing to user defined INPUT values.

nLevels Host pointer to an array of 4 user defined number of input/output mapping points, one per color CHANNEL.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

- NPP_LUT_NUMBER_OF_LEVELS_ERROR if the number of levels is less than 2 or greater than 256.

7.48.2.93 NppStatus nppiLUT_Cubic_16s_AC4IR (Npp16s ∗ *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*, const Npp32s ∗ *pValues*[3], const Npp32s ∗ *pLevels*[3], int *nLevels*[3])

4 channel 16-bit signed look-up-table in place color conversion, not affecting Alpha.

The LUT is derived from a set of user defined mapping points using no interpolation. Alpha channel is the last channel and is not processed.

Parameters:

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pValues Host pointer to an array of 3 device memory pointers, one per color CHANNEL, pointing to user defined OUTPUT values.

pLevels Host pointer to an array of 3 device memory pointers, one per color CHANNEL, pointing to user defined INPUT values.

nLevels Host pointer to an array of 3 user defined number of input/output mapping points, one per color CHANNEL.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

- NPP_LUT_NUMBER_OF_LEVELS_ERROR if the number of levels is less than 2 or greater than 1024 (the current size limit).

7.48.2.94 NppStatus nppiLUT_Cubic_16s_AC4R (const Npp16s ∗ *pSrc*, int *nSrcStep*, Npp16s ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, const Npp32s ∗ *pValues*[3], const Npp32s ∗ *pLevels*[3], int *nLevels*[3])

4 channel 16-bit signed look-up-table color conversion, not affecting Alpha.

The LUT is derived from a set of user defined mapping points using no interpolation. Alpha channel is the last channel and is not processed.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pValues Host pointer to an array of 3 device memory pointers, one per color CHANNEL, pointing to user defined OUTPUT values.

pLevels Host pointer to an array of 3 device memory pointers, one per color CHANNEL, pointing to user defined INPUT values.

nLevels Host pointer to an array of 3 user defined number of input/output mapping points, one per color CHANNEL.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

- NPP_LUT_NUMBER_OF_LEVELS_ERROR if the number of levels is less than 2 or greater than 1024 (the current size limit).

7.48.2.95 NppStatus nppiLUT_Cubic_16s_C1IR (Npp16s ∗ *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*, const Npp32s ∗ *pValues*, const Npp32s ∗ *pLevels*, int *nLevels*)

16-bit signed look-up-table in place color conversion.

The LUT is derived from a set of user defined mapping points through cubic interpolation.

Parameters:

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pValues Pointer to an array of user defined OUTPUT values (this is a device memory pointer)

pLevels Pointer to an array of user defined INPUT values (this is a device memory pointer)

nLevels Number of user defined number of input/output mapping points (levels)

Returns:

Image Data Related Error Codes, ROI Related Error Codes

- NPP_LUT_NUMBER_OF_LEVELS_ERROR if the number of levels is less than 2 or greater than 1024 (the current size limit).

7.48.2.96 NppStatus nppiLUT_Cubic_16s_C1R (const Npp16s * *pSrc*, int *nSrcStep*, Npp16s * *pDst*, int *nDstStep*, NppiSize *oSizeROI*, const Npp32s * *pValues*, const Npp32s * *pLevels*, int *nLevels*)

16-bit signed look-up-table color conversion.

The LUT is derived from a set of user defined mapping points through cubic interpolation.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pValues Pointer to an array of user defined OUTPUT values (this is a device memory pointer)

pLevels Pointer to an array of user defined INPUT values (this is a device memory pointer)

nLevels Number of user defined number of input/output mapping points (levels)

Returns:

Image Data Related Error Codes, ROI Related Error Codes

- NPP_LUT_NUMBER_OF_LEVELS_ERROR if the number of levels is less than 2 or greater than 1024 (the current size limit).

7.48.2.97 NppStatus nppiLUT_Cubic_16s_C3IR (Npp16s * *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*, const Npp32s * *pValues*[3], const Npp32s * *pLevels*[3], int *nLevels*[3])

3 channel 16-bit signed look-up-table in place color conversion.

The LUT is derived from a set of user defined mapping points through cubic interpolation.

Parameters:

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pValues Host pointer to an array of 3 device memory pointers, one per color CHANNEL, pointing to user defined OUTPUT values.

pLevels Host pointer to an array of 3 device memory pointers, one per color CHANNEL, pointing to user defined INPUT values.

nLevels Host pointer to an array of 3 user defined number of input/output mapping points, one per color CHANNEL.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

- NPP_LUT_NUMBER_OF_LEVELS_ERROR if the number of levels is less than 2 or greater than 1024 (the current size limit).

7.48.2.98 NppStatus nppiLUT_Cubic_16s_C3R (const Npp16s * *pSrc*, int *nSrcStep*, Npp16s * *pDst*, int *nDstStep*, NppiSize *oSizeROI*, const Npp32s * *pValues*[3], const Npp32s * *pLevels*[3], int *nLevels*[3])

3 channel 16-bit signed look-up-table color conversion.

The LUT is derived from a set of user defined mapping points using no interpolation.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pValues Host pointer to an array of 3 device memory pointers, one per color CHANNEL, pointing to user defined OUTPUT values.

pLevels Host pointer to an array of 3 device memory pointers, one per color CHANNEL, pointing to user defined INPUT values.

nLevels Host pointer to an array of 3 user defined number of input/output mapping points, one per color CHANNEL.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

- NPP_LUT_NUMBER_OF_LEVELS_ERROR if the number of levels is less than 2 or greater than 1024 (the current size limit).

7.48.2.99 NppStatus nppiLUT_Cubic_16s_C4IR (Npp16s * *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*, const Npp32s * *pValues*[4], const Npp32s * *pLevels*[4], int *nLevels*[4])

4 channel 16-bit signed look-up-table in place color conversion.

The LUT is derived from a set of user defined mapping points using no interpolation.

Parameters:

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pValues Host pointer to an array of 4 device memory pointers, one per color CHANNEL, pointing to user defined OUTPUT values.

pLevels Host pointer to an array of 4 device memory pointers, one per color CHANNEL, pointing to user defined INPUT values.

nLevels Host pointer to an array of 4 user defined number of input/output mapping points, one per color CHANNEL.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

- NPP_LUT_NUMBER_OF_LEVELS_ERROR if the number of levels is less than 2 or greater than 1024 (the current size limit).

7.48.2.100 NppStatus nppiLUT_Cubic_16s_C4R (const Npp16s ∗ *pSrc*, int *nSrcStep*, Npp16s ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, const Npp32s ∗ *pValues*[4], const Npp32s ∗ *pLevels*[4], int *nLevels*[4])

4 channel 16-bit signed look-up-table color conversion.

The LUT is derived from a set of user defined mapping points through cubic interpolation.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pValues Host pointer to an array of 4 device memory pointers, one per color CHANNEL, pointing to user defined OUTPUT values.

pLevels Host pointer to an array of 4 device memory pointers, one per color CHANNEL, pointing to user defined INPUT values.

nLevels Host pointer to an array of 4 user defined number of input/output mapping points, one per color CHANNEL.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

- NPP_LUT_NUMBER_OF_LEVELS_ERROR if the number of levels is less than 2 or greater than 1024 (the current size limit).

7.48.2.101 NppStatus nppiLUT_Cubic_16u_AC4IR (Npp16u ∗ *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*, const Npp32s ∗ *pValues*[3], const Npp32s ∗ *pLevels*[3], int *nLevels*[3])

4 channel 16-bit unsigned look-up-table in place color conversion, not affecting Alpha.

The LUT is derived from a set of user defined mapping points using no interpolation. Alpha channel is the last channel and is not processed.

Parameters:

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pValues Host pointer to an array of 3 device memory pointers, one per color CHANNEL, pointing to user defined OUTPUT values.

pLevels Host pointer to an array of 3 device memory pointers, one per color CHANNEL, pointing to user defined INPUT values.

nLevels Host pointer to an array of 3 user defined number of input/output mapping points, one per color CHANNEL.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

- NPP_LUT_NUMBER_OF_LEVELS_ERROR if the number of levels is less than 2 or greater than 1024 (the current size limit).

7.48.2.102 NppStatus nppiLUT_Cubic_16u_AC4R (const Npp16u ∗ *pSrc*, int *nSrcStep*, Npp16u ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, const Npp32s ∗ *pValues*[3], const Npp32s ∗ *pLevels*[3], int *nLevels*[3])

4 channel 16-bit unsigned look-up-table color conversion, not affecting Alpha.

The LUT is derived from a set of user defined mapping points using no interpolation. Alpha channel is the last channel and is not processed.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pValues Host pointer to an array of 3 device memory pointers, one per color CHANNEL, pointing to user defined OUTPUT values.

pLevels Host pointer to an array of 3 device memory pointers, one per color CHANNEL, pointing to user defined INPUT values.

nLevels Host pointer to an array of 3 user defined number of input/output mapping points, one per color CHANNEL.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

- NPP_LUT_NUMBER_OF_LEVELS_ERROR if the number of levels is less than 2 or greater than 1024 (the current size limit).

7.48.2.103 NppStatus nppiLUT_Cubic_16u_C1IR (Npp16u ∗ *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*, const Npp32s ∗ *pValues*, const Npp32s ∗ *pLevels*, int *nLevels*)

16-bit unsigned look-up-table in place color conversion.

The LUT is derived from a set of user defined mapping points through cubic interpolation.

Parameters:

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pValues Pointer to an array of user defined OUTPUT values (this is a device memory pointer)

pLevels Pointer to an array of user defined INPUT values (this is a device memory pointer)

nLevels Number of user defined number of input/output mapping points (levels)

Returns:

Image Data Related Error Codes, ROI Related Error Codes

- NPP_LUT_NUMBER_OF_LEVELS_ERROR if the number of levels is less than 2 or greater than 1024 (the current size limit).

7.48.2.104 NppStatus nppiLUT_Cubic_16u_C1R (const Npp16u ∗ *pSrc*, int *nSrcStep*, Npp16u ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, const Npp32s ∗ *pValues*, const Npp32s ∗ *pLevels*, int *nLevels*)

16-bit unsigned look-up-table color conversion.

The LUT is derived from a set of user defined mapping points through cubic interpolation.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pValues Pointer to an array of user defined OUTPUT values (this is a device memory pointer)

pLevels Pointer to an array of user defined INPUT values (this is a device memory pointer)

nLevels Number of user defined number of input/output mapping points (levels)

Returns:

Image Data Related Error Codes, ROI Related Error Codes

- NPP_LUT_NUMBER_OF_LEVELS_ERROR if the number of levels is less than 2 or greater than 1024 (the current size limit).

7.48.2.105 NppStatus nppiLUT_Cubic_16u_C3IR (Npp16u ∗ *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*, const Npp32s ∗ *pValues*[3], const Npp32s ∗ *pLevels*[3], int *nLevels*[3])

3 channel 16-bit unsigned look-up-table in place color conversion.

The LUT is derived from a set of user defined mapping points through cubic interpolation.

Parameters:

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pValues Host pointer to an array of 3 device memory pointers, one per color CHANNEL, pointing to user defined OUTPUT values.

pLevels Host pointer to an array of 3 device memory pointers, one per color CHANNEL, pointing to user defined INPUT values.

nLevels Host pointer to an array of 3 user defined number of input/output mapping points, one per color CHANNEL.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

- NPP_LUT_NUMBER_OF_LEVELS_ERROR if the number of levels is less than 2 or greater than 1024 (the current size limit).

7.48.2.106 NppStatus nppiLUT_Cubic_16u_C3R (const Npp16u ∗ *pSrc*, int *nSrcStep*, Npp16u ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, const Npp32s ∗ *pValues*[3], const Npp32s ∗ *pLevels*[3], int *nLevels*[3])

3 channel 16-bit unsigned look-up-table color conversion.

The LUT is derived from a set of user defined mapping points using no interpolation.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pValues Host pointer to an array of 3 device memory pointers, one per color CHANNEL, pointing to user defined OUTPUT values.

pLevels Host pointer to an array of 3 device memory pointers, one per color CHANNEL, pointing to user defined INPUT values.

nLevels Host pointer to an array of 3 user defined number of input/output mapping points, one per color CHANNEL.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

- NPP_LUT_NUMBER_OF_LEVELS_ERROR if the number of levels is less than 2 or greater than 1024 (the current size limit).

7.48.2.107 NppStatus nppiLUT_Cubic_16u_C4IR (Npp16u ∗ *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*, const Npp32s ∗ *pValues*[4], const Npp32s ∗ *pLevels*[4], int *nLevels*[4])

4 channel 16-bit unsigned look-up-table in place color conversion.

The LUT is derived from a set of user defined mapping points using no interpolation.

Parameters:

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pValues Host pointer to an array of 4 device memory pointers, one per color CHANNEL, pointing to user defined OUTPUT values.

pLevels Host pointer to an array of 4 device memory pointers, one per color CHANNEL, pointing to user defined INPUT values.

nLevels Host pointer to an array of 4 user defined number of input/output mapping points, one per color CHANNEL.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

- NPP_LUT_NUMBER_OF_LEVELS_ERROR if the number of levels is less than 2 or greater than 1024 (the current size limit).

7.48.2.108 NppStatus nppiLUT_Cubic_16u_C4R (const Npp16u ∗ *pSrc*, int *nSrcStep*, Npp16u ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, const Npp32s ∗ *pValues*[4], const Npp32s ∗ *pLevels*[4], int *nLevels*[4])

4 channel 16-bit unsigned look-up-table color conversion.

The LUT is derived from a set of user defined mapping points through cubic interpolation.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pValues Host pointer to an array of 4 device memory pointers, one per color CHANNEL, pointing to user defined OUTPUT values.

pLevels Host pointer to an array of 4 device memory pointers, one per color CHANNEL, pointing to user defined INPUT values.

nLevels Host pointer to an array of 4 user defined number of input/output mapping points, one per color CHANNEL.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

- NPP_LUT_NUMBER_OF_LEVELS_ERROR if the number of levels is less than 2 or greater than 1024 (the current size limit).

7.48.2.109 NppStatus nppiLUT_Cubic_32f_AC4IR (Npp32f ∗ *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*, const Npp32f ∗ *pValues*[3], const Npp32f ∗ *pLevels*[3], int *nLevels*[3])

4 channel 32-bit floating point look-up-table in place color conversion, not affecting Alpha.

The LUT is derived from a set of user defined mapping points using no interpolation. Alpha channel is the last channel and is not processed.

Parameters:

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pValues Host pointer to an array of 3 device memory pointers, one per color CHANNEL, pointing to user defined OUTPUT values.

pLevels Host pointer to an array of 3 device memory pointers, one per color CHANNEL, pointing to user defined INPUT values.

nLevels Host pointer to an array of 3 user defined number of input/output mapping points, one per color CHANNEL.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

- NPP_LUT_NUMBER_OF_LEVELS_ERROR if the number of levels is less than 2 or greater than 1024 (the current size limit).

7.48.2.110 NppStatus nppiLUT_Cubic_32f_AC4R (const Npp32f ∗ *pSrc*, int *nSrcStep*, Npp32f ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, const Npp32f ∗ *pValues*[3], const Npp32f ∗ *pLevels*[3], int *nLevels*[3])

4 channel 32-bit floating point look-up-table color conversion, not affecting Alpha.

The LUT is derived from a set of user defined mapping points using no interpolation. Alpha channel is the last channel and is not processed.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pValues Host pointer to an array of 3 device memory pointers, one per color CHANNEL, pointing to user defined OUTPUT values.

pLevels Host pointer to an array of 3 device memory pointers, one per color CHANNEL, pointing to user defined INPUT values.

nLevels Host pointer to an array of 3 user defined number of input/output mapping points, one per color CHANNEL.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

- NPP_LUT_NUMBER_OF_LEVELS_ERROR if the number of levels is less than 2 or greater than 1024 (the current size limit).

7.48.2.111 NppStatus nppiLUT_Cubic_32f_C1IR (Npp32f ∗ *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*, const Npp32f ∗ *pValues*, const Npp32f ∗ *pLevels*, int *nLevels*)

32-bit floating point look-up-table in place color conversion.

The LUT is derived from a set of user defined mapping points through cubic interpolation.

Parameters:

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pValues Pointer to an array of user defined OUTPUT values (this is a device memory pointer)

pLevels Pointer to an array of user defined INPUT values (this is a device memory pointer)

nLevels Number of user defined number of input/output mapping points (levels)

Returns:

Image Data Related Error Codes, ROI Related Error Codes

- NPP_LUT_NUMBER_OF_LEVELS_ERROR if the number of levels is less than 2 or greater than 1024 (the current size limit).

7.48.2.112 NppStatus nppiLUT_Cubic_32f_C1R (const Npp32f * *pSrc*, int *nSrcStep*, Npp32f * *pDst*, int *nDstStep*, NppiSize *oSizeROI*, const Npp32f * *pValues*, const Npp32f * *pLevels*, int *nLevels*)

32-bit floating point look-up-table color conversion.

The LUT is derived from a set of user defined mapping points through cubic interpolation.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pValues Pointer to an array of user defined OUTPUT values (this is a device memory pointer)

pLevels Pointer to an array of user defined INPUT values (this is a device memory pointer)

nLevels Number of user defined number of input/output mapping points (levels)

Returns:

Image Data Related Error Codes, ROI Related Error Codes

- NPP_LUT_NUMBER_OF_LEVELS_ERROR if the number of levels is less than 2 or greater than 1024 (the current size limit).

7.48.2.113 NppStatus nppiLUT_Cubic_32f_C3IR (Npp32f * *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*, const Npp32f * *pValues*[3], const Npp32f * *pLevels*[3], int *nLevels*[3])

3 channel 32-bit floating point look-up-table in place color conversion.

The LUT is derived from a set of user defined mapping points through cubic interpolation.

Parameters:

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pValues Host pointer to an array of 3 device memory pointers, one per color CHANNEL, pointing to user defined OUTPUT values.

pLevels Host pointer to an array of 3 device memory pointers, one per color CHANNEL, pointing to user defined INPUT values.

nLevels Host pointer to an array of 3 user defined number of input/output mapping points, one per color CHANNEL.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

- NPP_LUT_NUMBER_OF_LEVELS_ERROR if the number of levels is less than 2 or greater than 1024 (the current size limit).

7.48.2.114 NppStatus nppiLUT_Cubic_32f_C3R (const Npp32f ∗ *pSrc*, int *nSrcStep*, Npp32f ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, const Npp32f ∗ *pValues*[3], const Npp32f ∗ *pLevels*[3], int *nLevels*[3])

3 channel 32-bit floating point look-up-table color conversion.

The LUT is derived from a set of user defined mapping points using no interpolation.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pValues Host pointer to an array of 3 device memory pointers, one per color CHANNEL, pointing to user defined OUTPUT values.

pLevels Host pointer to an array of 3 device memory pointers, one per color CHANNEL, pointing to user defined INPUT values.

nLevels Host pointer to an array of 3 user defined number of input/output mapping points, one per color CHANNEL.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

- NPP_LUT_NUMBER_OF_LEVELS_ERROR if the number of levels is less than 2 or greater than 1024 (the current size limit).

7.48.2.115 NppStatus nppiLUT_Cubic_32f_C4IR (Npp32f ∗ *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*, const Npp32f ∗ *pValues*[4], const Npp32f ∗ *pLevels*[4], int *nLevels*[4])

4 channel 32-bit floating point look-up-table in place color conversion.

The LUT is derived from a set of user defined mapping points using no interpolation.

Parameters:

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pValues Host pointer to an array of 4 device memory pointers, one per color CHANNEL, pointing to user defined OUTPUT values.

pLevels Host pointer to an array of 4 device memory pointers, one per color CHANNEL, pointing to user defined INPUT values.

nLevels Host pointer to an array of 4 user defined number of input/output mapping points, one per color CHANNEL.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

- NPP_LUT_NUMBER_OF_LEVELS_ERROR if the number of levels is less than 2 or greater than 1024 (the current size limit).

7.48.2.116 NppStatus nppiLUT_Cubic_32f_C4R (const Npp32f ∗ *pSrc*, int *nSrcStep*, Npp32f ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, const Npp32f ∗ *pValues*[4], const Npp32f ∗ *pLevels*[4], int *nLevels*[4])

4 channel 32-bit floating point look-up-table color conversion.

The LUT is derived from a set of user defined mapping points through cubic interpolation.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pValues Host pointer to an array of 4 device memory pointers, one per color CHANNEL, pointing to user defined OUTPUT values.

pLevels Host pointer to an array of 4 device memory pointers, one per color CHANNEL, pointing to user defined INPUT values.

nLevels Host pointer to an array of 4 user defined number of input/output mapping points, one per color CHANNEL.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

- NPP_LUT_NUMBER_OF_LEVELS_ERROR if the number of levels is less than 2 or greater than 1024 (the current size limit).

7.48.2.117 NppStatus nppiLUT_Cubic_8u_AC4IR (Npp8u ∗ *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*, const Npp32s ∗ *pValues*[3], const Npp32s ∗ *pLevels*[3], int *nLevels*[3])

4 channel 8-bit unsigned cubic interpolated look-up-table in place color conversion, not affecting Alpha.

The LUT is derived from a set of user defined mapping points through cubic interpolation. Alpha channel is the last channel and is not processed.

Parameters:

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pValues Host pointer to an array of 3 device memory pointers, one per color CHANNEL, pointing to user defined OUTPUT values.

pLevels Host pointer to an array of 3 device memory pointers, one per color CHANNEL, pointing to user defined INPUT values.

nLevels Host pointer to an array of 3 user defined number of input/output mapping points, one per color CHANNEL.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

- NPP_LUT_NUMBER_OF_LEVELS_ERROR if the number of levels is less than 2 or greater than 256.

7.48.2.118 NppStatus nppiLUT_Cubic_8u_AC4R (const Npp8u ∗ *pSrc*, int *nSrcStep*, Npp8u ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, const Npp32s ∗ *pValues*[3], const Npp32s ∗ *pLevels*[3], int *nLevels*[3])

4 channel 8-bit unsigned cubic interpolated look-up-table color conversion, not affecting Alpha.

The LUT is derived from a set of user defined mapping points through cubic interpolation. Alpha channel is the last channel and is not processed.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pValues Host pointer to an array of 3 device memory pointers, one per color CHANNEL, pointing to user defined OUTPUT values.

pLevels Host pointer to an array of 3 device memory pointers, one per color CHANNEL, pointing to user defined INPUT values.

nLevels Host pointer to an array of 3 user defined number of input/output mapping points, one per color CHANNEL.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

- NPP_LUT_NUMBER_OF_LEVELS_ERROR if the number of levels is less than 2 or greater than 256.

7.48.2.119 NppStatus nppiLUT_Cubic_8u_C1IR (Npp8u ∗ *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*, const Npp32s ∗ *pValues*, const Npp32s ∗ *pLevels*, int *nLevels*)

8-bit unsigned cubic interpolated look-up-table in place color conversion.

The LUT is derived from a set of user defined mapping points through cubic interpolation.

Parameters:

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pValues Pointer to an array of user defined OUTPUT values (this is a device memory pointer)

pLevels Pointer to an array of user defined INPUT values (this is a device memory pointer)

nLevels Number of user defined number of input/output mapping points (levels)

Returns:

Image Data Related Error Codes, ROI Related Error Codes

- NPP_LUT_NUMBER_OF_LEVELS_ERROR if the number of levels is less than 2 or greater than 256.

7.48.2.120 NppStatus nppiLUT_Cubic_8u_C1R (const Npp8u ∗ *pSrc*, int *nSrcStep*, Npp8u ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, const Npp32s ∗ *pValues*, const Npp32s ∗ *pLevels*, int *nLevels*)

8-bit unsigned cubic interpolated look-up-table color conversion.

The LUT is derived from a set of user defined mapping points through cubic interpolation.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pValues Pointer to an array of user defined OUTPUT values (this is a device memory pointer)

pLevels Pointer to an array of user defined INPUT values (this is a device memory pointer)

nLevels Number of user defined number of input/output mapping points (levels)

Returns:

Image Data Related Error Codes, ROI Related Error Codes

- NPP_LUT_NUMBER_OF_LEVELS_ERROR if the number of levels is less than 2 or greater than 256.

7.48.2.121 NppStatus nppiLUT_Cubic_8u_C3IR (Npp8u ∗ *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*, const Npp32s ∗ *pValues*[3], const Npp32s ∗ *pLevels*[3], int *nLevels*[3])

3 channel 8-bit unsigned cubic interpolated look-up-table in place color conversion.

The LUT is derived from a set of user defined mapping points through cubic interpolation.

Parameters:

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pValues Host pointer to an array of 3 device memory pointers, one per color CHANNEL, pointing to user defined OUTPUT values.

pLevels Host pointer to an array of 3 device memory pointers, one per color CHANNEL, pointing to user defined INPUT values.

nLevels Host pointer to an array of 3 user defined number of input/output mapping points, one per color CHANNEL.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

- NPP_LUT_NUMBER_OF_LEVELS_ERROR if the number of levels is less than 2 or greater than 256.

7.48.2.122 NppStatus nppiLUT_Cubic_8u_C3R (const Npp8u ∗ *pSrc*, int *nSrcStep*, Npp8u ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, const Npp32s ∗ *pValues*[3], const Npp32s ∗ *pLevels*[3], int *nLevels*[3])

3 channel 8-bit unsigned cubic interpolated look-up-table color conversion.

The LUT is derived from a set of user defined mapping points through cubic interpolation.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pValues Host pointer to an array of 3 device memory pointers, one per color CHANNEL, pointing to user defined OUTPUT values.

pLevels Host pointer to an array of 3 device memory pointers, one per color CHANNEL, pointing to user defined INPUT values.

nLevels Host pointer to an array of 3 user defined number of input/output mapping points, one per color CHANNEL.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

- NPP_LUT_NUMBER_OF_LEVELS_ERROR if the number of levels is less than 2 or greater than 256.

7.48.2.123 NppStatus nppiLUT_Cubic_8u_C4IR (Npp8u ∗ *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*, const Npp32s ∗ *pValues*[4], const Npp32s ∗ *pLevels*[4], int *nLevels*[4])

4 channel 8-bit unsigned cubic interpolated look-up-table in place color conversion.

The LUT is derived from a set of user defined mapping points through cubic interpolation.

Parameters:

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pValues Host pointer to an array of 4 device memory pointers, one per color CHANNEL, pointing to user defined OUTPUT values.

pLevels Host pointer to an array of 4 device memory pointers, one per color CHANNEL, pointing to user defined INPUT values.

nLevels Host pointer to an array of 4 user defined number of input/output mapping points, one per color CHANNEL.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

- NPP_LUT_NUMBER_OF_LEVELS_ERROR if the number of levels is less than 2 or greater than 256.

7.48.2.124 NppStatus nppiLUT_Cubic_8u_C4R (const Npp8u * *pSrc*, int *nSrcStep*, Npp8u * *pDst*, int *nDstStep*, NppiSize *oSizeROI*, const Npp32s * *pValues*[4], const Npp32s * *pLevels*[4], int *nLevels*[4])

4 channel 8-bit unsigned cubic interpolated look-up-table color conversion.

The LUT is derived from a set of user defined mapping points through cubic interpolation.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pValues Host pointer to an array of 4 device memory pointers, one per color CHANNEL, pointing to user defined OUTPUT values.

pLevels Host pointer to an array of 4 device memory pointers, one per color CHANNEL, pointing to user defined INPUT values.

nLevels Host pointer to an array of 4 user defined number of input/output mapping points, one per color CHANNEL.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

- NPP_LUT_NUMBER_OF_LEVELS_ERROR if the number of levels is less than 2 or greater than 256.

7.48.2.125 NppStatus nppiLUT_Linear_16s_AC4IR (Npp16s * *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*, const Npp32s * *pValues*[3], const Npp32s * *pLevels*[3], int *nLevels*[3])

4 channel 16-bit signed look-up-table in place color conversion, not affecting Alpha.

The LUT is derived from a set of user defined mapping points using no interpolation. Alpha channel is the last channel and is not processed.

Parameters:

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pValues Host pointer to an array of 3 device memory pointers, one per color CHANNEL, pointing to user defined OUTPUT values.

pLevels Host pointer to an array of 3 device memory pointers, one per color CHANNEL, pointing to user defined INPUT values.

nLevels Host pointer to an array of 3 user defined number of input/output mapping points, one per color CHANNEL.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

- NPP_LUT_NUMBER_OF_LEVELS_ERROR if the number of levels is less than 2 or greater than 1024 (the current size limit).

7.48.2.126 NppStatus nppiLUT_Linear_16s_AC4R (const Npp16s ∗ *pSrc*, int *nSrcStep*, Npp16s ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, const Npp32s ∗ *pValues*[3], const Npp32s ∗ *pLevels*[3], int *nLevels*[3])

4 channel 16-bit signed look-up-table color conversion, not affecting Alpha.

The LUT is derived from a set of user defined mapping points using no interpolation. Alpha channel is the last channel and is not processed.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pValues Host pointer to an array of 3 device memory pointers, one per color CHANNEL, pointing to user defined OUTPUT values.

pLevels Host pointer to an array of 3 device memory pointers, one per color CHANNEL, pointing to user defined INPUT values.

nLevels Host pointer to an array of 3 user defined number of input/output mapping points, one per color CHANNEL.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

- NPP_LUT_NUMBER_OF_LEVELS_ERROR if the number of levels is less than 2 or greater than 1024 (the current size limit).

7.48.2.127 NppStatus nppiLUT_Linear_16s_C1IR (Npp16s ∗ *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*, const Npp32s ∗ *pValues*, const Npp32s ∗ *pLevels*, int *nLevels*)

16-bit signed look-up-table in place color conversion.

The LUT is derived from a set of user defined mapping points using linear interpolation.

Parameters:

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pValues Pointer to an array of user defined OUTPUT values (this is a device memory pointer)

pLevels Pointer to an array of user defined INPUT values (this is a device memory pointer)

nLevels Number of user defined number of input/output mapping points (levels)

Returns:

Image Data Related Error Codes, ROI Related Error Codes

- NPP_LUT_NUMBER_OF_LEVELS_ERROR if the number of levels is less than 2 or greater than 1024 (the current size limit).

7.48.2.128 NppStatus nppiLUT_Linear_16s_C1R (const Npp16s * *pSrc*, int *nSrcStep*, Npp16s * *pDst*, int *nDstStep*, NppiSize *oSizeROI*, const Npp32s * *pValues*, const Npp32s * *pLevels*, int *nLevels*)

16-bit signed look-up-table color conversion.

The LUT is derived from a set of user defined mapping points using linear interpolation.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pValues Pointer to an array of user defined OUTPUT values (this is a device memory pointer)

pLevels Pointer to an array of user defined INPUT values (this is a device memory pointer)

nLevels Number of user defined number of input/output mapping points (levels)

Returns:

Image Data Related Error Codes, ROI Related Error Codes

- NPP_LUT_NUMBER_OF_LEVELS_ERROR if the number of levels is less than 2 or greater than 1024 (the current size limit).

7.48.2.129 NppStatus nppiLUT_Linear_16s_C3IR (Npp16s * *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*, const Npp32s * *pValues*[3], const Npp32s * *pLevels*[3], int *nLevels*[3])

3 channel 16-bit signed look-up-table in place color conversion.

The LUT is derived from a set of user defined mapping points using linear interpolation.

Parameters:

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pValues Host pointer to an array of 3 device memory pointers, one per color CHANNEL, pointing to user defined OUTPUT values.

pLevels Host pointer to an array of 3 device memory pointers, one per color CHANNEL, pointing to user defined INPUT values.

nLevels Host pointer to an array of 3 user defined number of input/output mapping points, one per color CHANNEL.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

- NPP_LUT_NUMBER_OF_LEVELS_ERROR if the number of levels is less than 2 or greater than 1024 (the current size limit).

7.48.2.130 NppStatus nppiLUT_Linear_16s_C3R (const Npp16s ∗ *pSrc*, int *nSrcStep*, Npp16s ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, const Npp32s ∗ *pValues*[3], const Npp32s ∗ *pLevels*[3], int *nLevels*[3])

3 channel 16-bit signed look-up-table color conversion.

The LUT is derived from a set of user defined mapping points using no interpolation.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pValues Host pointer to an array of 3 device memory pointers, one per color CHANNEL, pointing to user defined OUTPUT values.

pLevels Host pointer to an array of 3 device memory pointers, one per color CHANNEL, pointing to user defined INPUT values.

nLevels Host pointer to an array of 3 user defined number of input/output mapping points, one per color CHANNEL.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

- NPP_LUT_NUMBER_OF_LEVELS_ERROR if the number of levels is less than 2 or greater than 1024 (the current size limit).

7.48.2.131 NppStatus nppiLUT_Linear_16s_C4IR (Npp16s ∗ *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*, const Npp32s ∗ *pValues*[4], const Npp32s ∗ *pLevels*[4], int *nLevels*[4])

4 channel 16-bit signed look-up-table in place color conversion.

The LUT is derived from a set of user defined mapping points using no interpolation.

Parameters:

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pValues Host pointer to an array of 4 device memory pointers, one per color CHANNEL, pointing to user defined OUTPUT values.

pLevels Host pointer to an array of 4 device memory pointers, one per color CHANNEL, pointing to user defined INPUT values.

nLevels Host pointer to an array of 4 user defined number of input/output mapping points, one per color CHANNEL.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

- NPP_LUT_NUMBER_OF_LEVELS_ERROR if the number of levels is less than 2 or greater than 1024 (the current size limit).

7.48.2.132 NppStatus nppiLUT_Linear_16s_C4R (const Npp16s ∗ *pSrc*, int *nSrcStep*, Npp16s ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, const Npp32s ∗ *pValues*[4], const Npp32s ∗ *pLevels*[4], int *nLevels*[4])

4 channel 16-bit signed look-up-table color conversion.

The LUT is derived from a set of user defined mapping points using linear interpolation.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pValues Host pointer to an array of 4 device memory pointers, one per color CHANNEL, pointing to user defined OUTPUT values.

pLevels Host pointer to an array of 4 device memory pointers, one per color CHANNEL, pointing to user defined INPUT values.

nLevels Host pointer to an array of 4 user defined number of input/output mapping points, one per color CHANNEL.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

- NPP_LUT_NUMBER_OF_LEVELS_ERROR if the number of levels is less than 2 or greater than 1024 (the current size limit).

7.48.2.133 NppStatus nppiLUT_Linear_16u_AC4IR (Npp16u ∗ *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*, const Npp32s ∗ *pValues*[3], const Npp32s ∗ *pLevels*[3], int *nLevels*[3])

4 channel 16-bit unsigned look-up-table in place color conversion, not affecting Alpha.

The LUT is derived from a set of user defined mapping points using no interpolation. Alpha channel is the last channel and is not processed.

Parameters:

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pValues Host pointer to an array of 3 device memory pointers, one per color CHANNEL, pointing to user defined OUTPUT values.

pLevels Host pointer to an array of 3 device memory pointers, one per color CHANNEL, pointing to user defined INPUT values.

nLevels Host pointer to an array of 3 user defined number of input/output mapping points, one per color CHANNEL.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

- NPP_LUT_NUMBER_OF_LEVELS_ERROR if the number of levels is less than 2 or greater than 1024 (the current size limit).

7.48.2.134 NppStatus nppiLUT_Linear_16u_AC4R (const Npp16u * *pSrc*, int *nSrcStep*, Npp16u * *pDst*, int *nDstStep*, NppiSize *oSizeROI*, const Npp32s * *pValues*[3], const Npp32s * *pLevels*[3], int *nLevels*[3])

4 channel 16-bit unsigned look-up-table color conversion, not affecting Alpha.

The LUT is derived from a set of user defined mapping points using no interpolation. Alpha channel is the last channel and is not processed.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pValues Host pointer to an array of 3 device memory pointers, one per color CHANNEL, pointing to user defined OUTPUT values.

pLevels Host pointer to an array of 3 device memory pointers, one per color CHANNEL, pointing to user defined INPUT values.

nLevels Host pointer to an array of 3 user defined number of input/output mapping points, one per color CHANNEL.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

- NPP_LUT_NUMBER_OF_LEVELS_ERROR if the number of levels is less than 2 or greater than 1024 (the current size limit).

7.48.2.135 NppStatus nppiLUT_Linear_16u_C1IR (Npp16u * *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*, const Npp32s * *pValues*, const Npp32s * *pLevels*, int *nLevels*)

16-bit unsigned look-up-table in place color conversion.

The LUT is derived from a set of user defined mapping points using linear interpolation.

Parameters:

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pValues Pointer to an array of user defined OUTPUT values (this is a device memory pointer)

pLevels Pointer to an array of user defined INPUT values (this is a device memory pointer)

nLevels Number of user defined number of input/output mapping points (levels)

Returns:

Image Data Related Error Codes, ROI Related Error Codes

- NPP_LUT_NUMBER_OF_LEVELS_ERROR if the number of levels is less than 2 or greater than 1024 (the current size limit).

7.48.2.136 NppStatus nppiLUT_Linear_16u_C1R (const Npp16u ∗ *pSrc*, int *nSrcStep*, Npp16u ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, const Npp32s ∗ *pValues*, const Npp32s ∗ *pLevels*, int *nLevels*)

16-bit unsigned look-up-table color conversion.

The LUT is derived from a set of user defined mapping points using linear interpolation.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pValues Pointer to an array of user defined OUTPUT values (this is a device memory pointer)

pLevels Pointer to an array of user defined INPUT values (this is a device memory pointer)

nLevels Number of user defined number of input/output mapping points (levels)

Returns:

Image Data Related Error Codes, ROI Related Error Codes

- NPP_LUT_NUMBER_OF_LEVELS_ERROR if the number of levels is less than 2 or greater than 1024 (the current size limit).

7.48.2.137 NppStatus nppiLUT_Linear_16u_C3IR (Npp16u ∗ *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*, const Npp32s ∗ *pValues*[3], const Npp32s ∗ *pLevels*[3], int *nLevels*[3])

3 channel 16-bit unsigned look-up-table in place color conversion.

The LUT is derived from a set of user defined mapping points using linear interpolation.

Parameters:

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pValues Host pointer to an array of 3 device memory pointers, one per color CHANNEL, pointing to user defined OUTPUT values.

pLevels Host pointer to an array of 3 device memory pointers, one per color CHANNEL, pointing to user defined INPUT values.

nLevels Host pointer to an array of 3 user defined number of input/output mapping points, one per color CHANNEL.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

- NPP_LUT_NUMBER_OF_LEVELS_ERROR if the number of levels is less than 2 or greater than 1024 (the current size limit).

7.48.2.138 NppStatus nppiLUT_Linear_16u_C3R (const Npp16u ∗ *pSrc*, int *nSrcStep*, Npp16u ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, const Npp32s ∗ *pValues*[3], const Npp32s ∗ *pLevels*[3], int *nLevels*[3])

3 channel 16-bit unsigned look-up-table color conversion.

The LUT is derived from a set of user defined mapping points using no interpolation.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pValues Host pointer to an array of 3 device memory pointers, one per color CHANNEL, pointing to user defined OUTPUT values.

pLevels Host pointer to an array of 3 device memory pointers, one per color CHANNEL, pointing to user defined INPUT values.

nLevels Host pointer to an array of 3 user defined number of input/output mapping points, one per color CHANNEL.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

- NPP_LUT_NUMBER_OF_LEVELS_ERROR if the number of levels is less than 2 or greater than 1024 (the current size limit).

7.48.2.139 NppStatus nppiLUT_Linear_16u_C4IR (Npp16u ∗ *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*, const Npp32s ∗ *pValues*[4], const Npp32s ∗ *pLevels*[4], int *nLevels*[4])

4 channel 16-bit unsigned look-up-table in place color conversion.

The LUT is derived from a set of user defined mapping points using no interpolation.

Parameters:

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pValues Host pointer to an array of 4 device memory pointers, one per color CHANNEL, pointing to user defined OUTPUT values.

pLevels Host pointer to an array of 4 device memory pointers, one per color CHANNEL, pointing to user defined INPUT values.

nLevels Host pointer to an array of 4 user defined number of input/output mapping points, one per color CHANNEL.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

- NPP_LUT_NUMBER_OF_LEVELS_ERROR if the number of levels is less than 2 or greater than 1024 (the current size limit).

7.48.2.140 NppStatus nppiLUT_Linear_16u_C4R (const Npp16u ∗ *pSrc*, int *nSrcStep*, Npp16u ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, const Npp32s ∗ *pValues*[4], const Npp32s ∗ *pLevels*[4], int *nLevels*[4])

4 channel 16-bit unsigned look-up-table color conversion.

The LUT is derived from a set of user defined mapping points using linear interpolation.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pValues Host pointer to an array of 4 device memory pointers, one per color CHANNEL, pointing to user defined OUTPUT values.

pLevels Host pointer to an array of 4 device memory pointers, one per color CHANNEL, pointing to user defined INPUT values.

nLevels Host pointer to an array of 4 user defined number of input/output mapping points, one per color CHANNEL.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

- NPP_LUT_NUMBER_OF_LEVELS_ERROR if the number of levels is less than 2 or greater than 1024 (the current size limit).

7.48.2.141 NppStatus nppiLUT_Linear_32f_AC4IR (Npp32f ∗ *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*, const Npp32f ∗ *pValues*[3], const Npp32f ∗ *pLevels*[3], int *nLevels*[3])

4 channel 32-bit floating point look-up-table in place color conversion, not affecting Alpha.

The LUT is derived from a set of user defined mapping points using no interpolation. Alpha channel is the last channel and is not processed.

Parameters:

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pValues Host pointer to an array of 3 device memory pointers, one per color CHANNEL, pointing to user defined OUTPUT values.

pLevels Host pointer to an array of 3 device memory pointers, one per color CHANNEL, pointing to user defined INPUT values.

nLevels Host pointer to an array of 3 user defined number of input/output mapping points, one per color CHANNEL.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

- NPP_LUT_NUMBER_OF_LEVELS_ERROR if the number of levels is less than 2 or greater than 1024 (the current size limit).

7.48.2.142 NppStatus nppiLUT_Linear_32f_AC4R (const Npp32f ∗ *pSrc*, int *nSrcStep*, Npp32f ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, const Npp32f ∗ *pValues*[3], const Npp32f ∗ *pLevels*[3], int *nLevels*[3])

4 channel 32-bit floating point look-up-table color conversion, not affecting Alpha.

The LUT is derived from a set of user defined mapping points using no interpolation. Alpha channel is the last channel and is not processed.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pValues Host pointer to an array of 3 device memory pointers, one per color CHANNEL, pointing to user defined OUTPUT values.

pLevels Host pointer to an array of 3 device memory pointers, one per color CHANNEL, pointing to user defined INPUT values.

nLevels Host pointer to an array of 3 user defined number of input/output mapping points, one per color CHANNEL.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

- NPP_LUT_NUMBER_OF_LEVELS_ERROR if the number of levels is less than 2 or greater than 1024 (the current size limit).

7.48.2.143 NppStatus nppiLUT_Linear_32f_C1IR (Npp32f ∗ *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*, const Npp32f ∗ *pValues*, const Npp32f ∗ *pLevels*, int *nLevels*)

32-bit floating point look-up-table in place color conversion.

The LUT is derived from a set of user defined mapping points using linear interpolation.

Parameters:

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pValues Pointer to an array of user defined OUTPUT values (this is a device memory pointer)

pLevels Pointer to an array of user defined INPUT values (this is a device memory pointer)

nLevels Number of user defined number of input/output mapping points (levels)

Returns:

Image Data Related Error Codes, ROI Related Error Codes

- NPP_LUT_NUMBER_OF_LEVELS_ERROR if the number of levels is less than 2 or greater than 1024 (the current size limit).

7.48.2.144 NppStatus nppiLUT_Linear_32f_C1R (const Npp32f $*$ *pSrc*, int *nSrcStep*, Npp32f $*$ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, const Npp32f $*$ *pValues*, const Npp32f $*$ *pLevels*, int *nLevels*)

32-bit floating point look-up-table color conversion.

The LUT is derived from a set of user defined mapping points using linear interpolation.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pValues Pointer to an array of user defined OUTPUT values (this is a device memory pointer)

pLevels Pointer to an array of user defined INPUT values (this is a device memory pointer)

nLevels Number of user defined number of input/output mapping points (levels)

Returns:

Image Data Related Error Codes, ROI Related Error Codes

- NPP_LUT_NUMBER_OF_LEVELS_ERROR if the number of levels is less than 2 or greater than 1024 (the current size limit).

7.48.2.145 NppStatus nppiLUT_Linear_32f_C3IR (Npp32f $*$ *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*, const Npp32f $*$ *pValues*[3], const Npp32f $*$ *pLevels*[3], int *nLevels*[3])

3 channel 32-bit floating point look-up-table in place color conversion.

The LUT is derived from a set of user defined mapping points using linear interpolation.

Parameters:

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pValues Host pointer to an array of 3 device memory pointers, one per color CHANNEL, pointing to user defined OUTPUT values.

pLevels Host pointer to an array of 3 device memory pointers, one per color CHANNEL, pointing to user defined INPUT values.

nLevels Host pointer to an array of 3 user defined number of input/output mapping points, one per color CHANNEL.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

- NPP_LUT_NUMBER_OF_LEVELS_ERROR if the number of levels is less than 2 or greater than 1024 (the current size limit).

7.48.2.146 NppStatus nppiLUT_Linear_32f_C3R (const Npp32f ∗ *pSrc*, int *nSrcStep*, Npp32f ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, const Npp32f ∗ *pValues*[3], const Npp32f ∗ *pLevels*[3], int *nLevels*[3])

3 channel 32-bit floating point look-up-table color conversion.

The LUT is derived from a set of user defined mapping points using no interpolation.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pValues Host pointer to an array of 3 device memory pointers, one per color CHANNEL, pointing to user defined OUTPUT values.

pLevels Host pointer to an array of 3 device memory pointers, one per color CHANNEL, pointing to user defined INPUT values.

nLevels Host pointer to an array of 3 user defined number of input/output mapping points, one per color CHANNEL.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

- NPP_LUT_NUMBER_OF_LEVELS_ERROR if the number of levels is less than 2 or greater than 1024 (the current size limit).

7.48.2.147 NppStatus nppiLUT_Linear_32f_C4IR (Npp32f ∗ *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*, const Npp32f ∗ *pValues*[4], const Npp32f ∗ *pLevels*[4], int *nLevels*[4])

4 channel 32-bit floating point look-up-table in place color conversion.

The LUT is derived from a set of user defined mapping points using no interpolation.

Parameters:

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pValues Host pointer to an array of 4 device memory pointers, one per color CHANNEL, pointing to user defined OUTPUT values.

pLevels Host pointer to an array of 4 device memory pointers, one per color CHANNEL, pointing to user defined INPUT values.

nLevels Host pointer to an array of 4 user defined number of input/output mapping points, one per color CHANNEL.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

- NPP_LUT_NUMBER_OF_LEVELS_ERROR if the number of levels is less than 2 or greater than 1024 (the current size limit).

7.48.2.148 NppStatus nppiLUT_Linear_32f_C4R (const Npp32f ∗ *pSrc*, int *nSrcStep*, Npp32f ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, const Npp32f ∗ *pValues*[4], const Npp32f ∗ *pLevels*[4], int *nLevels*[4])

4 channel 32-bit floating point look-up-table color conversion.

The LUT is derived from a set of user defined mapping points using linear interpolation.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pValues Host pointer to an array of 4 device memory pointers, one per color CHANNEL, pointing to user defined OUTPUT values.

pLevels Host pointer to an array of 4 device memory pointers, one per color CHANNEL, pointing to user defined INPUT values.

nLevels Host pointer to an array of 4 user defined number of input/output mapping points, one per color CHANNEL.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

- NPP_LUT_NUMBER_OF_LEVELS_ERROR if the number of levels is less than 2 or greater than 1024 (the current size limit).

7.48.2.149 NppStatus nppiLUT_Linear_8u_AC4IR (Npp8u ∗ *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*, const Npp32s ∗ *pValues*[3], const Npp32s ∗ *pLevels*[3], int *nLevels*[3])

4 channel 8-bit unsigned linear interpolated look-up-table in place color conversion, not affecting Alpha.

The LUT is derived from a set of user defined mapping points through linear interpolation. Alpha channel is the last channel and is not processed.

Parameters:

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pValues Host pointer to an array of 3 device memory pointers, one per color CHANNEL, pointing to user defined OUTPUT values.

pLevels Host pointer to an array of 3 device memory pointers, one per color CHANNEL, pointing to user defined INPUT values.

nLevels Host pointer to an array of 3 user defined number of input/output mapping points, one per color CHANNEL.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

- NPP_LUT_NUMBER_OF_LEVELS_ERROR if the number of levels is less than 2 or greater than 256.

7.48.2.150 NppStatus nppiLUT_Linear_8u_AC4R (const Npp8u ∗ *pSrc*, int *nSrcStep*, Npp8u ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, const Npp32s ∗ *pValues*[3], const Npp32s ∗ *pLevels*[3], int *nLevels*[3])

4 channel 8-bit unsigned linear interpolated look-up-table color conversion, not affecting Alpha.

The LUT is derived from a set of user defined mapping points through linear interpolation. Alpha channel is the last channel and is not processed.

>>>>>>> ATTENTION ATTENTION <<<<<<<

NOTE: As of the 5.0 release of NPP, the pValues and pLevels pointers need to be host memory pointers to arrays of device memory pointers.

>>>>>>> <<<<<<<

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pValues Host pointer to an array of 3 device memory pointers, one per color CHANNEL, pointing to user defined OUTPUT values.

pLevels Host pointer to an array of 3 device memory pointers, one per color CHANNEL, pointing to user defined INPUT values.

nLevels Host pointer to an array of 3 user defined number of input/output mapping points, one per color CHANNEL.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

- NPP_LUT_NUMBER_OF_LEVELS_ERROR if the number of levels is less than 2 or greater than 256.

7.48.2.151 NppStatus nppiLUT_Linear_8u_C1IR (Npp8u ∗ *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*, const Npp32s ∗ *pValues*, const Npp32s ∗ *pLevels*, int *nLevels*)

8-bit unsigned linear interpolated look-up-table in place color conversion.

The LUT is derived from a set of user defined mapping points through linear interpolation.

Parameters:

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pValues Pointer to an array of user defined OUTPUT values (this is a device memory pointer)

pLevels Pointer to an array of user defined INPUT values (this is a device memory pointer)

nLevels Number of user defined number of input/output mapping points (levels)

Returns:

Image Data Related Error Codes, ROI Related Error Codes

- NPP_LUT_NUMBER_OF_LEVELS_ERROR if the number of levels is less than 2 or greater than 256.

7.48.2.152 NppStatus nppiLUT_Linear_8u_C1R (const Npp8u ∗ *pSrc*, int *nSrcStep*, Npp8u ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, const Npp32s ∗ *pValues*, const Npp32s ∗ *pLevels*, int *nLevels*)

8-bit unsigned linear interpolated look-up-table color conversion.

The LUT is derived from a set of user defined mapping points through linear interpolation.

>>>>>>> ATTENTION ATTENTION <<<<<<<

NOTE: As of the 5.0 release of NPP, the pValues and pLevels pointers need to be device memory pointers.

>>>>>>> <<<<<<<

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pValues Pointer to an array of user defined OUTPUT values (this is now a device memory pointer)

pLevels Pointer to an array of user defined INPUT values (this is now a device memory pointer)

nLevels Number of user defined number of input/output mapping points (levels)

Returns:

Image Data Related Error Codes, ROI Related Error Codes

- NPP_LUT_NUMBER_OF_LEVELS_ERROR if the number of levels is less than 2 or greater than 256.

7.48.2.153 NppStatus nppiLUT_Linear_8u_C3IR (Npp8u ∗ *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*, const Npp32s ∗ *pValues*[3], const Npp32s ∗ *pLevels*[3], int *nLevels*[3])

3 channel 8-bit unsigned linear interpolated look-up-table in place color conversion.

The LUT is derived from a set of user defined mapping points through linear interpolation.

Parameters:

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pValues Host pointer to an array of 3 device memory pointers, one per color CHANNEL, pointing to user defined OUTPUT values.

pLevels Host pointer to an array of 3 device memory pointers, one per color CHANNEL, pointing to user defined INPUT values.

nLevels Host pointer to an array of 3 user defined number of input/output mapping points, one per color CHANNEL.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

- NPP_LUT_NUMBER_OF_LEVELS_ERROR if the number of levels is less than 2 or greater than 256.

7.48.2.154 NppStatus nppiLUT_Linear_8u_C3R (const Npp8u * *pSrc*, int *nSrcStep*, Npp8u * *pDst*, int *nDstStep*, NppiSize *oSizeROI*, const Npp32s * *pValues*[3], const Npp32s * *pLevels*[3], int *nLevels*[3])

3 channel 8-bit unsigned linear interpolated look-up-table color conversion.

The LUT is derived from a set of user defined mapping points through linear interpolation.

>>>>>>> ATTENTION ATTENTION <<<<<<<

NOTE: As of the 5.0 release of NPP, the pValues and pLevels pointers need to be host memory pointers to arrays of device memory pointers.

>>>>>>> <<<<<<<

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pValues Host pointer to an array of 3 device memory pointers, one per color CHANNEL, pointing to user defined OUTPUT values.

pLevels Host pointer to an array of 3 device memory pointers, one per color CHANNEL, pointing to user defined INPUT values.

nLevels Host pointer to an array of 3 user defined number of input/output mapping points, one per color CHANNEL.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

- NPP_LUT_NUMBER_OF_LEVELS_ERROR if the number of levels is less than 2 or greater than 256.

7.48.2.155 NppStatus nppiLUT_Linear_8u_C4IR (Npp8u * *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*, const Npp32s * *pValues*[4], const Npp32s * *pLevels*[4], int *nLevels*[4])

4 channel 8-bit unsigned linear interpolated look-up-table in place color conversion.

The LUT is derived from a set of user defined mapping points through linear interpolation.

Parameters:

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pValues Host pointer to an array of 4 device memory pointers, one per color CHANNEL, pointing to user defined OUTPUT values.

pLevels Host pointer to an array of 4 device memory pointers, one per color CHANNEL, pointing to user defined INPUT values.

nLevels Host pointer to an array of 4 user defined number of input/output mapping points, one per color CHANNEL.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

- NPP_LUT_NUMBER_OF_LEVELS_ERROR if the number of levels is less than 2 or greater than 256.

7.48.2.156 NppStatus nppiLUT_Linear_8u_C4R (const Npp8u ∗ *pSrc*, int *nSrcStep*, Npp8u ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, const Npp32s ∗ *pValues*[4], const Npp32s ∗ *pLevels*[4], int *nLevels*[4])

4 channel 8-bit unsigned linear interpolated look-up-table color conversion.

The LUT is derived from a set of user defined mapping points through linear interpolation.

>>>>>>> ATTENTION ATTENTION <<<<<<<

NOTE: As of the 5.0 release of NPP, the pValues and pLevels pointers need to be host memory pointers to arrays of device memory pointers.

>>>>>>> <<<<<<<

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pValues Host pointer to an array of 4 device memory pointers, one per color CHANNEL, pointing to user defined OUTPUT values.

pLevels Host pointer to an array of 4 device memory pointers, one per color CHANNEL, pointing to user defined INPUT values.

nLevels Host pointer to an array of 4 user defined number of input/output mapping points, one per color CHANNEL.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

- NPP_LUT_NUMBER_OF_LEVELS_ERROR if the number of levels is less than 2 or greater than 256.

7.48.2.157 NppStatus nppiLUT_Trilinear_8u_AC4IR (Npp8u ∗ *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*, Npp32u ∗ *pValues*, Npp8u ∗ *pLevels*[3], int *aLevels*[3])

Four channel 8-bit unsigned 3D trilinear interpolated look-up-table in place color conversion, not affecting alpha.

Alpha channel is the last channel and is not processed.

The LUT is derived from a set of user defined mapping points through trilinear interpolation.

Parameters:

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pValues Device pointer aLevels[2] number of contiguous 2D x,y planes of 4-byte packed RGBX values containing the user defined base OUTPUT values at that x,y, and z (R,G,B) level location. Each level must contain x ∗ y 4-byte packed pixel values (4th byte is used for alignement only and is ignored) in row (x) order.

pLevels Host pointer to an array of 3 host pointers, one per cube edge, pointing to user defined INPUT level values.

aLevels Host pointer to an array of 3 user defined number of input/output mapping points, one per 3D cube edge. aLevels[0] represents the number of x axis levels (Red), aLevels[1] represents the number of y axis levels (Green), and aLevels[2] represets the number of z axis levels (Blue).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

- NPP_LUT_NUMBER_OF_LEVELS_ERROR if the number of levels is less than 2 or greater than 256.

7.48.2.158 NppStatus nppiLUT_Trilinear_8u_AC4R (const Npp8u ∗ *pSrc*, int *nSrcStep*, Npp8u ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, Npp32u ∗ *pValues*, Npp8u ∗ *pLevels*[3], int *aLevels*[3])

Four channel 8-bit unsigned 3D trilinear interpolated look-up-table color conversion, not affecting alpha.

Alpha channel is the last channel and is not processed.

The LUT is derived from a set of user defined mapping points through trilinear interpolation.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pValues Device pointer to aLevels[2] number of contiguous 2D x,y planes of 4-byte packed RGBX values containing the user defined base OUTPUT values at that x,y, and z (R,G,B) level location. Each level must contain x ∗ y 4-byte packed pixel values (4th byte is used for alignement only and is ignored) in row (x) order.

pLevels Host pointer to an array of 3 host pointers, one per cube edge, pointing to user defined INPUT level values.

aLevels Host pointer to an array of 3 user defined number of input/output mapping points, one per 3D cube edge. aLevels[0] represents the number of x axis levels (Red), aLevels[1] represents the number of y axis levels (Green), and aLevels[2] represets the number of z axis levels (Blue).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

- NPP_LUT_NUMBER_OF_LEVELS_ERROR if the number of levels is less than 2 or greater than 256.

7.48.2.159 NppStatus nppiLUT_Trilinear_8u_C4R (const Npp8u ∗ *pSrc*, int *nSrcStep*, Npp8u ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, Npp32u ∗ *pValues*, Npp8u ∗ *pLevels*[3], int *aLevels*[3])

Four channel 8-bit unsigned 3D trilinear interpolated look-up-table color conversion, with alpha copy.

Alpha channel is the last channel and is copied to the destination unmodified.

The LUT is derived from a set of user defined mapping points through trilinear interpolation.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pValues Device pointer to aLevels[2] number of contiguous 2D x,y planes of 4-byte packed RGBX values containing the user defined base OUTPUT values at that x,y, and z (R,G,B) level location. Each level must contain x ∗ y 4-byte packed pixel values (4th byte is used for alignement only and is ignored) in row (x) order.

pLevels Host pointer to an array of 3 host pointers, one per cube edge, pointing to user defined INPUT level values.

aLevels Host pointer to an array of 3 user defined number of input/output mapping points, one per 3D cube edge. aLevels[0] represents the number of x axis levels (Red), aLevels[1] represents the number of y axis levels (Green), and aLevels[2] represets the number of z axis levels (Blue).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

- NPP_LUT_NUMBER_OF_LEVELS_ERROR if the number of levels is less than 2 or greater than 256.

7.48.2.160 NppStatus nppiLUTPalette_16u24u_C1R (const Npp16u ∗ *pSrc*, int *nSrcStep*, Npp8u ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, const Npp8u ∗ *pTable*, int *nBitSize*)

One channel 16-bit unsigned bit range restricted 24-bit unsigned palette look-up-table color conversion with 24-bit unsigned destination output per pixel.

The LUT is derived from a set of user defined mapping points in a palette and source pixels are then processed using a restricted bit range when looking up palette values.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step (3 unsigned bytes per pixel).

oSizeROI Region-of-Interest (ROI).

pTable Pointer to an array of user defined OUTPUT palette values (this is a device memory pointer)

nBitSize Number of least significant bits (must be > 0 and <= 16) of each source pixel value to use as index into palette table during conversion.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

- NPP_LUT_PALETTE_BITSIZE_ERROR if nBitSize is < 1 or > 16.

7.48.2.161 NppStatus nppiLUTPalette_16u32u_C1R (const Npp16u ∗ *pSrc*, int *nSrcStep*, Npp32u ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, const Npp32u ∗ *pTable*, int *nBitSize*)

One channel 16-bit unsigned bit range restricted 32-bit palette look-up-table color conversion with 32-bit unsigned destination output per pixel.

The LUT is derived from a set of user defined mapping points in a palette and source pixels are then processed using a restricted bit range when looking up palette values.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step (4 bytes per pixel).

oSizeROI Region-of-Interest (ROI).

pTable Pointer to an array of user defined OUTPUT palette values (this is a device memory pointer)

nBitSize Number of least significant bits (must be > 0 and <= 16) of each source pixel value to use as index into palette table during conversion.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

- NPP_LUT_PALETTE_BITSIZE_ERROR if nBitSize is < 1 or > 16.

7.48.2.162 NppStatus nppiLUTPalette_16u8u_C1R (const Npp16u ∗ *pSrc*, int *nSrcStep*, Npp8u ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, const Npp8u ∗ *pTable*, int *nBitSize*)

One channel 16-bit unsigned bit range restricted 8-bit unsigned palette look-up-table color conversion with 8-bit unsigned destination output per pixel.

The LUT is derived from a set of user defined mapping points in a palette and source pixels are then processed using a restricted bit range when looking up palette values.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step (1 unsigned byte per pixel).

oSizeROI Region-of-Interest (ROI).

pTable Pointer to an array of user defined OUTPUT palette values (this is a device memory pointer)

nBitSize Number of least significant bits (must be > 0 and <= 16) of each source pixel value to use as index into palette table during conversion.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

- NPP_LUT_PALETTE_BITSIZE_ERROR if nBitSize is < 1 or > 16.

7.48.2.163 NppStatus nppiLUTPalette_16u_AC4R (const Npp16u ∗ *pSrc*, int *nSrcStep*, Npp16u ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, const Npp16u ∗ *pTables*[3], int *nBitSize*)

Four channel 16-bit unsigned bit range restricted palette look-up-table color conversion, not affecting Alpha.

The LUT is derived from a set of user defined mapping points in a palette and source pixels are then processed using a restricted bit range when looking up palette values. Alpha channel is the last channel and is not processed.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pTables Host pointer to an array of 3 device memory pointers, one per color CHANNEL, pointing to user defined OUTPUT palette values.

nBitSize Number of least significant bits (must be > 0 and <= 16) of each source pixel value to use as index into palette table during conversion.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

- NPP_LUT_PALETTE_BITSIZE_ERROR if nBitSize is < 1 or > 16.

7.48.2.164 NppStatus nppiLUTPalette_16u_C1R (const Npp16u ∗ *pSrc*, int *nSrcStep*, Npp16u ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, const Npp16u ∗ *pTable*, int *nBitSize*)

One channel 16-bit unsigned bit range restricted palette look-up-table color conversion.

The LUT is derived from a set of user defined mapping points in a palette and source pixels are then processed using a restricted bit range when looking up palette values.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pTable Pointer to an array of user defined OUTPUT palette values (this is a device memory pointer)

nBitSize Number of least significant bits (must be > 0 and <= 16) of each source pixel value to use as index into palette table during conversion.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

- NPP_LUT_PALETTE_BITSIZE_ERROR if nBitSize is < 1 or > 16.

7.48.2.165 NppStatus nppiLUTPalette_16u_C3R (const Npp16u ∗ *pSrc*, int *nSrcStep*, Npp16u ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, const Npp16u ∗ *pTables*[3], int *nBitSize*)

Three channel 16-bit unsigned bit range restricted palette look-up-table color conversion.

The LUT is derived from a set of user defined mapping points in a palette and source pixels are then processed using a restricted bit range when looking up palette values.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pTables Host pointer to an array of 3 device memory pointers, one per color CHANNEL, pointing to user defined OUTPUT palette values.

nBitSize Number of least significant bits (must be > 0 and <= 16) of each source pixel value to use as index into palette table during conversion.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

- NPP_LUT_PALETTE_BITSIZE_ERROR if nBitSize is < 1 or > 16.

7.48.2.166 NppStatus nppiLUTPalette_16u_C4R (const Npp16u ∗ *pSrc*, int *nSrcStep*, Npp16u ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, const Npp16u ∗ *pTables*[4], int *nBitSize*)

Four channel 16-bit unsigned bit range restricted palette look-up-table color conversion.

The LUT is derived from a set of user defined mapping points in a palette and source pixels are then processed using a restricted bit range when looking up palette values.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pTables Host pointer to an array of 4 device memory pointers, one per color CHANNEL, pointing to user defined OUTPUT palette values.

nBitSize Number of least significant bits (must be $>$ 0 and <= 16) of each source pixel value to use as index into palette table during conversion.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

- NPP_LUT_PALETTE_BITSIZE_ERROR if nBitSize is $<$ 1 or $>$ 16.

7.48.2.167 NppStatus nppiLUTPalette_8u24u_C1R (const Npp8u $*$ *pSrc*, int *nSrcStep*, Npp8u $*$ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, const Npp8u $*$ *pTable*, int *nBitSize*)

One channel 8-bit unsigned bit range restricted 24-bit palette look-up-table color conversion with 24-bit destination output per pixel.

The LUT is derived from a set of user defined mapping points in a palette and source pixels are then processed using a restricted bit range when looking up palette values.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step (3 bytes per pixel).

oSizeROI Region-of-Interest (ROI).

pTable Pointer to an array of user defined OUTPUT palette values (this is a device memory pointer)

nBitSize Number of least significant bits (must be $>$ 0 and <= 8) of each source pixel value to use as index into palette table during conversion.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

- NPP_LUT_PALETTE_BITSIZE_ERROR if nBitSize is $<$ 1 or $>$ 8.

7.48.2.168 NppStatus nppiLUTPalette_8u32u_C1R (const Npp8u $*$ *pSrc*, int *nSrcStep*, Npp32u $*$ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, const Npp32u $*$ *pTable*, int *nBitSize*)

One channel 8-bit unsigned bit range restricted 32-bit palette look-up-table color conversion with 32-bit destination output per pixel.

The LUT is derived from a set of user defined mapping points in a palette and source pixels are then processed using a restricted bit range when looking up palette values.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step (4 bytes per pixel).

oSizeROI Region-of-Interest (ROI).

pTable Pointer to an array of user defined OUTPUT palette values (this is a device memory pointer)

nBitSize Number of least significant bits (must be >0 and $<=8$) of each source pixel value to use as index into palette table during conversion.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

- NPP_LUT_PALETTE_BITSIZE_ERROR if nBitSize is <1 or >8.

7.48.2.169 NppStatus nppiLUTPalette_8u_AC4R (const Npp8u ∗ *pSrc*, int *nSrcStep*, Npp8u ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, const Npp8u ∗ *pTables*[3], int *nBitSize*)

Four channel 8-bit unsigned bit range restricted palette look-up-table color conversion, not affecting Alpha.

The LUT is derived from a set of user defined mapping points in a palette and source pixels are then processed using a restricted bit range when looking up palette values. Alpha channel is the last channel and is not processed.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pTables Host pointer to an array of 3 device memory pointers, one per color CHANNEL, pointing to user defined OUTPUT palette values.

nBitSize Number of least significant bits (must be >0 and $<=8$) of each source pixel value to use as index into palette table during conversion.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

- NPP_LUT_PALETTE_BITSIZE_ERROR if nBitSize is <1 or >8.

7.48.2.170 NppStatus nppiLUTPalette_8u_C1R (const Npp8u ∗ *pSrc*, int *nSrcStep*, Npp8u ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, const Npp8u ∗ *pTable*, int *nBitSize*)

One channel 8-bit unsigned bit range restricted palette look-up-table color conversion.

The LUT is derived from a set of user defined mapping points in a palette and source pixels are then processed using a restricted bit range when looking up palette values.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pTable Pointer to an array of user defined OUTPUT palette values (this is a device memory pointer)

nBitSize Number of least significant bits (must be $>$ 0 and <= 8) of each source pixel value to use as index into palette table during conversion.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

- NPP_LUT_PALETTE_BITSIZE_ERROR if nBitSize is $<$ 1 or $>$ 8.

7.48.2.171 NppStatus nppiLUTPalette_8u_C3R (const Npp8u ∗ *pSrc*, int *nSrcStep*, Npp8u ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, const Npp8u ∗ *pTables*[3], int *nBitSize*)

Three channel 8-bit unsigned bit range restricted palette look-up-table color conversion.

The LUT is derived from a set of user defined mapping points in a palette and source pixels are then processed using a restricted bit range when looking up palette values.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pTables Host pointer to an array of 3 device memory pointers, one per color CHANNEL, pointing to user defined OUTPUT palette values.

nBitSize Number of least significant bits (must be $>$ 0 and <= 8) of each source pixel value to use as index into palette table during conversion.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

- NPP_LUT_PALETTE_BITSIZE_ERROR if nBitSize is $<$ 1 or $>$ 8.

7.48.2.172 NppStatus nppiLUTPalette_8u_C4R (const Npp8u ∗ *pSrc*, int *nSrcStep*, Npp8u ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, const Npp8u ∗ *pTables*[4], int *nBitSize*)

Four channel 8-bit unsigned bit range restricted palette look-up-table color conversion.

The LUT is derived from a set of user defined mapping points in a palette and source pixels are then processed using a restricted bit range when looking up palette values.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pTables Host pointer to an array of 4 device memory pointers, one per color CHANNEL, pointing to user defined OUTPUT palette values.

nBitSize Number of least significant bits (must be >0 and $<= 8$) of each source pixel value to use as index into palette table during conversion.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

- NPP_LUT_PALETTE_BITSIZE_ERROR if nBitSize is < 1 or > 8.

7.48.2.173 NppStatus nppiLUTPaletteSwap_16u_C3A0C4R (const Npp16u ∗ *pSrc*, int *nSrcStep*, int *nAlphaValue*, Npp16u ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, const Npp16u ∗ *pTables*[3], int *nBitSize*)

Three channel 16-bit unsigned source bit range restricted palette look-up-table color conversion to four channel 16-bit unsigned destination output with alpha.

The LUT is derived from a set of user defined mapping points in a palette and source pixels are then processed using a restricted bit range when looking up palette values. This function also reverses the source pixel channel order in the destination so the Alpha channel is the first channel.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step (3 unsigned short integers per pixel).

nAlphaValue Signed alpha value that will be used to initialize the pixel alpha channel position in all modified destination pixels.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step (4 unsigned short integers per pixel with alpha).

oSizeROI Region-of-Interest (ROI).

pTables Host pointer to an array of 3 device memory pointers, one per color CHANNEL, pointing to user defined OUTPUT palette values. Alpha values < 0 or > 65535 will cause destination pixel alpha channel values to be unmodified.

nBitSize Number of least significant bits (must be > 0 and $<= 16$) of each source pixel value to use as index into palette table during conversion.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

- NPP_LUT_PALETTE_BITSIZE_ERROR if nBitSize is < 1 or > 16.

7.48.2.174 NppStatus nppiLUTPaletteSwap_8u_C3A0C4R (const Npp8u * *pSrc*, int *nSrcStep*, int *nAlphaValue*, Npp8u * *pDst*, int *nDstStep*, NppiSize *oSizeROI*, const Npp8u * *pTables*[3], int *nBitSize*)

Three channel 8-bit unsigned source bit range restricted palette look-up-table color conversion to four channel 8-bit unsigned destination output with alpha.

The LUT is derived from a set of user defined mapping points in a palette and source pixels are then processed using a restricted bit range when looking up palette values. This function also reverses the source pixel channel order in the destination so the Alpha channel is the first channel.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step (3 bytes per pixel).

nAlphaValue Signed alpha value that will be used to initialize the pixel alpha channel position in all modified destination pixels.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step (4 bytes per pixel with alpha).

oSizeROI Region-of-Interest (ROI).

pTables Host pointer to an array of 3 device memory pointers, one per color CHANNEL, pointing to user defined OUTPUT palette values. Alpha values <0 or >255 will cause destination pixel alpha channel values to be unmodified.

nBitSize Number of least significant bits (must be >0 and $<=8$) of each source pixel value to use as index into palette table during conversion.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

- NPP_LUT_PALETTE_BITSIZE_ERROR if nBitSize is <1 or >8.

7.49 Compression

Image compression primitives.

Modules

- Quantization Functions

Typedefs

- typedef struct NppiDecodeHuffmanSpec NppiDecodeHuffmanSpec

Functions

- NppStatus nppiDecodeHuffmanSpecGetBufSize_JPEG (int ∗pSize)

  Returns the length of the NppiDecodeHuffmanSpec structure.

- NppStatus nppiDecodeHuffmanSpecInitHost_JPEG (const Npp8u ∗pRawHuffmanTable, NppiHuffmanTableType eTableType, NppiDecodeHuffmanSpec ∗pHuffmanSpec)

  Creates a Huffman table in a format that is suitable for the decoder on the host.

- NppStatus nppiDecodeHuffmanSpecInitAllocHost_JPEG (const Npp8u ∗pRawHuffmanTable, NppiHuffmanTableType eTableType, NppiDecodeHuffmanSpec ∗∗ppHuffmanSpec)

  Allocates memory and creates a Huffman table in a format that is suitable for the decoder on the host.

- NppStatus nppiDecodeHuffmanSpecFreeHost_JPEG (NppiDecodeHuffmanSpec ∗pHuffmanSpec)

  Frees the host memory allocated by nppiDecodeHuffmanSpecInitAllocHost_JPEG.

- NppStatus nppiDecodeHuffmanScanHost_JPEG_8u16s_P1R (const Npp8u ∗pSrc, Npp32s nLength, Npp32s restartInterval, Npp32s Ss, Npp32s Se, Npp32s Ah, Npp32s Al, Npp16s ∗pDst, Npp32s nDstStep, NppiDecodeHuffmanSpec ∗pHuffmanTableDC, NppiDecodeHuffmanSpec ∗pHuffmanTableAC, NppiSize oSizeROI)

  Huffman Decoding of the JPEG decoding on the host.

- NppStatus nppiDecodeHuffmanScanHost_JPEG_8u16s_P3R (const Npp8u ∗pSrc, Npp32s nLength, Npp32s nRestartInterval, Npp32s nSs, Npp32s nSe, Npp32s nAh, Npp32s nAl, Npp16s ∗apDst[3], Npp32s aDstStep[3], NppiDecodeHuffmanSpec ∗apHuffmanDCTable[3], NppiDecodeHuffmanSpec ∗apHuffmanACTable[3], NppiSize aSizeROI[3])

  Huffman Decoding of the JPEG decoding on the host.

7.49.1 Detailed Description

Image compression primitives.

The JPEG standard defines a flow of level shift, DCT and quantization for forward JPEG transform and inverse level shift, IDCT and de-quantization for inverse JPEG transform. This group has the functions for both forward and inverse functions.

7.49.2 Typedef Documentation

7.49.2.1 typedef struct NppiDecodeHuffmanSpec NppiDecodeHuffmanSpec

7.49.3 Function Documentation

7.49.3.1 NppStatus nppiDecodeHuffmanScanHost_JPEG_8u16s_P1R (const Npp8u ∗ *pSrc*, Npp32s *nLength*, Npp32s *restartInterval*, Npp32s *Ss*, Npp32s *Se*, Npp32s *Ah*, Npp32s *Al*, Npp16s ∗ *pDst*, Npp32s *nDstStep*, NppiDecodeHuffmanSpec ∗ *pHuffmanTableDC*, NppiDecodeHuffmanSpec ∗ *pHuffmanTableAC*, NppiSize *oSizeROI*)

Huffman Decoding of the JPEG decoding on the host.

Input is expected in byte stuffed huffman encoded JPEG scan and output is expected to be 64x1 macro blocks.

Parameters:

pSrc Byte-stuffed huffman encoded JPEG scan.

nLength Byte length of the input.

restartInterval Restart Interval, see JPEG standard.

Ss Start Coefficient, see JPEG standard.

Se End Coefficient, see JPEG standard.

Ah Bit Approximation High, see JPEG standard.

Al Bit Approximation Low, see JPEG standard.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

pHuffmanTableDC DC Huffman table.

pHuffmanTableAC AC Huffman table.

oSizeROI Region-of-Interest (ROI).

Returns:

Error codes:

- NPP_SIZE_ERROR For negative input height/width or not a multiple of 8 width/height.
- NPP_STEP_ERROR If input image width is not multiple of 8 or does not match ROI.
- NPP_NULL_POINTER_ERROR If the destination pointer is 0.

7.49.3.2 NppStatus nppiDecodeHuffmanScanHost_JPEG_8u16s_P3R (const Npp8u ∗ *pSrc*, Npp32s *nLength*, Npp32s *nRestartInterval*, Npp32s *nSs*, Npp32s *nSe*, Npp32s *nAh*, Npp32s *nAl*, Npp16s ∗ *apDst*[3], Npp32s *aDstStep*[3], NppiDecodeHuffmanSpec ∗ *apHuffmanDCTable*[3], NppiDecodeHuffmanSpec ∗ *apHuffmanACTable*[3], NppiSize *aSizeROI*[3])

Huffman Decoding of the JPEG decoding on the host.

Input is expected in byte stuffed huffman encoded JPEG scan and output is expected to be 64x1 macro blocks.

Parameters:

pSrc Byte-stuffed huffman encoded JPEG scan.

nLength Byte length of the input.

nRestartInterval Restart Interval, see JPEG standard.

nSs Start Coefficient, see JPEG standard.

nSe End Coefficient, see JPEG standard.

nAh Bit Approximation High, see JPEG standard.

nAl Bit Approximation Low, see JPEG standard.

apDst Destination-Image Pointer.

aDstStep Destination-Image Line Step.

apHuffmanDCTable DC Huffman tables.

apHuffmanACTable AC Huffman tables.

aSizeROI Region-of-Interest (ROI).

Returns:

Error codes:

- NPP_SIZE_ERROR For negative input height/width or not a multiple of 8 width/height.
- NPP_STEP_ERROR If input image width is not multiple of 8 or does not match ROI.
- NPP_NULL_POINTER_ERROR If the destination pointer is 0.

7.49.3.3 NppStatus nppiDecodeHuffmanSpecFreeHost_JPEG (NppiDecodeHuffmanSpec ∗ *pHuffmanSpec*)

Frees the host memory allocated by nppiDecodeHuffmanSpecInitAllocHost_JPEG.

Parameters:

pHuffmanSpec Pointer to the Huffman table for the decoder

7.49.3.4 NppStatus nppiDecodeHuffmanSpecGetBufSize_JPEG (int ∗ *pSize*)

Returns the length of the NppiDecodeHuffmanSpec structure.

Parameters:

pSize Pointer to a variable that will receive the length of the NppiDecodeHuffmanSpec structure.

Returns:

Error codes:

- NPP_NULL_POINTER_ERROR If one of the pointers is 0.

7.49.3.5 NppStatus nppiDecodeHuffmanSpecInitAllocHost_JPEG (const Npp8u * *pRawHuffmanTable*, NppiHuffmanTableType *eTableType*, NppiDecodeHuffmanSpec ** *ppHuffmanSpec*)

Allocates memory and creates a Huffman table in a format that is suitable for the decoder on the host.

Parameters:

pRawHuffmanTable Huffman table formated as specified in the JPEG standard.

eTableType Enum specifying type of table (nppiDCTable or nppiACTable).

ppHuffmanSpec Pointer to returned pointer to the Huffman table for the decoder

Returns:

Error codes:

- NPP_NULL_POINTER_ERROR If one of the pointers is 0.

7.49.3.6 NppStatus nppiDecodeHuffmanSpecInitHost_JPEG (const Npp8u * *pRawHuffmanTable*, NppiHuffmanTableType *eTableType*, NppiDecodeHuffmanSpec * *pHuffmanSpec*)

Creates a Huffman table in a format that is suitable for the decoder on the host.

Parameters:

pRawHuffmanTable Huffman table formated as specified in the JPEG standard.

eTableType Enum specifying type of table (nppiDCTable or nppiACTable).

pHuffmanSpec Pointer to the Huffman table for the decoder

Returns:

Error codes:

- NPP_NULL_POINTER_ERROR If one of the pointers is 0.

7.50 Quantization Functions

Typedefs

- typedef struct NppiDCTState NppiDCTState

Functions

- NppStatus nppiQuantFwdRawTableInit_JPEG_8u (Npp8u ∗hpQuantRawTable, int nQualityFactor)

  Apply quality factor to raw 8-bit quantization table.

- NppStatus nppiQuantFwdTableInit_JPEG_8u16u (const Npp8u ∗hpQuantRawTable, Npp16u ∗hpQuantFwdRawTable)

  Initializes a quantization table for nppiDCTQuantFwd8x8LS_JPEG_8u16s_C1R().

- NppStatus nppiQuantInvTableInit_JPEG_8u16u (const Npp8u ∗hpQuantRawTable, Npp16u ∗hpQuantFwdRawTable)

  Initializes a quantization table for nppiDCTQuantInv8x8LS_JPEG_16s8u_C1R().

- NppStatus nppiDCTQuantFwd8x8LS_JPEG_8u16s_C1R (const Npp8u ∗pSrc, int nSrcStep, Npp16s ∗pDst, int nDstStep, const Npp16u ∗pQuantFwdTable, NppiSize oSizeROI)

  Forward DCT, quantization and level shift part of the JPEG encoding.

- NppStatus nppiDCTQuantInv8x8LS_JPEG_16s8u_C1R (const Npp16s ∗pSrc, int nSrcStep, Npp8u ∗pDst, int nDstStep, const Npp16u ∗pQuantInvTable, NppiSize oSizeROI)

  Inverse DCT, de-quantization and level shift part of the JPEG decoding.

- NppStatus nppiDCTInitAlloc (NppiDCTState ∗∗ppState)

  Initializes DCT state structure and allocates additional resources.

- NppStatus nppiDCTFree (NppiDCTState ∗pState)

  Frees the additional resources of the DCT state structure.

- NppStatus nppiDCTQuantFwd8x8LS_JPEG_8u16s_C1R_NEW (const Npp8u ∗pSrc, int nSrcStep, Npp16s ∗pDst, int nDstStep, const Npp8u ∗pQuantizationTable, NppiSize oSizeROI, NppiDCTState ∗pState)

  Forward DCT, quantization and level shift part of the JPEG encoding.

- NppStatus nppiDCTQuantInv8x8LS_JPEG_16s8u_C1R_NEW (const Npp16s ∗pSrc, int nSrcStep, Npp8u ∗pDst, int nDstStep, const Npp8u ∗pQuantizationTable, NppiSize oSizeROI, NppiDCTState ∗pState)

  Inverse DCT, de-quantization and level shift part of the JPEG decoding.

7.50.1 Typedef Documentation

7.50.1.1 typedef struct NppiDCTState NppiDCTState

7.50.2 Function Documentation

7.50.2.1 NppStatus nppiDCTFree (NppiDCTState ∗ *pState*)

Frees the additional resources of the DCT state structure.

See also:

nppiDCTInitAlloc

Parameters:

pState Pointer to DCT state structure.

Returns:

NPP_SUCCESS Indicates no error. Any other value indicates an error or a warning
NPP_SIZE_ERROR Indicates an error condition if any image dimension has zero or negative value
NPP_NULL_POINTER_ERROR Indicates an error condition if pState pointer is NULL

7.50.2.2 NppStatus nppiDCTInitAlloc (NppiDCTState ∗∗ *ppState*)

Initializes DCT state structure and allocates additional resources.

See also:

nppiDCTQuantFwd8x8LS_JPEG_8u16s_C1R_NEW(), nppiDCTQuantInv8x8LS_JPEG_16s8u_C1R_NEW.

Parameters:

ppState Pointer to pointer to DCT state structure.

Returns:

NPP_SUCCESS Indicates no error. Any other value indicates an error or a warning
NPP_SIZE_ERROR Indicates an error condition if any image dimension has zero or negative value
NPP_NULL_POINTER_ERROR Indicates an error condition if pBufSize pointer is NULL

7.50.2.3 NppStatus nppiDCTQuantFwd8x8LS_JPEG_8u16s_C1R (const Npp8u ∗ *pSrc*, int *nSrcStep*, Npp16s ∗ *pDst*, int *nDstStep*, const Npp16u ∗ *pQuantFwdTable*, NppiSize *oSizeROI*)

Forward DCT, quantization and level shift part of the JPEG encoding.

Input is expected in 8x8 macro blocks and output is expected to be in 64x1 macro blocks.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

pQuantFwdTable Forward quantization tables for JPEG encoding created using nppiQuantInvTableInit_JPEG_8u16u().

oSizeROI Region-of-Interest (ROI).

Returns:

Error codes:

- NPP_SIZE_ERROR For negative input height/width or not a multiple of 8 width/height.
- NPP_STEP_ERROR If input image width is not multiple of 8 or does not match ROI.
- NPP_NULL_POINTER_ERROR If the destination pointer is 0.

7.50.2.4 NppStatus nppiDCTQuantFwd8x8LS_JPEG_8u16s_C1R_NEW (const Npp8u ∗ *pSrc*, int *nSrcStep*, Npp16s ∗ *pDst*, int *nDstStep*, const Npp8u ∗ *pQuantizationTable*, NppiSize *oSizeROI*, NppiDCTState ∗ *pState*)

Forward DCT, quantization and level shift part of the JPEG encoding.

Input is expected in 8x8 macro blocks and output is expected to be in 64x1 macro blocks. The new version of the primitive takes the ROI in image pixel size and works with DCT coefficients that are in zig-zag order.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Image width in pixels x 8 x sizeof(Npp16s).

pQuantizationTable Quantization Table in zig-zag order.

oSizeROI Region-of-Interest (ROI).

pState Pointer to DCT state structure. This structure must be initialized allocated and initialized using nppiDCTInitAlloc().

Returns:

Error codes:

- NPP_SIZE_ERROR For negative input height/width or not a multiple of 8 width/height.
- NPP_STEP_ERROR If input image width is not multiple of 8 or does not match ROI.
- NPP_NULL_POINTER_ERROR If the destination pointer is 0.

7.50.2.5 NppStatus nppiDCTQuantInv8x8LS_JPEG_16s8u_C1R (const Npp16s ∗ *pSrc*, int *nSrcStep*, Npp8u ∗ *pDst*, int *nDstStep*, const Npp16u ∗ *pQuantInvTable*, NppiSize *oSizeROI*)

Inverse DCT, de-quantization and level shift part of the JPEG decoding.

Input is expected in 64x1 macro blocks and output is expected to be in 8x8 macro blocks.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Image width in pixels x 8 x sizeof(Npp16s).

pDst Destination-Image Pointer.

nDstStep Image width in pixels x 8 x sizeof(Npp16s).

pQuantInvTable Inverse quantization tables for JPEG decoding created using nppiQuantInvTableInit_JPEG_8u16u().

oSizeROI Region-of-Interest (ROI).

Returns:

Error codes:

- NPP_SIZE_ERROR For negative input height/width or not a multiple of 8 width/height.
- NPP_STEP_ERROR If input image width is not multiple of 8 or does not match ROI.
- NPP_NULL_POINTER_ERROR If the destination pointer is 0.

7.50.2.6 NppStatus nppiDCTQuantInv8x8LS_JPEG_16s8u_C1R_NEW (const Npp16s ∗ *pSrc*, int *nSrcStep*, Npp8u ∗ *pDst*, int *nDstStep*, const Npp8u ∗ *pQuantizationTable*, NppiSize *oSizeROI*, NppiDCTState ∗ *pState*)

Inverse DCT, de-quantization and level shift part of the JPEG decoding.

Input is expected in 64x1 macro blocks and output is expected to be in 8x8 macro blocks. The new version of the primitive takes the ROI in image pixel size and works with DCT coefficients that are in zig-zag order.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Image width in pixels x 8 x sizeof(Npp16s).

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

pQuantizationTable Quantization Table in zig-zag order.

oSizeROI Region-of-Interest (ROI).

pState Pointer to DCT state structure. This structure must be initialized allocated and initialized using nppiDCTInitAlloc().

Returns:

Error codes:

- NPP_SIZE_ERROR For negative input height/width or not a multiple of 8 width/height.
- NPP_STEP_ERROR If input image width is not multiple of 8 or does not match ROI.
- NPP_NULL_POINTER_ERROR If the destination pointer is 0.

7.50.2.7 NppStatus nppiQuantFwdRawTableInit_JPEG_8u (Npp8u ∗ *hpQuantRawTable*, int *nQualityFactor*)

Apply quality factor to raw 8-bit quantization table.

This is effectively and in-place method that modifies a given raw quantization table based on a quality factor. Note that this method is a host method and that the pointer to the raw quantization table is a host pointer.

Parameters:

hpQuantRawTable Raw quantization table.

nQualityFactor Quality factor for the table. Range is [1:100].

Returns:

Error code: NPP_NULL_POINTER_ERROR is returned if hpQuantRawTable is 0.

7.50.2.8 NppStatus nppiQuantFwdTableInit_JPEG_8u16u (const Npp8u ∗ *hpQuantRawTable*, Npp16u ∗ *hpQuantFwdRawTable*)

Initializes a quantization table for nppiDCTQuantFwd8x8LS_JPEG_8u16s_C1R().

The method creates a 16-bit version of the raw table and converts the data order from zigzag layout to original row-order layout since raw quantization tables are typically stored in zigzag format.

This method is a host method. It consumes and produces host data. I.e. the pointers passed to this function must be host pointers. The resulting table needs to be transferred to device memory in order to be used with nppiDCTQuantFwd8x8LS_JPEG_8u16s_C1R() function.

Parameters:

hpQuantRawTable Host pointer to raw quantization table as returned by nppiQuantFwdRawTableInit_JPEG_8u(). The raw quantization table is assumed to be in zigzag order.

hpQuantFwdRawTable Forward quantization table for use with nppiDCTQuantFwd8x8LS_JPEG_8u16s_C1R().

Returns:

Error code: NPP_NULL_POINTER_ERROR pQuantRawTable is 0.

7.50.2.9 NppStatus nppiQuantInvTableInit_JPEG_8u16u (const Npp8u ∗ *hpQuantRawTable*, Npp16u ∗ *hpQuantFwdRawTable*)

Initializes a quantization table for nppiDCTQuantInv8x8LS_JPEG_16s8u_C1R().

The nppiDCTQuantFwd8x8LS_JPEG_8u16s_C1R() method uses a quantization table in a 16-bit format allowing for faster processing. In addition it converts the data order from zigzag layout to original row-order layout. Typically raw quantization tables are stored in zigzag format.

This method is a host method and consumes and produces host data. I.e. the pointers passed to this function must be host pointers. The resulting table needs to be transferred to device memory in order to be used with nppiDCTQuantFwd8x8LS_JPEG_8u16s_C1R() function.

Parameters:

hpQuantRawTable Raw quantization table.

hpQuantFwdRawTable Inverse quantization table.

Returns:

NPP_NULL_POINTER_ERROR pQuantRawTable or pQuantFwdRawTable is0.

7.51 Labeling and Segmentation

Pixel labeling and image segementation operations.

Modules

- GraphCut

Typedefs

- typedef struct NppiGraphcutState NppiGraphcutState

7.51.1 Detailed Description

Pixel labeling and image segementation operations.

7.51.2 Typedef Documentation

7.51.2.1 typedef struct NppiGraphcutState NppiGraphcutState

7.52 GraphCut

Graphcut

- NppStatus nppiGraphcutGetSize (NppiSize oSize, int ∗pBufSize)

  Calculates the size of the temporary buffer for graph-cut with 4 neighborhood labeling.

- NppStatus nppiGraphcut8GetSize (NppiSize oSize, int ∗pBufSize)

  Calculates the size of the temporary buffer for graph-cut with 8 neighborhood labeling.

- NppStatus nppiGraphcutInitAlloc (NppiSize oSize, NppiGraphcutState ∗∗ppState, Npp8u ∗pDeviceMem)

  Initializes graph-cut state structure and allocates additional resources for graph-cut with 8 neighborhood labeling.

- NppStatus nppiGraphcut8InitAlloc (NppiSize oSize, NppiGraphcutState ∗∗ppState, Npp8u ∗pDeviceMem)

  Allocates and initializes the graph-cut state structure and additional resources for graph-cut with 8 neighborhood labeling.

- NppStatus nppiGraphcutFree (NppiGraphcutState ∗pState)

  Frees the additional resources of the graph-cut state structure.

- NppStatus nppiGraphcut_32s8u (Npp32s ∗pTerminals, Npp32s ∗pLeftTransposed, Npp32s ∗pRightTransposed, Npp32s ∗pTop, Npp32s ∗pBottom, int nStep, int nTransposedStep, NppiSize size, Npp8u ∗pLabel, int nLabelStep, NppiGraphcutState ∗pState)

  Graphcut of a flow network (32bit signed integer edge capacities).

- NppStatus nppiGraphcut8_32s8u (Npp32s ∗pTerminals, Npp32s ∗pLeftTransposed, Npp32s ∗pRightTransposed, Npp32s ∗pTop, Npp32s ∗pTopLeft, Npp32s ∗pTopRight, Npp32s ∗pBottom, Npp32s ∗pBottomLeft, Npp32s ∗pBottomRight, int nStep, int nTransposedStep, NppiSize size, Npp8u ∗pLabel, int nLabelStep, NppiGraphcutState ∗pState)

  Graphcut of a flow network (32bit signed integer edge capacities).

- NppStatus nppiGraphcut_32f8u (Npp32f ∗pTerminals, Npp32f ∗pLeftTransposed, Npp32f ∗pRightTransposed, Npp32f ∗pTop, Npp32f ∗pBottom, int nStep, int nTransposedStep, NppiSize size, Npp8u ∗pLabel, int nLabelStep, NppiGraphcutState ∗pState)

  Graphcut of a flow network (32bit float edge capacities).

- NppStatus nppiGraphcut8_32f8u (Npp32f ∗pTerminals, Npp32f ∗pLeftTransposed, Npp32f ∗pRightTransposed, Npp32f ∗pTop, Npp32f ∗pTopLeft, Npp32f ∗pTopRight, Npp32f ∗pBottom, Npp32f ∗pBottomLeft, Npp32f ∗pBottomRight, int nStep, int nTransposedStep, NppiSize size, Npp8u ∗pLabel, int nLabelStep, NppiGraphcutState ∗pState)

  Graphcut of a flow network (32bit float edge capacities).

7.52.1 Function Documentation

7.52.1.1 NppStatus nppiGraphcut8_32f8u (Npp32f ∗ *pTerminals*, Npp32f ∗ *pLeftTransposed*, Npp32f ∗ *pRightTransposed*, Npp32f ∗ *pTop*, Npp32f ∗ *pTopLeft*, Npp32f ∗ *pTopRight*, Npp32f ∗ *pBottom*, Npp32f ∗ *pBottomLeft*, Npp32f ∗ *pBottomRight*, int *nStep*, int *nTransposedStep*, NppiSize *size*, Npp8u ∗ *pLabel*, int *nLabelStep*, NppiGraphcutState ∗ *pState*)

Graphcut of a flow network (32bit float edge capacities).

The function computes the minimal cut (graphcut) of a 2D regular 8-connected graph. The inputs are the capacities of the horizontal (in transposed form), vertical and terminal (source and sink) edges. The capacities to source and sink are stored as capacity differences in the terminals array (terminals(x) = source(x) - sink(x)). The implementation assumes that the edge capacities for boundary edges that would connect to nodes outside the specified domain are set to 0 (for example left(0,∗) == 0). If this is not fulfilled the computed labeling may be wrong! The computed binary labeling is encoded as unsigned 8bit values (0 and >0).

See also:

nppiGraphcut8InitAlloc(), nppiGraphcutFree(), nppiGraphcut8GetSize().

Parameters:

pTerminals Pointer to differences of terminal edge capacities (terminal(x) = source(x) - sink(x))

pLeftTransposed Pointer to transposed left edge capacities (left(0,∗) must be 0)

pRightTransposed Pointer to transposed right edge capacities (right(width-1,∗) must be 0)

pTop Pointer to top edge capacities (top(∗,0) must be 0)

pTopLeft Pointer to top left edge capacities (topleft(∗,0) & topleft(0,∗) must be 0)

pTopRight Pointer to top right edge capacities (topright(∗,0) & topright(width-1,∗) must be 0)

pBottom Pointer to bottom edge capacities (bottom(∗,height-1) must be 0)

pBottomLeft Pointer to bottom left edge capacities (bottomleft(∗,height-1) && bottomleft(0,∗) must be 0)

pBottomRight Pointer to bottom right edge capacities (bottomright(∗,height-1) && bottomright(width-1,∗) must be 0)

nStep Step in bytes between any pair of sequential rows of edge capacities

nTransposedStep Step in bytes between any pair of sequential rows of tranposed edge capacities

size Graph size

pLabel Pointer to destination label image

nLabelStep Step in bytes between any pair of sequential rows of label image

pState Pointer to graph-cut state structure. This structure must be initialized allocated and initialized using nppiGraphcut8InitAlloc().

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.52.1.2 NppStatus nppiGraphcut8_32s8u (Npp32s ∗ *pTerminals*, Npp32s ∗ *pLeftTransposed*, Npp32s ∗ *pRightTransposed*, Npp32s ∗ *pTop*, Npp32s ∗ *pTopLeft*, Npp32s ∗ *pTopRight*, Npp32s ∗ *pBottom*, Npp32s ∗ *pBottomLeft*, Npp32s ∗ *pBottomRight*, int *nStep*, int *nTransposedStep*, NppiSize *size*, Npp8u ∗ *pLabel*, int *nLabelStep*, NppiGraphcutState ∗ *pState*)

Graphcut of a flow network (32bit signed integer edge capacities).

The function computes the minimal cut (graphcut) of a 2D regular 8-connected graph. The inputs are the capacities of the horizontal (in transposed form), vertical and terminal (source and sink) edges. The capacities to source and sink are stored as capacity differences in the terminals array (terminals(x) = source(x) - sink(x)). The implementation assumes that the edge capacities for boundary edges that would connect to nodes outside the specified domain are set to 0 (for example left(0,∗) == 0). If this is not fulfilled the computed labeling may be wrong! The computed binary labeling is encoded as unsigned 8bit values (0 and >0).

See also:

nppiGraphcut8InitAlloc(), nppiGraphcutFree(), nppiGraphcut8GetSize().

Parameters:

pTerminals Pointer to differences of terminal edge capacities (terminal(x) = source(x) - sink(x))

pLeftTransposed Pointer to transposed left edge capacities (left(0,∗) must be 0)

pRightTransposed Pointer to transposed right edge capacities (right(width-1,∗) must be 0)

pTop Pointer to top edge capacities (top(∗,0) must be 0)

pTopLeft Pointer to top left edge capacities (topleft(∗,0) & topleft(0,∗) must be 0)

pTopRight Pointer to top right edge capacities (topright(∗,0) & topright(width-1,∗) must be 0)

pBottom Pointer to bottom edge capacities (bottom(∗,height-1) must be 0)

pBottomLeft Pointer to bottom left edge capacities (bottomleft(∗,height-1) && bottomleft(0,∗) must be 0)

pBottomRight Pointer to bottom right edge capacities (bottomright(∗,height-1) && bottomright(width-1,∗) must be 0)

nStep Step in bytes between any pair of sequential rows of edge capacities

nTransposedStep Step in bytes between any pair of sequential rows of tranposed edge capacities

size Graph size

pLabel Pointer to destination label image

nLabelStep Step in bytes between any pair of sequential rows of label image

pState Pointer to graph-cut state structure. This structure must be initialized allocated and initialized using nppiGraphcut8InitAlloc().

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.52.1.3 NppStatus nppiGraphcut8GetSize (NppiSize *oSize*, int ∗ *pBufSize*)

Calculates the size of the temporary buffer for graph-cut with 8 neighborhood labeling.

See also:

nppiGraphcut8InitAlloc(), nppiGraphcut8_32s8u().

Parameters:

oSize Graph size.

pBufSize Pointer to variable that returns the size of the temporary buffer.

Returns:

NPP_SUCCESS Indicates no error. Any other value indicates an error or a warning
NPP_SIZE_ERROR Indicates an error condition if any image dimension has zero or negative value
NPP_NULL_POINTER_ERROR Indicates an error condition if pBufSize pointer is NULL

7.52.1.4 NppStatus nppiGraphcut8InitAlloc (NppiSize *oSize*, NppiGraphcutState ∗∗ *ppState*, Npp8u ∗ *pDeviceMem*)

Allocates and initializes the graph-cut state structure and additional resources for graph-cut with 8 neighborhood labeling.

See also:

nppiGraphcut8_32s8u(), nppiGraphcut8GetSize().

Parameters:

oSize Graph size

ppState Pointer to pointer to graph-cut state structure.

pDeviceMem to the sufficient amount of device memory. The CUDA runtime or NPP memory allocators must be used to allocate this memory. The minimum amount of device memory required to run graph-cut on a for a specific image size is computed by nppiGraphcut8GetSize().

Returns:

NPP_SUCCESS Indicates no error. Any other value indicates an error or a warning
NPP_SIZE_ERROR Indicates an error condition if any image dimension has zero or negative value
NPP_NULL_POINTER_ERROR Indicates an error condition if pBufSize pointer is NULL

7.52.1.5 NppStatus nppiGraphcut_32f8u (Npp32f ∗ *pTerminals*, Npp32f ∗ *pLeftTransposed*, Npp32f ∗ *pRightTransposed*, Npp32f ∗ *pTop*, Npp32f ∗ *pBottom*, int *nStep*, int *nTransposedStep*, NppiSize *size*, Npp8u ∗ *pLabel*, int *nLabelStep*, NppiGraphcutState ∗ *pState*)

Graphcut of a flow network (32bit float edge capacities).

The function computes the minimal cut (graphcut) of a 2D regular 4-connected graph. The inputs are the capacities of the horizontal (in transposed form), vertical and terminal (source and sink) edges. The capacities to source and sink are stored as capacity differences in the terminals array (terminals(x) = source(x) - sink(x)). The implementation assumes that the edge capacities for boundary edges that would connect to nodes outside the specified domain are set to 0 (for example left(0,∗) == 0). If this is not fulfilled the computed labeling may be wrong! The computed binary labeling is encoded as unsigned 8bit values (0 and >0).

See also:

nppiGraphcutInitAlloc(), nppiGraphcutFree(), nppiGraphcutGetSize().

Parameters:

pTerminals Pointer to differences of terminal edge capacities (terminal(x) = source(x) - sink(x))

pLeftTransposed Pointer to transposed left edge capacities (left(0,∗) must be 0)

pRightTransposed Pointer to transposed right edge capacities (right(width-1,∗) must be 0)

pTop Pointer to top edge capacities (top(∗,0) must be 0)

pBottom Pointer to bottom edge capacities (bottom(∗,height-1) must be 0)

nStep Step in bytes between any pair of sequential rows of edge capacities

nTransposedStep Step in bytes between any pair of sequential rows of tranposed edge capacities

size Graph size

pLabel Pointer to destination label image

nLabelStep Step in bytes between any pair of sequential rows of label image

pState Pointer to graph-cut state structure. This structure must be initialized allocated and initialized using nppiGraphcutInitAlloc().

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.52.1.6 NppStatus nppiGraphcut_32s8u (Npp32s ∗ *pTerminals*, Npp32s ∗ *pLeftTransposed*, Npp32s ∗ *pRightTransposed*, Npp32s ∗ *pTop*, Npp32s ∗ *pBottom*, int *nStep*, int *nTransposedStep*, NppiSize *size*, Npp8u ∗ *pLabel*, int *nLabelStep*, NppiGraphcutState ∗ *pState*)

Graphcut of a flow network (32bit signed integer edge capacities).

The function computes the minimal cut (graphcut) of a 2D regular 4-connected graph. The inputs are the capacities of the horizontal (in transposed form), vertical and terminal (source and sink) edges. The capacities to source and sink are stored as capacity differences in the terminals array (terminals(x) = source(x) - sink(x)). The implementation assumes that the edge capacities for boundary edges that would connect to nodes outside the specified domain are set to 0 (for example left(0,∗) == 0). If this is not fulfilled the computed labeling may be wrong! The computed binary labeling is encoded as unsigned 8bit values (0 and >0).

See also:

nppiGraphcutInitAlloc(), nppiGraphcutFree(), nppiGraphcutGetSize().

Parameters:

pTerminals Pointer to differences of terminal edge capacities (terminal(x) = source(x) - sink(x))

pLeftTransposed Pointer to transposed left edge capacities (left(0,∗) must be 0)

pRightTransposed Pointer to transposed right edge capacities (right(width-1,∗) must be 0)

pTop Pointer to top edge capacities (top(∗,0) must be 0)

pBottom Pointer to bottom edge capacities (bottom(∗,height-1) must be 0)

nStep Step in bytes between any pair of sequential rows of edge capacities

nTransposedStep Step in bytes between any pair of sequential rows of tranposed edge capacities

size Graph size

pLabel Pointer to destination label image

nLabelStep Step in bytes between any pair of sequential rows of label image

pState Pointer to graph-cut state structure. This structure must be initialized allocated and initialized using nppiGraphcutInitAlloc().

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.52.1.7 NppStatus nppiGraphcutFree (NppiGraphcutState ∗ *pState*)

Frees the additional resources of the graph-cut state structure.

See also:

nppiGraphcutInitAlloc
nppiGraphcut8InitAlloc

Parameters:

pState Pointer to graph-cut state structure.

Returns:

NPP_SUCCESS Indicates no error. Any other value indicates an error or a warning
NPP_SIZE_ERROR Indicates an error condition if any image dimension has zero or negative value
NPP_NULL_POINTER_ERROR Indicates an error condition if pState pointer is NULL

7.52.1.8 NppStatus nppiGraphcutGetSize (NppiSize *oSize*, int ∗ *pBufSize*)

Calculates the size of the temporary buffer for graph-cut with 4 neighborhood labeling.

See also:

nppiGraphcutInitAlloc(), nppiGraphcut_32s8u().

Parameters:

oSize Graph size.

pBufSize Pointer to variable that returns the size of the temporary buffer.

Returns:

NPP_SUCCESS Indicates no error. Any other value indicates an error or a warning
NPP_SIZE_ERROR Indicates an error condition if any image dimension has zero or negative value
NPP_NULL_POINTER_ERROR Indicates an error condition if pBufSize pointer is NULL

7.52.1.9 NppStatus nppiGraphcutInitAlloc (NppiSize *oSize*, NppiGraphcutState $**$ *ppState*, Npp8u $*$ *pDeviceMem*)

Initializes graph-cut state structure and allocates additional resources for graph-cut with 8 neighborhood labeling.

See also:

nppiGraphcut_32s8u(), nppiGraphcutGetSize().

Parameters:

oSize Graph size

ppState Pointer to pointer to graph-cut state structure.

pDeviceMem pDeviceMem to the sufficient amount of device memory. The CUDA runtime or NPP memory allocators must be used to allocate this memory. The minimum amount of device memory required to run graph-cut on a for a specific image size is computed by nppiGraphcutGetSize().

Returns:

NPP_SUCCESS Indicates no error. Any other value indicates an error or a warning
NPP_SIZE_ERROR Indicates an error condition if any image dimension has zero or negative value
NPP_NULL_POINTER_ERROR Indicates an error condition if pBufSize pointer is NULL

7.53 Data Exchange and Initialization

Primitives for initializting, copying and converting image data.

Modules

- Set

  Primitives for setting pixels to a specific value.

- Copy
- Convert
- Scale
- Copy Constant Border
- Copy Replicate Border
- Copy Wrap Border
- Copy Sub-Pixel
- Duplicate Channel
- Transpose
- Swap Channels

7.53.1 Detailed Description

Primitives for initializting, copying and converting image data.

7.54 Set

Primitives for setting pixels to a specific value.

Set

Set all pixels within the ROI to a specific value.

- NppStatus nppiSet_8s_C1R (const Npp8s nValue, Npp8s ∗pDst, int nDstStep, NppiSize oSizeROI)

  8-bit image set.

- NppStatus nppiSet_8s_C2R (const Npp8s aValue[2], Npp8s ∗pDst, int nDstStep, NppiSize oSizeROI)

  8-bit two-channel image set.

- NppStatus nppiSet_8s_C3R (const Npp8s aValue[3], Npp8s ∗pDst, int nDstStep, NppiSize oSizeROI)

  8-bit three-channel image set.

- NppStatus nppiSet_8s_C4R (const Npp8s aValue[4], Npp8s ∗pDst, int nDstStep, NppiSize oSizeROI)

  8-bit four-channel image set.

- NppStatus nppiSet_8s_AC4R (const Npp8s aValue[3], Npp8s ∗pDst, int nDstStep, NppiSize oSizeROI)

  8-bit four-channel image set ignoring alpha channel.

- NppStatus nppiSet_8u_C1R (const Npp8u nValue, Npp8u ∗pDst, int nDstStep, NppiSize oSizeROI)

  8-bit unsigned image set.

- NppStatus nppiSet_8u_C2R (const Npp8u aValue[2], Npp8u ∗pDst, int nDstStep, NppiSize oSizeROI)

  2 channel 8-bit unsigned image set.

- NppStatus nppiSet_8u_C3R (const Npp8u aValue[3], Npp8u ∗pDst, int nDstStep, NppiSize oSizeROI)

  3 channel 8-bit unsigned image set.

- NppStatus nppiSet_8u_C4R (const Npp8u aValue[4], Npp8u ∗pDst, int nDstStep, NppiSize oSizeROI)

  4 channel 8-bit unsigned image set.

- NppStatus nppiSet_8u_AC4R (const Npp8u aValue[3], Npp8u ∗pDst, int nDstStep, NppiSize oSizeROI)

  4 channel 8-bit unsigned image set method, not affecting Alpha channel.

- NppStatus nppiSet_16u_C1R (const Npp16u nValue, Npp16u ∗pDst, int nDstStep, NppiSize oSizeROI)

  16-bit unsigned image set.

- NppStatus nppiSet_16u_C2R (const Npp16u aValue[2], Npp16u ∗pDst, int nDstStep, NppiSize oSizeROI)

  2 channel 16-bit unsigned image set.

- NppStatus nppiSet_16u_C3R (const Npp16u aValue[3], Npp16u ∗pDst, int nDstStep, NppiSize oSizeROI)

  3 channel 16-bit unsigned image set.

- NppStatus nppiSet_16u_C4R (const Npp16u aValue[4], Npp16u ∗pDst, int nDstStep, NppiSize oSizeROI)

  4 channel 16-bit unsigned image set.

- NppStatus nppiSet_16u_AC4R (const Npp16u aValue[3], Npp16u ∗pDst, int nDstStep, NppiSize oSizeROI)

  4 channel 16-bit unsigned image set method, not affecting Alpha channel.

- NppStatus nppiSet_16s_C1R (const Npp16s nValue, Npp16s ∗pDst, int nDstStep, NppiSize oSizeROI)

  16-bit image set.

- NppStatus nppiSet_16s_C2R (const Npp16s aValue[2], Npp16s ∗pDst, int nDstStep, NppiSize oSizeROI)

  2 channel 16-bit image set.

- NppStatus nppiSet_16s_C3R (const Npp16s aValue[3], Npp16s ∗pDst, int nDstStep, NppiSize oSizeROI)

  3 channel 16-bit image set.

- NppStatus nppiSet_16s_C4R (const Npp16s aValue[4], Npp16s ∗pDst, int nDstStep, NppiSize oSizeROI)

  4 channel 16-bit image set.

- NppStatus nppiSet_16s_AC4R (const Npp16s aValue[3], Npp16s ∗pDst, int nDstStep, NppiSize oSizeROI)

  4 channel 16-bit image set method, not affecting Alpha channel.

- NppStatus nppiSet_16sc_C1R (const Npp16sc oValue, Npp16sc ∗pDst, int nDstStep, NppiSize oSizeROI)

  16-bit complex integer image set.

- NppStatus nppiSet_16sc_C2R (const Npp16sc aValue[2], Npp16sc ∗pDst, int nDstStep, NppiSize oSizeROI)

  16-bit complex integer two-channel image set.

- NppStatus nppiSet_16sc_C3R (const Npp16sc aValue[3], Npp16sc ∗pDst, int nDstStep, NppiSize oSizeROI)

  16-bit complex integer three-channel image set.

- NppStatus nppiSet_16sc_C4R (const Npp16sc aValue[4], Npp16sc ∗pDst, int nDstStep, NppiSize oSizeROI)

16-bit complex integer four-channel image set.

- NppStatus nppiSet_16sc_AC4R (const Npp16sc aValue[3], Npp16sc ∗pDst, int nDstStep, NppiSize oSizeROI)

  16-bit complex integer four-channel image set ignoring alpha.

- NppStatus nppiSet_32s_C1R (const Npp32s nValue, Npp32s ∗pDst, int nDstStep, NppiSize oSizeROI)

  32-bit image set.

- NppStatus nppiSet_32s_C2R (const Npp32s aValue[2], Npp32s ∗pDst, int nDstStep, NppiSize oSizeROI)

  2 channel 32-bit image set.

- NppStatus nppiSet_32s_C3R (const Npp32s aValue[3], Npp32s ∗pDst, int nDstStep, NppiSize oSizeROI)

  3 channel 32-bit image set.

- NppStatus nppiSet_32s_C4R (const Npp32s aValue[4], Npp32s ∗pDst, int nDstStep, NppiSize oSizeROI)

  4 channel 32-bit image set.

- NppStatus nppiSet_32s_AC4R (const Npp32s aValue[3], Npp32s ∗pDst, int nDstStep, NppiSize oSizeROI)

  4 channel 32-bit image set method, not affecting Alpha channel.

- NppStatus nppiSet_32u_C1R (const Npp32u nValue, Npp32u ∗pDst, int nDstStep, NppiSize oSizeROI)

  32-bit unsigned image set.

- NppStatus nppiSet_32u_C2R (const Npp32u aValue[2], Npp32u ∗pDst, int nDstStep, NppiSize oSizeROI)

  2 channel 32-bit unsigned image set.

- NppStatus nppiSet_32u_C3R (const Npp32u aValue[3], Npp32u ∗pDst, int nDstStep, NppiSize oSizeROI)

  3 channel 32-bit unsigned image set.

- NppStatus nppiSet_32u_C4R (const Npp32u aValue[4], Npp32u ∗pDst, int nDstStep, NppiSize oSizeROI)

  4 channel 32-bit unsigned image set.

- NppStatus nppiSet_32u_AC4R (const Npp32u aValue[3], Npp32u ∗pDst, int nDstStep, NppiSize oSizeROI)

  4 channel 32-bit unsigned image set method, not affecting Alpha channel.

- NppStatus nppiSet_32sc_C1R (const Npp32sc oValue, Npp32sc ∗pDst, int nDstStep, NppiSize oSizeROI)

  Single channel 32-bit complex integer image set.

- NppStatus nppiSet_32sc_C2R (const Npp32sc aValue[2], Npp32sc ∗pDst, int nDstStep, NppiSize oSizeROI)

  Two channel 32-bit complex integer image set.

- NppStatus nppiSet_32sc_C3R (const Npp32sc aValue[3], Npp32sc ∗pDst, int nDstStep, NppiSize oSizeROI)

  Three channel 32-bit complex integer image set.

- NppStatus nppiSet_32sc_C4R (const Npp32sc aValue[4], Npp32sc ∗pDst, int nDstStep, NppiSize oSizeROI)

  Four channel 32-bit complex integer image set.

- NppStatus nppiSet_32sc_AC4R (const Npp32sc aValue[3], Npp32sc ∗pDst, int nDstStep, NppiSize oSizeROI)

  32-bit complex integer four-channel image set ignoring alpha.

- NppStatus nppiSet_32f_C1R (const Npp32f nValue, Npp32f ∗pDst, int nDstStep, NppiSize oSizeROI)

  32-bit floating point image set.

- NppStatus nppiSet_32f_C2R (const Npp32f aValue[2], Npp32f ∗pDst, int nDstStep, NppiSize oSizeROI)

  2 channel 32-bit floating point image set.

- NppStatus nppiSet_32f_C3R (const Npp32f aValue[3], Npp32f ∗pDst, int nDstStep, NppiSize oSizeROI)

  3 channel 32-bit floating point image set.

- NppStatus nppiSet_32f_C4R (const Npp32f aValue[4], Npp32f ∗pDst, int nDstStep, NppiSize oSizeROI)

  4 channel 32-bit floating point image set.

- NppStatus nppiSet_32f_AC4R (const Npp32f aValue[3], Npp32f ∗pDst, int nDstStep, NppiSize oSizeROI)

  4 channel 32-bit floating point image set method, not affecting Alpha channel.

- NppStatus nppiSet_32fc_C1R (const Npp32fc oValue, Npp32fc ∗pDst, int nDstStep, NppiSize oSizeROI)

  Single channel 32-bit complex image set.

- NppStatus nppiSet_32fc_C2R (const Npp32fc aValue[2], Npp32fc ∗pDst, int nDstStep, NppiSize oSizeROI)

  Two channel 32-bit complex image set.

- NppStatus nppiSet_32fc_C3R (const Npp32fc aValue[3], Npp32fc ∗pDst, int nDstStep, NppiSize oSizeROI)

  Three channel 32-bit complex image set.

- NppStatus nppiSet_32fc_C4R (const Npp32fc aValue[4], Npp32fc ∗pDst, int nDstStep, NppiSize oSizeROI)

  Four channel 32-bit complex image set.

- NppStatus nppiSet_32fc_AC4R (const Npp32fc aValue[3], Npp32fc ∗pDst, int nDstStep, NppiSize oSizeROI)

  32-bit complex four-channel image set ignoring alpha.

Masked Set

The masked set primitives have an additional "mask image" input.

The mask controls which pixels within the ROI are set. For details see Masked Operation.

- NppStatus nppiSet_8u_C1MR (Npp8u nValue, Npp8u ∗pDst, int nDstStep, NppiSize oSizeROI, const Npp8u ∗pMask, int nMaskStep)

  Masked 8-bit unsigned image set.

- NppStatus nppiSet_8u_C3MR (const Npp8u aValue[3], Npp8u ∗pDst, int nDstStep, NppiSize oSizeROI, const Npp8u ∗pMask, int nMaskStep)

  Masked 3 channel 8-bit unsigned image set.

- NppStatus nppiSet_8u_C4MR (const Npp8u aValue[4], Npp8u ∗pDst, int nDstStep, NppiSize oSizeROI, const Npp8u ∗pMask, int nMaskStep)

  Masked 4 channel 8-bit unsigned image set.

- NppStatus nppiSet_8u_AC4MR (const Npp8u aValue[3], Npp8u ∗pDst, int nDstStep, NppiSize oSizeROI, const Npp8u ∗pMask, int nMaskStep)

  Masked 4 channel 8-bit unsigned image set method, not affecting Alpha channel.

- NppStatus nppiSet_16u_C1MR (Npp16u nValue, Npp16u ∗pDst, int nDstStep, NppiSize oSizeROI, const Npp8u ∗pMask, int nMaskStep)

  Masked 16-bit unsigned image set.

- NppStatus nppiSet_16u_C3MR (const Npp16u aValue[3], Npp16u ∗pDst, int nDstStep, NppiSize oSizeROI, const Npp8u ∗pMask, int nMaskStep)

  Masked 3 channel 16-bit unsigned image set.

- NppStatus nppiSet_16u_C4MR (const Npp16u aValue[4], Npp16u ∗pDst, int nDstStep, NppiSize oSizeROI, const Npp8u ∗pMask, int nMaskStep)

  Masked 4 channel 16-bit unsigned image set.

- NppStatus nppiSet_16u_AC4MR (const Npp16u aValue[3], Npp16u ∗pDst, int nDstStep, NppiSize oSizeROI, const Npp8u ∗pMask, int nMaskStep)

  Masked 4 channel 16-bit unsigned image set method, not affecting Alpha channel.

- NppStatus nppiSet_16s_C1MR (Npp16s nValue, Npp16s ∗pDst, int nDstStep, NppiSize oSizeROI, const Npp8u ∗pMask, int nMaskStep)

  Masked 16-bit image set.

- NppStatus nppiSet_16s_C3MR (const Npp16s aValue[3], Npp16s ∗pDst, int nDstStep, NppiSize oSizeROI, const Npp8u ∗pMask, int nMaskStep)

  Masked 3 channel 16-bit image set.

- NppStatus nppiSet_16s_C4MR (const Npp16s aValue[4], Npp16s ∗pDst, int nDstStep, NppiSize oSizeROI, const Npp8u ∗pMask, int nMaskStep)

  Masked 4 channel 16-bit image set.

- NppStatus nppiSet_16s_AC4MR (const Npp16s aValue[3], Npp16s ∗pDst, int nDstStep, NppiSize oSizeROI, const Npp8u ∗pMask, int nMaskStep)

  Masked 4 channel 16-bit image set method, not affecting Alpha channel.

- NppStatus nppiSet_32s_C1MR (Npp32s nValue, Npp32s ∗pDst, int nDstStep, NppiSize oSizeROI, const Npp8u ∗pMask, int nMaskStep)

  Masked 32-bit image set.

- NppStatus nppiSet_32s_C3MR (const Npp32s aValue[3], Npp32s ∗pDst, int nDstStep, NppiSize oSizeROI, const Npp8u ∗pMask, int nMaskStep)

  Masked 3 channel 32-bit image set.

- NppStatus nppiSet_32s_C4MR (const Npp32s aValue[4], Npp32s ∗pDst, int nDstStep, NppiSize oSizeROI, const Npp8u ∗pMask, int nMaskStep)

  Masked 4 channel 32-bit image set.

- NppStatus nppiSet_32s_AC4MR (const Npp32s aValue[3], Npp32s ∗pDst, int nDstStep, NppiSize oSizeROI, const Npp8u ∗pMask, int nMaskStep)

  Masked 4 channel 16-bit image set method, not affecting Alpha channel.

- NppStatus nppiSet_32f_C1MR (Npp32f nValue, Npp32f ∗pDst, int nDstStep, NppiSize oSizeROI, const Npp8u ∗pMask, int nMaskStep)

  Masked 32-bit floating point image set.

- NppStatus nppiSet_32f_C3MR (const Npp32f aValue[3], Npp32f ∗pDst, int nDstStep, NppiSize oSizeROI, const Npp8u ∗pMask, int nMaskStep)

  Masked 3 channel 32-bit floating point image set.

- NppStatus nppiSet_32f_C4MR (const Npp32f aValue[4], Npp32f ∗pDst, int nDstStep, NppiSize oSizeROI, const Npp8u ∗pMask, int nMaskStep)

  Masked 4 channel 32-bit floating point image set.

- NppStatus nppiSet_32f_AC4MR (const Npp32f aValue[3], Npp32f ∗pDst, int nDstStep, NppiSize oSizeROI, const Npp8u ∗pMask, int nMaskStep)

  Masked 4 channel 32-bit floating point image set method, not affecting Alpha channel.

Channel Set

The select-channel set primitives set a single color channel in multi-channel images to a given value.

The channel is selected by adjusting the pDst pointer to point to the desired color channel (see Channel-of-Interest API).

- NppStatus nppiSet_8u_C3CR (Npp8u nValue, Npp8u ∗pDst, int nDstStep, NppiSize oSizeROI)

  3 channel 8-bit unsigned image set affecting only single channel.

- NppStatus nppiSet_8u_C4CR (Npp8u nValue, Npp8u ∗pDst, int nDstStep, NppiSize oSizeROI)

  4 channel 8-bit unsigned image set affecting only single channel.

- NppStatus nppiSet_16u_C3CR (Npp16u nValue, Npp16u ∗pDst, int nDstStep, NppiSize oSizeROI)

  3 channel 16-bit unsigned image set affecting only single channel.

- NppStatus nppiSet_16u_C4CR (Npp16u nValue, Npp16u ∗pDst, int nDstStep, NppiSize oSizeROI)

  4 channel 16-bit unsigned image set affecting only single channel.

- NppStatus nppiSet_16s_C3CR (Npp16s nValue, Npp16s ∗pDst, int nDstStep, NppiSize oSizeROI)

  3 channel 16-bit signed image set affecting only single channel.

- NppStatus nppiSet_16s_C4CR (Npp16s nValue, Npp16s ∗pDst, int nDstStep, NppiSize oSizeROI)

  4 channel 16-bit signed image set affecting only single channel.

- NppStatus nppiSet_32s_C3CR (Npp32s nValue, Npp32s ∗pDst, int nDstStep, NppiSize oSizeROI)

  3 channel 32-bit unsigned image set affecting only single channel.

- NppStatus nppiSet_32s_C4CR (Npp32s nValue, Npp32s ∗pDst, int nDstStep, NppiSize oSizeROI)

  4 channel 32-bit unsigned image set affecting only single channel.

- NppStatus nppiSet_32f_C3CR (Npp32f nValue, Npp32f ∗pDst, int nDstStep, NppiSize oSizeROI)

  3 channel 32-bit floating point image set affecting only single channel.

- NppStatus nppiSet_32f_C4CR (Npp32f nValue, Npp32f ∗pDst, int nDstStep, NppiSize oSizeROI)

  4 channel 32-bit floating point image set affecting only single channel.

7.54.1 Detailed Description

Primitives for setting pixels to a specific value.

7.54.2 Function Documentation

7.54.2.1 NppStatus nppiSet_16s_AC4MR (const Npp16s *aValue*[3], Npp16s ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, const Npp8u ∗ *pMask*, int *nMaskStep*)

Masked 4 channel 16-bit image set method, not affecting Alpha channel.

Parameters:

aValue The pixel-value to be set.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pMask Mask-Image Pointer.

nMaskStep Mask-Image Line Step.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.54.2.2 NppStatus nppiSet_16s_AC4R (const Npp16s *aValue*[3], Npp16s ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*)

4 channel 16-bit image set method, not affecting Alpha channel.

Parameters:

aValue The pixel-value to be set.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.54.2.3 NppStatus nppiSet_16s_C1MR (Npp16s *nValue*, Npp16s ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, const Npp8u ∗ *pMask*, int *nMaskStep*)

Masked 16-bit image set.

Parameters:

nValue The pixel-value to be set.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pMask Mask-Image Pointer.

nMaskStep Mask-Image Line Step.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.54.2.4 NppStatus nppiSet_16s_C1R (const Npp16s *nValue*, Npp16s ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*)

16-bit image set.

Parameters:

nValue The pixel-value to be set.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.54.2.5 NppStatus nppiSet_16s_C2R (const Npp16s *aValue*[2], Npp16s ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*)

2 channel 16-bit image set.

Parameters:

aValue The pixel-value to be set.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.54.2.6 NppStatus nppiSet_16s_C3CR (Npp16s *nValue*, Npp16s ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*)

3 channel 16-bit signed image set affecting only single channel.

Parameters:

nValue The pixel-value to be set.

pDst Select-Channel Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.54.2.7 NppStatus nppiSet_16s_C3MR (const Npp16s *aValue*[3], Npp16s ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, const Npp8u ∗ *pMask*, int *nMaskStep*)

Masked 3 channel 16-bit image set.

Parameters:

aValue The pixel-value to be set.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pMask Mask-Image Pointer.

nMaskStep Mask-Image Line Step.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.54.2.8 NppStatus nppiSet_16s_C3R (const Npp16s *aValue*[3], Npp16s ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*)

3 channel 16-bit image set.

Parameters:

aValue The pixel-value to be set.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.54.2.9 NppStatus nppiSet_16s_C4CR (Npp16s *nValue*, Npp16s ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*)

4 channel 16-bit signed image set affecting only single channel.

Parameters:

nValue The pixel-value to be set.

pDst Select-Channel Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.54.2.10 NppStatus nppiSet_16s_C4MR (const Npp16s *aValue*[4], Npp16s ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, const Npp8u ∗ *pMask*, int *nMaskStep*)

Masked 4 channel 16-bit image set.

Parameters:

aValue The pixel-value to be set.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pMask Mask-Image Pointer.

nMaskStep Mask-Image Line Step.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.54.2.11 NppStatus nppiSet_16s_C4R (const Npp16s *aValue*[4], Npp16s ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*)

4 channel 16-bit image set.

Parameters:

aValue The pixel-value to be set.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.54.2.12 NppStatus nppiSet_16sc_AC4R (const Npp16sc *aValue*[3], Npp16sc ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*)

16-bit complex integer four-channel image set ignoring alpha.

Parameters:

aValue The pixel-value to be set.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.54.2.13 NppStatus nppiSet_16sc_C1R (const Npp16sc *oValue*, Npp16sc ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*)

16-bit complex integer image set.

Parameters:

oValue The pixel-value to be set.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.54.2.14 NppStatus nppiSet_16sc_C2R (const Npp16sc *aValue*[2], Npp16sc ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*)

16-bit complex integer two-channel image set.

Parameters:

aValue The pixel-value to be set.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.54.2.15 NppStatus nppiSet_16sc_C3R (const Npp16sc *aValue*[3], Npp16sc ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*)

16-bit complex integer three-channel image set.

Parameters:

aValue The pixel-value to be set.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.54.2.16 NppStatus nppiSet_16sc_C4R (const Npp16sc *aValue*[4], Npp16sc ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*)

16-bit complex integer four-channel image set.

Parameters:

aValue The pixel-value to be set.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.54.2.17 NppStatus nppiSet_16u_AC4MR (const Npp16u *aValue*[3], Npp16u * *pDst*, int *nDstStep*, NppiSize *oSizeROI*, const Npp8u * *pMask*, int *nMaskStep*)

Masked 4 channel 16-bit unsigned image set method, not affecting Alpha channel.

Parameters:

aValue The pixel-value to be set.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pMask Mask-Image Pointer.

nMaskStep Mask-Image Line Step.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.54.2.18 NppStatus nppiSet_16u_AC4R (const Npp16u *aValue*[3], Npp16u * *pDst*, int *nDstStep*, NppiSize *oSizeROI*)

4 channel 16-bit unsigned image set method, not affecting Alpha channel.

Parameters:

aValue The pixel-value to be set.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.54.2.19 NppStatus nppiSet_16u_C1MR (Npp16u *nValue*, Npp16u * *pDst*, int *nDstStep*, NppiSize *oSizeROI*, const Npp8u * *pMask*, int *nMaskStep*)

Masked 16-bit unsigned image set.

Parameters:

nValue The pixel-value to be set.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pMask Mask-Image Pointer.

nMaskStep Mask-Image Line Step.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.54.2.20 NppStatus nppiSet_16u_C1R (const Npp16u *nValue*, Npp16u ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*)

16-bit unsigned image set.

Parameters:

nValue The pixel-value to be set.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.54.2.21 NppStatus nppiSet_16u_C2R (const Npp16u *aValue*[2], Npp16u ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*)

2 channel 16-bit unsigned image set.

Parameters:

aValue The pixel-value to be set.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.54.2.22 NppStatus nppiSet_16u_C3CR (Npp16u *nValue*, Npp16u ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*)

3 channel 16-bit unsigned image set affecting only single channel.

Parameters:

nValue The pixel-value to be set.

pDst Select-Channel Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.54.2.23 NppStatus nppiSet_16u_C3MR (const Npp16u *aValue*[3], Npp16u ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, const Npp8u ∗ *pMask*, int *nMaskStep*)

Masked 3 channel 16-bit unsigned image set.

Parameters:

aValue The pixel-value to be set.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pMask Mask-Image Pointer.

nMaskStep Mask-Image Line Step.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.54.2.24 NppStatus nppiSet_16u_C3R (const Npp16u *aValue*[3], Npp16u ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*)

3 channel 16-bit unsigned image set.

Parameters:

aValue The pixel-value to be set.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.54.2.25 NppStatus nppiSet_16u_C4CR (Npp16u *nValue*, Npp16u ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*)

4 channel 16-bit unsigned image set affecting only single channel.

Parameters:

nValue The pixel-value to be set.

pDst Select-Channel Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.54.2.26 NppStatus nppiSet_16u_C4MR (const Npp16u *aValue*[4], Npp16u $*$ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, const Npp8u $*$ *pMask*, int *nMaskStep*)

Masked 4 channel 16-bit unsigned image set.

Parameters:

aValue The pixel-value to be set.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pMask Mask-Image Pointer.

nMaskStep Mask-Image Line Step.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.54.2.27 NppStatus nppiSet_16u_C4R (const Npp16u *aValue*[4], Npp16u $*$ *pDst*, int *nDstStep*, NppiSize *oSizeROI*)

4 channel 16-bit unsigned image set.

Parameters:

aValue The pixel-value to be set.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.54.2.28 NppStatus nppiSet_32f_AC4MR (const Npp32f *aValue*[3], Npp32f $*$ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, const Npp8u $*$ *pMask*, int *nMaskStep*)

Masked 4 channel 32-bit floating point image set method, not affecting Alpha channel.

Parameters:

aValue The pixel-value to be set.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pMask Mask-Image Pointer.

nMaskStep Mask-Image Line Step.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.54.2.29 NppStatus nppiSet_32f_AC4R (const Npp32f *aValue*[3], Npp32f * *pDst*, int *nDstStep*, NppiSize *oSizeROI*)

4 channel 32-bit floating point image set method, not affecting Alpha channel.

Parameters:

aValue The pixel-value to be set.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.54.2.30 NppStatus nppiSet_32f_C1MR (Npp32f *nValue*, Npp32f * *pDst*, int *nDstStep*, NppiSize *oSizeROI*, const Npp8u * *pMask*, int *nMaskStep*)

Masked 32-bit floating point image set.

Parameters:

nValue The pixel-value to be set.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pMask Mask-Image Pointer.

nMaskStep Mask-Image Line Step.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.54.2.31 NppStatus nppiSet_32f_C1R (const Npp32f *nValue*, Npp32f ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*)

32-bit floating point image set.

Parameters:

nValue The pixel-value to be set.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.54.2.32 NppStatus nppiSet_32f_C2R (const Npp32f *aValue*[2], Npp32f ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*)

2 channel 32-bit floating point image set.

Parameters:

aValue The pixel-value to be set.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.54.2.33 NppStatus nppiSet_32f_C3CR (Npp32f *nValue*, Npp32f ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*)

3 channel 32-bit floating point image set affecting only single channel.

Parameters:

nValue The pixel-value to be set.

pDst Select-Channel Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.54.2.34 NppStatus nppiSet_32f_C3MR (const Npp32f *aValue*[3], Npp32f ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, const Npp8u ∗ *pMask*, int *nMaskStep*)

Masked 3 channel 32-bit floating point image set.

Parameters:

aValue The pixel-value to be set.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pMask Mask-Image Pointer.

nMaskStep Mask-Image Line Step.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.54.2.35 NppStatus nppiSet_32f_C3R (const Npp32f *aValue*[3], Npp32f ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*)

3 channel 32-bit floating point image set.

Parameters:

aValue The pixel-value to be set.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.54.2.36 NppStatus nppiSet_32f_C4CR (Npp32f *nValue*, Npp32f ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*)

4 channel 32-bit floating point image set affecting only single channel.

Parameters:

nValue The pixel-value to be set.

pDst Select-Channel Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.54.2.37 NppStatus nppiSet_32f_C4MR (const Npp32f *aValue*[4], Npp32f ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, const Npp8u ∗ *pMask*, int *nMaskStep*)

Masked 4 channel 32-bit floating point image set.

Parameters:

aValue The pixel-value to be set.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pMask Mask-Image Pointer.

nMaskStep Mask-Image Line Step.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.54.2.38 NppStatus nppiSet_32f_C4R (const Npp32f *aValue*[4], Npp32f ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*)

4 channel 32-bit floating point image set.

Parameters:

aValue The pixel-value to be set.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.54.2.39 NppStatus nppiSet_32fc_AC4R (const Npp32fc *aValue*[3], Npp32fc ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*)

32-bit complex four-channel image set ignoring alpha.

Parameters:

aValue The pixel-value to be set.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.54.2.40 NppStatus nppiSet_32fc_C1R (const Npp32fc *oValue*, Npp32fc * *pDst*, int *nDstStep*, NppiSize *oSizeROI*)

Single channel 32-bit complex image set.

Parameters:

oValue The pixel-value to be set.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.54.2.41 NppStatus nppiSet_32fc_C2R (const Npp32fc *aValue*[2], Npp32fc * *pDst*, int *nDstStep*, NppiSize *oSizeROI*)

Two channel 32-bit complex image set.

Parameters:

aValue The pixel-value to be set.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.54.2.42 NppStatus nppiSet_32fc_C3R (const Npp32fc *aValue*[3], Npp32fc * *pDst*, int *nDstStep*, NppiSize *oSizeROI*)

Three channel 32-bit complex image set.

Parameters:

aValue The pixel-value to be set.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.54.2.43 NppStatus nppiSet_32fc_C4R (const Npp32fc *aValue*[4], Npp32fc ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*)

Four channel 32-bit complex image set.

Parameters:

aValue The pixel-value to be set.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.54.2.44 NppStatus nppiSet_32s_AC4MR (const Npp32s *aValue*[3], Npp32s ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, const Npp8u ∗ *pMask*, int *nMaskStep*)

Masked 4 channel 16-bit image set method, not affecting Alpha channel.

Parameters:

aValue The pixel-value to be set.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pMask Mask-Image Pointer.

nMaskStep Mask-Image Line Step.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.54.2.45 NppStatus nppiSet_32s_AC4R (const Npp32s *aValue*[3], Npp32s ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*)

4 channel 32-bit image set method, not affecting Alpha channel.

Parameters:

aValue The pixel-value to be set.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.54.2.46 NppStatus nppiSet_32s_C1MR (Npp32s *nValue*, Npp32s ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, const Npp8u ∗ *pMask*, int *nMaskStep*)

Masked 32-bit image set.

Parameters:

nValue The pixel-value to be set.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pMask Mask-Image Pointer.

nMaskStep Mask-Image Line Step.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.54.2.47 NppStatus nppiSet_32s_C1R (const Npp32s *nValue*, Npp32s ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*)

32-bit image set.

Parameters:

nValue The pixel-value to be set.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.54.2.48 NppStatus nppiSet_32s_C2R (const Npp32s *aValue*[2], Npp32s ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*)

2 channel 32-bit image set.

Parameters:

aValue The pixel-value to be set.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.54.2.49 NppStatus nppiSet_32s_C3CR (Npp32s *nValue*, Npp32s ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*)

3 channel 32-bit unsigned image set affecting only single channel.

Parameters:

nValue The pixel-value to be set.

pDst Select-Channel Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.54.2.50 NppStatus nppiSet_32s_C3MR (const Npp32s *aValue*[3], Npp32s ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, const Npp8u ∗ *pMask*, int *nMaskStep*)

Masked 3 channel 32-bit image set.

Parameters:

aValue The pixel-value to be set.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pMask Mask-Image Pointer.

nMaskStep Mask-Image Line Step.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.54.2.51 NppStatus nppiSet_32s_C3R (const Npp32s *aValue*[3], Npp32s ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*)

3 channel 32-bit image set.

Parameters:

aValue The pixel-value to be set.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.54.2.52 NppStatus nppiSet_32s_C4CR (Npp32s *nValue*, Npp32s ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*)

4 channel 32-bit unsigned image set affecting only single channel.

Parameters:

nValue The pixel-value to be set.

pDst Select-Channel Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.54.2.53 NppStatus nppiSet_32s_C4MR (const Npp32s *aValue*[4], Npp32s ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, const Npp8u ∗ *pMask*, int *nMaskStep*)

Masked 4 channel 32-bit image set.

Parameters:

aValue The pixel-value to be set.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pMask Mask-Image Pointer.

nMaskStep Mask-Image Line Step.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.54.2.54 NppStatus nppiSet_32s_C4R (const Npp32s *aValue*[4], Npp32s ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*)

4 channel 32-bit image set.

Parameters:

aValue The pixel-value to be set.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.54.2.55 NppStatus nppiSet_32sc_AC4R (const Npp32sc *aValue*[3], Npp32sc ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*)

32-bit complex integer four-channel image set ignoring alpha.

Parameters:

aValue The pixel-value to be set.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.54.2.56 NppStatus nppiSet_32sc_C1R (const Npp32sc *oValue*, Npp32sc ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*)

Single channel 32-bit complex integer image set.

Parameters:

oValue The pixel-value to be set.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.54.2.57 NppStatus nppiSet_32sc_C2R (const Npp32sc *aValue*[2], Npp32sc ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*)

Two channel 32-bit complex integer image set.

Parameters:

aValue The pixel-value to be set.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.54.2.58 NppStatus nppiSet_32sc_C3R (const Npp32sc *aValue*[3], Npp32sc * *pDst*, int *nDstStep*, NppiSize *oSizeROI*)

Three channel 32-bit complex integer image set.

Parameters:

aValue The pixel-value to be set.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.54.2.59 NppStatus nppiSet_32sc_C4R (const Npp32sc *aValue*[4], Npp32sc * *pDst*, int *nDstStep*, NppiSize *oSizeROI*)

Four channel 32-bit complex integer image set.

Parameters:

aValue The pixel-value to be set.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.54.2.60 NppStatus nppiSet_32u_AC4R (const Npp32u *aValue*[3], Npp32u * *pDst*, int *nDstStep*, NppiSize *oSizeROI*)

4 channel 32-bit unsigned image set method, not affecting Alpha channel.

Parameters:

aValue The pixel-value to be set.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.54.2.61 NppStatus nppiSet_32u_C1R (const Npp32u *nValue*, Npp32u ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*)

32-bit unsigned image set.

Parameters:

nValue The pixel-value to be set.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.54.2.62 NppStatus nppiSet_32u_C2R (const Npp32u *aValue*[2], Npp32u ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*)

2 channel 32-bit unsigned image set.

Parameters:

aValue The pixel-value to be set.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.54.2.63 NppStatus nppiSet_32u_C3R (const Npp32u *aValue*[3], Npp32u ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*)

3 channel 32-bit unsigned image set.

Parameters:

aValue The pixel-value to be set.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.54.2.64 NppStatus nppiSet_32u_C4R (const Npp32u *aValue*[4], Npp32u * *pDst*, int *nDstStep*, NppiSize *oSizeROI*)

4 channel 32-bit unsigned image set.

Parameters:

aValue The pixel-value to be set.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.54.2.65 NppStatus nppiSet_8s_AC4R (const Npp8s *aValue*[3], Npp8s * *pDst*, int *nDstStep*, NppiSize *oSizeROI*)

8-bit four-channel image set ignoring alpha channel.

Parameters:

aValue The pixel value to be set.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.54.2.66 NppStatus nppiSet_8s_C1R (const Npp8s *nValue*, Npp8s * *pDst*, int *nDstStep*, NppiSize *oSizeROI*)

8-bit image set.

Parameters:

nValue The pixel value to be set.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.54.2.67 NppStatus nppiSet_8s_C2R (const Npp8s *aValue*[2], Npp8s ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*)

8-bit two-channel image set.

Parameters:

aValue The pixel value to be set.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.54.2.68 NppStatus nppiSet_8s_C3R (const Npp8s *aValue*[3], Npp8s ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*)

8-bit three-channel image set.

Parameters:

aValue The pixel value to be set.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.54.2.69 NppStatus nppiSet_8s_C4R (const Npp8s *aValue*[4], Npp8s ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*)

8-bit four-channel image set.

Parameters:

aValue The pixel value to be set.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.54.2.70 NppStatus nppiSet_8u_AC4MR (const Npp8u *aValue*[3], Npp8u ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, const Npp8u ∗ *pMask*, int *nMaskStep*)

Masked 4 channel 8-bit unsigned image set method, not affecting Alpha channel.

Parameters:

aValue The pixel-value to be set.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pMask Mask-Image Pointer.

nMaskStep Mask-Image Line Step.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.54.2.71 NppStatus nppiSet_8u_AC4R (const Npp8u *aValue*[3], Npp8u ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*)

4 channel 8-bit unsigned image set method, not affecting Alpha channel.

Parameters:

aValue The pixel-value to be set.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.54.2.72 NppStatus nppiSet_8u_C1MR (Npp8u *nValue*, Npp8u ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, const Npp8u ∗ *pMask*, int *nMaskStep*)

Masked 8-bit unsigned image set.

Parameters:

nValue The pixel value to be set.

pDst Pointer Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pMask Mask-Image Pointer.

nMaskStep Mask-Image Line Step.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.54.2.73 NppStatus nppiSet_8u_C1R (const Npp8u *nValue*, Npp8u * *pDst*, int *nDstStep*, NppiSize *oSizeROI*)

8-bit unsigned image set.

Parameters:

nValue The pixel value to be set.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.54.2.74 NppStatus nppiSet_8u_C2R (const Npp8u *aValue*[2], Npp8u * *pDst*, int *nDstStep*, NppiSize *oSizeROI*)

2 channel 8-bit unsigned image set.

Parameters:

aValue The pixel value to be set.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.54.2.75 NppStatus nppiSet_8u_C3CR (Npp8u *nValue*, Npp8u * *pDst*, int *nDstStep*, NppiSize *oSizeROI*)

3 channel 8-bit unsigned image set affecting only single channel.

Parameters:

nValue The pixel-value to be set.

pDst Select-Channel Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.54.2.76 NppStatus nppiSet_8u_C3MR (const Npp8u *aValue*[3], Npp8u ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, const Npp8u ∗ *pMask*, int *nMaskStep*)

Masked 3 channel 8-bit unsigned image set.

Parameters:

aValue The pixel-value to be set.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pMask Mask-Image Pointer.

nMaskStep Mask-Image Line Step.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.54.2.77 NppStatus nppiSet_8u_C3R (const Npp8u *aValue*[3], Npp8u ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*)

3 channel 8-bit unsigned image set.

Parameters:

aValue The pixel value to be set.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.54.2.78 NppStatus nppiSet_8u_C4CR (Npp8u *nValue*, Npp8u ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*)

4 channel 8-bit unsigned image set affecting only single channel.

Parameters:

nValue The pixel-value to be set.

pDst Select-Channel Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.54.2.79 NppStatus nppiSet_8u_C4MR (const Npp8u *aValue*[4], Npp8u * *pDst*, int *nDstStep*, NppiSize *oSizeROI*, const Npp8u * *pMask*, int *nMaskStep*)

Masked 4 channel 8-bit unsigned image set.

Parameters:

aValue The pixel-value to be set.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pMask Mask-Image Pointer.

nMaskStep Mask-Image Line Step.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.54.2.80 NppStatus nppiSet_8u_C4R (const Npp8u *aValue*[4], Npp8u * *pDst*, int *nDstStep*, NppiSize *oSizeROI*)

4 channel 8-bit unsigned image set.

Parameters:

aValue The pixel-value to be set.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.55 Copy

Copy

Copy pixels from one image to another.

- NppStatus nppiCopy_8s_C1R (const Npp8s ∗pSrc, int nSrcStep, Npp8s ∗pDst, int nDstStep, NppiSize oSizeROI)

  8-bit image copy.

- NppStatus nppiCopy_8s_C2R (const Npp8s ∗pSrc, int nSrcStep, Npp8s ∗pDst, int nDstStep, NppiSize oSizeROI)

  Two-channel 8-bit image copy.

- NppStatus nppiCopy_8s_C3R (const Npp8s ∗pSrc, int nSrcStep, Npp8s ∗pDst, int nDstStep, NppiSize oSizeROI)

  Three-channel 8-bit image copy.

- NppStatus nppiCopy_8s_C4R (const Npp8s ∗pSrc, int nSrcStep, Npp8s ∗pDst, int nDstStep, NppiSize oSizeROI)

  Four-channel 8-bit image copy.

- NppStatus nppiCopy_8s_AC4R (const Npp8s ∗pSrc, int nSrcStep, Npp8s ∗pDst, int nDstStep, NppiSize oSizeROI)

  Four-channel 8-bit image copy, ignoring alpha channel.

- NppStatus nppiCopy_8u_C1R (const Npp8u ∗pSrc, int nSrcStep, Npp8u ∗pDst, int nDstStep, NppiSize oSizeROI)

  8-bit unsigned image copy.

- NppStatus nppiCopy_8u_C3R (const Npp8u ∗pSrc, int nSrcStep, Npp8u ∗pDst, int nDstStep, NppiSize oSizeROI)

  Three channel 8-bit unsigned image copy.

- NppStatus nppiCopy_8u_C4R (const Npp8u ∗pSrc, int nSrcStep, Npp8u ∗pDst, int nDstStep, NppiSize oSizeROI)

  4 channel 8-bit unsigned image copy.

- NppStatus nppiCopy_8u_AC4R (const Npp8u ∗pSrc, int nSrcStep, Npp8u ∗pDst, int nDstStep, NppiSize oSizeROI)

  4 channel 8-bit unsigned image copy, not affecting Alpha channel.

- NppStatus nppiCopy_16u_C1R (const Npp16u ∗pSrc, int nSrcStep, Npp16u ∗pDst, int nDstStep, NppiSize oSizeROI)

  16-bit unsigned image copy.

- NppStatus nppiCopy_16u_C3R (const Npp16u ∗pSrc, int nSrcStep, Npp16u ∗pDst, int nDstStep, NppiSize oSizeROI)

  Three channel 16-bit unsigned image copy.

- NppStatus nppiCopy_16u_C4R (const Npp16u ∗pSrc, int nSrcStep, Npp16u ∗pDst, int nDstStep, NppiSize oSizeROI)

  4 channel 16-bit unsigned image copy.

- NppStatus nppiCopy_16u_AC4R (const Npp16u ∗pSrc, int nSrcStep, Npp16u ∗pDst, int nDstStep, NppiSize oSizeROI)

  4 channel 16-bit unsigned image copy, not affecting Alpha channel.

- NppStatus nppiCopy_16s_C1R (const Npp16s ∗pSrc, int nSrcStep, Npp16s ∗pDst, int nDstStep, NppiSize oSizeROI)

  16-bit image copy.

- NppStatus nppiCopy_16s_C3R (const Npp16s ∗pSrc, int nSrcStep, Npp16s ∗pDst, int nDstStep, NppiSize oSizeROI)

  Three channel 16-bit image copy.

- NppStatus nppiCopy_16s_C4R (const Npp16s ∗pSrc, int nSrcStep, Npp16s ∗pDst, int nDstStep, NppiSize oSizeROI)

  4 channel 16-bit image copy.

- NppStatus nppiCopy_16s_AC4R (const Npp16s ∗pSrc, int nSrcStep, Npp16s ∗pDst, int nDstStep, NppiSize oSizeROI)

  4 channel 16-bit image copy, not affecting Alpha.

- NppStatus nppiCopy_16sc_C1R (const Npp16sc ∗pSrc, int nSrcStep, Npp16sc ∗pDst, int nDstStep, NppiSize oSizeROI)

  16-bit complex image copy.

- NppStatus nppiCopy_16sc_C2R (const Npp16sc ∗pSrc, int nSrcStep, Npp16sc ∗pDst, int nDstStep, NppiSize oSizeROI)

  Two-channel 16-bit complex image copy.

- NppStatus nppiCopy_16sc_C3R (const Npp16sc ∗pSrc, int nSrcStep, Npp16sc ∗pDst, int nDstStep, NppiSize oSizeROI)

  Three-channel 16-bit complex image copy.

- NppStatus nppiCopy_16sc_C4R (const Npp16sc ∗pSrc, int nSrcStep, Npp16sc ∗pDst, int nDstStep, NppiSize oSizeROI)

  Four-channel 16-bit complex image copy.

- NppStatus nppiCopy_16sc_AC4R (const Npp16sc ∗pSrc, int nSrcStep, Npp16sc ∗pDst, int nDstStep, NppiSize oSizeROI)

  Four-channel 16-bit complex image copy, ignoring alpha.

- NppStatus nppiCopy_32s_C1R (const Npp32s ∗pSrc, int nSrcStep, Npp32s ∗pDst, int nDstStep, NppiSize oSizeROI)

  32-bit image copy.

- NppStatus nppiCopy_32s_C3R (const Npp32s ∗pSrc, int nSrcStep, Npp32s ∗pDst, int nDstStep, NppiSize oSizeROI)

  Three channel 32-bit image copy.

- NppStatus nppiCopy_32s_C4R (const Npp32s ∗pSrc, int nSrcStep, Npp32s ∗pDst, int nDstStep, NppiSize oSizeROI)

  4 channel 32-bit image copy.

- NppStatus nppiCopy_32s_AC4R (const Npp32s ∗pSrc, int nSrcStep, Npp32s ∗pDst, int nDstStep, NppiSize oSizeROI)

  4 channel 32-bit image copy, not affecting Alpha.

- NppStatus nppiCopy_32sc_C1R (const Npp32sc ∗pSrc, int nSrcStep, Npp32sc ∗pDst, int nDstStep, NppiSize oSizeROI)

  32-bit complex image copy.

- NppStatus nppiCopy_32sc_C2R (const Npp32sc ∗pSrc, int nSrcStep, Npp32sc ∗pDst, int nDstStep, NppiSize oSizeROI)

  Two-channel 32-bit complex image copy.

- NppStatus nppiCopy_32sc_C3R (const Npp32sc ∗pSrc, int nSrcStep, Npp32sc ∗pDst, int nDstStep, NppiSize oSizeROI)

  Three-channel 32-bit complex image copy.

- NppStatus nppiCopy_32sc_C4R (const Npp32sc ∗pSrc, int nSrcStep, Npp32sc ∗pDst, int nDstStep, NppiSize oSizeROI)

  Four-channel 32-bit complex image copy.

- NppStatus nppiCopy_32sc_AC4R (const Npp32sc ∗pSrc, int nSrcStep, Npp32sc ∗pDst, int nDstStep, NppiSize oSizeROI)

  Four-channel 32-bit complex image copy, ignoring alpha.

- NppStatus nppiCopy_32f_C1R (const Npp32f ∗pSrc, int nSrcStep, Npp32f ∗pDst, int nDstStep, NppiSize oSizeROI)

  32-bit floating point image copy.

- NppStatus nppiCopy_32f_C3R (const Npp32f ∗pSrc, int nSrcStep, Npp32f ∗pDst, int nDstStep, NppiSize oSizeROI)

  Three channel 32-bit floating point image copy.

- NppStatus nppiCopy_32f_C4R (const Npp32f ∗pSrc, int nSrcStep, Npp32f ∗pDst, int nDstStep, NppiSize oSizeROI)

  4 channel 32-bit floating point image copy.

- NppStatus nppiCopy_32f_AC4R (const Npp32f ∗pSrc, int nSrcStep, Npp32f ∗pDst, int nDstStep, NppiSize oSizeROI)

  4 channel 32-bit floating point image copy, not affecting Alpha.

- NppStatus nppiCopy_32fc_C1R (const Npp32fc ∗pSrc, int nSrcStep, Npp32fc ∗pDst, int nDstStep, NppiSize oSizeROI)

  32-bit floating-point complex image copy.

- NppStatus nppiCopy_32fc_C2R (const Npp32fc ∗pSrc, int nSrcStep, Npp32fc ∗pDst, int nDstStep, NppiSize oSizeROI)

Two-channel 32-bit floating-point complex image copy.

- NppStatus nppiCopy_32fc_C3R (const Npp32fc ∗pSrc, int nSrcStep, Npp32fc ∗pDst, int nDstStep, NppiSize oSizeROI)

  Three-channel 32-bit floating-point complex image copy.

- NppStatus nppiCopy_32fc_C4R (const Npp32fc ∗pSrc, int nSrcStep, Npp32fc ∗pDst, int nDstStep, NppiSize oSizeROI)

  Four-channel 32-bit floating-point complex image copy.

- NppStatus nppiCopy_32fc_AC4R (const Npp32fc ∗pSrc, int nSrcStep, Npp32fc ∗pDst, int nDstStep, NppiSize oSizeROI)

  Four-channel 32-bit floating-point complex image copy, ignoring alpha.

Masked Copy

The masked copy primitives have an additional "mask image" input.

The mask controls which pixels within the ROI are copied. For details see Masked Operation.

- NppStatus nppiCopy_8u_C1MR (const Npp8u ∗pSrc, int nSrcStep, Npp8u ∗pDst, int nDstStep, NppiSize oSizeROI, const Npp8u ∗pMask, int nMaskStep)

  Masked Operation 8-bit unsigned image copy.

- NppStatus nppiCopy_8u_C3MR (const Npp8u ∗pSrc, int nSrcStep, Npp8u ∗pDst, int nDstStep, NppiSize oSizeROI, const Npp8u ∗pMask, int nMaskStep)

  Masked Operation three channel 8-bit unsigned image copy.

- NppStatus nppiCopy_8u_C4MR (const Npp8u ∗pSrc, int nSrcStep, Npp8u ∗pDst, int nDstStep, NppiSize oSizeROI, const Npp8u ∗pMask, int nMaskStep)

  Masked Operation four channel 8-bit unsigned image copy.

- NppStatus nppiCopy_8u_AC4MR (const Npp8u ∗pSrc, int nSrcStep, Npp8u ∗pDst, int nDstStep, NppiSize oSizeROI, const Npp8u ∗pMask, int nMaskStep)

  Masked Operation four channel 8-bit unsigned image copy, ignoring alpha.

- NppStatus nppiCopy_16u_C1MR (const Npp16u ∗pSrc, int nSrcStep, Npp16u ∗pDst, int nDstStep, NppiSize oSizeROI, const Npp8u ∗pMask, int nMaskStep)

  Masked Operation 16-bit unsigned image copy.

- NppStatus nppiCopy_16u_C3MR (const Npp16u ∗pSrc, int nSrcStep, Npp16u ∗pDst, int nDstStep, NppiSize oSizeROI, const Npp8u ∗pMask, int nMaskStep)

  Masked Operation three channel 16-bit unsigned image copy.

- NppStatus nppiCopy_16u_C4MR (const Npp16u ∗pSrc, int nSrcStep, Npp16u ∗pDst, int nDstStep, NppiSize oSizeROI, const Npp8u ∗pMask, int nMaskStep)

  Masked Operation four channel 16-bit unsigned image copy.

- NppStatus nppiCopy_16u_AC4MR (const Npp16u ∗pSrc, int nSrcStep, Npp16u ∗pDst, int nDstStep, NppiSize oSizeROI, const Npp8u ∗pMask, int nMaskStep)

Masked Operation four channel 16-bit unsigned image copy, ignoring alpha.

- NppStatus nppiCopy_16s_C1MR (const Npp16s ∗pSrc, int nSrcStep, Npp16s ∗pDst, int nDstStep, NppiSize oSizeROI, const Npp8u ∗pMask, int nMaskStep)

  Masked Operation 16-bit signed image copy.

- NppStatus nppiCopy_16s_C3MR (const Npp16s ∗pSrc, int nSrcStep, Npp16s ∗pDst, int nDstStep, NppiSize oSizeROI, const Npp8u ∗pMask, int nMaskStep)

  Masked Operation three channel 16-bit signed image copy.

- NppStatus nppiCopy_16s_C4MR (const Npp16s ∗pSrc, int nSrcStep, Npp16s ∗pDst, int nDstStep, NppiSize oSizeROI, const Npp8u ∗pMask, int nMaskStep)

  Masked Operation four channel 16-bit signed image copy.

- NppStatus nppiCopy_16s_AC4MR (const Npp16s ∗pSrc, int nSrcStep, Npp16s ∗pDst, int nDstStep, NppiSize oSizeROI, const Npp8u ∗pMask, int nMaskStep)

  Masked Operation four channel 16-bit signed image copy, ignoring alpha.

- NppStatus nppiCopy_32s_C1MR (const Npp32s ∗pSrc, int nSrcStep, Npp32s ∗pDst, int nDstStep, NppiSize oSizeROI, const Npp8u ∗pMask, int nMaskStep)

  Masked Operation 32-bit signed image copy.

- NppStatus nppiCopy_32s_C3MR (const Npp32s ∗pSrc, int nSrcStep, Npp32s ∗pDst, int nDstStep, NppiSize oSizeROI, const Npp8u ∗pMask, int nMaskStep)

  Masked Operation three channel 32-bit signed image copy.

- NppStatus nppiCopy_32s_C4MR (const Npp32s ∗pSrc, int nSrcStep, Npp32s ∗pDst, int nDstStep, NppiSize oSizeROI, const Npp8u ∗pMask, int nMaskStep)

  Masked Operation four channel 32-bit signed image copy.

- NppStatus nppiCopy_32s_AC4MR (const Npp32s ∗pSrc, int nSrcStep, Npp32s ∗pDst, int nDstStep, NppiSize oSizeROI, const Npp8u ∗pMask, int nMaskStep)

  Masked Operation four channel 32-bit signed image copy, ignoring alpha.

- NppStatus nppiCopy_32f_C1MR (const Npp32f ∗pSrc, int nSrcStep, Npp32f ∗pDst, int nDstStep, NppiSize oSizeROI, const Npp8u ∗pMask, int nMaskStep)

  Masked Operation 32-bit float image copy.

- NppStatus nppiCopy_32f_C3MR (const Npp32f ∗pSrc, int nSrcStep, Npp32f ∗pDst, int nDstStep, NppiSize oSizeROI, const Npp8u ∗pMask, int nMaskStep)

  Masked Operation three channel 32-bit float image copy.

- NppStatus nppiCopy_32f_C4MR (const Npp32f ∗pSrc, int nSrcStep, Npp32f ∗pDst, int nDstStep, NppiSize oSizeROI, const Npp8u ∗pMask, int nMaskStep)

  Masked Operation four channel 32-bit float image copy.

- NppStatus nppiCopy_32f_AC4MR (const Npp32f ∗pSrc, int nSrcStep, Npp32f ∗pDst, int nDstStep, NppiSize oSizeROI, const Npp8u ∗pMask, int nMaskStep)

  Masked Operation four channel 32-bit float image copy, ignoring alpha.

Channel Copy

The channel copy primitives copy a single color channel from a multi-channel source image to any other color channel in a multi-channel destination image.

The channel is selected by adjusting the respective image pointers to point to the desired color channel (see Channel-of-Interest API).

- NppStatus nppiCopy_8u_C3CR (const Npp8u ∗pSrc, int nSrcStep, Npp8u ∗pDst, int nDstStep, NppiSize oSizeROI)

  Select-channel 8-bit unsigned image copy for three-channel images.

- NppStatus nppiCopy_8u_C4CR (const Npp8u ∗pSrc, int nSrcStep, Npp8u ∗pDst, int nDstStep, NppiSize oSizeROI)

  Select-channel 8-bit unsigned image copy for four-channel images.

- NppStatus nppiCopy_16s_C3CR (const Npp16s ∗pSrc, int nSrcStep, Npp16s ∗pDst, int nDstStep, NppiSize oSizeROI)

  Select-channel 16-bit signed image copy for three-channel images.

- NppStatus nppiCopy_16s_C4CR (const Npp16s ∗pSrc, int nSrcStep, Npp16s ∗pDst, int nDstStep, NppiSize oSizeROI)

  Select-channel 16-bit signed image copy for four-channel images.

- NppStatus nppiCopy_16u_C3CR (const Npp16u ∗pSrc, int nSrcStep, Npp16u ∗pDst, int nDstStep, NppiSize oSizeROI)

  Select-channel 16-bit unsigned image copy for three-channel images.

- NppStatus nppiCopy_16u_C4CR (const Npp16u ∗pSrc, int nSrcStep, Npp16u ∗pDst, int nDstStep, NppiSize oSizeROI)

  Select-channel 16-bit unsigned image copy for four-channel images.

- NppStatus nppiCopy_32s_C3CR (const Npp32s ∗pSrc, int nSrcStep, Npp32s ∗pDst, int nDstStep, NppiSize oSizeROI)

  Select-channel 32-bit signed image copy for three-channel images.

- NppStatus nppiCopy_32s_C4CR (const Npp32s ∗pSrc, int nSrcStep, Npp32s ∗pDst, int nDstStep, NppiSize oSizeROI)

  Select-channel 32-bit signed image copy for four-channel images.

- NppStatus nppiCopy_32f_C3CR (const Npp32f ∗pSrc, int nSrcStep, Npp32f ∗pDst, int nDstStep, NppiSize oSizeROI)

  Select-channel 32-bit float image copy for three-channel images.

- NppStatus nppiCopy_32f_C4CR (const Npp32f ∗pSrc, int nSrcStep, Npp32f ∗pDst, int nDstStep, NppiSize oSizeROI)

  Select-channel 32-bit float image copy for four-channel images.

Extract Channel Copy

The channel extract primitives copy a single color channel from a multi-channel source image to singl-channel destination image.

The channel is selected by adjusting the source image pointer to point to the desired color channel (see Channel-of-Interest API).

- NppStatus nppiCopy_8u_C3C1R (const Npp8u ∗pSrc, int nSrcStep, Npp8u ∗pDst, int nDstStep, NppiSize oSizeROI)

  Three-channel to single-channel 8-bit unsigned image copy.

- NppStatus nppiCopy_8u_C4C1R (const Npp8u ∗pSrc, int nSrcStep, Npp8u ∗pDst, int nDstStep, NppiSize oSizeROI)

  Four-channel to single-channel 8-bit unsigned image copy.

- NppStatus nppiCopy_16s_C3C1R (const Npp16s ∗pSrc, int nSrcStep, Npp16s ∗pDst, int nDstStep, NppiSize oSizeROI)

  Three-channel to single-channel 16-bit signed image copy.

- NppStatus nppiCopy_16s_C4C1R (const Npp16s ∗pSrc, int nSrcStep, Npp16s ∗pDst, int nDstStep, NppiSize oSizeROI)

  Four-channel to single-channel 16-bit signed image copy.

- NppStatus nppiCopy_16u_C3C1R (const Npp16u ∗pSrc, int nSrcStep, Npp16u ∗pDst, int nDstStep, NppiSize oSizeROI)

  Three-channel to single-channel 16-bit unsigned image copy.

- NppStatus nppiCopy_16u_C4C1R (const Npp16u ∗pSrc, int nSrcStep, Npp16u ∗pDst, int nDstStep, NppiSize oSizeROI)

  Four-channel to single-channel 16-bit unsigned image copy.

- NppStatus nppiCopy_32s_C3C1R (const Npp32s ∗pSrc, int nSrcStep, Npp32s ∗pDst, int nDstStep, NppiSize oSizeROI)

  Three-channel to single-channel 32-bit signed image copy.

- NppStatus nppiCopy_32s_C4C1R (const Npp32s ∗pSrc, int nSrcStep, Npp32s ∗pDst, int nDstStep, NppiSize oSizeROI)

  Four-channel to single-channel 32-bit signed image copy.

- NppStatus nppiCopy_32f_C3C1R (const Npp32f ∗pSrc, int nSrcStep, Npp32f ∗pDst, int nDstStep, NppiSize oSizeROI)

  Three-channel to single-channel 32-bit float image copy.

- NppStatus nppiCopy_32f_C4C1R (const Npp32f ∗pSrc, int nSrcStep, Npp32f ∗pDst, int nDstStep, NppiSize oSizeROI)

  Four-channel to single-channel 32-bit float image copy.

Insert Channel Copy

The channel insert primitives copy a single-channel source image into one of the color channels in a multi-channel destination image.

The channel is selected by adjusting the destination image pointer to point to the desired color channel (see Channel-of-Interest API).

- NppStatus nppiCopy_8u_C1C3R (const Npp8u ∗pSrc, int nSrcStep, Npp8u ∗pDst, int nDstStep, NppiSize oSizeROI)

  Single-channel to three-channel 8-bit unsigned image copy.

- NppStatus nppiCopy_8u_C1C4R (const Npp8u ∗pSrc, int nSrcStep, Npp8u ∗pDst, int nDstStep, NppiSize oSizeROI)

  Single-channel to four-channel 8-bit unsigned image copy.

- NppStatus nppiCopy_16s_C1C3R (const Npp16s ∗pSrc, int nSrcStep, Npp16s ∗pDst, int nDstStep, NppiSize oSizeROI)

  Single-channel to three-channel 16-bit signed image copy.

- NppStatus nppiCopy_16s_C1C4R (const Npp16s ∗pSrc, int nSrcStep, Npp16s ∗pDst, int nDstStep, NppiSize oSizeROI)

  Single-channel to four-channel 16-bit signed image copy.

- NppStatus nppiCopy_16u_C1C3R (const Npp16u ∗pSrc, int nSrcStep, Npp16u ∗pDst, int nDstStep, NppiSize oSizeROI)

  Single-channel to three-channel 16-bit unsigned image copy.

- NppStatus nppiCopy_16u_C1C4R (const Npp16u ∗pSrc, int nSrcStep, Npp16u ∗pDst, int nDstStep, NppiSize oSizeROI)

  Single-channel to four-channel 16-bit unsigned image copy.

- NppStatus nppiCopy_32s_C1C3R (const Npp32s ∗pSrc, int nSrcStep, Npp32s ∗pDst, int nDstStep, NppiSize oSizeROI)

  Single-channel to three-channel 32-bit signed image copy.

- NppStatus nppiCopy_32s_C1C4R (const Npp32s ∗pSrc, int nSrcStep, Npp32s ∗pDst, int nDstStep, NppiSize oSizeROI)

  Single-channel to four-channel 32-bit signed image copy.

- NppStatus nppiCopy_32f_C1C3R (const Npp32f ∗pSrc, int nSrcStep, Npp32f ∗pDst, int nDstStep, NppiSize oSizeROI)

  Single-channel to three-channel 32-bit float image copy.

- NppStatus nppiCopy_32f_C1C4R (const Npp32f ∗pSrc, int nSrcStep, Npp32f ∗pDst, int nDstStep, NppiSize oSizeROI)

  Single-channel to four-channel 32-bit float image copy.

Packed-to-Planar Copy

Split a packed multi-channel image into a planar image.

E.g. copy the three channels of an RGB image into three separate single-channel images.

- NppStatus nppiCopy_8u_C3P3R (const Npp8u ∗pSrc, int nSrcStep, Npp8u ∗const aDst[3], int nDstStep, NppiSize oSizeROI)

  Three-channel 8-bit unsigned packed to planar image copy.

- NppStatus nppiCopy_8u_C4P4R (const Npp8u ∗pSrc, int nSrcStep, Npp8u ∗const aDst[4], int nDstStep, NppiSize oSizeROI)

  Four-channel 8-bit unsigned packed to planar image copy.

- NppStatus nppiCopy_16s_C3P3R (const Npp16s ∗pSrc, int nSrcStep, Npp16s ∗const aDst[3], int nDstStep, NppiSize oSizeROI)

  Three-channel 16-bit signed packed to planar image copy.

- NppStatus nppiCopy_16s_C4P4R (const Npp16s ∗pSrc, int nSrcStep, Npp16s ∗const aDst[4], int nDstStep, NppiSize oSizeROI)

  Four-channel 16-bit signed packed to planar image copy.

- NppStatus nppiCopy_16u_C3P3R (const Npp16u ∗pSrc, int nSrcStep, Npp16u ∗const aDst[3], int nDstStep, NppiSize oSizeROI)

  Three-channel 16-bit unsigned packed to planar image copy.

- NppStatus nppiCopy_16u_C4P4R (const Npp16u ∗pSrc, int nSrcStep, Npp16u ∗const aDst[4], int nDstStep, NppiSize oSizeROI)

  Four-channel 16-bit unsigned packed to planar image copy.

- NppStatus nppiCopy_32s_C3P3R (const Npp32s ∗pSrc, int nSrcStep, Npp32s ∗const aDst[3], int nDstStep, NppiSize oSizeROI)

  Three-channel 32-bit signed packed to planar image copy.

- NppStatus nppiCopy_32s_C4P4R (const Npp32s ∗pSrc, int nSrcStep, Npp32s ∗const aDst[4], int nDstStep, NppiSize oSizeROI)

  Four-channel 32-bit signed packed to planar image copy.

- NppStatus nppiCopy_32f_C3P3R (const Npp32f ∗pSrc, int nSrcStep, Npp32f ∗const aDst[3], int nDstStep, NppiSize oSizeROI)

  Three-channel 32-bit float packed to planar image copy.

- NppStatus nppiCopy_32f_C4P4R (const Npp32f ∗pSrc, int nSrcStep, Npp32f ∗const aDst[4], int nDstStep, NppiSize oSizeROI)

  Four-channel 32-bit float packed to planar image copy.

Planar-to-Packed Copy

Combine multiple image planes into a packed multi-channel image.

E.g. copy three single-channel images into a single 3-channel image.

- NppStatus nppiCopy_8u_P3C3R (const Npp8u ∗const aSrc[3], int nSrcStep, Npp8u ∗pDst, int nDstStep, NppiSize oSizeROI)

  Three-channel 8-bit unsigned planar to packed image copy.

- NppStatus nppiCopy_8u_P4C4R (const Npp8u ∗const aSrc[4], int nSrcStep, Npp8u ∗pDst, int nDstStep, NppiSize oSizeROI)

  Four-channel 8-bit unsigned planar to packed image copy.

- NppStatus nppiCopy_16u_P3C3R (const Npp16u ∗const aSrc[3], int nSrcStep, Npp16u ∗pDst, int nDstStep, NppiSize oSizeROI)

  Three-channel 16-bit unsigned planar to packed image copy.

- NppStatus nppiCopy_16u_P4C4R (const Npp16u ∗const aSrc[4], int nSrcStep, Npp16u ∗pDst, int nDstStep, NppiSize oSizeROI)

  Four-channel 16-bit unsigned planar to packed image copy.

- NppStatus nppiCopy_16s_P3C3R (const Npp16s ∗const aSrc[3], int nSrcStep, Npp16s ∗pDst, int nDstStep, NppiSize oSizeROI)

  Three-channel 16-bit signed planar to packed image copy.

- NppStatus nppiCopy_16s_P4C4R (const Npp16s ∗const aSrc[4], int nSrcStep, Npp16s ∗pDst, int nDstStep, NppiSize oSizeROI)

  Four-channel 16-bit signed planar to packed image copy.

- NppStatus nppiCopy_32s_P3C3R (const Npp32s ∗const aSrc[3], int nSrcStep, Npp32s ∗pDst, int nDstStep, NppiSize oSizeROI)

  Three-channel 32-bit signed planar to packed image copy.

- NppStatus nppiCopy_32s_P4C4R (const Npp32s ∗const aSrc[4], int nSrcStep, Npp32s ∗pDst, int nDstStep, NppiSize oSizeROI)

  Four-channel 32-bit signed planar to packed image copy.

- NppStatus nppiCopy_32f_P3C3R (const Npp32f ∗const aSrc[3], int nSrcStep, Npp32f ∗pDst, int nDstStep, NppiSize oSizeROI)

  Three-channel 32-bit float planar to packed image copy.

- NppStatus nppiCopy_32f_P4C4R (const Npp32f ∗const aSrc[4], int nSrcStep, Npp32f ∗pDst, int nDstStep, NppiSize oSizeROI)

  Four-channel 32-bit float planar to packed image copy.

7.55.1 Function Documentation

7.55.1.1 NppStatus nppiCopy_16s_AC4MR (const Npp16s ∗ *pSrc*, int *nSrcStep*, Npp16s ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, const Npp8u ∗ *pMask*, int *nMaskStep*)

Masked Operation four channel 16-bit signed image copy, ignoring alpha.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

pMask Mask-Image Pointer.

nMaskStep Mask-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.55.1.2 NppStatus nppiCopy_16s_AC4R (const Npp16s $*$ *pSrc*, int *nSrcStep*, Npp16s $*$ *pDst*, int *nDstStep*, NppiSize *oSizeROI*)

4 channel 16-bit image copy, not affecting Alpha.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.55.1.3 NppStatus nppiCopy_16s_C1C3R (const Npp16s $*$ *pSrc*, int *nSrcStep*, Npp16s $*$ *pDst*, int *nDstStep*, NppiSize *oSizeROI*)

Single-channel to three-channel 16-bit signed image copy.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Select-Channel Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.55.1.4 NppStatus nppiCopy_16s_C1C4R (const Npp16s * *pSrc*, int *nSrcStep*, Npp16s * *pDst*, int *nDstStep*, NppiSize *oSizeROI*)

Single-channel to four-channel 16-bit signed image copy.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Select-Channel Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.55.1.5 NppStatus nppiCopy_16s_C1MR (const Npp16s * *pSrc*, int *nSrcStep*, Npp16s * *pDst*, int *nDstStep*, NppiSize *oSizeROI*, const Npp8u * *pMask*, int *nMaskStep*)

Masked Operation 16-bit signed image copy.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

pMask Mask-Image Pointer.

nMaskStep Mask-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.55.1.6 NppStatus nppiCopy_16s_C1R (const Npp16s * *pSrc*, int *nSrcStep*, Npp16s * *pDst*, int *nDstStep*, NppiSize *oSizeROI*)

16-bit image copy.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.55.1.7 NppStatus nppiCopy_16s_C3C1R (const Npp16s ∗ *pSrc*, int *nSrcStep*, Npp16s ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*)

Three-channel to single-channel 16-bit signed image copy.

Parameters:

pSrc Select-Channel Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.55.1.8 NppStatus nppiCopy_16s_C3CR (const Npp16s ∗ *pSrc*, int *nSrcStep*, Npp16s ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*)

Select-channel 16-bit signed image copy for three-channel images.

Parameters:

pSrc Select-Channel Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Select-Channel Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.55.1.9 NppStatus nppiCopy_16s_C3MR (const Npp16s ∗ *pSrc*, int *nSrcStep*, Npp16s ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, const Npp8u ∗ *pMask*, int *nMaskStep*)

Masked Operation three channel 16-bit signed image copy.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

pMask Mask-Image Pointer.

nMaskStep Mask-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.55.1.10 NppStatus nppiCopy_16s_C3P3R (const Npp16s ∗ *pSrc*, int *nSrcStep*, Npp16s ∗const *aDst*[3], int *nDstStep*, NppiSize *oSizeROI*)

Three-channel 16-bit signed packed to planar image copy.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

aDst Destination-Planar-Image Pointer Array.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.55.1.11 NppStatus nppiCopy_16s_C3R (const Npp16s ∗ *pSrc*, int *nSrcStep*, Npp16s ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*)

Three channel 16-bit image copy.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.55.1.12 NppStatus nppiCopy_16s_C4C1R (const Npp16s ∗ *pSrc*, int *nSrcStep*, Npp16s ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*)

Four-channel to single-channel 16-bit signed image copy.

Parameters:

pSrc Select-Channel Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.55.1.13 NppStatus nppiCopy_16s_C4CR (const Npp16s ∗ *pSrc*, int *nSrcStep*, Npp16s ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*)

Select-channel 16-bit signed image copy for four-channel images.

Parameters:

pSrc Select-Channel Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Select-Channel Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.55.1.14 NppStatus nppiCopy_16s_C4MR (const Npp16s ∗ *pSrc*, int *nSrcStep*, Npp16s ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, const Npp8u ∗ *pMask*, int *nMaskStep*)

Masked Operation four channel 16-bit signed image copy.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

pMask Mask-Image Pointer.

nMaskStep Mask-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.55.1.15 NppStatus nppiCopy_16s_C4P4R (const Npp16s ∗ *pSrc*, int *nSrcStep*, Npp16s ∗const *aDst*[4], int *nDstStep*, NppiSize *oSizeROI*)

Four-channel 16-bit signed packed to planar image copy.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

aDst Destination-Planar-Image Pointer Array.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.55.1.16 NppStatus nppiCopy_16s_C4R (const Npp16s ∗ *pSrc*, int *nSrcStep*, Npp16s ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*)

4 channel 16-bit image copy.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.55.1.17 NppStatus nppiCopy_16s_P3C3R (const Npp16s ∗const *aSrc*[3], int *nSrcStep*, Npp16s ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*)

Three-channel 16-bit signed planar to packed image copy.

Parameters:

aSrc Planar Source-Planar-Image Pointer Array.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.55.1.18 NppStatus nppiCopy_16s_P4C4R (const Npp16s ∗const *aSrc*[4], int *nSrcStep*, Npp16s ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*)

Four-channel 16-bit signed planar to packed image copy.

Parameters:

aSrc Planar Source-Planar-Image Pointer Array.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.55.1.19 NppStatus nppiCopy_16sc_AC4R (const Npp16sc ∗ *pSrc*, int *nSrcStep*, Npp16sc ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*)

Four-channel 16-bit complex image copy, ignoring alpha.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.55.1.20 NppStatus nppiCopy_16sc_C1R (const Npp16sc ∗ *pSrc*, int *nSrcStep*, Npp16sc ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*)

16-bit complex image copy.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.55.1.21 NppStatus nppiCopy_16sc_C2R (const Npp16sc ∗ *pSrc*, int *nSrcStep*, Npp16sc ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*)

Two-channel 16-bit complex image copy.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.55.1.22 NppStatus nppiCopy_16sc_C3R (const Npp16sc ∗ *pSrc*, int *nSrcStep*, Npp16sc ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*)

Three-channel 16-bit complex image copy.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.55.1.23 NppStatus nppiCopy_16sc_C4R (const Npp16sc ∗ *pSrc*, int *nSrcStep*, Npp16sc ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*)

Four-channel 16-bit complex image copy.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.55.1.24 NppStatus nppiCopy_16u_AC4MR (const Npp16u ∗ *pSrc*, int *nSrcStep*, Npp16u ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, const Npp8u ∗ *pMask*, int *nMaskStep*)

Masked Operation four channel 16-bit unsigned image copy, ignoring alpha.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

pMask Mask-Image Pointer.

nMaskStep Mask-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.55.1.25 NppStatus nppiCopy_16u_AC4R (const Npp16u * *pSrc*, int *nSrcStep*, Npp16u * *pDst*, int *nDstStep*, NppiSize *oSizeROI*)

4 channel 16-bit unsigned image copy, not affecting Alpha channel.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.55.1.26 NppStatus nppiCopy_16u_C1C3R (const Npp16u * *pSrc*, int *nSrcStep*, Npp16u * *pDst*, int *nDstStep*, NppiSize *oSizeROI*)

Single-channel to three-channel 16-bit unsigned image copy.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Select-Channel Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.55.1.27 NppStatus nppiCopy_16u_C1C4R (const Npp16u * *pSrc*, int *nSrcStep*, Npp16u * *pDst*, int *nDstStep*, NppiSize *oSizeROI*)

Single-channel to four-channel 16-bit unsigned image copy.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Select-Channel Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.55.1.28 NppStatus nppiCopy_16u_C1MR (const Npp16u ∗ *pSrc*, int *nSrcStep*, Npp16u ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, const Npp8u ∗ *pMask*, int *nMaskStep*)

Masked Operation 16-bit unsigned image copy.

Parameters:

pSrc Source-Image Pointer.
nSrcStep Source-Image Line Step.
pDst Destination-Image Pointer.
nDstStep Destination-Image Line Step.
pMask Mask-Image Pointer.
nMaskStep Mask-Image Line Step.
oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.55.1.29 NppStatus nppiCopy_16u_C1R (const Npp16u ∗ *pSrc*, int *nSrcStep*, Npp16u ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*)

16-bit unsigned image copy.

Parameters:

pSrc Source-Image Pointer.
nSrcStep Source-Image Line Step.
pDst Destination-Image Pointer.
nDstStep Destination-Image Line Step.
oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.55.1.30 NppStatus nppiCopy_16u_C3C1R (const Npp16u ∗ *pSrc*, int *nSrcStep*, Npp16u ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*)

Three-channel to single-channel 16-bit unsigned image copy.

Parameters:

pSrc Select-Channel Source-Image Pointer.
nSrcStep Source-Image Line Step.
pDst Destination-Image Pointer.
nDstStep Destination-Image Line Step.
oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.55.1.31 NppStatus nppiCopy_16u_C3CR (const Npp16u ∗ *pSrc*, int *nSrcStep*, Npp16u ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*)

Select-channel 16-bit unsigned image copy for three-channel images.

Parameters:

pSrc Select-Channel Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Select-Channel Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.55.1.32 NppStatus nppiCopy_16u_C3MR (const Npp16u ∗ *pSrc*, int *nSrcStep*, Npp16u ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, const Npp8u ∗ *pMask*, int *nMaskStep*)

Masked Operation three channel 16-bit unsigned image copy.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

pMask Mask-Image Pointer.

nMaskStep Mask-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.55.1.33 NppStatus nppiCopy_16u_C3P3R (const Npp16u ∗ *pSrc*, int *nSrcStep*, Npp16u ∗const *aDst*[3], int *nDstStep*, NppiSize *oSizeROI*)

Three-channel 16-bit unsigned packed to planar image copy.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

aDst Destination-Planar-Image Pointer Array.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.55.1.34 NppStatus nppiCopy_16u_C3R (const Npp16u ∗ *pSrc*, int *nSrcStep*, Npp16u ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*)

Three channel 16-bit unsigned image copy.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.55.1.35 NppStatus nppiCopy_16u_C4C1R (const Npp16u ∗ *pSrc*, int *nSrcStep*, Npp16u ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*)

Four-channel to single-channel 16-bit unsigned image copy.

Parameters:

pSrc Select-Channel Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.55.1.36 NppStatus nppiCopy_16u_C4CR (const Npp16u ∗ *pSrc*, int *nSrcStep*, Npp16u ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*)

Select-channel 16-bit unsigned image copy for four-channel images.

Parameters:

pSrc Select-Channel Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Select-Channel Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.55.1.37 NppStatus nppiCopy_16u_C4MR (const Npp16u ∗ *pSrc*, int *nSrcStep*, Npp16u ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, const Npp8u ∗ *pMask*, int *nMaskStep*)

Masked Operation four channel 16-bit unsigned image copy.

Parameters:

pSrc Source-Image Pointer.
nSrcStep Source-Image Line Step.
pDst Destination-Image Pointer.
nDstStep Destination-Image Line Step.
pMask Mask-Image Pointer.
nMaskStep Mask-Image Line Step.
oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.55.1.38 NppStatus nppiCopy_16u_C4P4R (const Npp16u ∗ *pSrc*, int *nSrcStep*, Npp16u ∗const *aDst*[4], int *nDstStep*, NppiSize *oSizeROI*)

Four-channel 16-bit unsigned packed to planar image copy.

Parameters:

pSrc Source-Image Pointer.
nSrcStep Source-Image Line Step.
aDst Destination-Planar-Image Pointer Array.
nDstStep Destination-Image Line Step.
oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.55.1.39 NppStatus nppiCopy_16u_C4R (const Npp16u ∗ *pSrc*, int *nSrcStep*, Npp16u ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*)

4 channel 16-bit unsigned image copy.

Parameters:

pSrc Source-Image Pointer.
nSrcStep Source-Image Line Step.
pDst Destination-Image Pointer.
nDstStep Destination-Image Line Step.
oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.55.1.40 NppStatus nppiCopy_16u_P3C3R (const Npp16u ∗const *aSrc*[3], int *nSrcStep*, Npp16u ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*)

Three-channel 16-bit unsigned planar to packed image copy.

Parameters:

aSrc Planar Source-Planar-Image Pointer Array.
nSrcStep Source-Image Line Step.
pDst Destination-Image Pointer.
nDstStep Destination-Image Line Step.
oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.55.1.41 NppStatus nppiCopy_16u_P4C4R (const Npp16u ∗const *aSrc*[4], int *nSrcStep*, Npp16u ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*)

Four-channel 16-bit unsigned planar to packed image copy.

Parameters:

aSrc Planar Source-Planar-Image Pointer Array.
nSrcStep Source-Image Line Step.
pDst Destination-Image Pointer.
nDstStep Destination-Image Line Step.
oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.55.1.42 NppStatus nppiCopy_32f_AC4MR (const Npp32f ∗ *pSrc*, int *nSrcStep*, Npp32f ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, const Npp8u ∗ *pMask*, int *nMaskStep*)

Masked Operation four channel 32-bit float image copy, ignoring alpha.

Parameters:

pSrc Source-Image Pointer.
nSrcStep Source-Image Line Step.
pDst Destination-Image Pointer.
nDstStep Destination-Image Line Step.
pMask Mask-Image Pointer.
nMaskStep Mask-Image Line Step.
oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.55.1.43 NppStatus nppiCopy_32f_AC4R (const Npp32f ∗ *pSrc*, int *nSrcStep*, Npp32f ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*)

4 channel 32-bit floating point image copy, not affecting Alpha.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.55.1.44 NppStatus nppiCopy_32f_C1C3R (const Npp32f ∗ *pSrc*, int *nSrcStep*, Npp32f ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*)

Single-channel to three-channel 32-bit float image copy.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Select-Channel Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.55.1.45 NppStatus nppiCopy_32f_C1C4R (const Npp32f ∗ *pSrc*, int *nSrcStep*, Npp32f ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*)

Single-channel to four-channel 32-bit float image copy.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Select-Channel Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.55.1.46 NppStatus nppiCopy_32f_C1MR (const Npp32f $*$ *pSrc*, int *nSrcStep*, Npp32f $*$ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, const Npp8u $*$ *pMask*, int *nMaskStep*)

Masked Operation 32-bit float image copy.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

pMask Mask-Image Pointer.

nMaskStep Mask-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.55.1.47 NppStatus nppiCopy_32f_C1R (const Npp32f $*$ *pSrc*, int *nSrcStep*, Npp32f $*$ *pDst*, int *nDstStep*, NppiSize *oSizeROI*)

32-bit floating point image copy.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.55.1.48 NppStatus nppiCopy_32f_C3C1R (const Npp32f $*$ *pSrc*, int *nSrcStep*, Npp32f $*$ *pDst*, int *nDstStep*, NppiSize *oSizeROI*)

Three-channel to single-channel 32-bit float image copy.

Parameters:

pSrc Select-Channel Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.55.1.49 NppStatus nppiCopy_32f_C3CR (const Npp32f ∗ *pSrc*, int *nSrcStep*, Npp32f ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*)

Select-channel 32-bit float image copy for three-channel images.

Parameters:

pSrc Select-Channel Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Select-Channel Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.55.1.50 NppStatus nppiCopy_32f_C3MR (const Npp32f ∗ *pSrc*, int *nSrcStep*, Npp32f ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, const Npp8u ∗ *pMask*, int *nMaskStep*)

Masked Operation three channel 32-bit float image copy.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

pMask Mask-Image Pointer.

nMaskStep Mask-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.55.1.51 NppStatus nppiCopy_32f_C3P3R (const Npp32f ∗ *pSrc*, int *nSrcStep*, Npp32f ∗const *aDst*[3], int *nDstStep*, NppiSize *oSizeROI*)

Three-channel 32-bit float packed to planar image copy.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

aDst Destination-Planar-Image Pointer Array.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.55.1.52 NppStatus nppiCopy_32f_C3R (const Npp32f * *pSrc*, int *nSrcStep*, Npp32f * *pDst*, int *nDstStep*, NppiSize *oSizeROI*)

Three channel 32-bit floating point image copy.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.55.1.53 NppStatus nppiCopy_32f_C4C1R (const Npp32f * *pSrc*, int *nSrcStep*, Npp32f * *pDst*, int *nDstStep*, NppiSize *oSizeROI*)

Four-channel to single-channel 32-bit float image copy.

Parameters:

pSrc Select-Channel Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.55.1.54 NppStatus nppiCopy_32f_C4CR (const Npp32f * *pSrc*, int *nSrcStep*, Npp32f * *pDst*, int *nDstStep*, NppiSize *oSizeROI*)

Select-channel 32-bit float image copy for four-channel images.

Parameters:

pSrc Select-Channel Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Select-Channel Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.55.1.55 NppStatus nppiCopy_32f_C4MR (const Npp32f ∗ *pSrc*, int *nSrcStep*, Npp32f ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, const Npp8u ∗ *pMask*, int *nMaskStep*)

Masked Operation four channel 32-bit float image copy.

Parameters:

pSrc Source-Image Pointer.
nSrcStep Source-Image Line Step.
pDst Destination-Image Pointer.
nDstStep Destination-Image Line Step.
pMask Mask-Image Pointer.
nMaskStep Mask-Image Line Step.
oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.55.1.56 NppStatus nppiCopy_32f_C4P4R (const Npp32f ∗ *pSrc*, int *nSrcStep*, Npp32f ∗const *aDst*[4], int *nDstStep*, NppiSize *oSizeROI*)

Four-channel 32-bit float packed to planar image copy.

Parameters:

pSrc Source-Image Pointer.
nSrcStep Source-Image Line Step.
aDst Destination-Planar-Image Pointer Array.
nDstStep Destination-Image Line Step.
oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.55.1.57 NppStatus nppiCopy_32f_C4R (const Npp32f ∗ *pSrc*, int *nSrcStep*, Npp32f ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*)

4 channel 32-bit floating point image copy.

Parameters:

pSrc Source-Image Pointer.
nSrcStep Source-Image Line Step.
pDst Destination-Image Pointer.
nDstStep Destination-Image Line Step.
oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.55.1.58 NppStatus nppiCopy_32f_P3C3R (const Npp32f ∗const *aSrc*[3], int *nSrcStep*, Npp32f ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*)

Three-channel 32-bit float planar to packed image copy.

Parameters:

aSrc Planar Source-Planar-Image Pointer Array.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.55.1.59 NppStatus nppiCopy_32f_P4C4R (const Npp32f ∗const *aSrc*[4], int *nSrcStep*, Npp32f ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*)

Four-channel 32-bit float planar to packed image copy.

Parameters:

aSrc Planar Source-Planar-Image Pointer Array.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.55.1.60 NppStatus nppiCopy_32fc_AC4R (const Npp32fc ∗ *pSrc*, int *nSrcStep*, Npp32fc ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*)

Four-channel 32-bit floating-point complex image copy, ignoring alpha.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.55.1.61 NppStatus nppiCopy_32fc_C1R (const Npp32fc ∗ *pSrc*, int *nSrcStep*, Npp32fc ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*)

32-bit floating-point complex image copy.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.55.1.62 NppStatus nppiCopy_32fc_C2R (const Npp32fc ∗ *pSrc*, int *nSrcStep*, Npp32fc ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*)

Two-channel 32-bit floating-point complex image copy.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.55.1.63 NppStatus nppiCopy_32fc_C3R (const Npp32fc ∗ *pSrc*, int *nSrcStep*, Npp32fc ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*)

Three-channel 32-bit floating-point complex image copy.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.55.1.64 NppStatus nppiCopy_32fc_C4R (const Npp32fc ∗ *pSrc*, int *nSrcStep*, Npp32fc ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*)

Four-channel 32-bit floating-point complex image copy.

Parameters:

pSrc Source-Image Pointer.
nSrcStep Source-Image Line Step.
pDst Destination-Image Pointer.
nDstStep Destination-Image Line Step.
oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.55.1.65 NppStatus nppiCopy_32s_AC4MR (const Npp32s ∗ *pSrc*, int *nSrcStep*, Npp32s ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, const Npp8u ∗ *pMask*, int *nMaskStep*)

Masked Operation four channel 32-bit signed image copy, ignoring alpha.

Parameters:

pSrc Source-Image Pointer.
nSrcStep Source-Image Line Step.
pDst Destination-Image Pointer.
nDstStep Destination-Image Line Step.
pMask Mask-Image Pointer.
nMaskStep Mask-Image Line Step.
oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.55.1.66 NppStatus nppiCopy_32s_AC4R (const Npp32s ∗ *pSrc*, int *nSrcStep*, Npp32s ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*)

4 channel 32-bit image copy, not affecting Alpha.

Parameters:

pSrc Source-Image Pointer.
nSrcStep Source-Image Line Step.
pDst Destination-Image Pointer.
nDstStep Destination-Image Line Step.
oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.55.1.67 NppStatus nppiCopy_32s_C1C3R (const Npp32s $*$ *pSrc*, int *nSrcStep*, Npp32s $*$ *pDst*, int *nDstStep*, NppiSize *oSizeROI*)

Single-channel to three-channel 32-bit signed image copy.

Parameters:

pSrc Source-Image Pointer.
nSrcStep Source-Image Line Step.
pDst Select-Channel Destination-Image Pointer.
nDstStep Destination-Image Line Step.
oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.55.1.68 NppStatus nppiCopy_32s_C1C4R (const Npp32s $*$ *pSrc*, int *nSrcStep*, Npp32s $*$ *pDst*, int *nDstStep*, NppiSize *oSizeROI*)

Single-channel to four-channel 32-bit signed image copy.

Parameters:

pSrc Source-Image Pointer.
nSrcStep Source-Image Line Step.
pDst Select-Channel Destination-Image Pointer.
nDstStep Destination-Image Line Step.
oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.55.1.69 NppStatus nppiCopy_32s_C1MR (const Npp32s $*$ *pSrc*, int *nSrcStep*, Npp32s $*$ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, const Npp8u $*$ *pMask*, int *nMaskStep*)

Masked Operation 32-bit signed image copy.

Parameters:

pSrc Source-Image Pointer.
nSrcStep Source-Image Line Step.
pDst Destination-Image Pointer.
nDstStep Destination-Image Line Step.
pMask Mask-Image Pointer.
nMaskStep Mask-Image Line Step.
oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.55.1.70 NppStatus nppiCopy_32s_C1R (const Npp32s ∗ *pSrc*, int *nSrcStep*, Npp32s ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*)

32-bit image copy.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.55.1.71 NppStatus nppiCopy_32s_C3C1R (const Npp32s ∗ *pSrc*, int *nSrcStep*, Npp32s ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*)

Three-channel to single-channel 32-bit signed image copy.

Parameters:

pSrc Select-Channel Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.55.1.72 NppStatus nppiCopy_32s_C3CR (const Npp32s ∗ *pSrc*, int *nSrcStep*, Npp32s ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*)

Select-channel 32-bit signed image copy for three-channel images.

Parameters:

pSrc Select-Channel Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Select-Channel Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.55.1.73 NppStatus nppiCopy_32s_C3MR (const Npp32s ∗ *pSrc*, int *nSrcStep*, Npp32s ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, const Npp8u ∗ *pMask*, int *nMaskStep*)

Masked Operation three channel 32-bit signed image copy.

Parameters:

pSrc Source-Image Pointer.
nSrcStep Source-Image Line Step.
pDst Destination-Image Pointer.
nDstStep Destination-Image Line Step.
pMask Mask-Image Pointer.
nMaskStep Mask-Image Line Step.
oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.55.1.74 NppStatus nppiCopy_32s_C3P3R (const Npp32s ∗ *pSrc*, int *nSrcStep*, Npp32s ∗const *aDst*[3], int *nDstStep*, NppiSize *oSizeROI*)

Three-channel 32-bit signed packed to planar image copy.

Parameters:

pSrc Source-Image Pointer.
nSrcStep Source-Image Line Step.
aDst Destination-Planar-Image Pointer Array.
nDstStep Destination-Image Line Step.
oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.55.1.75 NppStatus nppiCopy_32s_C3R (const Npp32s ∗ *pSrc*, int *nSrcStep*, Npp32s ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*)

Three channel 32-bit image copy.

Parameters:

pSrc Source-Image Pointer.
nSrcStep Source-Image Line Step.
pDst Destination-Image Pointer.
nDstStep Destination-Image Line Step.
oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.55.1.76 NppStatus nppiCopy_32s_C4C1R (const Npp32s $*$ *pSrc*, int *nSrcStep*, Npp32s $*$ *pDst*, int *nDstStep*, NppiSize *oSizeROI*)

Four-channel to single-channel 32-bit signed image copy.

Parameters:

pSrc Select-Channel Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.55.1.77 NppStatus nppiCopy_32s_C4CR (const Npp32s $*$ *pSrc*, int *nSrcStep*, Npp32s $*$ *pDst*, int *nDstStep*, NppiSize *oSizeROI*)

Select-channel 32-bit signed image copy for four-channel images.

Parameters:

pSrc Select-Channel Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Select-Channel Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.55.1.78 NppStatus nppiCopy_32s_C4MR (const Npp32s $*$ *pSrc*, int *nSrcStep*, Npp32s $*$ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, const Npp8u $*$ *pMask*, int *nMaskStep*)

Masked Operation four channel 32-bit signed image copy.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

pMask Mask-Image Pointer.

nMaskStep Mask-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.55.1.79 NppStatus nppiCopy_32s_C4P4R (const Npp32s * *pSrc*, int *nSrcStep*, Npp32s *const *aDst*[4], int *nDstStep*, NppiSize *oSizeROI*)

Four-channel 32-bit signed packed to planar image copy.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

aDst Destination-Planar-Image Pointer Array.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.55.1.80 NppStatus nppiCopy_32s_C4R (const Npp32s * *pSrc*, int *nSrcStep*, Npp32s * *pDst*, int *nDstStep*, NppiSize *oSizeROI*)

4 channel 32-bit image copy.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.55.1.81 NppStatus nppiCopy_32s_P3C3R (const Npp32s *const *aSrc*[3], int *nSrcStep*, Npp32s * *pDst*, int *nDstStep*, NppiSize *oSizeROI*)

Three-channel 32-bit signed planar to packed image copy.

Parameters:

aSrc Planar Source-Planar-Image Pointer Array.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.55.1.82 NppStatus nppiCopy_32s_P4C4R (const Npp32s *const *aSrc*[4], int *nSrcStep*, Npp32s * *pDst*, int *nDstStep*, NppiSize *oSizeROI*)

Four-channel 32-bit signed planar to packed image copy.

Parameters:

aSrc Planar Source-Planar-Image Pointer Array.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.55.1.83 NppStatus nppiCopy_32sc_AC4R (const Npp32sc * *pSrc*, int *nSrcStep*, Npp32sc * *pDst*, int *nDstStep*, NppiSize *oSizeROI*)

Four-channel 32-bit complex image copy, ignoring alpha.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.55.1.84 NppStatus nppiCopy_32sc_C1R (const Npp32sc * *pSrc*, int *nSrcStep*, Npp32sc * *pDst*, int *nDstStep*, NppiSize *oSizeROI*)

32-bit complex image copy.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.55.1.85 NppStatus nppiCopy_32sc_C2R (const Npp32sc ∗ *pSrc*, int *nSrcStep*, Npp32sc ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*)

Two-channel 32-bit complex image copy.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.55.1.86 NppStatus nppiCopy_32sc_C3R (const Npp32sc ∗ *pSrc*, int *nSrcStep*, Npp32sc ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*)

Three-channel 32-bit complex image copy.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.55.1.87 NppStatus nppiCopy_32sc_C4R (const Npp32sc ∗ *pSrc*, int *nSrcStep*, Npp32sc ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*)

Four-channel 32-bit complex image copy.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.55.1.88 NppStatus nppiCopy_8s_AC4R (const Npp8s $*$ *pSrc*, int *nSrcStep*, Npp8s $*$ *pDst*, int *nDstStep*, NppiSize *oSizeROI*)

Four-channel 8-bit image copy, ignoring alpha channel.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.55.1.89 NppStatus nppiCopy_8s_C1R (const Npp8s $*$ *pSrc*, int *nSrcStep*, Npp8s $*$ *pDst*, int *nDstStep*, NppiSize *oSizeROI*)

8-bit image copy.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.55.1.90 NppStatus nppiCopy_8s_C2R (const Npp8s $*$ *pSrc*, int *nSrcStep*, Npp8s $*$ *pDst*, int *nDstStep*, NppiSize *oSizeROI*)

Two-channel 8-bit image copy.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.55.1.91 NppStatus nppiCopy_8s_C3R (const Npp8s * *pSrc*, int *nSrcStep*, Npp8s * *pDst*, int *nDstStep*, NppiSize *oSizeROI*)

Three-channel 8-bit image copy.

Parameters:

pSrc Source-Image Pointer.
nSrcStep Source-Image Line Step.
pDst Destination-Image Pointer.
nDstStep Destination-Image Line Step.
oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.55.1.92 NppStatus nppiCopy_8s_C4R (const Npp8s * *pSrc*, int *nSrcStep*, Npp8s * *pDst*, int *nDstStep*, NppiSize *oSizeROI*)

Four-channel 8-bit image copy.

Parameters:

pSrc Source-Image Pointer.
nSrcStep Source-Image Line Step.
pDst Destination-Image Pointer.
nDstStep Destination-Image Line Step.
oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.55.1.93 NppStatus nppiCopy_8u_AC4MR (const Npp8u * *pSrc*, int *nSrcStep*, Npp8u * *pDst*, int *nDstStep*, NppiSize *oSizeROI*, const Npp8u * *pMask*, int *nMaskStep*)

Masked Operation four channel 8-bit unsigned image copy, ignoring alpha.

Parameters:

pSrc Source-Image Pointer.
nSrcStep Source-Image Line Step.
pDst Destination-Image Pointer.
nDstStep Destination-Image Line Step.
pMask Mask-Image Pointer.
nMaskStep Mask-Image Line Step.
oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.55.1.94 NppStatus nppiCopy_8u_AC4R (const Npp8u ∗ *pSrc*, int *nSrcStep*, Npp8u ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*)

4 channel 8-bit unsigned image copy, not affecting Alpha channel.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.55.1.95 NppStatus nppiCopy_8u_C1C3R (const Npp8u ∗ *pSrc*, int *nSrcStep*, Npp8u ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*)

Single-channel to three-channel 8-bit unsigned image copy.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Select-Channel Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.55.1.96 NppStatus nppiCopy_8u_C1C4R (const Npp8u ∗ *pSrc*, int *nSrcStep*, Npp8u ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*)

Single-channel to four-channel 8-bit unsigned image copy.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Select-Channel Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.55.1.97 NppStatus nppiCopy_8u_C1MR (const Npp8u ∗ *pSrc*, int *nSrcStep*, Npp8u ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, const Npp8u ∗ *pMask*, int *nMaskStep*)

Masked Operation 8-bit unsigned image copy.

Parameters:

pSrc Source-Image Pointer.
nSrcStep Source-Image Line Step.
pDst Destination-Image Pointer.
nDstStep Destination-Image Line Step.
pMask Mask-Image Pointer.
nMaskStep Mask-Image Line Step.
oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.55.1.98 NppStatus nppiCopy_8u_C1R (const Npp8u ∗ *pSrc*, int *nSrcStep*, Npp8u ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*)

8-bit unsigned image copy.

Parameters:

pSrc Source-Image Pointer.
nSrcStep Source-Image Line Step.
pDst Destination-Image Pointer.
nDstStep Destination-Image Line Step.
oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.55.1.99 NppStatus nppiCopy_8u_C3C1R (const Npp8u ∗ *pSrc*, int *nSrcStep*, Npp8u ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*)

Three-channel to single-channel 8-bit unsigned image copy.

Parameters:

pSrc Select-Channel Source-Image Pointer.
nSrcStep Source-Image Line Step.
pDst Destination-Image Pointer.
nDstStep Destination-Image Line Step.
oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.55.1.100 NppStatus nppiCopy_8u_C3CR (const Npp8u $*$ *pSrc*, int *nSrcStep*, Npp8u $*$ *pDst*, int *nDstStep*, NppiSize *oSizeROI*)

Select-channel 8-bit unsigned image copy for three-channel images.

Parameters:

pSrc Select-Channel Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Select-Channel Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.55.1.101 NppStatus nppiCopy_8u_C3MR (const Npp8u $*$ *pSrc*, int *nSrcStep*, Npp8u $*$ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, const Npp8u $*$ *pMask*, int *nMaskStep*)

Masked Operation three channel 8-bit unsigned image copy.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

pMask Mask-Image Pointer.

nMaskStep Mask-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.55.1.102 NppStatus nppiCopy_8u_C3P3R (const Npp8u $*$ *pSrc*, int *nSrcStep*, Npp8u $*$const *aDst*[3], int *nDstStep*, NppiSize *oSizeROI*)

Three-channel 8-bit unsigned packed to planar image copy.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

aDst Destination-Planar-Image Pointer Array.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.55.1.103 NppStatus nppiCopy_8u_C3R (const Npp8u ∗ *pSrc*, int *nSrcStep*, Npp8u ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*)

Three channel 8-bit unsigned image copy.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.55.1.104 NppStatus nppiCopy_8u_C4C1R (const Npp8u ∗ *pSrc*, int *nSrcStep*, Npp8u ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*)

Four-channel to single-channel 8-bit unsigned image copy.

Parameters:

pSrc Select-Channel Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.55.1.105 NppStatus nppiCopy_8u_C4CR (const Npp8u ∗ *pSrc*, int *nSrcStep*, Npp8u ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*)

Select-channel 8-bit unsigned image copy for four-channel images.

Parameters:

pSrc Select-Channel Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Select-Channel Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.55.1.106 NppStatus nppiCopy_8u_C4MR (const Npp8u ∗ *pSrc*, int *nSrcStep*, Npp8u ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, const Npp8u ∗ *pMask*, int *nMaskStep*)

Masked Operation four channel 8-bit unsigned image copy.

Parameters:

pSrc Source-Image Pointer.
nSrcStep Source-Image Line Step.
pDst Destination-Image Pointer.
nDstStep Destination-Image Line Step.
pMask Mask-Image Pointer.
nMaskStep Mask-Image Line Step.
oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.55.1.107 NppStatus nppiCopy_8u_C4P4R (const Npp8u ∗ *pSrc*, int *nSrcStep*, Npp8u ∗const *aDst*[4], int *nDstStep*, NppiSize *oSizeROI*)

Four-channel 8-bit unsigned packed to planar image copy.

Parameters:

pSrc Source-Image Pointer.
nSrcStep Source-Image Line Step.
aDst Destination-Planar-Image Pointer Array.
nDstStep Destination-Image Line Step.
oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.55.1.108 NppStatus nppiCopy_8u_C4R (const Npp8u ∗ *pSrc*, int *nSrcStep*, Npp8u ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*)

4 channel 8-bit unsigned image copy.

Parameters:

pSrc Source-Image Pointer.
nSrcStep Source-Image Line Step.
pDst Destination-Image Pointer.
nDstStep Destination-Image Line Step.
oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.55.1.109 NppStatus nppiCopy_8u_P3C3R (const Npp8u ∗const *aSrc*[3], int *nSrcStep*, Npp8u ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*)

Three-channel 8-bit unsigned planar to packed image copy.

Parameters:

aSrc Planar Source-Image Pointer.

nSrcStep Source-Planar-Image Pointer Array.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.55.1.110 NppStatus nppiCopy_8u_P4C4R (const Npp8u ∗const *aSrc*[4], int *nSrcStep*, Npp8u ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*)

Four-channel 8-bit unsigned planar to packed image copy.

Parameters:

aSrc Planar Source-Planar-Image Pointer Array.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.56 Convert

Convert to Increase Bit-Depth

The integer conversion methods do not involve any scaling.

Also, even when increasing the bit-depth loss of information may occur:

- When converting integers (e.g. Npp32u) to float (e.g. Npp32f) integervalue not accurately representable by the float are rounded to the closest floating-point value.
- When converting signed integers to unsigned integers all negative values are lost (saturated to 0).

- NppStatus nppiConvert_8u16u_C1R (const Npp8u ∗pSrc, int nSrcStep, Npp16u ∗pDst, int nDstStep, NppiSize oSizeROI)

  Single channel 8-bit unsigned to 16-bit unsigned conversion.

- NppStatus nppiConvert_8u16u_C3R (const Npp8u ∗pSrc, int nSrcStep, Npp16u ∗pDst, int nDstStep, NppiSize oSizeROI)

  Three channel 8-bit unsigned to 16-bit unsigned conversion.

- NppStatus nppiConvert_8u16u_C4R (const Npp8u ∗pSrc, int nSrcStep, Npp16u ∗pDst, int nDstStep, NppiSize oSizeROI)

  Four channel 8-bit unsigned to 16-bit unsigned conversion.

- NppStatus nppiConvert_8u16u_AC4R (const Npp8u ∗pSrc, int nSrcStep, Npp16u ∗pDst, int nDstStep, NppiSize oSizeROI)

  Four channel 8-bit unsigned to 16-bit unsigned conversion, not affecting Alpha.

- NppStatus nppiConvert_8u16s_C1R (const Npp8u ∗pSrc, int nSrcStep, Npp16s ∗pDst, int nDstStep, NppiSize oSizeROI)

  Single channel 8-bit unsigned to 16-bit signed conversion.

- NppStatus nppiConvert_8u16s_C3R (const Npp8u ∗pSrc, int nSrcStep, Npp16s ∗pDst, int nDstStep, NppiSize oSizeROI)

  Three channel 8-bit unsigned to 16-bit signed conversion.

- NppStatus nppiConvert_8u16s_C4R (const Npp8u ∗pSrc, int nSrcStep, Npp16s ∗pDst, int nDstStep, NppiSize oSizeROI)

  Four channel 8-bit unsigned to 16-bit signed conversion.

- NppStatus nppiConvert_8u16s_AC4R (const Npp8u ∗pSrc, int nSrcStep, Npp16s ∗pDst, int nDstStep, NppiSize oSizeROI)

  Four channel 8-bit unsigned to 16-bit signed conversion, not affecting Alpha.

- NppStatus nppiConvert_8u32s_C1R (const Npp8u ∗pSrc, int nSrcStep, Npp32s ∗pDst, int nDstStep, NppiSize oSizeROI)

  Single channel 8-bit unsigned to 32-bit signed conversion.

- NppStatus nppiConvert_8u32s_C3R (const Npp8u ∗pSrc, int nSrcStep, Npp32s ∗pDst, int nDstStep, NppiSize oSizeROI)

Three channel 8-bit unsigned to 32-bit signed conversion.

- NppStatus nppiConvert_8u32s_C4R (const Npp8u ∗pSrc, int nSrcStep, Npp32s ∗pDst, int nDstStep, NppiSize oSizeROI)

  Four channel 8-bit unsigned to 32-bit signed conversion.

- NppStatus nppiConvert_8u32s_AC4R (const Npp8u ∗pSrc, int nSrcStep, Npp32s ∗pDst, int nDstStep, NppiSize oSizeROI)

  Four channel 8-bit unsigned to 32-bit signed conversion, not affecting Alpha.

- NppStatus nppiConvert_8u32f_C1R (const Npp8u ∗pSrc, int nSrcStep, Npp32f ∗pDst, int nDstStep, NppiSize oSizeROI)

  Single channel 8-bit unsigned to 32-bit floating-point conversion.

- NppStatus nppiConvert_8u32f_C3R (const Npp8u ∗pSrc, int nSrcStep, Npp32f ∗pDst, int nDstStep, NppiSize oSizeROI)

  Three channel 8-bit unsigned to 32-bit floating-point conversion.

- NppStatus nppiConvert_8u32f_C4R (const Npp8u ∗pSrc, int nSrcStep, Npp32f ∗pDst, int nDstStep, NppiSize oSizeROI)

  Four channel 8-bit unsigned to 32-bit floating-point conversion.

- NppStatus nppiConvert_8u32f_AC4R (const Npp8u ∗pSrc, int nSrcStep, Npp32f ∗pDst, int nDstStep, NppiSize oSizeROI)

  Four channel 8-bit unsigned to 32-bit floating-point conversion, not affecting Alpha.

- NppStatus nppiConvert_8s32s_C1R (const Npp8s ∗pSrc, int nSrcStep, Npp32s ∗pDst, int nDstStep, NppiSize oSizeROI)

  Single channel 8-bit signed to 32-bit signed conversion.

- NppStatus nppiConvert_8s32s_C3R (const Npp8s ∗pSrc, int nSrcStep, Npp32s ∗pDst, int nDstStep, NppiSize oSizeROI)

  Three channel 8-bit signed to 32-bit signed conversion.

- NppStatus nppiConvert_8s32s_C4R (const Npp8s ∗pSrc, int nSrcStep, Npp32s ∗pDst, int nDstStep, NppiSize oSizeROI)

  Four channel 8-bit signed to 32-bit signed conversion.

- NppStatus nppiConvert_8s32s_AC4R (const Npp8s ∗pSrc, int nSrcStep, Npp32s ∗pDst, int nDstStep, NppiSize oSizeROI)

  Four channel 8-bit signed to 32-bit signed conversion, not affecting Alpha.

- NppStatus nppiConvert_8s32f_C1R (const Npp8s ∗pSrc, int nSrcStep, Npp32f ∗pDst, int nDstStep, NppiSize oSizeROI)

  Single channel 8-bit signed to 32-bit floating-point conversion.

- NppStatus nppiConvert_8s32f_C3R (const Npp8s ∗pSrc, int nSrcStep, Npp32f ∗pDst, int nDstStep, NppiSize oSizeROI)

  Three channel 8-bit signed to 32-bit floating-point conversion.

- NppStatus nppiConvert_8s32f_C4R (const Npp8s ∗pSrc, int nSrcStep, Npp32f ∗pDst, int nDstStep, NppiSize oSizeROI)

  Four channel 8-bit signed to 32-bit floating-point conversion.

- NppStatus nppiConvert_8s32f_AC4R (const Npp8s ∗pSrc, int nSrcStep, Npp32f ∗pDst, int nDstStep, NppiSize oSizeROI)

  Four channel 8-bit signed to 32-bit floating-point conversion, not affecting Alpha.

- NppStatus nppiConvert_16u32s_C1R (const Npp16u ∗pSrc, int nSrcStep, Npp32s ∗pDst, int nDstStep, NppiSize oSizeROI)

  Single channel 16-bit unsigned to 32-bit signed conversion.

- NppStatus nppiConvert_16u32s_C3R (const Npp16u ∗pSrc, int nSrcStep, Npp32s ∗pDst, int nDstStep, NppiSize oSizeROI)

  Three channel 16-bit unsigned to 32-bit signed conversion.

- NppStatus nppiConvert_16u32s_C4R (const Npp16u ∗pSrc, int nSrcStep, Npp32s ∗pDst, int nDstStep, NppiSize oSizeROI)

  Four channel 16-bit unsigned to 32-bit signed conversion.

- NppStatus nppiConvert_16u32s_AC4R (const Npp16u ∗pSrc, int nSrcStep, Npp32s ∗pDst, int nDstStep, NppiSize oSizeROI)

  Four channel 16-bit unsigned to 32-bit signed conversion, not affecting Alpha.

- NppStatus nppiConvert_16u32f_C1R (const Npp16u ∗pSrc, int nSrcStep, Npp32f ∗pDst, int nDstStep, NppiSize oSizeROI)

  Single channel 16-bit unsigned to 32-bit floating-point conversion.

- NppStatus nppiConvert_16u32f_C3R (const Npp16u ∗pSrc, int nSrcStep, Npp32f ∗pDst, int nDstStep, NppiSize oSizeROI)

  Three channel 16-bit unsigned to 32-bit floating-point conversion.

- NppStatus nppiConvert_16u32f_C4R (const Npp16u ∗pSrc, int nSrcStep, Npp32f ∗pDst, int nDstStep, NppiSize oSizeROI)

  Four channel 16-bit unsigned to 32-bit floating-point conversion.

- NppStatus nppiConvert_16u32f_AC4R (const Npp16u ∗pSrc, int nSrcStep, Npp32f ∗pDst, int nDstStep, NppiSize oSizeROI)

  Four channel 16-bit unsigned to 32-bit floating-point conversion, not affecting Alpha.

- NppStatus nppiConvert_16s32s_C1R (const Npp16s ∗pSrc, int nSrcStep, Npp32s ∗pDst, int nDstStep, NppiSize oSizeROI)

  Single channel 16-bit signed to 32-bit signed conversion.

- NppStatus nppiConvert_16s32s_C3R (const Npp16s ∗pSrc, int nSrcStep, Npp32s ∗pDst, int nDstStep, NppiSize oSizeROI)

  Three channel 16-bit signed to 32-bit signed conversion.

- NppStatus nppiConvert_16s32s_C4R (const Npp16s ∗pSrc, int nSrcStep, Npp32s ∗pDst, int nDstStep, NppiSize oSizeROI)

  Four channel 16-bit signed to 32-bit signed conversion.

- NppStatus nppiConvert_16s32s_AC4R (const Npp16s ∗pSrc, int nSrcStep, Npp32s ∗pDst, int nDstStep, NppiSize oSizeROI)

  Four channel 16-bit signed to 32-bit signed conversion, not affecting Alpha.

- NppStatus nppiConvert_16s32f_C1R (const Npp16s ∗pSrc, int nSrcStep, Npp32f ∗pDst, int nDstStep, NppiSize oSizeROI)

  Single channel 16-bit signed to 32-bit floating-point conversion.

- NppStatus nppiConvert_16s32f_C3R (const Npp16s ∗pSrc, int nSrcStep, Npp32f ∗pDst, int nDstStep, NppiSize oSizeROI)

  Three channel 16-bit signed to 32-bit floating-point conversion.

- NppStatus nppiConvert_16s32f_C4R (const Npp16s ∗pSrc, int nSrcStep, Npp32f ∗pDst, int nDstStep, NppiSize oSizeROI)

  Four channel 16-bit signed to 32-bit floating-point conversion.

- NppStatus nppiConvert_16s32f_AC4R (const Npp16s ∗pSrc, int nSrcStep, Npp32f ∗pDst, int nDstStep, NppiSize oSizeROI)

  Four channel 16-bit signed to 32-bit floating-point conversion, not affecting Alpha.

- NppStatus nppiConvert_8s8u_C1Rs (const Npp8s ∗pSrc, int nSrcStep, Npp8u ∗pDst, int nDstStep, NppiSize oSizeROI)

  Single channel 8-bit signed to 8-bit unsigned conversion with saturation.

- NppStatus nppiConvert_8s16u_C1Rs (const Npp8s ∗pSrc, int nSrcStep, Npp16u ∗pDst, int nDstStep, NppiSize oSizeROI)

  Single channel 8-bit signed to 16-bit unsigned conversion with saturation.

- NppStatus nppiConvert_8s16s_C1R (const Npp8s ∗pSrc, int nSrcStep, Npp16s ∗pDst, int nDstStep, NppiSize oSizeROI)

  Single channel 8-bit signed to 16-bit signed conversion.

- NppStatus nppiConvert_8s32u_C1Rs (const Npp8s ∗pSrc, int nSrcStep, Npp32u ∗pDst, int nDstStep, NppiSize oSizeROI)

  Single channel 8-bit signed to 32-bit unsigned conversion with saturation.

- NppStatus nppiConvert_16s16u_C1Rs (const Npp16s ∗pSrc, int nSrcStep, Npp16u ∗pDst, int nDstStep, NppiSize oSizeROI)

  Single channel 16-bit signed to 16-bit unsigned conversion with saturation.

- NppStatus nppiConvert_16s32u_C1Rs (const Npp16s ∗pSrc, int nSrcStep, Npp32u ∗pDst, int nDstStep, NppiSize oSizeROI)

  Single channel 16-bit signed to 32-bit unsigned conversion with saturation.

- NppStatus nppiConvert_16u32u_C1R (const Npp16u ∗pSrc, int nSrcStep, Npp32u ∗pDst, int nDstStep, NppiSize oSizeROI)

  Single channel 16-bit unsigned to 32-bit unsigned conversion.

- NppStatus nppiConvert_32s32u_C1Rs (const Npp32s ∗pSrc, int nSrcStep, Npp32u ∗pDst, int nDstStep, NppiSize oSizeROI)

Single channel 32-bit signed to 32-bit unsigned conversion with saturation.

- NppStatus nppiConvert_32s32f_C1R (const Npp32s ∗pSrc, int nSrcStep, Npp32f ∗pDst, int nDstStep, NppiSize oSizeROI)

  Single channel 32-bit signed to 32-bit floating-point conversion.

- NppStatus nppiConvert_32u32f_C1R (const Npp32u ∗pSrc, int nSrcStep, Npp32f ∗pDst, int nDstStep, NppiSize oSizeROI)

  Single channel 32-bit unsigned to 32-bit floating-point conversion.

Convert to Decrease Bit-Depth

The integer conversion methods do not involve any scaling.

When converting floating-point values to integers the user may choose the most appropriate rounding-mode. Typically information is lost when converting to lower bit depth:

- All converted values are saturated to the destination type's range. E.g. any values larger than the largest value of the destination type are clamped to the destination's maximum.
- Converting floating-point values to integer also involves rounding, effectively loosing all fractional value information in the process.

- NppStatus nppiConvert_16u8u_C1R (const Npp16u ∗pSrc, int nSrcStep, Npp8u ∗pDst, int nDstStep, NppiSize oSizeROI)

  Single channel 16-bit unsigned to 8-bit unsigned conversion.

- NppStatus nppiConvert_16u8u_C3R (const Npp16u ∗pSrc, int nSrcStep, Npp8u ∗pDst, int nDstStep, NppiSize oSizeROI)

  Three channel 16-bit unsigned to 8-bit unsigned conversion.

- NppStatus nppiConvert_16u8u_C4R (const Npp16u ∗pSrc, int nSrcStep, Npp8u ∗pDst, int nDstStep, NppiSize oSizeROI)

  Four channel 16-bit unsigned to 8-bit unsigned conversion.

- NppStatus nppiConvert_16u8u_AC4R (const Npp16u ∗pSrc, int nSrcStep, Npp8u ∗pDst, int nDstStep, NppiSize oSizeROI)

  Four channel 16-bit unsigned to 8-bit unsigned conversion, not affecting Alpha.

- NppStatus nppiConvert_16s8u_C1R (const Npp16s ∗pSrc, int nSrcStep, Npp8u ∗pDst, int nDstStep, NppiSize oSizeROI)

  Single channel 16-bit signed to 8-bit unsigned conversion.

- NppStatus nppiConvert_16s8u_C3R (const Npp16s ∗pSrc, int nSrcStep, Npp8u ∗pDst, int nDstStep, NppiSize oSizeROI)

  Three channel 16-bit signed to 8-bit unsigned conversion.

- NppStatus nppiConvert_16s8u_C4R (const Npp16s ∗pSrc, int nSrcStep, Npp8u ∗pDst, int nDstStep, NppiSize oSizeROI)

  Four channel 16-bit signed to 8-bit unsigned conversion.

- NppStatus nppiConvert_16s8u_AC4R (const Npp16s ∗pSrc, int nSrcStep, Npp8u ∗pDst, int nDstStep, NppiSize oSizeROI)

  Four channel 16-bit signed to 8-bit unsigned conversion, not affecting Alpha.

- NppStatus nppiConvert_32s8u_C1R (const Npp32s ∗pSrc, int nSrcStep, Npp8u ∗pDst, int nDstStep, NppiSize oSizeROI)

  Single channel 32-bit signed to 8-bit unsigned conversion.

- NppStatus nppiConvert_32s8u_C3R (const Npp32s ∗pSrc, int nSrcStep, Npp8u ∗pDst, int nDstStep, NppiSize oSizeROI)

  Three channel 32-bit signed to 8-bit unsigned conversion.

- NppStatus nppiConvert_32s8u_C4R (const Npp32s ∗pSrc, int nSrcStep, Npp8u ∗pDst, int nDstStep, NppiSize oSizeROI)

  Four channel 32-bit signed to 8-bit unsigned conversion.

- NppStatus nppiConvert_32s8u_AC4R (const Npp32s ∗pSrc, int nSrcStep, Npp8u ∗pDst, int nDstStep, NppiSize oSizeROI)

  Four channel 32-bit signed to 8-bit unsigned conversion, not affecting Alpha.

- NppStatus nppiConvert_32s8s_C1R (const Npp32s ∗pSrc, int nSrcStep, Npp8s ∗pDst, int nDstStep, NppiSize oSizeROI)

  Single channel 32-bit signed to 8-bit signed conversion.

- NppStatus nppiConvert_32s8s_C3R (const Npp32s ∗pSrc, int nSrcStep, Npp8s ∗pDst, int nDstStep, NppiSize oSizeROI)

  Three channel 32-bit signed to 8-bit signed conversion.

- NppStatus nppiConvert_32s8s_C4R (const Npp32s ∗pSrc, int nSrcStep, Npp8s ∗pDst, int nDstStep, NppiSize oSizeROI)

  Four channel 32-bit signed to 8-bit signed conversion.

- NppStatus nppiConvert_32s8s_AC4R (const Npp32s ∗pSrc, int nSrcStep, Npp8s ∗pDst, int nDstStep, NppiSize oSizeROI)

  Four channel 32-bit signed to 8-bit signed conversion, not affecting Alpha.

- NppStatus nppiConvert_8u8s_C1RSfs (const Npp8u ∗pSrc, int nSrcStep, Npp8s ∗pDst, int nDstStep, NppiSize oSizeROI, NppRoundMode eRoundMode, int nScaleFactor)

  Single channel 8-bit unsigned to 8-bit signed conversion.

- NppStatus nppiConvert_16u8s_C1RSfs (const Npp16u ∗pSrc, int nSrcStep, Npp8s ∗pDst, int nDstStep, NppiSize oSizeROI, NppRoundMode eRoundMode, int nScaleFactor)

  Single channel 16-bit unsigned to 8-bit signed conversion.

- NppStatus nppiConvert_16s8s_C1RSfs (const Npp16s ∗pSrc, int nSrcStep, Npp8s ∗pDst, int nDstStep, NppiSize oSizeROI, NppRoundMode eRoundMode, int nScaleFactor)

  Single channel 16-bit signed to 8-bit signed conversion.

- NppStatus nppiConvert_16u16s_C1RSfs (const Npp16u ∗pSrc, int nSrcStep, Npp16s ∗pDst, int nDstStep, NppiSize oSizeROI, NppRoundMode eRoundMode, int nScaleFactor)

Single channel 16-bit unsigned to 16-bit signed conversion.

- NppStatus nppiConvert_32u8u_C1RSfs (const Npp32u ∗pSrc, int nSrcStep, Npp8u ∗pDst, int nDstStep, NppiSize oSizeROI, NppRoundMode eRoundMode, int nScaleFactor)

  Single channel 32-bit unsigned to 8-bit unsigned conversion.

- NppStatus nppiConvert_32u8s_C1RSfs (const Npp32u ∗pSrc, int nSrcStep, Npp8s ∗pDst, int nDstStep, NppiSize oSizeROI, NppRoundMode eRoundMode, int nScaleFactor)

  Single channel 32-bit unsigned to 8-bit signed conversion.

- NppStatus nppiConvert_32u16u_C1RSfs (const Npp32u ∗pSrc, int nSrcStep, Npp16u ∗pDst, int nDstStep, NppiSize oSizeROI, NppRoundMode eRoundMode, int nScaleFactor)

  Single channel 32-bit unsigned to 16-bit unsigned conversion.

- NppStatus nppiConvert_32u16s_C1RSfs (const Npp32u ∗pSrc, int nSrcStep, Npp16s ∗pDst, int nDstStep, NppiSize oSizeROI, NppRoundMode eRoundMode, int nScaleFactor)

  Single channel 32-bit unsigned to 16-bit signed conversion.

- NppStatus nppiConvert_32u32s_C1RSfs (const Npp32u ∗pSrc, int nSrcStep, Npp32s ∗pDst, int nDstStep, NppiSize oSizeROI, NppRoundMode eRoundMode, int nScaleFactor)

  Single channel 32-bit unsigned to 32-bit signed conversion.

- NppStatus nppiConvert_32s16u_C1RSfs (const Npp32s ∗pSrc, int nSrcStep, Npp16u ∗pDst, int nDstStep, NppiSize oSizeROI, NppRoundMode eRoundMode, int nScaleFactor)

  Single channel 32-bit unsigned to 16-bit unsigned conversion.

- NppStatus nppiConvert_32s16s_C1RSfs (const Npp32s ∗pSrc, int nSrcStep, Npp16s ∗pDst, int nDstStep, NppiSize oSizeROI, NppRoundMode eRoundMode, int nScaleFactor)

  Single channel 32-bit unsigned to 16-bit signed conversion.

- NppStatus nppiConvert_32f8u_C1R (const Npp32f ∗pSrc, int nSrcStep, Npp8u ∗pDst, int nDstStep, NppiSize oSizeROI, NppRoundMode eRoundMode)

  Single channel 32-bit floating point to 8-bit unsigned conversion.

- NppStatus nppiConvert_32f8u_C3R (const Npp32f ∗pSrc, int nSrcStep, Npp8u ∗pDst, int nDstStep, NppiSize oSizeROI, NppRoundMode eRoundMode)

  Three channel 32-bit floating point to 8-bit unsigned conversion.

- NppStatus nppiConvert_32f8u_C4R (const Npp32f ∗pSrc, int nSrcStep, Npp8u ∗pDst, int nDstStep, NppiSize oSizeROI, NppRoundMode eRoundMode)

  Four channel 32-bit floating point to 8-bit unsigned conversion.

- NppStatus nppiConvert_32f8u_AC4R (const Npp32f ∗pSrc, int nSrcStep, Npp8u ∗pDst, int nDstStep, NppiSize oSizeROI, NppRoundMode eRoundMode)

  Four channel 32-bit floating point to 8-bit unsigned conversion, not affecting Alpha.

- NppStatus nppiConvert_32f8s_C1R (const Npp32f ∗pSrc, int nSrcStep, Npp8s ∗pDst, int nDstStep, NppiSize oSizeROI, NppRoundMode eRoundMode)

  Single channel 32-bit floating point to 8-bit signed conversion.

- NppStatus nppiConvert_32f8s_C3R (const Npp32f ∗pSrc, int nSrcStep, Npp8s ∗pDst, int nDstStep, NppiSize oSizeROI, NppRoundMode eRoundMode)

  Three channel 32-bit floating point to 8-bit signed conversion.

- NppStatus nppiConvert_32f8s_C4R (const Npp32f ∗pSrc, int nSrcStep, Npp8s ∗pDst, int nDstStep, NppiSize oSizeROI, NppRoundMode eRoundMode)

  Four channel 32-bit floating point to 8-bit signed conversion.

- NppStatus nppiConvert_32f8s_AC4R (const Npp32f ∗pSrc, int nSrcStep, Npp8s ∗pDst, int nDstStep, NppiSize oSizeROI, NppRoundMode eRoundMode)

  Four channel 32-bit floating point to 8-bit signed conversion, not affecting Alpha.

- NppStatus nppiConvert_32f16u_C1R (const Npp32f ∗pSrc, int nSrcStep, Npp16u ∗pDst, int nDstStep, NppiSize oSizeROI, NppRoundMode eRoundMode)

  Single channel 32-bit floating point to 16-bit unsigned conversion.

- NppStatus nppiConvert_32f16u_C3R (const Npp32f ∗pSrc, int nSrcStep, Npp16u ∗pDst, int nDstStep, NppiSize oSizeROI, NppRoundMode eRoundMode)

  Three channel 32-bit floating point to 16-bit unsigned conversion.

- NppStatus nppiConvert_32f16u_C4R (const Npp32f ∗pSrc, int nSrcStep, Npp16u ∗pDst, int nDstStep, NppiSize oSizeROI, NppRoundMode eRoundMode)

  Four channel 32-bit floating point to 16-bit unsigned conversion.

- NppStatus nppiConvert_32f16u_AC4R (const Npp32f ∗pSrc, int nSrcStep, Npp16u ∗pDst, int nDstStep, NppiSize oSizeROI, NppRoundMode eRoundMode)

  Four channel 32-bit floating point to 16-bit unsigned conversion, not affecting Alpha.

- NppStatus nppiConvert_32f16s_C1R (const Npp32f ∗pSrc, int nSrcStep, Npp16s ∗pDst, int nDstStep, NppiSize oSizeROI, NppRoundMode eRoundMode)

  Single channel 32-bit floating point to 16-bit signed conversion.

- NppStatus nppiConvert_32f16s_C3R (const Npp32f ∗pSrc, int nSrcStep, Npp16s ∗pDst, int nDstStep, NppiSize oSizeROI, NppRoundMode eRoundMode)

  Three channel 32-bit floating point to 16-bit signed conversion.

- NppStatus nppiConvert_32f16s_C4R (const Npp32f ∗pSrc, int nSrcStep, Npp16s ∗pDst, int nDstStep, NppiSize oSizeROI, NppRoundMode eRoundMode)

  Four channel 32-bit floating point to 16-bit signed conversion.

- NppStatus nppiConvert_32f16s_AC4R (const Npp32f ∗pSrc, int nSrcStep, Npp16s ∗pDst, int nDstStep, NppiSize oSizeROI, NppRoundMode eRoundMode)

  Four channel 32-bit floating point to 16-bit signed conversion.

- NppStatus nppiConvert_32f8u_C1RSfs (const Npp32f ∗pSrc, int nSrcStep, Npp8u ∗pDst, int nDstStep, NppiSize oSizeROI, NppRoundMode eRoundMode, int nScaleFactor)

  Single channel 32-bit floating point to 8-bit unsigned conversion.

- NppStatus nppiConvert_32f8s_C1RSfs (const Npp32f ∗pSrc, int nSrcStep, Npp8s ∗pDst, int nDstStep, NppiSize oSizeROI, NppRoundMode eRoundMode, int nScaleFactor)

  Single channel 32-bit floating point to 8-bit signed conversion.

- NppStatus nppiConvert_32f16u_C1RSfs (const Npp32f ∗pSrc, int nSrcStep, Npp16u ∗pDst, int nDstStep, NppiSize oSizeROI, NppRoundMode eRoundMode, int nScaleFactor)

  Single channel 32-bit floating point to 16-bit unsigned conversion.

- NppStatus nppiConvert_32f16s_C1RSfs (const Npp32f ∗pSrc, int nSrcStep, Npp16s ∗pDst, int nDstStep, NppiSize oSizeROI, NppRoundMode eRoundMode, int nScaleFactor)

  Single channel 32-bit floating point to 16-bit signed conversion.

- NppStatus nppiConvert_32f32u_C1RSfs (const Npp32f ∗pSrc, int nSrcStep, Npp32u ∗pDst, int nDstStep, NppiSize oSizeROI, NppRoundMode eRoundMode, int nScaleFactor)

  Single channel 32-bit floating point to 32-bit unsigned conversion.

- NppStatus nppiConvert_32f32s_C1RSfs (const Npp32f ∗pSrc, int nSrcStep, Npp32s ∗pDst, int nDstStep, NppiSize oSizeROI, NppRoundMode eRoundMode, int nScaleFactor)

  Single channel 32-bit floating point to 32-bit signed conversion.

7.56.1 Function Documentation

7.56.1.1 NppStatus nppiConvert_16s16u_C1Rs (const Npp16s ∗ *pSrc*, int *nSrcStep*, Npp16u ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*)

Single channel 16-bit signed to 16-bit unsigned conversion with saturation.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.56.1.2 NppStatus nppiConvert_16s32f_AC4R (const Npp16s ∗ *pSrc*, int *nSrcStep*, Npp32f ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*)

Four channel 16-bit signed to 32-bit floating-point conversion, not affecting Alpha.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.56.1.3 NppStatus nppiConvert_16s32f_C1R (const Npp16s ∗ *pSrc*, int *nSrcStep*, Npp32f ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*)

Single channel 16-bit signed to 32-bit floating-point conversion.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.56.1.4 NppStatus nppiConvert_16s32f_C3R (const Npp16s ∗ *pSrc*, int *nSrcStep*, Npp32f ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*)

Three channel 16-bit signed to 32-bit floating-point conversion.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.56.1.5 NppStatus nppiConvert_16s32f_C4R (const Npp16s ∗ *pSrc*, int *nSrcStep*, Npp32f ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*)

Four channel 16-bit signed to 32-bit floating-point conversion.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.56.1.6 NppStatus nppiConvert_16s32s_AC4R (const Npp16s ∗ *pSrc*, int *nSrcStep*, Npp32s ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*)

Four channel 16-bit signed to 32-bit signed conversion, not affecting Alpha.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.56.1.7 NppStatus nppiConvert_16s32s_C1R (const Npp16s ∗ *pSrc*, int *nSrcStep*, Npp32s ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*)

Single channel 16-bit signed to 32-bit signed conversion.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.56.1.8 NppStatus nppiConvert_16s32s_C3R (const Npp16s ∗ *pSrc*, int *nSrcStep*, Npp32s ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*)

Three channel 16-bit signed to 32-bit signed conversion.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.56.1.9 NppStatus nppiConvert_16s32s_C4R (const Npp16s ∗ *pSrc*, int *nSrcStep*, Npp32s ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*)

Four channel 16-bit signed to 32-bit signed conversion.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.56.1.10 NppStatus nppiConvert_16s32u_C1Rs (const Npp16s ∗ *pSrc*, int *nSrcStep*, Npp32u ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*)

Single channel 16-bit signed to 32-bit unsigned conversion with saturation.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.56.1.11 NppStatus nppiConvert_16s8s_C1RSfs (const Npp16s ∗ *pSrc*, int *nSrcStep*, Npp8s ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, NppRoundMode *eRoundMode*, int *nScaleFactor*)

Single channel 16-bit signed to 8-bit signed conversion.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

eRoundMode Rounding Mode Parameter.

nScaleFactor Integer Result Scaling.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.56.1.12 NppStatus nppiConvert_16s8u_AC4R (const Npp16s ∗ *pSrc*, int *nSrcStep*, Npp8u ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*)

Four channel 16-bit signed to 8-bit unsigned conversion, not affecting Alpha.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.56.1.13 NppStatus nppiConvert_16s8u_C1R (const Npp16s ∗ *pSrc*, int *nSrcStep*, Npp8u ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*)

Single channel 16-bit signed to 8-bit unsigned conversion.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.56.1.14 NppStatus nppiConvert_16s8u_C3R (const Npp16s ∗ *pSrc*, int *nSrcStep*, Npp8u ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*)

Three channel 16-bit signed to 8-bit unsigned conversion.

Parameters:

pSrc Source-Image Pointer.
nSrcStep Source-Image Line Step.
pDst Destination-Image Pointer.
nDstStep Destination-Image Line Step.
oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.56.1.15 NppStatus nppiConvert_16s8u_C4R (const Npp16s ∗ *pSrc*, int *nSrcStep*, Npp8u ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*)

Four channel 16-bit signed to 8-bit unsigned conversion.

Parameters:

pSrc Source-Image Pointer.
nSrcStep Source-Image Line Step.
pDst Destination-Image Pointer.
nDstStep Destination-Image Line Step.
oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.56.1.16 NppStatus nppiConvert_16u16s_C1RSfs (const Npp16u ∗ *pSrc*, int *nSrcStep*, Npp16s ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, NppRoundMode *eRoundMode*, int *nScaleFactor*)

Single channel 16-bit unsigned to 16-bit signed conversion.

Parameters:

pSrc Source-Image Pointer.
nSrcStep Source-Image Line Step.
pDst Destination-Image Pointer.
nDstStep Destination-Image Line Step.
oSizeROI Region-of-Interest (ROI).
eRoundMode Rounding Mode Parameter.
nScaleFactor Integer Result Scaling.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.56.1.17 NppStatus nppiConvert_16u32f_AC4R (const Npp16u ∗ *pSrc*, int *nSrcStep*, Npp32f ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*)

Four channel 16-bit unsigned to 32-bit floating-point conversion, not affecting Alpha.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.56.1.18 NppStatus nppiConvert_16u32f_C1R (const Npp16u ∗ *pSrc*, int *nSrcStep*, Npp32f ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*)

Single channel 16-bit unsigned to 32-bit floating-point conversion.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.56.1.19 NppStatus nppiConvert_16u32f_C3R (const Npp16u ∗ *pSrc*, int *nSrcStep*, Npp32f ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*)

Three channel 16-bit unsigned to 32-bit floating-point conversion.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.56.1.20 NppStatus nppiConvert_16u32f_C4R (const Npp16u ∗ *pSrc*, int *nSrcStep*, Npp32f ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*)

Four channel 16-bit unsigned to 32-bit floating-point conversion.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.56.1.21 NppStatus nppiConvert_16u32s_AC4R (const Npp16u ∗ *pSrc*, int *nSrcStep*, Npp32s ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*)

Four channel 16-bit unsigned to 32-bit signed conversion, not affecting Alpha.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.56.1.22 NppStatus nppiConvert_16u32s_C1R (const Npp16u ∗ *pSrc*, int *nSrcStep*, Npp32s ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*)

Single channel 16-bit unsigned to 32-bit signed conversion.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.56.1.23 NppStatus nppiConvert_16u32s_C3R (const Npp16u ∗ *pSrc*, int *nSrcStep*, Npp32s ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*)

Three channel 16-bit unsigned to 32-bit signed conversion.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.56.1.24 NppStatus nppiConvert_16u32s_C4R (const Npp16u ∗ *pSrc*, int *nSrcStep*, Npp32s ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*)

Four channel 16-bit unsigned to 32-bit signed conversion.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.56.1.25 NppStatus nppiConvert_16u32u_C1R (const Npp16u ∗ *pSrc*, int *nSrcStep*, Npp32u ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*)

Single channel 16-bit unsigned to 32-bit unsigned conversion.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.56.1.26 NppStatus nppiConvert_16u8s_C1RSfs (const Npp16u ∗ *pSrc*, int *nSrcStep*, Npp8s ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, NppRoundMode *eRoundMode*, int *nScaleFactor*)

Single channel 16-bit unsigned to 8-bit signed conversion.

Parameters:

pSrc Source-Image Pointer.
nSrcStep Source-Image Line Step.
pDst Destination-Image Pointer.
nDstStep Destination-Image Line Step.
oSizeROI Region-of-Interest (ROI).
eRoundMode Rounding Mode Parameter.
nScaleFactor Integer Result Scaling.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.56.1.27 NppStatus nppiConvert_16u8u_AC4R (const Npp16u ∗ *pSrc*, int *nSrcStep*, Npp8u ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*)

Four channel 16-bit unsigned to 8-bit unsigned conversion, not affecting Alpha.

Parameters:

pSrc Source-Image Pointer.
nSrcStep Source-Image Line Step.
pDst Destination-Image Pointer.
nDstStep Destination-Image Line Step.
oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.56.1.28 NppStatus nppiConvert_16u8u_C1R (const Npp16u ∗ *pSrc*, int *nSrcStep*, Npp8u ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*)

Single channel 16-bit unsigned to 8-bit unsigned conversion.

Parameters:

pSrc Source-Image Pointer.
nSrcStep Source-Image Line Step.
pDst Destination-Image Pointer.
nDstStep Destination-Image Line Step.
oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.56.1.29 NppStatus nppiConvert_16u8u_C3R (const Npp16u ∗ *pSrc*, int *nSrcStep*, Npp8u ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*)

Three channel 16-bit unsigned to 8-bit unsigned conversion.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.56.1.30 NppStatus nppiConvert_16u8u_C4R (const Npp16u ∗ *pSrc*, int *nSrcStep*, Npp8u ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*)

Four channel 16-bit unsigned to 8-bit unsigned conversion.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.56.1.31 NppStatus nppiConvert_32f16s_AC4R (const Npp32f ∗ *pSrc*, int *nSrcStep*, Npp16s ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, NppRoundMode *eRoundMode*)

Four channel 32-bit floating point to 16-bit signed conversion.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

eRoundMode Flag specifying how fractional float values are rounded to integer values.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.56.1.32 NppStatus nppiConvert_32f16s_C1R (const Npp32f * *pSrc*, int *nSrcStep*, Npp16s * *pDst*, int *nDstStep*, NppiSize *oSizeROI*, NppRoundMode *eRoundMode*)

Single channel 32-bit floating point to 16-bit signed conversion.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

eRoundMode Flag specifying how fractional float values are rounded to integer values.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.56.1.33 NppStatus nppiConvert_32f16s_C1RSfs (const Npp32f * *pSrc*, int *nSrcStep*, Npp16s * *pDst*, int *nDstStep*, NppiSize *oSizeROI*, NppRoundMode *eRoundMode*, int *nScaleFactor*)

Single channel 32-bit floating point to 16-bit signed conversion.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

eRoundMode Flag specifying how fractional float values are rounded to integer values.

nScaleFactor Integer Result Scaling.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.56.1.34 NppStatus nppiConvert_32f16s_C3R (const Npp32f * *pSrc*, int *nSrcStep*, Npp16s * *pDst*, int *nDstStep*, NppiSize *oSizeROI*, NppRoundMode *eRoundMode*)

Three channel 32-bit floating point to 16-bit signed conversion.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

eRoundMode Flag specifying how fractional float values are rounded to integer values.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.56.1.35 NppStatus nppiConvert_32f16s_C4R (const Npp32f ∗ *pSrc*, int *nSrcStep*, Npp16s ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, NppRoundMode *eRoundMode*)

Four channel 32-bit floating point to 16-bit signed conversion.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

eRoundMode Flag specifying how fractional float values are rounded to integer values.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.56.1.36 NppStatus nppiConvert_32f16u_AC4R (const Npp32f ∗ *pSrc*, int *nSrcStep*, Npp16u ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, NppRoundMode *eRoundMode*)

Four channel 32-bit floating point to 16-bit unsigned conversion, not affecting Alpha.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

eRoundMode Flag specifying how fractional float values are rounded to integer values.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.56.1.37 NppStatus nppiConvert_32f16u_C1R (const Npp32f $*$ *pSrc*, int *nSrcStep*, Npp16u $*$ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, NppRoundMode *eRoundMode*)

Single channel 32-bit floating point to 16-bit unsigned conversion.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

eRoundMode Flag specifying how fractional float values are rounded to integer values.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.56.1.38 NppStatus nppiConvert_32f16u_C1RSfs (const Npp32f $*$ *pSrc*, int *nSrcStep*, Npp16u $*$ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, NppRoundMode *eRoundMode*, int *nScaleFactor*)

Single channel 32-bit floating point to 16-bit unsigned conversion.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

eRoundMode Flag specifying how fractional float values are rounded to integer values.

nScaleFactor Integer Result Scaling.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.56.1.39 NppStatus nppiConvert_32f16u_C3R (const Npp32f $*$ *pSrc*, int *nSrcStep*, Npp16u $*$ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, NppRoundMode *eRoundMode*)

Three channel 32-bit floating point to 16-bit unsigned conversion.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

eRoundMode Flag specifying how fractional float values are rounded to integer values.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.56.1.40 NppStatus nppiConvert_32f16u_C4R (const Npp32f * *pSrc*, int *nSrcStep*, Npp16u * *pDst*, int *nDstStep*, NppiSize *oSizeROI*, NppRoundMode *eRoundMode*)

Four channel 32-bit floating point to 16-bit unsigned conversion.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

eRoundMode Flag specifying how fractional float values are rounded to integer values.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.56.1.41 NppStatus nppiConvert_32f32s_C1RSfs (const Npp32f * *pSrc*, int *nSrcStep*, Npp32s * *pDst*, int *nDstStep*, NppiSize *oSizeROI*, NppRoundMode *eRoundMode*, int *nScaleFactor*)

Single channel 32-bit floating point to 32-bit signed conversion.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

eRoundMode Flag specifying how fractional float values are rounded to integer values.

nScaleFactor Integer Result Scaling.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.56.1.42 NppStatus nppiConvert_32f32u_C1RSfs (const Npp32f $*$ *pSrc*, int *nSrcStep*, Npp32u $*$ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, NppRoundMode *eRoundMode*, int *nScaleFactor*)

Single channel 32-bit floating point to 32-bit unsigned conversion.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

eRoundMode Flag specifying how fractional float values are rounded to integer values.

nScaleFactor Integer Result Scaling.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.56.1.43 NppStatus nppiConvert_32f8s_AC4R (const Npp32f $*$ *pSrc*, int *nSrcStep*, Npp8s $*$ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, NppRoundMode *eRoundMode*)

Four channel 32-bit floating point to 8-bit signed conversion, not affecting Alpha.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

eRoundMode Flag specifying how fractional float values are rounded to integer values.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.56.1.44 NppStatus nppiConvert_32f8s_C1R (const Npp32f $*$ *pSrc*, int *nSrcStep*, Npp8s $*$ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, NppRoundMode *eRoundMode*)

Single channel 32-bit floating point to 8-bit signed conversion.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

eRoundMode Flag specifying how fractional float values are rounded to integer values.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.56.1.45 NppStatus nppiConvert_32f8s_C1RSfs (const Npp32f ∗ *pSrc*, int *nSrcStep*, Npp8s ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, NppRoundMode *eRoundMode*, int *nScaleFactor*)

Single channel 32-bit floating point to 8-bit signed conversion.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

eRoundMode Flag specifying how fractional float values are rounded to integer values.

nScaleFactor Integer Result Scaling.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.56.1.46 NppStatus nppiConvert_32f8s_C3R (const Npp32f ∗ *pSrc*, int *nSrcStep*, Npp8s ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, NppRoundMode *eRoundMode*)

Three channel 32-bit floating point to 8-bit signed conversion.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

eRoundMode Flag specifying how fractional float values are rounded to integer values.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.56.1.47 NppStatus nppiConvert_32f8s_C4R (const Npp32f * *pSrc*, int *nSrcStep*, Npp8s * *pDst*, int *nDstStep*, NppiSize *oSizeROI*, NppRoundMode *eRoundMode*)

Four channel 32-bit floating point to 8-bit signed conversion.

Parameters:

pSrc Source-Image Pointer.
nSrcStep Source-Image Line Step.
pDst Destination-Image Pointer.
nDstStep Destination-Image Line Step.
oSizeROI Region-of-Interest (ROI).
eRoundMode Flag specifying how fractional float values are rounded to integer values.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.56.1.48 NppStatus nppiConvert_32f8u_AC4R (const Npp32f * *pSrc*, int *nSrcStep*, Npp8u * *pDst*, int *nDstStep*, NppiSize *oSizeROI*, NppRoundMode *eRoundMode*)

Four channel 32-bit floating point to 8-bit unsigned conversion, not affecting Alpha.

Parameters:

pSrc Source-Image Pointer.
nSrcStep Source-Image Line Step.
pDst Destination-Image Pointer.
nDstStep Destination-Image Line Step.
oSizeROI Region-of-Interest (ROI).
eRoundMode Flag specifying how fractional float values are rounded to integer values.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.56.1.49 NppStatus nppiConvert_32f8u_C1R (const Npp32f * *pSrc*, int *nSrcStep*, Npp8u * *pDst*, int *nDstStep*, NppiSize *oSizeROI*, NppRoundMode *eRoundMode*)

Single channel 32-bit floating point to 8-bit unsigned conversion.

Parameters:

pSrc Source-Image Pointer.
nSrcStep Source-Image Line Step.
pDst Destination-Image Pointer.
nDstStep Destination-Image Line Step.
oSizeROI Region-of-Interest (ROI).
eRoundMode Flag specifying how fractional float values are rounded to integer values.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.56.1.50 NppStatus nppiConvert_32f8u_C1RSfs (const Npp32f ∗ *pSrc*, int *nSrcStep*, Npp8u ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, NppRoundMode *eRoundMode*, int *nScaleFactor*)

Single channel 32-bit floating point to 8-bit unsigned conversion.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

eRoundMode Flag specifying how fractional float values are rounded to integer values.

nScaleFactor Integer Result Scaling.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.56.1.51 NppStatus nppiConvert_32f8u_C3R (const Npp32f ∗ *pSrc*, int *nSrcStep*, Npp8u ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, NppRoundMode *eRoundMode*)

Three channel 32-bit floating point to 8-bit unsigned conversion.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

eRoundMode Flag specifying how fractional float values are rounded to integer values.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.56.1.52 NppStatus nppiConvert_32f8u_C4R (const Npp32f ∗ *pSrc*, int *nSrcStep*, Npp8u ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, NppRoundMode *eRoundMode*)

Four channel 32-bit floating point to 8-bit unsigned conversion.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

eRoundMode Flag specifying how fractional float values are rounded to integer values.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.56.1.53 NppStatus nppiConvert_32s16s_C1RSfs (const Npp32s ∗ *pSrc*, int *nSrcStep*, Npp16s ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, NppRoundMode *eRoundMode*, int *nScaleFactor*)

Single channel 32-bit unsigned to 16-bit signed conversion.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

eRoundMode Rounding Mode Parameter.

nScaleFactor Integer Result Scaling.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.56.1.54 NppStatus nppiConvert_32s16u_C1RSfs (const Npp32s ∗ *pSrc*, int *nSrcStep*, Npp16u ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, NppRoundMode *eRoundMode*, int *nScaleFactor*)

Single channel 32-bit unsigned to 16-bit unsigned conversion.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

eRoundMode Rounding Mode Parameter.

nScaleFactor Integer Result Scaling.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.56.1.55 NppStatus nppiConvert_32s32f_C1R (const Npp32s * *pSrc*, int *nSrcStep*, Npp32f * *pDst*, int *nDstStep*, NppiSize *oSizeROI*)

Single channel 32-bit signed to 32-bit floating-point conversion.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.56.1.56 NppStatus nppiConvert_32s32u_C1Rs (const Npp32s * *pSrc*, int *nSrcStep*, Npp32u * *pDst*, int *nDstStep*, NppiSize *oSizeROI*)

Single channel 32-bit signed to 32-bit unsigned conversion with saturation.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.56.1.57 NppStatus nppiConvert_32s8s_AC4R (const Npp32s * *pSrc*, int *nSrcStep*, Npp8s * *pDst*, int *nDstStep*, NppiSize *oSizeROI*)

Four channel 32-bit signed to 8-bit signed conversion, not affecting Alpha.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.56.1.58 NppStatus nppiConvert_32s8s_C1R (const Npp32s ∗ *pSrc*, int *nSrcStep*, Npp8s ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*)

Single channel 32-bit signed to 8-bit signed conversion.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.56.1.59 NppStatus nppiConvert_32s8s_C3R (const Npp32s ∗ *pSrc*, int *nSrcStep*, Npp8s ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*)

Three channel 32-bit signed to 8-bit signed conversion.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.56.1.60 NppStatus nppiConvert_32s8s_C4R (const Npp32s ∗ *pSrc*, int *nSrcStep*, Npp8s ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*)

Four channel 32-bit signed to 8-bit signed conversion.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.56.1.61 NppStatus nppiConvert_32s8u_AC4R (const Npp32s ∗ *pSrc*, int *nSrcStep*, Npp8u ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*)

Four channel 32-bit signed to 8-bit unsigned conversion, not affecting Alpha.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.56.1.62 NppStatus nppiConvert_32s8u_C1R (const Npp32s ∗ *pSrc*, int *nSrcStep*, Npp8u ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*)

Single channel 32-bit signed to 8-bit unsigned conversion.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.56.1.63 NppStatus nppiConvert_32s8u_C3R (const Npp32s ∗ *pSrc*, int *nSrcStep*, Npp8u ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*)

Three channel 32-bit signed to 8-bit unsigned conversion.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.56.1.64 NppStatus nppiConvert_32s8u_C4R (const Npp32s $*$ *pSrc*, int *nSrcStep*, Npp8u $*$ *pDst*, int *nDstStep*, NppiSize *oSizeROI*)

Four channel 32-bit signed to 8-bit unsigned conversion.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.56.1.65 NppStatus nppiConvert_32u16s_C1RSfs (const Npp32u $*$ *pSrc*, int *nSrcStep*, Npp16s $*$ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, NppRoundMode *eRoundMode*, int *nScaleFactor*)

Single channel 32-bit unsigned to 16-bit signed conversion.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

eRoundMode Rounding Mode Parameter.

nScaleFactor Integer Result Scaling.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.56.1.66 NppStatus nppiConvert_32u16u_C1RSfs (const Npp32u $*$ *pSrc*, int *nSrcStep*, Npp16u $*$ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, NppRoundMode *eRoundMode*, int *nScaleFactor*)

Single channel 32-bit unsigned to 16-bit unsigned conversion.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

eRoundMode Rounding Mode Parameter.

nScaleFactor Integer Result Scaling.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.56.1.67 NppStatus nppiConvert_32u32f_C1R (const Npp32u ∗ *pSrc*, int *nSrcStep*, Npp32f ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*)

Single channel 32-bit unsigned to 32-bit floating-point conversion.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.56.1.68 NppStatus nppiConvert_32u32s_C1RSfs (const Npp32u ∗ *pSrc*, int *nSrcStep*, Npp32s ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, NppRoundMode *eRoundMode*, int *nScaleFactor*)

Single channel 32-bit unsigned to 32-bit signed conversion.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

eRoundMode Rounding Mode Parameter.

nScaleFactor Integer Result Scaling.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.56.1.69 NppStatus nppiConvert_32u8s_C1RSfs (const Npp32u ∗ *pSrc*, int *nSrcStep*, Npp8s ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, NppRoundMode *eRoundMode*, int *nScaleFactor*)

Single channel 32-bit unsigned to 8-bit signed conversion.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

eRoundMode Rounding Mode Parameter.

nScaleFactor Integer Result Scaling.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.56.1.70 NppStatus nppiConvert_32u8u_C1RSfs (const Npp32u ∗ *pSrc*, int *nSrcStep*, Npp8u ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, NppRoundMode *eRoundMode*, int *nScaleFactor*)

Single channel 32-bit unsigned to 8-bit unsigned conversion.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

eRoundMode Rounding Mode Parameter.

nScaleFactor Integer Result Scaling.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.56.1.71 NppStatus nppiConvert_8s16s_C1R (const Npp8s ∗ *pSrc*, int *nSrcStep*, Npp16s ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*)

Single channel 8-bit signed to 16-bit signed conversion.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.56.1.72 NppStatus nppiConvert_8s16u_C1Rs (const Npp8s ∗ *pSrc*, int *nSrcStep*, Npp16u ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*)

Single channel 8-bit signed to 16-bit unsigned conversion with saturation.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.56.1.73 NppStatus nppiConvert_8s32f_AC4R (const Npp8s ∗ *pSrc*, int *nSrcStep*, Npp32f ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*)

Four channel 8-bit signed to 32-bit floating-point conversion, not affecting Alpha.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.56.1.74 NppStatus nppiConvert_8s32f_C1R (const Npp8s ∗ *pSrc*, int *nSrcStep*, Npp32f ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*)

Single channel 8-bit signed to 32-bit floating-point conversion.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.56.1.75 NppStatus nppiConvert_8s32f_C3R (const Npp8s ∗ *pSrc*, int *nSrcStep*, Npp32f ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*)

Three channel 8-bit signed to 32-bit floating-point conversion.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.56.1.76 NppStatus nppiConvert_8s32f_C4R (const Npp8s ∗ *pSrc*, int *nSrcStep*, Npp32f ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*)

Four channel 8-bit signed to 32-bit floating-point conversion.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.56.1.77 NppStatus nppiConvert_8s32s_AC4R (const Npp8s * *pSrc*, int *nSrcStep*, Npp32s * *pDst*, int *nDstStep*, NppiSize *oSizeROI*)

Four channel 8-bit signed to 32-bit signed conversion, not affecting Alpha.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.56.1.78 NppStatus nppiConvert_8s32s_C1R (const Npp8s * *pSrc*, int *nSrcStep*, Npp32s * *pDst*, int *nDstStep*, NppiSize *oSizeROI*)

Single channel 8-bit signed to 32-bit signed conversion.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.56.1.79 NppStatus nppiConvert_8s32s_C3R (const Npp8s * *pSrc*, int *nSrcStep*, Npp32s * *pDst*, int *nDstStep*, NppiSize *oSizeROI*)

Three channel 8-bit signed to 32-bit signed conversion.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.56.1.80 NppStatus nppiConvert_8s32s_C4R (const Npp8s ∗ *pSrc*, int *nSrcStep*, Npp32s ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*)

Four channel 8-bit signed to 32-bit signed conversion.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.56.1.81 NppStatus nppiConvert_8s32u_C1Rs (const Npp8s ∗ *pSrc*, int *nSrcStep*, Npp32u ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*)

Single channel 8-bit signed to 32-bit unsigned conversion with saturation.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.56.1.82 NppStatus nppiConvert_8s8u_C1Rs (const Npp8s ∗ *pSrc*, int *nSrcStep*, Npp8u ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*)

Single channel 8-bit signed to 8-bit unsigned conversion with saturation.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.56.1.83 NppStatus nppiConvert_8u16s_AC4R (const Npp8u ∗ *pSrc*, int *nSrcStep*, Npp16s ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*)

Four channel 8-bit unsigned to 16-bit signed conversion, not affecting Alpha.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.56.1.84 NppStatus nppiConvert_8u16s_C1R (const Npp8u ∗ *pSrc*, int *nSrcStep*, Npp16s ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*)

Single channel 8-bit unsigned to 16-bit signed conversion.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.56.1.85 NppStatus nppiConvert_8u16s_C3R (const Npp8u ∗ *pSrc*, int *nSrcStep*, Npp16s ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*)

Three channel 8-bit unsigned to 16-bit signed conversion.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.56.1.86 NppStatus nppiConvert_8u16s_C4R (const Npp8u * *pSrc*, int *nSrcStep*, Npp16s * *pDst*, int *nDstStep*, NppiSize *oSizeROI*)

Four channel 8-bit unsigned to 16-bit signed conversion.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.56.1.87 NppStatus nppiConvert_8u16u_AC4R (const Npp8u * *pSrc*, int *nSrcStep*, Npp16u * *pDst*, int *nDstStep*, NppiSize *oSizeROI*)

Four channel 8-bit unsigned to 16-bit unsigned conversion, not affecting Alpha.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.56.1.88 NppStatus nppiConvert_8u16u_C1R (const Npp8u * *pSrc*, int *nSrcStep*, Npp16u * *pDst*, int *nDstStep*, NppiSize *oSizeROI*)

Single channel 8-bit unsigned to 16-bit unsigned conversion.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.56.1.89 NppStatus nppiConvert_8u16u_C3R (const Npp8u $*$ *pSrc*, int *nSrcStep*, Npp16u $*$ *pDst*, int *nDstStep*, NppiSize *oSizeROI*)

Three channel 8-bit unsigned to 16-bit unsigned conversion.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.56.1.90 NppStatus nppiConvert_8u16u_C4R (const Npp8u $*$ *pSrc*, int *nSrcStep*, Npp16u $*$ *pDst*, int *nDstStep*, NppiSize *oSizeROI*)

Four channel 8-bit unsigned to 16-bit unsigned conversion.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.56.1.91 NppStatus nppiConvert_8u32f_AC4R (const Npp8u $*$ *pSrc*, int *nSrcStep*, Npp32f $*$ *pDst*, int *nDstStep*, NppiSize *oSizeROI*)

Four channel 8-bit unsigned to 32-bit floating-point conversion, not affecting Alpha.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.56.1.92 NppStatus nppiConvert_8u32f_C1R (const Npp8u ∗ *pSrc*, int *nSrcStep*, Npp32f ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*)

Single channel 8-bit unsigned to 32-bit floating-point conversion.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.56.1.93 NppStatus nppiConvert_8u32f_C3R (const Npp8u ∗ *pSrc*, int *nSrcStep*, Npp32f ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*)

Three channel 8-bit unsigned to 32-bit floating-point conversion.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.56.1.94 NppStatus nppiConvert_8u32f_C4R (const Npp8u ∗ *pSrc*, int *nSrcStep*, Npp32f ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*)

Four channel 8-bit unsigned to 32-bit floating-point conversion.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.56.1.95 NppStatus nppiConvert_8u32s_AC4R (const Npp8u ∗ *pSrc*, int *nSrcStep*, Npp32s ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*)

Four channel 8-bit unsigned to 32-bit signed conversion, not affecting Alpha.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.56.1.96 NppStatus nppiConvert_8u32s_C1R (const Npp8u ∗ *pSrc*, int *nSrcStep*, Npp32s ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*)

Single channel 8-bit unsigned to 32-bit signed conversion.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.56.1.97 NppStatus nppiConvert_8u32s_C3R (const Npp8u ∗ *pSrc*, int *nSrcStep*, Npp32s ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*)

Three channel 8-bit unsigned to 32-bit signed conversion.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.56.1.98 NppStatus nppiConvert_8u32s_C4R (const Npp8u ∗ *pSrc*, int *nSrcStep*, Npp32s ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*)

Four channel 8-bit unsigned to 32-bit signed conversion.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.56.1.99 NppStatus nppiConvert_8u8s_C1RSfs (const Npp8u ∗ *pSrc*, int *nSrcStep*, Npp8s ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, NppRoundMode *eRoundMode*, int *nScaleFactor*)

Single channel 8-bit unsigned to 8-bit signed conversion.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

eRoundMode Rounding Mode Parameter.

nScaleFactor Integer Result Scaling.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.57 Scale

Scaled Bit-Depth Conversion

Scale bit-depth up and down.

To map source pixel srcPixelValue to destination pixel dstPixelValue the following equation is used:

dstPixelValue = dstMinRangeValue + scaleFactor ∗ (srcPixelValue - srcMinRangeValue)

where scaleFactor = (dstMaxRangeValue - dstMinRangeValue) / (srcMaxRangeValue - srcMinRangeValue).

For conversions between integer data types, the entire integer numeric range of the input data type is mapped onto the entire integer numeric range of the output data type.

For conversions to floating point data types the floating point data range is defined by the user supplied floating point values of nMax and nMin which are used as the dstMaxRangeValue and dstMinRangeValue respectively in the scaleFactor and dstPixelValue calculations and also as the saturation values to which output data is clamped.

When converting from floating-point values to integer values, nMax and nMin are used as the srcMaxRangeValue and srcMinRangeValue respectively in the scaleFactor and dstPixelValue calculations. Output values are saturated and clamped to the full output integer pixel value range.

- NppStatus nppiScale_8u16u_C1R (const Npp8u ∗pSrc, int nSrcStep, Npp16u ∗pDst, int nDstStep, NppiSize oSizeROI)

  Single channel 8-bit unsigned to 16-bit unsigned conversion.

- NppStatus nppiScale_8u16u_C3R (const Npp8u ∗pSrc, int nSrcStep, Npp16u ∗pDst, int nDstStep, NppiSize oSizeROI)

  Three channel 8-bit unsigned to 16-bit unsigned conversion.

- NppStatus nppiScale_8u16u_C4R (const Npp8u ∗pSrc, int nSrcStep, Npp16u ∗pDst, int nDstStep, NppiSize oSizeROI)

  Four channel 8-bit unsigned to 16-bit unsigned conversion.

- NppStatus nppiScale_8u16u_AC4R (const Npp8u ∗pSrc, int nSrcStep, Npp16u ∗pDst, int nDstStep, NppiSize oSizeROI)

  Four channel 8-bit unsigned to 16-bit unsigned conversion, not affecting Alpha.

- NppStatus nppiScale_8u16s_C1R (const Npp8u ∗pSrc, int nSrcStep, Npp16s ∗pDst, int nDstStep, NppiSize oSizeROI)

  Single channel 8-bit unsigned to 16-bit signed conversion.

- NppStatus nppiScale_8u16s_C3R (const Npp8u ∗pSrc, int nSrcStep, Npp16s ∗pDst, int nDstStep, NppiSize oSizeROI)

  Three channel 8-bit unsigned to 16-bit signed conversion.

- NppStatus nppiScale_8u16s_C4R (const Npp8u ∗pSrc, int nSrcStep, Npp16s ∗pDst, int nDstStep, NppiSize oSizeROI)

  Four channel 8-bit unsigned to 16-bit signed conversion.

- NppStatus nppiScale_8u16s_AC4R (const Npp8u ∗pSrc, int nSrcStep, Npp16s ∗pDst, int nDstStep, NppiSize oSizeROI)

Four channel 8-bit unsigned to 16-bit signed conversion, not affecting Alpha.

- NppStatus nppiScale_8u32s_C1R (const Npp8u ∗pSrc, int nSrcStep, Npp32s ∗pDst, int nDstStep, NppiSize oSizeROI)

  Single channel 8-bit unsigned to 32-bit signed conversion.

- NppStatus nppiScale_8u32s_C3R (const Npp8u ∗pSrc, int nSrcStep, Npp32s ∗pDst, int nDstStep, NppiSize oSizeROI)

  Three channel 8-bit unsigned to 32-bit signed conversion.

- NppStatus nppiScale_8u32s_C4R (const Npp8u ∗pSrc, int nSrcStep, Npp32s ∗pDst, int nDstStep, NppiSize oSizeROI)

  Four channel 8-bit unsigned to 32-bit signed conversion.

- NppStatus nppiScale_8u32s_AC4R (const Npp8u ∗pSrc, int nSrcStep, Npp32s ∗pDst, int nDstStep, NppiSize oSizeROI)

  Four channel 8-bit unsigned to 32-bit signed conversion, not affecting Alpha.

- NppStatus nppiScale_8u32f_C1R (const Npp8u ∗pSrc, int nSrcStep, Npp32f ∗pDst, int nDstStep, NppiSize oSizeROI, Npp32f nMin, Npp32f nMax)

  Single channel 8-bit unsigned to 32-bit floating-point conversion.

- NppStatus nppiScale_8u32f_C3R (const Npp8u ∗pSrc, int nSrcStep, Npp32f ∗pDst, int nDstStep, NppiSize oSizeROI, Npp32f nMin, Npp32f nMax)

  Three channel 8-bit unsigned to 32-bit floating-point conversion.

- NppStatus nppiScale_8u32f_C4R (const Npp8u ∗pSrc, int nSrcStep, Npp32f ∗pDst, int nDstStep, NppiSize oSizeROI, Npp32f nMin, Npp32f nMax)

  Four channel 8-bit unsigned to 32-bit floating-point conversion.

- NppStatus nppiScale_8u32f_AC4R (const Npp8u ∗pSrc, int nSrcStep, Npp32f ∗pDst, int nDstStep, NppiSize oSizeROI, Npp32f nMin, Npp32f nMax)

  Four channel 8-bit unsigned to 32-bit floating-point conversion, not affecting Alpha.

- NppStatus nppiScale_16u8u_C1R (const Npp16u ∗pSrc, int nSrcStep, Npp8u ∗pDst, int nDstStep, NppiSize oSizeROI, NppHintAlgorithm hint)

  Single channel 16-bit unsigned to 8-bit unsigned conversion.

- NppStatus nppiScale_16u8u_C3R (const Npp16u ∗pSrc, int nSrcStep, Npp8u ∗pDst, int nDstStep, NppiSize oSizeROI, NppHintAlgorithm hint)

  Three channel 16-bit unsigned to 8-bit unsigned conversion.

- NppStatus nppiScale_16u8u_C4R (const Npp16u ∗pSrc, int nSrcStep, Npp8u ∗pDst, int nDstStep, NppiSize oSizeROI, NppHintAlgorithm hint)

  Four channel 16-bit unsigned to 8-bit unsigned conversion.

- NppStatus nppiScale_16u8u_AC4R (const Npp16u ∗pSrc, int nSrcStep, Npp8u ∗pDst, int nDstStep, NppiSize oSizeROI, NppHintAlgorithm hint)

  Four channel 16-bit unsigned to 8-bit unsigned conversion, not affecting Alpha.

- NppStatus nppiScale_16s8u_C1R (const Npp16s ∗pSrc, int nSrcStep, Npp8u ∗pDst, int nDstStep, NppiSize oSizeROI, NppHintAlgorithm hint)

  Single channel 16-bit signed to 8-bit unsigned conversion.

- NppStatus nppiScale_16s8u_C3R (const Npp16s ∗pSrc, int nSrcStep, Npp8u ∗pDst, int nDstStep, NppiSize oSizeROI, NppHintAlgorithm hint)

  Three channel 16-bit signed to 8-bit unsigned conversion.

- NppStatus nppiScale_16s8u_C4R (const Npp16s ∗pSrc, int nSrcStep, Npp8u ∗pDst, int nDstStep, NppiSize oSizeROI, NppHintAlgorithm hint)

  Four channel 16-bit signed to 8-bit unsigned conversion.

- NppStatus nppiScale_16s8u_AC4R (const Npp16s ∗pSrc, int nSrcStep, Npp8u ∗pDst, int nDstStep, NppiSize oSizeROI, NppHintAlgorithm hint)

  Four channel 16-bit signed to 8-bit unsigned conversion, not affecting Alpha.

- NppStatus nppiScale_32s8u_C1R (const Npp32s ∗pSrc, int nSrcStep, Npp8u ∗pDst, int nDstStep, NppiSize oSizeROI, NppHintAlgorithm hint)

  Single channel 32-bit signed to 8-bit unsigned conversion.

- NppStatus nppiScale_32s8u_C3R (const Npp32s ∗pSrc, int nSrcStep, Npp8u ∗pDst, int nDstStep, NppiSize oSizeROI, NppHintAlgorithm hint)

  Three channel 32-bit signed to 8-bit unsigned conversion.

- NppStatus nppiScale_32s8u_C4R (const Npp32s ∗pSrc, int nSrcStep, Npp8u ∗pDst, int nDstStep, NppiSize oSizeROI, NppHintAlgorithm hint)

  Four channel 32-bit signed to 8-bit unsigned conversion.

- NppStatus nppiScale_32s8u_AC4R (const Npp32s ∗pSrc, int nSrcStep, Npp8u ∗pDst, int nDstStep, NppiSize oSizeROI, NppHintAlgorithm hint)

  Four channel 32-bit signed to 8-bit unsigned conversion, not affecting Alpha.

- NppStatus nppiScale_32f8u_C1R (const Npp32f ∗pSrc, int nSrcStep, Npp8u ∗pDst, int nDstStep, NppiSize oSizeROI, Npp32f nMin, Npp32f nMax)

  Single channel 32-bit floating point to 8-bit unsigned conversion.

- NppStatus nppiScale_32f8u_C3R (const Npp32f ∗pSrc, int nSrcStep, Npp8u ∗pDst, int nDstStep, NppiSize oSizeROI, Npp32f nMin, Npp32f nMax)

  Three channel 32-bit floating point to 8-bit unsigned conversion.

- NppStatus nppiScale_32f8u_C4R (const Npp32f ∗pSrc, int nSrcStep, Npp8u ∗pDst, int nDstStep, NppiSize oSizeROI, Npp32f nMin, Npp32f nMax)

  Four channel 32-bit floating point to 8-bit unsigned conversion.

- NppStatus nppiScale_32f8u_AC4R (const Npp32f ∗pSrc, int nSrcStep, Npp8u ∗pDst, int nDstStep, NppiSize oSizeROI, Npp32f nMin, Npp32f nMax)

  Four channel 32-bit floating point to 8-bit unsigned conversion, not affecting Alpha.

7.57.1 Function Documentation

7.57.1.1 NppStatus nppiScale_16s8u_AC4R (const Npp16s ∗ *pSrc*, int *nSrcStep*, Npp8u ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, NppHintAlgorithm *hint*)

Four channel 16-bit signed to 8-bit unsigned conversion, not affecting Alpha.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

hint algorithm performance or accuracy selector, currently ignored

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.57.1.2 NppStatus nppiScale_16s8u_C1R (const Npp16s ∗ *pSrc*, int *nSrcStep*, Npp8u ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, NppHintAlgorithm *hint*)

Single channel 16-bit signed to 8-bit unsigned conversion.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

hint algorithm performance or accuracy selector, currently ignored

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.57.1.3 NppStatus nppiScale_16s8u_C3R (const Npp16s ∗ *pSrc*, int *nSrcStep*, Npp8u ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, NppHintAlgorithm *hint*)

Three channel 16-bit signed to 8-bit unsigned conversion.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

hint algorithm performance or accuracy selector, currently ignored

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.57.1.4 NppStatus nppiScale_16s8u_C4R (const Npp16s ∗ *pSrc*, int *nSrcStep*, Npp8u ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, NppHintAlgorithm *hint*)

Four channel 16-bit signed to 8-bit unsigned conversion.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

hint algorithm performance or accuracy selector, currently ignored

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.57.1.5 NppStatus nppiScale_16u8u_AC4R (const Npp16u ∗ *pSrc*, int *nSrcStep*, Npp8u ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, NppHintAlgorithm *hint*)

Four channel 16-bit unsigned to 8-bit unsigned conversion, not affecting Alpha.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

hint algorithm performance or accuracy selector, currently ignored

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.57.1.6 NppStatus nppiScale_16u8u_C1R (const Npp16u $*$ *pSrc*, int *nSrcStep*, Npp8u $*$ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, NppHintAlgorithm *hint*)

Single channel 16-bit unsigned to 8-bit unsigned conversion.

Parameters:

pSrc Source-Image Pointer.
nSrcStep Source-Image Line Step.
pDst Destination-Image Pointer.
nDstStep Destination-Image Line Step.
oSizeROI Region-of-Interest (ROI).
hint algorithm performance or accuracy selector, currently ignored

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.57.1.7 NppStatus nppiScale_16u8u_C3R (const Npp16u $*$ *pSrc*, int *nSrcStep*, Npp8u $*$ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, NppHintAlgorithm *hint*)

Three channel 16-bit unsigned to 8-bit unsigned conversion.

Parameters:

pSrc Source-Image Pointer.
nSrcStep Source-Image Line Step.
pDst Destination-Image Pointer.
nDstStep Destination-Image Line Step.
oSizeROI Region-of-Interest (ROI).
hint algorithm performance or accuracy selector, currently ignored

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.57.1.8 NppStatus nppiScale_16u8u_C4R (const Npp16u $*$ *pSrc*, int *nSrcStep*, Npp8u $*$ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, NppHintAlgorithm *hint*)

Four channel 16-bit unsigned to 8-bit unsigned conversion.

Parameters:

pSrc Source-Image Pointer.
nSrcStep Source-Image Line Step.
pDst Destination-Image Pointer.
nDstStep Destination-Image Line Step.
oSizeROI Region-of-Interest (ROI).
hint algorithm performance or accuracy selector, currently ignored

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.57.1.9 NppStatus nppiScale_32f8u_AC4R (const Npp32f ∗ *pSrc*, int *nSrcStep*, Npp8u ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, Npp32f *nMin*, Npp32f *nMax*)

Four channel 32-bit floating point to 8-bit unsigned conversion, not affecting Alpha.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

nMin specifies the minimum saturation value to which every output value will be clamped.

nMax specifies the maximum saturation value to which every output value will be clamped.

Returns:

Image Data Related Error Codes, ROI Related Error Codes, NPP_SCALE_RANGE_ERROR indicates an error condition if nMax <= nMin.

7.57.1.10 NppStatus nppiScale_32f8u_C1R (const Npp32f ∗ *pSrc*, int *nSrcStep*, Npp8u ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, Npp32f *nMin*, Npp32f *nMax*)

Single channel 32-bit floating point to 8-bit unsigned conversion.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

nMin specifies the minimum saturation value to which every output value will be clamped.

nMax specifies the maximum saturation value to which every output value will be clamped.

Returns:

Image Data Related Error Codes, ROI Related Error Codes, NPP_SCALE_RANGE_ERROR indicates an error condition if nMax <= nMin.

7.57.1.11 NppStatus nppiScale_32f8u_C3R (const Npp32f ∗ *pSrc*, int *nSrcStep*, Npp8u ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, Npp32f *nMin*, Npp32f *nMax*)

Three channel 32-bit floating point to 8-bit unsigned conversion.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

nMin specifies the minimum saturation value to which every output value will be clamped.

nMax specifies the maximum saturation value to which every output value will be clamped.

Returns:

Image Data Related Error Codes, ROI Related Error Codes, NPP_SCALE_RANGE_ERROR indicates an error condition if nMax <= nMin.

7.57.1.12 NppStatus nppiScale_32f8u_C4R (const Npp32f ∗ *pSrc*, int *nSrcStep*, Npp8u ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, Npp32f *nMin*, Npp32f *nMax*)

Four channel 32-bit floating point to 8-bit unsigned conversion.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

nMin specifies the minimum saturation value to which every output value will be clamped.

nMax specifies the maximum saturation value to which every output value will be clamped.

Returns:

Image Data Related Error Codes, ROI Related Error Codes, NPP_SCALE_RANGE_ERROR indicates an error condition if nMax <= nMin.

7.57.1.13 NppStatus nppiScale_32s8u_AC4R (const Npp32s ∗ *pSrc*, int *nSrcStep*, Npp8u ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, NppHintAlgorithm *hint*)

Four channel 32-bit signed to 8-bit unsigned conversion, not affecting Alpha.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

hint algorithm performance or accuracy selector, currently ignored

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.57.1.14 NppStatus nppiScale_32s8u_C1R (const Npp32s $*$ *pSrc*, int *nSrcStep*, Npp8u $*$ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, NppHintAlgorithm *hint*)

Single channel 32-bit signed to 8-bit unsigned conversion.

Parameters:

pSrc Source-Image Pointer.
nSrcStep Source-Image Line Step.
pDst Destination-Image Pointer.
nDstStep Destination-Image Line Step.
oSizeROI Region-of-Interest (ROI).
hint algorithm performance or accuracy selector, currently ignored

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.57.1.15 NppStatus nppiScale_32s8u_C3R (const Npp32s $*$ *pSrc*, int *nSrcStep*, Npp8u $*$ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, NppHintAlgorithm *hint*)

Three channel 32-bit signed to 8-bit unsigned conversion.

Parameters:

pSrc Source-Image Pointer.
nSrcStep Source-Image Line Step.
pDst Destination-Image Pointer.
nDstStep Destination-Image Line Step.
oSizeROI Region-of-Interest (ROI).
hint algorithm performance or accuracy selector, currently ignored

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.57.1.16 NppStatus nppiScale_32s8u_C4R (const Npp32s $*$ *pSrc*, int *nSrcStep*, Npp8u $*$ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, NppHintAlgorithm *hint*)

Four channel 32-bit signed to 8-bit unsigned conversion.

Parameters:

pSrc Source-Image Pointer.
nSrcStep Source-Image Line Step.
pDst Destination-Image Pointer.
nDstStep Destination-Image Line Step.
oSizeROI Region-of-Interest (ROI).
hint algorithm performance or accuracy selector, currently ignored

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.57.1.17 NppStatus nppiScale_8u16s_AC4R (const Npp8u ∗ *pSrc*, int *nSrcStep*, Npp16s ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*)

Four channel 8-bit unsigned to 16-bit signed conversion, not affecting Alpha.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.57.1.18 NppStatus nppiScale_8u16s_C1R (const Npp8u ∗ *pSrc*, int *nSrcStep*, Npp16s ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*)

Single channel 8-bit unsigned to 16-bit signed conversion.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.57.1.19 NppStatus nppiScale_8u16s_C3R (const Npp8u ∗ *pSrc*, int *nSrcStep*, Npp16s ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*)

Three channel 8-bit unsigned to 16-bit signed conversion.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.57.1.20 NppStatus nppiScale_8u16s_C4R (const Npp8u $*$ *pSrc*, int *nSrcStep*, Npp16s $*$ *pDst*, int *nDstStep*, NppiSize *oSizeROI*)

Four channel 8-bit unsigned to 16-bit signed conversion.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.57.1.21 NppStatus nppiScale_8u16u_AC4R (const Npp8u $*$ *pSrc*, int *nSrcStep*, Npp16u $*$ *pDst*, int *nDstStep*, NppiSize *oSizeROI*)

Four channel 8-bit unsigned to 16-bit unsigned conversion, not affecting Alpha.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.57.1.22 NppStatus nppiScale_8u16u_C1R (const Npp8u $*$ *pSrc*, int *nSrcStep*, Npp16u $*$ *pDst*, int *nDstStep*, NppiSize *oSizeROI*)

Single channel 8-bit unsigned to 16-bit unsigned conversion.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.57.1.23 NppStatus nppiScale_8u16u_C3R (const Npp8u ∗ *pSrc*, int *nSrcStep*, Npp16u ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*)

Three channel 8-bit unsigned to 16-bit unsigned conversion.

Parameters:

pSrc Source-Image Pointer.
nSrcStep Source-Image Line Step.
pDst Destination-Image Pointer.
nDstStep Destination-Image Line Step.
oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.57.1.24 NppStatus nppiScale_8u16u_C4R (const Npp8u ∗ *pSrc*, int *nSrcStep*, Npp16u ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*)

Four channel 8-bit unsigned to 16-bit unsigned conversion.

Parameters:

pSrc Source-Image Pointer.
nSrcStep Source-Image Line Step.
pDst Destination-Image Pointer.
nDstStep Destination-Image Line Step.
oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.57.1.25 NppStatus nppiScale_8u32f_AC4R (const Npp8u ∗ *pSrc*, int *nSrcStep*, Npp32f ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, Npp32f *nMin*, Npp32f *nMax*)

Four channel 8-bit unsigned to 32-bit floating-point conversion, not affecting Alpha.

Parameters:

pSrc Source-Image Pointer.
nSrcStep Source-Image Line Step.
pDst Destination-Image Pointer.
nDstStep Destination-Image Line Step.
oSizeROI Region-of-Interest (ROI).
nMin specifies the minimum saturation value to which every output value will be clamped.
nMax specifies the maximum saturation value to which every output value will be clamped.

Returns:

Image Data Related Error Codes, ROI Related Error Codes, NPP_SCALE_RANGE_ERROR indicates an error condition if nMax <= nMin.

7.57.1.26 NppStatus nppiScale_8u32f_C1R (const Npp8u ∗ *pSrc*, int *nSrcStep*, Npp32f ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, Npp32f *nMin*, Npp32f *nMax*)

Single channel 8-bit unsigned to 32-bit floating-point conversion.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

nMin specifies the minimum saturation value to which every output value will be clamped.

nMax specifies the maximum saturation value to which every output value will be clamped.

Returns:

Image Data Related Error Codes, ROI Related Error Codes, NPP_SCALE_RANGE_ERROR indicates an error condition if nMax <= nMin.

7.57.1.27 NppStatus nppiScale_8u32f_C3R (const Npp8u ∗ *pSrc*, int *nSrcStep*, Npp32f ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, Npp32f *nMin*, Npp32f *nMax*)

Three channel 8-bit unsigned to 32-bit floating-point conversion.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

nMin specifies the minimum saturation value to which every output value will be clamped.

nMax specifies the maximum saturation value to which every output value will be clamped.

Returns:

Image Data Related Error Codes, ROI Related Error Codes, NPP_SCALE_RANGE_ERROR indicates an error condition if nMax <= nMin.

7.57.1.28 NppStatus nppiScale_8u32f_C4R (const Npp8u ∗ *pSrc*, int *nSrcStep*, Npp32f ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, Npp32f *nMin*, Npp32f *nMax*)

Four channel 8-bit unsigned to 32-bit floating-point conversion.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

nMin specifies the minimum saturation value to which every output value will be clamped.

nMax specifies the maximum saturation value to which every output value will be clamped.

Returns:

Image Data Related Error Codes, ROI Related Error Codes, NPP_SCALE_RANGE_ERROR indicates an error condition if nMax <= nMin.

7.57.1.29 NppStatus nppiScale_8u32s_AC4R (const Npp8u $*$ *pSrc*, int *nSrcStep*, Npp32s $*$ *pDst*, int *nDstStep*, NppiSize *oSizeROI*)

Four channel 8-bit unsigned to 32-bit signed conversion, not affecting Alpha.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.57.1.30 NppStatus nppiScale_8u32s_C1R (const Npp8u $*$ *pSrc*, int *nSrcStep*, Npp32s $*$ *pDst*, int *nDstStep*, NppiSize *oSizeROI*)

Single channel 8-bit unsigned to 32-bit signed conversion.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.57.1.31 NppStatus nppiScale_8u32s_C3R (const Npp8u ∗ *pSrc*, int *nSrcStep*, Npp32s ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*)

Three channel 8-bit unsigned to 32-bit signed conversion.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.57.1.32 NppStatus nppiScale_8u32s_C4R (const Npp8u ∗ *pSrc*, int *nSrcStep*, Npp32s ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*)

Four channel 8-bit unsigned to 32-bit signed conversion.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.58 Copy Constant Border

CopyConstBorder

Methods for copying images and padding borders with a constant, user-specifiable color.

- NppStatus nppiCopyConstBorder_8u_C1R (const Npp8u ∗pSrc, int nSrcStep, NppiSize oSrcSizeROI, Npp8u ∗pDst, int nDstStep, NppiSize oDstSizeROI, int nTopBorderHeight, int nLeftBorderWidth, Npp8u nValue)

  1 channel 8-bit unsigned integer image copy with constant border color.

- NppStatus nppiCopyConstBorder_8u_C3R (const Npp8u ∗pSrc, int nSrcStep, NppiSize oSrcSizeROI, Npp8u ∗pDst, int nDstStep, NppiSize oDstSizeROI, int nTopBorderHeight, int nLeftBorderWidth, const Npp8u aValue[3])

  3 channel 8-bit unsigned integer image copy with constant border color.

- NppStatus nppiCopyConstBorder_8u_C4R (const Npp8u ∗pSrc, int nSrcStep, NppiSize oSrcSizeROI, Npp8u ∗pDst, int nDstStep, NppiSize oDstSizeROI, int nTopBorderHeight, int nLeftBorderWidth, const Npp8u aValue[4])

  4 channel 8-bit unsigned integer image copy with constant border color.

- NppStatus nppiCopyConstBorder_8u_AC4R (const Npp8u ∗pSrc, int nSrcStep, NppiSize oSrcSizeROI, Npp8u ∗pDst, int nDstStep, NppiSize oDstSizeROI, int nTopBorderHeight, int nLeftBorderWidth, const Npp8u aValue[3])

  4 channel 8-bit unsigned integer image copy with constant border color with alpha channel unaffected.

- NppStatus nppiCopyConstBorder_16u_C1R (const Npp16u ∗pSrc, int nSrcStep, NppiSize oSrcSizeROI, Npp16u ∗pDst, int nDstStep, NppiSize oDstSizeROI, int nTopBorderHeight, int nLeftBorderWidth, Npp16u nValue)

  1 channel 16-bit unsigned integer image copy with constant border color.

- NppStatus nppiCopyConstBorder_16u_C3R (const Npp16u ∗pSrc, int nSrcStep, NppiSize oSrcSizeROI, Npp16u ∗pDst, int nDstStep, NppiSize oDstSizeROI, int nTopBorderHeight, int nLeftBorderWidth, const Npp16u aValue[3])

  3 channel 16-bit unsigned integer image copy with constant border color.

- NppStatus nppiCopyConstBorder_16u_C4R (const Npp16u ∗pSrc, int nSrcStep, NppiSize oSrcSizeROI, Npp16u ∗pDst, int nDstStep, NppiSize oDstSizeROI, int nTopBorderHeight, int nLeftBorderWidth, const Npp16u aValue[4])

  4 channel 16-bit unsigned integer image copy with constant border color.

- NppStatus nppiCopyConstBorder_16u_AC4R (const Npp16u ∗pSrc, int nSrcStep, NppiSize oSrcSizeROI, Npp16u ∗pDst, int nDstStep, NppiSize oDstSizeROI, int nTopBorderHeight, int nLeftBorderWidth, const Npp16u aValue[3])

  4 channel 16-bit unsigned integer image copy with constant border color with alpha channel unaffected.

- NppStatus nppiCopyConstBorder_16s_C1R (const Npp16s ∗pSrc, int nSrcStep, NppiSize oSrcSizeROI, Npp16s ∗pDst, int nDstStep, NppiSize oDstSizeROI, int nTopBorderHeight, int nLeftBorderWidth, Npp16s nValue)

  1 channel 16-bit signed integer image copy with constant border color.

- NppStatus nppiCopyConstBorder_16s_C3R (const Npp16s ∗pSrc, int nSrcStep, NppiSize oSrcSizeROI, Npp16s ∗pDst, int nDstStep, NppiSize oDstSizeROI, int nTopBorderHeight, int nLeftBorderWidth, const Npp16s aValue[3])

  3 channel 16-bit signed integer image copy with constant border color.

- NppStatus nppiCopyConstBorder_16s_C4R (const Npp16s ∗pSrc, int nSrcStep, NppiSize oSrcSizeROI, Npp16s ∗pDst, int nDstStep, NppiSize oDstSizeROI, int nTopBorderHeight, int nLeftBorderWidth, const Npp16s aValue[4])

  4 channel 16-bit signed integer image copy with constant border color.

- NppStatus nppiCopyConstBorder_16s_AC4R (const Npp16s ∗pSrc, int nSrcStep, NppiSize oSrcSizeROI, Npp16s ∗pDst, int nDstStep, NppiSize oDstSizeROI, int nTopBorderHeight, int nLeftBorderWidth, const Npp16s aValue[3])

  4 channel 16-bit signed integer image copy with constant border color with alpha channel unaffected.

- NppStatus nppiCopyConstBorder_32s_C1R (const Npp32s ∗pSrc, int nSrcStep, NppiSize oSrcSizeROI, Npp32s ∗pDst, int nDstStep, NppiSize oDstSizeROI, int nTopBorderHeight, int nLeftBorderWidth, Npp32s nValue)

  1 channel 32-bit signed integer image copy with constant border color.

- NppStatus nppiCopyConstBorder_32s_C3R (const Npp32s ∗pSrc, int nSrcStep, NppiSize oSrcSizeROI, Npp32s ∗pDst, int nDstStep, NppiSize oDstSizeROI, int nTopBorderHeight, int nLeftBorderWidth, const Npp32s aValue[3])

  3 channel 32-bit signed integer image copy with constant border color.

- NppStatus nppiCopyConstBorder_32s_C4R (const Npp32s ∗pSrc, int nSrcStep, NppiSize oSrcSizeROI, Npp32s ∗pDst, int nDstStep, NppiSize oDstSizeROI, int nTopBorderHeight, int nLeftBorderWidth, const Npp32s aValue[4])

  4 channel 32-bit signed integer image copy with constant border color.

- NppStatus nppiCopyConstBorder_32s_AC4R (const Npp32s ∗pSrc, int nSrcStep, NppiSize oSrcSizeROI, Npp32s ∗pDst, int nDstStep, NppiSize oDstSizeROI, int nTopBorderHeight, int nLeftBorderWidth, const Npp32s aValue[3])

  4 channel 32-bit signed integer image copy with constant border color with alpha channel unaffected.

- NppStatus nppiCopyConstBorder_32f_C1R (const Npp32f ∗pSrc, int nSrcStep, NppiSize oSrcSizeROI, Npp32f ∗pDst, int nDstStep, NppiSize oDstSizeROI, int nTopBorderHeight, int nLeftBorderWidth, Npp32f nValue)

  1 channel 32-bit floating point image copy with constant border color.

- NppStatus nppiCopyConstBorder_32f_C3R (const Npp32f ∗pSrc, int nSrcStep, NppiSize oSrcSizeROI, Npp32f ∗pDst, int nDstStep, NppiSize oDstSizeROI, int nTopBorderHeight, int nLeftBorderWidth, const Npp32f aValue[3])

  3 channel 32-bit floating point image copy with constant border color.

- NppStatus nppiCopyConstBorder_32f_C4R (const Npp32f ∗pSrc, int nSrcStep, NppiSize oSrcSizeROI, Npp32f ∗pDst, int nDstStep, NppiSize oDstSizeROI, int nTopBorderHeight, int nLeftBorderWidth, const Npp32f aValue[4])

  4 channel 32-bit floating point image copy with constant border color.

- NppStatus nppiCopyConstBorder_32f_AC4R (const Npp32f ∗pSrc, int nSrcStep, NppiSize oSrcSizeROI, Npp32f ∗pDst, int nDstStep, NppiSize oDstSizeROI, int nTopBorderHeight, int nLeftBorderWidth, const Npp32f aValue[3])

  4 channel 32-bit floating point image copy with constant border color with alpha channel unaffected.

7.58.1 Function Documentation

7.58.1.1 NppStatus nppiCopyConstBorder_16s_AC4R (const Npp16s ∗ *pSrc*, int *nSrcStep*, NppiSize *oSrcSizeROI*, Npp16s ∗ *pDst*, int *nDstStep*, NppiSize *oDstSizeROI*, int *nTopBorderHeight*, int *nLeftBorderWidth*, const Npp16s *aValue*[3])

4 channel 16-bit signed integer image copy with constant border color with alpha channel unaffected.

See nppiCopyConstBorder_16s_C1R() for detailed documentation.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSrcSizeROI Size of the source region-of-interest.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oDstSizeROI Size of the destination region-of-interest.

nTopBorderHeight Height of top border.

nLeftBorderWidth Width of left border.

aValue Vector of the RGB values of the border pixels. Because this method does not affect the destination image's alpha channel, only three components of the border color are needed.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.58.1.2 NppStatus nppiCopyConstBorder_16s_C1R (const Npp16s ∗ *pSrc*, int *nSrcStep*, NppiSize *oSrcSizeROI*, Npp16s ∗ *pDst*, int *nDstStep*, NppiSize *oDstSizeROI*, int *nTopBorderHeight*, int *nLeftBorderWidth*, Npp16s *nValue*)

1 channel 16-bit signed integer image copy with constant border color.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSrcSizeROI Size of the source region of pixels.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oDstSizeROI Size (width, height) of the destination region, i.e. the region that gets filled with data from the source image (inner part) and constant border color (outer part).

nTopBorderHeight Height (in pixels) of the top border. The number of pixel rows at the top of the destination ROI that will be filled with the constant border color. nBottomBorderHeight = oDstSizeROI.height - nTopBorderHeight - oSrcSizeROI.height.

nLeftBorderWidth Width (in pixels) of the left border. The width of the border at the right side of the destination ROI is implicitly defined by the size of the source ROI: nRightBorderWidth = oDstSizeROI.width - nLeftBorderWidth - oSrcSizeROI.width.

nValue The pixel value to be set for border pixels.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.58.1.3 NppStatus nppiCopyConstBorder_16s_C3R (const Npp16s ∗ *pSrc*, int *nSrcStep*, NppiSize *oSrcSizeROI*, Npp16s ∗ *pDst*, int *nDstStep*, NppiSize *oDstSizeROI*, int *nTopBorderHeight*, int *nLeftBorderWidth*, const Npp16s *aValue*[3])

3 channel 16-bit signed integer image copy with constant border color.

See nppiCopyConstBorder_16s_C1R() for detailed documentation.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSrcSizeROI Size of the source region-of-interest.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oDstSizeROI Size of the destination region-of-interest.

nTopBorderHeight Height of top border.

nLeftBorderWidth Width of left border.

aValue Vector of the RGBA values of the border pixels to be set.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.58.1.4 NppStatus nppiCopyConstBorder_16s_C4R (const Npp16s ∗ *pSrc*, int *nSrcStep*, NppiSize *oSrcSizeROI*, Npp16s ∗ *pDst*, int *nDstStep*, NppiSize *oDstSizeROI*, int *nTopBorderHeight*, int *nLeftBorderWidth*, const Npp16s *aValue*[4])

4 channel 16-bit signed integer image copy with constant border color.

See nppiCopyConstBorder_16s_C1R() for detailed documentation.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSrcSizeROI Size of the source region-of-interest.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oDstSizeROI Size of the destination region-of-interest.

nTopBorderHeight Height of top border.

nLeftBorderWidth Width of left border.

aValue Vector of the RGBA values of the border pixels to be set.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.58.1.5 NppStatus nppiCopyConstBorder_16u_AC4R (const Npp16u * *pSrc*, int *nSrcStep*, NppiSize *oSrcSizeROI*, Npp16u * *pDst*, int *nDstStep*, NppiSize *oDstSizeROI*, int *nTopBorderHeight*, int *nLeftBorderWidth*, const Npp16u *aValue*[3])

4 channel 16-bit unsigned integer image copy with constant border color with alpha channel unaffected.

See nppiCopyConstBorder_16u_C1R() for detailed documentation.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSrcSizeROI Size of the source region-of-interest.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oDstSizeROI Size of the destination region-of-interest.

nTopBorderHeight Height of top border.

nLeftBorderWidth Width of left border.

aValue Vector of the RGB values of the border pixels. Because this method does not affect the destination image's alpha channel, only three components of the border color are needed.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.58.1.6 NppStatus nppiCopyConstBorder_16u_C1R (const Npp16u * *pSrc*, int *nSrcStep*, NppiSize *oSrcSizeROI*, Npp16u * *pDst*, int *nDstStep*, NppiSize *oDstSizeROI*, int *nTopBorderHeight*, int *nLeftBorderWidth*, Npp16u *nValue*)

1 channel 16-bit unsigned integer image copy with constant border color.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSrcSizeROI Size of the source region of pixels.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oDstSizeROI Size (width, height) of the destination region, i.e. the region that gets filled with data from the source image (inner part) and constant border color (outer part).

nTopBorderHeight Height (in pixels) of the top border. The number of pixel rows at the top of the destination ROI that will be filled with the constant border color. nBottomBorderHeight = oDstSizeROI.height - nTopBorderHeight - oSrcSizeROI.height.

nLeftBorderWidth Width (in pixels) of the left border. The width of the border at the right side of the destination ROI is implicitly defined by the size of the source ROI: nRightBorderWidth = oDstSizeROI.width - nLeftBorderWidth - oSrcSizeROI.width.

nValue The pixel value to be set for border pixels.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.58.1.7 NppStatus nppiCopyConstBorder_16u_C3R (const Npp16u ∗ *pSrc*, int *nSrcStep*, NppiSize *oSrcSizeROI*, Npp16u ∗ *pDst*, int *nDstStep*, NppiSize *oDstSizeROI*, int *nTopBorderHeight*, int *nLeftBorderWidth*, const Npp16u *aValue*[3])

3 channel 16-bit unsigned integer image copy with constant border color.

See nppiCopyConstBorder_16u_C1R() for detailed documentation.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSrcSizeROI Size of the source region-of-interest.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oDstSizeROI Size of the destination region-of-interest.

nTopBorderHeight Height of top border.

nLeftBorderWidth Width of left border.

aValue Vector of the RGBA values of the border pixels to be set.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.58.1.8 NppStatus nppiCopyConstBorder_16u_C4R (const Npp16u ∗ *pSrc*, int *nSrcStep*, NppiSize *oSrcSizeROI*, Npp16u ∗ *pDst*, int *nDstStep*, NppiSize *oDstSizeROI*, int *nTopBorderHeight*, int *nLeftBorderWidth*, const Npp16u *aValue*[4])

4 channel 16-bit unsigned integer image copy with constant border color.

See nppiCopyConstBorder_16u_C1R() for detailed documentation.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSrcSizeROI Size of the source region-of-interest.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oDstSizeROI Size of the destination region-of-interest.

nTopBorderHeight Height of top border.

nLeftBorderWidth Width of left border.

aValue Vector of the RGBA values of the border pixels to be set.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.58.1.9 NppStatus nppiCopyConstBorder_32f_AC4R (const Npp32f ∗ *pSrc*, int *nSrcStep*, NppiSize *oSrcSizeROI*, Npp32f ∗ *pDst*, int *nDstStep*, NppiSize *oDstSizeROI*, int *nTopBorderHeight*, int *nLeftBorderWidth*, const Npp32f *aValue*[3])

4 channel 32-bit floating point image copy with constant border color with alpha channel unaffected.

See nppiCopyConstBorder_32f_C1R() for detailed documentation.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSrcSizeROI Size of the source region-of-interest.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oDstSizeROI Size of the destination region-of-interest.

nTopBorderHeight Height of top border.

nLeftBorderWidth Width of left border.

aValue Vector of the RGB values of the border pixels. Because this method does not affect the destination image's alpha channel, only three components of the border color are needed.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.58.1.10 NppStatus nppiCopyConstBorder_32f_C1R (const Npp32f ∗ *pSrc*, int *nSrcStep*, NppiSize *oSrcSizeROI*, Npp32f ∗ *pDst*, int *nDstStep*, NppiSize *oDstSizeROI*, int *nTopBorderHeight*, int *nLeftBorderWidth*, Npp32f *nValue*)

1 channel 32-bit floating point image copy with constant border color.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSrcSizeROI Size of the source region of pixels.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oDstSizeROI Size (width, height) of the destination region, i.e. the region that gets filled with data from the source image (inner part) and constant border color (outer part).

nTopBorderHeight Height (in pixels) of the top border. The number of pixel rows at the top of the destination ROI that will be filled with the constant border color. nBottomBorderHeight = oDstSizeROI.height - nTopBorderHeight - oSrcSizeROI.height.

nLeftBorderWidth Width (in pixels) of the left border. The width of the border at the right side of the destination ROI is implicitly defined by the size of the source ROI: nRightBorderWidth = oDstSizeROI.width - nLeftBorderWidth - oSrcSizeROI.width.

nValue The pixel value to be set for border pixels.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.58.1.11 NppStatus nppiCopyConstBorder_32f_C3R (const Npp32f ∗ *pSrc*, int *nSrcStep*, NppiSize *oSrcSizeROI*, Npp32f ∗ *pDst*, int *nDstStep*, NppiSize *oDstSizeROI*, int *nTopBorderHeight*, int *nLeftBorderWidth*, const Npp32f *aValue*[3])

3 channel 32-bit floating point image copy with constant border color.

See nppiCopyConstBorder_32f_C1R() for detailed documentation.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSrcSizeROI Size of the source region-of-interest.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oDstSizeROI Size of the destination region-of-interest.

nTopBorderHeight Height of top border.

nLeftBorderWidth Width of left border.

aValue Vector of the RGBA values of the border pixels to be set.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.58.1.12 NppStatus nppiCopyConstBorder_32f_C4R (const Npp32f ∗ *pSrc*, int *nSrcStep*, NppiSize *oSrcSizeROI*, Npp32f ∗ *pDst*, int *nDstStep*, NppiSize *oDstSizeROI*, int *nTopBorderHeight*, int *nLeftBorderWidth*, const Npp32f *aValue*[4])

4 channel 32-bit floating point image copy with constant border color.

See nppiCopyConstBorder_32f_C1R() for detailed documentation.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSrcSizeROI Size of the source region-of-interest.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oDstSizeROI Size of the destination region-of-interest.

nTopBorderHeight Height of top border.

nLeftBorderWidth Width of left border.

aValue Vector of the RGBA values of the border pixels to be set.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.58.1.13 NppStatus nppiCopyConstBorder_32s_AC4R (const Npp32s ∗ *pSrc*, int *nSrcStep*, NppiSize *oSrcSizeROI*, Npp32s ∗ *pDst*, int *nDstStep*, NppiSize *oDstSizeROI*, int *nTopBorderHeight*, int *nLeftBorderWidth*, const Npp32s *aValue*[3])

4 channel 32-bit signed integer image copy with constant border color with alpha channel unaffected.

See nppiCopyConstBorder_32s_C1R() for detailed documentation.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSrcSizeROI Size of the source region-of-interest.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oDstSizeROI Size of the destination region-of-interest.

nTopBorderHeight Height of top border.

nLeftBorderWidth Width of left border.

aValue Vector of the RGB values of the border pixels. Because this method does not affect the destination image's alpha channel, only three components of the border color are needed.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.58.1.14 NppStatus nppiCopyConstBorder_32s_C1R (const Npp32s ∗ *pSrc*, int *nSrcStep*, NppiSize *oSrcSizeROI*, Npp32s ∗ *pDst*, int *nDstStep*, NppiSize *oDstSizeROI*, int *nTopBorderHeight*, int *nLeftBorderWidth*, Npp32s *nValue*)

1 channel 32-bit signed integer image copy with constant border color.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSrcSizeROI Size of the source region of pixels.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oDstSizeROI Size (width, height) of the destination region, i.e. the region that gets filled with data from the source image (inner part) and constant border color (outer part).

nTopBorderHeight Height (in pixels) of the top border. The number of pixel rows at the top of the destination ROI that will be filled with the constant border color. nBottomBorderHeight = oDstSizeROI.height - nTopBorderHeight - oSrcSizeROI.height.

nLeftBorderWidth Width (in pixels) of the left border. The width of the border at the right side of the destination ROI is implicitly defined by the size of the source ROI: nRightBorderWidth = oDstSizeROI.width - nLeftBorderWidth - oSrcSizeROI.width.

nValue The pixel value to be set for border pixels.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.58.1.15 NppStatus nppiCopyConstBorder_32s_C3R (const Npp32s ∗ *pSrc*, int *nSrcStep*, NppiSize *oSrcSizeROI*, Npp32s ∗ *pDst*, int *nDstStep*, NppiSize *oDstSizeROI*, int *nTopBorderHeight*, int *nLeftBorderWidth*, const Npp32s *aValue*[3])

3 channel 32-bit signed integer image copy with constant border color.

See nppiCopyConstBorder_32s_C1R() for detailed documentation.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSrcSizeROI Size of the source region-of-interest.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oDstSizeROI Size of the destination region-of-interest.

nTopBorderHeight Height of top border.

nLeftBorderWidth Width of left border.

aValue Vector of the RGBA values of the border pixels to be set.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.58.1.16 NppStatus nppiCopyConstBorder_32s_C4R (const Npp32s ∗ *pSrc*, int *nSrcStep*, NppiSize *oSrcSizeROI*, Npp32s ∗ *pDst*, int *nDstStep*, NppiSize *oDstSizeROI*, int *nTopBorderHeight*, int *nLeftBorderWidth*, const Npp32s *aValue*[4])

4 channel 32-bit signed integer image copy with constant border color.

See nppiCopyConstBorder_32s_C1R() for detailed documentation.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSrcSizeROI Size of the source region-of-interest.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oDstSizeROI Size of the destination region-of-interest.

nTopBorderHeight Height of top border.

nLeftBorderWidth Width of left border.

aValue Vector of the RGBA values of the border pixels to be set.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.58.1.17 NppStatus nppiCopyConstBorder_8u_AC4R (const Npp8u ∗ *pSrc*, int *nSrcStep*, NppiSize *oSrcSizeROI*, Npp8u ∗ *pDst*, int *nDstStep*, NppiSize *oDstSizeROI*, int *nTopBorderHeight*, int *nLeftBorderWidth*, const Npp8u *aValue*[3])

4 channel 8-bit unsigned integer image copy with constant border color with alpha channel unaffected.

See nppiCopyConstBorder_8u_C1R() for detailed documentation.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSrcSizeROI Size of the source region-of-interest.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oDstSizeROI Size of the destination region-of-interest.

nTopBorderHeight Height of top border.

nLeftBorderWidth Width of left border.

aValue Vector of the RGB values of the border pixels. Because this method does not affect the destination image's alpha channel, only three components of the border color are needed.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.58.1.18 NppStatus nppiCopyConstBorder_8u_C1R (const Npp8u ∗ *pSrc*, int *nSrcStep*, NppiSize *oSrcSizeROI*, Npp8u ∗ *pDst*, int *nDstStep*, NppiSize *oDstSizeROI*, int *nTopBorderHeight*, int *nLeftBorderWidth*, Npp8u *nValue*)

1 channel 8-bit unsigned integer image copy with constant border color.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSrcSizeROI Size of the source region of pixels.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oDstSizeROI Size (width, height) of the destination region, i.e. the region that gets filled with data from the source image (inner part) and constant border color (outer part).

nTopBorderHeight Height (in pixels) of the top border. The number of pixel rows at the top of the destination ROI that will be filled with the constant border color. nBottomBorderHeight = oDstSizeROI.height - nTopBorderHeight - oSrcSizeROI.height.

nLeftBorderWidth Width (in pixels) of the left border. The width of the border at the right side of the destination ROI is implicitly defined by the size of the source ROI: nRightBorderWidth = oDstSizeROI.width - nLeftBorderWidth - oSrcSizeROI.width.

nValue The pixel value to be set for border pixels.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.58.1.19 NppStatus nppiCopyConstBorder_8u_C3R (const Npp8u ∗ *pSrc*, int *nSrcStep*, NppiSize *oSrcSizeROI*, Npp8u ∗ *pDst*, int *nDstStep*, NppiSize *oDstSizeROI*, int *nTopBorderHeight*, int *nLeftBorderWidth*, const Npp8u *aValue*[3])

3 channel 8-bit unsigned integer image copy with constant border color.

See nppiCopyConstBorder_8u_C1R() for detailed documentation.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSrcSizeROI Size of the source region-of-interest.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oDstSizeROI Size of the destination region-of-interest.

nTopBorderHeight Height of top border.

nLeftBorderWidth Width of left border.

aValue Vector of the RGBA values of the border pixels to be set.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.58.1.20 NppStatus nppiCopyConstBorder_8u_C4R (const Npp8u ∗ *pSrc*, int *nSrcStep*, NppiSize *oSrcSizeROI*, Npp8u ∗ *pDst*, int *nDstStep*, NppiSize *oDstSizeROI*, int *nTopBorderHeight*, int *nLeftBorderWidth*, const Npp8u *aValue*[4])

4 channel 8-bit unsigned integer image copy with constant border color.

See nppiCopyConstBorder_8u_C1R() for detailed documentation.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSrcSizeROI Size of the source region-of-interest.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oDstSizeROI Size of the destination region-of-interest.

nTopBorderHeight Height of top border.

nLeftBorderWidth Width of left border.

aValue Vector of the RGBA values of the border pixels to be set.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.59 Copy Replicate Border

CopyReplicateBorder

Methods for copying images and padding borders with a replicates of the nearest source image pixel color.

- NppStatus nppiCopyReplicateBorder_8u_C1R (const Npp8u *pSrc, int nSrcStep, NppiSize oSrcSizeROI, Npp8u *pDst, int nDstStep, NppiSize oDstSizeROI, int nTopBorderHeight, int nLeftBorderWidth)

  1 channel 8-bit unsigned integer image copy with nearest source image pixel color.

- NppStatus nppiCopyReplicateBorder_8u_C3R (const Npp8u *pSrc, int nSrcStep, NppiSize oSrcSizeROI, Npp8u *pDst, int nDstStep, NppiSize oDstSizeROI, int nTopBorderHeight, int nLeftBorderWidth)

  3 channel 8-bit unsigned integer image copy with nearest source image pixel color.

- NppStatus nppiCopyReplicateBorder_8u_C4R (const Npp8u *pSrc, int nSrcStep, NppiSize oSrcSizeROI, Npp8u *pDst, int nDstStep, NppiSize oDstSizeROI, int nTopBorderHeight, int nLeftBorderWidth)

  4 channel 8-bit unsigned integer image copy with nearest source image pixel color.

- NppStatus nppiCopyReplicateBorder_8u_AC4R (const Npp8u *pSrc, int nSrcStep, NppiSize oSrcSizeROI, Npp8u *pDst, int nDstStep, NppiSize oDstSizeROI, int nTopBorderHeight, int nLeftBorderWidth)

  4 channel 8-bit unsigned integer image copy with nearest source image pixel color with alpha channel unaffected.

- NppStatus nppiCopyReplicateBorder_16u_C1R (const Npp16u *pSrc, int nSrcStep, NppiSize oSrcSizeROI, Npp16u *pDst, int nDstStep, NppiSize oDstSizeROI, int nTopBorderHeight, int nLeftBorderWidth)

  1 channel 16-bit unsigned integer image copy with nearest source image pixel color.

- NppStatus nppiCopyReplicateBorder_16u_C3R (const Npp16u *pSrc, int nSrcStep, NppiSize oSrcSizeROI, Npp16u *pDst, int nDstStep, NppiSize oDstSizeROI, int nTopBorderHeight, int nLeftBorderWidth)

  3 channel 16-bit unsigned integer image copy with nearest source image pixel color.

- NppStatus nppiCopyReplicateBorder_16u_C4R (const Npp16u *pSrc, int nSrcStep, NppiSize oSrcSizeROI, Npp16u *pDst, int nDstStep, NppiSize oDstSizeROI, int nTopBorderHeight, int nLeftBorderWidth)

  4 channel 16-bit unsigned integer image copy with nearest source image pixel color.

- NppStatus nppiCopyReplicateBorder_16u_AC4R (const Npp16u *pSrc, int nSrcStep, NppiSize oSrcSizeROI, Npp16u *pDst, int nDstStep, NppiSize oDstSizeROI, int nTopBorderHeight, int nLeftBorderWidth)

  4 channel 16-bit unsigned image copy with nearest source image pixel color with alpha channel unaffected.

- NppStatus nppiCopyReplicateBorder_16s_C1R (const Npp16s *pSrc, int nSrcStep, NppiSize oSrcSizeROI, Npp16s *pDst, int nDstStep, NppiSize oDstSizeROI, int nTopBorderHeight, int nLeftBorderWidth)

  1 channel 16-bit signed integer image copy with nearest source image pixel color.

- NppStatus nppiCopyReplicateBorder_16s_C3R (const Npp16s ∗pSrc, int nSrcStep, NppiSize oSrcSizeROI, Npp16s ∗pDst, int nDstStep, NppiSize oDstSizeROI, int nTopBorderHeight, int nLeftBorderWidth)

  3 channel 16-bit signed integer image copy with nearest source image pixel color.

- NppStatus nppiCopyReplicateBorder_16s_C4R (const Npp16s ∗pSrc, int nSrcStep, NppiSize oSrcSizeROI, Npp16s ∗pDst, int nDstStep, NppiSize oDstSizeROI, int nTopBorderHeight, int nLeftBorderWidth)

  4 channel 16-bit signed integer image copy with nearest source image pixel color.

- NppStatus nppiCopyReplicateBorder_16s_AC4R (const Npp16s ∗pSrc, int nSrcStep, NppiSize oSrcSizeROI, Npp16s ∗pDst, int nDstStep, NppiSize oDstSizeROI, int nTopBorderHeight, int nLeftBorderWidth)

  4 channel 16-bit signed integer image copy with nearest source image pixel color with alpha channel unaffected.

- NppStatus nppiCopyReplicateBorder_32s_C1R (const Npp32s ∗pSrc, int nSrcStep, NppiSize oSrcSizeROI, Npp32s ∗pDst, int nDstStep, NppiSize oDstSizeROI, int nTopBorderHeight, int nLeftBorderWidth)

  1 channel 32-bit signed integer image copy with nearest source image pixel color.

- NppStatus nppiCopyReplicateBorder_32s_C3R (const Npp32s ∗pSrc, int nSrcStep, NppiSize oSrcSizeROI, Npp32s ∗pDst, int nDstStep, NppiSize oDstSizeROI, int nTopBorderHeight, int nLeftBorderWidth)

  3 channel 32-bit signed image copy with nearest source image pixel color.

- NppStatus nppiCopyReplicateBorder_32s_C4R (const Npp32s ∗pSrc, int nSrcStep, NppiSize oSrcSizeROI, Npp32s ∗pDst, int nDstStep, NppiSize oDstSizeROI, int nTopBorderHeight, int nLeftBorderWidth)

  4 channel 32-bit signed integer image copy with nearest source image pixel color.

- NppStatus nppiCopyReplicateBorder_32s_AC4R (const Npp32s ∗pSrc, int nSrcStep, NppiSize oSrcSizeROI, Npp32s ∗pDst, int nDstStep, NppiSize oDstSizeROI, int nTopBorderHeight, int nLeftBorderWidth)

  4 channel 32-bit signed integer image copy with nearest source image pixel color with alpha channel unaffected.

- NppStatus nppiCopyReplicateBorder_32f_C1R (const Npp32f ∗pSrc, int nSrcStep, NppiSize oSrcSizeROI, Npp32f ∗pDst, int nDstStep, NppiSize oDstSizeROI, int nTopBorderHeight, int nLeftBorderWidth)

  1 channel 32-bit floating point image copy with nearest source image pixel color.

- NppStatus nppiCopyReplicateBorder_32f_C3R (const Npp32f ∗pSrc, int nSrcStep, NppiSize oSrcSizeROI, Npp32f ∗pDst, int nDstStep, NppiSize oDstSizeROI, int nTopBorderHeight, int nLeftBorderWidth)

  3 channel 32-bit floating point image copy with nearest source image pixel color.

- NppStatus nppiCopyReplicateBorder_32f_C4R (const Npp32f ∗pSrc, int nSrcStep, NppiSize oSrcSizeROI, Npp32f ∗pDst, int nDstStep, NppiSize oDstSizeROI, int nTopBorderHeight, int nLeftBorderWidth)

  4 channel 32-bit floating point image copy with nearest source image pixel color.

- NppStatus nppiCopyReplicateBorder_32f_AC4R (const Npp32f ∗pSrc, int nSrcStep, NppiSize oSrcSizeROI, Npp32f ∗pDst, int nDstStep, NppiSize oDstSizeROI, int nTopBorderHeight, int nLeftBorderWidth)

  4 channel 32-bit floating point image copy with nearest source image pixel color with alpha channel unaffected.

7.59.1 Function Documentation

7.59.1.1 NppStatus nppiCopyReplicateBorder_16s_AC4R (const Npp16s ∗ *pSrc*, int *nSrcStep*, NppiSize *oSrcSizeROI*, Npp16s ∗ *pDst*, int *nDstStep*, NppiSize *oDstSizeROI*, int *nTopBorderHeight*, int *nLeftBorderWidth*)

4 channel 16-bit signed integer image copy with nearest source image pixel color with alpha channel unaffected.

See nppiCopyReplicateBorder_16s_C1R() for detailed documentation.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSrcSizeROI Size of the source region-of-interest.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oDstSizeROI Size of the destination region-of-interest.

nTopBorderHeight Height of top border.

nLeftBorderWidth Width of left border.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.59.1.2 NppStatus nppiCopyReplicateBorder_16s_C1R (const Npp16s ∗ *pSrc*, int *nSrcStep*, NppiSize *oSrcSizeROI*, Npp16s ∗ *pDst*, int *nDstStep*, NppiSize *oDstSizeROI*, int *nTopBorderHeight*, int *nLeftBorderWidth*)

1 channel 16-bit signed integer image copy with nearest source image pixel color.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSrcSizeROI Size of the source region of pixels.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oDstSizeROI Size (width, height) of the destination region, i.e. the region that gets filled with data from the source image (inner part) and nearest source image pixel color (outer part).

nTopBorderHeight Height (in pixels) of the top border. The number of pixel rows at the top of the destination ROI that will be filled with the nearest source image pixel color. nBottomBorderHeight = oDstSizeROI.height - nTopBorderHeight - oSrcSizeROI.height.

nLeftBorderWidth Width (in pixels) of the left border. The width of the border at the right side of the destination ROI is implicitly defined by the size of the source ROI: nRightBorderWidth = oDstSizeROI.width - nLeftBorderWidth - oSrcSizeROI.width.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.59.1.3 NppStatus nppiCopyReplicateBorder_16s_C3R (const Npp16s ∗ *pSrc*, int *nSrcStep*, NppiSize *oSrcSizeROI*, Npp16s ∗ *pDst*, int *nDstStep*, NppiSize *oDstSizeROI*, int *nTopBorderHeight*, int *nLeftBorderWidth*)

3 channel 16-bit signed integer image copy with nearest source image pixel color.

See nppiCopyReplicateBorder_16s_C1R() for detailed documentation.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSrcSizeROI Size of the source region-of-interest.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oDstSizeROI Size of the destination region-of-interest.

nTopBorderHeight Height of top border.

nLeftBorderWidth Width of left border.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.59.1.4 NppStatus nppiCopyReplicateBorder_16s_C4R (const Npp16s ∗ *pSrc*, int *nSrcStep*, NppiSize *oSrcSizeROI*, Npp16s ∗ *pDst*, int *nDstStep*, NppiSize *oDstSizeROI*, int *nTopBorderHeight*, int *nLeftBorderWidth*)

4 channel 16-bit signed integer image copy with nearest source image pixel color.

See nppiCopyReplicateBorder_16s_C1R() for detailed documentation.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSrcSizeROI Size of the source region-of-interest.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oDstSizeROI Size of the destination region-of-interest.

nTopBorderHeight Height of top border.

nLeftBorderWidth Width of left border.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.59.1.5 NppStatus nppiCopyReplicateBorder_16u_AC4R (const Npp16u ∗ *pSrc*, int *nSrcStep*, NppiSize *oSrcSizeROI*, Npp16u ∗ *pDst*, int *nDstStep*, NppiSize *oDstSizeROI*, int *nTopBorderHeight*, int *nLeftBorderWidth*)

4 channel 16-bit unsigned image copy with nearest source image pixel color with alpha channel unaffected.

See nppiCopyReplicateBorder_16u_C1R() for detailed documentation.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSrcSizeROI Size of the source region-of-interest.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oDstSizeROI Size of the destination region-of-interest.

nTopBorderHeight Height of top border.

nLeftBorderWidth Width of left border.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.59.1.6 NppStatus nppiCopyReplicateBorder_16u_C1R (const Npp16u ∗ *pSrc*, int *nSrcStep*, NppiSize *oSrcSizeROI*, Npp16u ∗ *pDst*, int *nDstStep*, NppiSize *oDstSizeROI*, int *nTopBorderHeight*, int *nLeftBorderWidth*)

1 channel 16-bit unsigned integer image copy with nearest source image pixel color.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSrcSizeROI Size of the source region of pixels.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oDstSizeROI Size (width, height) of the destination region, i.e. the region that gets filled with data from the source image (inner part) and nearest source image pixel color (outer part).

nTopBorderHeight Height (in pixels) of the top border. The number of pixel rows at the top of the destination ROI that will be filled with the nearest source image pixel color. nBottomBorderHeight = oDstSizeROI.height - nTopBorderHeight - oSrcSizeROI.height.

nLeftBorderWidth Width (in pixels) of the left border. The width of the border at the right side of the destination ROI is implicitly defined by the size of the source ROI: nRightBorderWidth = oDstSizeROI.width - nLeftBorderWidth - oSrcSizeROI.width.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.59.1.7 NppStatus nppiCopyReplicateBorder_16u_C3R (const Npp16u ∗ *pSrc*, int *nSrcStep*, NppiSize *oSrcSizeROI*, Npp16u ∗ *pDst*, int *nDstStep*, NppiSize *oDstSizeROI*, int *nTopBorderHeight*, int *nLeftBorderWidth*)

3 channel 16-bit unsigned integer image copy with nearest source image pixel color.

See nppiCopyReplicateBorder_16u_C1R() for detailed documentation.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSrcSizeROI Size of the source region-of-interest.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oDstSizeROI Size of the destination region-of-interest.

nTopBorderHeight Height of top border.

nLeftBorderWidth Width of left border.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.59.1.8 NppStatus nppiCopyReplicateBorder_16u_C4R (const Npp16u ∗ *pSrc*, int *nSrcStep*, NppiSize *oSrcSizeROI*, Npp16u ∗ *pDst*, int *nDstStep*, NppiSize *oDstSizeROI*, int *nTopBorderHeight*, int *nLeftBorderWidth*)

4 channel 16-bit unsigned integer image copy with nearest source image pixel color.

See nppiCopyReplicateBorder_16u_C1R() for detailed documentation.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSrcSizeROI Size of the source region-of-interest.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oDstSizeROI Size of the destination region-of-interest.

nTopBorderHeight Height of top border.

nLeftBorderWidth Width of left border.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.59.1.9 NppStatus nppiCopyReplicateBorder_32f_AC4R (const Npp32f ∗ *pSrc*, int *nSrcStep*, NppiSize *oSrcSizeROI*, Npp32f ∗ *pDst*, int *nDstStep*, NppiSize *oDstSizeROI*, int *nTopBorderHeight*, int *nLeftBorderWidth*)

4 channel 32-bit floating point image copy with nearest source image pixel color with alpha channel unaffected.

See nppiCopyReplicateBorder_32f_C1R() for detailed documentation.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSrcSizeROI Size of the source region-of-interest.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oDstSizeROI Size of the destination region-of-interest.

nTopBorderHeight Height of top border.

nLeftBorderWidth Width of left border.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.59.1.10 NppStatus nppiCopyReplicateBorder_32f_C1R (const Npp32f ∗ *pSrc*, int *nSrcStep*, NppiSize *oSrcSizeROI*, Npp32f ∗ *pDst*, int *nDstStep*, NppiSize *oDstSizeROI*, int *nTopBorderHeight*, int *nLeftBorderWidth*)

1 channel 32-bit floating point image copy with nearest source image pixel color.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSrcSizeROI Size of the source region of pixels.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oDstSizeROI Size (width, height) of the destination region, i.e. the region that gets filled with data from the source image (inner part) and nearest source image pixel color (outer part).

nTopBorderHeight Height (in pixels) of the top border. The number of pixel rows at the top of the destination ROI that will be filled with the nearest source image pixel color. nBottomBorderHeight = oDstSizeROI.height - nTopBorderHeight - oSrcSizeROI.height.

nLeftBorderWidth Width (in pixels) of the left border. The width of the border at the right side of the destination ROI is implicitly defined by the size of the source ROI: nRightBorderWidth = oDstSizeROI.width - nLeftBorderWidth - oSrcSizeROI.width.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.59.1.11 NppStatus nppiCopyReplicateBorder_32f_C3R (const Npp32f ∗ *pSrc*, int *nSrcStep*, NppiSize *oSrcSizeROI*, Npp32f ∗ *pDst*, int *nDstStep*, NppiSize *oDstSizeROI*, int *nTopBorderHeight*, int *nLeftBorderWidth*)

3 channel 32-bit floating point image copy with nearest source image pixel color.

See nppiCopyReplicateBorder_32f_C1R() for detailed documentation.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSrcSizeROI Size of the source region-of-interest.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oDstSizeROI Size of the destination region-of-interest.

nTopBorderHeight Height of top border.

nLeftBorderWidth Width of left border.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.59.1.12 NppStatus nppiCopyReplicateBorder_32f_C4R (const Npp32f ∗ *pSrc*, int *nSrcStep*, NppiSize *oSrcSizeROI*, Npp32f ∗ *pDst*, int *nDstStep*, NppiSize *oDstSizeROI*, int *nTopBorderHeight*, int *nLeftBorderWidth*)

4 channel 32-bit floating point image copy with nearest source image pixel color.

See nppiCopyReplicateBorder_32f_C1R() for detailed documentation.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSrcSizeROI Size of the source region-of-interest.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oDstSizeROI Size of the destination region-of-interest.

nTopBorderHeight Height of top border.

nLeftBorderWidth Width of left border.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.59.1.13 NppStatus nppiCopyReplicateBorder_32s_AC4R (const Npp32s ∗ *pSrc*, int *nSrcStep*, NppiSize *oSrcSizeROI*, Npp32s ∗ *pDst*, int *nDstStep*, NppiSize *oDstSizeROI*, int *nTopBorderHeight*, int *nLeftBorderWidth*)

4 channel 32-bit signed integer image copy with nearest source image pixel color with alpha channel unaffected.

See nppiCopyReplicateBorder_32s_C1R() for detailed documentation.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSrcSizeROI Size of the source region-of-interest.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oDstSizeROI Size of the destination region-of-interest.

nTopBorderHeight Height of top border.

nLeftBorderWidth Width of left border.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.59.1.14 NppStatus nppiCopyReplicateBorder_32s_C1R (const Npp32s ∗ *pSrc*, int *nSrcStep*, NppiSize *oSrcSizeROI*, Npp32s ∗ *pDst*, int *nDstStep*, NppiSize *oDstSizeROI*, int *nTopBorderHeight*, int *nLeftBorderWidth*)

1 channel 32-bit signed integer image copy with nearest source image pixel color.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSrcSizeROI Size of the source region of pixels.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oDstSizeROI Size (width, height) of the destination region, i.e. the region that gets filled with data from the source image (inner part) and nearest source image pixel color (outer part).

nTopBorderHeight Height (in pixels) of the top border. The number of pixel rows at the top of the destination ROI that will be filled with the nearest source image pixel color. nBottomBorderHeight = oDstSizeROI.height - nTopBorderHeight - oSrcSizeROI.height.

nLeftBorderWidth Width (in pixels) of the left border. The width of the border at the right side of the destination ROI is implicitly defined by the size of the source ROI: nRightBorderWidth = oDstSizeROI.width - nLeftBorderWidth - oSrcSizeROI.width.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.59.1.15 NppStatus nppiCopyReplicateBorder_32s_C3R (const Npp32s * *pSrc*, int *nSrcStep*, NppiSize *oSrcSizeROI*, Npp32s * *pDst*, int *nDstStep*, NppiSize *oDstSizeROI*, int *nTopBorderHeight*, int *nLeftBorderWidth*)

3 channel 32-bit signed image copy with nearest source image pixel color.

See nppiCopyReplicateBorder_32s_C1R() for detailed documentation.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSrcSizeROI Size of the source region-of-interest.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oDstSizeROI Size of the destination region-of-interest.

nTopBorderHeight Height of top border.

nLeftBorderWidth Width of left border.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.59.1.16 NppStatus nppiCopyReplicateBorder_32s_C4R (const Npp32s * *pSrc*, int *nSrcStep*, NppiSize *oSrcSizeROI*, Npp32s * *pDst*, int *nDstStep*, NppiSize *oDstSizeROI*, int *nTopBorderHeight*, int *nLeftBorderWidth*)

4 channel 32-bit signed integer image copy with nearest source image pixel color.

See nppiCopyReplicateBorder_32s_C1R() for detailed documentation.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSrcSizeROI Size of the source region-of-interest.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oDstSizeROI Size of the destination region-of-interest.

nTopBorderHeight Height of top border.

nLeftBorderWidth Width of left border.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.59.1.17 NppStatus nppiCopyReplicateBorder_8u_AC4R (const Npp8u * *pSrc*, int *nSrcStep*, NppiSize *oSrcSizeROI*, Npp8u * *pDst*, int *nDstStep*, NppiSize *oDstSizeROI*, int *nTopBorderHeight*, int *nLeftBorderWidth*)

4 channel 8-bit unsigned integer image copy with nearest source image pixel color with alpha channel unaffected.

See nppiCopyReplicateBorder_8u_C1R() for detailed documentation.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSrcSizeROI Size of the source region-of-interest.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oDstSizeROI Size of the destination region-of-interest.

nTopBorderHeight Height of top border.

nLeftBorderWidth Width of left border.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.59.1.18 NppStatus nppiCopyReplicateBorder_8u_C1R (const Npp8u * *pSrc*, int *nSrcStep*, NppiSize *oSrcSizeROI*, Npp8u * *pDst*, int *nDstStep*, NppiSize *oDstSizeROI*, int *nTopBorderHeight*, int *nLeftBorderWidth*)

1 channel 8-bit unsigned integer image copy with nearest source image pixel color.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSrcSizeROI Size of the source region of pixels.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oDstSizeROI Size (width, height) of the destination region, i.e. the region that gets filled with data from the source image (inner part) and nearest source image pixel color (outer part).

nTopBorderHeight Height (in pixels) of the top border. The number of pixel rows at the top of the destination ROI that will be filled with the nearest source image pixel color. nBottomBorderHeight = oDstSizeROI.height - nTopBorderHeight - oSrcSizeROI.height.

nLeftBorderWidth Width (in pixels) of the left border. The width of the border at the right side of the destination ROI is implicitly defined by the size of the source ROI: nRightBorderWidth = oDstSizeROI.width - nLeftBorderWidth - oSrcSizeROI.width.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.59.1.19 NppStatus nppiCopyReplicateBorder_8u_C3R (const Npp8u $*$ *pSrc*, int *nSrcStep*, NppiSize *oSrcSizeROI*, Npp8u $*$ *pDst*, int *nDstStep*, NppiSize *oDstSizeROI*, int *nTopBorderHeight*, int *nLeftBorderWidth*)

3 channel 8-bit unsigned integer image copy with nearest source image pixel color.

See nppiCopyReplicateBorder_8u_C1R() for detailed documentation.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSrcSizeROI Size of the source region-of-interest.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oDstSizeROI Size of the destination region-of-interest.

nTopBorderHeight Height of top border.

nLeftBorderWidth Width of left border.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.59.1.20 NppStatus nppiCopyReplicateBorder_8u_C4R (const Npp8u $*$ *pSrc*, int *nSrcStep*, NppiSize *oSrcSizeROI*, Npp8u $*$ *pDst*, int *nDstStep*, NppiSize *oDstSizeROI*, int *nTopBorderHeight*, int *nLeftBorderWidth*)

4 channel 8-bit unsigned integer image copy with nearest source image pixel color.

See nppiCopyReplicateBorder_8u_C1R() for detailed documentation.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSrcSizeROI Size of the source region-of-interest.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oDstSizeROI Size of the destination region-of-interest.

nTopBorderHeight Height of top border.

nLeftBorderWidth Width of left border.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.60 Copy Wrap Border

CopyWrapBorder

Methods for copying images and padding borders with wrapped replications of the source image pixel colors.

- NppStatus nppiCopyWrapBorder_8u_C1R (const Npp8u ∗pSrc, int nSrcStep, NppiSize oSrcSizeROI, Npp8u ∗pDst, int nDstStep, NppiSize oDstSizeROI, int nTopBorderHeight, int nLeftBorderWidth)

  1 channel 8-bit unsigned integer image copy with the borders wrapped by replication of source image pixel colors.

- NppStatus nppiCopyWrapBorder_8u_C3R (const Npp8u ∗pSrc, int nSrcStep, NppiSize oSrcSizeROI, Npp8u ∗pDst, int nDstStep, NppiSize oDstSizeROI, int nTopBorderHeight, int nLeftBorderWidth)

  3 channel 8-bit unsigned integer image copy with the borders wrapped by replication of source image pixel colors.

- NppStatus nppiCopyWrapBorder_8u_C4R (const Npp8u ∗pSrc, int nSrcStep, NppiSize oSrcSizeROI, Npp8u ∗pDst, int nDstStep, NppiSize oDstSizeROI, int nTopBorderHeight, int nLeftBorderWidth)

  4 channel 8-bit unsigned integer image copy with the borders wrapped by replication of source image pixel colors.

- NppStatus nppiCopyWrapBorder_8u_AC4R (const Npp8u ∗pSrc, int nSrcStep, NppiSize oSrcSizeROI, Npp8u ∗pDst, int nDstStep, NppiSize oDstSizeROI, int nTopBorderHeight, int nLeftBorderWidth)

  4 channel 8-bit unsigned integer image copy with the borders wrapped by replication of source image pixel colors with alpha channel unaffected.

- NppStatus nppiCopyWrapBorder_16u_C1R (const Npp16u ∗pSrc, int nSrcStep, NppiSize oSrcSizeROI, Npp16u ∗pDst, int nDstStep, NppiSize oDstSizeROI, int nTopBorderHeight, int nLeftBorderWidth)

  1 channel 16-bit unsigned integer image copy with the borders wrapped by replication of source image pixel colors.

- NppStatus nppiCopyWrapBorder_16u_C3R (const Npp16u ∗pSrc, int nSrcStep, NppiSize oSrcSizeROI, Npp16u ∗pDst, int nDstStep, NppiSize oDstSizeROI, int nTopBorderHeight, int nLeftBorderWidth)

  3 channel 16-bit unsigned integer image copy with the borders wrapped by replication of source image pixel colors.

- NppStatus nppiCopyWrapBorder_16u_C4R (const Npp16u ∗pSrc, int nSrcStep, NppiSize oSrcSizeROI, Npp16u ∗pDst, int nDstStep, NppiSize oDstSizeROI, int nTopBorderHeight, int nLeftBorderWidth)

  4 channel 16-bit unsigned integer image copy with the borders wrapped by replication of source image pixel colors.

- NppStatus nppiCopyWrapBorder_16u_AC4R (const Npp16u ∗pSrc, int nSrcStep, NppiSize oSrcSizeROI, Npp16u ∗pDst, int nDstStep, NppiSize oDstSizeROI, int nTopBorderHeight, int nLeftBorderWidth)

4 channel 16-bit unsigned integer image copy with the borders wrapped by replication of source image pixel colors with alpha channel unaffected.

- NppStatus nppiCopyWrapBorder_16s_C1R (const Npp16s ∗pSrc, int nSrcStep, NppiSize oSrcSizeROI, Npp16s ∗pDst, int nDstStep, NppiSize oDstSizeROI, int nTopBorderHeight, int nLeftBorderWidth)

  1 channel 16-bit signed integer image copy with the borders wrapped by replication of source image pixel colors.

- NppStatus nppiCopyWrapBorder_16s_C3R (const Npp16s ∗pSrc, int nSrcStep, NppiSize oSrcSizeROI, Npp16s ∗pDst, int nDstStep, NppiSize oDstSizeROI, int nTopBorderHeight, int nLeftBorderWidth)

  3 channel 16-bit signed integer image copy with the borders wrapped by replication of source image pixel colors.

- NppStatus nppiCopyWrapBorder_16s_C4R (const Npp16s ∗pSrc, int nSrcStep, NppiSize oSrcSizeROI, Npp16s ∗pDst, int nDstStep, NppiSize oDstSizeROI, int nTopBorderHeight, int nLeftBorderWidth)

  4 channel 16-bit signed integer image copy with the borders wrapped by replication of source image pixel colors.

- NppStatus nppiCopyWrapBorder_16s_AC4R (const Npp16s ∗pSrc, int nSrcStep, NppiSize oSrcSizeROI, Npp16s ∗pDst, int nDstStep, NppiSize oDstSizeROI, int nTopBorderHeight, int nLeftBorderWidth)

  4 channel 16-bit signed integer image copy with the borders wrapped by replication of source image pixel colors with alpha channel unaffected.

- NppStatus nppiCopyWrapBorder_32s_C1R (const Npp32s ∗pSrc, int nSrcStep, NppiSize oSrcSizeROI, Npp32s ∗pDst, int nDstStep, NppiSize oDstSizeROI, int nTopBorderHeight, int nLeftBorderWidth)

  1 channel 32-bit signed integer image copy with the borders wrapped by replication of source image pixel colors.

- NppStatus nppiCopyWrapBorder_32s_C3R (const Npp32s ∗pSrc, int nSrcStep, NppiSize oSrcSizeROI, Npp32s ∗pDst, int nDstStep, NppiSize oDstSizeROI, int nTopBorderHeight, int nLeftBorderWidth)

  3 channel 32-bit signed integer image copy with the borders wrapped by replication of source image pixel colors.

- NppStatus nppiCopyWrapBorder_32s_C4R (const Npp32s ∗pSrc, int nSrcStep, NppiSize oSrcSizeROI, Npp32s ∗pDst, int nDstStep, NppiSize oDstSizeROI, int nTopBorderHeight, int nLeftBorderWidth)

  4 channel 32-bit signed integer image copy with the borders wrapped by replication of source image pixel colors.

- NppStatus nppiCopyWrapBorder_32s_AC4R (const Npp32s ∗pSrc, int nSrcStep, NppiSize oSrcSizeROI, Npp32s ∗pDst, int nDstStep, NppiSize oDstSizeROI, int nTopBorderHeight, int nLeftBorderWidth)

  4 channel 32-bit signed integer image copy with the borders wrapped by replication of source image pixel colors with alpha channel unaffected.

- NppStatus nppiCopyWrapBorder_32f_C1R (const Npp32f ∗pSrc, int nSrcStep, NppiSize oSrcSizeROI, Npp32f ∗pDst, int nDstStep, NppiSize oDstSizeROI, int nTopBorderHeight, int nLeftBorderWidth)

  1 channel 32-bit floating point image copy with the borders wrapped by replication of source image pixel colors.

- NppStatus nppiCopyWrapBorder_32f_C3R (const Npp32f ∗pSrc, int nSrcStep, NppiSize oSrcSizeROI, Npp32f ∗pDst, int nDstStep, NppiSize oDstSizeROI, int nTopBorderHeight, int nLeftBorderWidth)

  3 channel 32-bit floating point image copy with the borders wrapped by replication of source image pixel colors.

- NppStatus nppiCopyWrapBorder_32f_C4R (const Npp32f ∗pSrc, int nSrcStep, NppiSize oSrcSizeROI, Npp32f ∗pDst, int nDstStep, NppiSize oDstSizeROI, int nTopBorderHeight, int nLeftBorderWidth)

  4 channel 32-bit floating point image copy with the borders wrapped by replication of source image pixel colors.

- NppStatus nppiCopyWrapBorder_32f_AC4R (const Npp32f ∗pSrc, int nSrcStep, NppiSize oSrcSizeROI, Npp32f ∗pDst, int nDstStep, NppiSize oDstSizeROI, int nTopBorderHeight, int nLeftBorderWidth)

  1 channel 32-bit floating point image copy with the borders wrapped by replication of source image pixel colors with alpha channel unaffected.

7.60.1 Function Documentation

7.60.1.1 NppStatus nppiCopyWrapBorder_16s_AC4R (const Npp16s ∗ *pSrc*, int *nSrcStep*, NppiSize *oSrcSizeROI*, Npp16s ∗ *pDst*, int *nDstStep*, NppiSize *oDstSizeROI*, int *nTopBorderHeight*, int *nLeftBorderWidth*)

4 channel 16-bit signed integer image copy with the borders wrapped by replication of source image pixel colors with alpha channel unaffected.

See nppiCopyWrapBorder_16s_C1R() for detailed documentation.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSrcSizeROI Size of the source region-of-interest.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oDstSizeROI Size of the destination region-of-interest.

nTopBorderHeight Height of top border.

nLeftBorderWidth Width of left border.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.60.1.2 NppStatus nppiCopyWrapBorder_16s_C1R (const Npp16s $*$ *pSrc*, int *nSrcStep*, NppiSize *oSrcSizeROI*, Npp16s $*$ *pDst*, int *nDstStep*, NppiSize *oDstSizeROI*, int *nTopBorderHeight*, int *nLeftBorderWidth*)

1 channel 16-bit signed integer image copy with the borders wrapped by replication of source image pixel colors.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSrcSizeROI Size of the source region of pixels.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oDstSizeROI Size (width, height) of the destination region, i.e. the region that gets filled with data from the source image (inner part) and a border consisting of wrapped replication of the source image pixel colors (outer part).

nTopBorderHeight Height (in pixels) of the top border. The number of pixel rows at the top of the destination ROI that will be filled with the wrapped replication of the corresponding column of source image pixels colors. nBottomBorderHeight = oDstSizeROI.height - nTopBorderHeight - oSrcSizeROI.height.

nLeftBorderWidth Width (in pixels) of the left border. The width of the border at the right side of the destination ROI is implicitly defined by the size of the source ROI: nRightBorderWidth = oDstSizeROI.width - nLeftBorderWidth - oSrcSizeROI.width.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.60.1.3 NppStatus nppiCopyWrapBorder_16s_C3R (const Npp16s $*$ *pSrc*, int *nSrcStep*, NppiSize *oSrcSizeROI*, Npp16s $*$ *pDst*, int *nDstStep*, NppiSize *oDstSizeROI*, int *nTopBorderHeight*, int *nLeftBorderWidth*)

3 channel 16-bit signed integer image copy with the borders wrapped by replication of source image pixel colors.

See nppiCopyWrapBorder_16s_C1R() for detailed documentation.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSrcSizeROI Size of the source region-of-interest.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oDstSizeROI Size of the destination region-of-interest.

nTopBorderHeight Height of top border.

nLeftBorderWidth Width of left border.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.60.1.4 NppStatus nppiCopyWrapBorder_16s_C4R (const Npp16s ∗ *pSrc*, int *nSrcStep*, NppiSize *oSrcSizeROI*, Npp16s ∗ *pDst*, int *nDstStep*, NppiSize *oDstSizeROI*, int *nTopBorderHeight*, int *nLeftBorderWidth*)

4 channel 16-bit signed integer image copy with the borders wrapped by replication of source image pixel colors.

See nppiCopyWrapBorder_16s_C1R() for detailed documentation.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSrcSizeROI Size of the source region-of-interest.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oDstSizeROI Size of the destination region-of-interest.

nTopBorderHeight Height of top border.

nLeftBorderWidth Width of left border.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.60.1.5 NppStatus nppiCopyWrapBorder_16u_AC4R (const Npp16u ∗ *pSrc*, int *nSrcStep*, NppiSize *oSrcSizeROI*, Npp16u ∗ *pDst*, int *nDstStep*, NppiSize *oDstSizeROI*, int *nTopBorderHeight*, int *nLeftBorderWidth*)

4 channel 16-bit unsigned integer image copy with the borders wrapped by replication of source image pixel colors with alpha channel unaffected.

See nppiCopyWrapBorder_16u_C1R() for detailed documentation.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSrcSizeROI Size of the source region-of-interest.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oDstSizeROI Size of the destination region-of-interest.

nTopBorderHeight Height of top border.

nLeftBorderWidth Width of left border.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.60.1.6 NppStatus nppiCopyWrapBorder_16u_C1R (const Npp16u * *pSrc*, int *nSrcStep*, NppiSize *oSrcSizeROI*, Npp16u * *pDst*, int *nDstStep*, NppiSize *oDstSizeROI*, int *nTopBorderHeight*, int *nLeftBorderWidth*)

1 channel 16-bit unsigned integer image copy with the borders wrapped by replication of source image pixel colors.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSrcSizeROI Size of the source region of pixels.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oDstSizeROI Size (width, height) of the destination region, i.e. the region that gets filled with data from the source image (inner part) and a border consisting of wrapped replication of the source image pixel colors (outer part).

nTopBorderHeight Height (in pixels) of the top border. The number of pixel rows at the top of the destination ROI that will be filled with the wrapped replication of the corresponding column of source image pixels colors. nBottomBorderHeight = oDstSizeROI.height - nTopBorderHeight - oSrcSizeROI.height.

nLeftBorderWidth Width (in pixels) of the left border. The width of the border at the right side of the destination ROI is implicitly defined by the size of the source ROI: nRightBorderWidth = oDstSizeROI.width - nLeftBorderWidth - oSrcSizeROI.width.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.60.1.7 NppStatus nppiCopyWrapBorder_16u_C3R (const Npp16u * *pSrc*, int *nSrcStep*, NppiSize *oSrcSizeROI*, Npp16u * *pDst*, int *nDstStep*, NppiSize *oDstSizeROI*, int *nTopBorderHeight*, int *nLeftBorderWidth*)

3 channel 16-bit unsigned integer image copy with the borders wrapped by replication of source image pixel colors.

See nppiCopyWrapBorder_16u_C1R() for detailed documentation.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSrcSizeROI Size of the source region-of-interest.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oDstSizeROI Size of the destination region-of-interest.

nTopBorderHeight Height of top border.

nLeftBorderWidth Width of left border.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.60.1.8 NppStatus nppiCopyWrapBorder_16u_C4R (const Npp16u $*$ *pSrc*, int *nSrcStep*, NppiSize *oSrcSizeROI*, Npp16u $*$ *pDst*, int *nDstStep*, NppiSize *oDstSizeROI*, int *nTopBorderHeight*, int *nLeftBorderWidth*)

4 channel 16-bit unsigned integer image copy with the borders wrapped by replication of source image pixel colors.

See nppiCopyWrapBorder_16u_C1R() for detailed documentation.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSrcSizeROI Size of the source region-of-interest.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oDstSizeROI Size of the destination region-of-interest.

nTopBorderHeight Height of top border.

nLeftBorderWidth Width of left border.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.60.1.9 NppStatus nppiCopyWrapBorder_32f_AC4R (const Npp32f $*$ *pSrc*, int *nSrcStep*, NppiSize *oSrcSizeROI*, Npp32f $*$ *pDst*, int *nDstStep*, NppiSize *oDstSizeROI*, int *nTopBorderHeight*, int *nLeftBorderWidth*)

1 channel 32-bit floating point image copy with the borders wrapped by replication of source image pixel colors with alpha channel unaffected.

See nppiCopyWrapBorder_32f_C1R() for detailed documentation.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSrcSizeROI Size of the source region-of-interest.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oDstSizeROI Size of the destination region-of-interest.

nTopBorderHeight Height of top border.

nLeftBorderWidth Width of left border.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.60.1.10 NppStatus nppiCopyWrapBorder_32f_C1R (const Npp32f ∗ *pSrc*, int *nSrcStep*, NppiSize *oSrcSizeROI*, Npp32f ∗ *pDst*, int *nDstStep*, NppiSize *oDstSizeROI*, int *nTopBorderHeight*, int *nLeftBorderWidth*)

1 channel 32-bit floating point image copy with the borders wrapped by replication of source image pixel colors.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSrcSizeROI Size of the source region of pixels.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oDstSizeROI Size (width, height) of the destination region, i.e. the region that gets filled with data from the source image (inner part) and a border consisting of wrapped replication of the source image pixel colors (outer part).

nTopBorderHeight Height (in pixels) of the top border. The number of pixel rows at the top of the destination ROI that will be filled with the wrapped replication of the corresponding column of source image pixels colors. nBottomBorderHeight = oDstSizeROI.height - nTopBorderHeight - oSrcSizeROI.height.

nLeftBorderWidth Width (in pixels) of the left border. The width of the border at the right side of the destination ROI is implicitly defined by the size of the source ROI: nRightBorderWidth = oDstSizeROI.width - nLeftBorderWidth - oSrcSizeROI.width.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.60.1.11 NppStatus nppiCopyWrapBorder_32f_C3R (const Npp32f ∗ *pSrc*, int *nSrcStep*, NppiSize *oSrcSizeROI*, Npp32f ∗ *pDst*, int *nDstStep*, NppiSize *oDstSizeROI*, int *nTopBorderHeight*, int *nLeftBorderWidth*)

3 channel 32-bit floating point image copy with the borders wrapped by replication of source image pixel colors.

See nppiCopyWrapBorder_32f_C1R() for detailed documentation.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSrcSizeROI Size of the source region-of-interest.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oDstSizeROI Size of the destination region-of-interest.

nTopBorderHeight Height of top border.

nLeftBorderWidth Width of left border.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.60.1.12 NppStatus nppiCopyWrapBorder_32f_C4R (const Npp32f $*$ *pSrc*, int *nSrcStep*, NppiSize *oSrcSizeROI*, Npp32f $*$ *pDst*, int *nDstStep*, NppiSize *oDstSizeROI*, int *nTopBorderHeight*, int *nLeftBorderWidth*)

4 channel 32-bit floating point image copy with the borders wrapped by replication of source image pixel colors.

See nppiCopyWrapBorder_32f_C1R() for detailed documentation.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSrcSizeROI Size of the source region-of-interest.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oDstSizeROI Size of the destination region-of-interest.

nTopBorderHeight Height of top border.

nLeftBorderWidth Width of left border.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.60.1.13 NppStatus nppiCopyWrapBorder_32s_AC4R (const Npp32s $*$ *pSrc*, int *nSrcStep*, NppiSize *oSrcSizeROI*, Npp32s $*$ *pDst*, int *nDstStep*, NppiSize *oDstSizeROI*, int *nTopBorderHeight*, int *nLeftBorderWidth*)

4 channel 32-bit signed integer image copy with the borders wrapped by replication of source image pixel colors with alpha channel unaffected.

See nppiCopyWrapBorder_32s_C1R() for detailed documentation.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSrcSizeROI Size of the source region-of-interest.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oDstSizeROI Size of the destination region-of-interest.

nTopBorderHeight Height of top border.

nLeftBorderWidth Width of left border.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.60.1.14 NppStatus nppiCopyWrapBorder_32s_C1R (const Npp32s ∗ *pSrc*, int *nSrcStep*, NppiSize *oSrcSizeROI*, Npp32s ∗ *pDst*, int *nDstStep*, NppiSize *oDstSizeROI*, int *nTopBorderHeight*, int *nLeftBorderWidth*)

1 channel 32-bit signed integer image copy with the borders wrapped by replication of source image pixel colors.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSrcSizeROI Size of the source region of pixels.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oDstSizeROI Size (width, height) of the destination region, i.e. the region that gets filled with data from the source image (inner part) and a border consisting of wrapped replication of the source image pixel colors (outer part).

nTopBorderHeight Height (in pixels) of the top border. The number of pixel rows at the top of the destination ROI that will be filled with the wrapped replication of the corresponding column of source image pixels colors. nBottomBorderHeight = oDstSizeROI.height - nTopBorderHeight - oSrcSizeROI.height.

nLeftBorderWidth Width (in pixels) of the left border. The width of the border at the right side of the destination ROI is implicitly defined by the size of the source ROI: nRightBorderWidth = oDstSizeROI.width - nLeftBorderWidth - oSrcSizeROI.width.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.60.1.15 NppStatus nppiCopyWrapBorder_32s_C3R (const Npp32s ∗ *pSrc*, int *nSrcStep*, NppiSize *oSrcSizeROI*, Npp32s ∗ *pDst*, int *nDstStep*, NppiSize *oDstSizeROI*, int *nTopBorderHeight*, int *nLeftBorderWidth*)

3 channel 32-bit signed integer image copy with the borders wrapped by replication of source image pixel colors.

See nppiCopyWrapBorder_32s_C1R() for detailed documentation.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSrcSizeROI Size of the source region-of-interest.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oDstSizeROI Size of the destination region-of-interest.

nTopBorderHeight Height of top border.

nLeftBorderWidth Width of left border.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.60.1.16 NppStatus nppiCopyWrapBorder_32s_C4R (const Npp32s ∗ *pSrc*, int *nSrcStep*, NppiSize *oSrcSizeROI*, Npp32s ∗ *pDst*, int *nDstStep*, NppiSize *oDstSizeROI*, int *nTopBorderHeight*, int *nLeftBorderWidth*)

4 channel 32-bit signed integer image copy with the borders wrapped by replication of source image pixel colors.

See nppiCopyWrapBorder_32s_C1R() for detailed documentation.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSrcSizeROI Size of the source region-of-interest.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oDstSizeROI Size of the destination region-of-interest.

nTopBorderHeight Height of top border.

nLeftBorderWidth Width of left border.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.60.1.17 NppStatus nppiCopyWrapBorder_8u_AC4R (const Npp8u ∗ *pSrc*, int *nSrcStep*, NppiSize *oSrcSizeROI*, Npp8u ∗ *pDst*, int *nDstStep*, NppiSize *oDstSizeROI*, int *nTopBorderHeight*, int *nLeftBorderWidth*)

4 channel 8-bit unsigned integer image copy with the borders wrapped by replication of source image pixel colors with alpha channel unaffected.

See nppiCopyWrapBorder_8u_C1R() for detailed documentation.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSrcSizeROI Size of the source region-of-interest.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oDstSizeROI Size of the destination region-of-interest.

nTopBorderHeight Height of top border.

nLeftBorderWidth Width of left border.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.60.1.18 NppStatus nppiCopyWrapBorder_8u_C1R (const Npp8u ∗ *pSrc*, int *nSrcStep*, NppiSize *oSrcSizeROI*, Npp8u ∗ *pDst*, int *nDstStep*, NppiSize *oDstSizeROI*, int *nTopBorderHeight*, int *nLeftBorderWidth*)

1 channel 8-bit unsigned integer image copy with the borders wrapped by replication of source image pixel colors.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSrcSizeROI Size of the source region of pixels.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oDstSizeROI Size (width, height) of the destination region, i.e. the region that gets filled with data from the source image (inner part) and a border consisting of wrapped replication of the source image pixel colors (outer part).

nTopBorderHeight Height (in pixels) of the top border. The number of pixel rows at the top of the destination ROI that will be filled with the wrapped replication of the corresponding column of source image pixels colors. nBottomBorderHeight = oDstSizeROI.height - nTopBorderHeight - oSrcSizeROI.height.

nLeftBorderWidth Width (in pixels) of the left border. The width of the border at the right side of the destination ROI is implicitly defined by the size of the source ROI: nRightBorderWidth = oDstSizeROI.width - nLeftBorderWidth - oSrcSizeROI.width.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.60.1.19 NppStatus nppiCopyWrapBorder_8u_C3R (const Npp8u ∗ *pSrc*, int *nSrcStep*, NppiSize *oSrcSizeROI*, Npp8u ∗ *pDst*, int *nDstStep*, NppiSize *oDstSizeROI*, int *nTopBorderHeight*, int *nLeftBorderWidth*)

3 channel 8-bit unsigned integer image copy with the borders wrapped by replication of source image pixel colors.

See nppiCopyWrapBorder_8u_C1R() for detailed documentation.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSrcSizeROI Size of the source region-of-interest.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oDstSizeROI Size of the destination region-of-interest.

nTopBorderHeight Height of top border.

nLeftBorderWidth Width of left border.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.60.1.20 NppStatus nppiCopyWrapBorder_8u_C4R (const Npp8u ∗ *pSrc*, int *nSrcStep*, NppiSize *oSrcSizeROI*, Npp8u ∗ *pDst*, int *nDstStep*, NppiSize *oDstSizeROI*, int *nTopBorderHeight*, int *nLeftBorderWidth*)

4 channel 8-bit unsigned integer image copy with the borders wrapped by replication of source image pixel colors.

See nppiCopyWrapBorder_8u_C1R() for detailed documentation.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSrcSizeROI Size of the source region-of-interest.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oDstSizeROI Size of the destination region-of-interest.

nTopBorderHeight Height of top border.

nLeftBorderWidth Width of left border.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.61 Copy Sub-Pixel

CopySubpix

Functions for copying linearly interpolated images using source image subpixel coordinates

- NppStatus nppiCopySubpix_8u_C1R (const Npp8u ∗pSrc, int nSrcStep, Npp8u ∗pDst, int nDstStep, NppiSize oDstSizeROI, Npp32f nDx, Npp32f nDy)

  1 channel 8-bit unsigned integer linearly interpolated source image subpixel coordinate color copy.

- NppStatus nppiCopySubpix_8u_C3R (const Npp8u ∗pSrc, int nSrcStep, Npp8u ∗pDst, int nDstStep, NppiSize oDstSizeROI, Npp32f nDx, Npp32f nDy)

  3 channel 8-bit unsigned integer linearly interpolated source image subpixel coordinate color copy.

- NppStatus nppiCopySubpix_8u_C4R (const Npp8u ∗pSrc, int nSrcStep, Npp8u ∗pDst, int nDstStep, NppiSize oDstSizeROI, Npp32f nDx, Npp32f nDy)

  4 channel 8-bit unsigned integer linearly interpolated source image subpixel coordinate color copy.

- NppStatus nppiCopySubpix_8u_AC4R (const Npp8u ∗pSrc, int nSrcStep, Npp8u ∗pDst, int nDstStep, NppiSize oDstSizeROI, Npp32f nDx, Npp32f nDy)

  4 channel 8-bit unsigned integer linearly interpolated source image subpixel coordinate color copy with alpha channel unaffected.

- NppStatus nppiCopySubpix_16u_C1R (const Npp16u ∗pSrc, int nSrcStep, Npp16u ∗pDst, int nDstStep, NppiSize oDstSizeROI, Npp32f nDx, Npp32f nDy)

  1 channel 16-bit unsigned integer linearly interpolated source image subpixel coordinate color copy.

- NppStatus nppiCopySubpix_16u_C3R (const Npp16u ∗pSrc, int nSrcStep, Npp16u ∗pDst, int nDstStep, NppiSize oDstSizeROI, Npp32f nDx, Npp32f nDy)

  3 channel 16-bit unsigned integer linearly interpolated source image subpixel coordinate color copy.

- NppStatus nppiCopySubpix_16u_C4R (const Npp16u ∗pSrc, int nSrcStep, Npp16u ∗pDst, int nDstStep, NppiSize oDstSizeROI, Npp32f nDx, Npp32f nDy)

  4 channel 16-bit unsigned integer linearly interpolated source image subpixel coordinate color copy.

- NppStatus nppiCopySubpix_16u_AC4R (const Npp16u ∗pSrc, int nSrcStep, Npp16u ∗pDst, int nDstStep, NppiSize oDstSizeROI, Npp32f nDx, Npp32f nDy)

  4 channel 16-bit unsigned linearly interpolated source image subpixel coordinate color copy with alpha channel unaffected.

- NppStatus nppiCopySubpix_16s_C1R (const Npp16s ∗pSrc, int nSrcStep, Npp16s ∗pDst, int nDstStep, NppiSize oDstSizeROI, Npp32f nDx, Npp32f nDy)

  1 channel 16-bit signed integer linearly interpolated source image subpixel coordinate color copy.

- NppStatus nppiCopySubpix_16s_C3R (const Npp16s ∗pSrc, int nSrcStep, Npp16s ∗pDst, int nDstStep, NppiSize oDstSizeROI, Npp32f nDx, Npp32f nDy)

  3 channel 16-bit signed integer linearly interpolated source image subpixel coordinate color copy.

- NppStatus nppiCopySubpix_16s_C4R (const Npp16s ∗pSrc, int nSrcStep, Npp16s ∗pDst, int nDstStep, NppiSize oDstSizeROI, Npp32f nDx, Npp32f nDy)

  4 channel 16-bit signed integer linearly interpolated source image subpixel coordinate color copy.

- NppStatus nppiCopySubpix_16s_AC4R (const Npp16s ∗pSrc, int nSrcStep, Npp16s ∗pDst, int nDstStep, NppiSize oDstSizeROI, Npp32f nDx, Npp32f nDy)

  4 channel 16-bit signed integer linearly interpolated source image subpixel coordinate color copy with alpha channel unaffected.

- NppStatus nppiCopySubpix_32s_C1R (const Npp32s ∗pSrc, int nSrcStep, Npp32s ∗pDst, int nDstStep, NppiSize oDstSizeROI, Npp32f nDx, Npp32f nDy)

  1 channel 32-bit signed integer linearly interpolated source image subpixel coordinate color copy.

- NppStatus nppiCopySubpix_32s_C3R (const Npp32s ∗pSrc, int nSrcStep, Npp32s ∗pDst, int nDstStep, NppiSize oDstSizeROI, Npp32f nDx, Npp32f nDy)

  3 channel 32-bit signed linearly interpolated source image subpixel coordinate color copy.

- NppStatus nppiCopySubpix_32s_C4R (const Npp32s ∗pSrc, int nSrcStep, Npp32s ∗pDst, int nDstStep, NppiSize oDstSizeROI, Npp32f nDx, Npp32f nDy)

  4 channel 32-bit signed integer linearly interpolated source image subpixel coordinate color copy.

- NppStatus nppiCopySubpix_32s_AC4R (const Npp32s ∗pSrc, int nSrcStep, Npp32s ∗pDst, int nDstStep, NppiSize oDstSizeROI, Npp32f nDx, Npp32f nDy)

  4 channel 32-bit signed integer linearly interpolated source image subpixel coordinate color copy with alpha channel unaffected.

- NppStatus nppiCopySubpix_32f_C1R (const Npp32f ∗pSrc, int nSrcStep, Npp32f ∗pDst, int nDstStep, NppiSize oDstSizeROI, Npp32f nDx, Npp32f nDy)

  1 channel 32-bit floating point linearly interpolated source image subpixel coordinate color copy.

- NppStatus nppiCopySubpix_32f_C3R (const Npp32f ∗pSrc, int nSrcStep, Npp32f ∗pDst, int nDstStep, NppiSize oDstSizeROI, Npp32f nDx, Npp32f nDy)

  3 channel 32-bit floating point linearly interpolated source image subpixel coordinate color copy.

- NppStatus nppiCopySubpix_32f_C4R (const Npp32f ∗pSrc, int nSrcStep, Npp32f ∗pDst, int nDstStep, NppiSize oDstSizeROI, Npp32f nDx, Npp32f nDy)

  4 channel 32-bit floating point linearly interpolated source image subpixel coordinate color copy.

- NppStatus nppiCopySubpix_32f_AC4R (const Npp32f ∗pSrc, int nSrcStep, Npp32f ∗pDst, int nDstStep, NppiSize oDstSizeROI, Npp32f nDx, Npp32f nDy)

  4 channel 32-bit floating point linearly interpolated source image subpixel coordinate color copy with alpha channel unaffected.

7.61.1 Function Documentation

7.61.1.1 NppStatus nppiCopySubpix_16s_AC4R (const Npp16s ∗ *pSrc*, int *nSrcStep*, Npp16s ∗ *pDst*, int *nDstStep*, NppiSize *oDstSizeROI*, Npp32f *nDx*, Npp32f *nDy*)

4 channel 16-bit signed integer linearly interpolated source image subpixel coordinate color copy with alpha channel unaffected.

See nppiCopySubpix_16s_C1R() for detailed documentation.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oDstSizeROI Size of the destination region-of-interest.

nDx Fractional part of source image X coordinate.

nDy Fractional part of source image Y coordinate.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.61.1.2 NppStatus nppiCopySubpix_16s_C1R (const Npp16s ∗ *pSrc*, int *nSrcStep*, Npp16s ∗ *pDst*, int *nDstStep*, NppiSize *oDstSizeROI*, Npp32f *nDx*, Npp32f *nDy*)

1 channel 16-bit signed integer linearly interpolated source image subpixel coordinate color copy.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oDstSizeROI Size (width, height) of the destination region, i.e. the region that gets filled with data from the source image, source image ROI is assumed to be same as destination image ROI.

nDx Fractional part of source image X coordinate.

nDy Fractional part of source image Y coordinate.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.61.1.3 NppStatus nppiCopySubpix_16s_C3R (const Npp16s ∗ *pSrc*, int *nSrcStep*, Npp16s ∗ *pDst*, int *nDstStep*, NppiSize *oDstSizeROI*, Npp32f *nDx*, Npp32f *nDy*)

3 channel 16-bit signed integer linearly interpolated source image subpixel coordinate color copy.

See nppiCopySubpix_16s_C1R() for detailed documentation.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oDstSizeROI Size of the destination region-of-interest.

nDx Fractional part of source image X coordinate.

nDy Fractional part of source image Y coordinate.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.61.1.4 NppStatus nppiCopySubpix_16s_C4R (const Npp16s ∗ *pSrc*, int *nSrcStep*, Npp16s ∗ *pDst*, int *nDstStep*, NppiSize *oDstSizeROI*, Npp32f *nDx*, Npp32f *nDy*)

4 channel 16-bit signed integer linearly interpolated source image subpixel coordinate color copy.

See nppiCopySubpix_16s_C1R() for detailed documentation.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oDstSizeROI Size of the destination region-of-interest.

nDx Fractional part of source image X coordinate.

nDy Fractional part of source image Y coordinate.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.61.1.5 NppStatus nppiCopySubpix_16u_AC4R (const Npp16u ∗ *pSrc*, int *nSrcStep*, Npp16u ∗ *pDst*, int *nDstStep*, NppiSize *oDstSizeROI*, Npp32f *nDx*, Npp32f *nDy*)

4 channel 16-bit unsigned linearly interpolated source image subpixel coordinate color copy with alpha channel unaffected.

See nppiCopySubpix_16u_C1R() for detailed documentation.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oDstSizeROI Size of the destination region-of-interest.

nDx Fractional part of source image X coordinate.

nDy Fractional part of source image Y coordinate.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.61.1.6 NppStatus nppiCopySubpix_16u_C1R (const Npp16u ∗ *pSrc*, int *nSrcStep*, Npp16u ∗ *pDst*, int *nDstStep*, NppiSize *oDstSizeROI*, Npp32f *nDx*, Npp32f *nDy*)

1 channel 16-bit unsigned integer linearly interpolated source image subpixel coordinate color copy.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oDstSizeROI Size (width, height) of the destination region, i.e. the region that gets filled with data from the source image, source image ROI is assumed to be same as destination image ROI.

nDx Fractional part of source image X coordinate.

nDy Fractional part of source image Y coordinate.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.61.1.7 NppStatus nppiCopySubpix_16u_C3R (const Npp16u ∗ *pSrc*, int *nSrcStep*, Npp16u ∗ *pDst*, int *nDstStep*, NppiSize *oDstSizeROI*, Npp32f *nDx*, Npp32f *nDy*)

3 channel 16-bit unsigned integer linearly interpolated source image subpixel coordinate color copy.

See nppiCopySubpix_16u_C1R() for detailed documentation.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oDstSizeROI Size of the destination region-of-interest.

nDx Fractional part of source image X coordinate.

nDy Fractional part of source image Y coordinate.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.61.1.8 NppStatus nppiCopySubpix_16u_C4R (const Npp16u ∗ *pSrc*, int *nSrcStep*, Npp16u ∗ *pDst*, int *nDstStep*, NppiSize *oDstSizeROI*, Npp32f *nDx*, Npp32f *nDy*)

4 channel 16-bit unsigned integer linearly interpolated source image subpixel coordinate color copy.

See nppiCopySubpix_16u_C1R() for detailed documentation.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oDstSizeROI Size of the destination region-of-interest.

nDx Fractional part of source image X coordinate.

nDy Fractional part of source image Y coordinate.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.61.1.9 NppStatus nppiCopySubpix_32f_AC4R (const Npp32f ∗ *pSrc*, int *nSrcStep*, Npp32f ∗ *pDst*, int *nDstStep*, NppiSize *oDstSizeROI*, Npp32f *nDx*, Npp32f *nDy*)

4 channel 32-bit floating point linearly interpolated source image subpixel coordinate color copy with alpha channel unaffected.

See nppiCopySubpix_32f_C1R() for detailed documentation.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oDstSizeROI Size of the destination region-of-interest.

nDx Fractional part of source image X coordinate.

nDy Fractional part of source image Y coordinate.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.61.1.10 NppStatus nppiCopySubpix_32f_C1R (const Npp32f ∗ *pSrc*, int *nSrcStep*, Npp32f ∗ *pDst*, int *nDstStep*, NppiSize *oDstSizeROI*, Npp32f *nDx*, Npp32f *nDy*)

1 channel 32-bit floating point linearly interpolated source image subpixel coordinate color copy.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oDstSizeROI Size (width, height) of the destination region, i.e. the region that gets filled with data from the source image, source image ROI is assumed to be same as destination image ROI.

nDx Fractional part of source image X coordinate.

nDy Fractional part of source image Y coordinate.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.61.1.11 NppStatus nppiCopySubpix_32f_C3R (const Npp32f ∗ *pSrc*, int *nSrcStep*, Npp32f ∗ *pDst*, int *nDstStep*, NppiSize *oDstSizeROI*, Npp32f *nDx*, Npp32f *nDy*)

3 channel 32-bit floating point linearly interpolated source image subpixel coordinate color copy.

See nppiCopySubpix_32f_C1R() for detailed documentation.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oDstSizeROI Size of the destination region-of-interest.

nDx Fractional part of source image X coordinate.

nDy Fractional part of source image Y coordinate.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.61.1.12 NppStatus nppiCopySubpix_32f_C4R (const Npp32f ∗ *pSrc*, int *nSrcStep*, Npp32f ∗ *pDst*, int *nDstStep*, NppiSize *oDstSizeROI*, Npp32f *nDx*, Npp32f *nDy*)

4 channel 32-bit floating point linearly interpolated source image subpixel coordinate color copy.

See nppiCopySubpix_32f_C1R() for detailed documentation.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oDstSizeROI Size of the destination region-of-interest.

nDx Fractional part of source image X coordinate.

nDy Fractional part of source image Y coordinate.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.61.1.13 NppStatus nppiCopySubpix_32s_AC4R (const Npp32s ∗ *pSrc*, int *nSrcStep*, Npp32s ∗ *pDst*, int *nDstStep*, NppiSize *oDstSizeROI*, Npp32f *nDx*, Npp32f *nDy*)

4 channel 32-bit signed integer linearly interpolated source image subpixel coordinate color copy with alpha channel unaffected.

See nppiCopySubpix_32s_C1R() for detailed documentation.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oDstSizeROI Size of the destination region-of-interest.

nDx Fractional part of source image X coordinate.

nDy Fractional part of source image Y coordinate.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.61.1.14 NppStatus nppiCopySubpix_32s_C1R (const Npp32s ∗ *pSrc*, int *nSrcStep*, Npp32s ∗ *pDst*, int *nDstStep*, NppiSize *oDstSizeROI*, Npp32f *nDx*, Npp32f *nDy*)

1 channel 32-bit signed integer linearly interpolated source image subpixel coordinate color copy.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oDstSizeROI Size (width, height) of the destination region, i.e. the region that gets filled with data from the source image, source image ROI is assumed to be same as destination image ROI.

nDx Fractional part of source image X coordinate.

nDy Fractional part of source image Y coordinate.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.61.1.15 NppStatus nppiCopySubpix_32s_C3R (const Npp32s ∗ *pSrc*, int *nSrcStep*, Npp32s ∗ *pDst*, int *nDstStep*, NppiSize *oDstSizeROI*, Npp32f *nDx*, Npp32f *nDy*)

3 channel 32-bit signed linearly interpolated source image subpixel coordinate color copy.

See nppiCopySubpix_32s_C1R() for detailed documentation.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oDstSizeROI Size of the destination region-of-interest.

nDx Fractional part of source image X coordinate.

nDy Fractional part of source image Y coordinate.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.61.1.16 NppStatus nppiCopySubpix_32s_C4R (const Npp32s ∗ *pSrc*, int *nSrcStep*, Npp32s ∗ *pDst*, int *nDstStep*, NppiSize *oDstSizeROI*, Npp32f *nDx*, Npp32f *nDy*)

4 channel 32-bit signed integer linearly interpolated source image subpixel coordinate color copy.

See nppiCopySubpix_32s_C1R() for detailed documentation.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oDstSizeROI Size of the destination region-of-interest.

nDx Fractional part of source image X coordinate.

nDy Fractional part of source image Y coordinate.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.61.1.17 NppStatus nppiCopySubpix_8u_AC4R (const Npp8u ∗ *pSrc*, int *nSrcStep*, Npp8u ∗ *pDst*, int *nDstStep*, NppiSize *oDstSizeROI*, Npp32f *nDx*, Npp32f *nDy*)

4 channel 8-bit unsigned integer linearly interpolated source image subpixel coordinate color copy with alpha channel unaffected.

See nppiCopySubpix_8u_C1R() for detailed documentation.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oDstSizeROI Size of the destination region-of-interest.

nDx Fractional part of source image X coordinate.

nDy Fractional part of source image Y coordinate.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.61.1.18 NppStatus nppiCopySubpix_8u_C1R (const Npp8u * *pSrc*, int *nSrcStep*, Npp8u * *pDst*, int *nDstStep*, NppiSize *oDstSizeROI*, Npp32f *nDx*, Npp32f *nDy*)

1 channel 8-bit unsigned integer linearly interpolated source image subpixel coordinate color copy.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oDstSizeROI Size (width, height) of the destination region, i.e. the region that gets filled with data from the source image, source image ROI is assumed to be same as destination image ROI.

nDx Fractional part of source image X coordinate.

nDy Fractional part of source image Y coordinate.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.61.1.19 NppStatus nppiCopySubpix_8u_C3R (const Npp8u * *pSrc*, int *nSrcStep*, Npp8u * *pDst*, int *nDstStep*, NppiSize *oDstSizeROI*, Npp32f *nDx*, Npp32f *nDy*)

3 channel 8-bit unsigned integer linearly interpolated source image subpixel coordinate color copy.

See nppiCopySubpix_8u_C1R() for detailed documentation.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oDstSizeROI Size of the destination region-of-interest.

nDx Fractional part of source image X coordinate.

nDy Fractional part of source image Y coordinate.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.61.1.20 NppStatus nppiCopySubpix_8u_C4R (const Npp8u * *pSrc*, int *nSrcStep*, Npp8u * *pDst*, int *nDstStep*, NppiSize *oDstSizeROI*, Npp32f *nDx*, Npp32f *nDy*)

4 channel 8-bit unsigned integer linearly interpolated source image subpixel coordinate color copy.

See nppiCopySubpix_8u_C1R() for detailed documentation.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oDstSizeROI Size of the destination region-of-interest.

nDx Fractional part of source image X coordinate.

nDy Fractional part of source image Y coordinate.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.62 Duplicate Channel

Dup

Functions for duplicating a single channel image in a multiple channel image.

- NppStatus nppiDup_8u_C1C3R (const Npp8u ∗pSrc, int nSrcStep, Npp8u ∗pDst, int nDstStep, NppiSize oDstSizeROI)

  1 channel 8-bit unsigned integer source image duplicated in all 3 channels of destination image.

- NppStatus nppiDup_8u_C1C4R (const Npp8u ∗pSrc, int nSrcStep, Npp8u ∗pDst, int nDstStep, NppiSize oDstSizeROI)

  1 channel 8-bit unsigned integer source image duplicated in all 4 channels of destination image.

- NppStatus nppiDup_8u_C1AC4R (const Npp8u ∗pSrc, int nSrcStep, Npp8u ∗pDst, int nDstStep, NppiSize oDstSizeROI)

  1 channel 8-bit unsigned integer source image duplicated in 3 channels of 4 channel destination image with alpha channel unaffected.

- NppStatus nppiDup_16u_C1C3R (const Npp16u ∗pSrc, int nSrcStep, Npp16u ∗pDst, int nDstStep, NppiSize oDstSizeROI)

  1 channel 16-bit unsigned integer source image duplicated in all 3 channels of destination image.

- NppStatus nppiDup_16u_C1C4R (const Npp16u ∗pSrc, int nSrcStep, Npp16u ∗pDst, int nDstStep, NppiSize oDstSizeROI)

  1 channel 16-bit unsigned integer source image duplicated in all 4 channels of destination image.

- NppStatus nppiDup_16u_C1AC4R (const Npp16u ∗pSrc, int nSrcStep, Npp16u ∗pDst, int nDstStep, NppiSize oDstSizeROI)

  1 channel 16-bit unsigned integer source image duplicated in 3 channels of 4 channel destination image with alpha channel unaffected.

- NppStatus nppiDup_16s_C1C3R (const Npp16s ∗pSrc, int nSrcStep, Npp16s ∗pDst, int nDstStep, NppiSize oDstSizeROI)

  1 channel 16-bit signed integer source image duplicated in all 3 channels of destination image.

- NppStatus nppiDup_16s_C1C4R (const Npp16s ∗pSrc, int nSrcStep, Npp16s ∗pDst, int nDstStep, NppiSize oDstSizeROI)

  1 channel 16-bit signed integer source image duplicated in all 4 channels of destination image.

- NppStatus nppiDup_16s_C1AC4R (const Npp16s ∗pSrc, int nSrcStep, Npp16s ∗pDst, int nDstStep, NppiSize oDstSizeROI)

  1 channel 16-bit signed integer source image duplicated in 3 channels of 4 channel destination image with alpha channel unaffected.

- NppStatus nppiDup_32s_C1C3R (const Npp32s ∗pSrc, int nSrcStep, Npp32s ∗pDst, int nDstStep, NppiSize oDstSizeROI)

  1 channel 32-bit signed integer source image duplicated in all 3 channels of destination image.

- NppStatus nppiDup_32s_C1C4R (const Npp32s ∗pSrc, int nSrcStep, Npp32s ∗pDst, int nDstStep, NppiSize oDstSizeROI)

1 channel 32-bit signed integer source image duplicated in all 4 channels of destination image.

- NppStatus nppiDup_32s_C1AC4R (const Npp32s ∗pSrc, int nSrcStep, Npp32s ∗pDst, int nDstStep, NppiSize oDstSizeROI)

  1 channel 32-bit signed integer source image duplicated in 3 channels of 4 channel destination image with alpha channel unaffected.

- NppStatus nppiDup_32f_C1C3R (const Npp32f ∗pSrc, int nSrcStep, Npp32f ∗pDst, int nDstStep, NppiSize oDstSizeROI)

  1 channel 32-bit floating point source image duplicated in all 3 channels of destination image.

- NppStatus nppiDup_32f_C1C4R (const Npp32f ∗pSrc, int nSrcStep, Npp32f ∗pDst, int nDstStep, NppiSize oDstSizeROI)

  1 channel 32-bit floating point source image duplicated in all 4 channels of destination image.

- NppStatus nppiDup_32f_C1AC4R (const Npp32f ∗pSrc, int nSrcStep, Npp32f ∗pDst, int nDstStep, NppiSize oDstSizeROI)

  1 channel 32-bit floating point source image duplicated in 3 channels of 4 channel destination image with alpha channel unaffected.

7.62.1 Function Documentation

7.62.1.1 NppStatus nppiDup_16s_C1AC4R (const Npp16s ∗ *pSrc*, int *nSrcStep*, Npp16s ∗ *pDst*, int *nDstStep*, NppiSize *oDstSizeROI*)

1 channel 16-bit signed integer source image duplicated in 3 channels of 4 channel destination image with alpha channel unaffected.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oDstSizeROI Size of the destination region-of-interest.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.62.1.2 NppStatus nppiDup_16s_C1C3R (const Npp16s ∗ *pSrc*, int *nSrcStep*, Npp16s ∗ *pDst*, int *nDstStep*, NppiSize *oDstSizeROI*)

1 channel 16-bit signed integer source image duplicated in all 3 channels of destination image.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oDstSizeROI Size (width, height) of the destination region, i.e. the region that gets filled with data from the source image, source image ROI is assumed to be same as destination image ROI.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.62.1.3 NppStatus nppiDup_16s_C1C4R (const Npp16s ∗ *pSrc*, int *nSrcStep*, Npp16s ∗ *pDst*, int *nDstStep*, NppiSize *oDstSizeROI*)

1 channel 16-bit signed integer source image duplicated in all 4 channels of destination image.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oDstSizeROI Size of the destination region-of-interest.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.62.1.4 NppStatus nppiDup_16u_C1AC4R (const Npp16u ∗ *pSrc*, int *nSrcStep*, Npp16u ∗ *pDst*, int *nDstStep*, NppiSize *oDstSizeROI*)

1 channel 16-bit unsigned integer source image duplicated in 3 channels of 4 channel destination image with alpha channel unaffected.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oDstSizeROI Size of the destination region-of-interest.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.62.1.5 NppStatus nppiDup_16u_C1C3R (const Npp16u ∗ *pSrc*, int *nSrcStep*, Npp16u ∗ *pDst*, int *nDstStep*, NppiSize *oDstSizeROI*)

1 channel 16-bit unsigned integer source image duplicated in all 3 channels of destination image.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oDstSizeROI Size (width, height) of the destination region, i.e. the region that gets filled with data from the source image, source image ROI is assumed to be same as destination image ROI.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.62.1.6 NppStatus nppiDup_16u_C1C4R (const Npp16u ∗ *pSrc*, int *nSrcStep*, Npp16u ∗ *pDst*, int *nDstStep*, NppiSize *oDstSizeROI*)

1 channel 16-bit unsigned integer source image duplicated in all 4 channels of destination image.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oDstSizeROI Size of the destination region-of-interest.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.62.1.7 NppStatus nppiDup_32f_C1AC4R (const Npp32f ∗ *pSrc*, int *nSrcStep*, Npp32f ∗ *pDst*, int *nDstStep*, NppiSize *oDstSizeROI*)

1 channel 32-bit floating point source image duplicated in 3 channels of 4 channel destination image with alpha channel unaffected.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oDstSizeROI Size of the destination region-of-interest.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.62.1.8 NppStatus nppiDup_32f_C1C3R (const Npp32f ∗ *pSrc*, int *nSrcStep*, Npp32f ∗ *pDst*, int *nDstStep*, NppiSize *oDstSizeROI*)

1 channel 32-bit floating point source image duplicated in all 3 channels of destination image.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oDstSizeROI Size (width, height) of the destination region, i.e. the region that gets filled with data from the source image, source image ROI is assumed to be same as destination image ROI.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.62.1.9 NppStatus nppiDup_32f_C1C4R (const Npp32f ∗ *pSrc*, int *nSrcStep*, Npp32f ∗ *pDst*, int *nDstStep*, NppiSize *oDstSizeROI*)

1 channel 32-bit floating point source image duplicated in all 4 channels of destination image.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oDstSizeROI Size of the destination region-of-interest.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.62.1.10 NppStatus nppiDup_32s_C1AC4R (const Npp32s ∗ *pSrc*, int *nSrcStep*, Npp32s ∗ *pDst*, int *nDstStep*, NppiSize *oDstSizeROI*)

1 channel 32-bit signed integer source image duplicated in 3 channels of 4 channel destination image with alpha channel unaffected.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oDstSizeROI Size of the destination region-of-interest.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.62.1.11 NppStatus nppiDup_32s_C1C3R (const Npp32s ∗ *pSrc*, int *nSrcStep*, Npp32s ∗ *pDst*, int *nDstStep*, NppiSize *oDstSizeROI*)

1 channel 32-bit signed integer source image duplicated in all 3 channels of destination image.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oDstSizeROI Size (width, height) of the destination region, i.e. the region that gets filled with data from the source image, source image ROI is assumed to be same as destination image ROI.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.62.1.12 NppStatus nppiDup_32s_C1C4R (const Npp32s ∗ *pSrc*, int *nSrcStep*, Npp32s ∗ *pDst*, int *nDstStep*, NppiSize *oDstSizeROI*)

1 channel 32-bit signed integer source image duplicated in all 4 channels of destination image.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oDstSizeROI Size of the destination region-of-interest.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.62.1.13 NppStatus nppiDup_8u_C1AC4R (const Npp8u ∗ *pSrc*, int *nSrcStep*, Npp8u ∗ *pDst*, int *nDstStep*, NppiSize *oDstSizeROI*)

1 channel 8-bit unsigned integer source image duplicated in 3 channels of 4 channel destination image with alpha channel unaffected.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oDstSizeROI Size of the destination region-of-interest.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.62.1.14 NppStatus nppiDup_8u_C1C3R (const Npp8u * *pSrc*, int *nSrcStep*, Npp8u * *pDst*, int *nDstStep*, NppiSize *oDstSizeROI*)

1 channel 8-bit unsigned integer source image duplicated in all 3 channels of destination image.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oDstSizeROI Size (width, height) of the destination region, i.e. the region that gets filled with data from the source image, source image ROI is assumed to be same as destination image ROI.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.62.1.15 NppStatus nppiDup_8u_C1C4R (const Npp8u * *pSrc*, int *nSrcStep*, Npp8u * *pDst*, int *nDstStep*, NppiSize *oDstSizeROI*)

1 channel 8-bit unsigned integer source image duplicated in all 4 channels of destination image.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oDstSizeROI Size of the destination region-of-interest.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.63 Transpose

Transpose

Methods for transposing images of various types.

Like matrix transpose, image transpose is a mirror along the image's diagonal (upper-left to lower-right corner).

- NppStatus nppiTranspose_8u_C1R (const Npp8u ∗pSrc, int nSrcStep, Npp8u ∗pDst, int nDstStep, NppiSize oSrcROI)

  1 channel 8-bit unsigned int image transpose.

- NppStatus nppiTranspose_8u_C3R (const Npp8u ∗pSrc, int nSrcStep, Npp8u ∗pDst, int nDstStep, NppiSize oSrcROI)

  3 channel 8-bit unsigned int image transpose.

- NppStatus nppiTranspose_8u_C4R (const Npp8u ∗pSrc, int nSrcStep, Npp8u ∗pDst, int nDstStep, NppiSize oSrcROI)

  4 channel 8-bit unsigned int image transpose.

- NppStatus nppiTranspose_16u_C1R (const Npp16u ∗pSrc, int nSrcStep, Npp16u ∗pDst, int nDstStep, NppiSize oSrcROI)

  1 channel 16-bit unsigned int image transpose.

- NppStatus nppiTranspose_16u_C3R (const Npp16u ∗pSrc, int nSrcStep, Npp16u ∗pDst, int nDstStep, NppiSize oSrcROI)

  3 channel 16-bit unsigned int image transpose.

- NppStatus nppiTranspose_16u_C4R (const Npp16u ∗pSrc, int nSrcStep, Npp16u ∗pDst, int nDstStep, NppiSize oSrcROI)

  4 channel 16-bit unsigned int image transpose.

- NppStatus nppiTranspose_16s_C1R (const Npp16s ∗pSrc, int nSrcStep, Npp16s ∗pDst, int nDstStep, NppiSize oSrcROI)

  1 channel 16-bit signed int image transpose.

- NppStatus nppiTranspose_16s_C3R (const Npp16s ∗pSrc, int nSrcStep, Npp16s ∗pDst, int nDstStep, NppiSize oSrcROI)

  3 channel 16-bit signed int image transpose.

- NppStatus nppiTranspose_16s_C4R (const Npp16s ∗pSrc, int nSrcStep, Npp16s ∗pDst, int nDstStep, NppiSize oSrcROI)

  4 channel 16-bit signed int image transpose.

- NppStatus nppiTranspose_32s_C1R (const Npp32s ∗pSrc, int nSrcStep, Npp32s ∗pDst, int nDstStep, NppiSize oSrcROI)

  1 channel 32-bit signed int image transpose.

- NppStatus nppiTranspose_32s_C3R (const Npp32s ∗pSrc, int nSrcStep, Npp32s ∗pDst, int nDstStep, NppiSize oSrcROI)

3 channel 32-bit signed int image transpose.

- NppStatus nppiTranspose_32s_C4R (const Npp32s ∗pSrc, int nSrcStep, Npp32s ∗pDst, int nDstStep, NppiSize oSrcROI)

    4 channel 32-bit signed int image transpose.

- NppStatus nppiTranspose_32f_C1R (const Npp32f ∗pSrc, int nSrcStep, Npp32f ∗pDst, int nDstStep, NppiSize oSrcROI)

    1 channel 32-bit floating point image transpose.

- NppStatus nppiTranspose_32f_C3R (const Npp32f ∗pSrc, int nSrcStep, Npp32f ∗pDst, int nDstStep, NppiSize oSrcROI)

    3 channel 32-bit floating point image transpose.

- NppStatus nppiTranspose_32f_C4R (const Npp32f ∗pSrc, int nSrcStep, Npp32f ∗pDst, int nDstStep, NppiSize oSrcROI)

    4 channel 32-bit floating point image transpose.

7.63.1 Function Documentation

7.63.1.1 NppStatus nppiTranspose_16s_C1R (const Npp16s ∗ *pSrc*, int *nSrcStep*, Npp16s ∗ *pDst*, int *nDstStep*, NppiSize *oSrcROI*)

1 channel 16-bit signed int image transpose.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Pointer to the destination ROI.

nDstStep Destination-Image Line Step.

oSrcROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.63.1.2 NppStatus nppiTranspose_16s_C3R (const Npp16s ∗ *pSrc*, int *nSrcStep*, Npp16s ∗ *pDst*, int *nDstStep*, NppiSize *oSrcROI*)

3 channel 16-bit signed int image transpose.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Pointer to the destination ROI.

nDstStep Destination-Image Line Step.

oSrcROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.63.1.3 NppStatus nppiTranspose_16s_C4R (const Npp16s ∗ *pSrc*, int *nSrcStep*, Npp16s ∗ *pDst*, int *nDstStep*, NppiSize *oSrcROI*)

4 channel 16-bit signed int image transpose.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Pointer to the destination ROI.

nDstStep Destination-Image Line Step.

oSrcROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.63.1.4 NppStatus nppiTranspose_16u_C1R (const Npp16u ∗ *pSrc*, int *nSrcStep*, Npp16u ∗ *pDst*, int *nDstStep*, NppiSize *oSrcROI*)

1 channel 16-bit unsigned int image transpose.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Pointer to the destination ROI.

nDstStep Destination-Image Line Step.

oSrcROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.63.1.5 NppStatus nppiTranspose_16u_C3R (const Npp16u ∗ *pSrc*, int *nSrcStep*, Npp16u ∗ *pDst*, int *nDstStep*, NppiSize *oSrcROI*)

3 channel 16-bit unsigned int image transpose.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Pointer to the destination ROI.

nDstStep Destination-Image Line Step.

oSrcROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.63.1.6 NppStatus nppiTranspose_16u_C4R (const Npp16u * *pSrc*, int *nSrcStep*, Npp16u * *pDst*, int *nDstStep*, NppiSize *oSrcROI*)

4 channel 16-bit unsigned int image transpose.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Pointer to the destination ROI.

nDstStep Destination-Image Line Step.

oSrcROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.63.1.7 NppStatus nppiTranspose_32f_C1R (const Npp32f * *pSrc*, int *nSrcStep*, Npp32f * *pDst*, int *nDstStep*, NppiSize *oSrcROI*)

1 channel 32-bit floating point image transpose.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Pointer to the destination ROI.

nDstStep Destination-Image Line Step.

oSrcROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.63.1.8 NppStatus nppiTranspose_32f_C3R (const Npp32f * *pSrc*, int *nSrcStep*, Npp32f * *pDst*, int *nDstStep*, NppiSize *oSrcROI*)

3 channel 32-bit floating point image transpose.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Pointer to the destination ROI.

nDstStep Destination-Image Line Step.

oSrcROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.63.1.9 NppStatus nppiTranspose_32f_C4R (const Npp32f ∗ *pSrc*, int *nSrcStep*, Npp32f ∗ *pDst*, int *nDstStep*, NppiSize *oSrcROI*)

4 channel 32-bit floating point image transpose.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Pointer to the destination ROI.

nDstStep Destination-Image Line Step.

oSrcROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.63.1.10 NppStatus nppiTranspose_32s_C1R (const Npp32s ∗ *pSrc*, int *nSrcStep*, Npp32s ∗ *pDst*, int *nDstStep*, NppiSize *oSrcROI*)

1 channel 32-bit signed int image transpose.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Pointer to the destination ROI.

nDstStep Destination-Image Line Step.

oSrcROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.63.1.11 NppStatus nppiTranspose_32s_C3R (const Npp32s ∗ *pSrc*, int *nSrcStep*, Npp32s ∗ *pDst*, int *nDstStep*, NppiSize *oSrcROI*)

3 channel 32-bit signed int image transpose.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Pointer to the destination ROI.

nDstStep Destination-Image Line Step.

oSrcROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.63.1.12 NppStatus nppiTranspose_32s_C4R (const Npp32s ∗ *pSrc*, int *nSrcStep*, Npp32s ∗ *pDst*, int *nDstStep*, NppiSize *oSrcROI*)

4 channel 32-bit signed int image transpose.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Pointer to the destination ROI.

nDstStep Destination-Image Line Step.

oSrcROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.63.1.13 NppStatus nppiTranspose_8u_C1R (const Npp8u ∗ *pSrc*, int *nSrcStep*, Npp8u ∗ *pDst*, int *nDstStep*, NppiSize *oSrcROI*)

1 channel 8-bit unsigned int image transpose.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Pointer to the destination ROI.

nDstStep Destination-Image Line Step.

oSrcROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.63.1.14 NppStatus nppiTranspose_8u_C3R (const Npp8u ∗ *pSrc*, int *nSrcStep*, Npp8u ∗ *pDst*, int *nDstStep*, NppiSize *oSrcROI*)

3 channel 8-bit unsigned int image transpose.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Pointer to the destination ROI.

nDstStep Destination-Image Line Step.

oSrcROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.63.1.15 NppStatus nppiTranspose_8u_C4R (const Npp8u ∗ *pSrc*, int *nSrcStep*, Npp8u ∗ *pDst*, int *nDstStep*, NppiSize *oSrcROI*)

4 channel 8-bit unsigned int image transpose.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Pointer to the destination ROI.

nDstStep Destination-Image Line Step.

oSrcROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.64 Swap Channels

SwapChannels

Functions for swapping and duplicating channels in multiple channel images.

The methods support arbitrary permutations of the original channels, including replication and setting one or more channels to a constant value.

- NppStatus nppiSwapChannels_8u_C3R (const Npp8u ∗pSrc, int nSrcStep, Npp8u ∗pDst, int nDstStep, NppiSize oSizeROI, const int aDstOrder[3])

  3 channel 8-bit unsigned integer source image to 3 channel destination image.

- NppStatus nppiSwapChannels_8u_C3IR (Npp8u ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI, const int aDstOrder[3])

  3 channel 8-bit unsigned integer in place image.

- NppStatus nppiSwapChannels_8u_C4C3R (const Npp8u ∗pSrc, int nSrcStep, Npp8u ∗pDst, int nDstStep, NppiSize oSizeROI, const int aDstOrder[3])

  4 channel 8-bit unsigned integer source image to 3 channel destination image.

- NppStatus nppiSwapChannels_8u_C4R (const Npp8u ∗pSrc, int nSrcStep, Npp8u ∗pDst, int nDstStep, NppiSize oSizeROI, const int aDstOrder[4])

  4 channel 8-bit unsigned integer source image to 4 channel destination image.

- NppStatus nppiSwapChannels_8u_C4IR (Npp8u ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI, const int aDstOrder[4])

  4 channel 8-bit unsigned integer in place image.

- NppStatus nppiSwapChannels_8u_C3C4R (const Npp8u ∗pSrc, int nSrcStep, Npp8u ∗pDst, int nDstStep, NppiSize oSizeROI, const int aDstOrder[4], const Npp8u nValue)

  3 channel 8-bit unsigned integer source image to 4 channel destination image.

- NppStatus nppiSwapChannels_8u_AC4R (const Npp8u ∗pSrc, int nSrcStep, Npp8u ∗pDst, int nDstStep, NppiSize oSizeROI, const int aDstOrder[3])

  4 channel 8-bit unsigned integer source image to 4 channel destination image with destination alpha channel unaffected.

- NppStatus nppiSwapChannels_16u_C3R (const Npp16u ∗pSrc, int nSrcStep, Npp16u ∗pDst, int nDstStep, NppiSize oSizeROI, const int aDstOrder[3])

  3 channel 16-bit unsigned integer source image to 3 channel destination image.

- NppStatus nppiSwapChannels_16u_C3IR (Npp16u ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI, const int aDstOrder[3])

  3 channel 16-bit unsigned integer in place image.

- NppStatus nppiSwapChannels_16u_C4C3R (const Npp16u ∗pSrc, int nSrcStep, Npp16u ∗pDst, int nDstStep, NppiSize oSizeROI, const int aDstOrder[3])

  4 channel 16-bit unsigned integer source image to 3 channel destination image.

- NppStatus nppiSwapChannels_16u_C4R (const Npp16u ∗pSrc, int nSrcStep, Npp16u ∗pDst, int nDstStep, NppiSize oSizeROI, const int aDstOrder[4])

4 channel 16-bit unsigned integer source image to 4 channel destination image.

- NppStatus nppiSwapChannels_16u_C4IR (Npp16u ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI, const int aDstOrder[4])

  4 channel 16-bit unsigned integer in place image.

- NppStatus nppiSwapChannels_16u_C3C4R (const Npp16u ∗pSrc, int nSrcStep, Npp16u ∗pDst, int nDstStep, NppiSize oSizeROI, const int aDstOrder[4], const Npp16u nValue)

  3 channel 16-bit unsigned integer source image to 4 channel destination image.

- NppStatus nppiSwapChannels_16u_AC4R (const Npp16u ∗pSrc, int nSrcStep, Npp16u ∗pDst, int nDstStep, NppiSize oSizeROI, const int aDstOrder[3])

  4 channel 16-bit unsigned integer source image to 4 channel destination image with destination alpha channel unaffected.

- NppStatus nppiSwapChannels_16s_C3R (const Npp16s ∗pSrc, int nSrcStep, Npp16s ∗pDst, int nDstStep, NppiSize oSizeROI, const int aDstOrder[3])

  3 channel 16-bit signed integer source image to 3 channel destination image.

- NppStatus nppiSwapChannels_16s_C3IR (Npp16s ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI, const int aDstOrder[3])

  3 channel 16-bit signed integer in place image.

- NppStatus nppiSwapChannels_16s_C4C3R (const Npp16s ∗pSrc, int nSrcStep, Npp16s ∗pDst, int nDstStep, NppiSize oSizeROI, const int aDstOrder[3])

  4 channel 16-bit signed integer source image to 3 channel destination image.

- NppStatus nppiSwapChannels_16s_C4R (const Npp16s ∗pSrc, int nSrcStep, Npp16s ∗pDst, int nDstStep, NppiSize oSizeROI, const int aDstOrder[4])

  4 channel 16-bit signed integer source image to 4 channel destination image.

- NppStatus nppiSwapChannels_16s_C4IR (Npp16s ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI, const int aDstOrder[4])

  4 channel 16-bit signed integer in place image.

- NppStatus nppiSwapChannels_16s_C3C4R (const Npp16s ∗pSrc, int nSrcStep, Npp16s ∗pDst, int nDstStep, NppiSize oSizeROI, const int aDstOrder[4], const Npp16s nValue)

  3 channel 16-bit signed integer source image to 4 channel destination image.

- NppStatus nppiSwapChannels_16s_AC4R (const Npp16s ∗pSrc, int nSrcStep, Npp16s ∗pDst, int nDstStep, NppiSize oSizeROI, const int aDstOrder[3])

  4 channel 16-bit signed integer source image to 4 channel destination image with destination alpha channel unaffected.

- NppStatus nppiSwapChannels_32s_C3R (const Npp32s ∗pSrc, int nSrcStep, Npp32s ∗pDst, int nDstStep, NppiSize oSizeROI, const int aDstOrder[3])

  3 channel 32-bit signed integer source image to 3 channel destination image.

- NppStatus nppiSwapChannels_32s_C3IR (Npp32s ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI, const int aDstOrder[3])

  3 channel 32-bit signed integer in place image.

- NppStatus nppiSwapChannels_32s_C4C3R (const Npp32s ∗pSrc, int nSrcStep, Npp32s ∗pDst, int nDstStep, NppiSize oSizeROI, const int aDstOrder[3])

  4 channel 32-bit signed integer source image to 3 channel destination image.

- NppStatus nppiSwapChannels_32s_C4R (const Npp32s ∗pSrc, int nSrcStep, Npp32s ∗pDst, int nDstStep, NppiSize oSizeROI, const int aDstOrder[4])

  4 channel 32-bit signed integer source image to 4 channel destination image.

- NppStatus nppiSwapChannels_32s_C4IR (Npp32s ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI, const int aDstOrder[4])

  4 channel 32-bit signed integer in place image.

- NppStatus nppiSwapChannels_32s_C3C4R (const Npp32s ∗pSrc, int nSrcStep, Npp32s ∗pDst, int nDstStep, NppiSize oSizeROI, const int aDstOrder[4], const Npp32s nValue)

  3 channel 32-bit signed integer source image to 4 channel destination image.

- NppStatus nppiSwapChannels_32s_AC4R (const Npp32s ∗pSrc, int nSrcStep, Npp32s ∗pDst, int nDstStep, NppiSize oSizeROI, const int aDstOrder[3])

  4 channel 32-bit signed integer source image to 4 channel destination image with destination alpha channel unaffected.

- NppStatus nppiSwapChannels_32f_C3R (const Npp32f ∗pSrc, int nSrcStep, Npp32f ∗pDst, int nDstStep, NppiSize oSizeROI, const int aDstOrder[3])

  3 channel 32-bit floating point source image to 3 channel destination image.

- NppStatus nppiSwapChannels_32f_C3IR (Npp32f ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI, const int aDstOrder[3])

  3 channel 32-bit floating point in place image.

- NppStatus nppiSwapChannels_32f_C4C3R (const Npp32f ∗pSrc, int nSrcStep, Npp32f ∗pDst, int nDstStep, NppiSize oSizeROI, const int aDstOrder[3])

  4 channel 32-bit floating point source image to 3 channel destination image.

- NppStatus nppiSwapChannels_32f_C4R (const Npp32f ∗pSrc, int nSrcStep, Npp32f ∗pDst, int nDstStep, NppiSize oSizeROI, const int aDstOrder[4])

  4 channel 32-bit floating point source image to 4 channel destination image.

- NppStatus nppiSwapChannels_32f_C4IR (Npp32f ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI, const int aDstOrder[4])

  4 channel 32-bit floating point in place image.

- NppStatus nppiSwapChannels_32f_C3C4R (const Npp32f ∗pSrc, int nSrcStep, Npp32f ∗pDst, int nDstStep, NppiSize oSizeROI, const int aDstOrder[4], const Npp32f nValue)

  3 channel 32-bit floating point source image to 4 channel destination image.

- NppStatus nppiSwapChannels_32f_AC4R (const Npp32f ∗pSrc, int nSrcStep, Npp32f ∗pDst, int nDstStep, NppiSize oSizeROI, const int aDstOrder[3])

  4 channel 32-bit floating point source image to 4 channel destination image with destination alpha channel unaffected.

7.64.1 Function Documentation

7.64.1.1 NppStatus nppiSwapChannels_16s_AC4R (const Npp16s ∗ *pSrc*, int *nSrcStep*, Npp16s ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, const int *aDstOrder*[3])

4 channel 16-bit signed integer source image to 4 channel destination image with destination alpha channel unaffected.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

aDstOrder Host memory integer array describing how channel values are permutated. The n-th entry of the array contains the number of the channel that is stored in the n-th channel of the output image. E.g. Given an RGBA image, aDstOrder = [2,1,0] converts this to BGRA channel order. In the AC4R case, the alpha channel is always assumed to be channel 3.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.64.1.2 NppStatus nppiSwapChannels_16s_C3C4R (const Npp16s ∗ *pSrc*, int *nSrcStep*, Npp16s ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, const int *aDstOrder*[4], const Npp16s *nValue*)

3 channel 16-bit signed integer source image to 4 channel destination image.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

aDstOrder Host memory integer array describing how channel values are permutated. The n-th entry of the array contains the number of the channel that is stored in the n-th channel of the output image. E.g. Given an RGB image, aDstOrder = [3,2,1,0] converts this to VBGR channel order.

nValue (V) Single channel constant value that can be replicated in one or more of the 4 destination channels. nValue is either written or not written to a particular channel depending on the aDstOrder entry for that destination channel. An aDstOrder value of 3 will output nValue to that channel, an aDstOrder value greater than 3 will leave that particular destination channel value unmodified.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.64.1.3 NppStatus nppiSwapChannels_16s_C3IR (Npp16s ∗ *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*, const int *aDstOrder*[3])

3 channel 16-bit signed integer in place image.

Parameters:

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oSizeROI Region-of-Interest (ROI).

aDstOrder Host memory integer array describing how channel values are permutated. The n-th entry of the array contains the number of the channel that is stored in the n-th channel of the output image. E.g. Given an RGB image, aDstOrder = [2,1,0] converts this to BGR channel order.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.64.1.4 NppStatus nppiSwapChannels_16s_C3R (const Npp16s ∗ *pSrc*, int *nSrcStep*, Npp16s ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, const int *aDstOrder*[3])

3 channel 16-bit signed integer source image to 3 channel destination image.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

aDstOrder Host memory integer array describing how channel values are permutated. The n-th entry of the array contains the number of the channel that is stored in the n-th channel of the output image. E.g. Given an RGB image, aDstOrder = [2,1,0] converts this to BGR channel order.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.64.1.5 NppStatus nppiSwapChannels_16s_C4C3R (const Npp16s ∗ *pSrc*, int *nSrcStep*, Npp16s ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, const int *aDstOrder*[3])

4 channel 16-bit signed integer source image to 3 channel destination image.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

aDstOrder Host memory integer array describing how channel values are permutated. The n-th entry of the array contains the number of the channel that is stored in the n-th channel of the output image. E.g. Given an RGBA image, aDstOrder = [2,1,0] converts this to a 3 channel BGR channel order.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.64.1.6 NppStatus nppiSwapChannels_16s_C4IR (Npp16s ∗ *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*, const int *aDstOrder*[4])

4 channel 16-bit signed integer in place image.

Parameters:

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oSizeROI Region-of-Interest (ROI).

aDstOrder Host memory integer array describing how channel values are permutated. The n-th entry of the array contains the number of the channel that is stored in the n-th channel of the output image. E.g. Given an ARGB image, aDstOrder = [3,2,1,0] converts this to BGRA channel order.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.64.1.7 NppStatus nppiSwapChannels_16s_C4R (const Npp16s ∗ *pSrc*, int *nSrcStep*, Npp16s ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, const int *aDstOrder*[4])

4 channel 16-bit signed integer source image to 4 channel destination image.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

aDstOrder Host memory integer array describing how channel values are permutated. The n-th entry of the array contains the number of the channel that is stored in the n-th channel of the output image. E.g. Given an ARGB image, aDstOrder = [3,2,1,0] converts this to BGRA channel order.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.64.1.8 NppStatus nppiSwapChannels_16u_AC4R (const Npp16u * *pSrc*, int *nSrcStep*, Npp16u * *pDst*, int *nDstStep*, NppiSize *oSizeROI*, const int *aDstOrder*[3])

4 channel 16-bit unsigned integer source image to 4 channel destination image with destination alpha channel unaffected.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

aDstOrder Host memory integer array describing how channel values are permutated. The n-th entry of the array contains the number of the channel that is stored in the n-th channel of the output image. E.g. Given an RGBA image, aDstOrder = [2,1,0] converts this to BGRA channel order. In the AC4R case, the alpha channel is always assumed to be channel 3.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.64.1.9 NppStatus nppiSwapChannels_16u_C3C4R (const Npp16u * *pSrc*, int *nSrcStep*, Npp16u * *pDst*, int *nDstStep*, NppiSize *oSizeROI*, const int *aDstOrder*[4], const Npp16u *nValue*)

3 channel 16-bit unsigned integer source image to 4 channel destination image.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

aDstOrder Host memory integer array describing how channel values are permutated. The n-th entry of the array contains the number of the channel that is stored in the n-th channel of the output image. E.g. Given an RGB image, aDstOrder = [3,2,1,0] converts this to VBGR channel order.

nValue (V) Single channel constant value that can be replicated in one or more of the 4 destination channels. nValue is either written or not written to a particular channel depending on the aDstOrder entry for that destination channel. An aDstOrder value of 3 will output nValue to that channel, an aDstOrder value greater than 3 will leave that particular destination channel value unmodified.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.64.1.10 NppStatus nppiSwapChannels_16u_C3IR (Npp16u ∗ *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*, const int *aDstOrder*[3])

3 channel 16-bit unsigned integer in place image.

Parameters:

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oSizeROI Region-of-Interest (ROI).

aDstOrder Host memory integer array describing how channel values are permutated. The n-th entry of the array contains the number of the channel that is stored in the n-th channel of the output image. E.g. Given an RGB image, aDstOrder = [2,1,0] converts this to BGR channel order.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.64.1.11 NppStatus nppiSwapChannels_16u_C3R (const Npp16u ∗ *pSrc*, int *nSrcStep*, Npp16u ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, const int *aDstOrder*[3])

3 channel 16-bit unsigned integer source image to 3 channel destination image.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

aDstOrder Host memory integer array describing how channel values are permutated. The n-th entry of the array contains the number of the channel that is stored in the n-th channel of the output image. E.g. Given an RGB image, aDstOrder = [2,1,0] converts this to BGR channel order.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.64.1.12 NppStatus nppiSwapChannels_16u_C4C3R (const Npp16u ∗ *pSrc*, int *nSrcStep*, Npp16u ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, const int *aDstOrder*[3])

4 channel 16-bit unsigned integer source image to 3 channel destination image.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

aDstOrder Host memory integer array describing how channel values are permutated. The n-th entry of the array contains the number of the channel that is stored in the n-th channel of the output image. E.g. Given an RGBA image, aDstOrder = [2,1,0] converts this to a 3 channel BGR channel order.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.64.1.13 NppStatus nppiSwapChannels_16u_C4IR (Npp16u ∗ *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*, const int *aDstOrder*[4])

4 channel 16-bit unsigned integer in place image.

Parameters:

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oSizeROI Region-of-Interest (ROI).

aDstOrder Host memory integer array describing how channel values are permutated. The n-th entry of the array contains the number of the channel that is stored in the n-th channel of the output image. E.g. Given an ARGB image, aDstOrder = [3,2,1,0] converts this to BGRA channel order.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.64.1.14 NppStatus nppiSwapChannels_16u_C4R (const Npp16u ∗ *pSrc*, int *nSrcStep*, Npp16u ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, const int *aDstOrder*[4])

4 channel 16-bit unsigned integer source image to 4 channel destination image.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

aDstOrder Host memory integer array describing how channel values are permutated. The n-th entry of the array contains the number of the channel that is stored in the n-th channel of the output image. E.g. Given an ARGB image, aDstOrder = [3,2,1,0] converts this to BGRA channel order.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.64.1.15 NppStatus nppiSwapChannels_32f_AC4R (const Npp32f ∗ *pSrc*, int *nSrcStep*, Npp32f ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, const int *aDstOrder*[3])

4 channel 32-bit floating point source image to 4 channel destination image with destination alpha channel unaffected.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

aDstOrder Host memory integer array describing how channel values are permutated. The n-th entry of the array contains the number of the channel that is stored in the n-th channel of the output image. E.g. Given an RGBA image, aDstOrder = [2,1,0] converts this to BGRA channel order. In the AC4R case, the alpha channel is always assumed to be channel 3.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.64.1.16 NppStatus nppiSwapChannels_32f_C3C4R (const Npp32f ∗ *pSrc*, int *nSrcStep*, Npp32f ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, const int *aDstOrder*[4], const Npp32f *nValue*)

3 channel 32-bit floating point source image to 4 channel destination image.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

aDstOrder Host memory integer array describing how channel values are permutated. The n-th entry of the array contains the number of the channel that is stored in the n-th channel of the output image. E.g. Given an RGB image, aDstOrder = [3,2,1,0] converts this to VBGR channel order.

nValue (V) Single channel constant value that can be replicated in one or more of the 4 destination channels. nValue is either written or not written to a particular channel depending on the aDstOrder entry for that destination channel. An aDstOrder value of 3 will output nValue to that channel, an aDstOrder value greater than 3 will leave that particular destination channel value unmodified.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.64.1.17 NppStatus nppiSwapChannels_32f_C3IR (Npp32f ∗ *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*, const int *aDstOrder*[3])

3 channel 32-bit floating point in place image.

Parameters:

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oSizeROI oSizeROI Region-of-Interest (ROI).

aDstOrder Host memory integer array describing how channel values are permutated. The n-th entry of the array contains the number of the channel that is stored in the n-th channel of the output image. E.g. Given an RGB image, aDstOrder = [2,1,0] converts this to BGR channel order.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.64.1.18 NppStatus nppiSwapChannels_32f_C3R (const Npp32f ∗ *pSrc*, int *nSrcStep*, Npp32f ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, const int *aDstOrder*[3])

3 channel 32-bit floating point source image to 3 channel destination image.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

aDstOrder Host memory integer array describing how channel values are permutated. The n-th entry of the array contains the number of the channel that is stored in the n-th channel of the output image. E.g. Given an RGB image, aDstOrder = [2,1,0] converts this to BGR channel order.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.64.1.19 NppStatus nppiSwapChannels_32f_C4C3R (const Npp32f ∗ *pSrc*, int *nSrcStep*, Npp32f ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, const int *aDstOrder*[3])

4 channel 32-bit floating point source image to 3 channel destination image.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

aDstOrder Host memory integer array describing how channel values are permutated. The n-th entry of the array contains the number of the channel that is stored in the n-th channel of the output image. E.g. Given an RGBA image, aDstOrder = [2,1,0] converts this to a 3 channel BGR channel order.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.64.1.20 NppStatus nppiSwapChannels_32f_C4IR (Npp32f ∗ *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*, const int *aDstOrder*[4])

4 channel 32-bit floating point in place image.

Parameters:

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oSizeROI Region-of-Interest (ROI).

aDstOrder Host memory integer array describing how channel values are permutated. The n-th entry of the array contains the number of the channel that is stored in the n-th channel of the output image. E.g. Given an ARGB image, aDstOrder = [3,2,1,0] converts this to BGRA channel order.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.64.1.21 NppStatus nppiSwapChannels_32f_C4R (const Npp32f ∗ *pSrc*, int *nSrcStep*, Npp32f ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, const int *aDstOrder*[4])

4 channel 32-bit floating point source image to 4 channel destination image.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

aDstOrder Host memory integer array describing how channel values are permutated. The n-th entry of the array contains the number of the channel that is stored in the n-th channel of the output image. E.g. Given an ARGB image, aDstOrder = [3,2,1,0] converts this to BGRA channel order.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.64.1.22 NppStatus nppiSwapChannels_32s_AC4R (const Npp32s ∗ *pSrc*, int *nSrcStep*, Npp32s ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, const int *aDstOrder*[3])

4 channel 32-bit signed integer source image to 4 channel destination image with destination alpha channel unaffected.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

aDstOrder Host memory integer array describing how channel values are permutated. The n-th entry of the array contains the number of the channel that is stored in the n-th channel of the output image. E.g. Given an RGBA image, aDstOrder = [2,1,0] converts this to BGRA channel order. In the AC4R case, the alpha channel is always assumed to be channel 3.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.64.1.23 NppStatus nppiSwapChannels_32s_C3C4R (const Npp32s ∗ *pSrc*, int *nSrcStep*, Npp32s ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, const int *aDstOrder*[4], const Npp32s *nValue*)

3 channel 32-bit signed integer source image to 4 channel destination image.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

aDstOrder Host memory integer array describing how channel values are permutated. The n-th entry of the array contains the number of the channel that is stored in the n-th channel of the output image. E.g. Given an RGB image, aDstOrder = [3,2,1,0] converts this to VBGR channel order.

nValue (V) Single channel constant value that can be replicated in one or more of the 4 destination channels. nValue is either written or not written to a particular channel depending on the aDstOrder entry for that destination channel. An aDstOrder value of 3 will output nValue to that channel, an aDstOrder value greater than 3 will leave that particular destination channel value unmodified.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.64.1.24 NppStatus nppiSwapChannels_32s_C3IR (Npp32s ∗ *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*, const int *aDstOrder*[3])

3 channel 32-bit signed integer in place image.

Parameters:

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oSizeROI Region-of-Interest (ROI).

aDstOrder Host memory integer array describing how channel values are permutated. The n-th entry of the array contains the number of the channel that is stored in the n-th channel of the output image. E.g. Given an RGB image, aDstOrder = [2,1,0] converts this to BGR channel order.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.64.1.25 NppStatus nppiSwapChannels_32s_C3R (const Npp32s ∗ *pSrc*, int *nSrcStep*, Npp32s ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, const int *aDstOrder*[3])

3 channel 32-bit signed integer source image to 3 channel destination image.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

aDstOrder Host memory integer array describing how channel values are permutated. The n-th entry of the array contains the number of the channel that is stored in the n-th channel of the output image. E.g. Given an RGB image, aDstOrder = [2,1,0] converts this to BGR channel order.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.64.1.26 NppStatus nppiSwapChannels_32s_C4C3R (const Npp32s ∗ *pSrc*, int *nSrcStep*, Npp32s ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, const int *aDstOrder*[3])

4 channel 32-bit signed integer source image to 3 channel destination image.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

aDstOrder Host memory integer array describing how channel values are permutated. The n-th entry of the array contains the number of the channel that is stored in the n-th channel of the output image. E.g. Given an RGBA image, aDstOrder = [2,1,0] converts this to a 3 channel BGR channel order.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.64.1.27 NppStatus nppiSwapChannels_32s_C4IR (Npp32s ∗ *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*, const int *aDstOrder*[4])

4 channel 32-bit signed integer in place image.

Parameters:

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oSizeROI Region-of-Interest (ROI).

aDstOrder Host memory integer array describing how channel values are permutated. The n-th entry of the array contains the number of the channel that is stored in the n-th channel of the output image. E.g. Given an ARGB image, aDstOrder = [3,2,1,0] converts this to BGRA channel order.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.64.1.28 NppStatus nppiSwapChannels_32s_C4R (const Npp32s ∗ *pSrc*, int *nSrcStep*, Npp32s ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, const int *aDstOrder*[4])

4 channel 32-bit signed integer source image to 4 channel destination image.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

aDstOrder Host memory integer array describing how channel values are permutated. The n-th entry of the array contains the number of the channel that is stored in the n-th channel of the output image. E.g. Given an ARGB image, aDstOrder = [3,2,1,0] converts this to BGRA channel order.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.64.1.29 NppStatus nppiSwapChannels_8u_AC4R (const Npp8u ∗ *pSrc*, int *nSrcStep*, Npp8u ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, const int *aDstOrder*[3])

4 channel 8-bit unsigned integer source image to 4 channel destination image with destination alpha channel unaffected.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

aDstOrder Host memory integer array describing how channel values are permutated. The n-th entry of the array contains the number of the channel that is stored in the n-th channel of the output image. E.g. Given an RGB image, aDstOrder = [3,2,1,0] converts this to VBGR channel order. of the array contains the number of the channel that is stored in the n-th channel of the output image. E.g. Given an RGBA image, aDstOrder = [2,1,0] converts this to BGRA channel order. In the AC4R case, the alpha channel is always assumed to be channel 3.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.64.1.30 NppStatus nppiSwapChannels_8u_C3C4R (const Npp8u ∗ *pSrc*, int *nSrcStep*, Npp8u ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, const int *aDstOrder*[4], const Npp8u *nValue*)

3 channel 8-bit unsigned integer source image to 4 channel destination image.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

aDstOrder Host memory integer array describing how channel values are permutated. The n-th entry of the array contains the number of the channel that is stored in the n-th channel of the output image. E.g. Given an RGB image, aDstOrder = [3,2,1,0] converts this to VBGR channel order.

nValue (V) Single channel constant value that can be replicated in one or more of the 4 destination channels. nValue is either written or not written to a particular channel depending on the aDstOrder entry for that destination channel. An aDstOrder value of 3 will output nValue to that channel, an aDstOrder value greater than 3 will leave that particular destination channel value unmodified.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.64.1.31 NppStatus nppiSwapChannels_8u_C3IR (Npp8u * *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*, const int *aDstOrder*[3])

3 channel 8-bit unsigned integer in place image.

Parameters:

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oSizeROI Region-of-Interest (ROI).

aDstOrder Host memory integer array describing how channel values are permutated. The n-th entry of the array contains the number of the channel that is stored in the n-th channel of the output image. E.g. Given an RGB image, aDstOrder = [2,1,0] converts this to BGR channel order.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.64.1.32 NppStatus nppiSwapChannels_8u_C3R (const Npp8u * *pSrc*, int *nSrcStep*, Npp8u * *pDst*, int *nDstStep*, NppiSize *oSizeROI*, const int *aDstOrder*[3])

3 channel 8-bit unsigned integer source image to 3 channel destination image.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

aDstOrder Host memory integer array describing how channel values are permutated. The n-th entry of the array contains the number of the channel that is stored in the n-th channel of the output image. E.g. Given an RGB image, aDstOrder = [2,1,0] converts this to BGR channel order.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.64.1.33 NppStatus nppiSwapChannels_8u_C4C3R (const Npp8u * *pSrc*, int *nSrcStep*, Npp8u * *pDst*, int *nDstStep*, NppiSize *oSizeROI*, const int *aDstOrder*[3])

4 channel 8-bit unsigned integer source image to 3 channel destination image.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

aDstOrder Host memory integer array describing how channel values are permutated. The n-th entry of the array contains the number of the channel that is stored in the n-th channel of the output image. E.g. Given an RGBA image, aDstOrder = [2,1,0] converts this to a 3 channel BGR channel order.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.64.1.34 NppStatus nppiSwapChannels_8u_C4IR (Npp8u ∗ *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*, const int *aDstOrder*[4])

4 channel 8-bit unsigned integer in place image.

Parameters:

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oSizeROI Region-of-Interest (ROI).

aDstOrder Host memory integer array describing how channel values are permutated. The n-th entry of the array contains the number of the channel that is stored in the n-th channel of the output image. E.g. Given an ARGB image, aDstOrder = [3,2,1,0] converts this to BGRA channel order.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.64.1.35 NppStatus nppiSwapChannels_8u_C4R (const Npp8u ∗ *pSrc*, int *nSrcStep*, Npp8u ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, const int *aDstOrder*[4])

4 channel 8-bit unsigned integer source image to 4 channel destination image.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

aDstOrder Host memory integer array describing how channel values are permutated. The n-th entry of the array contains the number of the channel that is stored in the n-th channel of the output image. E.g. Given an ARGB image, aDstOrder = [3,2,1,0] converts this to BGRA channel order.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.65 Filtering Functions

Linear and non-linear image filtering functions.

Modules

- 1D Linear Filter

FilterSobelVertSecondBorder

Filters the image using a second derivative, vertical Sobel filter kernel with border control:

$$\begin{pmatrix} 1 & -2 & 1 \\ 2 & -4 & 2 \\ 1 & -2 & 1 \end{pmatrix} \begin{pmatrix} 1 & 0 & -2 & 0 & 1 \\ 4 & 0 & -8 & 0 & 4 \\ 6 & 0 & -12 & 0 & 6 \\ 4 & 0 & -8 & 0 & 4 \\ 1 & 0 & -2 & 0 & 1 \end{pmatrix}$$

- NppStatus nppiFilterSobelVertSecondBorder_8u16s_C1R (const Npp8u ∗pSrc, Npp32s nSrcStep, NppiSize oSrcSize, NppiPoint oSrcOffset, Npp16s ∗pDst, Npp32s nDstStep, NppiSize oSizeROI, NppiMaskSize eMaskSize, NppiBorderType eBorderType)

  Single channel 8-bit unsigned to 16-bit signed second derivative, vertical Sobel filter with border control.

- NppStatus nppiFilterSobelVertSecondBorder_8s16s_C1R (const Npp8s ∗pSrc, Npp32s nSrcStep, NppiSize oSrcSize, NppiPoint oSrcOffset, Npp16s ∗pDst, Npp32s nDstStep, NppiSize oSizeROI, NppiMaskSize eMaskSize, NppiBorderType eBorderType)

  Single channel 8-bit signed to 16-bit signed second derivative, vertical Sobel filter with border control.

- NppStatus nppiFilterSobelVertSecondBorder_32f_C1R (const Npp32f ∗pSrc, Npp32s nSrcStep, NppiSize oSrcSize, NppiPoint oSrcOffset, Npp32f ∗pDst, Npp32s nDstStep, NppiSize oSizeROI, NppiMaskSize eMaskSize, NppiBorderType eBorderType)

  Single channel 32-bit floating-point second derivative, vertical Sobel filter with border control.

FilterSobelCrossBorder

Filters the image using a second cross derivative Sobel filter kernel with border control:

$$\begin{pmatrix} -1 & 0 & 1 \\ 0 & 0 & 0 \\ 1 & 0 & -1 \end{pmatrix} \begin{pmatrix} -1 & -2 & 0 & 2 & 1 \\ -2 & -4 & 0 & 4 & 2 \\ 0 & 0 & 0 & 0 & 0 \\ 2 & 4 & 0 & -4 & -2 \\ 1 & 2 & 0 & -2 & -1 \end{pmatrix}$$

- NppStatus nppiFilterSobelCrossBorder_8u16s_C1R (const Npp8u ∗pSrc, Npp32s nSrcStep, NppiSize oSrcSize, NppiPoint oSrcOffset, Npp16s ∗pDst, Npp32s nDstStep, NppiSize oSizeROI, NppiMaskSize eMaskSize, NppiBorderType eBorderType)

  Single channel 8-bit unsigned to 16-bit signed second cross derivative Sobel filter with border control.

- NppStatus nppiFilterSobelCrossBorder_8s16s_C1R (const Npp8s ∗pSrc, Npp32s nSrcStep, NppiSize oSrcSize, NppiPoint oSrcOffset, Npp16s ∗pDst, Npp32s nDstStep, NppiSize oSizeROI, NppiMaskSize eMaskSize, NppiBorderType eBorderType)

  Single channel 8-bit signed to 16-bit signed second cross derivative Sobel filter with border control.

- NppStatus nppiFilterSobelCrossBorder_32f_C1R (const Npp32f ∗pSrc, Npp32s nSrcStep, NppiSize oSrcSize, NppiPoint oSrcOffset, Npp32f ∗pDst, Npp32s nDstStep, NppiSize oSizeROI, NppiMaskSize eMaskSize, NppiBorderType eBorderType)

  Single channel 32-bit floating-point second cross derivative Sobel filter with border control.

FilterRobertsDown

Filters the image using a horizontal Roberts filter kernel:

$$\begin{pmatrix} 0 & 0 & 0 \\ 0 & 1 & 0 \\ 0 & 0 & -1 \end{pmatrix}$$

- NppStatus nppiFilterRobertsDown_8u_C1R (const Npp8u ∗pSrc, Npp32s nSrcStep, Npp8u ∗pDst, Npp32s nDstStep, NppiSize oSizeROI)

  Single channel 8-bit unsigned horizontal Roberts filter.

- NppStatus nppiFilterRobertsDown_8u_C3R (const Npp8u ∗pSrc, Npp32s nSrcStep, Npp8u ∗pDst, Npp32s nDstStep, NppiSize oSizeROI)

  Three channel 8-bit unsigned horizontal Roberts filter.

- NppStatus nppiFilterRobertsDown_8u_C4R (const Npp8u ∗pSrc, Npp32s nSrcStep, Npp8u ∗pDst, Npp32s nDstStep, NppiSize oSizeROI)

  Four channel 8-bit unsigned horizontal Roberts filter.

- NppStatus nppiFilterRobertsDown_8u_AC4R (const Npp8u ∗pSrc, Npp32s nSrcStep, Npp8u ∗pDst, Npp32s nDstStep, NppiSize oSizeROI)

  Four channel 8-bit unsigned horizontal Roberts filter, ignoring alpha-channel.

- NppStatus nppiFilterRobertsDown_16s_C1R (const Npp16s ∗pSrc, Npp32s nSrcStep, Npp16s ∗pDst, Npp32s nDstStep, NppiSize oSizeROI)

  Single channel 16-bit signed horizontal Roberts filter.

- NppStatus nppiFilterRobertsDown_16s_C3R (const Npp16s ∗pSrc, Npp32s nSrcStep, Npp16s ∗pDst, Npp32s nDstStep, NppiSize oSizeROI)

  Three channel 16-bit signed horizontal Roberts filter.

- NppStatus nppiFilterRobertsDown_16s_C4R (const Npp16s ∗pSrc, Npp32s nSrcStep, Npp16s ∗pDst, Npp32s nDstStep, NppiSize oSizeROI)

  Four channel 16-bit signed horizontal Roberts filter.

- NppStatus nppiFilterRobertsDown_16s_AC4R (const Npp16s ∗pSrc, Npp32s nSrcStep, Npp16s ∗pDst, Npp32s nDstStep, NppiSize oSizeROI)

  Four channel 16-bit signed horizontal Roberts filter, ignoring alpha-channel.

- NppStatus nppiFilterRobertsDown_32f_C1R (const Npp32f ∗pSrc, Npp32s nSrcStep, Npp32f ∗pDst, Npp32s nDstStep, NppiSize oSizeROI)

  Single channel 32-bit floating-point horizontal Roberts filter.

- NppStatus nppiFilterRobertsDown_32f_C3R (const Npp32f ∗pSrc, Npp32s nSrcStep, Npp32f ∗pDst, Npp32s nDstStep, NppiSize oSizeROI)

  Three channel 32-bit floating-point horizontal Roberts filter.

- NppStatus nppiFilterRobertsDown_32f_C4R (const Npp32f ∗pSrc, Npp32s nSrcStep, Npp32f ∗pDst, Npp32s nDstStep, NppiSize oSizeROI)

  Four channel 32-bit floating-point horizontal Roberts filter.

- NppStatus nppiFilterRobertsDown_32f_AC4R (const Npp32f ∗pSrc, Npp32s nSrcStep, Npp32f ∗pDst, Npp32s nDstStep, NppiSize oSizeROI)

  Four channel 32-bit floating-point horizontal Roberts filter, ignoring alpha-channel.

FilterRobertsUp

Filters the image using a vertical Roberts filter kernel:

$$\begin{pmatrix} 0 & 0 & 0 \\ 0 & 1 & 0 \\ 0 & 0 & -1 \end{pmatrix}$$

- NppStatus nppiFilterRobertsUp_8u_C1R (const Npp8u ∗pSrc, Npp32s nSrcStep, Npp8u ∗pDst, Npp32s nDstStep, NppiSize oSizeROI)

  Single channel 8-bit unsigned vertical Roberts filter.

- NppStatus nppiFilterRobertsUp_8u_C3R (const Npp8u ∗pSrc, Npp32s nSrcStep, Npp8u ∗pDst, Npp32s nDstStep, NppiSize oSizeROI)

  Three channel 8-bit unsigned vertical Roberts filter.

- NppStatus nppiFilterRobertsUp_8u_C4R (const Npp8u ∗pSrc, Npp32s nSrcStep, Npp8u ∗pDst, Npp32s nDstStep, NppiSize oSizeROI)

  Four channel 8-bit unsigned vertical Roberts filter.

- NppStatus nppiFilterRobertsUp_8u_AC4R (const Npp8u ∗pSrc, Npp32s nSrcStep, Npp8u ∗pDst, Npp32s nDstStep, NppiSize oSizeROI)

  Four channel 8-bit unsigned vertical Roberts filter, ignoring alpha-channel.

- NppStatus nppiFilterRobertsUp_16s_C1R (const Npp16s ∗pSrc, Npp32s nSrcStep, Npp16s ∗pDst, Npp32s nDstStep, NppiSize oSizeROI)

  Single channel 16-bit signed vertical Roberts filter.

- NppStatus nppiFilterRobertsUp_16s_C3R (const Npp16s ∗pSrc, Npp32s nSrcStep, Npp16s ∗pDst, Npp32s nDstStep, NppiSize oSizeROI)

  Three channel 16-bit signed vertical Roberts filter.

- NppStatus nppiFilterRobertsUp_16s_C4R (const Npp16s ∗pSrc, Npp32s nSrcStep, Npp16s ∗pDst, Npp32s nDstStep, NppiSize oSizeROI)

  Four channel 16-bit signed vertical Roberts filter.

- NppStatus nppiFilterRobertsUp_16s_AC4R (const Npp16s ∗pSrc, Npp32s nSrcStep, Npp16s ∗pDst, Npp32s nDstStep, NppiSize oSizeROI)

  Four channel 16-bit signed vertical Roberts filter, ignoring alpha-channel.

- NppStatus nppiFilterRobertsUp_32f_C1R (const Npp32f ∗pSrc, Npp32s nSrcStep, Npp32f ∗pDst, Npp32s nDstStep, NppiSize oSizeROI)

  Single channel 32-bit floating-point vertical Roberts filter.

- NppStatus nppiFilterRobertsUp_32f_C3R (const Npp32f ∗pSrc, Npp32s nSrcStep, Npp32f ∗pDst, Npp32s nDstStep, NppiSize oSizeROI)

  Three channel 32-bit floating-point vertical Roberts filter.

- NppStatus nppiFilterRobertsUp_32f_C4R (const Npp32f ∗pSrc, Npp32s nSrcStep, Npp32f ∗pDst, Npp32s nDstStep, NppiSize oSizeROI)

  Four channel 32-bit floating-point vertical Roberts filter.

- NppStatus nppiFilterRobertsUp_32f_AC4R (const Npp32f ∗pSrc, Npp32s nSrcStep, Npp32f ∗pDst, Npp32s nDstStep, NppiSize oSizeROI)

  Four channel 32-bit floating-point vertical Roberts filter, ignoring alpha-channel.

FilterLaplace

Filters the image using a Laplacian filter kernel:

$$\begin{pmatrix} -1 & -1 & -1 \\ -1 & 8 & -1 \\ -1 & -1 & -1 \end{pmatrix} \begin{pmatrix} -1 & -3 & -4 & -3 & -1 \\ -3 & 0 & 6 & 0 & -3 \\ -4 & 6 & 20 & 6 & -4 \\ -3 & 0 & 6 & 0 & -3 \\ -1 & -3 & -4 & -3 & -1 \end{pmatrix}$$

- NppStatus nppiFilterLaplace_8u_C1R (const Npp8u ∗pSrc, Npp32s nSrcStep, Npp8u ∗pDst, Npp32s nDstStep, NppiSize oSizeROI, NppiMaskSize eMaskSize)

  Single channel 8-bit unsigned Laplace filter.

- NppStatus nppiFilterLaplace_8u_C3R (const Npp8u ∗pSrc, Npp32s nSrcStep, Npp8u ∗pDst, Npp32s nDstStep, NppiSize oSizeROI, NppiMaskSize eMaskSize)

  Three channel 8-bit unsigned Laplace filter.

- NppStatus nppiFilterLaplace_8u_C4R (const Npp8u ∗pSrc, Npp32s nSrcStep, Npp8u ∗pDst, Npp32s nDstStep, NppiSize oSizeROI, NppiMaskSize eMaskSize)

  Four channel 8-bit unsigned Laplace filter.

- NppStatus nppiFilterLaplace_8u_AC4R (const Npp8u ∗pSrc, Npp32s nSrcStep, Npp8u ∗pDst, Npp32s nDstStep, NppiSize oSizeROI, NppiMaskSize eMaskSize)

  Four channel 8-bit unsigned Laplace filter, ignoring alpha channel.

- NppStatus nppiFilterLaplace_16s_C1R (const Npp16s ∗pSrc, Npp32s nSrcStep, Npp16s ∗pDst, Npp32s nDstStep, NppiSize oSizeROI, NppiMaskSize eMaskSize)

  Single channel 16-bit signed Laplace filter.

- NppStatus nppiFilterLaplace_16s_C3R (const Npp16s ∗pSrc, Npp32s nSrcStep, Npp16s ∗pDst, Npp32s nDstStep, NppiSize oSizeROI, NppiMaskSize eMaskSize)

  Three channel 16-bit signed Laplace filter.

- NppStatus nppiFilterLaplace_16s_C4R (const Npp16s ∗pSrc, Npp32s nSrcStep, Npp16s ∗pDst, Npp32s nDstStep, NppiSize oSizeROI, NppiMaskSize eMaskSize)

  Four channel 16-bit signed Laplace filter.

- NppStatus nppiFilterLaplace_16s_AC4R (const Npp16s ∗pSrc, Npp32s nSrcStep, Npp16s ∗pDst, Npp32s nDstStep, NppiSize oSizeROI, NppiMaskSize eMaskSize)

  Four channel 16-bit signed Laplace filter, ignoring alpha channel.

- NppStatus nppiFilterLaplace_32f_C1R (const Npp32f ∗pSrc, Npp32s nSrcStep, Npp32f ∗pDst, Npp32s nDstStep, NppiSize oSizeROI, NppiMaskSize eMaskSize)

  Single channel 32-bit floating-point Laplace filter.

- NppStatus nppiFilterLaplace_32f_C3R (const Npp32f ∗pSrc, Npp32s nSrcStep, Npp32f ∗pDst, Npp32s nDstStep, NppiSize oSizeROI, NppiMaskSize eMaskSize)

  Three channel 32-bit floating-point Laplace filter.

- NppStatus nppiFilterLaplace_32f_C4R (const Npp32f ∗pSrc, Npp32s nSrcStep, Npp32f ∗pDst, Npp32s nDstStep, NppiSize oSizeROI, NppiMaskSize eMaskSize)

  Four channel 32-bit floating-point Laplace filter.

- NppStatus nppiFilterLaplace_32f_AC4R (const Npp32f ∗pSrc, Npp32s nSrcStep, Npp32f ∗pDst, Npp32s nDstStep, NppiSize oSizeROI, NppiMaskSize eMaskSize)

  Four channel 32-bit floating-point Laplace filter, ignoring alpha channel.

- NppStatus nppiFilterLaplace_8u16s_C1R (const Npp8u ∗pSrc, Npp32s nSrcStep, Npp16s ∗pDst, Npp32s nDstStep, NppiSize oSizeROI, NppiMaskSize eMaskSize)

  Single channel 8-bit unsigned to 16-bit signed Laplace filter.

- NppStatus nppiFilterLaplace_8s16s_C1R (const Npp8s ∗pSrc, Npp32s nSrcStep, Npp16s ∗pDst, Npp32s nDstStep, NppiSize oSizeROI, NppiMaskSize eMaskSize)

  Single channel 8-bit signed to 16-bit signed Laplace filter.

FilterGauss

Filters the image using a Gaussian filter kernel:

$$\begin{pmatrix} 1/16 & 2/16 & 1/16 \\ 2/16 & 4/16 & 2/16 \\ 1/16 & 2/16 & 1/16 \end{pmatrix} \begin{pmatrix} 2/571 & 7/571 & 12/571 & 7/571 & 2/571 \\ 7/571 & 31/571 & 52/571 & 31/571 & 7/571 \\ 12/571 & 52/571 & 127/571 & 52/571 & 12/571 \\ 7/571 & 31/571 & 52/571 & 31/571 & 7/571 \\ 2/571 & 7/571 & 12/571 & 7/571 & 2/571 \end{pmatrix}$$

- NppStatus nppiFilterGauss_8u_C1R (const Npp8u ∗pSrc, Npp32s nSrcStep, Npp8u ∗pDst, Npp32s nDstStep, NppiSize oSizeROI, NppiMaskSize eMaskSize)

  Single channel 8-bit unsigned Gauss filter.

- NppStatus nppiFilterGauss_8u_C3R (const Npp8u ∗pSrc, Npp32s nSrcStep, Npp8u ∗pDst, Npp32s nDstStep, NppiSize oSizeROI, NppiMaskSize eMaskSize)

  Three channel 8-bit unsigned Gauss filter.

- NppStatus nppiFilterGauss_8u_C4R (const Npp8u ∗pSrc, Npp32s nSrcStep, Npp8u ∗pDst, Npp32s nDstStep, NppiSize oSizeROI, NppiMaskSize eMaskSize)

  Four channel 8-bit unsigned Gauss filter.

- NppStatus nppiFilterGauss_8u_AC4R (const Npp8u ∗pSrc, Npp32s nSrcStep, Npp8u ∗pDst, Npp32s nDstStep, NppiSize oSizeROI, NppiMaskSize eMaskSize)

  Four channel 8-bit unsigned Gauss filter, ignoring alpha channel.

- NppStatus nppiFilterGauss_16u_C1R (const Npp16u ∗pSrc, Npp32s nSrcStep, Npp16u ∗pDst, Npp32s nDstStep, NppiSize oSizeROI, NppiMaskSize eMaskSize)

  Single channel 16-bit unsigned Gauss filter.

- NppStatus nppiFilterGauss_16u_C3R (const Npp16u ∗pSrc, Npp32s nSrcStep, Npp16u ∗pDst, Npp32s nDstStep, NppiSize oSizeROI, NppiMaskSize eMaskSize)

  Three channel 16-bit unsigned Gauss filter.

- NppStatus nppiFilterGauss_16u_C4R (const Npp16u ∗pSrc, Npp32s nSrcStep, Npp16u ∗pDst, Npp32s nDstStep, NppiSize oSizeROI, NppiMaskSize eMaskSize)

  Four channel 16-bit unsigned Gauss filter.

- NppStatus nppiFilterGauss_16u_AC4R (const Npp16u ∗pSrc, Npp32s nSrcStep, Npp16u ∗pDst, Npp32s nDstStep, NppiSize oSizeROI, NppiMaskSize eMaskSize)

  Four channel 16-bit unsigned Gauss filter, ignoring alpha channel.

- NppStatus nppiFilterGauss_16s_C1R (const Npp16s ∗pSrc, Npp32s nSrcStep, Npp16s ∗pDst, Npp32s nDstStep, NppiSize oSizeROI, NppiMaskSize eMaskSize)

  Single channel 16-bit signed Gauss filter.

- NppStatus nppiFilterGauss_16s_C3R (const Npp16s ∗pSrc, Npp32s nSrcStep, Npp16s ∗pDst, Npp32s nDstStep, NppiSize oSizeROI, NppiMaskSize eMaskSize)

  Three channel 16-bit signed Gauss filter.

- NppStatus nppiFilterGauss_16s_C4R (const Npp16s ∗pSrc, Npp32s nSrcStep, Npp16s ∗pDst, Npp32s nDstStep, NppiSize oSizeROI, NppiMaskSize eMaskSize)

  Four channel 16-bit signed Gauss filter.

- NppStatus nppiFilterGauss_16s_AC4R (const Npp16s ∗pSrc, Npp32s nSrcStep, Npp16s ∗pDst, Npp32s nDstStep, NppiSize oSizeROI, NppiMaskSize eMaskSize)

  Four channel 16-bit signed Gauss filter, ignoring alpha channel.

- NppStatus nppiFilterGauss_32f_C1R (const Npp32f ∗pSrc, Npp32s nSrcStep, Npp32f ∗pDst, Npp32s nDstStep, NppiSize oSizeROI, NppiMaskSize eMaskSize)

  Single channel 32-bit floating-point Gauss filter.

- NppStatus nppiFilterGauss_32f_C3R (const Npp32f *pSrc, Npp32s nSrcStep, Npp32f *pDst, Npp32s nDstStep, NppiSize oSizeROI, NppiMaskSize eMaskSize)

  Three channel 32-bit floating-point Gauss filter.

- NppStatus nppiFilterGauss_32f_C4R (const Npp32f *pSrc, Npp32s nSrcStep, Npp32f *pDst, Npp32s nDstStep, NppiSize oSizeROI, NppiMaskSize eMaskSize)

  Four channel 32-bit floating-point Gauss filter.

- NppStatus nppiFilterGauss_32f_AC4R (const Npp32f *pSrc, Npp32s nSrcStep, Npp32f *pDst, Npp32s nDstStep, NppiSize oSizeROI, NppiMaskSize eMaskSize)

  Four channel 32-bit floating-point Gauss filter, ignoring alpha channel.

FilterGaussBorder

If any portion of the mask overlaps the source image boundary the requested border type operation is applied to all mask pixels which fall outside of the source image.

Currently only the NPP_BORDER_REPLICATE border type operation is supported.

Filters the image using a Gaussian filter kernel:

$$\begin{pmatrix} 1/16 & 2/16 & 1/16 \\ 2/16 & 4/16 & 2/16 \\ 1/16 & 2/16 & 1/16 \end{pmatrix} \begin{pmatrix} 2/571 & 7/571 & 12/571 & 7/571 & 2/571 \\ 7/571 & 31/571 & 52/571 & 31/571 & 7/571 \\ 12/571 & 52/571 & 127/571 & 52/571 & 12/571 \\ 7/571 & 31/571 & 52/571 & 31/571 & 7/571 \\ 2/571 & 7/571 & 12/571 & 7/571 & 2/571 \end{pmatrix}$$

- NppStatus nppiFilterGaussBorder_8u_C1R (const Npp8u *pSrc, Npp32s nSrcStep, NppiSize oSrcSize, NppiPoint oSrcOffset, Npp8u *pDst, Npp32s nDstStep, NppiSize oSizeROI, NppiMaskSize eMaskSize, NppiBorderType eBorderType)

  Single channel 8-bit unsigned Gauss filter with border control.

- NppStatus nppiFilterGaussBorder_8u_C3R (const Npp8u *pSrc, Npp32s nSrcStep, NppiSize oSrcSize, NppiPoint oSrcOffset, Npp8u *pDst, Npp32s nDstStep, NppiSize oSizeROI, NppiMaskSize eMaskSize, NppiBorderType eBorderType)

  Three channel 8-bit unsigned Gauss filter with border control.

- NppStatus nppiFilterGaussBorder_8u_C4R (const Npp8u *pSrc, Npp32s nSrcStep, NppiSize oSrcSize, NppiPoint oSrcOffset, Npp8u *pDst, Npp32s nDstStep, NppiSize oSizeROI, NppiMaskSize eMaskSize, NppiBorderType eBorderType)

  Four channel 8-bit unsigned Gauss filter with border control.

- NppStatus nppiFilterGaussBorder_8u_AC4R (const Npp8u *pSrc, Npp32s nSrcStep, NppiSize oSrcSize, NppiPoint oSrcOffset, Npp8u *pDst, Npp32s nDstStep, NppiSize oSizeROI, NppiMaskSize eMaskSize, NppiBorderType eBorderType)

  Four channel 8-bit unsigned Gauss filter with border control, ignoring alpha channel.

- NppStatus nppiFilterGaussBorder_16u_C1R (const Npp16u *pSrc, Npp32s nSrcStep, NppiSize oSrcSize, NppiPoint oSrcOffset, Npp16u *pDst, Npp32s nDstStep, NppiSize oSizeROI, NppiMaskSize eMaskSize, NppiBorderType eBorderType)

Single channel 16-bit unsigned Gauss filter with border control.

- NppStatus nppiFilterGaussBorder_16u_C3R (const Npp16u ∗pSrc, Npp32s nSrcStep, NppiSize oSrcSize, NppiPoint oSrcOffset, Npp16u ∗pDst, Npp32s nDstStep, NppiSize oSizeROI, NppiMaskSize eMaskSize, NppiBorderType eBorderType)

  Three channel 16-bit unsigned Gauss filter with border control.

- NppStatus nppiFilterGaussBorder_16u_C4R (const Npp16u ∗pSrc, Npp32s nSrcStep, NppiSize oSrcSize, NppiPoint oSrcOffset, Npp16u ∗pDst, Npp32s nDstStep, NppiSize oSizeROI, NppiMaskSize eMaskSize, NppiBorderType eBorderType)

  Four channel 16-bit unsigned Gauss filter with border control.

- NppStatus nppiFilterGaussBorder_16u_AC4R (const Npp16u ∗pSrc, Npp32s nSrcStep, NppiSize oSrcSize, NppiPoint oSrcOffset, Npp16u ∗pDst, Npp32s nDstStep, NppiSize oSizeROI, NppiMaskSize eMaskSize, NppiBorderType eBorderType)

  Four channel 16-bit unsigned Gauss filter with border control, ignoring alpha channel.

- NppStatus nppiFilterGaussBorder_16s_C1R (const Npp16s ∗pSrc, Npp32s nSrcStep, NppiSize oSrcSize, NppiPoint oSrcOffset, Npp16s ∗pDst, Npp32s nDstStep, NppiSize oSizeROI, NppiMaskSize eMaskSize, NppiBorderType eBorderType)

  Single channel 16-bit signed Gauss filter with border control.

- NppStatus nppiFilterGaussBorder_16s_C3R (const Npp16s ∗pSrc, Npp32s nSrcStep, NppiSize oSrcSize, NppiPoint oSrcOffset, Npp16s ∗pDst, Npp32s nDstStep, NppiSize oSizeROI, NppiMaskSize eMaskSize, NppiBorderType eBorderType)

  Three channel 16-bit signed Gauss filter with border control.

- NppStatus nppiFilterGaussBorder_16s_C4R (const Npp16s ∗pSrc, Npp32s nSrcStep, NppiSize oSrcSize, NppiPoint oSrcOffset, Npp16s ∗pDst, Npp32s nDstStep, NppiSize oSizeROI, NppiMaskSize eMaskSize, NppiBorderType eBorderType)

  Four channel 16-bit signed Gauss filter with border control.

- NppStatus nppiFilterGaussBorder_16s_AC4R (const Npp16s ∗pSrc, Npp32s nSrcStep, NppiSize oSrcSize, NppiPoint oSrcOffset, Npp16s ∗pDst, Npp32s nDstStep, NppiSize oSizeROI, NppiMaskSize eMaskSize, NppiBorderType eBorderType)

  Four channel 16-bit signed Gauss filter with border control, ignoring alpha channel.

- NppStatus nppiFilterGaussBorder_32f_C1R (const Npp32f ∗pSrc, Npp32s nSrcStep, NppiSize oSrcSize, NppiPoint oSrcOffset, Npp32f ∗pDst, Npp32s nDstStep, NppiSize oSizeROI, NppiMaskSize eMaskSize, NppiBorderType eBorderType)

  Single channel 32-bit floating-point Gauss filter with border control.

- NppStatus nppiFilterGaussBorder_32f_C3R (const Npp32f ∗pSrc, Npp32s nSrcStep, NppiSize oSrcSize, NppiPoint oSrcOffset, Npp32f ∗pDst, Npp32s nDstStep, NppiSize oSizeROI, NppiMaskSize eMaskSize, NppiBorderType eBorderType)

  Three channel 32-bit floating-point Gauss filter with border control.

- NppStatus nppiFilterGaussBorder_32f_C4R (const Npp32f ∗pSrc, Npp32s nSrcStep, NppiSize oSrcSize, NppiPoint oSrcOffset, Npp32f ∗pDst, Npp32s nDstStep, NppiSize oSizeROI, NppiMaskSize eMaskSize, NppiBorderType eBorderType)

  Four channel 32-bit floating-point Gauss filter with border control.

- NppStatus nppiFilterGaussBorder_32f_AC4R (const Npp32f ∗pSrc, Npp32s nSrcStep, NppiSize oSrcSize, NppiPoint oSrcOffset, Npp32f ∗pDst, Npp32s nDstStep, NppiSize oSizeROI, NppiMaskSize eMaskSize, NppiBorderType eBorderType)

  Four channel 32-bit floating-point Gauss filter with border control, ignoring alpha channel.

FilterHighPass

Filters the image using a high-pass filter kernel:

$$\begin{pmatrix} -1 & -1 & -1 \\ -1 & 8 & -1 \\ -1 & -1 & -1 \end{pmatrix} \begin{pmatrix} -1 & -1 & -1 & -1 & -1 \\ -1 & -1 & -1 & -1 & -1 \\ -1 & -1 & 24 & -1 & -1 \\ -1 & -1 & -1 & -1 & -1 \\ -1 & -1 & -1 & -1 & -1 \end{pmatrix}$$

- NppStatus nppiFilterHighPass_8u_C1R (const Npp8u ∗pSrc, Npp32s nSrcStep, Npp8u ∗pDst, Npp32s nDstStep, NppiSize oSizeROI, NppiMaskSize eMaskSize)

  Single channel 8-bit unsigned high-pass filter.

- NppStatus nppiFilterHighPass_8u_C3R (const Npp8u ∗pSrc, Npp32s nSrcStep, Npp8u ∗pDst, Npp32s nDstStep, NppiSize oSizeROI, NppiMaskSize eMaskSize)

  Three channel 8-bit unsigned high-pass filter.

- NppStatus nppiFilterHighPass_8u_C4R (const Npp8u ∗pSrc, Npp32s nSrcStep, Npp8u ∗pDst, Npp32s nDstStep, NppiSize oSizeROI, NppiMaskSize eMaskSize)

  Four channel 8-bit unsigned high-pass filter.

- NppStatus nppiFilterHighPass_8u_AC4R (const Npp8u ∗pSrc, Npp32s nSrcStep, Npp8u ∗pDst, Npp32s nDstStep, NppiSize oSizeROI, NppiMaskSize eMaskSize)

  Four channel 8-bit unsigned high-pass filter, ignoring alpha channel.

- NppStatus nppiFilterHighPass_16u_C1R (const Npp16u ∗pSrc, Npp32s nSrcStep, Npp16u ∗pDst, Npp32s nDstStep, NppiSize oSizeROI, NppiMaskSize eMaskSize)

  Single channel 16-bit unsigned high-pass filter.

- NppStatus nppiFilterHighPass_16u_C3R (const Npp16u ∗pSrc, Npp32s nSrcStep, Npp16u ∗pDst, Npp32s nDstStep, NppiSize oSizeROI, NppiMaskSize eMaskSize)

  Three channel 16-bit unsigned high-pass filter.

- NppStatus nppiFilterHighPass_16u_C4R (const Npp16u ∗pSrc, Npp32s nSrcStep, Npp16u ∗pDst, Npp32s nDstStep, NppiSize oSizeROI, NppiMaskSize eMaskSize)

  Four channel 16-bit unsigned high-pass filter.

- NppStatus nppiFilterHighPass_16u_AC4R (const Npp16u ∗pSrc, Npp32s nSrcStep, Npp16u ∗pDst, Npp32s nDstStep, NppiSize oSizeROI, NppiMaskSize eMaskSize)

  Four channel 16-bit unsigned high-pass filter, ignoring alpha channel.

- NppStatus nppiFilterHighPass_16s_C1R (const Npp16s ∗pSrc, Npp32s nSrcStep, Npp16s ∗pDst, Npp32s nDstStep, NppiSize oSizeROI, NppiMaskSize eMaskSize)

Single channel 16-bit signed high-pass filter.

- NppStatus nppiFilterHighPass_16s_C3R (const Npp16s ∗pSrc, Npp32s nSrcStep, Npp16s ∗pDst, Npp32s nDstStep, NppiSize oSizeROI, NppiMaskSize eMaskSize)

  Three channel 16-bit signed high-pass filter.

- NppStatus nppiFilterHighPass_16s_C4R (const Npp16s ∗pSrc, Npp32s nSrcStep, Npp16s ∗pDst, Npp32s nDstStep, NppiSize oSizeROI, NppiMaskSize eMaskSize)

  Four channel 16-bit signed high-pass filter.

- NppStatus nppiFilterHighPass_16s_AC4R (const Npp16s ∗pSrc, Npp32s nSrcStep, Npp16s ∗pDst, Npp32s nDstStep, NppiSize oSizeROI, NppiMaskSize eMaskSize)

  Four channel 16-bit signed high-pass filter, ignoring alpha channel.

- NppStatus nppiFilterHighPass_32f_C1R (const Npp32f ∗pSrc, Npp32s nSrcStep, Npp32f ∗pDst, Npp32s nDstStep, NppiSize oSizeROI, NppiMaskSize eMaskSize)

  Single channel 32-bit floating-point high-pass filter.

- NppStatus nppiFilterHighPass_32f_C3R (const Npp32f ∗pSrc, Npp32s nSrcStep, Npp32f ∗pDst, Npp32s nDstStep, NppiSize oSizeROI, NppiMaskSize eMaskSize)

  Three channel 32-bit floating-point high-pass filter.

- NppStatus nppiFilterHighPass_32f_C4R (const Npp32f ∗pSrc, Npp32s nSrcStep, Npp32f ∗pDst, Npp32s nDstStep, NppiSize oSizeROI, NppiMaskSize eMaskSize)

  Four channel 32-bit floating-point high-pass filter.

- NppStatus nppiFilterHighPass_32f_AC4R (const Npp32f ∗pSrc, Npp32s nSrcStep, Npp32f ∗pDst, Npp32s nDstStep, NppiSize oSizeROI, NppiMaskSize eMaskSize)

  Four channel 32-bit floating-point high-pass filter, ignoring alpha channel.

FilterLowPass

Filters the image using a low-pass filter kernel:

$$\begin{pmatrix} 1/9 & 1/9 & 1/9 \\ 1/9 & 1/9 & 1/9 \\ 1/9 & 1/9 & 1/9 \end{pmatrix} \begin{pmatrix} 1/25 & 1/25 & 1/25 & 1/25 & 1/25 \\ 1/25 & 1/25 & 1/25 & 1/25 & 1/25 \\ 1/25 & 1/25 & 1/25 & 1/25 & 1/25 \\ 1/25 & 1/25 & 1/25 & 1/25 & 1/25 \\ 1/25 & 1/25 & 1/25 & 1/25 & 1/25 \end{pmatrix}$$

- NppStatus nppiFilterLowPass_8u_C1R (const Npp8u ∗pSrc, Npp32s nSrcStep, Npp8u ∗pDst, Npp32s nDstStep, NppiSize oSizeROI, NppiMaskSize eMaskSize)

  Single channel 8-bit unsigned low-pass filter.

- NppStatus nppiFilterLowPass_8u_C3R (const Npp8u ∗pSrc, Npp32s nSrcStep, Npp8u ∗pDst, Npp32s nDstStep, NppiSize oSizeROI, NppiMaskSize eMaskSize)

  Three channel 8-bit unsigned low-pass filter.

- NppStatus nppiFilterLowPass_8u_C4R (const Npp8u ∗pSrc, Npp32s nSrcStep, Npp8u ∗pDst, Npp32s nDstStep, NppiSize oSizeROI, NppiMaskSize eMaskSize)

Four channel 8-bit unsigned low-pass filter.

- NppStatus nppiFilterLowPass_8u_AC4R (const Npp8u ∗pSrc, Npp32s nSrcStep, Npp8u ∗pDst, Npp32s nDstStep, NppiSize oSizeROI, NppiMaskSize eMaskSize)

  Four channel 8-bit unsigned low-pass filter, ignoring alpha channel.

- NppStatus nppiFilterLowPass_16u_C1R (const Npp16u ∗pSrc, Npp32s nSrcStep, Npp16u ∗pDst, Npp32s nDstStep, NppiSize oSizeROI, NppiMaskSize eMaskSize)

  Single channel 16-bit unsigned low-pass filter.

- NppStatus nppiFilterLowPass_16u_C3R (const Npp16u ∗pSrc, Npp32s nSrcStep, Npp16u ∗pDst, Npp32s nDstStep, NppiSize oSizeROI, NppiMaskSize eMaskSize)

  Three channel 16-bit unsigned low-pass filter.

- NppStatus nppiFilterLowPass_16u_C4R (const Npp16u ∗pSrc, Npp32s nSrcStep, Npp16u ∗pDst, Npp32s nDstStep, NppiSize oSizeROI, NppiMaskSize eMaskSize)

  Four channel 16-bit unsigned low-pass filter.

- NppStatus nppiFilterLowPass_16u_AC4R (const Npp16u ∗pSrc, Npp32s nSrcStep, Npp16u ∗pDst, Npp32s nDstStep, NppiSize oSizeROI, NppiMaskSize eMaskSize)

  Four channel 16-bit unsigned low-pass filter, ignoring alpha channel.

- NppStatus nppiFilterLowPass_16s_C1R (const Npp16s ∗pSrc, Npp32s nSrcStep, Npp16s ∗pDst, Npp32s nDstStep, NppiSize oSizeROI, NppiMaskSize eMaskSize)

  Single channel 16-bit signed low-pass filter.

- NppStatus nppiFilterLowPass_16s_C3R (const Npp16s ∗pSrc, Npp32s nSrcStep, Npp16s ∗pDst, Npp32s nDstStep, NppiSize oSizeROI, NppiMaskSize eMaskSize)

  Three channel 16-bit signed low-pass filter.

- NppStatus nppiFilterLowPass_16s_C4R (const Npp16s ∗pSrc, Npp32s nSrcStep, Npp16s ∗pDst, Npp32s nDstStep, NppiSize oSizeROI, NppiMaskSize eMaskSize)

  Four channel 16-bit signed low-pass filter.

- NppStatus nppiFilterLowPass_16s_AC4R (const Npp16s ∗pSrc, Npp32s nSrcStep, Npp16s ∗pDst, Npp32s nDstStep, NppiSize oSizeROI, NppiMaskSize eMaskSize)

  Four channel 16-bit signed low-pass filter, ignoring alpha channel.

- NppStatus nppiFilterLowPass_32f_C1R (const Npp32f ∗pSrc, Npp32s nSrcStep, Npp32f ∗pDst, Npp32s nDstStep, NppiSize oSizeROI, NppiMaskSize eMaskSize)

  Single channel 32-bit floating-point low-pass filter.

- NppStatus nppiFilterLowPass_32f_C3R (const Npp32f ∗pSrc, Npp32s nSrcStep, Npp32f ∗pDst, Npp32s nDstStep, NppiSize oSizeROI, NppiMaskSize eMaskSize)

  Three channel 32-bit floating-point low-pass filter.

- NppStatus nppiFilterLowPass_32f_C4R (const Npp32f ∗pSrc, Npp32s nSrcStep, Npp32f ∗pDst, Npp32s nDstStep, NppiSize oSizeROI, NppiMaskSize eMaskSize)

  Four channel 32-bit floating-point low-pass filter.

- NppStatus nppiFilterLowPass_32f_AC4R (const Npp32f *pSrc, Npp32s nSrcStep, Npp32f *pDst, Npp32s nDstStep, NppiSize oSizeROI, NppiMaskSize eMaskSize)

  Four channel 32-bit floating-point high-pass filter, ignoring alpha channel.

FilterSharpen

Filters the image using a sharpening filter kernel:

$$\begin{pmatrix} -1/8 & -1/8 & -1/8 \\ -1/8 & 16/8 & -1/8 \\ -1/8 & -1/8 & -1/8 \end{pmatrix}$$

- NppStatus nppiFilterSharpen_8u_C1R (const Npp8u *pSrc, Npp32s nSrcStep, Npp8u *pDst, Npp32s nDstStep, NppiSize oSizeROI)

  Single channel 8-bit unsigned sharpening filter.

- NppStatus nppiFilterSharpen_8u_C3R (const Npp8u *pSrc, Npp32s nSrcStep, Npp8u *pDst, Npp32s nDstStep, NppiSize oSizeROI)

  Three channel 8-bit unsigned sharpening filter.

- NppStatus nppiFilterSharpen_8u_C4R (const Npp8u *pSrc, Npp32s nSrcStep, Npp8u *pDst, Npp32s nDstStep, NppiSize oSizeROI)

  Four channel 8-bit unsigned sharpening filter.

- NppStatus nppiFilterSharpen_8u_AC4R (const Npp8u *pSrc, Npp32s nSrcStep, Npp8u *pDst, Npp32s nDstStep, NppiSize oSizeROI)

  Four channel 8-bit unsigned sharpening filter, ignoring alpha channel.

- NppStatus nppiFilterSharpen_16u_C1R (const Npp16u *pSrc, Npp32s nSrcStep, Npp16u *pDst, Npp32s nDstStep, NppiSize oSizeROI)

  Single channel 16-bit unsigned sharpening filter.

- NppStatus nppiFilterSharpen_16u_C3R (const Npp16u *pSrc, Npp32s nSrcStep, Npp16u *pDst, Npp32s nDstStep, NppiSize oSizeROI)

  Three channel 16-bit unsigned sharpening filter.

- NppStatus nppiFilterSharpen_16u_C4R (const Npp16u *pSrc, Npp32s nSrcStep, Npp16u *pDst, Npp32s nDstStep, NppiSize oSizeROI)

  Four channel 16-bit unsigned sharpening filter.

- NppStatus nppiFilterSharpen_16u_AC4R (const Npp16u *pSrc, Npp32s nSrcStep, Npp16u *pDst, Npp32s nDstStep, NppiSize oSizeROI)

  Four channel 16-bit unsigned sharpening filter, ignoring alpha channel.

- NppStatus nppiFilterSharpen_16s_C1R (const Npp16s *pSrc, Npp32s nSrcStep, Npp16s *pDst, Npp32s nDstStep, NppiSize oSizeROI)

  Single channel 16-bit signed sharpening filter.

- NppStatus nppiFilterSharpen_16s_C3R (const Npp16s *pSrc, Npp32s nSrcStep, Npp16s *pDst, Npp32s nDstStep, NppiSize oSizeROI)

Three channel 16-bit signed sharpening filter.

- NppStatus nppiFilterSharpen_16s_C4R (const Npp16s ∗pSrc, Npp32s nSrcStep, Npp16s ∗pDst, Npp32s nDstStep, NppiSize oSizeROI)

  Four channel 16-bit signed sharpening filter.

- NppStatus nppiFilterSharpen_16s_AC4R (const Npp16s ∗pSrc, Npp32s nSrcStep, Npp16s ∗pDst, Npp32s nDstStep, NppiSize oSizeROI)

  Four channel 16-bit signed sharpening filter, ignoring alpha channel.

- NppStatus nppiFilterSharpen_32f_C1R (const Npp32f ∗pSrc, Npp32s nSrcStep, Npp32f ∗pDst, Npp32s nDstStep, NppiSize oSizeROI)

  Single channel 32-bit floating-point sharpening filter.

- NppStatus nppiFilterSharpen_32f_C3R (const Npp32f ∗pSrc, Npp32s nSrcStep, Npp32f ∗pDst, Npp32s nDstStep, NppiSize oSizeROI)

  Three channel 32-bit floating-point sharpening filter.

- NppStatus nppiFilterSharpen_32f_C4R (const Npp32f ∗pSrc, Npp32s nSrcStep, Npp32f ∗pDst, Npp32s nDstStep, NppiSize oSizeROI)

  Four channel 32-bit floating-point sharpening filter.

- NppStatus nppiFilterSharpen_32f_AC4R (const Npp32f ∗pSrc, Npp32s nSrcStep, Npp32f ∗pDst, Npp32s nDstStep, NppiSize oSizeROI)

  Four channel 32-bit floating-point sharpening filter, ignoring alpha channel.

7.65.1 Detailed Description

Linear and non-linear image filtering functions.

Filtering functions are classified as Neighborhood Operations. It is the user's responsibility to avoid Sampling Beyond Image Boundaries.

7.65.2 Function Documentation

7.65.2.1 NppStatus nppiFilterGauss_16s_AC4R (const Npp16s ∗ *pSrc*, Npp32s *nSrcStep*, Npp16s ∗ *pDst*, Npp32s *nDstStep*, NppiSize *oSizeROI*, NppiMaskSize *eMaskSize*)

Four channel 16-bit signed Gauss filter, ignoring alpha channel.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

eMaskSize Enumeration value specifying the mask size.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.65.2.2 NppStatus nppiFilterGauss_16s_C1R (const Npp16s * *pSrc*, Npp32s *nSrcStep*, Npp16s * *pDst*, Npp32s *nDstStep*, NppiSize *oSizeROI*, NppiMaskSize *eMaskSize*)

Single channel 16-bit signed Gauss filter.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

eMaskSize Enumeration value specifying the mask size.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.65.2.3 NppStatus nppiFilterGauss_16s_C3R (const Npp16s * *pSrc*, Npp32s *nSrcStep*, Npp16s * *pDst*, Npp32s *nDstStep*, NppiSize *oSizeROI*, NppiMaskSize *eMaskSize*)

Three channel 16-bit signed Gauss filter.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

eMaskSize Enumeration value specifying the mask size.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.65.2.4 NppStatus nppiFilterGauss_16s_C4R (const Npp16s * *pSrc*, Npp32s *nSrcStep*, Npp16s * *pDst*, Npp32s *nDstStep*, NppiSize *oSizeROI*, NppiMaskSize *eMaskSize*)

Four channel 16-bit signed Gauss filter.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

eMaskSize Enumeration value specifying the mask size.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.65.2.5 NppStatus nppiFilterGauss_16u_AC4R (const Npp16u ∗ *pSrc*, Npp32s *nSrcStep*, Npp16u ∗ *pDst*, Npp32s *nDstStep*, NppiSize *oSizeROI*, NppiMaskSize *eMaskSize*)

Four channel 16-bit unsigned Gauss filter, ignoring alpha channel.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

eMaskSize Enumeration value specifying the mask size.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.65.2.6 NppStatus nppiFilterGauss_16u_C1R (const Npp16u ∗ *pSrc*, Npp32s *nSrcStep*, Npp16u ∗ *pDst*, Npp32s *nDstStep*, NppiSize *oSizeROI*, NppiMaskSize *eMaskSize*)

Single channel 16-bit unsigned Gauss filter.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

eMaskSize Enumeration value specifying the mask size.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.65.2.7 NppStatus nppiFilterGauss_16u_C3R (const Npp16u ∗ *pSrc*, Npp32s *nSrcStep*, Npp16u ∗ *pDst*, Npp32s *nDstStep*, NppiSize *oSizeROI*, NppiMaskSize *eMaskSize*)

Three channel 16-bit unsigned Gauss filter.

Parameters:

pSrc Source-Image Pointer.
nSrcStep Source-Image Line Step.
pDst Destination-Image Pointer.
nDstStep Destination-Image Line Step.
oSizeROI Region-of-Interest (ROI).
eMaskSize Enumeration value specifying the mask size.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.65.2.8 NppStatus nppiFilterGauss_16u_C4R (const Npp16u ∗ *pSrc*, Npp32s *nSrcStep*, Npp16u ∗ *pDst*, Npp32s *nDstStep*, NppiSize *oSizeROI*, NppiMaskSize *eMaskSize*)

Four channel 16-bit unsigned Gauss filter.

Parameters:

pSrc Source-Image Pointer.
nSrcStep Source-Image Line Step.
pDst Destination-Image Pointer.
nDstStep Destination-Image Line Step.
oSizeROI Region-of-Interest (ROI).
eMaskSize Enumeration value specifying the mask size.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.65.2.9 NppStatus nppiFilterGauss_32f_AC4R (const Npp32f ∗ *pSrc*, Npp32s *nSrcStep*, Npp32f ∗ *pDst*, Npp32s *nDstStep*, NppiSize *oSizeROI*, NppiMaskSize *eMaskSize*)

Four channel 32-bit floating-point Gauss filter, ignoring alpha channel.

Parameters:

pSrc Source-Image Pointer.
nSrcStep Source-Image Line Step.
pDst Destination-Image Pointer.
nDstStep Destination-Image Line Step.
oSizeROI Region-of-Interest (ROI).
eMaskSize Enumeration value specifying the mask size.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.65.2.10 NppStatus nppiFilterGauss_32f_C1R (const Npp32f * *pSrc*, Npp32s *nSrcStep*, Npp32f * *pDst*, Npp32s *nDstStep*, NppiSize *oSizeROI*, NppiMaskSize *eMaskSize*)

Single channel 32-bit floating-point Gauss filter.

Parameters:

pSrc Source-Image Pointer.
nSrcStep Source-Image Line Step.
pDst Destination-Image Pointer.
nDstStep Destination-Image Line Step.
oSizeROI Region-of-Interest (ROI).
eMaskSize Enumeration value specifying the mask size.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.65.2.11 NppStatus nppiFilterGauss_32f_C3R (const Npp32f * *pSrc*, Npp32s *nSrcStep*, Npp32f * *pDst*, Npp32s *nDstStep*, NppiSize *oSizeROI*, NppiMaskSize *eMaskSize*)

Three channel 32-bit floating-point Gauss filter.

Parameters:

pSrc Source-Image Pointer.
nSrcStep Source-Image Line Step.
pDst Destination-Image Pointer.
nDstStep Destination-Image Line Step.
oSizeROI Region-of-Interest (ROI).
eMaskSize Enumeration value specifying the mask size.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.65.2.12 NppStatus nppiFilterGauss_32f_C4R (const Npp32f * *pSrc*, Npp32s *nSrcStep*, Npp32f * *pDst*, Npp32s *nDstStep*, NppiSize *oSizeROI*, NppiMaskSize *eMaskSize*)

Four channel 32-bit floating-point Gauss filter.

Parameters:

pSrc Source-Image Pointer.
nSrcStep Source-Image Line Step.
pDst Destination-Image Pointer.
nDstStep Destination-Image Line Step.
oSizeROI Region-of-Interest (ROI).
eMaskSize Enumeration value specifying the mask size.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.65.2.13 NppStatus nppiFilterGauss_8u_AC4R (const Npp8u $*$ *pSrc*, Npp32s *nSrcStep*, Npp8u $*$ *pDst*, Npp32s *nDstStep*, NppiSize *oSizeROI*, NppiMaskSize *eMaskSize*)

Four channel 8-bit unsigned Gauss filter, ignoring alpha channel.

Parameters:

pSrc Source-Image Pointer.
nSrcStep Source-Image Line Step.
pDst Destination-Image Pointer.
nDstStep Destination-Image Line Step.
oSizeROI Region-of-Interest (ROI).
eMaskSize Enumeration value specifying the mask size.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.65.2.14 NppStatus nppiFilterGauss_8u_C1R (const Npp8u $*$ *pSrc*, Npp32s *nSrcStep*, Npp8u $*$ *pDst*, Npp32s *nDstStep*, NppiSize *oSizeROI*, NppiMaskSize *eMaskSize*)

Single channel 8-bit unsigned Gauss filter.

Parameters:

pSrc Source-Image Pointer.
nSrcStep Source-Image Line Step.
pDst Destination-Image Pointer.
nDstStep Destination-Image Line Step.
oSizeROI Region-of-Interest (ROI).
eMaskSize Enumeration value specifying the mask size.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.65.2.15 NppStatus nppiFilterGauss_8u_C3R (const Npp8u $*$ *pSrc*, Npp32s *nSrcStep*, Npp8u $*$ *pDst*, Npp32s *nDstStep*, NppiSize *oSizeROI*, NppiMaskSize *eMaskSize*)

Three channel 8-bit unsigned Gauss filter.

Parameters:

pSrc Source-Image Pointer.
nSrcStep Source-Image Line Step.
pDst Destination-Image Pointer.
nDstStep Destination-Image Line Step.
oSizeROI Region-of-Interest (ROI).
eMaskSize Enumeration value specifying the mask size.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.65.2.16 NppStatus nppiFilterGauss_8u_C4R (const Npp8u ∗ *pSrc*, Npp32s *nSrcStep*, Npp8u ∗ *pDst*, Npp32s *nDstStep*, NppiSize *oSizeROI*, NppiMaskSize *eMaskSize*)

Four channel 8-bit unsigned Gauss filter.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

eMaskSize Enumeration value specifying the mask size.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.65.2.17 NppStatus nppiFilterGaussBorder_16s_AC4R (const Npp16s ∗ *pSrc*, Npp32s *nSrcStep*, NppiSize *oSrcSize*, NppiPoint *oSrcOffset*, Npp16s ∗ *pDst*, Npp32s *nDstStep*, NppiSize *oSizeROI*, NppiMaskSize *eMaskSize*, NppiBorderType *eBorderType*)

Four channel 16-bit signed Gauss filter with border control, ignoring alpha channel.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSrcSize Source image width and height in pixels relative to pSrc.

oSrcOffset Source image starting point relative to pSrc.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

eMaskSize Enumeration value specifying the mask size.

eBorderType The border type operation to be applied at source image border boundaries.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.65.2.18 NppStatus nppiFilterGaussBorder_16s_C1R (const Npp16s ∗ *pSrc*, Npp32s *nSrcStep*, NppiSize *oSrcSize*, NppiPoint *oSrcOffset*, Npp16s ∗ *pDst*, Npp32s *nDstStep*, NppiSize *oSizeROI*, NppiMaskSize *eMaskSize*, NppiBorderType *eBorderType*)

Single channel 16-bit signed Gauss filter with border control.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSrcSize Source image width and height in pixels relative to pSrc.

oSrcOffset Source image starting point relative to pSrc.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

eMaskSize Enumeration value specifying the mask size.

eBorderType The border type operation to be applied at source image border boundaries.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.65.2.19 NppStatus nppiFilterGaussBorder_16s_C3R (const Npp16s $*$ *pSrc*, Npp32s *nSrcStep*, NppiSize *oSrcSize*, NppiPoint *oSrcOffset*, Npp16s $*$ *pDst*, Npp32s *nDstStep*, NppiSize *oSizeROI*, NppiMaskSize *eMaskSize*, NppiBorderType *eBorderType*)

Three channel 16-bit signed Gauss filter with border control.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSrcSize Source image width and height in pixels relative to pSrc.

oSrcOffset Source image starting point relative to pSrc.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

eMaskSize Enumeration value specifying the mask size.

eBorderType The border type operation to be applied at source image border boundaries.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.65.2.20 NppStatus nppiFilterGaussBorder_16s_C4R (const Npp16s $*$ *pSrc*, Npp32s *nSrcStep*, NppiSize *oSrcSize*, NppiPoint *oSrcOffset*, Npp16s $*$ *pDst*, Npp32s *nDstStep*, NppiSize *oSizeROI*, NppiMaskSize *eMaskSize*, NppiBorderType *eBorderType*)

Four channel 16-bit signed Gauss filter with border control.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSrcSize Source image width and height in pixels relative to pSrc.

oSrcOffset Source image starting point relative to pSrc.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

eMaskSize Enumeration value specifying the mask size.

eBorderType The border type operation to be applied at source image border boundaries.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.65.2.21 NppStatus nppiFilterGaussBorder_16u_AC4R (const Npp16u ∗ *pSrc*, Npp32s *nSrcStep*, NppiSize *oSrcSize*, NppiPoint *oSrcOffset*, Npp16u ∗ *pDst*, Npp32s *nDstStep*, NppiSize *oSizeROI*, NppiMaskSize *eMaskSize*, NppiBorderType *eBorderType*)

Four channel 16-bit unsigned Gauss filter with border control, ignoring alpha channel.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSrcSize Source image width and height in pixels relative to pSrc.

oSrcOffset Source image starting point relative to pSrc.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

eMaskSize Enumeration value specifying the mask size.

eBorderType The border type operation to be applied at source image border boundaries.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.65.2.22 NppStatus nppiFilterGaussBorder_16u_C1R (const Npp16u ∗ *pSrc*, Npp32s *nSrcStep*, NppiSize *oSrcSize*, NppiPoint *oSrcOffset*, Npp16u ∗ *pDst*, Npp32s *nDstStep*, NppiSize *oSizeROI*, NppiMaskSize *eMaskSize*, NppiBorderType *eBorderType*)

Single channel 16-bit unsigned Gauss filter with border control.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSrcSize Source image width and height in pixels relative to pSrc.

oSrcOffset Source image starting point relative to pSrc.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

eMaskSize Enumeration value specifying the mask size.

eBorderType The border type operation to be applied at source image border boundaries.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.65.2.23 NppStatus nppiFilterGaussBorder_16u_C3R (const Npp16u ∗ *pSrc*, Npp32s *nSrcStep*, NppiSize *oSrcSize*, NppiPoint *oSrcOffset*, Npp16u ∗ *pDst*, Npp32s *nDstStep*, NppiSize *oSizeROI*, NppiMaskSize *eMaskSize*, NppiBorderType *eBorderType*)

Three channel 16-bit unsigned Gauss filter with border control.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSrcSize Source image width and height in pixels relative to pSrc.

oSrcOffset Source image starting point relative to pSrc.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

eMaskSize Enumeration value specifying the mask size.

eBorderType The border type operation to be applied at source image border boundaries.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.65.2.24 NppStatus nppiFilterGaussBorder_16u_C4R (const Npp16u ∗ *pSrc*, Npp32s *nSrcStep*, NppiSize *oSrcSize*, NppiPoint *oSrcOffset*, Npp16u ∗ *pDst*, Npp32s *nDstStep*, NppiSize *oSizeROI*, NppiMaskSize *eMaskSize*, NppiBorderType *eBorderType*)

Four channel 16-bit unsigned Gauss filter with border control.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSrcSize Source image width and height in pixels relative to pSrc.

oSrcOffset Source image starting point relative to pSrc.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

eMaskSize Enumeration value specifying the mask size.

eBorderType The border type operation to be applied at source image border boundaries.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.65.2.25 NppStatus nppiFilterGaussBorder_32f_AC4R (const Npp32f ∗ *pSrc*, Npp32s *nSrcStep*, NppiSize *oSrcSize*, NppiPoint *oSrcOffset*, Npp32f ∗ *pDst*, Npp32s *nDstStep*, NppiSize *oSizeROI*, NppiMaskSize *eMaskSize*, NppiBorderType *eBorderType*)

Four channel 32-bit floating-point Gauss filter with border control, ignoring alpha channel.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSrcSize Source image width and height in pixels relative to pSrc.

oSrcOffset Source image starting point relative to pSrc.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

eMaskSize Enumeration value specifying the mask size.

eBorderType The border type operation to be applied at source image border boundaries.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.65.2.26 NppStatus nppiFilterGaussBorder_32f_C1R (const Npp32f ∗ *pSrc*, Npp32s *nSrcStep*, NppiSize *oSrcSize*, NppiPoint *oSrcOffset*, Npp32f ∗ *pDst*, Npp32s *nDstStep*, NppiSize *oSizeROI*, NppiMaskSize *eMaskSize*, NppiBorderType *eBorderType*)

Single channel 32-bit floating-point Gauss filter with border control.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSrcSize Source image width and height in pixels relative to pSrc.

oSrcOffset Source image starting point relative to pSrc.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

eMaskSize Enumeration value specifying the mask size.

eBorderType The border type operation to be applied at source image border boundaries.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.65.2.27 NppStatus nppiFilterGaussBorder_32f_C3R (const Npp32f ∗ *pSrc*, Npp32s *nSrcStep*, NppiSize *oSrcSize*, NppiPoint *oSrcOffset*, Npp32f ∗ *pDst*, Npp32s *nDstStep*, NppiSize *oSizeROI*, NppiMaskSize *eMaskSize*, NppiBorderType *eBorderType*)

Three channel 32-bit floating-point Gauss filter with border control.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSrcSize Source image width and height in pixels relative to pSrc.

oSrcOffset Source image starting point relative to pSrc.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

eMaskSize Enumeration value specifying the mask size.

eBorderType The border type operation to be applied at source image border boundaries.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.65.2.28 NppStatus nppiFilterGaussBorder_32f_C4R (const Npp32f ∗ *pSrc*, Npp32s *nSrcStep*, NppiSize *oSrcSize*, NppiPoint *oSrcOffset*, Npp32f ∗ *pDst*, Npp32s *nDstStep*, NppiSize *oSizeROI*, NppiMaskSize *eMaskSize*, NppiBorderType *eBorderType*)

Four channel 32-bit floating-point Gauss filter with border control.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSrcSize Source image width and height in pixels relative to pSrc.

oSrcOffset Source image starting point relative to pSrc.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

eMaskSize Enumeration value specifying the mask size.

eBorderType The border type operation to be applied at source image border boundaries.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.65.2.29 NppStatus nppiFilterGaussBorder_8u_AC4R (const Npp8u ∗ *pSrc*, Npp32s *nSrcStep*, NppiSize *oSrcSize*, NppiPoint *oSrcOffset*, Npp8u ∗ *pDst*, Npp32s *nDstStep*, NppiSize *oSizeROI*, NppiMaskSize *eMaskSize*, NppiBorderType *eBorderType*)

Four channel 8-bit unsigned Gauss filter with border control, ignoring alpha channel.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSrcSize Source image width and height in pixels relative to pSrc.

oSrcOffset Source image starting point relative to pSrc.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

eMaskSize Enumeration value specifying the mask size.

eBorderType The border type operation to be applied at source image border boundaries.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.65.2.30 NppStatus nppiFilterGaussBorder_8u_C1R (const Npp8u ∗ *pSrc*, Npp32s *nSrcStep*, NppiSize *oSrcSize*, NppiPoint *oSrcOffset*, Npp8u ∗ *pDst*, Npp32s *nDstStep*, NppiSize *oSizeROI*, NppiMaskSize *eMaskSize*, NppiBorderType *eBorderType*)

Single channel 8-bit unsigned Gauss filter with border control.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSrcSize Source image width and height in pixels relative to pSrc.

oSrcOffset Source image starting point relative to pSrc.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

eMaskSize Enumeration value specifying the mask size.

eBorderType The border type operation to be applied at source image border boundaries.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.65.2.31 NppStatus nppiFilterGaussBorder_8u_C3R (const Npp8u ∗ *pSrc*, Npp32s *nSrcStep*, NppiSize *oSrcSize*, NppiPoint *oSrcOffset*, Npp8u ∗ *pDst*, Npp32s *nDstStep*, NppiSize *oSizeROI*, NppiMaskSize *eMaskSize*, NppiBorderType *eBorderType*)

Three channel 8-bit unsigned Gauss filter with border control.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSrcSize Source image width and height in pixels relative to pSrc.

oSrcOffset Source image starting point relative to pSrc.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

eMaskSize Enumeration value specifying the mask size.

eBorderType The border type operation to be applied at source image border boundaries.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.65.2.32 NppStatus nppiFilterGaussBorder_8u_C4R (const Npp8u ∗ *pSrc*, Npp32s *nSrcStep*, NppiSize *oSrcSize*, NppiPoint *oSrcOffset*, Npp8u ∗ *pDst*, Npp32s *nDstStep*, NppiSize *oSizeROI*, NppiMaskSize *eMaskSize*, NppiBorderType *eBorderType*)

Four channel 8-bit unsigned Gauss filter with border control.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSrcSize Source image width and height in pixels relative to pSrc.

oSrcOffset Source image starting point relative to pSrc.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

eMaskSize Enumeration value specifying the mask size.

eBorderType The border type operation to be applied at source image border boundaries.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.65.2.33 NppStatus nppiFilterHighPass_16s_AC4R (const Npp16s * *pSrc*, Npp32s *nSrcStep*, Npp16s * *pDst*, Npp32s *nDstStep*, NppiSize *oSizeROI*, NppiMaskSize *eMaskSize*)

Four channel 16-bit signed high-pass filter, ignoring alpha channel.

Parameters:

pSrc Source-Image Pointer.
nSrcStep Source-Image Line Step.
pDst Destination-Image Pointer.
nDstStep Destination-Image Line Step.
oSizeROI Region-of-Interest (ROI).
eMaskSize Enumeration value specifying the mask size.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.65.2.34 NppStatus nppiFilterHighPass_16s_C1R (const Npp16s * *pSrc*, Npp32s *nSrcStep*, Npp16s * *pDst*, Npp32s *nDstStep*, NppiSize *oSizeROI*, NppiMaskSize *eMaskSize*)

Single channel 16-bit signed high-pass filter.

Parameters:

pSrc Source-Image Pointer.
nSrcStep Source-Image Line Step.
pDst Destination-Image Pointer.
nDstStep Destination-Image Line Step.
oSizeROI Region-of-Interest (ROI).
eMaskSize Enumeration value specifying the mask size.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.65.2.35 NppStatus nppiFilterHighPass_16s_C3R (const Npp16s * *pSrc*, Npp32s *nSrcStep*, Npp16s * *pDst*, Npp32s *nDstStep*, NppiSize *oSizeROI*, NppiMaskSize *eMaskSize*)

Three channel 16-bit signed high-pass filter.

Parameters:

pSrc Source-Image Pointer.
nSrcStep Source-Image Line Step.
pDst Destination-Image Pointer.
nDstStep Destination-Image Line Step.
oSizeROI Region-of-Interest (ROI).
eMaskSize Enumeration value specifying the mask size.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.65.2.36 NppStatus nppiFilterHighPass_16s_C4R (const Npp16s ∗ *pSrc*, Npp32s *nSrcStep*, Npp16s ∗ *pDst*, Npp32s *nDstStep*, NppiSize *oSizeROI*, NppiMaskSize *eMaskSize*)

Four channel 16-bit signed high-pass filter.

Parameters:

pSrc Source-Image Pointer.
nSrcStep Source-Image Line Step.
pDst Destination-Image Pointer.
nDstStep Destination-Image Line Step.
oSizeROI Region-of-Interest (ROI).
eMaskSize Enumeration value specifying the mask size.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.65.2.37 NppStatus nppiFilterHighPass_16u_AC4R (const Npp16u ∗ *pSrc*, Npp32s *nSrcStep*, Npp16u ∗ *pDst*, Npp32s *nDstStep*, NppiSize *oSizeROI*, NppiMaskSize *eMaskSize*)

Four channel 16-bit unsigned high-pass filter, ignoring alpha channel.

Parameters:

pSrc Source-Image Pointer.
nSrcStep Source-Image Line Step.
pDst Destination-Image Pointer.
nDstStep Destination-Image Line Step.
oSizeROI Region-of-Interest (ROI).
eMaskSize Enumeration value specifying the mask size.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.65.2.38 NppStatus nppiFilterHighPass_16u_C1R (const Npp16u ∗ *pSrc*, Npp32s *nSrcStep*, Npp16u ∗ *pDst*, Npp32s *nDstStep*, NppiSize *oSizeROI*, NppiMaskSize *eMaskSize*)

Single channel 16-bit unsigned high-pass filter.

Parameters:

pSrc Source-Image Pointer.
nSrcStep Source-Image Line Step.
pDst Destination-Image Pointer.
nDstStep Destination-Image Line Step.
oSizeROI Region-of-Interest (ROI).
eMaskSize Enumeration value specifying the mask size.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.65.2.39 NppStatus nppiFilterHighPass_16u_C3R (const Npp16u ∗ *pSrc*, Npp32s *nSrcStep*, Npp16u ∗ *pDst*, Npp32s *nDstStep*, NppiSize *oSizeROI*, NppiMaskSize *eMaskSize*)

Three channel 16-bit unsigned high-pass filter.

Parameters:

pSrc Source-Image Pointer.
nSrcStep Source-Image Line Step.
pDst Destination-Image Pointer.
nDstStep Destination-Image Line Step.
oSizeROI Region-of-Interest (ROI).
eMaskSize Enumeration value specifying the mask size.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.65.2.40 NppStatus nppiFilterHighPass_16u_C4R (const Npp16u ∗ *pSrc*, Npp32s *nSrcStep*, Npp16u ∗ *pDst*, Npp32s *nDstStep*, NppiSize *oSizeROI*, NppiMaskSize *eMaskSize*)

Four channel 16-bit unsigned high-pass filter.

Parameters:

pSrc Source-Image Pointer.
nSrcStep Source-Image Line Step.
pDst Destination-Image Pointer.
nDstStep Destination-Image Line Step.
oSizeROI Region-of-Interest (ROI).
eMaskSize Enumeration value specifying the mask size.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.65.2.41 NppStatus nppiFilterHighPass_32f_AC4R (const Npp32f ∗ *pSrc*, Npp32s *nSrcStep*, Npp32f ∗ *pDst*, Npp32s *nDstStep*, NppiSize *oSizeROI*, NppiMaskSize *eMaskSize*)

Four channel 32-bit floating-point high-pass filter, ignoring alpha channel.

Parameters:

pSrc Source-Image Pointer.
nSrcStep Source-Image Line Step.
pDst Destination-Image Pointer.
nDstStep Destination-Image Line Step.
oSizeROI Region-of-Interest (ROI).
eMaskSize Enumeration value specifying the mask size.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.65.2.42 NppStatus nppiFilterHighPass_32f_C1R (const Npp32f ∗ *pSrc*, Npp32s *nSrcStep*, Npp32f ∗ *pDst*, Npp32s *nDstStep*, NppiSize *oSizeROI*, NppiMaskSize *eMaskSize*)

Single channel 32-bit floating-point high-pass filter.

Parameters:

pSrc Source-Image Pointer.
nSrcStep Source-Image Line Step.
pDst Destination-Image Pointer.
nDstStep Destination-Image Line Step.
oSizeROI Region-of-Interest (ROI).
eMaskSize Enumeration value specifying the mask size.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.65.2.43 NppStatus nppiFilterHighPass_32f_C3R (const Npp32f ∗ *pSrc*, Npp32s *nSrcStep*, Npp32f ∗ *pDst*, Npp32s *nDstStep*, NppiSize *oSizeROI*, NppiMaskSize *eMaskSize*)

Three channel 32-bit floating-point high-pass filter.

Parameters:

pSrc Source-Image Pointer.
nSrcStep Source-Image Line Step.
pDst Destination-Image Pointer.
nDstStep Destination-Image Line Step.
oSizeROI Region-of-Interest (ROI).
eMaskSize Enumeration value specifying the mask size.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.65.2.44 NppStatus nppiFilterHighPass_32f_C4R (const Npp32f ∗ *pSrc*, Npp32s *nSrcStep*, Npp32f ∗ *pDst*, Npp32s *nDstStep*, NppiSize *oSizeROI*, NppiMaskSize *eMaskSize*)

Four channel 32-bit floating-point high-pass filter.

Parameters:

pSrc Source-Image Pointer.
nSrcStep Source-Image Line Step.
pDst Destination-Image Pointer.
nDstStep Destination-Image Line Step.
oSizeROI Region-of-Interest (ROI).
eMaskSize Enumeration value specifying the mask size.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.65.2.45 NppStatus nppiFilterHighPass_8u_AC4R (const Npp8u ∗ *pSrc*, Npp32s *nSrcStep*, Npp8u ∗ *pDst*, Npp32s *nDstStep*, NppiSize *oSizeROI*, NppiMaskSize *eMaskSize*)

Four channel 8-bit unsigned high-pass filter, ignoring alpha channel.

Parameters:

pSrc Source-Image Pointer.
nSrcStep Source-Image Line Step.
pDst Destination-Image Pointer.
nDstStep Destination-Image Line Step.
oSizeROI Region-of-Interest (ROI).
eMaskSize Enumeration value specifying the mask size.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.65.2.46 NppStatus nppiFilterHighPass_8u_C1R (const Npp8u ∗ *pSrc*, Npp32s *nSrcStep*, Npp8u ∗ *pDst*, Npp32s *nDstStep*, NppiSize *oSizeROI*, NppiMaskSize *eMaskSize*)

Single channel 8-bit unsigned high-pass filter.

Parameters:

pSrc Source-Image Pointer.
nSrcStep Source-Image Line Step.
pDst Destination-Image Pointer.
nDstStep Destination-Image Line Step.
oSizeROI Region-of-Interest (ROI).
eMaskSize Enumeration value specifying the mask size.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.65.2.47 NppStatus nppiFilterHighPass_8u_C3R (const Npp8u ∗ *pSrc*, Npp32s *nSrcStep*, Npp8u ∗ *pDst*, Npp32s *nDstStep*, NppiSize *oSizeROI*, NppiMaskSize *eMaskSize*)

Three channel 8-bit unsigned high-pass filter.

Parameters:

pSrc Source-Image Pointer.
nSrcStep Source-Image Line Step.
pDst Destination-Image Pointer.
nDstStep Destination-Image Line Step.
oSizeROI Region-of-Interest (ROI).
eMaskSize Enumeration value specifying the mask size.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.65.2.48 NppStatus nppiFilterHighPass_8u_C4R (const Npp8u * *pSrc*, Npp32s *nSrcStep*, Npp8u * *pDst*, Npp32s *nDstStep*, NppiSize *oSizeROI*, NppiMaskSize *eMaskSize*)

Four channel 8-bit unsigned high-pass filter.

Parameters:

pSrc Source-Image Pointer.
nSrcStep Source-Image Line Step.
pDst Destination-Image Pointer.
nDstStep Destination-Image Line Step.
oSizeROI Region-of-Interest (ROI).
eMaskSize Enumeration value specifying the mask size.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.65.2.49 NppStatus nppiFilterLaplace_16s_AC4R (const Npp16s * *pSrc*, Npp32s *nSrcStep*, Npp16s * *pDst*, Npp32s *nDstStep*, NppiSize *oSizeROI*, NppiMaskSize *eMaskSize*)

Four channel 16-bit signed Laplace filter, ignoring alpha channel.

Parameters:

pSrc Source-Image Pointer.
nSrcStep Source-Image Line Step.
pDst Destination-Image Pointer.
nDstStep Destination-Image Line Step.
oSizeROI Region-of-Interest (ROI).
eMaskSize Enumeration value specifying the mask size.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.65.2.50 NppStatus nppiFilterLaplace_16s_C1R (const Npp16s * *pSrc*, Npp32s *nSrcStep*, Npp16s * *pDst*, Npp32s *nDstStep*, NppiSize *oSizeROI*, NppiMaskSize *eMaskSize*)

Single channel 16-bit signed Laplace filter.

Parameters:

pSrc Source-Image Pointer.
nSrcStep Source-Image Line Step.
pDst Destination-Image Pointer.
nDstStep Destination-Image Line Step.
oSizeROI Region-of-Interest (ROI).
eMaskSize Enumeration value specifying the mask size.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.65.2.51 NppStatus nppiFilterLaplace_16s_C3R (const Npp16s ∗ *pSrc*, Npp32s *nSrcStep*, Npp16s ∗ *pDst*, Npp32s *nDstStep*, NppiSize *oSizeROI*, NppiMaskSize *eMaskSize*)

Three channel 16-bit signed Laplace filter.

Parameters:

pSrc Source-Image Pointer.
nSrcStep Source-Image Line Step.
pDst Destination-Image Pointer.
nDstStep Destination-Image Line Step.
oSizeROI Region-of-Interest (ROI).
eMaskSize Enumeration value specifying the mask size.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.65.2.52 NppStatus nppiFilterLaplace_16s_C4R (const Npp16s ∗ *pSrc*, Npp32s *nSrcStep*, Npp16s ∗ *pDst*, Npp32s *nDstStep*, NppiSize *oSizeROI*, NppiMaskSize *eMaskSize*)

Four channel 16-bit signed Laplace filter.

Parameters:

pSrc Source-Image Pointer.
nSrcStep Source-Image Line Step.
pDst Destination-Image Pointer.
nDstStep Destination-Image Line Step.
oSizeROI Region-of-Interest (ROI).
eMaskSize Enumeration value specifying the mask size.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.65.2.53 NppStatus nppiFilterLaplace_32f_AC4R (const Npp32f ∗ *pSrc*, Npp32s *nSrcStep*, Npp32f ∗ *pDst*, Npp32s *nDstStep*, NppiSize *oSizeROI*, NppiMaskSize *eMaskSize*)

Four channel 32-bit floating-point Laplace filter, ignoring alpha channel.

Parameters:

pSrc Source-Image Pointer.
nSrcStep Source-Image Line Step.
pDst Destination-Image Pointer.
nDstStep Destination-Image Line Step.
oSizeROI Region-of-Interest (ROI).
eMaskSize Enumeration value specifying the mask size.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.65.2.54 NppStatus nppiFilterLaplace_32f_C1R (const Npp32f ∗ *pSrc*, Npp32s *nSrcStep*, Npp32f ∗ *pDst*, Npp32s *nDstStep*, NppiSize *oSizeROI*, NppiMaskSize *eMaskSize*)

Single channel 32-bit floating-point Laplace filter.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

eMaskSize Enumeration value specifying the mask size.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.65.2.55 NppStatus nppiFilterLaplace_32f_C3R (const Npp32f ∗ *pSrc*, Npp32s *nSrcStep*, Npp32f ∗ *pDst*, Npp32s *nDstStep*, NppiSize *oSizeROI*, NppiMaskSize *eMaskSize*)

Three channel 32-bit floating-point Laplace filter.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

eMaskSize Enumeration value specifying the mask size.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.65.2.56 NppStatus nppiFilterLaplace_32f_C4R (const Npp32f ∗ *pSrc*, Npp32s *nSrcStep*, Npp32f ∗ *pDst*, Npp32s *nDstStep*, NppiSize *oSizeROI*, NppiMaskSize *eMaskSize*)

Four channel 32-bit floating-point Laplace filter.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

eMaskSize Enumeration value specifying the mask size.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.65.2.57 NppStatus nppiFilterLaplace_8s16s_C1R (const Npp8s $*$ *pSrc*, Npp32s *nSrcStep*, Npp16s $*$ *pDst*, Npp32s *nDstStep*, NppiSize *oSizeROI*, NppiMaskSize *eMaskSize*)

Single channel 8-bit signed to 16-bit signed Laplace filter.

Parameters:

pSrc Source-Image Pointer.
nSrcStep Source-Image Line Step.
pDst Destination-Image Pointer.
nDstStep Destination-Image Line Step.
oSizeROI Region-of-Interest (ROI).
eMaskSize Enumeration value specifying the mask size.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.65.2.58 NppStatus nppiFilterLaplace_8u16s_C1R (const Npp8u $*$ *pSrc*, Npp32s *nSrcStep*, Npp16s $*$ *pDst*, Npp32s *nDstStep*, NppiSize *oSizeROI*, NppiMaskSize *eMaskSize*)

Single channel 8-bit unsigned to 16-bit signed Laplace filter.

Parameters:

pSrc Source-Image Pointer.
nSrcStep Source-Image Line Step.
pDst Destination-Image Pointer.
nDstStep Destination-Image Line Step.
oSizeROI Region-of-Interest (ROI).
eMaskSize Enumeration value specifying the mask size.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.65.2.59 NppStatus nppiFilterLaplace_8u_AC4R (const Npp8u $*$ *pSrc*, Npp32s *nSrcStep*, Npp8u $*$ *pDst*, Npp32s *nDstStep*, NppiSize *oSizeROI*, NppiMaskSize *eMaskSize*)

Four channel 8-bit unsigned Laplace filter, ignoring alpha channel.

Parameters:

pSrc Source-Image Pointer.
nSrcStep Source-Image Line Step.
pDst Destination-Image Pointer.
nDstStep Destination-Image Line Step.
oSizeROI Region-of-Interest (ROI).
eMaskSize Enumeration value specifying the mask size.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.65.2.60 NppStatus nppiFilterLaplace_8u_C1R (const Npp8u ∗ *pSrc*, Npp32s *nSrcStep*, Npp8u ∗ *pDst*, Npp32s *nDstStep*, NppiSize *oSizeROI*, NppiMaskSize *eMaskSize*)

Single channel 8-bit unsigned Laplace filter.

Parameters:

pSrc Source-Image Pointer.
nSrcStep Source-Image Line Step.
pDst Destination-Image Pointer.
nDstStep Destination-Image Line Step.
oSizeROI Region-of-Interest (ROI).
eMaskSize Enumeration value specifying the mask size.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.65.2.61 NppStatus nppiFilterLaplace_8u_C3R (const Npp8u ∗ *pSrc*, Npp32s *nSrcStep*, Npp8u ∗ *pDst*, Npp32s *nDstStep*, NppiSize *oSizeROI*, NppiMaskSize *eMaskSize*)

Three channel 8-bit unsigned Laplace filter.

Parameters:

pSrc Source-Image Pointer.
nSrcStep Source-Image Line Step.
pDst Destination-Image Pointer.
nDstStep Destination-Image Line Step.
oSizeROI Region-of-Interest (ROI).
eMaskSize Enumeration value specifying the mask size.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.65.2.62 NppStatus nppiFilterLaplace_8u_C4R (const Npp8u ∗ *pSrc*, Npp32s *nSrcStep*, Npp8u ∗ *pDst*, Npp32s *nDstStep*, NppiSize *oSizeROI*, NppiMaskSize *eMaskSize*)

Four channel 8-bit unsigned Laplace filter.

Parameters:

pSrc Source-Image Pointer.
nSrcStep Source-Image Line Step.
pDst Destination-Image Pointer.
nDstStep Destination-Image Line Step.
oSizeROI Region-of-Interest (ROI).
eMaskSize Enumeration value specifying the mask size.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.65.2.63 NppStatus nppiFilterLowPass_16s_AC4R (const Npp16s ∗ *pSrc*, Npp32s *nSrcStep*, Npp16s ∗ *pDst*, Npp32s *nDstStep*, NppiSize *oSizeROI*, NppiMaskSize *eMaskSize*)

Four channel 16-bit signed low-pass filter, ignoring alpha channel.

Parameters:

pSrc Source-Image Pointer.
nSrcStep Source-Image Line Step.
pDst Destination-Image Pointer.
nDstStep Destination-Image Line Step.
oSizeROI Region-of-Interest (ROI).
eMaskSize Enumeration value specifying the mask size.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.65.2.64 NppStatus nppiFilterLowPass_16s_C1R (const Npp16s ∗ *pSrc*, Npp32s *nSrcStep*, Npp16s ∗ *pDst*, Npp32s *nDstStep*, NppiSize *oSizeROI*, NppiMaskSize *eMaskSize*)

Single channel 16-bit signed low-pass filter.

Parameters:

pSrc Source-Image Pointer.
nSrcStep Source-Image Line Step.
pDst Destination-Image Pointer.
nDstStep Destination-Image Line Step.
oSizeROI Region-of-Interest (ROI).
eMaskSize Enumeration value specifying the mask size.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.65.2.65 NppStatus nppiFilterLowPass_16s_C3R (const Npp16s ∗ *pSrc*, Npp32s *nSrcStep*, Npp16s ∗ *pDst*, Npp32s *nDstStep*, NppiSize *oSizeROI*, NppiMaskSize *eMaskSize*)

Three channel 16-bit signed low-pass filter.

Parameters:

pSrc Source-Image Pointer.
nSrcStep Source-Image Line Step.
pDst Destination-Image Pointer.
nDstStep Destination-Image Line Step.
oSizeROI Region-of-Interest (ROI).
eMaskSize Enumeration value specifying the mask size.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.65.2.66 NppStatus nppiFilterLowPass_16s_C4R (const Npp16s ∗ *pSrc*, Npp32s *nSrcStep*, Npp16s ∗ *pDst*, Npp32s *nDstStep*, NppiSize *oSizeROI*, NppiMaskSize *eMaskSize*)

Four channel 16-bit signed low-pass filter.

Parameters:

pSrc Source-Image Pointer.
nSrcStep Source-Image Line Step.
pDst Destination-Image Pointer.
nDstStep Destination-Image Line Step.
oSizeROI Region-of-Interest (ROI).
eMaskSize Enumeration value specifying the mask size.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.65.2.67 NppStatus nppiFilterLowPass_16u_AC4R (const Npp16u ∗ *pSrc*, Npp32s *nSrcStep*, Npp16u ∗ *pDst*, Npp32s *nDstStep*, NppiSize *oSizeROI*, NppiMaskSize *eMaskSize*)

Four channel 16-bit unsigned low-pass filter, ignoring alpha channel.

Parameters:

pSrc Source-Image Pointer.
nSrcStep Source-Image Line Step.
pDst Destination-Image Pointer.
nDstStep Destination-Image Line Step.
oSizeROI Region-of-Interest (ROI).
eMaskSize Enumeration value specifying the mask size.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.65.2.68 NppStatus nppiFilterLowPass_16u_C1R (const Npp16u ∗ *pSrc*, Npp32s *nSrcStep*, Npp16u ∗ *pDst*, Npp32s *nDstStep*, NppiSize *oSizeROI*, NppiMaskSize *eMaskSize*)

Single channel 16-bit unsigned low-pass filter.

Parameters:

pSrc Source-Image Pointer.
nSrcStep Source-Image Line Step.
pDst Destination-Image Pointer.
nDstStep Destination-Image Line Step.
oSizeROI Region-of-Interest (ROI).
eMaskSize Enumeration value specifying the mask size.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.65.2.69 NppStatus nppiFilterLowPass_16u_C3R (const Npp16u * *pSrc*, Npp32s *nSrcStep*, Npp16u * *pDst*, Npp32s *nDstStep*, NppiSize *oSizeROI*, NppiMaskSize *eMaskSize*)

Three channel 16-bit unsigned low-pass filter.

Parameters:

pSrc Source-Image Pointer.
nSrcStep Source-Image Line Step.
pDst Destination-Image Pointer.
nDstStep Destination-Image Line Step.
oSizeROI Region-of-Interest (ROI).
eMaskSize Enumeration value specifying the mask size.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.65.2.70 NppStatus nppiFilterLowPass_16u_C4R (const Npp16u * *pSrc*, Npp32s *nSrcStep*, Npp16u * *pDst*, Npp32s *nDstStep*, NppiSize *oSizeROI*, NppiMaskSize *eMaskSize*)

Four channel 16-bit unsigned low-pass filter.

Parameters:

pSrc Source-Image Pointer.
nSrcStep Source-Image Line Step.
pDst Destination-Image Pointer.
nDstStep Destination-Image Line Step.
oSizeROI Region-of-Interest (ROI).
eMaskSize Enumeration value specifying the mask size.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.65.2.71 NppStatus nppiFilterLowPass_32f_AC4R (const Npp32f * *pSrc*, Npp32s *nSrcStep*, Npp32f * *pDst*, Npp32s *nDstStep*, NppiSize *oSizeROI*, NppiMaskSize *eMaskSize*)

Four channel 32-bit floating-point high-pass filter, ignoring alpha channel.

Parameters:

pSrc Source-Image Pointer.
nSrcStep Source-Image Line Step.
pDst Destination-Image Pointer.
nDstStep Destination-Image Line Step.
oSizeROI Region-of-Interest (ROI).
eMaskSize Enumeration value specifying the mask size.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.65.2.72 NppStatus nppiFilterLowPass_32f_C1R (const Npp32f $*$ *pSrc*, Npp32s *nSrcStep*, Npp32f $*$ *pDst*, Npp32s *nDstStep*, NppiSize *oSizeROI*, NppiMaskSize *eMaskSize*)

Single channel 32-bit floating-point low-pass filter.

Parameters:

pSrc Source-Image Pointer.
nSrcStep Source-Image Line Step.
pDst Destination-Image Pointer.
nDstStep Destination-Image Line Step.
oSizeROI Region-of-Interest (ROI).
eMaskSize Enumeration value specifying the mask size.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.65.2.73 NppStatus nppiFilterLowPass_32f_C3R (const Npp32f $*$ *pSrc*, Npp32s *nSrcStep*, Npp32f $*$ *pDst*, Npp32s *nDstStep*, NppiSize *oSizeROI*, NppiMaskSize *eMaskSize*)

Three channel 32-bit floating-point low-pass filter.

Parameters:

pSrc Source-Image Pointer.
nSrcStep Source-Image Line Step.
pDst Destination-Image Pointer.
nDstStep Destination-Image Line Step.
oSizeROI Region-of-Interest (ROI).
eMaskSize Enumeration value specifying the mask size.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.65.2.74 NppStatus nppiFilterLowPass_32f_C4R (const Npp32f $*$ *pSrc*, Npp32s *nSrcStep*, Npp32f $*$ *pDst*, Npp32s *nDstStep*, NppiSize *oSizeROI*, NppiMaskSize *eMaskSize*)

Four channel 32-bit floating-point low-pass filter.

Parameters:

pSrc Source-Image Pointer.
nSrcStep Source-Image Line Step.
pDst Destination-Image Pointer.
nDstStep Destination-Image Line Step.
oSizeROI Region-of-Interest (ROI).
eMaskSize Enumeration value specifying the mask size.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.65.2.75 NppStatus nppiFilterLowPass_8u_AC4R (const Npp8u ∗ *pSrc*, Npp32s *nSrcStep*, Npp8u ∗ *pDst*, Npp32s *nDstStep*, NppiSize *oSizeROI*, NppiMaskSize *eMaskSize*)

Four channel 8-bit unsigned low-pass filter, ignoring alpha channel.

Parameters:

pSrc Source-Image Pointer.
nSrcStep Source-Image Line Step.
pDst Destination-Image Pointer.
nDstStep Destination-Image Line Step.
oSizeROI Region-of-Interest (ROI).
eMaskSize Enumeration value specifying the mask size.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.65.2.76 NppStatus nppiFilterLowPass_8u_C1R (const Npp8u ∗ *pSrc*, Npp32s *nSrcStep*, Npp8u ∗ *pDst*, Npp32s *nDstStep*, NppiSize *oSizeROI*, NppiMaskSize *eMaskSize*)

Single channel 8-bit unsigned low-pass filter.

Parameters:

pSrc Source-Image Pointer.
nSrcStep Source-Image Line Step.
pDst Destination-Image Pointer.
nDstStep Destination-Image Line Step.
oSizeROI Region-of-Interest (ROI).
eMaskSize Enumeration value specifying the mask size.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.65.2.77 NppStatus nppiFilterLowPass_8u_C3R (const Npp8u ∗ *pSrc*, Npp32s *nSrcStep*, Npp8u ∗ *pDst*, Npp32s *nDstStep*, NppiSize *oSizeROI*, NppiMaskSize *eMaskSize*)

Three channel 8-bit unsigned low-pass filter.

Parameters:

pSrc Source-Image Pointer.
nSrcStep Source-Image Line Step.
pDst Destination-Image Pointer.
nDstStep Destination-Image Line Step.
oSizeROI Region-of-Interest (ROI).
eMaskSize Enumeration value specifying the mask size.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.65.2.78 NppStatus nppiFilterLowPass_8u_C4R (const Npp8u ∗ *pSrc*, Npp32s *nSrcStep*, Npp8u ∗ *pDst*, Npp32s *nDstStep*, NppiSize *oSizeROI*, NppiMaskSize *eMaskSize*)

Four channel 8-bit unsigned low-pass filter.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

eMaskSize Enumeration value specifying the mask size.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.65.2.79 NppStatus nppiFilterRobertsDown_16s_AC4R (const Npp16s ∗ *pSrc*, Npp32s *nSrcStep*, Npp16s ∗ *pDst*, Npp32s *nDstStep*, NppiSize *oSizeROI*)

Four channel 16-bit signed horizontal Roberts filter, ignoring alpha-channel.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.65.2.80 NppStatus nppiFilterRobertsDown_16s_C1R (const Npp16s ∗ *pSrc*, Npp32s *nSrcStep*, Npp16s ∗ *pDst*, Npp32s *nDstStep*, NppiSize *oSizeROI*)

Single channel 16-bit signed horizontal Roberts filter.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.65.2.81 NppStatus nppiFilterRobertsDown_16s_C3R (const Npp16s ∗ *pSrc*, Npp32s *nSrcStep*, Npp16s ∗ *pDst*, Npp32s *nDstStep*, NppiSize *oSizeROI*)

Three channel 16-bit signed horizontal Roberts filter.

Parameters:

- ***pSrc*** Source-Image Pointer.
- ***nSrcStep*** Source-Image Line Step.
- ***pDst*** Destination-Image Pointer.
- ***nDstStep*** Destination-Image Line Step.
- ***oSizeROI*** Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.65.2.82 NppStatus nppiFilterRobertsDown_16s_C4R (const Npp16s ∗ *pSrc*, Npp32s *nSrcStep*, Npp16s ∗ *pDst*, Npp32s *nDstStep*, NppiSize *oSizeROI*)

Four channel 16-bit signed horizontal Roberts filter.

Parameters:

- ***pSrc*** Source-Image Pointer.
- ***nSrcStep*** Source-Image Line Step.
- ***pDst*** Destination-Image Pointer.
- ***nDstStep*** Destination-Image Line Step.
- ***oSizeROI*** Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.65.2.83 NppStatus nppiFilterRobertsDown_32f_AC4R (const Npp32f ∗ *pSrc*, Npp32s *nSrcStep*, Npp32f ∗ *pDst*, Npp32s *nDstStep*, NppiSize *oSizeROI*)

Four channel 32-bit floating-point horizontal Roberts filter, ignoring alpha-channel.

Parameters:

- ***pSrc*** Source-Image Pointer.
- ***nSrcStep*** Source-Image Line Step.
- ***pDst*** Destination-Image Pointer.
- ***nDstStep*** Destination-Image Line Step.
- ***oSizeROI*** Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.65.2.84 NppStatus nppiFilterRobertsDown_32f_C1R (const Npp32f * *pSrc*, Npp32s *nSrcStep*, Npp32f * *pDst*, Npp32s *nDstStep*, NppiSize *oSizeROI*)

Single channel 32-bit floating-point horizontal Roberts filter.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.65.2.85 NppStatus nppiFilterRobertsDown_32f_C3R (const Npp32f * *pSrc*, Npp32s *nSrcStep*, Npp32f * *pDst*, Npp32s *nDstStep*, NppiSize *oSizeROI*)

Three channel 32-bit floating-point horizontal Roberts filter.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.65.2.86 NppStatus nppiFilterRobertsDown_32f_C4R (const Npp32f * *pSrc*, Npp32s *nSrcStep*, Npp32f * *pDst*, Npp32s *nDstStep*, NppiSize *oSizeROI*)

Four channel 32-bit floating-point horizontal Roberts filter.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.65.2.87 NppStatus nppiFilterRobertsDown_8u_AC4R (const Npp8u ∗ *pSrc*, Npp32s *nSrcStep*, Npp8u ∗ *pDst*, Npp32s *nDstStep*, NppiSize *oSizeROI*)

Four channel 8-bit unsigned horizontal Roberts filter, ignoring alpha-channel.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.65.2.88 NppStatus nppiFilterRobertsDown_8u_C1R (const Npp8u ∗ *pSrc*, Npp32s *nSrcStep*, Npp8u ∗ *pDst*, Npp32s *nDstStep*, NppiSize *oSizeROI*)

Single channel 8-bit unsigned horizontal Roberts filter.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.65.2.89 NppStatus nppiFilterRobertsDown_8u_C3R (const Npp8u ∗ *pSrc*, Npp32s *nSrcStep*, Npp8u ∗ *pDst*, Npp32s *nDstStep*, NppiSize *oSizeROI*)

Three channel 8-bit unsigned horizontal Roberts filter.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.65.2.90 NppStatus nppiFilterRobertsDown_8u_C4R (const Npp8u ∗ *pSrc*, Npp32s *nSrcStep*, Npp8u ∗ *pDst*, Npp32s *nDstStep*, NppiSize *oSizeROI*)

Four channel 8-bit unsigned horizontal Roberts filter.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.65.2.91 NppStatus nppiFilterRobertsUp_16s_AC4R (const Npp16s ∗ *pSrc*, Npp32s *nSrcStep*, Npp16s ∗ *pDst*, Npp32s *nDstStep*, NppiSize *oSizeROI*)

Four channel 16-bit signed vertical Roberts filter, ignoring alpha-channel.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.65.2.92 NppStatus nppiFilterRobertsUp_16s_C1R (const Npp16s ∗ *pSrc*, Npp32s *nSrcStep*, Npp16s ∗ *pDst*, Npp32s *nDstStep*, NppiSize *oSizeROI*)

Single channel 16-bit signed vertical Roberts filter.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.65.2.93 NppStatus nppiFilterRobertsUp_16s_C3R (const Npp16s ∗ *pSrc*, Npp32s *nSrcStep*, Npp16s ∗ *pDst*, Npp32s *nDstStep*, NppiSize *oSizeROI*)

Three channel 16-bit signed vertical Roberts filter.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.65.2.94 NppStatus nppiFilterRobertsUp_16s_C4R (const Npp16s ∗ *pSrc*, Npp32s *nSrcStep*, Npp16s ∗ *pDst*, Npp32s *nDstStep*, NppiSize *oSizeROI*)

Four channel 16-bit signed vertical Roberts filter.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.65.2.95 NppStatus nppiFilterRobertsUp_32f_AC4R (const Npp32f ∗ *pSrc*, Npp32s *nSrcStep*, Npp32f ∗ *pDst*, Npp32s *nDstStep*, NppiSize *oSizeROI*)

Four channel 32-bit floating-point vertical Roberts filter, ignoring alpha-channel.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.65.2.96 NppStatus nppiFilterRobertsUp_32f_C1R (const Npp32f * *pSrc*, Npp32s *nSrcStep*, Npp32f * *pDst*, Npp32s *nDstStep*, NppiSize *oSizeROI*)

Single channel 32-bit floating-point vertical Roberts filter.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.65.2.97 NppStatus nppiFilterRobertsUp_32f_C3R (const Npp32f * *pSrc*, Npp32s *nSrcStep*, Npp32f * *pDst*, Npp32s *nDstStep*, NppiSize *oSizeROI*)

Three channel 32-bit floating-point vertical Roberts filter.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.65.2.98 NppStatus nppiFilterRobertsUp_32f_C4R (const Npp32f * *pSrc*, Npp32s *nSrcStep*, Npp32f * *pDst*, Npp32s *nDstStep*, NppiSize *oSizeROI*)

Four channel 32-bit floating-point vertical Roberts filter.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.65.2.99 NppStatus nppiFilterRobertsUp_8u_AC4R (const Npp8u ∗ *pSrc*, Npp32s *nSrcStep*, Npp8u ∗ *pDst*, Npp32s *nDstStep*, NppiSize *oSizeROI*)

Four channel 8-bit unsigned vertical Roberts filter, ignoring alpha-channel.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.65.2.100 NppStatus nppiFilterRobertsUp_8u_C1R (const Npp8u ∗ *pSrc*, Npp32s *nSrcStep*, Npp8u ∗ *pDst*, Npp32s *nDstStep*, NppiSize *oSizeROI*)

Single channel 8-bit unsigned vertical Roberts filter.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.65.2.101 NppStatus nppiFilterRobertsUp_8u_C3R (const Npp8u ∗ *pSrc*, Npp32s *nSrcStep*, Npp8u ∗ *pDst*, Npp32s *nDstStep*, NppiSize *oSizeROI*)

Three channel 8-bit unsigned vertical Roberts filter.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.65.2.102 NppStatus nppiFilterRobertsUp_8u_C4R (const Npp8u * *pSrc*, Npp32s *nSrcStep*, Npp8u * *pDst*, Npp32s *nDstStep*, NppiSize *oSizeROI*)

Four channel 8-bit unsigned vertical Roberts filter.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.65.2.103 NppStatus nppiFilterSharpen_16s_AC4R (const Npp16s * *pSrc*, Npp32s *nSrcStep*, Npp16s * *pDst*, Npp32s *nDstStep*, NppiSize *oSizeROI*)

Four channel 16-bit signed sharpening filter, ignoring alpha channel.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.65.2.104 NppStatus nppiFilterSharpen_16s_C1R (const Npp16s * *pSrc*, Npp32s *nSrcStep*, Npp16s * *pDst*, Npp32s *nDstStep*, NppiSize *oSizeROI*)

Single channel 16-bit signed sharpening filter.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.65.2.105 NppStatus nppiFilterSharpen_16s_C3R (const Npp16s ∗ *pSrc*, Npp32s *nSrcStep*, Npp16s ∗ *pDst*, Npp32s *nDstStep*, NppiSize *oSizeROI*)

Three channel 16-bit signed sharpening filter.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.65.2.106 NppStatus nppiFilterSharpen_16s_C4R (const Npp16s ∗ *pSrc*, Npp32s *nSrcStep*, Npp16s ∗ *pDst*, Npp32s *nDstStep*, NppiSize *oSizeROI*)

Four channel 16-bit signed sharpening filter.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.65.2.107 NppStatus nppiFilterSharpen_16u_AC4R (const Npp16u ∗ *pSrc*, Npp32s *nSrcStep*, Npp16u ∗ *pDst*, Npp32s *nDstStep*, NppiSize *oSizeROI*)

Four channel 16-bit unsigned sharpening filter, ignoring alpha channel.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.65.2.108 NppStatus nppiFilterSharpen_16u_C1R (const Npp16u * *pSrc*, Npp32s *nSrcStep*, Npp16u * *pDst*, Npp32s *nDstStep*, NppiSize *oSizeROI*)

Single channel 16-bit unsigned sharpening filter.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.65.2.109 NppStatus nppiFilterSharpen_16u_C3R (const Npp16u * *pSrc*, Npp32s *nSrcStep*, Npp16u * *pDst*, Npp32s *nDstStep*, NppiSize *oSizeROI*)

Three channel 16-bit unsigned sharpening filter.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.65.2.110 NppStatus nppiFilterSharpen_16u_C4R (const Npp16u * *pSrc*, Npp32s *nSrcStep*, Npp16u * *pDst*, Npp32s *nDstStep*, NppiSize *oSizeROI*)

Four channel 16-bit unsigned sharpening filter.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.65.2.111 NppStatus nppiFilterSharpen_32f_AC4R (const Npp32f ∗ *pSrc*, Npp32s *nSrcStep*, Npp32f ∗ *pDst*, Npp32s *nDstStep*, NppiSize *oSizeROI*)

Four channel 32-bit floating-point sharpening filter, ignoring alpha channel.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.65.2.112 NppStatus nppiFilterSharpen_32f_C1R (const Npp32f ∗ *pSrc*, Npp32s *nSrcStep*, Npp32f ∗ *pDst*, Npp32s *nDstStep*, NppiSize *oSizeROI*)

Single channel 32-bit floating-point sharpening filter.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.65.2.113 NppStatus nppiFilterSharpen_32f_C3R (const Npp32f ∗ *pSrc*, Npp32s *nSrcStep*, Npp32f ∗ *pDst*, Npp32s *nDstStep*, NppiSize *oSizeROI*)

Three channel 32-bit floating-point sharpening filter.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.65.2.114 NppStatus nppiFilterSharpen_32f_C4R (const Npp32f * *pSrc*, Npp32s *nSrcStep*, Npp32f * *pDst*, Npp32s *nDstStep*, NppiSize *oSizeROI*)

Four channel 32-bit floating-point sharpening filter.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.65.2.115 NppStatus nppiFilterSharpen_8u_AC4R (const Npp8u * *pSrc*, Npp32s *nSrcStep*, Npp8u * *pDst*, Npp32s *nDstStep*, NppiSize *oSizeROI*)

Four channel 8-bit unsigned sharpening filter, ignoring alpha channel.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.65.2.116 NppStatus nppiFilterSharpen_8u_C1R (const Npp8u * *pSrc*, Npp32s *nSrcStep*, Npp8u * *pDst*, Npp32s *nDstStep*, NppiSize *oSizeROI*)

Single channel 8-bit unsigned sharpening filter.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.65.2.117 NppStatus nppiFilterSharpen_8u_C3R (const Npp8u ∗ *pSrc*, Npp32s *nSrcStep*, Npp8u ∗ *pDst*, Npp32s *nDstStep*, NppiSize *oSizeROI*)

Three channel 8-bit unsigned sharpening filter.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.65.2.118 NppStatus nppiFilterSharpen_8u_C4R (const Npp8u ∗ *pSrc*, Npp32s *nSrcStep*, Npp8u ∗ *pDst*, Npp32s *nDstStep*, NppiSize *oSizeROI*)

Four channel 8-bit unsigned sharpening filter.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.65.2.119 NppStatus nppiFilterSobelCrossBorder_32f_C1R (const Npp32f ∗ *pSrc*, Npp32s *nSrcStep*, NppiSize *oSrcSize*, NppiPoint *oSrcOffset*, Npp32f ∗ *pDst*, Npp32s *nDstStep*, NppiSize *oSizeROI*, NppiMaskSize *eMaskSize*, NppiBorderType *eBorderType*)

Single channel 32-bit floating-point second cross derivative Sobel filter with border control.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSrcSize Source image width and height in pixels relative to pSrc.

oSrcOffset Source image starting point relative to pSrc.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

eMaskSize Enumeration value specifying the mask size.

eBorderType The border type operation to be applied at source image border boundaries.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.65.2.120 NppStatus nppiFilterSobelCrossBorder_8s16s_C1R (const Npp8s ∗ *pSrc*, Npp32s *nSrcStep*, NppiSize *oSrcSize*, NppiPoint *oSrcOffset*, Npp16s ∗ *pDst*, Npp32s *nDstStep*, NppiSize *oSizeROI*, NppiMaskSize *eMaskSize*, NppiBorderType *eBorderType*)

Single channel 8-bit signed to 16-bit signed second cross derivative Sobel filter with border control.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSrcSize Source image width and height in pixels relative to pSrc.

oSrcOffset Source image starting point relative to pSrc.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

eMaskSize Enumeration value specifying the mask size.

eBorderType The border type operation to be applied at source image border boundaries.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.65.2.121 NppStatus nppiFilterSobelCrossBorder_8u16s_C1R (const Npp8u ∗ *pSrc*, Npp32s *nSrcStep*, NppiSize *oSrcSize*, NppiPoint *oSrcOffset*, Npp16s ∗ *pDst*, Npp32s *nDstStep*, NppiSize *oSizeROI*, NppiMaskSize *eMaskSize*, NppiBorderType *eBorderType*)

Single channel 8-bit unsigned to 16-bit signed second cross derivative Sobel filter with border control.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSrcSize Source image width and height in pixels relative to pSrc.

oSrcOffset Source image starting point relative to pSrc.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

eMaskSize Enumeration value specifying the mask size.

eBorderType The border type operation to be applied at source image border boundaries.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.65.2.122 NppStatus nppiFilterSobelVertSecondBorder_32f_C1R (const Npp32f ∗ *pSrc*, Npp32s *nSrcStep*, NppiSize *oSrcSize*, NppiPoint *oSrcOffset*, Npp32f ∗ *pDst*, Npp32s *nDstStep*, NppiSize *oSizeROI*, NppiMaskSize *eMaskSize*, NppiBorderType *eBorderType*)

Single channel 32-bit floating-point second derivative, vertical Sobel filter with border control.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSrcSize Source image width and height in pixels relative to pSrc.

oSrcOffset Source image starting point relative to pSrc.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

eMaskSize Enumeration value specifying the mask size.

eBorderType The border type operation to be applied at source image border boundaries.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.65.2.123 NppStatus nppiFilterSobelVertSecondBorder_8s16s_C1R (const Npp8s ∗ *pSrc*, Npp32s *nSrcStep*, NppiSize *oSrcSize*, NppiPoint *oSrcOffset*, Npp16s ∗ *pDst*, Npp32s *nDstStep*, NppiSize *oSizeROI*, NppiMaskSize *eMaskSize*, NppiBorderType *eBorderType*)

Single channel 8-bit signed to 16-bit signed second derivative, vertical Sobel filter with border control.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSrcSize Source image width and height in pixels relative to pSrc.

oSrcOffset Source image starting point relative to pSrc.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

eMaskSize Enumeration value specifying the mask size.

eBorderType The border type operation to be applied at source image border boundaries.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.65.2.124 NppStatus nppiFilterSobelVertSecondBorder_8u16s_C1R (const Npp8u ∗ *pSrc*, Npp32s *nSrcStep*, NppiSize *oSrcSize*, NppiPoint *oSrcOffset*, Npp16s ∗ *pDst*, Npp32s *nDstStep*, NppiSize *oSizeROI*, NppiMaskSize *eMaskSize*, NppiBorderType *eBorderType*)

Single channel 8-bit unsigned to 16-bit signed second derivative, vertical Sobel filter with border control.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSrcSize Source image width and height in pixels relative to pSrc.

oSrcOffset Source image starting point relative to pSrc.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

eMaskSize Enumeration value specifying the mask size.

eBorderType The border type operation to be applied at source image border boundaries.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.66 1D Linear Filter

Modules

- 1D Window Sum
- Convolution
- 2D Fixed Linear Filters
- Rank Filters
- Fixed Filters

  Fixed filters perform linear filtering operations (i.e.

FilterColumn

Apply convolution filter with user specified 1D column of weights.

Result pixel is equal to the sum of the products between the kernel coefficients (pKernel array) and corresponding neighboring column pixel values in the source image defined by nKernelDim and nAnchorY, divided by nDivisor.

- NppStatus nppiFilterColumn_8u_C1R (const Npp8u ∗pSrc, Npp32s nSrcStep, Npp8u ∗pDst, Npp32s nDstStep, NppiSize oROI, const Npp32s ∗pKernel, Npp32s nMaskSize, Npp32s nAnchor, Npp32s nDivisor)

  8-bit unsigned single-channel 1D column convolution.

- NppStatus nppiFilterColumn_8u_C3R (const Npp8u ∗pSrc, Npp32s nSrcStep, Npp8u ∗pDst, Npp32s nDstStep, NppiSize oROI, const Npp32s ∗pKernel, Npp32s nMaskSize, Npp32s nAnchor, Npp32s nDivisor)

  8-bit unsigned three-channel 1D column convolution.

- NppStatus nppiFilterColumn_8u_C4R (const Npp8u ∗pSrc, Npp32s nSrcStep, Npp8u ∗pDst, Npp32s nDstStep, NppiSize oROI, const Npp32s ∗pKernel, Npp32s nMaskSize, Npp32s nAnchor, Npp32s nDivisor)

  8-bit unsigned four-channel 1D column convolution.

- NppStatus nppiFilterColumn_8u_AC4R (const Npp8u ∗pSrc, Npp32s nSrcStep, Npp8u ∗pDst, Npp32s nDstStep, NppiSize oROI, const Npp32s ∗pKernel, Npp32s nMaskSize, Npp32s nAnchor, Npp32s nDivisor)

  8-bit unsigned four-channel 1D column convolution ignoring alpha-channel.

- NppStatus nppiFilterColumn_16u_C1R (const Npp16u ∗pSrc, Npp32s nSrcStep, Npp16u ∗pDst, Npp32s nDstStep, NppiSize oROI, const Npp32s ∗pKernel, Npp32s nMaskSize, Npp32s nAnchor, Npp32s nDivisor)

  16-bit unsigned single-channel 1D column convolution.

- NppStatus nppiFilterColumn_16u_C3R (const Npp16u ∗pSrc, Npp32s nSrcStep, Npp16u ∗pDst, Npp32s nDstStep, NppiSize oROI, const Npp32s ∗pKernel, Npp32s nMaskSize, Npp32s nAnchor, Npp32s nDivisor)

  16-bit unsigned three-channel 1D column convolution.

- NppStatus nppiFilterColumn_16u_C4R (const Npp16u ∗pSrc, Npp32s nSrcStep, Npp16u ∗pDst, Npp32s nDstStep, NppiSize oROI, const Npp32s ∗pKernel, Npp32s nMaskSize, Npp32s nAnchor, Npp32s nDivisor)

  16-bit unsigned four-channel 1D column convolution.

- NppStatus nppiFilterColumn_16u_AC4R (const Npp16u ∗pSrc, Npp32s nSrcStep, Npp16u ∗pDst, Npp32s nDstStep, NppiSize oROI, const Npp32s ∗pKernel, Npp32s nMaskSize, Npp32s nAnchor, Npp32s nDivisor)

  16-bit unsigned four-channel 1D column convolution ignoring alpha-channel.

- NppStatus nppiFilterColumn_16s_C1R (const Npp16s ∗pSrc, Npp32s nSrcStep, Npp16s ∗pDst, Npp32s nDstStep, NppiSize oROI, const Npp32s ∗pKernel, Npp32s nMaskSize, Npp32s nAnchor, Npp32s nDivisor)

  16-bit single-channel 1D column convolution.

- NppStatus nppiFilterColumn_16s_C3R (const Npp16s ∗pSrc, Npp32s nSrcStep, Npp16s ∗pDst, Npp32s nDstStep, NppiSize oROI, const Npp32s ∗pKernel, Npp32s nMaskSize, Npp32s nAnchor, Npp32s nDivisor)

  16-bit three-channel 1D column convolution.

- NppStatus nppiFilterColumn_16s_C4R (const Npp16s ∗pSrc, Npp32s nSrcStep, Npp16s ∗pDst, Npp32s nDstStep, NppiSize oROI, const Npp32s ∗pKernel, Npp32s nMaskSize, Npp32s nAnchor, Npp32s nDivisor)

  16-bit four-channel 1D column convolution.

- NppStatus nppiFilterColumn_16s_AC4R (const Npp16s ∗pSrc, Npp32s nSrcStep, Npp16s ∗pDst, Npp32s nDstStep, NppiSize oROI, const Npp32s ∗pKernel, Npp32s nMaskSize, Npp32s nAnchor, Npp32s nDivisor)

  16-bit four-channel 1D column convolution ignoring alpha-channel.

- NppStatus nppiFilterColumn_32f_C1R (const Npp32f ∗pSrc, Npp32s nSrcStep, Npp32f ∗pDst, Npp32s nDstStep, NppiSize oROI, const Npp32f ∗pKernel, Npp32s nMaskSize, Npp32s nAnchor)

  32-bit float single-channel 1D column convolution.

- NppStatus nppiFilterColumn_32f_C3R (const Npp32f ∗pSrc, Npp32s nSrcStep, Npp32f ∗pDst, Npp32s nDstStep, NppiSize oROI, const Npp32f ∗pKernel, Npp32s nMaskSize, Npp32s nAnchor)

  32-bit float three-channel 1D column convolution.

- NppStatus nppiFilterColumn_32f_C4R (const Npp32f ∗pSrc, Npp32s nSrcStep, Npp32f ∗pDst, Npp32s nDstStep, NppiSize oROI, const Npp32f ∗pKernel, Npp32s nMaskSize, Npp32s nAnchor)

  32-bit float four-channel 1D column convolution.

- NppStatus nppiFilterColumn_32f_AC4R (const Npp32f ∗pSrc, Npp32s nSrcStep, Npp32f ∗pDst, Npp32s nDstStep, NppiSize oROI, const Npp32f ∗pKernel, Npp32s nMaskSize, Npp32s nAnchor)

  32-bit float four-channel 1D column convolution ignoring alpha-channel.

- NppStatus nppiFilterColumn_64f_C1R (const Npp64f ∗pSrc, Npp32s nSrcStep, Npp64f ∗pDst, Npp32s nDstStep, NppiSize oROI, const Npp64f ∗pKernel, Npp32s nMaskSize, Npp32s nAnchor)

  64-bit float single-channel 1D column convolution.

FilterColumn32f

FilterColumn using floating-point weights.

- NppStatus nppiFilterColumn32f_8u_C1R (const Npp8u ∗pSrc, Npp32s nSrcStep, Npp8u ∗pDst, Npp32s nDstStep, NppiSize oROI, const Npp32f ∗pKernel, Npp32s nMaskSize, Npp32s nAnchor)

  8-bit unsigned single-channel 1D column convolution.

- NppStatus nppiFilterColumn32f_8u_C3R (const Npp8u ∗pSrc, Npp32s nSrcStep, Npp8u ∗pDst, Npp32s nDstStep, NppiSize oROI, const Npp32f ∗pKernel, Npp32s nMaskSize, Npp32s nAnchor)

  8-bit unsigned three-channel 1D column convolution.

- NppStatus nppiFilterColumn32f_8u_C4R (const Npp8u ∗pSrc, Npp32s nSrcStep, Npp8u ∗pDst, Npp32s nDstStep, NppiSize oROI, const Npp32f ∗pKernel, Npp32s nMaskSize, Npp32s nAnchor)

  8-bit unsigned four-channel 1D column convolution.

- NppStatus nppiFilterColumn32f_8u_AC4R (const Npp8u ∗pSrc, Npp32s nSrcStep, Npp8u ∗pDst, Npp32s nDstStep, NppiSize oROI, const Npp32f ∗pKernel, Npp32s nMaskSize, Npp32s nAnchor)

  8-bit unsigned four-channel 1D column convolution ignoring alpha-channel.

- NppStatus nppiFilterColumn32f_16u_C1R (const Npp16u ∗pSrc, Npp32s nSrcStep, Npp16u ∗pDst, Npp32s nDstStep, NppiSize oROI, const Npp32f ∗pKernel, Npp32s nMaskSize, Npp32s nAnchor)

  16-bit unsigned single-channel 1D column convolution.

- NppStatus nppiFilterColumn32f_16u_C3R (const Npp16u ∗pSrc, Npp32s nSrcStep, Npp16u ∗pDst, Npp32s nDstStep, NppiSize oROI, const Npp32f ∗pKernel, Npp32s nMaskSize, Npp32s nAnchor)

  16-bit unsigned three-channel 1D column convolution.

- NppStatus nppiFilterColumn32f_16u_C4R (const Npp16u ∗pSrc, Npp32s nSrcStep, Npp16u ∗pDst, Npp32s nDstStep, NppiSize oROI, const Npp32f ∗pKernel, Npp32s nMaskSize, Npp32s nAnchor)

  16-bit unsigned four-channel 1D column convolution.

- NppStatus nppiFilterColumn32f_16u_AC4R (const Npp16u ∗pSrc, Npp32s nSrcStep, Npp16u ∗pDst, Npp32s nDstStep, NppiSize oROI, const Npp32f ∗pKernel, Npp32s nMaskSize, Npp32s nAnchor)

  16-bit unsigned four-channel 1D column convolution ignoring alpha-channel.

- NppStatus nppiFilterColumn32f_16s_C1R (const Npp16s ∗pSrc, Npp32s nSrcStep, Npp16s ∗pDst, Npp32s nDstStep, NppiSize oROI, const Npp32f ∗pKernel, Npp32s nMaskSize, Npp32s nAnchor)

  16-bit single-channel 1D column convolution.

- NppStatus nppiFilterColumn32f_16s_C3R (const Npp16s ∗pSrc, Npp32s nSrcStep, Npp16s ∗pDst, Npp32s nDstStep, NppiSize oROI, const Npp32f ∗pKernel, Npp32s nMaskSize, Npp32s nAnchor)

  16-bit three-channel 1D column convolution.

- NppStatus nppiFilterColumn32f_16s_C4R (const Npp16s ∗pSrc, Npp32s nSrcStep, Npp16s ∗pDst, Npp32s nDstStep, NppiSize oROI, const Npp32f ∗pKernel, Npp32s nMaskSize, Npp32s nAnchor)

  16-bit four-channel 1D column convolution.

- NppStatus nppiFilterColumn32f_16s_AC4R (const Npp16s ∗pSrc, Npp32s nSrcStep, Npp16s ∗pDst, Npp32s nDstStep, NppiSize oROI, const Npp32f ∗pKernel, Npp32s nMaskSize, Npp32s nAnchor)

16-bit four-channel 1D column convolution ignoring alpha-channel.

FilterRow

Apply convolution filter with user specified 1D row of weights.

Result pixel is equal to the sum of the products between the kernel coefficients (pKernel array) and corresponding neighboring row pixel values in the source image defined by nKernelDim and nAnchorX, divided by nDivisor.

- NppStatus nppiFilterRow_8u_C1R (const Npp8u ∗pSrc, Npp32s nSrcStep, Npp8u ∗pDst, Npp32s nDstStep, NppiSize oROI, const Npp32s ∗pKernel, Npp32s nMaskSize, Npp32s nAnchor, Npp32s nDivisor)

  8-bit unsigned single-channel 1D row convolution.

- NppStatus nppiFilterRow_8u_C3R (const Npp8u ∗pSrc, Npp32s nSrcStep, Npp8u ∗pDst, Npp32s nDstStep, NppiSize oROI, const Npp32s ∗pKernel, Npp32s nMaskSize, Npp32s nAnchor, Npp32s nDivisor)

  8-bit unsigned three-channel 1D row convolution.

- NppStatus nppiFilterRow_8u_C4R (const Npp8u ∗pSrc, Npp32s nSrcStep, Npp8u ∗pDst, Npp32s nDstStep, NppiSize oROI, const Npp32s ∗pKernel, Npp32s nMaskSize, Npp32s nAnchor, Npp32s nDivisor)

  8-bit unsigned four-channel 1D row convolution.

- NppStatus nppiFilterRow_8u_AC4R (const Npp8u ∗pSrc, Npp32s nSrcStep, Npp8u ∗pDst, Npp32s nDstStep, NppiSize oROI, const Npp32s ∗pKernel, Npp32s nMaskSize, Npp32s nAnchor, Npp32s nDivisor)

  8-bit unsigned four-channel 1D row convolution ignoring alpha-channel.

- NppStatus nppiFilterRow_16u_C1R (const Npp16u ∗pSrc, Npp32s nSrcStep, Npp16u ∗pDst, Npp32s nDstStep, NppiSize oROI, const Npp32s ∗pKernel, Npp32s nMaskSize, Npp32s nAnchor, Npp32s nDivisor)

  16-bit unsigned single-channel 1D row convolution.

- NppStatus nppiFilterRow_16u_C3R (const Npp16u ∗pSrc, Npp32s nSrcStep, Npp16u ∗pDst, Npp32s nDstStep, NppiSize oROI, const Npp32s ∗pKernel, Npp32s nMaskSize, Npp32s nAnchor, Npp32s nDivisor)

  16-bit unsigned three-channel 1D row convolution.

- NppStatus nppiFilterRow_16u_C4R (const Npp16u ∗pSrc, Npp32s nSrcStep, Npp16u ∗pDst, Npp32s nDstStep, NppiSize oROI, const Npp32s ∗pKernel, Npp32s nMaskSize, Npp32s nAnchor, Npp32s nDivisor)

  16-bit unsigned four-channel 1D row convolution.

- NppStatus nppiFilterRow_16u_AC4R (const Npp16u ∗pSrc, Npp32s nSrcStep, Npp16u ∗pDst, Npp32s nDstStep, NppiSize oROI, const Npp32s ∗pKernel, Npp32s nMaskSize, Npp32s nAnchor, Npp32s nDivisor)

  16-bit unsigned four-channel 1D row convolution ignoring alpha-channel.

- NppStatus nppiFilterRow_16s_C1R (const Npp16s ∗pSrc, Npp32s nSrcStep, Npp16s ∗pDst, Npp32s nDstStep, NppiSize oROI, const Npp32s ∗pKernel, Npp32s nMaskSize, Npp32s nAnchor, Npp32s nDivisor)

  16-bit single-channel 1D row convolution.

- NppStatus nppiFilterRow_16s_C3R (const Npp16s ∗pSrc, Npp32s nSrcStep, Npp16s ∗pDst, Npp32s nDstStep, NppiSize oROI, const Npp32s ∗pKernel, Npp32s nMaskSize, Npp32s nAnchor, Npp32s nDivisor)

  16-bit three-channel 1D row convolution.

- NppStatus nppiFilterRow_16s_C4R (const Npp16s ∗pSrc, Npp32s nSrcStep, Npp16s ∗pDst, Npp32s nDstStep, NppiSize oROI, const Npp32s ∗pKernel, Npp32s nMaskSize, Npp32s nAnchor, Npp32s nDivisor)

  16-bit four-channel 1D row convolution.

- NppStatus nppiFilterRow_16s_AC4R (const Npp16s ∗pSrc, Npp32s nSrcStep, Npp16s ∗pDst, Npp32s nDstStep, NppiSize oROI, const Npp32s ∗pKernel, Npp32s nMaskSize, Npp32s nAnchor, Npp32s nDivisor)

  16-bit four-channel 1D row convolution ignoring alpha-channel.

- NppStatus nppiFilterRow_32f_C1R (const Npp32f ∗pSrc, Npp32s nSrcStep, Npp32f ∗pDst, Npp32s nDstStep, NppiSize oROI, const Npp32f ∗pKernel, Npp32s nMaskSize, Npp32s nAnchor)

  32-bit float single-channel 1D row convolution.

- NppStatus nppiFilterRow_32f_C3R (const Npp32f ∗pSrc, Npp32s nSrcStep, Npp32f ∗pDst, Npp32s nDstStep, NppiSize oROI, const Npp32f ∗pKernel, Npp32s nMaskSize, Npp32s nAnchor)

  32-bit float three-channel 1D row convolution.

- NppStatus nppiFilterRow_32f_C4R (const Npp32f ∗pSrc, Npp32s nSrcStep, Npp32f ∗pDst, Npp32s nDstStep, NppiSize oROI, const Npp32f ∗pKernel, Npp32s nMaskSize, Npp32s nAnchor)

  32-bit float four-channel 1D row convolution.

- NppStatus nppiFilterRow_32f_AC4R (const Npp32f ∗pSrc, Npp32s nSrcStep, Npp32f ∗pDst, Npp32s nDstStep, NppiSize oROI, const Npp32f ∗pKernel, Npp32s nMaskSize, Npp32s nAnchor)

  32-bit float four-channel 1D row convolution ignoring alpha-channel.

- NppStatus nppiFilterRow_64f_C1R (const Npp64f ∗pSrc, Npp32s nSrcStep, Npp64f ∗pDst, Npp32s nDstStep, NppiSize oROI, const Npp64f ∗pKernel, Npp32s nMaskSize, Npp32s nAnchor)

  64-bit float single-channel 1D row convolution.

FilterRow32f

FilterRow using floating-point weights.

- NppStatus nppiFilterRow32f_8u_C1R (const Npp8u ∗pSrc, Npp32s nSrcStep, Npp8u ∗pDst, Npp32s nDstStep, NppiSize oROI, const Npp32f ∗pKernel, Npp32s nMaskSize, Npp32s nAnchor)

  8-bit unsigned single-channel 1D row convolution.

- NppStatus nppiFilterRow32f_8u_C3R (const Npp8u ∗pSrc, Npp32s nSrcStep, Npp8u ∗pDst, Npp32s nDstStep, NppiSize oROI, const Npp32f ∗pKernel, Npp32s nMaskSize, Npp32s nAnchor)

8-bit unsigned three-channel 1D row convolution.

- NppStatus nppiFilterRow32f_8u_C4R (const Npp8u ∗pSrc, Npp32s nSrcStep, Npp8u ∗pDst, Npp32s nDstStep, NppiSize oROI, const Npp32f ∗pKernel, Npp32s nMaskSize, Npp32s nAnchor)

  8-bit unsigned four-channel 1D row convolution.

- NppStatus nppiFilterRow32f_8u_AC4R (const Npp8u ∗pSrc, Npp32s nSrcStep, Npp8u ∗pDst, Npp32s nDstStep, NppiSize oROI, const Npp32f ∗pKernel, Npp32s nMaskSize, Npp32s nAnchor)

  8-bit unsigned four-channel 1D row convolution ignoring alpha-channel.

- NppStatus nppiFilterRow32f_16u_C1R (const Npp16u ∗pSrc, Npp32s nSrcStep, Npp16u ∗pDst, Npp32s nDstStep, NppiSize oROI, const Npp32f ∗pKernel, Npp32s nMaskSize, Npp32s nAnchor)

  16-bit unsigned single-channel 1D row convolution.

- NppStatus nppiFilterRow32f_16u_C3R (const Npp16u ∗pSrc, Npp32s nSrcStep, Npp16u ∗pDst, Npp32s nDstStep, NppiSize oROI, const Npp32f ∗pKernel, Npp32s nMaskSize, Npp32s nAnchor)

  16-bit unsigned three-channel 1D row convolution.

- NppStatus nppiFilterRow32f_16u_C4R (const Npp16u ∗pSrc, Npp32s nSrcStep, Npp16u ∗pDst, Npp32s nDstStep, NppiSize oROI, const Npp32f ∗pKernel, Npp32s nMaskSize, Npp32s nAnchor)

  16-bit unsigned four-channel 1D row convolution.

- NppStatus nppiFilterRow32f_16u_AC4R (const Npp16u ∗pSrc, Npp32s nSrcStep, Npp16u ∗pDst, Npp32s nDstStep, NppiSize oROI, const Npp32f ∗pKernel, Npp32s nMaskSize, Npp32s nAnchor)

  16-bit unsigned four-channel 1D row convolution ignoring alpha-channel.

- NppStatus nppiFilterRow32f_16s_C1R (const Npp16s ∗pSrc, Npp32s nSrcStep, Npp16s ∗pDst, Npp32s nDstStep, NppiSize oROI, const Npp32f ∗pKernel, Npp32s nMaskSize, Npp32s nAnchor)

  16-bit single-channel 1D row convolution.

- NppStatus nppiFilterRow32f_16s_C3R (const Npp16s ∗pSrc, Npp32s nSrcStep, Npp16s ∗pDst, Npp32s nDstStep, NppiSize oROI, const Npp32f ∗pKernel, Npp32s nMaskSize, Npp32s nAnchor)

  16-bit three-channel 1D row convolution.

- NppStatus nppiFilterRow32f_16s_C4R (const Npp16s ∗pSrc, Npp32s nSrcStep, Npp16s ∗pDst, Npp32s nDstStep, NppiSize oROI, const Npp32f ∗pKernel, Npp32s nMaskSize, Npp32s nAnchor)

  16-bit four-channel 1D row convolution.

- NppStatus nppiFilterRow32f_16s_AC4R (const Npp16s ∗pSrc, Npp32s nSrcStep, Npp16s ∗pDst, Npp32s nDstStep, NppiSize oROI, const Npp32f ∗pKernel, Npp32s nMaskSize, Npp32s nAnchor)

  16-bit four-channel 1D row convolution ignoring alpha-channel.

FilterSobelVertSecond

Filters the image using a second derivative, vertical Sobel filter kernel:

$$\begin{pmatrix} 1 & -2 & 1 \\ 2 & -4 & 2 \\ 1 & -2 & 1 \end{pmatrix} \begin{pmatrix} 1 & 0 & -2 & 0 & 1 \\ 4 & 0 & -8 & 0 & 4 \\ 6 & 0 & -12 & 0 & 6 \\ 4 & 0 & -8 & 0 & 4 \\ 1 & 0 & -2 & 0 & 1 \end{pmatrix}$$

- NppStatus nppiFilterSobelVertSecond_8u16s_C1R (const Npp8u ∗pSrc, Npp32s nSrcStep, Npp16s ∗pDst, Npp32s nDstStep, NppiSize oSizeROI, NppiMaskSize eMaskSize)

  Single channel 8-bit unsigned to 16-bit signed second derivative, vertical Sobel filter.

- NppStatus nppiFilterSobelVertSecond_8s16s_C1R (const Npp8s ∗pSrc, Npp32s nSrcStep, Npp16s ∗pDst, Npp32s nDstStep, NppiSize oSizeROI, NppiMaskSize eMaskSize)

  Single channel 8-bit signed to 16-bit signed second derivative, vertical Sobel filter.

- NppStatus nppiFilterSobelVertSecond_32f_C1R (const Npp32f ∗pSrc, Npp32s nSrcStep, Npp32f ∗pDst, Npp32s nDstStep, NppiSize oSizeROI, NppiMaskSize eMaskSize)

  Single channel 32-bit floating-point second derivative, vertical Sobel filter.

FilterSobelCross

Filters the image using a second cross derivative Sobel filter kernel:

$$\begin{pmatrix} -1 & 0 & 1 \\ 0 & 0 & 0 \\ 1 & 0 & -1 \end{pmatrix} \begin{pmatrix} -1 & -2 & 0 & 2 & 1 \\ -2 & -4 & 0 & 4 & 2 \\ 0 & 0 & 0 & 0 & 0 \\ 2 & 4 & 0 & -4 & -2 \\ 1 & 2 & 0 & -2 & -1 \end{pmatrix}$$

- NppStatus nppiFilterSobelCross_8u16s_C1R (const Npp8u ∗pSrc, Npp32s nSrcStep, Npp16s ∗pDst, Npp32s nDstStep, NppiSize oSizeROI, NppiMaskSize eMaskSize)

  Single channel 8-bit unsigned to 16-bit signed second cross derivative Sobel filter.

- NppStatus nppiFilterSobelCross_8s16s_C1R (const Npp8s ∗pSrc, Npp32s nSrcStep, Npp16s ∗pDst, Npp32s nDstStep, NppiSize oSizeROI, NppiMaskSize eMaskSize)

  Single channel 8-bit signed to 16-bit signed second cross derivative Sobel filter.

- NppStatus nppiFilterSobelCross_32f_C1R (const Npp32f ∗pSrc, Npp32s nSrcStep, Npp32f ∗pDst, Npp32s nDstStep, NppiSize oSizeROI, NppiMaskSize eMaskSize)

  Single channel 32-bit floating-point second cross derivative Sobel filter.

FilterSobelHorizBorder

Filters the image using a horizontal Sobel filter kernel with border control:

$$\begin{pmatrix} 1 & 2 & 1 \\ 0 & 0 & 0 \\ -1 & -2 & -1 \end{pmatrix} \begin{pmatrix} 1 & 4 & 6 & 4 & 1 \\ 2 & 8 & 12 & 8 & 2 \\ 0 & 0 & 0 & 0 & 0 \\ -2 & -8 & -12 & -8 & -2 \\ -1 & -4 & -6 & -4 & -1 \end{pmatrix}$$

- NppStatus nppiFilterSobelHorizBorder_8u_C1R (const Npp8u ∗pSrc, Npp32s nSrcStep, NppiSize oSrcSize, NppiPoint oSrcOffset, Npp8u ∗pDst, Npp32s nDstStep, NppiSize oSizeROI, NppiBorderType eBorderType)

  Single channel 8-bit unsigned horizontal Sobel filter with border control.

- NppStatus nppiFilterSobelHorizBorder_8u_C3R (const Npp8u ∗pSrc, Npp32s nSrcStep, NppiSize oSrcSize, NppiPoint oSrcOffset, Npp8u ∗pDst, Npp32s nDstStep, NppiSize oSizeROI, NppiBorderType eBorderType)

  Three channel 8-bit unsigned horizontal Sobel filter with border control.

- NppStatus nppiFilterSobelHorizBorder_8u_C4R (const Npp8u ∗pSrc, Npp32s nSrcStep, NppiSize oSrcSize, NppiPoint oSrcOffset, Npp8u ∗pDst, Npp32s nDstStep, NppiSize oSizeROI, NppiBorderType eBorderType)

  Four channel 8-bit unsigned horizontal Sobel filter with border control.

- NppStatus nppiFilterSobelHorizBorder_8u_AC4R (const Npp8u ∗pSrc, Npp32s nSrcStep, NppiSize oSrcSize, NppiPoint oSrcOffset, Npp8u ∗pDst, Npp32s nDstStep, NppiSize oSizeROI, NppiBorderType eBorderType)

  Four channel 16-bit signed horizontal Sobel filter with border control, ignoring alpha channel.

- NppStatus nppiFilterSobelHorizBorder_16s_C1R (const Npp16s ∗pSrc, Npp32s nSrcStep, NppiSize oSrcSize, NppiPoint oSrcOffset, Npp16s ∗pDst, Npp32s nDstStep, NppiSize oSizeROI, NppiBorderType eBorderType)

  Single channel 16-bit signed horizontal Sobel filter with border control.

- NppStatus nppiFilterSobelHorizBorder_16s_C3R (const Npp16s ∗pSrc, Npp32s nSrcStep, NppiSize oSrcSize, NppiPoint oSrcOffset, Npp16s ∗pDst, Npp32s nDstStep, NppiSize oSizeROI, NppiBorderType eBorderType)

  Three channel 16-bit signed horizontal Sobel filter with border control.

- NppStatus nppiFilterSobelHorizBorder_16s_C4R (const Npp16s ∗pSrc, Npp32s nSrcStep, NppiSize oSrcSize, NppiPoint oSrcOffset, Npp16s ∗pDst, Npp32s nDstStep, NppiSize oSizeROI, NppiBorderType eBorderType)

  Four channel 16-bit signed horizontal Sobel filter with border control.

- NppStatus nppiFilterSobelHorizBorder_16s_AC4R (const Npp16s ∗pSrc, Npp32s nSrcStep, NppiSize oSrcSize, NppiPoint oSrcOffset, Npp16s ∗pDst, Npp32s nDstStep, NppiSize oSizeROI, NppiBorderType eBorderType)

  Four channel 8-bit unsigned horizontal Sobel filter with border control, ignoring alpha channel.

- NppStatus nppiFilterSobelHorizBorder_32f_C1R (const Npp32f ∗pSrc, Npp32s nSrcStep, NppiSize oSrcSize, NppiPoint oSrcOffset, Npp32f ∗pDst, Npp32s nDstStep, NppiSize oSizeROI, NppiBorderType eBorderType)

  Single channel 32-bit floating-point horizontal Sobel filter with border control.

- NppStatus nppiFilterSobelHorizBorder_32f_C3R (const Npp32f ∗pSrc, Npp32s nSrcStep, NppiSize oSrcSize, NppiPoint oSrcOffset, Npp32f ∗pDst, Npp32s nDstStep, NppiSize oSizeROI, NppiBorderType eBorderType)

  Three channel 32-bit floating-point horizontal Sobel filter with border control.

- NppStatus nppiFilterSobelHorizBorder_32f_C4R (const Npp32f ∗pSrc, Npp32s nSrcStep, NppiSize oSrcSize, NppiPoint oSrcOffset, Npp32f ∗pDst, Npp32s nDstStep, NppiSize oSizeROI, NppiBorderType eBorderType)

  Four channel 32-bit floating-point horizontal Sobel filter with border control.

- NppStatus nppiFilterSobelHorizBorder_32f_AC4R (const Npp32f ∗pSrc, Npp32s nSrcStep, NppiSize oSrcSize, NppiPoint oSrcOffset, Npp32f ∗pDst, Npp32s nDstStep, NppiSize oSizeROI, NppiBorderType eBorderType)

    Four channel 32-bit floating-point horizontal Sobel filter with border control, ignoring alpha channel.

- NppStatus nppiFilterSobelHorizBorder_8u16s_C1R (const Npp8u ∗pSrc, Npp32s nSrcStep, NppiSize oSrcSize, NppiPoint oSrcOffset, Npp16s ∗pDst, Npp32s nDstStep, NppiSize oSizeROI, NppiMaskSize eMaskSize, NppiBorderType eBorderType)

    Single channel 8-bit unsigned to 16-bit signed horizontal Sobel filter with border control.

- NppStatus nppiFilterSobelHorizBorder_8s16s_C1R (const Npp8s ∗pSrc, Npp32s nSrcStep, NppiSize oSrcSize, NppiPoint oSrcOffset, Npp16s ∗pDst, Npp32s nDstStep, NppiSize oSizeROI, NppiMaskSize eMaskSize, NppiBorderType eBorderType)

    Single channel 8-bit signed to 16-bit signed horizontal Sobel filter with border control.

- NppStatus nppiFilterSobelHorizMaskBorder_32f_C1R (const Npp32f ∗pSrc, Npp32s nSrcStep, NppiSize oSrcSize, NppiPoint oSrcOffset, Npp32f ∗pDst, Npp32s nDstStep, NppiSize oSizeROI, NppiMaskSize eMaskSize, NppiBorderType eBorderType)

    Single channel 32-bit floating-point horizontal Sobel filter with border control.

FilterSobelVertBorder

Filters the image using a vertical Sobel filter kernel with border control:

$$\begin{pmatrix} -1 & 0 & 1 \\ -2 & 0 & 2 \\ -1 & 0 & 1 \end{pmatrix} \begin{pmatrix} -1 & -2 & 0 & 2 & 1 \\ -4 & -8 & 0 & 8 & 4 \\ -6 & -12 & 0 & 12 & 6 \\ -4 & -8 & 0 & 8 & 4 \\ -1 & -2 & 0 & 2 & 1 \end{pmatrix}$$

- NppStatus nppiFilterSobelVertBorder_8u_C1R (const Npp8u ∗pSrc, Npp32s nSrcStep, NppiSize oSrcSize, NppiPoint oSrcOffset, Npp8u ∗pDst, Npp32s nDstStep, NppiSize oSizeROI, NppiBorderType eBorderType)

    Single channel 8-bit unsigned vertical Sobel filter with border control.

- NppStatus nppiFilterSobelVertBorder_8u_C3R (const Npp8u ∗pSrc, Npp32s nSrcStep, NppiSize oSrcSize, NppiPoint oSrcOffset, Npp8u ∗pDst, Npp32s nDstStep, NppiSize oSizeROI, NppiBorderType eBorderType)

    Three channel 8-bit unsigned vertical Sobel filter with border control.

- NppStatus nppiFilterSobelVertBorder_8u_C4R (const Npp8u ∗pSrc, Npp32s nSrcStep, NppiSize oSrcSize, NppiPoint oSrcOffset, Npp8u ∗pDst, Npp32s nDstStep, NppiSize oSizeROI, NppiBorderType eBorderType)

    Four channel 8-bit unsigned vertical Sobel filter with border control.

- NppStatus nppiFilterSobelVertBorder_8u_AC4R (const Npp8u ∗pSrc, Npp32s nSrcStep, NppiSize oSrcSize, NppiPoint oSrcOffset, Npp8u ∗pDst, Npp32s nDstStep, NppiSize oSizeROI, NppiBorderType eBorderType)

    Four channel 16-bit signed vertical Sobel filter with border control, ignoring alpha channel.

- NppStatus nppiFilterSobelVertBorder_16s_C1R (const Npp16s ∗pSrc, Npp32s nSrcStep, NppiSize oSrcSize, NppiPoint oSrcOffset, Npp16s ∗pDst, Npp32s nDstStep, NppiSize oSizeROI, NppiBorderType eBorderType)

  Single channel 16-bit signed vertical Sobel filter with border control.

- NppStatus nppiFilterSobelVertBorder_16s_C3R (const Npp16s ∗pSrc, Npp32s nSrcStep, NppiSize oSrcSize, NppiPoint oSrcOffset, Npp16s ∗pDst, Npp32s nDstStep, NppiSize oSizeROI, NppiBorderType eBorderType)

  Three channel 16-bit signed vertical Sobel filter with border control.

- NppStatus nppiFilterSobelVertBorder_16s_C4R (const Npp16s ∗pSrc, Npp32s nSrcStep, NppiSize oSrcSize, NppiPoint oSrcOffset, Npp16s ∗pDst, Npp32s nDstStep, NppiSize oSizeROI, NppiBorderType eBorderType)

  Four channel 16-bit signed vertical Sobel filter with border control.

- NppStatus nppiFilterSobelVertBorder_16s_AC4R (const Npp16s ∗pSrc, Npp32s nSrcStep, NppiSize oSrcSize, NppiPoint oSrcOffset, Npp16s ∗pDst, Npp32s nDstStep, NppiSize oSizeROI, NppiBorderType eBorderType)

  Four channel 8-bit unsigned vertical Sobel filter with border control, ignoring alpha channel.

- NppStatus nppiFilterSobelVertBorder_32f_C1R (const Npp32f ∗pSrc, Npp32s nSrcStep, NppiSize oSrcSize, NppiPoint oSrcOffset, Npp32f ∗pDst, Npp32s nDstStep, NppiSize oSizeROI, NppiBorderType eBorderType)

  Single channel 32-bit floating-point vertical Sobel filter with border control.

- NppStatus nppiFilterSobelVertBorder_32f_C3R (const Npp32f ∗pSrc, Npp32s nSrcStep, NppiSize oSrcSize, NppiPoint oSrcOffset, Npp32f ∗pDst, Npp32s nDstStep, NppiSize oSizeROI, NppiBorderType eBorderType)

  Three channel 32-bit floating-point vertical Sobel filter with border control.

- NppStatus nppiFilterSobelVertBorder_32f_C4R (const Npp32f ∗pSrc, Npp32s nSrcStep, NppiSize oSrcSize, NppiPoint oSrcOffset, Npp32f ∗pDst, Npp32s nDstStep, NppiSize oSizeROI, NppiBorderType eBorderType)

  Four channel 32-bit floating-point vertical Sobel filter with border control.

- NppStatus nppiFilterSobelVertBorder_32f_AC4R (const Npp32f ∗pSrc, Npp32s nSrcStep, NppiSize oSrcSize, NppiPoint oSrcOffset, Npp32f ∗pDst, Npp32s nDstStep, NppiSize oSizeROI, NppiBorderType eBorderType)

  Four channel 32-bit floating-point vertical Sobel filter with border control, ignoring alpha channel.

- NppStatus nppiFilterSobelVertBorder_8u16s_C1R (const Npp8u ∗pSrc, Npp32s nSrcStep, NppiSize oSrcSize, NppiPoint oSrcOffset, Npp16s ∗pDst, Npp32s nDstStep, NppiSize oSizeROI, NppiMaskSize eMaskSize, NppiBorderType eBorderType)

  Single channel 8-bit unsigned to 16-bit signed vertical Sobel filter with border control.

- NppStatus nppiFilterSobelVertBorder_8s16s_C1R (const Npp8s ∗pSrc, Npp32s nSrcStep, NppiSize oSrcSize, NppiPoint oSrcOffset, Npp16s ∗pDst, Npp32s nDstStep, NppiSize oSizeROI, NppiMaskSize eMaskSize, NppiBorderType eBorderType)

  Single channel 8-bit signed to 16-bit signed vertical Sobel filter with border control.

- NppStatus nppiFilterSobelVertMaskBorder_32f_C1R (const Npp32f ∗pSrc, Npp32s nSrcStep, NppiSize oSrcSize, NppiPoint oSrcOffset, Npp32f ∗pDst, Npp32s nDstStep, NppiSize oSizeROI, NppiMaskSize eMaskSize, NppiBorderType eBorderType)

  Single channel 32-bit floating-point vertical Sobel filter with border control.

FilterSobelHorizSecondBorder

Filters the image using a second derivative, horizontal Sobel filter kernel with border control:

$$\begin{pmatrix} 1 & 2 & 1 \\ -2 & -4 & -2 \\ 1 & 2 & 1 \end{pmatrix} \begin{pmatrix} 1 & 4 & 6 & 4 & 1 \\ 0 & 0 & 0 & 0 & 0 \\ -2 & -8 & -12 & -8 & -2 \\ 0 & 0 & 0 & 0 & 0 \\ 1 & 4 & 6 & 4 & 1 \end{pmatrix}$$

- NppStatus nppiFilterSobelHorizSecondBorder_8u16s_C1R (const Npp8u ∗pSrc, Npp32s nSrcStep, NppiSize oSrcSize, NppiPoint oSrcOffset, Npp16s ∗pDst, Npp32s nDstStep, NppiSize oSizeROI, NppiMaskSize eMaskSize, NppiBorderType eBorderType)

  Single channel 8-bit unsigned to 16-bit signed second derivative, horizontal Sobel filter with border control.

- NppStatus nppiFilterSobelHorizSecondBorder_8s16s_C1R (const Npp8s ∗pSrc, Npp32s nSrcStep, NppiSize oSrcSize, NppiPoint oSrcOffset, Npp16s ∗pDst, Npp32s nDstStep, NppiSize oSizeROI, NppiMaskSize eMaskSize, NppiBorderType eBorderType)

  Single channel 8-bit signed to 16-bit signed second derivative, horizontal Sobel filter with border control.

- NppStatus nppiFilterSobelHorizSecondBorder_32f_C1R (const Npp32f ∗pSrc, Npp32s nSrcStep, NppiSize oSrcSize, NppiPoint oSrcOffset, Npp32f ∗pDst, Npp32s nDstStep, NppiSize oSizeROI, NppiMaskSize eMaskSize, NppiBorderType eBorderType)

  Single channel 32-bit floating-point second derivative, horizontal Sobel filter with border control.

7.66.1 Function Documentation

7.66.1.1 NppStatus nppiFilterColumn32f_16s_AC4R (const Npp16s ∗ *pSrc*, Npp32s *nSrcStep*, Npp16s ∗ *pDst*, Npp32s *nDstStep*, NppiSize *oROI*, const Npp32f ∗ *pKernel*, Npp32s *nMaskSize*, Npp32s *nAnchor*)

16-bit four-channel 1D column convolution ignoring alpha-channel.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oROI Region-of-Interest (ROI).

pKernel Pointer to the start address of the kernel coefficient array. Coefficients are expected to be stored in reverse order.

nMaskSize Length of the linear kernel array.

nAnchor Y offset of the kernel origin frame of reference relative to the source pixel.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.66.1.2 NppStatus nppiFilterColumn32f_16s_C1R (const Npp16s ∗ *pSrc*, Npp32s *nSrcStep*, Npp16s ∗ *pDst*, Npp32s *nDstStep*, NppiSize *oROI*, const Npp32f ∗ *pKernel*, Npp32s *nMaskSize*, Npp32s *nAnchor*)

16-bit single-channel 1D column convolution.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oROI Region-of-Interest (ROI).

pKernel Pointer to the start address of the kernel coefficient array. Coefficients are expected to be stored in reverse order.

nMaskSize Length of the linear kernel array.

nAnchor Y offset of the kernel origin frame of reference relative to the source pixel.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.66.1.3 NppStatus nppiFilterColumn32f_16s_C3R (const Npp16s ∗ *pSrc*, Npp32s *nSrcStep*, Npp16s ∗ *pDst*, Npp32s *nDstStep*, NppiSize *oROI*, const Npp32f ∗ *pKernel*, Npp32s *nMaskSize*, Npp32s *nAnchor*)

16-bit three-channel 1D column convolution.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oROI Region-of-Interest (ROI).

pKernel Pointer to the start address of the kernel coefficient array. Coefficients are expected to be stored in reverse order.

nMaskSize Length of the linear kernel array.

nAnchor Y offset of the kernel origin frame of reference relative to the source pixel.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.66.1.4 NppStatus nppiFilterColumn32f_16s_C4R (const Npp16s ∗ *pSrc*, Npp32s *nSrcStep*, Npp16s ∗ *pDst*, Npp32s *nDstStep*, NppiSize *oROI*, const Npp32f ∗ *pKernel*, Npp32s *nMaskSize*, Npp32s *nAnchor*)

16-bit four-channel 1D column convolution.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oROI Region-of-Interest (ROI).

pKernel Pointer to the start address of the kernel coefficient array. Coefficients are expected to be stored in reverse order.

nMaskSize Length of the linear kernel array.

nAnchor Y offset of the kernel origin frame of reference relative to the source pixel.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.66.1.5 NppStatus nppiFilterColumn32f_16u_AC4R (const Npp16u ∗ *pSrc*, Npp32s *nSrcStep*, Npp16u ∗ *pDst*, Npp32s *nDstStep*, NppiSize *oROI*, const Npp32f ∗ *pKernel*, Npp32s *nMaskSize*, Npp32s *nAnchor*)

16-bit unsigned four-channel 1D column convolution ignoring alpha-channel.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oROI Region-of-Interest (ROI).

pKernel Pointer to the start address of the kernel coefficient array. Coefficients are expected to be stored in reverse order.

nMaskSize Length of the linear kernel array.

nAnchor Y offset of the kernel origin frame of reference relative to the source pixel.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.66.1.6 NppStatus nppiFilterColumn32f_16u_C1R (const Npp16u ∗ *pSrc*, Npp32s *nSrcStep*, Npp16u ∗ *pDst*, Npp32s *nDstStep*, NppiSize *oROI*, const Npp32f ∗ *pKernel*, Npp32s *nMaskSize*, Npp32s *nAnchor*)

16-bit unsigned single-channel 1D column convolution.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oROI Region-of-Interest (ROI).

pKernel Pointer to the start address of the kernel coefficient array. Coefficients are expected to be stored in reverse order.

nMaskSize Length of the linear kernel array.

nAnchor Y offset of the kernel origin frame of reference relative to the source pixel.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.66.1.7 NppStatus nppiFilterColumn32f_16u_C3R (const Npp16u ∗ *pSrc*, Npp32s *nSrcStep*, Npp16u ∗ *pDst*, Npp32s *nDstStep*, NppiSize *oROI*, const Npp32f ∗ *pKernel*, Npp32s *nMaskSize*, Npp32s *nAnchor*)

16-bit unsigned three-channel 1D column convolution.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oROI Region-of-Interest (ROI).

pKernel Pointer to the start address of the kernel coefficient array. Coefficients are expected to be stored in reverse order.

nMaskSize Length of the linear kernel array.

nAnchor Y offset of the kernel origin frame of reference relative to the source pixel.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.66.1.8 NppStatus nppiFilterColumn32f_16u_C4R (const Npp16u ∗ *pSrc*, Npp32s *nSrcStep*, Npp16u ∗ *pDst*, Npp32s *nDstStep*, NppiSize *oROI*, const Npp32f ∗ *pKernel*, Npp32s *nMaskSize*, Npp32s *nAnchor*)

16-bit unsigned four-channel 1D column convolution.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oROI Region-of-Interest (ROI).

pKernel Pointer to the start address of the kernel coefficient array. Coefficients are expected to be stored in reverse order.

nMaskSize Length of the linear kernel array.

nAnchor Y offset of the kernel origin frame of reference relative to the source pixel.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.66.1.9 NppStatus nppiFilterColumn32f_8u_AC4R (const Npp8u ∗ *pSrc*, Npp32s *nSrcStep*, Npp8u ∗ *pDst*, Npp32s *nDstStep*, NppiSize *oROI*, const Npp32f ∗ *pKernel*, Npp32s *nMaskSize*, Npp32s *nAnchor*)

8-bit unsigned four-channel 1D column convolution ignoring alpha-channel.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oROI Region-of-Interest (ROI).

pKernel Pointer to the start address of the kernel coefficient array. Coefficients are expected to be stored in reverse order.

nMaskSize Length of the linear kernel array.

nAnchor Y offset of the kernel origin frame of reference relative to the source pixel.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.66.1.10 NppStatus nppiFilterColumn32f_8u_C1R (const Npp8u ∗ *pSrc*, Npp32s *nSrcStep*, Npp8u ∗ *pDst*, Npp32s *nDstStep*, NppiSize *oROI*, const Npp32f ∗ *pKernel*, Npp32s *nMaskSize*, Npp32s *nAnchor*)

8-bit unsigned single-channel 1D column convolution.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oROI Region-of-Interest (ROI).

pKernel Pointer to the start address of the kernel coefficient array. Coefficients are expected to be stored in reverse order.

nMaskSize Length of the linear kernel array.

nAnchor Y offset of the kernel origin frame of reference relative to the source pixel.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.66.1.11 NppStatus nppiFilterColumn32f_8u_C3R (const Npp8u ∗ *pSrc*, Npp32s *nSrcStep*, Npp8u ∗ *pDst*, Npp32s *nDstStep*, NppiSize *oROI*, const Npp32f ∗ *pKernel*, Npp32s *nMaskSize*, Npp32s *nAnchor*)

8-bit unsigned three-channel 1D column convolution.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oROI Region-of-Interest (ROI).

pKernel Pointer to the start address of the kernel coefficient array. Coefficients are expected to be stored in reverse order.

nMaskSize Length of the linear kernel array.

nAnchor Y offset of the kernel origin frame of reference relative to the source pixel.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.66.1.12 NppStatus nppiFilterColumn32f_8u_C4R (const Npp8u ∗ *pSrc*, Npp32s *nSrcStep*, Npp8u ∗ *pDst*, Npp32s *nDstStep*, NppiSize *oROI*, const Npp32f ∗ *pKernel*, Npp32s *nMaskSize*, Npp32s *nAnchor*)

8-bit unsigned four-channel 1D column convolution.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oROI Region-of-Interest (ROI).

pKernel Pointer to the start address of the kernel coefficient array. Coefficients are expected to be stored in reverse order.

nMaskSize Length of the linear kernel array.

nAnchor Y offset of the kernel origin frame of reference relative to the source pixel.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.66.1.13 NppStatus nppiFilterColumn_16s_AC4R (const Npp16s ∗ *pSrc*, Npp32s *nSrcStep*, Npp16s ∗ *pDst*, Npp32s *nDstStep*, NppiSize *oROI*, const Npp32s ∗ *pKernel*, Npp32s *nMaskSize*, Npp32s *nAnchor*, Npp32s *nDivisor*)

16-bit four-channel 1D column convolution ignoring alpha-channel.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oROI Region-of-Interest (ROI).

pKernel Pointer to the start address of the kernel coefficient array. Coefficients are expected to be stored in reverse order.

nMaskSize Length of the linear kernel array.

nAnchor Y offset of the kernel origin frame of reference relative to the source pixel.

nDivisor The factor by which the convolved summation from the Filter operation should be divided. If equal to the sum of coefficients, this will keep the maximum result value within full scale.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.66.1.14 NppStatus nppiFilterColumn_16s_C1R (const Npp16s ∗ *pSrc*, Npp32s *nSrcStep*, Npp16s ∗ *pDst*, Npp32s *nDstStep*, NppiSize *oROI*, const Npp32s ∗ *pKernel*, Npp32s *nMaskSize*, Npp32s *nAnchor*, Npp32s *nDivisor*)

16-bit single-channel 1D column convolution.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oROI Region-of-Interest (ROI).

pKernel Pointer to the start address of the kernel coefficient array. Coefficients are expected to be stored in reverse order.

nMaskSize Length of the linear kernel array.

nAnchor Y offset of the kernel origin frame of reference relative to the source pixel.

nDivisor The factor by which the convolved summation from the Filter operation should be divided. If equal to the sum of coefficients, this will keep the maximum result value within full scale.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.66.1.15 NppStatus nppiFilterColumn_16s_C3R (const Npp16s ∗ *pSrc*, Npp32s *nSrcStep*, Npp16s ∗ *pDst*, Npp32s *nDstStep*, NppiSize *oROI*, const Npp32s ∗ *pKernel*, Npp32s *nMaskSize*, Npp32s *nAnchor*, Npp32s *nDivisor*)

16-bit three-channel 1D column convolution.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oROI Region-of-Interest (ROI).

pKernel Pointer to the start address of the kernel coefficient array. Coefficients are expected to be stored in reverse order.

nMaskSize Length of the linear kernel array.

nAnchor Y offset of the kernel origin frame of reference relative to the source pixel.

nDivisor The factor by which the convolved summation from the Filter operation should be divided. If equal to the sum of coefficients, this will keep the maximum result value within full scale.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.66.1.16 NppStatus nppiFilterColumn_16s_C4R (const Npp16s ∗ *pSrc*, Npp32s *nSrcStep*, Npp16s ∗ *pDst*, Npp32s *nDstStep*, NppiSize *oROI*, const Npp32s ∗ *pKernel*, Npp32s *nMaskSize*, Npp32s *nAnchor*, Npp32s *nDivisor*)

16-bit four-channel 1D column convolution.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oROI Region-of-Interest (ROI).

pKernel Pointer to the start address of the kernel coefficient array. Coefficients are expected to be stored in reverse order.

nMaskSize Length of the linear kernel array.

nAnchor Y offset of the kernel origin frame of reference relative to the source pixel.

nDivisor The factor by which the convolved summation from the Filter operation should be divided. If equal to the sum of coefficients, this will keep the maximum result value within full scale.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.66.1.17 NppStatus nppiFilterColumn_16u_AC4R (const Npp16u ∗ *pSrc*, Npp32s *nSrcStep*, Npp16u ∗ *pDst*, Npp32s *nDstStep*, NppiSize *oROI*, const Npp32s ∗ *pKernel*, Npp32s *nMaskSize*, Npp32s *nAnchor*, Npp32s *nDivisor*)

16-bit unsigned four-channel 1D column convolution ignoring alpha-channel.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oROI Region-of-Interest (ROI).

pKernel Pointer to the start address of the kernel coefficient array. Coefficients are expected to be stored in reverse order.

nMaskSize Length of the linear kernel array.

nAnchor Y offset of the kernel origin frame of reference relative to the source pixel.

nDivisor The factor by which the convolved summation from the Filter operation should be divided. If equal to the sum of coefficients, this will keep the maximum result value within full scale.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.66.1.18 NppStatus nppiFilterColumn_16u_C1R (const Npp16u * *pSrc*, Npp32s *nSrcStep*, Npp16u * *pDst*, Npp32s *nDstStep*, NppiSize *oROI*, const Npp32s * *pKernel*, Npp32s *nMaskSize*, Npp32s *nAnchor*, Npp32s *nDivisor*)

16-bit unsigned single-channel 1D column convolution.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oROI Region-of-Interest (ROI).

pKernel Pointer to the start address of the kernel coefficient array. Coefficients are expected to be stored in reverse order.

nMaskSize Length of the linear kernel array.

nAnchor Y offset of the kernel origin frame of reference relative to the source pixel.

nDivisor The factor by which the convolved summation from the Filter operation should be divided. If equal to the sum of coefficients, this will keep the maximum result value within full scale.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.66.1.19 NppStatus nppiFilterColumn_16u_C3R (const Npp16u * *pSrc*, Npp32s *nSrcStep*, Npp16u * *pDst*, Npp32s *nDstStep*, NppiSize *oROI*, const Npp32s * *pKernel*, Npp32s *nMaskSize*, Npp32s *nAnchor*, Npp32s *nDivisor*)

16-bit unsigned three-channel 1D column convolution.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oROI Region-of-Interest (ROI).

pKernel Pointer to the start address of the kernel coefficient array. Coefficients are expected to be stored in reverse order.

nMaskSize Length of the linear kernel array.

nAnchor Y offset of the kernel origin frame of reference relative to the source pixel.

nDivisor The factor by which the convolved summation from the Filter operation should be divided. If equal to the sum of coefficients, this will keep the maximum result value within full scale.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.66.1.20 NppStatus nppiFilterColumn_16u_C4R (const Npp16u ∗ *pSrc*, Npp32s *nSrcStep*, Npp16u ∗ *pDst*, Npp32s *nDstStep*, NppiSize *oROI*, const Npp32s ∗ *pKernel*, Npp32s *nMaskSize*, Npp32s *nAnchor*, Npp32s *nDivisor*)

16-bit unsigned four-channel 1D column convolution.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oROI Region-of-Interest (ROI).

pKernel Pointer to the start address of the kernel coefficient array. Coefficients are expected to be stored in reverse order.

nMaskSize Length of the linear kernel array.

nAnchor Y offset of the kernel origin frame of reference relative to the source pixel.

nDivisor The factor by which the convolved summation from the Filter operation should be divided. If equal to the sum of coefficients, this will keep the maximum result value within full scale.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.66.1.21 NppStatus nppiFilterColumn_32f_AC4R (const Npp32f ∗ *pSrc*, Npp32s *nSrcStep*, Npp32f ∗ *pDst*, Npp32s *nDstStep*, NppiSize *oROI*, const Npp32f ∗ *pKernel*, Npp32s *nMaskSize*, Npp32s *nAnchor*)

32-bit float four-channel 1D column convolution ignoring alpha-channel.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oROI Region-of-Interest (ROI).

pKernel Pointer to the start address of the kernel coefficient array. Coefficients are expected to be stored in reverse order.

nMaskSize Length of the linear kernel array.

nAnchor Y offset of the kernel origin frame of reference relative to the source pixel.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.66.1.22 NppStatus nppiFilterColumn_32f_C1R (const Npp32f ∗ *pSrc*, Npp32s *nSrcStep*, Npp32f ∗ *pDst*, Npp32s *nDstStep*, NppiSize *oROI*, const Npp32f ∗ *pKernel*, Npp32s *nMaskSize*, Npp32s *nAnchor*)

32-bit float single-channel 1D column convolution.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oROI Region-of-Interest (ROI).

pKernel Pointer to the start address of the kernel coefficient array. Coefficients are expected to be stored in reverse order.

nMaskSize Length of the linear kernel array.

nAnchor Y offset of the kernel origin frame of reference relative to the source pixel.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.66.1.23 NppStatus nppiFilterColumn_32f_C3R (const Npp32f ∗ *pSrc*, Npp32s *nSrcStep*, Npp32f ∗ *pDst*, Npp32s *nDstStep*, NppiSize *oROI*, const Npp32f ∗ *pKernel*, Npp32s *nMaskSize*, Npp32s *nAnchor*)

32-bit float three-channel 1D column convolution.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oROI Region-of-Interest (ROI).

pKernel Pointer to the start address of the kernel coefficient array. Coefficients are expected to be stored in reverse order.

nMaskSize Length of the linear kernel array.

nAnchor Y offset of the kernel origin frame of reference relative to the source pixel.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.66.1.24 NppStatus nppiFilterColumn_32f_C4R (const Npp32f ∗ *pSrc*, Npp32s *nSrcStep*, Npp32f ∗ *pDst*, Npp32s *nDstStep*, NppiSize *oROI*, const Npp32f ∗ *pKernel*, Npp32s *nMaskSize*, Npp32s *nAnchor*)

32-bit float four-channel 1D column convolution.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oROI Region-of-Interest (ROI).

pKernel Pointer to the start address of the kernel coefficient array. Coefficients are expected to be stored in reverse order.

nMaskSize Length of the linear kernel array.

nAnchor Y offset of the kernel origin frame of reference relative to the source pixel.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.66.1.25 NppStatus nppiFilterColumn_64f_C1R (const Npp64f ∗ *pSrc*, Npp32s *nSrcStep*, Npp64f ∗ *pDst*, Npp32s *nDstStep*, NppiSize *oROI*, const Npp64f ∗ *pKernel*, Npp32s *nMaskSize*, Npp32s *nAnchor*)

64-bit float single-channel 1D column convolution.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oROI Region-of-Interest (ROI).

pKernel Pointer to the start address of the kernel coefficient array. Coefficients are expected to be stored in reverse order.

nMaskSize Length of the linear kernel array.

nAnchor Y offset of the kernel origin frame of reference relative to the source pixel.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.66.1.26 NppStatus nppiFilterColumn_8u_AC4R (const Npp8u ∗ *pSrc*, Npp32s *nSrcStep*, Npp8u ∗ *pDst*, Npp32s *nDstStep*, NppiSize *oROI*, const Npp32s ∗ *pKernel*, Npp32s *nMaskSize*, Npp32s *nAnchor*, Npp32s *nDivisor*)

8-bit unsigned four-channel 1D column convolution ignoring alpha-channel.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oROI Region-of-Interest (ROI).

pKernel Pointer to the start address of the kernel coefficient array. Coefficients are expected to be stored in reverse order.

nMaskSize Length of the linear kernel array.

nAnchor Y offset of the kernel origin frame of reference relative to the source pixel.

nDivisor The factor by which the convolved summation from the Filter operation should be divided. If equal to the sum of coefficients, this will keep the maximum result value within full scale.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.66.1.27 NppStatus nppiFilterColumn_8u_C1R (const Npp8u ∗ *pSrc*, Npp32s *nSrcStep*, Npp8u ∗ *pDst*, Npp32s *nDstStep*, NppiSize *oROI*, const Npp32s ∗ *pKernel*, Npp32s *nMaskSize*, Npp32s *nAnchor*, Npp32s *nDivisor*)

8-bit unsigned single-channel 1D column convolution.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oROI Region-of-Interest (ROI).

pKernel Pointer to the start address of the kernel coefficient array. Coefficients are expected to be stored in reverse order.

nMaskSize Length of the linear kernel array.

nAnchor Y offset of the kernel origin frame of reference relative to the source pixel.

nDivisor The factor by which the convolved summation from the Filter operation should be divided. If equal to the sum of coefficients, this will keep the maximum result value within full scale.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.66.1.28 NppStatus nppiFilterColumn_8u_C3R (const Npp8u ∗ *pSrc*, Npp32s *nSrcStep*, Npp8u ∗ *pDst*, Npp32s *nDstStep*, NppiSize *oROI*, const Npp32s ∗ *pKernel*, Npp32s *nMaskSize*, Npp32s *nAnchor*, Npp32s *nDivisor*)

8-bit unsigned three-channel 1D column convolution.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oROI Region-of-Interest (ROI).

pKernel Pointer to the start address of the kernel coefficient array. Coefficients are expected to be stored in reverse order.

nMaskSize Length of the linear kernel array.

nAnchor Y offset of the kernel origin frame of reference relative to the source pixel.

nDivisor The factor by which the convolved summation from the Filter operation should be divided. If equal to the sum of coefficients, this will keep the maximum result value within full scale.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.66.1.29 NppStatus nppiFilterColumn_8u_C4R (const Npp8u ∗ *pSrc*, Npp32s *nSrcStep*, Npp8u ∗ *pDst*, Npp32s *nDstStep*, NppiSize *oROI*, const Npp32s ∗ *pKernel*, Npp32s *nMaskSize*, Npp32s *nAnchor*, Npp32s *nDivisor*)

8-bit unsigned four-channel 1D column convolution.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oROI Region-of-Interest (ROI).

pKernel Pointer to the start address of the kernel coefficient array. Coefficients are expected to be stored in reverse order.

nMaskSize Length of the linear kernel array.

nAnchor Y offset of the kernel origin frame of reference relative to the source pixel.

nDivisor The factor by which the convolved summation from the Filter operation should be divided. If equal to the sum of coefficients, this will keep the maximum result value within full scale.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.66.1.30 NppStatus nppiFilterRow32f_16s_AC4R (const Npp16s ∗ *pSrc*, Npp32s *nSrcStep*, Npp16s ∗ *pDst*, Npp32s *nDstStep*, NppiSize *oROI*, const Npp32f ∗ *pKernel*, Npp32s *nMaskSize*, Npp32s *nAnchor*)

16-bit four-channel 1D row convolution ignoring alpha-channel.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oROI Region-of-Interest (ROI).

pKernel Pointer to the start address of the kernel coefficient array. Coefficients are expected to be stored in reverse order.

nMaskSize Length of the linear kernel array.

nAnchor X offset of the kernel origin frame of reference relative to the source pixel.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.66.1.31 NppStatus nppiFilterRow32f_16s_C1R (const Npp16s ∗ *pSrc*, Npp32s *nSrcStep*, Npp16s ∗ *pDst*, Npp32s *nDstStep*, NppiSize *oROI*, const Npp32f ∗ *pKernel*, Npp32s *nMaskSize*, Npp32s *nAnchor*)

16-bit single-channel 1D row convolution.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oROI Region-of-Interest (ROI).

pKernel Pointer to the start address of the kernel coefficient array. Coefficients are expected to be stored in reverse order.

nMaskSize Length of the linear kernel array.

nAnchor X offset of the kernel origin frame of reference relative to the source pixel.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.66.1.32 NppStatus nppiFilterRow32f_16s_C3R (const Npp16s ∗ *pSrc*, Npp32s *nSrcStep*, Npp16s ∗ *pDst*, Npp32s *nDstStep*, NppiSize *oROI*, const Npp32f ∗ *pKernel*, Npp32s *nMaskSize*, Npp32s *nAnchor*)

16-bit three-channel 1D row convolution.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oROI Region-of-Interest (ROI).

pKernel Pointer to the start address of the kernel coefficient array. Coefficients are expected to be stored in reverse order.

nMaskSize Length of the linear kernel array.

nAnchor X offset of the kernel origin frame of reference relative to the source pixel.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.66.1.33 NppStatus nppiFilterRow32f_16s_C4R (const Npp16s ∗ *pSrc*, Npp32s *nSrcStep*, Npp16s ∗ *pDst*, Npp32s *nDstStep*, NppiSize *oROI*, const Npp32f ∗ *pKernel*, Npp32s *nMaskSize*, Npp32s *nAnchor*)

16-bit four-channel 1D row convolution.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oROI Region-of-Interest (ROI).

pKernel Pointer to the start address of the kernel coefficient array. Coefficients are expected to be stored in reverse order.

nMaskSize Length of the linear kernel array.

nAnchor X offset of the kernel origin frame of reference relative to the source pixel.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.66.1.34 NppStatus nppiFilterRow32f_16u_AC4R (const Npp16u ∗ *pSrc*, Npp32s *nSrcStep*, Npp16u ∗ *pDst*, Npp32s *nDstStep*, NppiSize *oROI*, const Npp32f ∗ *pKernel*, Npp32s *nMaskSize*, Npp32s *nAnchor*)

16-bit unsigned four-channel 1D row convolution ignoring alpha-channel.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oROI Region-of-Interest (ROI).

pKernel Pointer to the start address of the kernel coefficient array. Coefficients are expected to be stored in reverse order.

nMaskSize Length of the linear kernel array.

nAnchor X offset of the kernel origin frame of reference relative to the source pixel.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.66.1.35 NppStatus nppiFilterRow32f_16u_C1R (const Npp16u ∗ *pSrc*, Npp32s *nSrcStep*, Npp16u ∗ *pDst*, Npp32s *nDstStep*, NppiSize *oROI*, const Npp32f ∗ *pKernel*, Npp32s *nMaskSize*, Npp32s *nAnchor*)

16-bit unsigned single-channel 1D row convolution.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oROI Region-of-Interest (ROI).

pKernel Pointer to the start address of the kernel coefficient array. Coefficients are expected to be stored in reverse order.

nMaskSize Length of the linear kernel array.

nAnchor X offset of the kernel origin frame of reference relative to the source pixel.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.66.1.36 NppStatus nppiFilterRow32f_16u_C3R (const Npp16u ∗ *pSrc*, Npp32s *nSrcStep*, Npp16u ∗ *pDst*, Npp32s *nDstStep*, NppiSize *oROI*, const Npp32f ∗ *pKernel*, Npp32s *nMaskSize*, Npp32s *nAnchor*)

16-bit unsigned three-channel 1D row convolution.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oROI Region-of-Interest (ROI).

pKernel Pointer to the start address of the kernel coefficient array. Coefficients are expected to be stored in reverse order.

nMaskSize Length of the linear kernel array.

nAnchor X offset of the kernel origin frame of reference relative to the source pixel.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.66.1.37 NppStatus nppiFilterRow32f_16u_C4R (const Npp16u ∗ *pSrc*, Npp32s *nSrcStep*, Npp16u ∗ *pDst*, Npp32s *nDstStep*, NppiSize *oROI*, const Npp32f ∗ *pKernel*, Npp32s *nMaskSize*, Npp32s *nAnchor*)

16-bit unsigned four-channel 1D row convolution.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oROI Region-of-Interest (ROI).

pKernel Pointer to the start address of the kernel coefficient array. Coefficients are expected to be stored in reverse order.

nMaskSize Length of the linear kernel array.

nAnchor X offset of the kernel origin frame of reference relative to the source pixel.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.66.1.38 NppStatus nppiFilterRow32f_8u_AC4R (const Npp8u * *pSrc*, Npp32s *nSrcStep*, Npp8u * *pDst*, Npp32s *nDstStep*, NppiSize *oROI*, const Npp32f * *pKernel*, Npp32s *nMaskSize*, Npp32s *nAnchor*)

8-bit unsigned four-channel 1D row convolution ignoring alpha-channel.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oROI Region-of-Interest (ROI).

pKernel Pointer to the start address of the kernel coefficient array. Coefficients are expected to be stored in reverse order.

nMaskSize Length of the linear kernel array.

nAnchor X offset of the kernel origin frame of reference relative to the source pixel.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.66.1.39 NppStatus nppiFilterRow32f_8u_C1R (const Npp8u * *pSrc*, Npp32s *nSrcStep*, Npp8u * *pDst*, Npp32s *nDstStep*, NppiSize *oROI*, const Npp32f * *pKernel*, Npp32s *nMaskSize*, Npp32s *nAnchor*)

8-bit unsigned single-channel 1D row convolution.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oROI Region-of-Interest (ROI).

pKernel Pointer to the start address of the kernel coefficient array. Coefficients are expected to be stored in reverse order.

nMaskSize Length of the linear kernel array.

nAnchor X offset of the kernel origin frame of reference relative to the source pixel.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.66.1.40 NppStatus nppiFilterRow32f_8u_C3R (const Npp8u ∗ *pSrc*, Npp32s *nSrcStep*, Npp8u ∗ *pDst*, Npp32s *nDstStep*, NppiSize *oROI*, const Npp32f ∗ *pKernel*, Npp32s *nMaskSize*, Npp32s *nAnchor*)

8-bit unsigned three-channel 1D row convolution.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oROI Region-of-Interest (ROI).

pKernel Pointer to the start address of the kernel coefficient array. Coefficients are expected to be stored in reverse order.

nMaskSize Length of the linear kernel array.

nAnchor X offset of the kernel origin frame of reference relative to the source pixel.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.66.1.41 NppStatus nppiFilterRow32f_8u_C4R (const Npp8u ∗ *pSrc*, Npp32s *nSrcStep*, Npp8u ∗ *pDst*, Npp32s *nDstStep*, NppiSize *oROI*, const Npp32f ∗ *pKernel*, Npp32s *nMaskSize*, Npp32s *nAnchor*)

8-bit unsigned four-channel 1D row convolution.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oROI Region-of-Interest (ROI).

pKernel Pointer to the start address of the kernel coefficient array. Coefficients are expected to be stored in reverse order.

nMaskSize Length of the linear kernel array.

nAnchor X offset of the kernel origin frame of reference relative to the source pixel.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.66.1.42 NppStatus nppiFilterRow_16s_AC4R (const Npp16s $*$ *pSrc*, Npp32s *nSrcStep*, Npp16s $*$ *pDst*, Npp32s *nDstStep*, NppiSize *oROI*, const Npp32s $*$ *pKernel*, Npp32s *nMaskSize*, Npp32s *nAnchor*, Npp32s *nDivisor*)

16-bit four-channel 1D row convolution ignoring alpha-channel.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oROI Region-of-Interest (ROI).

pKernel Pointer to the start address of the kernel coefficient array. Coefficients are expected to be stored in reverse order.

nMaskSize Length of the linear kernel array.

nAnchor X offset of the kernel origin frame of reference relative to the source pixel.

nDivisor The factor by which the convolved summation from the Filter operation should be divided. If equal to the sum of coefficients, this will keep the maximum result value within full scale.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.66.1.43 NppStatus nppiFilterRow_16s_C1R (const Npp16s $*$ *pSrc*, Npp32s *nSrcStep*, Npp16s $*$ *pDst*, Npp32s *nDstStep*, NppiSize *oROI*, const Npp32s $*$ *pKernel*, Npp32s *nMaskSize*, Npp32s *nAnchor*, Npp32s *nDivisor*)

16-bit single-channel 1D row convolution.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oROI Region-of-Interest (ROI).

pKernel Pointer to the start address of the kernel coefficient array. Coefficients are expected to be stored in reverse order.

nMaskSize Length of the linear kernel array.

nAnchor X offset of the kernel origin frame of reference relative to the source pixel.

nDivisor The factor by which the convolved summation from the Filter operation should be divided. If equal to the sum of coefficients, this will keep the maximum result value within full scale.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.66.1.44 NppStatus nppiFilterRow_16s_C3R (const Npp16s ∗ *pSrc*, Npp32s *nSrcStep*, Npp16s ∗ *pDst*, Npp32s *nDstStep*, NppiSize *oROI*, const Npp32s ∗ *pKernel*, Npp32s *nMaskSize*, Npp32s *nAnchor*, Npp32s *nDivisor*)

16-bit three-channel 1D row convolution.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oROI Region-of-Interest (ROI).

pKernel Pointer to the start address of the kernel coefficient array. Coefficients are expected to be stored in reverse order.

nMaskSize Length of the linear kernel array.

nAnchor X offset of the kernel origin frame of reference relative to the source pixel.

nDivisor The factor by which the convolved summation from the Filter operation should be divided. If equal to the sum of coefficients, this will keep the maximum result value within full scale.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.66.1.45 NppStatus nppiFilterRow_16s_C4R (const Npp16s ∗ *pSrc*, Npp32s *nSrcStep*, Npp16s ∗ *pDst*, Npp32s *nDstStep*, NppiSize *oROI*, const Npp32s ∗ *pKernel*, Npp32s *nMaskSize*, Npp32s *nAnchor*, Npp32s *nDivisor*)

16-bit four-channel 1D row convolution.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oROI Region-of-Interest (ROI).

pKernel Pointer to the start address of the kernel coefficient array. Coefficients are expected to be stored in reverse order.

nMaskSize Length of the linear kernel array.

nAnchor X offset of the kernel origin frame of reference relative to the source pixel.

nDivisor The factor by which the convolved summation from the Filter operation should be divided. If equal to the sum of coefficients, this will keep the maximum result value within full scale.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.66.1.46 NppStatus nppiFilterRow_16u_AC4R (const Npp16u ∗ *pSrc*, Npp32s *nSrcStep*, Npp16u ∗ *pDst*, Npp32s *nDstStep*, NppiSize *oROI*, const Npp32s ∗ *pKernel*, Npp32s *nMaskSize*, Npp32s *nAnchor*, Npp32s *nDivisor*)

16-bit unsigned four-channel 1D row convolution ignoring alpha-channel.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oROI Region-of-Interest (ROI).

pKernel Pointer to the start address of the kernel coefficient array. Coefficients are expected to be stored in reverse order.

nMaskSize Length of the linear kernel array.

nAnchor X offset of the kernel origin frame of reference relative to the source pixel.

nDivisor The factor by which the convolved summation from the Filter operation should be divided. If equal to the sum of coefficients, this will keep the maximum result value within full scale.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.66.1.47 NppStatus nppiFilterRow_16u_C1R (const Npp16u ∗ *pSrc*, Npp32s *nSrcStep*, Npp16u ∗ *pDst*, Npp32s *nDstStep*, NppiSize *oROI*, const Npp32s ∗ *pKernel*, Npp32s *nMaskSize*, Npp32s *nAnchor*, Npp32s *nDivisor*)

16-bit unsigned single-channel 1D row convolution.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oROI Region-of-Interest (ROI).

pKernel Pointer to the start address of the kernel coefficient array. Coefficients are expected to be stored in reverse order.

nMaskSize Length of the linear kernel array.

nAnchor X offset of the kernel origin frame of reference relative to the source pixel.

nDivisor The factor by which the convolved summation from the Filter operation should be divided. If equal to the sum of coefficients, this will keep the maximum result value within full scale.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.66.1.48 NppStatus nppiFilterRow_16u_C3R (const Npp16u * *pSrc*, Npp32s *nSrcStep*, Npp16u * *pDst*, Npp32s *nDstStep*, NppiSize *oROI*, const Npp32s * *pKernel*, Npp32s *nMaskSize*, Npp32s *nAnchor*, Npp32s *nDivisor*)

16-bit unsigned three-channel 1D row convolution.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oROI Region-of-Interest (ROI).

pKernel Pointer to the start address of the kernel coefficient array. Coefficients are expected to be stored in reverse order.

nMaskSize Length of the linear kernel array.

nAnchor X offset of the kernel origin frame of reference relative to the source pixel.

nDivisor The factor by which the convolved summation from the Filter operation should be divided. If equal to the sum of coefficients, this will keep the maximum result value within full scale.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.66.1.49 NppStatus nppiFilterRow_16u_C4R (const Npp16u * *pSrc*, Npp32s *nSrcStep*, Npp16u * *pDst*, Npp32s *nDstStep*, NppiSize *oROI*, const Npp32s * *pKernel*, Npp32s *nMaskSize*, Npp32s *nAnchor*, Npp32s *nDivisor*)

16-bit unsigned four-channel 1D row convolution.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oROI Region-of-Interest (ROI).

pKernel Pointer to the start address of the kernel coefficient array. Coefficients are expected to be stored in reverse order.

nMaskSize Length of the linear kernel array.

nAnchor X offset of the kernel origin frame of reference relative to the source pixel.

nDivisor The factor by which the convolved summation from the Filter operation should be divided. If equal to the sum of coefficients, this will keep the maximum result value within full scale.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.66.1.50 NppStatus nppiFilterRow_32f_AC4R (const Npp32f * *pSrc*, Npp32s *nSrcStep*, Npp32f * *pDst*, Npp32s *nDstStep*, NppiSize *oROI*, const Npp32f * *pKernel*, Npp32s *nMaskSize*, Npp32s *nAnchor*)

32-bit float four-channel 1D row convolution ignoring alpha-channel.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oROI Region-of-Interest (ROI).

pKernel Pointer to the start address of the kernel coefficient array. Coefficients are expected to be stored in reverse order.

nMaskSize Length of the linear kernel array.

nAnchor X offset of the kernel origin frame of reference relative to the source pixel.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.66.1.51 NppStatus nppiFilterRow_32f_C1R (const Npp32f * *pSrc*, Npp32s *nSrcStep*, Npp32f * *pDst*, Npp32s *nDstStep*, NppiSize *oROI*, const Npp32f * *pKernel*, Npp32s *nMaskSize*, Npp32s *nAnchor*)

32-bit float single-channel 1D row convolution.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oROI Region-of-Interest (ROI).

pKernel Pointer to the start address of the kernel coefficient array. Coefficients are expected to be stored in reverse order.

nMaskSize Length of the linear kernel array.

nAnchor X offset of the kernel origin frame of reference relative to the source pixel.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.66.1.52 NppStatus nppiFilterRow_32f_C3R (const Npp32f ∗ *pSrc*, Npp32s *nSrcStep*, Npp32f ∗ *pDst*, Npp32s *nDstStep*, NppiSize *oROI*, const Npp32f ∗ *pKernel*, Npp32s *nMaskSize*, Npp32s *nAnchor*)

32-bit float three-channel 1D row convolution.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oROI Region-of-Interest (ROI).

pKernel Pointer to the start address of the kernel coefficient array. Coefficients are expected to be stored in reverse order.

nMaskSize Length of the linear kernel array.

nAnchor X offset of the kernel origin frame of reference relative to the source pixel.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.66.1.53 NppStatus nppiFilterRow_32f_C4R (const Npp32f ∗ *pSrc*, Npp32s *nSrcStep*, Npp32f ∗ *pDst*, Npp32s *nDstStep*, NppiSize *oROI*, const Npp32f ∗ *pKernel*, Npp32s *nMaskSize*, Npp32s *nAnchor*)

32-bit float four-channel 1D row convolution.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oROI Region-of-Interest (ROI).

pKernel Pointer to the start address of the kernel coefficient array. Coefficients are expected to be stored in reverse order.

nMaskSize Length of the linear kernel array.

nAnchor X offset of the kernel origin frame of reference relative to the source pixel.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.66.1.54 NppStatus nppiFilterRow_64f_C1R (const Npp64f ∗ *pSrc*, Npp32s *nSrcStep*, Npp64f ∗ *pDst*, Npp32s *nDstStep*, NppiSize *oROI*, const Npp64f ∗ *pKernel*, Npp32s *nMaskSize*, Npp32s *nAnchor*)

64-bit float single-channel 1D row convolution.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oROI Region-of-Interest (ROI).

pKernel Pointer to the start address of the kernel coefficient array. Coefficients are expected to be stored in reverse order.

nMaskSize Length of the linear kernel array.

nAnchor X offset of the kernel origin frame of reference relative to the source pixel.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.66.1.55 NppStatus nppiFilterRow_8u_AC4R (const Npp8u ∗ *pSrc*, Npp32s *nSrcStep*, Npp8u ∗ *pDst*, Npp32s *nDstStep*, NppiSize *oROI*, const Npp32s ∗ *pKernel*, Npp32s *nMaskSize*, Npp32s *nAnchor*, Npp32s *nDivisor*)

8-bit unsigned four-channel 1D row convolution ignoring alpha-channel.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oROI Region-of-Interest (ROI).

pKernel Pointer to the start address of the kernel coefficient array. Coefficients are expected to be stored in reverse order.

nMaskSize Length of the linear kernel array.

nAnchor X offset of the kernel origin frame of reference relative to the source pixel.

nDivisor The factor by which the convolved summation from the Filter operation should be divided. If equal to the sum of coefficients, this will keep the maximum result value within full scale.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.66.1.56 NppStatus nppiFilterRow_8u_C1R (const Npp8u ∗ *pSrc*, Npp32s *nSrcStep*, Npp8u ∗ *pDst*, Npp32s *nDstStep*, NppiSize *oROI*, const Npp32s ∗ *pKernel*, Npp32s *nMaskSize*, Npp32s *nAnchor*, Npp32s *nDivisor*)

8-bit unsigned single-channel 1D row convolution.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oROI Region-of-Interest (ROI).

pKernel Pointer to the start address of the kernel coefficient array. Coefficients are expected to be stored in reverse order.

nMaskSize Length of the linear kernel array.

nAnchor X offset of the kernel origin frame of reference relative to the source pixel.

nDivisor The factor by which the convolved summation from the Filter operation should be divided. If equal to the sum of coefficients, this will keep the maximum result value within full scale.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.66.1.57 NppStatus nppiFilterRow_8u_C3R (const Npp8u ∗ *pSrc*, Npp32s *nSrcStep*, Npp8u ∗ *pDst*, Npp32s *nDstStep*, NppiSize *oROI*, const Npp32s ∗ *pKernel*, Npp32s *nMaskSize*, Npp32s *nAnchor*, Npp32s *nDivisor*)

8-bit unsigned three-channel 1D row convolution.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oROI Region-of-Interest (ROI).

pKernel Pointer to the start address of the kernel coefficient array. Coefficients are expected to be stored in reverse order.

nMaskSize Length of the linear kernel array.

nAnchor X offset of the kernel origin frame of reference relative to the source pixel.

nDivisor The factor by which the convolved summation from the Filter operation should be divided. If equal to the sum of coefficients, this will keep the maximum result value within full scale.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.66.1.58 NppStatus nppiFilterRow_8u_C4R (const Npp8u * *pSrc*, Npp32s *nSrcStep*, Npp8u * *pDst*, Npp32s *nDstStep*, NppiSize *oROI*, const Npp32s * *pKernel*, Npp32s *nMaskSize*, Npp32s *nAnchor*, Npp32s *nDivisor*)

8-bit unsigned four-channel 1D row convolution.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oROI Region-of-Interest (ROI).

pKernel Pointer to the start address of the kernel coefficient array. Coefficients are expected to be stored in reverse order.

nMaskSize Length of the linear kernel array.

nAnchor X offset of the kernel origin frame of reference relative to the source pixel.

nDivisor The factor by which the convolved summation from the Filter operation should be divided. If equal to the sum of coefficients, this will keep the maximum result value within full scale.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.66.1.59 NppStatus nppiFilterSobelCross_32f_C1R (const Npp32f * *pSrc*, Npp32s *nSrcStep*, Npp32f * *pDst*, Npp32s *nDstStep*, NppiSize *oSizeROI*, NppiMaskSize *eMaskSize*)

Single channel 32-bit floating-point second cross derivative Sobel filter.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

eMaskSize Enumeration value specifying the mask size.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.66.1.60 NppStatus nppiFilterSobelCross_8s16s_C1R (const Npp8s * *pSrc*, Npp32s *nSrcStep*, Npp16s * *pDst*, Npp32s *nDstStep*, NppiSize *oSizeROI*, NppiMaskSize *eMaskSize*)

Single channel 8-bit signed to 16-bit signed second cross derivative Sobel filter.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

eMaskSize Enumeration value specifying the mask size.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.66.1.61 NppStatus nppiFilterSobelCross_8u16s_C1R (const Npp8u ∗ *pSrc*, Npp32s *nSrcStep*, Npp16s ∗ *pDst*, Npp32s *nDstStep*, NppiSize *oSizeROI*, NppiMaskSize *eMaskSize*)

Single channel 8-bit unsigned to 16-bit signed second cross derivative Sobel filter.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

eMaskSize Enumeration value specifying the mask size.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.66.1.62 NppStatus nppiFilterSobelHorizBorder_16s_AC4R (const Npp16s ∗ *pSrc*, Npp32s *nSrcStep*, NppiSize *oSrcSize*, NppiPoint *oSrcOffset*, Npp16s ∗ *pDst*, Npp32s *nDstStep*, NppiSize *oSizeROI*, NppiBorderType *eBorderType*)

Four channel 8-bit unsigned horizontal Sobel filter with border control, ignoring alpha channel.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSrcSize Source image width and height in pixels relative to pSrc.

oSrcOffset Source image starting point relative to pSrc.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

eBorderType The border type operation to be applied at source image border boundaries.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.66.1.63 NppStatus nppiFilterSobelHorizBorder_16s_C1R (const Npp16s ∗ *pSrc*, Npp32s *nSrcStep*, NppiSize *oSrcSize*, NppiPoint *oSrcOffset*, Npp16s ∗ *pDst*, Npp32s *nDstStep*, NppiSize *oSizeROI*, NppiBorderType *eBorderType*)

Single channel 16-bit signed horizontal Sobel filter with border control.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSrcSize Source image width and height in pixels relative to pSrc.

oSrcOffset Source image starting point relative to pSrc.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

eBorderType The border type operation to be applied at source image border boundaries.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.66.1.64 NppStatus nppiFilterSobelHorizBorder_16s_C3R (const Npp16s ∗ *pSrc*, Npp32s *nSrcStep*, NppiSize *oSrcSize*, NppiPoint *oSrcOffset*, Npp16s ∗ *pDst*, Npp32s *nDstStep*, NppiSize *oSizeROI*, NppiBorderType *eBorderType*)

Three channel 16-bit signed horizontal Sobel filter with border control.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSrcSize Source image width and height in pixels relative to pSrc.

oSrcOffset Source image starting point relative to pSrc.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

eBorderType The border type operation to be applied at source image border boundaries.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.66.1.65 NppStatus nppiFilterSobelHorizBorder_16s_C4R (const Npp16s ∗ *pSrc*, Npp32s *nSrcStep*, NppiSize *oSrcSize*, NppiPoint *oSrcOffset*, Npp16s ∗ *pDst*, Npp32s *nDstStep*, NppiSize *oSizeROI*, NppiBorderType *eBorderType*)

Four channel 16-bit signed horizontal Sobel filter with border control.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSrcSize Source image width and height in pixels relative to pSrc.

oSrcOffset Source image starting point relative to pSrc.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

eBorderType The border type operation to be applied at source image border boundaries.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.66.1.66 NppStatus nppiFilterSobelHorizBorder_32f_AC4R (const Npp32f ∗ *pSrc*, Npp32s *nSrcStep*, NppiSize *oSrcSize*, NppiPoint *oSrcOffset*, Npp32f ∗ *pDst*, Npp32s *nDstStep*, NppiSize *oSizeROI*, NppiBorderType *eBorderType*)

Four channel 32-bit floating-point horizontal Sobel filter with border control, ignoring alpha channel.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSrcSize Source image width and height in pixels relative to pSrc.

oSrcOffset Source image starting point relative to pSrc.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

eBorderType The border type operation to be applied at source image border boundaries.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.66.1.67 NppStatus nppiFilterSobelHorizBorder_32f_C1R (const Npp32f ∗ *pSrc*, Npp32s *nSrcStep*, NppiSize *oSrcSize*, NppiPoint *oSrcOffset*, Npp32f ∗ *pDst*, Npp32s *nDstStep*, NppiSize *oSizeROI*, NppiBorderType *eBorderType*)

Single channel 32-bit floating-point horizontal Sobel filter with border control.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSrcSize Source image width and height in pixels relative to pSrc.

oSrcOffset Source image starting point relative to pSrc.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

eBorderType The border type operation to be applied at source image border boundaries.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.66.1.68 NppStatus nppiFilterSobelHorizBorder_32f_C3R (const Npp32f ∗ *pSrc*, Npp32s *nSrcStep*, NppiSize *oSrcSize*, NppiPoint *oSrcOffset*, Npp32f ∗ *pDst*, Npp32s *nDstStep*, NppiSize *oSizeROI*, NppiBorderType *eBorderType*)

Three channel 32-bit floating-point horizontal Sobel filter with border control.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSrcSize Source image width and height in pixels relative to pSrc.

oSrcOffset Source image starting point relative to pSrc.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

eBorderType The border type operation to be applied at source image border boundaries.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.66.1.69 NppStatus nppiFilterSobelHorizBorder_32f_C4R (const Npp32f ∗ *pSrc*, Npp32s *nSrcStep*, NppiSize *oSrcSize*, NppiPoint *oSrcOffset*, Npp32f ∗ *pDst*, Npp32s *nDstStep*, NppiSize *oSizeROI*, NppiBorderType *eBorderType*)

Four channel 32-bit floating-point horizontal Sobel filter with border control.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSrcSize Source image width and height in pixels relative to pSrc.

oSrcOffset Source image starting point relative to pSrc.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

eBorderType The border type operation to be applied at source image border boundaries.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.66.1.70 NppStatus nppiFilterSobelHorizBorder_8s16s_C1R (const Npp8s ∗ *pSrc*, Npp32s *nSrcStep*, NppiSize *oSrcSize*, NppiPoint *oSrcOffset*, Npp16s ∗ *pDst*, Npp32s *nDstStep*, NppiSize *oSizeROI*, NppiMaskSize *eMaskSize*, NppiBorderType *eBorderType*)

Single channel 8-bit signed to 16-bit signed horizontal Sobel filter with border control.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSrcSize Source image width and height in pixels relative to pSrc.

oSrcOffset Source image starting point relative to pSrc.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

eMaskSize Enumeration value specifying the mask size.

eBorderType The border type operation to be applied at source image border boundaries.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.66.1.71 NppStatus nppiFilterSobelHorizBorder_8u16s_C1R (const Npp8u ∗ *pSrc*, Npp32s *nSrcStep*, NppiSize *oSrcSize*, NppiPoint *oSrcOffset*, Npp16s ∗ *pDst*, Npp32s *nDstStep*, NppiSize *oSizeROI*, NppiMaskSize *eMaskSize*, NppiBorderType *eBorderType*)

Single channel 8-bit unsigned to 16-bit signed horizontal Sobel filter with border control.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSrcSize Source image width and height in pixels relative to pSrc.

oSrcOffset Source image starting point relative to pSrc.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

eMaskSize Enumeration value specifying the mask size.

eBorderType The border type operation to be applied at source image border boundaries.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.66.1.72 NppStatus nppiFilterSobelHorizBorder_8u_AC4R (const Npp8u ∗ *pSrc*, Npp32s *nSrcStep*, NppiSize *oSrcSize*, NppiPoint *oSrcOffset*, Npp8u ∗ *pDst*, Npp32s *nDstStep*, NppiSize *oSizeROI*, NppiBorderType *eBorderType*)

Four channel 16-bit signed horizontal Sobel filter with border control, ignoring alpha channel.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSrcSize Source image width and height in pixels relative to pSrc.

oSrcOffset Source image starting point relative to pSrc.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

eBorderType The border type operation to be applied at source image border boundaries.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.66.1.73 NppStatus nppiFilterSobelHorizBorder_8u_C1R (const Npp8u ∗ *pSrc*, Npp32s *nSrcStep*, NppiSize *oSrcSize*, NppiPoint *oSrcOffset*, Npp8u ∗ *pDst*, Npp32s *nDstStep*, NppiSize *oSizeROI*, NppiBorderType *eBorderType*)

Single channel 8-bit unsigned horizontal Sobel filter with border control.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSrcSize Source image width and height in pixels relative to pSrc.

oSrcOffset Source image starting point relative to pSrc.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

eBorderType The border type operation to be applied at source image border boundaries.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.66.1.74 NppStatus nppiFilterSobelHorizBorder_8u_C3R (const Npp8u ∗ *pSrc*, Npp32s *nSrcStep*, NppiSize *oSrcSize*, NppiPoint *oSrcOffset*, Npp8u ∗ *pDst*, Npp32s *nDstStep*, NppiSize *oSizeROI*, NppiBorderType *eBorderType*)

Three channel 8-bit unsigned horizontal Sobel filter with border control.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSrcSize Source image width and height in pixels relative to pSrc.

oSrcOffset Source image starting point relative to pSrc.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

eBorderType The border type operation to be applied at source image border boundaries.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.66.1.75 NppStatus nppiFilterSobelHorizBorder_8u_C4R (const Npp8u ∗ *pSrc*, Npp32s *nSrcStep*, NppiSize *oSrcSize*, NppiPoint *oSrcOffset*, Npp8u ∗ *pDst*, Npp32s *nDstStep*, NppiSize *oSizeROI*, NppiBorderType *eBorderType*)

Four channel 8-bit unsigned horizontal Sobel filter with border control.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSrcSize Source image width and height in pixels relative to pSrc.

oSrcOffset Source image starting point relative to pSrc.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

eBorderType The border type operation to be applied at source image border boundaries.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.66.1.76 NppStatus nppiFilterSobelHorizMaskBorder_32f_C1R (const Npp32f ∗ *pSrc*, Npp32s *nSrcStep*, NppiSize *oSrcSize*, NppiPoint *oSrcOffset*, Npp32f ∗ *pDst*, Npp32s *nDstStep*, NppiSize *oSizeROI*, NppiMaskSize *eMaskSize*, NppiBorderType *eBorderType*)

Single channel 32-bit floating-point horizontal Sobel filter with border control.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSrcSize Source image width and height in pixels relative to pSrc.

oSrcOffset Source image starting point relative to pSrc.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

eMaskSize Enumeration value specifying the mask size.

eBorderType The border type operation to be applied at source image border boundaries.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.66.1.77 NppStatus nppiFilterSobelHorizSecondBorder_32f_C1R (const Npp32f $*$ *pSrc*, Npp32s *nSrcStep*, NppiSize *oSrcSize*, NppiPoint *oSrcOffset*, Npp32f $*$ *pDst*, Npp32s *nDstStep*, NppiSize *oSizeROI*, NppiMaskSize *eMaskSize*, NppiBorderType *eBorderType*)

Single channel 32-bit floating-point second derivative, horizontal Sobel filter with border control.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSrcSize Source image width and height in pixels relative to pSrc.

oSrcOffset Source image starting point relative to pSrc.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

eMaskSize Enumeration value specifying the mask size.

eBorderType The border type operation to be applied at source image border boundaries.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.66.1.78 NppStatus nppiFilterSobelHorizSecondBorder_8s16s_C1R (const Npp8s $*$ *pSrc*, Npp32s *nSrcStep*, NppiSize *oSrcSize*, NppiPoint *oSrcOffset*, Npp16s $*$ *pDst*, Npp32s *nDstStep*, NppiSize *oSizeROI*, NppiMaskSize *eMaskSize*, NppiBorderType *eBorderType*)

Single channel 8-bit signed to 16-bit signed second derivative, horizontal Sobel filter with border control.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSrcSize Source image width and height in pixels relative to pSrc.

oSrcOffset Source image starting point relative to pSrc.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

eMaskSize Enumeration value specifying the mask size.

eBorderType The border type operation to be applied at source image border boundaries.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.66.1.79 NppStatus nppiFilterSobelHorizSecondBorder_8u16s_C1R (const Npp8u ∗ *pSrc*, Npp32s *nSrcStep*, NppiSize *oSrcSize*, NppiPoint *oSrcOffset*, Npp16s ∗ *pDst*, Npp32s *nDstStep*, NppiSize *oSizeROI*, NppiMaskSize *eMaskSize*, NppiBorderType *eBorderType*)

Single channel 8-bit unsigned to 16-bit signed second derivative, horizontal Sobel filter with border control.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSrcSize Source image width and height in pixels relative to pSrc.

oSrcOffset Source image starting point relative to pSrc.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

eMaskSize Enumeration value specifying the mask size.

eBorderType The border type operation to be applied at source image border boundaries.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.66.1.80 NppStatus nppiFilterSobelVertBorder_16s_AC4R (const Npp16s ∗ *pSrc*, Npp32s *nSrcStep*, NppiSize *oSrcSize*, NppiPoint *oSrcOffset*, Npp16s ∗ *pDst*, Npp32s *nDstStep*, NppiSize *oSizeROI*, NppiBorderType *eBorderType*)

Four channel 8-bit unsigned vertical Sobel filter with border control, ignoring alpha channel.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSrcSize Source image width and height in pixels relative to pSrc.

oSrcOffset Source image starting point relative to pSrc.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

eBorderType The border type operation to be applied at source image border boundaries.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.66.1.81 NppStatus nppiFilterSobelVertBorder_16s_C1R (const Npp16s ∗ *pSrc*, Npp32s *nSrcStep*, NppiSize *oSrcSize*, NppiPoint *oSrcOffset*, Npp16s ∗ *pDst*, Npp32s *nDstStep*, NppiSize *oSizeROI*, NppiBorderType *eBorderType*)

Single channel 16-bit signed vertical Sobel filter with border control.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSrcSize Source image width and height in pixels relative to pSrc.

oSrcOffset Source image starting point relative to pSrc.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

eBorderType The border type operation to be applied at source image border boundaries.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.66.1.82 NppStatus nppiFilterSobelVertBorder_16s_C3R (const Npp16s ∗ *pSrc*, Npp32s *nSrcStep*, NppiSize *oSrcSize*, NppiPoint *oSrcOffset*, Npp16s ∗ *pDst*, Npp32s *nDstStep*, NppiSize *oSizeROI*, NppiBorderType *eBorderType*)

Three channel 16-bit signed vertical Sobel filter with border control.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSrcSize Source image width and height in pixels relative to pSrc.

oSrcOffset Source image starting point relative to pSrc.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

eBorderType The border type operation to be applied at source image border boundaries.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.66.1.83 NppStatus nppiFilterSobelVertBorder_16s_C4R (const Npp16s ∗ *pSrc*, Npp32s *nSrcStep*, NppiSize *oSrcSize*, NppiPoint *oSrcOffset*, Npp16s ∗ *pDst*, Npp32s *nDstStep*, NppiSize *oSizeROI*, NppiBorderType *eBorderType*)

Four channel 16-bit signed vertical Sobel filter with border control.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSrcSize Source image width and height in pixels relative to pSrc.

oSrcOffset Source image starting point relative to pSrc.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

eBorderType The border type operation to be applied at source image border boundaries.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.66.1.84 NppStatus nppiFilterSobelVertBorder_32f_AC4R (const Npp32f ∗ *pSrc*, Npp32s *nSrcStep*, NppiSize *oSrcSize*, NppiPoint *oSrcOffset*, Npp32f ∗ *pDst*, Npp32s *nDstStep*, NppiSize *oSizeROI*, NppiBorderType *eBorderType*)

Four channel 32-bit floating-point vertical Sobel filter with border control, ignoring alpha channel.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSrcSize Source image width and height in pixels relative to pSrc.

oSrcOffset Source image starting point relative to pSrc.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

eBorderType The border type operation to be applied at source image border boundaries.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.66.1.85 NppStatus nppiFilterSobelVertBorder_32f_C1R (const Npp32f ∗ *pSrc*, Npp32s *nSrcStep*, NppiSize *oSrcSize*, NppiPoint *oSrcOffset*, Npp32f ∗ *pDst*, Npp32s *nDstStep*, NppiSize *oSizeROI*, NppiBorderType *eBorderType*)

Single channel 32-bit floating-point vertical Sobel filter with border control.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSrcSize Source image width and height in pixels relative to pSrc.

oSrcOffset Source image starting point relative to pSrc.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

eBorderType The border type operation to be applied at source image border boundaries.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.66.1.86 NppStatus nppiFilterSobelVertBorder_32f_C3R (const Npp32f ∗ *pSrc*, Npp32s *nSrcStep*, NppiSize *oSrcSize*, NppiPoint *oSrcOffset*, Npp32f ∗ *pDst*, Npp32s *nDstStep*, NppiSize *oSizeROI*, NppiBorderType *eBorderType*)

Three channel 32-bit floating-point vertical Sobel filter with border control.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSrcSize Source image width and height in pixels relative to pSrc.

oSrcOffset Source image starting point relative to pSrc.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

eBorderType The border type operation to be applied at source image border boundaries.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.66.1.87 NppStatus nppiFilterSobelVertBorder_32f_C4R (const Npp32f ∗ *pSrc*, Npp32s *nSrcStep*, NppiSize *oSrcSize*, NppiPoint *oSrcOffset*, Npp32f ∗ *pDst*, Npp32s *nDstStep*, NppiSize *oSizeROI*, NppiBorderType *eBorderType*)

Four channel 32-bit floating-point vertical Sobel filter with border control.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSrcSize Source image width and height in pixels relative to pSrc.

oSrcOffset Source image starting point relative to pSrc.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

eBorderType The border type operation to be applied at source image border boundaries.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.66.1.88 NppStatus nppiFilterSobelVertBorder_8s16s_C1R (const Npp8s ∗ *pSrc*, Npp32s *nSrcStep*, NppiSize *oSrcSize*, NppiPoint *oSrcOffset*, Npp16s ∗ *pDst*, Npp32s *nDstStep*, NppiSize *oSizeROI*, NppiMaskSize *eMaskSize*, NppiBorderType *eBorderType*)

Single channel 8-bit signed to 16-bit signed vertical Sobel filter with border control.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSrcSize Source image width and height in pixels relative to pSrc.

oSrcOffset Source image starting point relative to pSrc.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

eMaskSize Enumeration value specifying the mask size.

eBorderType The border type operation to be applied at source image border boundaries.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.66.1.89 NppStatus nppiFilterSobelVertBorder_8u16s_C1R (const Npp8u ∗ *pSrc*, Npp32s *nSrcStep*, NppiSize *oSrcSize*, NppiPoint *oSrcOffset*, Npp16s ∗ *pDst*, Npp32s *nDstStep*, NppiSize *oSizeROI*, NppiMaskSize *eMaskSize*, NppiBorderType *eBorderType*)

Single channel 8-bit unsigned to 16-bit signed vertical Sobel filter with border control.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSrcSize Source image width and height in pixels relative to pSrc.

oSrcOffset Source image starting point relative to pSrc.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

eMaskSize Enumeration value specifying the mask size.

eBorderType The border type operation to be applied at source image border boundaries.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.66.1.90 NppStatus nppiFilterSobelVertBorder_8u_AC4R (const Npp8u ∗ *pSrc*, Npp32s *nSrcStep*, NppiSize *oSrcSize*, NppiPoint *oSrcOffset*, Npp8u ∗ *pDst*, Npp32s *nDstStep*, NppiSize *oSizeROI*, NppiBorderType *eBorderType*)

Four channel 16-bit signed vertical Sobel filter with border control, ignoring alpha channel.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSrcSize Source image width and height in pixels relative to pSrc.

oSrcOffset Source image starting point relative to pSrc.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

eBorderType The border type operation to be applied at source image border boundaries.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.66.1.91 NppStatus nppiFilterSobelVertBorder_8u_C1R (const Npp8u ∗ *pSrc*, Npp32s *nSrcStep*, NppiSize *oSrcSize*, NppiPoint *oSrcOffset*, Npp8u ∗ *pDst*, Npp32s *nDstStep*, NppiSize *oSizeROI*, NppiBorderType *eBorderType*)

Single channel 8-bit unsigned vertical Sobel filter with border control.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSrcSize Source image width and height in pixels relative to pSrc.

oSrcOffset Source image starting point relative to pSrc.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

eBorderType The border type operation to be applied at source image border boundaries.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.66.1.92 NppStatus nppiFilterSobelVertBorder_8u_C3R (const Npp8u ∗ *pSrc*, Npp32s *nSrcStep*, NppiSize *oSrcSize*, NppiPoint *oSrcOffset*, Npp8u ∗ *pDst*, Npp32s *nDstStep*, NppiSize *oSizeROI*, NppiBorderType *eBorderType*)

Three channel 8-bit unsigned vertical Sobel filter with border control.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSrcSize Source image width and height in pixels relative to pSrc.

oSrcOffset Source image starting point relative to pSrc.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

eBorderType The border type operation to be applied at source image border boundaries.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.66.1.93 NppStatus nppiFilterSobelVertBorder_8u_C4R (const Npp8u ∗ *pSrc*, Npp32s *nSrcStep*, NppiSize *oSrcSize*, NppiPoint *oSrcOffset*, Npp8u ∗ *pDst*, Npp32s *nDstStep*, NppiSize *oSizeROI*, NppiBorderType *eBorderType*)

Four channel 8-bit unsigned vertical Sobel filter with border control.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSrcSize Source image width and height in pixels relative to pSrc.

oSrcOffset Source image starting point relative to pSrc.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

eBorderType The border type operation to be applied at source image border boundaries.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.66.1.94 NppStatus nppiFilterSobelVertMaskBorder_32f_C1R (const Npp32f ∗ *pSrc*, Npp32s *nSrcStep*, NppiSize *oSrcSize*, NppiPoint *oSrcOffset*, Npp32f ∗ *pDst*, Npp32s *nDstStep*, NppiSize *oSizeROI*, NppiMaskSize *eMaskSize*, NppiBorderType *eBorderType*)

Single channel 32-bit floating-point vertical Sobel filter with border control.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSrcSize Source image width and height in pixels relative to pSrc.

oSrcOffset Source image starting point relative to pSrc.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

eMaskSize Enumeration value specifying the mask size.

eBorderType The border type operation to be applied at source image border boundaries.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.66.1.95 NppStatus nppiFilterSobelVertSecond_32f_C1R (const Npp32f ∗ *pSrc*, Npp32s *nSrcStep*, Npp32f ∗ *pDst*, Npp32s *nDstStep*, NppiSize *oSizeROI*, NppiMaskSize *eMaskSize*)

Single channel 32-bit floating-point second derivative, vertical Sobel filter.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

eMaskSize Enumeration value specifying the mask size.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.66.1.96 NppStatus nppiFilterSobelVertSecond_8s16s_C1R (const Npp8s ∗ *pSrc*, Npp32s *nSrcStep*, Npp16s ∗ *pDst*, Npp32s *nDstStep*, NppiSize *oSizeROI*, NppiMaskSize *eMaskSize*)

Single channel 8-bit signed to 16-bit signed second derivative, vertical Sobel filter.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

eMaskSize Enumeration value specifying the mask size.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.66.1.97 NppStatus nppiFilterSobelVertSecond_8u16s_C1R (const Npp8u * *pSrc*, Npp32s *nSrcStep*, Npp16s * *pDst*, Npp32s *nDstStep*, NppiSize *oSizeROI*, NppiMaskSize *eMaskSize*)

Single channel 8-bit unsigned to 16-bit signed second derivative, vertical Sobel filter.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

eMaskSize Enumeration value specifying the mask size.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.67 1D Window Sum

1D Window Sum

1D mask Window Sum for 8 and 16 bit images.

- NppStatus nppiSumWindowColumn_8u32f_C1R (const Npp8u ∗pSrc, Npp32s nSrcStep, Npp32f ∗pDst, Npp32s nDstStep, NppiSize oROI, Npp32s nMaskSize, Npp32s nAnchor)

  One channel 8-bit unsigned 1D (column) sum to 32f.

- NppStatus nppiSumWindowColumn_8u32f_C3R (const Npp8u ∗pSrc, Npp32s nSrcStep, Npp32f ∗pDst, Npp32s nDstStep, NppiSize oROI, Npp32s nMaskSize, Npp32s nAnchor)

  Three channel 8-bit unsigned 1D (column) sum to 32f.

- NppStatus nppiSumWindowColumn_8u32f_C4R (const Npp8u ∗pSrc, Npp32s nSrcStep, Npp32f ∗pDst, Npp32s nDstStep, NppiSize oROI, Npp32s nMaskSize, Npp32s nAnchor)

  Four channel 8-bit unsigned 1D (column) sum to 32f.

- NppStatus nppiSumWindowColumn_16u32f_C1R (const Npp16u ∗pSrc, Npp32s nSrcStep, Npp32f ∗pDst, Npp32s nDstStep, NppiSize oROI, Npp32s nMaskSize, Npp32s nAnchor)

  One channel 16-bit unsigned 1D (column) sum to 32f.

- NppStatus nppiSumWindowColumn_16u32f_C3R (const Npp16u ∗pSrc, Npp32s nSrcStep, Npp32f ∗pDst, Npp32s nDstStep, NppiSize oROI, Npp32s nMaskSize, Npp32s nAnchor)

  Three channel 16-bit unsigned 1D (column) sum to 32f.

- NppStatus nppiSumWindowColumn_16u32f_C4R (const Npp16u ∗pSrc, Npp32s nSrcStep, Npp32f ∗pDst, Npp32s nDstStep, NppiSize oROI, Npp32s nMaskSize, Npp32s nAnchor)

  Four channel 16-bit unsigned 1D (column) sum to 32f.

- NppStatus nppiSumWindowColumn_16s32f_C1R (const Npp16s ∗pSrc, Npp32s nSrcStep, Npp32f ∗pDst, Npp32s nDstStep, NppiSize oROI, Npp32s nMaskSize, Npp32s nAnchor)

  One channel 16-bit signed 1D (column) sum to 32f.

- NppStatus nppiSumWindowColumn_16s32f_C3R (const Npp16s ∗pSrc, Npp32s nSrcStep, Npp32f ∗pDst, Npp32s nDstStep, NppiSize oROI, Npp32s nMaskSize, Npp32s nAnchor)

  Three channel 16-bit signed 1D (column) sum to 32f.

- NppStatus nppiSumWindowColumn_16s32f_C4R (const Npp16s ∗pSrc, Npp32s nSrcStep, Npp32f ∗pDst, Npp32s nDstStep, NppiSize oROI, Npp32s nMaskSize, Npp32s nAnchor)

  Four channel 16-bit signed 1D (column) sum to 32f.

- NppStatus nppiSumWindowRow_8u32f_C1R (const Npp8u ∗pSrc, Npp32s nSrcStep, Npp32f ∗pDst, Npp32s nDstStep, NppiSize oROI, Npp32s nMaskSize, Npp32s nAnchor)

  One channel 8-bit unsigned 1D (row) sum to 32f.

- NppStatus nppiSumWindowRow_8u32f_C3R (const Npp8u ∗pSrc, Npp32s nSrcStep, Npp32f ∗pDst, Npp32s nDstStep, NppiSize oROI, Npp32s nMaskSize, Npp32s nAnchor)

  Three channel 8-bit unsigned 1D (row) sum to 32f.

- NppStatus nppiSumWindowRow_8u32f_C4R (const Npp8u ∗pSrc, Npp32s nSrcStep, Npp32f ∗pDst, Npp32s nDstStep, NppiSize oROI, Npp32s nMaskSize, Npp32s nAnchor)

  Four channel 8-bit unsigned 1D (row) sum to 32f.

- NppStatus nppiSumWindowRow_16u32f_C1R (const Npp16u ∗pSrc, Npp32s nSrcStep, Npp32f ∗pDst, Npp32s nDstStep, NppiSize oROI, Npp32s nMaskSize, Npp32s nAnchor)

  One channel 16-bit unsigned 1D (row) sum to 32f.

- NppStatus nppiSumWindowRow_16u32f_C3R (const Npp16u ∗pSrc, Npp32s nSrcStep, Npp32f ∗pDst, Npp32s nDstStep, NppiSize oROI, Npp32s nMaskSize, Npp32s nAnchor)

  Three channel 16-bit unsigned 1D (row) sum to 32f.

- NppStatus nppiSumWindowRow_16u32f_C4R (const Npp16u ∗pSrc, Npp32s nSrcStep, Npp32f ∗pDst, Npp32s nDstStep, NppiSize oROI, Npp32s nMaskSize, Npp32s nAnchor)

  Four channel 16-bit unsigned 1D (row) sum to 32f.

- NppStatus nppiSumWindowRow_16s32f_C1R (const Npp16s ∗pSrc, Npp32s nSrcStep, Npp32f ∗pDst, Npp32s nDstStep, NppiSize oROI, Npp32s nMaskSize, Npp32s nAnchor)

  One channel 16-bit signed 1D (row) sum to 32f.

- NppStatus nppiSumWindowRow_16s32f_C3R (const Npp16s ∗pSrc, Npp32s nSrcStep, Npp32f ∗pDst, Npp32s nDstStep, NppiSize oROI, Npp32s nMaskSize, Npp32s nAnchor)

  Three channel 16-bit signed 1D (row) sum to 32f.

- NppStatus nppiSumWindowRow_16s32f_C4R (const Npp16s ∗pSrc, Npp32s nSrcStep, Npp32f ∗pDst, Npp32s nDstStep, NppiSize oROI, Npp32s nMaskSize, Npp32s nAnchor)

  Four channel 16-bit signed 1D (row) sum to 32f.

7.67.1 Function Documentation

7.67.1.1 NppStatus nppiSumWindowColumn_16s32f_C1R (const Npp16s ∗ *pSrc*, Npp32s *nSrcStep*, Npp32f ∗ *pDst*, Npp32s *nDstStep*, NppiSize *oROI*, Npp32s *nMaskSize*, Npp32s *nAnchor*)

One channel 16-bit signed 1D (column) sum to 32f.

Apply Column Window Summation filter over a 1D mask region around each source pixel for 1-channel 16 bit/pixel input images with 32-bit floating point output. Result 32-bit floating point pixel is equal to the sum of the corresponding and neighboring column pixel values in a mask region of the source image defined by nMaskSize and nAnchor.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oROI Region-of-Interest (ROI).

nMaskSize Length of the linear kernel array.

nAnchor Y offset of the kernel origin frame of reference relative to the source pixel.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.67.1.2 NppStatus nppiSumWindowColumn_16s32f_C3R (const Npp16s ∗ *pSrc*, Npp32s *nSrcStep*, Npp32f ∗ *pDst*, Npp32s *nDstStep*, NppiSize *oROI*, Npp32s *nMaskSize*, Npp32s *nAnchor*)

Three channel 16-bit signed 1D (column) sum to 32f.

Apply Column Window Summation filter over a 1D mask region around each source pixel for 1-channel 16 bit/pixel input images with 32-bit floating point output. Result 32-bit floating point pixel is equal to the sum of the corresponding and neighboring column pixel values in a mask region of the source image defined by nMaskSize and nAnchor.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oROI Region-of-Interest (ROI).

nMaskSize Length of the linear kernel array.

nAnchor Y offset of the kernel origin frame of reference relative to the source pixel.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.67.1.3 NppStatus nppiSumWindowColumn_16s32f_C4R (const Npp16s ∗ *pSrc*, Npp32s *nSrcStep*, Npp32f ∗ *pDst*, Npp32s *nDstStep*, NppiSize *oROI*, Npp32s *nMaskSize*, Npp32s *nAnchor*)

Four channel 16-bit signed 1D (column) sum to 32f.

Apply Column Window Summation filter over a 1D mask region around each source pixel for 4-channel 16 bit/pixel input images with 32-bit floating point output. Result 32-bit floating point pixel is equal to the sum of the corresponding and neighboring column pixel values in a mask region of the source image defined by nMaskSize and nAnchor.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oROI Region-of-Interest (ROI).

nMaskSize Length of the linear kernel array.

nAnchor Y offset of the kernel origin frame of reference relative to the source pixel.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.67.1.4 NppStatus nppiSumWindowColumn_16u32f_C1R (const Npp16u ∗ *pSrc*, Npp32s *nSrcStep*, Npp32f ∗ *pDst*, Npp32s *nDstStep*, NppiSize *oROI*, Npp32s *nMaskSize*, Npp32s *nAnchor*)

One channel 16-bit unsigned 1D (column) sum to 32f.

Apply Column Window Summation filter over a 1D mask region around each source pixel for 1-channel 16 bit/pixel input images with 32-bit floating point output. Result 32-bit floating point pixel is equal to the sum of the corresponding and neighboring column pixel values in a mask region of the source image defined by nMaskSize and nAnchor.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oROI Region-of-Interest (ROI).

nMaskSize Length of the linear kernel array.

nAnchor Y offset of the kernel origin frame of reference relative to the source pixel.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.67.1.5 NppStatus nppiSumWindowColumn_16u32f_C3R (const Npp16u ∗ *pSrc*, Npp32s *nSrcStep*, Npp32f ∗ *pDst*, Npp32s *nDstStep*, NppiSize *oROI*, Npp32s *nMaskSize*, Npp32s *nAnchor*)

Three channel 16-bit unsigned 1D (column) sum to 32f.

Apply Column Window Summation filter over a 1D mask region around each source pixel for 3-channel 16 bit/pixel input images with 32-bit floating point output. Result 32-bit floating point pixel is equal to the sum of the corresponding and neighboring column pixel values in a mask region of the source image defined by nMaskSize and nAnchor.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oROI Region-of-Interest (ROI).

nMaskSize Length of the linear kernel array.

nAnchor Y offset of the kernel origin frame of reference relative to the source pixel.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.67.1.6 NppStatus nppiSumWindowColumn_16u32f_C4R (const Npp16u ∗ *pSrc*, Npp32s *nSrcStep*, Npp32f ∗ *pDst*, Npp32s *nDstStep*, NppiSize *oROI*, Npp32s *nMaskSize*, Npp32s *nAnchor*)

Four channel 16-bit unsigned 1D (column) sum to 32f.

Apply Column Window Summation filter over a 1D mask region around each source pixel for 4-channel 16 bit/pixel input images with 32-bit floating point output. Result 32-bit floating point pixel is equal to the sum of the corresponding and neighboring column pixel values in a mask region of the source image defined by nMaskSize and nAnchor.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oROI Region-of-Interest (ROI).

nMaskSize Length of the linear kernel array.

nAnchor Y offset of the kernel origin frame of reference relative to the source pixel.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.67.1.7 NppStatus nppiSumWindowColumn_8u32f_C1R (const Npp8u ∗ *pSrc*, Npp32s *nSrcStep*, Npp32f ∗ *pDst*, Npp32s *nDstStep*, NppiSize *oROI*, Npp32s *nMaskSize*, Npp32s *nAnchor*)

One channel 8-bit unsigned 1D (column) sum to 32f.

Apply Column Window Summation filter over a 1D mask region around each source pixel for 1-channel 8 bit/pixel input images with 32-bit floating point output. Result 32-bit floating point pixel is equal to the sum of the corresponding and neighboring column pixel values in a mask region of the source image defined by nMaskSize and nAnchor.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oROI Region-of-Interest (ROI).

nMaskSize Length of the linear kernel array.

nAnchor Y offset of the kernel origin frame of reference relative to the source pixel.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.67.1.8 NppStatus nppiSumWindowColumn_8u32f_C3R (const Npp8u ∗ *pSrc*, Npp32s *nSrcStep*, Npp32f ∗ *pDst*, Npp32s *nDstStep*, NppiSize *oROI*, Npp32s *nMaskSize*, Npp32s *nAnchor*)

Three channel 8-bit unsigned 1D (column) sum to 32f.

Apply Column Window Summation filter over a 1D mask region around each source pixel for 3-channel 8 bit/pixel input images with 32-bit floating point output. Result 32-bit floating point pixel is equal to the sum of the corresponding and neighboring column pixel values in a mask region of the source image defined by nMaskSize and nAnchor.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oROI Region-of-Interest (ROI).

nMaskSize Length of the linear kernel array.

nAnchor Y offset of the kernel origin frame of reference relative to the source pixel.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.67.1.9 NppStatus nppiSumWindowColumn_8u32f_C4R (const Npp8u ∗ *pSrc*, Npp32s *nSrcStep*, Npp32f ∗ *pDst*, Npp32s *nDstStep*, NppiSize *oROI*, Npp32s *nMaskSize*, Npp32s *nAnchor*)

Four channel 8-bit unsigned 1D (column) sum to 32f.

Apply Column Window Summation filter over a 1D mask region around each source pixel for 4-channel 8 bit/pixel input images with 32-bit floating point output. Result 32-bit floating point pixel is equal to the sum of the corresponding and neighboring column pixel values in a mask region of the source image defined by nMaskSize and nAnchor.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oROI Region-of-Interest (ROI).

nMaskSize Length of the linear kernel array.

nAnchor Y offset of the kernel origin frame of reference relative to the source pixel.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.67.1.10 NppStatus nppiSumWindowRow_16s32f_C1R (const Npp16s ∗ *pSrc*, Npp32s *nSrcStep*, Npp32f ∗ *pDst*, Npp32s *nDstStep*, NppiSize *oROI*, Npp32s *nMaskSize*, Npp32s *nAnchor*)

One channel 16-bit signed 1D (row) sum to 32f.

Apply Row Window Summation filter over a 1D mask region around each source pixel for 1-channel 16-bit pixel input images with 32-bit floating point output. Result 32-bit floating point pixel is equal to the sum of the corresponding and neighboring row pixel values in a mask region of the source image defined by iKernelDim and iAnchorX.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oROI Region-of-Interest (ROI).

nMaskSize Length of the linear kernel array.

nAnchor X offset of the kernel origin frame of reference relative to the source pixel.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.67.1.11 NppStatus nppiSumWindowRow_16s32f_C3R (const Npp16s ∗ *pSrc*, Npp32s *nSrcStep*, Npp32f ∗ *pDst*, Npp32s *nDstStep*, NppiSize *oROI*, Npp32s *nMaskSize*, Npp32s *nAnchor*)

Three channel 16-bit signed 1D (row) sum to 32f.

Apply Row Window Summation filter over a 1D mask region around each source pixel for 3-channel 16-bit pixel input images with 32-bit floating point output. Result 32-bit floating point pixel is equal to the sum of the corresponding and neighboring row pixel values in a mask region of the source image defined by iKernelDim and iAnchorX.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oROI Region-of-Interest (ROI).

nMaskSize Length of the linear kernel array.

nAnchor X offset of the kernel origin frame of reference relative to the source pixel.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.67.1.12 NppStatus nppiSumWindowRow_16s32f_C4R (const Npp16s ∗ *pSrc*, Npp32s *nSrcStep*, Npp32f ∗ *pDst*, Npp32s *nDstStep*, NppiSize *oROI*, Npp32s *nMaskSize*, Npp32s *nAnchor*)

Four channel 16-bit signed 1D (row) sum to 32f.

Apply Row Window Summation filter over a 1D mask region around each source pixel for 4-channel 16-bit pixel input images with 32-bit floating point output. Result 32-bit floating point pixel is equal to the sum of the corresponding and neighboring row pixel values in a mask region of the source image defined by iKernelDim and iAnchorX.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oROI Region-of-Interest (ROI).

nMaskSize Length of the linear kernel array.

nAnchor X offset of the kernel origin frame of reference relative to the source pixel.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.67.1.13 NppStatus nppiSumWindowRow_16u32f_C1R (const Npp16u ∗ *pSrc*, Npp32s *nSrcStep*, Npp32f ∗ *pDst*, Npp32s *nDstStep*, NppiSize *oROI*, Npp32s *nMaskSize*, Npp32s *nAnchor*)

One channel 16-bit unsigned 1D (row) sum to 32f.

Apply Row Window Summation filter over a 1D mask region around each source pixel for 1-channel 16-bit pixel input images with 32-bit floating point output. Result 32-bit floating point pixel is equal to the sum of the corresponding and neighboring row pixel values in a mask region of the source image defined by iKernelDim and iAnchorX.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oROI Region-of-Interest (ROI).

nMaskSize Length of the linear kernel array.

nAnchor X offset of the kernel origin frame of reference relative to the source pixel.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.67.1.14 NppStatus nppiSumWindowRow_16u32f_C3R (const Npp16u ∗ *pSrc*, Npp32s *nSrcStep*, Npp32f ∗ *pDst*, Npp32s *nDstStep*, NppiSize *oROI*, Npp32s *nMaskSize*, Npp32s *nAnchor*)

Three channel 16-bit unsigned 1D (row) sum to 32f.

Apply Row Window Summation filter over a 1D mask region around each source pixel for 3-channel 16-bit pixel input images with 32-bit floating point output. Result 32-bit floating point pixel is equal to the sum of the corresponding and neighboring row pixel values in a mask region of the source image defined by iKernelDim and iAnchorX.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oROI Region-of-Interest (ROI).

nMaskSize Length of the linear kernel array.

nAnchor X offset of the kernel origin frame of reference relative to the source pixel.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.67.1.15 NppStatus nppiSumWindowRow_16u32f_C4R (const Npp16u ∗ *pSrc*, Npp32s *nSrcStep*, Npp32f ∗ *pDst*, Npp32s *nDstStep*, NppiSize *oROI*, Npp32s *nMaskSize*, Npp32s *nAnchor*)

Four channel 16-bit unsigned 1D (row) sum to 32f.

Apply Row Window Summation filter over a 1D mask region around each source pixel for 4-channel 16-bit pixel input images with 32-bit floating point output. Result 32-bit floating point pixel is equal to the sum of the corresponding and neighboring row pixel values in a mask region of the source image defined by iKernelDim and iAnchorX.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oROI Region-of-Interest (ROI).

nMaskSize Length of the linear kernel array.

nAnchor X offset of the kernel origin frame of reference relative to the source pixel.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.67.1.16 NppStatus nppiSumWindowRow_8u32f_C1R (const Npp8u ∗ *pSrc*, Npp32s *nSrcStep*, Npp32f ∗ *pDst*, Npp32s *nDstStep*, NppiSize *oROI*, Npp32s *nMaskSize*, Npp32s *nAnchor*)

One channel 8-bit unsigned 1D (row) sum to 32f.

Apply Row Window Summation filter over a 1D mask region around each source pixel for 1-channel 8-bit pixel input images with 32-bit floating point output. Result 32-bit floating point pixel is equal to the sum of the corresponding and neighboring row pixel values in a mask region of the source image defined by iKernelDim and iAnchorX.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oROI Region-of-Interest (ROI).

nMaskSize Length of the linear kernel array.

nAnchor X offset of the kernel origin frame of reference relative to the source pixel.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.67.1.17 NppStatus nppiSumWindowRow_8u32f_C3R (const Npp8u ∗ *pSrc*, Npp32s *nSrcStep*, Npp32f ∗ *pDst*, Npp32s *nDstStep*, NppiSize *oROI*, Npp32s *nMaskSize*, Npp32s *nAnchor*)

Three channel 8-bit unsigned 1D (row) sum to 32f.

Apply Row Window Summation filter over a 1D mask region around each source pixel for 3-channel 8-bit pixel input images with 32-bit floating point output. Result 32-bit floating point pixel is equal to the sum of the corresponding and neighboring row pixel values in a mask region of the source image defined by iKernelDim and iAnchorX.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oROI Region-of-Interest (ROI).

nMaskSize Length of the linear kernel array.

nAnchor X offset of the kernel origin frame of reference relative to the source pixel.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.67.1.18 NppStatus nppiSumWindowRow_8u32f_C4R (const Npp8u * *pSrc*, Npp32s *nSrcStep*, Npp32f * *pDst*, Npp32s *nDstStep*, NppiSize *oROI*, Npp32s *nMaskSize*, Npp32s *nAnchor*)

Four channel 8-bit unsigned 1D (row) sum to 32f.

Apply Row Window Summation filter over a 1D mask region around each source pixel for 4-channel 8-bit pixel input images with 32-bit floating point output. Result 32-bit floating point pixel is equal to the sum of the corresponding and neighboring row pixel values in a mask region of the source image defined by iKernelDim and iAnchorX.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oROI Region-of-Interest (ROI).

nMaskSize Length of the linear kernel array.

nAnchor X offset of the kernel origin frame of reference relative to the source pixel.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.68 Convolution

Filter

General purpose 2D convolution filter.

Pixels under the mask are multiplied by the respective weights in the mask and the results are summed. Before writing the result pixel the sum is scaled back via division by nDivisor.

- NppStatus nppiFilter_8u_C1R (const Npp8u ∗pSrc, Npp32s nSrcStep, Npp8u ∗pDst, Npp32s nDstStep, NppiSize oSizeROI, const Npp32s ∗pKernel, NppiSize oKernelSize, NppiPoint oAnchor, Npp32s nDivisor)

  Single channel 8-bit unsigned convolution filter.

- NppStatus nppiFilter_8u_C3R (const Npp8u ∗pSrc, Npp32s nSrcStep, Npp8u ∗pDst, Npp32s nDstStep, NppiSize oSizeROI, const Npp32s ∗pKernel, NppiSize oKernelSize, NppiPoint oAnchor, Npp32s nDivisor)

  Three channel 8-bit unsigned convolution filter.

- NppStatus nppiFilter_8u_C4R (const Npp8u ∗pSrc, Npp32s nSrcStep, Npp8u ∗pDst, Npp32s nDstStep, NppiSize oSizeROI, const Npp32s ∗pKernel, NppiSize oKernelSize, NppiPoint oAnchor, Npp32s nDivisor)

  Four channel channel 8-bit unsigned convolution filter.

- NppStatus nppiFilter_8u_AC4R (const Npp8u ∗pSrc, Npp32s nSrcStep, Npp8u ∗pDst, Npp32s nDstStep, NppiSize oSizeROI, const Npp32s ∗pKernel, NppiSize oKernelSize, NppiPoint oAnchor, Npp32s nDivisor)

  Four channel 8-bit unsigned convolution filter, ignoring alpha channel.

- NppStatus nppiFilter_16u_C1R (const Npp16u ∗pSrc, Npp32s nSrcStep, Npp16u ∗pDst, Npp32s nDstStep, NppiSize oSizeROI, const Npp32s ∗pKernel, NppiSize oKernelSize, NppiPoint oAnchor, Npp32s nDivisor)

  Single channel 16-bit unsigned convolution filter.

- NppStatus nppiFilter_16u_C3R (const Npp16u ∗pSrc, Npp32s nSrcStep, Npp16u ∗pDst, Npp32s nDstStep, NppiSize oSizeROI, const Npp32s ∗pKernel, NppiSize oKernelSize, NppiPoint oAnchor, Npp32s nDivisor)

  Three channel 16-bit unsigned convolution filter.

- NppStatus nppiFilter_16u_C4R (const Npp16u ∗pSrc, Npp32s nSrcStep, Npp16u ∗pDst, Npp32s nDstStep, NppiSize oSizeROI, const Npp32s ∗pKernel, NppiSize oKernelSize, NppiPoint oAnchor, Npp32s nDivisor)

  Four channel channel 16-bit unsigned convolution filter.

- NppStatus nppiFilter_16u_AC4R (const Npp16u ∗pSrc, Npp32s nSrcStep, Npp16u ∗pDst, Npp32s nDstStep, NppiSize oSizeROI, const Npp32s ∗pKernel, NppiSize oKernelSize, NppiPoint oAnchor, Npp32s nDivisor)

  Four channel 16-bit unsigned convolution filter, ignoring alpha channel.

- NppStatus nppiFilter_16s_C1R (const Npp16s ∗pSrc, Npp32s nSrcStep, Npp16s ∗pDst, Npp32s nDstStep, NppiSize oSizeROI, const Npp32s ∗pKernel, NppiSize oKernelSize, NppiPoint oAnchor, Npp32s nDivisor)

Single channel 16-bit convolution filter.

- NppStatus nppiFilter_16s_C3R (const Npp16s ∗pSrc, Npp32s nSrcStep, Npp16s ∗pDst, Npp32s nDstStep, NppiSize oSizeROI, const Npp32s ∗pKernel, NppiSize oKernelSize, NppiPoint oAnchor, Npp32s nDivisor)

  Three channel 16-bit convolution filter.

- NppStatus nppiFilter_16s_C4R (const Npp16s ∗pSrc, Npp32s nSrcStep, Npp16s ∗pDst, Npp32s nDstStep, NppiSize oSizeROI, const Npp32s ∗pKernel, NppiSize oKernelSize, NppiPoint oAnchor, Npp32s nDivisor)

  Four channel channel 16-bit convolution filter.

- NppStatus nppiFilter_16s_AC4R (const Npp16s ∗pSrc, Npp32s nSrcStep, Npp16s ∗pDst, Npp32s nDstStep, NppiSize oSizeROI, const Npp32s ∗pKernel, NppiSize oKernelSize, NppiPoint oAnchor, Npp32s nDivisor)

  Four channel 16-bit convolution filter, ignoring alpha channel.

- NppStatus nppiFilter_32f_C1R (const Npp32f ∗pSrc, Npp32s nSrcStep, Npp32f ∗pDst, Npp32s nDstStep, NppiSize oSizeROI, const Npp32f ∗pKernel, NppiSize oKernelSize, NppiPoint oAnchor)

  Single channel 32-bit float convolution filter.

- NppStatus nppiFilter_32f_C2R (const Npp32f ∗pSrc, Npp32s nSrcStep, Npp32f ∗pDst, Npp32s nDstStep, NppiSize oSizeROI, const Npp32f ∗pKernel, NppiSize oKernelSize, NppiPoint oAnchor)

  Two channel 32-bit float convolution filter.

- NppStatus nppiFilter_32f_C3R (const Npp32f ∗pSrc, Npp32s nSrcStep, Npp32f ∗pDst, Npp32s nDstStep, NppiSize oSizeROI, const Npp32f ∗pKernel, NppiSize oKernelSize, NppiPoint oAnchor)

  Three channel 32-bit float convolution filter.

- NppStatus nppiFilter_32f_C4R (const Npp32f ∗pSrc, Npp32s nSrcStep, Npp32f ∗pDst, Npp32s nDstStep, NppiSize oSizeROI, const Npp32f ∗pKernel, NppiSize oKernelSize, NppiPoint oAnchor)

  Four channel 32-bit float convolution filter.

- NppStatus nppiFilter_32f_AC4R (const Npp32f ∗pSrc, Npp32s nSrcStep, Npp32f ∗pDst, Npp32s nDstStep, NppiSize oSizeROI, const Npp32f ∗pKernel, NppiSize oKernelSize, NppiPoint oAnchor)

  Four channel 32-bit float convolution filter, ignoring alpha channel.

- NppStatus nppiFilter_64f_C1R (const Npp64f ∗pSrc, Npp32s nSrcStep, Npp64f ∗pDst, Npp32s nDstStep, NppiSize oSizeROI, const Npp64f ∗pKernel, NppiSize oKernelSize, NppiPoint oAnchor)

  Single channel 64-bit float convolution filter.

Filter32f

General purpose 2D convolution filter using floating-point weights.

Pixels under the mask are multiplied by the respective weights in the mask and the results are summed. Before writing the result pixel the sum is scaled back via division by nDivisor.

- NppStatus nppiFilter32f_8u_C1R (const Npp8u ∗pSrc, int nSrcStep, Npp8u ∗pDst, int nDstStep, NppiSize oSizeROI, const Npp32f ∗pKernel, NppiSize oKernelSize, NppiPoint oAnchor)

Single channel 8-bit unsigned convolution filter.

- NppStatus nppiFilter32f_8u_C2R (const Npp8u ∗pSrc, int nSrcStep, Npp8u ∗pDst, int nDstStep, NppiSize oSizeROI, const Npp32f ∗pKernel, NppiSize oKernelSize, NppiPoint oAnchor)

  Two channel 8-bit unsigned convolution filter.

- NppStatus nppiFilter32f_8u_C3R (const Npp8u ∗pSrc, int nSrcStep, Npp8u ∗pDst, int nDstStep, NppiSize oSizeROI, const Npp32f ∗pKernel, NppiSize oKernelSize, NppiPoint oAnchor)

  Three channel 8-bit unsigned convolution filter.

- NppStatus nppiFilter32f_8u_C4R (const Npp8u ∗pSrc, int nSrcStep, Npp8u ∗pDst, int nDstStep, NppiSize oSizeROI, const Npp32f ∗pKernel, NppiSize oKernelSize, NppiPoint oAnchor)

  Four channel 8-bit unsigned convolution filter.

- NppStatus nppiFilter32f_8u_AC4R (const Npp8u ∗pSrc, int nSrcStep, Npp8u ∗pDst, int nDstStep, NppiSize oSizeROI, const Npp32f ∗pKernel, NppiSize oKernelSize, NppiPoint oAnchor)

  Four channel 8-bit unsigned convolution filter, ignorint alpha channel.

- NppStatus nppiFilter32f_8s_C1R (const Npp8s ∗pSrc, int nSrcStep, Npp8s ∗pDst, int nDstStep, NppiSize oSizeROI, const Npp32f ∗pKernel, NppiSize oKernelSize, NppiPoint oAnchor)

  Single channel 8-bit signed convolution filter.

- NppStatus nppiFilter32f_8s_C2R (const Npp8s ∗pSrc, int nSrcStep, Npp8s ∗pDst, int nDstStep, NppiSize oSizeROI, const Npp32f ∗pKernel, NppiSize oKernelSize, NppiPoint oAnchor)

  Two channel 8-bit signed convolution filter.

- NppStatus nppiFilter32f_8s_C3R (const Npp8s ∗pSrc, int nSrcStep, Npp8s ∗pDst, int nDstStep, NppiSize oSizeROI, const Npp32f ∗pKernel, NppiSize oKernelSize, NppiPoint oAnchor)

  Three channel 8-bit signed convolution filter.

- NppStatus nppiFilter32f_8s_C4R (const Npp8s ∗pSrc, int nSrcStep, Npp8s ∗pDst, int nDstStep, NppiSize oSizeROI, const Npp32f ∗pKernel, NppiSize oKernelSize, NppiPoint oAnchor)

  Four channel 8-bit signed convolution filter.

- NppStatus nppiFilter32f_8s_AC4R (const Npp8s ∗pSrc, int nSrcStep, Npp8s ∗pDst, int nDstStep, NppiSize oSizeROI, const Npp32f ∗pKernel, NppiSize oKernelSize, NppiPoint oAnchor)

  Four channel 8-bit signed convolution filter, ignoring alpha channel.

- NppStatus nppiFilter32f_16u_C1R (const Npp16u ∗pSrc, int nSrcStep, Npp16u ∗pDst, int nDstStep, NppiSize oSizeROI, const Npp32f ∗pKernel, NppiSize oKernelSize, NppiPoint oAnchor)

  Single channel 16-bit unsigned convolution filter.

- NppStatus nppiFilter32f_16u_C3R (const Npp16u ∗pSrc, int nSrcStep, Npp16u ∗pDst, int nDstStep, NppiSize oSizeROI, const Npp32f ∗pKernel, NppiSize oKernelSize, NppiPoint oAnchor)

  Three channel 16-bit unsigned convolution filter.

- NppStatus nppiFilter32f_16u_C4R (const Npp16u ∗pSrc, int nSrcStep, Npp16u ∗pDst, int nDstStep, NppiSize oSizeROI, const Npp32f ∗pKernel, NppiSize oKernelSize, NppiPoint oAnchor)

  Four channel 16-bit unsigned convolution filter.

- NppStatus nppiFilter32f_16u_AC4R (const Npp16u ∗pSrc, int nSrcStep, Npp16u ∗pDst, int nDstStep, NppiSize oSizeROI, const Npp32f ∗pKernel, NppiSize oKernelSize, NppiPoint oAnchor)

  Four channel 16-bit unsigned convolution filter, ignoring alpha channel.

- NppStatus nppiFilter32f_16s_C1R (const Npp16s ∗pSrc, int nSrcStep, Npp16s ∗pDst, int nDstStep, NppiSize oSizeROI, const Npp32f ∗pKernel, NppiSize oKernelSize, NppiPoint oAnchor)

  Single channel 16-bit convolution filter.

- NppStatus nppiFilter32f_16s_C3R (const Npp16s ∗pSrc, int nSrcStep, Npp16s ∗pDst, int nDstStep, NppiSize oSizeROI, const Npp32f ∗pKernel, NppiSize oKernelSize, NppiPoint oAnchor)

  Three channel 16-bit convolution filter.

- NppStatus nppiFilter32f_16s_C4R (const Npp16s ∗pSrc, int nSrcStep, Npp16s ∗pDst, int nDstStep, NppiSize oSizeROI, const Npp32f ∗pKernel, NppiSize oKernelSize, NppiPoint oAnchor)

  Four channel 16-bit convolution filter.

- NppStatus nppiFilter32f_16s_AC4R (const Npp16s ∗pSrc, int nSrcStep, Npp16s ∗pDst, int nDstStep, NppiSize oSizeROI, const Npp32f ∗pKernel, NppiSize oKernelSize, NppiPoint oAnchor)

  Four channel 16-bit convolution filter, ignoring alpha channel.

- NppStatus nppiFilter32f_32s_C1R (const Npp32s ∗pSrc, int nSrcStep, Npp32s ∗pDst, int nDstStep, NppiSize oSizeROI, const Npp32f ∗pKernel, NppiSize oKernelSize, NppiPoint oAnchor)

  Single channel 32-bit convolution filter.

- NppStatus nppiFilter32f_32s_C3R (const Npp32s ∗pSrc, int nSrcStep, Npp32s ∗pDst, int nDstStep, NppiSize oSizeROI, const Npp32f ∗pKernel, NppiSize oKernelSize, NppiPoint oAnchor)

  Three channel 32-bit convolution filter.

- NppStatus nppiFilter32f_32s_C4R (const Npp32s ∗pSrc, int nSrcStep, Npp32s ∗pDst, int nDstStep, NppiSize oSizeROI, const Npp32f ∗pKernel, NppiSize oKernelSize, NppiPoint oAnchor)

  Four channel 32-bit convolution filter.

- NppStatus nppiFilter32f_32s_AC4R (const Npp32s ∗pSrc, int nSrcStep, Npp32s ∗pDst, int nDstStep, NppiSize oSizeROI, const Npp32f ∗pKernel, NppiSize oKernelSize, NppiPoint oAnchor)

  Four channel 32-bit convolution filter, ignoring alpha channel.

- NppStatus nppiFilter32f_8u16s_C1R (const Npp8u ∗pSrc, int nSrcStep, Npp16s ∗pDst, int nDstStep, NppiSize oSizeROI, const Npp32f ∗pKernel, NppiSize oKernelSize, NppiPoint oAnchor)

  Single channel 8-bit unsigned to 16-bit signed convolution filter.

- NppStatus nppiFilter32f_8u16s_C3R (const Npp8u ∗pSrc, int nSrcStep, Npp16s ∗pDst, int nDstStep, NppiSize oSizeROI, const Npp32f ∗pKernel, NppiSize oKernelSize, NppiPoint oAnchor)

  Three channel 8-bit unsigned to 16-bit signed convolution filter.

- NppStatus nppiFilter32f_8u16s_C4R (const Npp8u ∗pSrc, int nSrcStep, Npp16s ∗pDst, int nDstStep, NppiSize oSizeROI, const Npp32f ∗pKernel, NppiSize oKernelSize, NppiPoint oAnchor)

  Four channel 8-bit unsigned to 16-bit signed convolution filter.

- NppStatus nppiFilter32f_8u16s_AC4R (const Npp8u ∗pSrc, int nSrcStep, Npp16s ∗pDst, int nDstStep, NppiSize oSizeROI, const Npp32f ∗pKernel, NppiSize oKernelSize, NppiPoint oAnchor)

  Four channel 8-bit unsigned to 16-bit signed convolution filter, ignoring alpha channel.

- NppStatus nppiFilter32f_8s16s_C1R (const Npp8s ∗pSrc, int nSrcStep, Npp16s ∗pDst, int nDstStep, NppiSize oSizeROI, const Npp32f ∗pKernel, NppiSize oKernelSize, NppiPoint oAnchor)

  Single channel 8-bit to 16-bit signed convolution filter.

- NppStatus nppiFilter32f_8s16s_C3R (const Npp8s ∗pSrc, int nSrcStep, Npp16s ∗pDst, int nDstStep, NppiSize oSizeROI, const Npp32f ∗pKernel, NppiSize oKernelSize, NppiPoint oAnchor)

  Three channel 8-bit to 16-bit signed convolution filter.

- NppStatus nppiFilter32f_8s16s_C4R (const Npp8s ∗pSrc, int nSrcStep, Npp16s ∗pDst, int nDstStep, NppiSize oSizeROI, const Npp32f ∗pKernel, NppiSize oKernelSize, NppiPoint oAnchor)

  Four channel 8-bit to 16-bit signed convolution filter.

- NppStatus nppiFilter32f_8s16s_AC4R (const Npp8s ∗pSrc, int nSrcStep, Npp16s ∗pDst, int nDstStep, NppiSize oSizeROI, const Npp32f ∗pKernel, NppiSize oKernelSize, NppiPoint oAnchor)

  Four channel 8-bit to 16-bit signed convolution filter, ignoring alpha channel.

FilterBorder

General purpose 2D convolution filter with border control.

Pixels under the mask are multiplied by the respective weights in the mask and the results are summed. Before writing the result pixel the sum is scaled back via division by nDivisor. If any portion of the mask overlaps the source image boundary the requested border type operation is applied to all mask pixels which fall outside of the source image.

Currently only the NPP_BORDER_REPLICATE border type operation is supported.

- NppStatus nppiFilterBorder_8u_C1R (const Npp8u ∗pSrc, Npp32s nSrcStep, NppiSize oSrcSize, NppiPoint oSrcOffset, Npp8u ∗pDst, Npp32s nDstStep, NppiSize oSizeROI, const Npp32s ∗pKernel, NppiSize oKernelSize, NppiPoint oAnchor, Npp32s nDivisor, NppiBorderType eBorderType)

  Single channel 8-bit unsigned convolution filter with border control.

- NppStatus nppiFilterBorder_8u_C3R (const Npp8u ∗pSrc, Npp32s nSrcStep, NppiSize oSrcSize, NppiPoint oSrcOffset, Npp8u ∗pDst, Npp32s nDstStep, NppiSize oSizeROI, const Npp32s ∗pKernel, NppiSize oKernelSize, NppiPoint oAnchor, Npp32s nDivisor, NppiBorderType eBorderType)

  Three channel 8-bit unsigned convolution filter with border control.

- NppStatus nppiFilterBorder_8u_C4R (const Npp8u ∗pSrc, Npp32s nSrcStep, NppiSize oSrcSize, NppiPoint oSrcOffset, Npp8u ∗pDst, Npp32s nDstStep, NppiSize oSizeROI, const Npp32s ∗pKernel, NppiSize oKernelSize, NppiPoint oAnchor, Npp32s nDivisor, NppiBorderType eBorderType)

  Four channel channel 8-bit unsigned convolution filter with border control.

- NppStatus nppiFilterBorder_8u_AC4R (const Npp8u ∗pSrc, Npp32s nSrcStep, NppiSize oSrcSize, NppiPoint oSrcOffset, Npp8u ∗pDst, Npp32s nDstStep, NppiSize oSizeROI, const Npp32s ∗pKernel, NppiSize oKernelSize, NppiPoint oAnchor, Npp32s nDivisor, NppiBorderType eBorderType)

  Four channel 8-bit unsigned convolution filter with border control, ignoring alpha channel.

- NppStatus nppiFilterBorder_16u_C1R (const Npp16u ∗pSrc, Npp32s nSrcStep, NppiSize oSrcSize, NppiPoint oSrcOffset, Npp16u ∗pDst, Npp32s nDstStep, NppiSize oSizeROI, const Npp32s ∗pKernel, NppiSize oKernelSize, NppiPoint oAnchor, Npp32s nDivisor, NppiBorderType eBorderType)

  Single channel 16-bit unsigned convolution filter with border control.

- NppStatus nppiFilterBorder_16u_C3R (const Npp16u ∗pSrc, Npp32s nSrcStep, NppiSize oSrcSize, NppiPoint oSrcOffset, Npp16u ∗pDst, Npp32s nDstStep, NppiSize oSizeROI, const Npp32s ∗pKernel, NppiSize oKernelSize, NppiPoint oAnchor, Npp32s nDivisor, NppiBorderType eBorderType)

  Three channel 16-bit unsigned convolution filter with border control.

- NppStatus nppiFilterBorder_16u_C4R (const Npp16u ∗pSrc, Npp32s nSrcStep, NppiSize oSrcSize, NppiPoint oSrcOffset, Npp16u ∗pDst, Npp32s nDstStep, NppiSize oSizeROI, const Npp32s ∗pKernel, NppiSize oKernelSize, NppiPoint oAnchor, Npp32s nDivisor, NppiBorderType eBorderType)

  Four channel channel 16-bit unsigned convolution filter with border control.

- NppStatus nppiFilterBorder_16u_AC4R (const Npp16u ∗pSrc, Npp32s nSrcStep, NppiSize oSrcSize, NppiPoint oSrcOffset, Npp16u ∗pDst, Npp32s nDstStep, NppiSize oSizeROI, const Npp32s ∗pKernel, NppiSize oKernelSize, NppiPoint oAnchor, Npp32s nDivisor, NppiBorderType eBorderType)

  Four channel 16-bit unsigned convolution filter with border control, ignoring alpha channel.

- NppStatus nppiFilterBorder_16s_C1R (const Npp16s ∗pSrc, Npp32s nSrcStep, NppiSize oSrcSize, NppiPoint oSrcOffset, Npp16s ∗pDst, Npp32s nDstStep, NppiSize oSizeROI, const Npp32s ∗pKernel, NppiSize oKernelSize, NppiPoint oAnchor, Npp32s nDivisor, NppiBorderType eBorderType)

  Single channel 16-bit convolution filter with border control.

- NppStatus nppiFilterBorder_16s_C3R (const Npp16s ∗pSrc, Npp32s nSrcStep, NppiSize oSrcSize, NppiPoint oSrcOffset, Npp16s ∗pDst, Npp32s nDstStep, NppiSize oSizeROI, const Npp32s ∗pKernel, NppiSize oKernelSize, NppiPoint oAnchor, Npp32s nDivisor, NppiBorderType eBorderType)

  Three channel 16-bit convolution filter with border control.

- NppStatus nppiFilterBorder_16s_C4R (const Npp16s ∗pSrc, Npp32s nSrcStep, NppiSize oSrcSize, NppiPoint oSrcOffset, Npp16s ∗pDst, Npp32s nDstStep, NppiSize oSizeROI, const Npp32s ∗pKernel, NppiSize oKernelSize, NppiPoint oAnchor, Npp32s nDivisor, NppiBorderType eBorderType)

  Four channel channel 16-bit convolution filter with border control.

- NppStatus nppiFilterBorder_16s_AC4R (const Npp16s ∗pSrc, Npp32s nSrcStep, NppiSize oSrcSize, NppiPoint oSrcOffset, Npp16s ∗pDst, Npp32s nDstStep, NppiSize oSizeROI, const Npp32s ∗pKernel, NppiSize oKernelSize, NppiPoint oAnchor, Npp32s nDivisor, NppiBorderType eBorderType)

  Four channel 16-bit convolution filter with border control, ignoring alpha channel.

- NppStatus nppiFilterBorder_32f_C1R (const Npp32f ∗pSrc, Npp32s nSrcStep, NppiSize oSrcSize, NppiPoint oSrcOffset, Npp32f ∗pDst, Npp32s nDstStep, NppiSize oSizeROI, const Npp32f ∗pKernel, NppiSize oKernelSize, NppiPoint oAnchor, NppiBorderType eBorderType)

Single channel 32-bit float convolution filter with border control.

- NppStatus nppiFilterBorder_32f_C2R (const Npp32f ∗pSrc, Npp32s nSrcStep, NppiSize oSrcSize, NppiPoint oSrcOffset, Npp32f ∗pDst, Npp32s nDstStep, NppiSize oSizeROI, const Npp32f ∗pKernel, NppiSize oKernelSize, NppiPoint oAnchor, NppiBorderType eBorderType)

  Two channel 32-bit float convolution filter with border control.

- NppStatus nppiFilterBorder_32f_C3R (const Npp32f ∗pSrc, Npp32s nSrcStep, NppiSize oSrcSize, NppiPoint oSrcOffset, Npp32f ∗pDst, Npp32s nDstStep, NppiSize oSizeROI, const Npp32f ∗pKernel, NppiSize oKernelSize, NppiPoint oAnchor, NppiBorderType eBorderType)

  Three channel 32-bit float convolution filter with border control.

- NppStatus nppiFilterBorder_32f_C4R (const Npp32f ∗pSrc, Npp32s nSrcStep, NppiSize oSrcSize, NppiPoint oSrcOffset, Npp32f ∗pDst, Npp32s nDstStep, NppiSize oSizeROI, const Npp32f ∗pKernel, NppiSize oKernelSize, NppiPoint oAnchor, NppiBorderType eBorderType)

  Four channel 32-bit float convolution filter with border control.

- NppStatus nppiFilterBorder_32f_AC4R (const Npp32f ∗pSrc, Npp32s nSrcStep, NppiSize oSrcSize, NppiPoint oSrcOffset, Npp32f ∗pDst, Npp32s nDstStep, NppiSize oSizeROI, const Npp32f ∗pKernel, NppiSize oKernelSize, NppiPoint oAnchor, NppiBorderType eBorderType)

  Four channel 32-bit float convolution filter with border control, ignoring alpha channel.

FilterBorder32f

General purpose 2D convolution filter using floating-point weights with border control.

Pixels under the mask are multiplied by the respective weights in the mask and the results are summed. Before writing the result pixel the sum is scaled back via division by nDivisor. If any portion of the mask overlaps the source image boundary the requested border type operation is applied to all mask pixels which fall outside of the source image.

Currently only the NPP_BORDER_REPLICATE border type operation is supported.

- NppStatus nppiFilterBorder32f_8u_C1R (const Npp8u ∗pSrc, int nSrcStep, NppiSize oSrcSize, NppiPoint oSrcOffset, Npp8u ∗pDst, int nDstStep, NppiSize oSizeROI, const Npp32f ∗pKernel, NppiSize oKernelSize, NppiPoint oAnchor, NppiBorderType eBorderType)

  Single channel 8-bit unsigned convolution filter with border control.

- NppStatus nppiFilterBorder32f_8u_C2R (const Npp8u ∗pSrc, int nSrcStep, NppiSize oSrcSize, NppiPoint oSrcOffset, Npp8u ∗pDst, int nDstStep, NppiSize oSizeROI, const Npp32f ∗pKernel, NppiSize oKernelSize, NppiPoint oAnchor, NppiBorderType eBorderType)

  Two channel 8-bit unsigned convolution filter with border control.

- NppStatus nppiFilterBorder32f_8u_C3R (const Npp8u ∗pSrc, int nSrcStep, NppiSize oSrcSize, NppiPoint oSrcOffset, Npp8u ∗pDst, int nDstStep, NppiSize oSizeROI, const Npp32f ∗pKernel, NppiSize oKernelSize, NppiPoint oAnchor, NppiBorderType eBorderType)

  Three channel 8-bit unsigned convolution filter with border control.

- NppStatus nppiFilterBorder32f_8u_C4R (const Npp8u ∗pSrc, int nSrcStep, NppiSize oSrcSize, NppiPoint oSrcOffset, Npp8u ∗pDst, int nDstStep, NppiSize oSizeROI, const Npp32f ∗pKernel, NppiSize oKernelSize, NppiPoint oAnchor, NppiBorderType eBorderType)

Four channel 8-bit unsigned convolution filter with border control.

- NppStatus nppiFilterBorder32f_8u_AC4R (const Npp8u ∗pSrc, int nSrcStep, NppiSize oSrcSize, NppiPoint oSrcOffset, Npp8u ∗pDst, int nDstStep, NppiSize oSizeROI, const Npp32f ∗pKernel, NppiSize oKernelSize, NppiPoint oAnchor, NppiBorderType eBorderType)

  Four channel 8-bit unsigned convolution filter with border control, ignorint alpha channel.

- NppStatus nppiFilterBorder32f_8s_C1R (const Npp8s ∗pSrc, int nSrcStep, NppiSize oSrcSize, NppiPoint oSrcOffset, Npp8s ∗pDst, int nDstStep, NppiSize oSizeROI, const Npp32f ∗pKernel, NppiSize oKernelSize, NppiPoint oAnchor, NppiBorderType eBorderType)

  Single channel 8-bit signed convolution filter with border control.

- NppStatus nppiFilterBorder32f_8s_C2R (const Npp8s ∗pSrc, int nSrcStep, NppiSize oSrcSize, NppiPoint oSrcOffset, Npp8s ∗pDst, int nDstStep, NppiSize oSizeROI, const Npp32f ∗pKernel, NppiSize oKernelSize, NppiPoint oAnchor, NppiBorderType eBorderType)

  Two channel 8-bit signed convolution filter with border control.

- NppStatus nppiFilterBorder32f_8s_C3R (const Npp8s ∗pSrc, int nSrcStep, NppiSize oSrcSize, NppiPoint oSrcOffset, Npp8s ∗pDst, int nDstStep, NppiSize oSizeROI, const Npp32f ∗pKernel, NppiSize oKernelSize, NppiPoint oAnchor, NppiBorderType eBorderType)

  Three channel 8-bit signed convolution filter with border control.

- NppStatus nppiFilterBorder32f_8s_C4R (const Npp8s ∗pSrc, int nSrcStep, NppiSize oSrcSize, NppiPoint oSrcOffset, Npp8s ∗pDst, int nDstStep, NppiSize oSizeROI, const Npp32f ∗pKernel, NppiSize oKernelSize, NppiPoint oAnchor, NppiBorderType eBorderType)

  Four channel 8-bit signed convolution filter with border control.

- NppStatus nppiFilterBorder32f_8s_AC4R (const Npp8s ∗pSrc, int nSrcStep, NppiSize oSrcSize, NppiPoint oSrcOffset, Npp8s ∗pDst, int nDstStep, NppiSize oSizeROI, const Npp32f ∗pKernel, NppiSize oKernelSize, NppiPoint oAnchor, NppiBorderType eBorderType)

  Four channel 8-bit signed convolution filter with border control, ignoring alpha channel.

- NppStatus nppiFilterBorder32f_16u_C1R (const Npp16u ∗pSrc, int nSrcStep, NppiSize oSrcSize, NppiPoint oSrcOffset, Npp16u ∗pDst, int nDstStep, NppiSize oSizeROI, const Npp32f ∗pKernel, NppiSize oKernelSize, NppiPoint oAnchor, NppiBorderType eBorderType)

  Single channel 16-bit unsigned convolution filter with border control.

- NppStatus nppiFilterBorder32f_16u_C3R (const Npp16u ∗pSrc, int nSrcStep, NppiSize oSrcSize, NppiPoint oSrcOffset, Npp16u ∗pDst, int nDstStep, NppiSize oSizeROI, const Npp32f ∗pKernel, NppiSize oKernelSize, NppiPoint oAnchor, NppiBorderType eBorderType)

  Three channel 16-bit unsigned convolution filter with border control.

- NppStatus nppiFilterBorder32f_16u_C4R (const Npp16u ∗pSrc, int nSrcStep, NppiSize oSrcSize, NppiPoint oSrcOffset, Npp16u ∗pDst, int nDstStep, NppiSize oSizeROI, const Npp32f ∗pKernel, NppiSize oKernelSize, NppiPoint oAnchor, NppiBorderType eBorderType)

  Four channel 16-bit unsigned convolution filter with border control.

- NppStatus nppiFilterBorder32f_16u_AC4R (const Npp16u ∗pSrc, int nSrcStep, NppiSize oSrcSize, NppiPoint oSrcOffset, Npp16u ∗pDst, int nDstStep, NppiSize oSizeROI, const Npp32f ∗pKernel, NppiSize oKernelSize, NppiPoint oAnchor, NppiBorderType eBorderType)

  Four channel 16-bit unsigned convolution filter with border control, ignoring alpha channel.

- NppStatus nppiFilterBorder32f_16s_C1R (const Npp16s ∗pSrc, int nSrcStep, NppiSize oSrcSize, NppiPoint oSrcOffset, Npp16s ∗pDst, int nDstStep, NppiSize oSizeROI, const Npp32f ∗pKernel, NppiSize oKernelSize, NppiPoint oAnchor, NppiBorderType eBorderType)

  Single channel 16-bit convolution filter with border control.

- NppStatus nppiFilterBorder32f_16s_C3R (const Npp16s ∗pSrc, int nSrcStep, NppiSize oSrcSize, NppiPoint oSrcOffset, Npp16s ∗pDst, int nDstStep, NppiSize oSizeROI, const Npp32f ∗pKernel, NppiSize oKernelSize, NppiPoint oAnchor, NppiBorderType eBorderType)

  Three channel 16-bit convolution filter with border control.

- NppStatus nppiFilterBorder32f_16s_C4R (const Npp16s ∗pSrc, int nSrcStep, NppiSize oSrcSize, NppiPoint oSrcOffset, Npp16s ∗pDst, int nDstStep, NppiSize oSizeROI, const Npp32f ∗pKernel, NppiSize oKernelSize, NppiPoint oAnchor, NppiBorderType eBorderType)

  Four channel 16-bit convolution filter with border control.

- NppStatus nppiFilterBorder32f_16s_AC4R (const Npp16s ∗pSrc, int nSrcStep, NppiSize oSrcSize, NppiPoint oSrcOffset, Npp16s ∗pDst, int nDstStep, NppiSize oSizeROI, const Npp32f ∗pKernel, NppiSize oKernelSize, NppiPoint oAnchor, NppiBorderType eBorderType)

  Four channel 16-bit convolution filter with border control, ignoring alpha channel.

- NppStatus nppiFilterBorder32f_32s_C1R (const Npp32s ∗pSrc, int nSrcStep, NppiSize oSrcSize, NppiPoint oSrcOffset, Npp32s ∗pDst, int nDstStep, NppiSize oSizeROI, const Npp32f ∗pKernel, NppiSize oKernelSize, NppiPoint oAnchor, NppiBorderType eBorderType)

  Single channel 32-bit convolution filter with border control.

- NppStatus nppiFilterBorder32f_32s_C3R (const Npp32s ∗pSrc, int nSrcStep, NppiSize oSrcSize, NppiPoint oSrcOffset, Npp32s ∗pDst, int nDstStep, NppiSize oSizeROI, const Npp32f ∗pKernel, NppiSize oKernelSize, NppiPoint oAnchor, NppiBorderType eBorderType)

  Three channel 32-bit convolution filter with border control.

- NppStatus nppiFilterBorder32f_32s_C4R (const Npp32s ∗pSrc, int nSrcStep, NppiSize oSrcSize, NppiPoint oSrcOffset, Npp32s ∗pDst, int nDstStep, NppiSize oSizeROI, const Npp32f ∗pKernel, NppiSize oKernelSize, NppiPoint oAnchor, NppiBorderType eBorderType)

  Four channel 32-bit convolution filter with border control.

- NppStatus nppiFilterBorder32f_32s_AC4R (const Npp32s ∗pSrc, int nSrcStep, NppiSize oSrcSize, NppiPoint oSrcOffset, Npp32s ∗pDst, int nDstStep, NppiSize oSizeROI, const Npp32f ∗pKernel, NppiSize oKernelSize, NppiPoint oAnchor, NppiBorderType eBorderType)

  Four channel 32-bit convolution filter with border control, ignoring alpha channel.

- NppStatus nppiFilterBorder32f_8u16s_C1R (const Npp8u ∗pSrc, int nSrcStep, NppiSize oSrcSize, NppiPoint oSrcOffset, Npp16s ∗pDst, int nDstStep, NppiSize oSizeROI, const Npp32f ∗pKernel, NppiSize oKernelSize, NppiPoint oAnchor, NppiBorderType eBorderType)

  Single channel 8-bit unsigned to 16-bit signed convolution filter with border control.

- NppStatus nppiFilterBorder32f_8u16s_C3R (const Npp8u ∗pSrc, int nSrcStep, NppiSize oSrcSize, NppiPoint oSrcOffset, Npp16s ∗pDst, int nDstStep, NppiSize oSizeROI, const Npp32f ∗pKernel, NppiSize oKernelSize, NppiPoint oAnchor, NppiBorderType eBorderType)

  Three channel 8-bit unsigned to 16-bit signed convolution filter with border control.

- NppStatus nppiFilterBorder32f_8u16s_C4R (const Npp8u ∗pSrc, int nSrcStep, NppiSize oSrcSize, NppiPoint oSrcOffset, Npp16s ∗pDst, int nDstStep, NppiSize oSizeROI, const Npp32f ∗pKernel, NppiSize oKernelSize, NppiPoint oAnchor, NppiBorderType eBorderType)

  Four channel 8-bit unsigned to 16-bit signed convolution filter with border control.

- NppStatus nppiFilterBorder32f_8u16s_AC4R (const Npp8u ∗pSrc, int nSrcStep, NppiSize oSrcSize, NppiPoint oSrcOffset, Npp16s ∗pDst, int nDstStep, NppiSize oSizeROI, const Npp32f ∗pKernel, NppiSize oKernelSize, NppiPoint oAnchor, NppiBorderType eBorderType)

  Four channel 8-bit unsigned to 16-bit signed convolution filter with border control, ignoring alpha channel.

- NppStatus nppiFilterBorder32f_8s16s_C1R (const Npp8s ∗pSrc, int nSrcStep, NppiSize oSrcSize, NppiPoint oSrcOffset, Npp16s ∗pDst, int nDstStep, NppiSize oSizeROI, const Npp32f ∗pKernel, NppiSize oKernelSize, NppiPoint oAnchor, NppiBorderType eBorderType)

  Single channel 8-bit to 16-bit signed convolution filter with border control.

- NppStatus nppiFilterBorder32f_8s16s_C3R (const Npp8s ∗pSrc, int nSrcStep, NppiSize oSrcSize, NppiPoint oSrcOffset, Npp16s ∗pDst, int nDstStep, NppiSize oSizeROI, const Npp32f ∗pKernel, NppiSize oKernelSize, NppiPoint oAnchor, NppiBorderType eBorderType)

  Three channel 8-bit to 16-bit signed convolution filter with border control.

- NppStatus nppiFilterBorder32f_8s16s_C4R (const Npp8s ∗pSrc, int nSrcStep, NppiSize oSrcSize, NppiPoint oSrcOffset, Npp16s ∗pDst, int nDstStep, NppiSize oSizeROI, const Npp32f ∗pKernel, NppiSize oKernelSize, NppiPoint oAnchor, NppiBorderType eBorderType)

  Four channel 8-bit to 16-bit signed convolution filter with border control.

- NppStatus nppiFilterBorder32f_8s16s_AC4R (const Npp8s ∗pSrc, int nSrcStep, NppiSize oSrcSize, NppiPoint oSrcOffset, Npp16s ∗pDst, int nDstStep, NppiSize oSizeROI, const Npp32f ∗pKernel, NppiSize oKernelSize, NppiPoint oAnchor, NppiBorderType eBorderType)

  Four channel 8-bit to 16-bit signed convolution filter with border control, ignoring alpha channel.

7.68.1 Function Documentation

7.68.1.1 NppStatus nppiFilter32f_16s_AC4R (const Npp16s ∗ *pSrc*, int *nSrcStep*, Npp16s ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, const Npp32f ∗ *pKernel*, NppiSize *oKernelSize*, NppiPoint *oAnchor*)

Four channel 16-bit convolution filter, ignoring alpha channel.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pKernel Pointer to the start address of the kernel coefficient array. Coeffcients are expected to be stored in reverse order.

oKernelSize Width and Height of the rectangular kernel.

oAnchor X and Y offsets of the kernel origin frame of reference relative to the source pixel.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.68.1.2 NppStatus nppiFilter32f_16s_C1R (const Npp16s ∗ *pSrc*, int *nSrcStep*, Npp16s ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, const Npp32f ∗ *pKernel*, NppiSize *oKernelSize*, NppiPoint *oAnchor*)

Single channel 16-bit convolution filter.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pKernel Pointer to the start address of the kernel coefficient array. Coeffcients are expected to be stored in reverse order.

oKernelSize Width and Height of the rectangular kernel.

oAnchor X and Y offsets of the kernel origin frame of reference relative to the source pixel.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.68.1.3 NppStatus nppiFilter32f_16s_C3R (const Npp16s ∗ *pSrc*, int *nSrcStep*, Npp16s ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, const Npp32f ∗ *pKernel*, NppiSize *oKernelSize*, NppiPoint *oAnchor*)

Three channel 16-bit convolution filter.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pKernel Pointer to the start address of the kernel coefficient array. Coeffcients are expected to be stored in reverse order.

oKernelSize Width and Height of the rectangular kernel.

oAnchor X and Y offsets of the kernel origin frame of reference relative to the source pixel.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.68.1.4 NppStatus nppiFilter32f_16s_C4R (const Npp16s * *pSrc*, int *nSrcStep*, Npp16s * *pDst*, int *nDstStep*, NppiSize *oSizeROI*, const Npp32f * *pKernel*, NppiSize *oKernelSize*, NppiPoint *oAnchor*)

Four channel 16-bit convolution filter.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pKernel Pointer to the start address of the kernel coefficient array. Coeffcients are expected to be stored in reverse order.

oKernelSize Width and Height of the rectangular kernel.

oAnchor X and Y offsets of the kernel origin frame of reference relative to the source pixel.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.68.1.5 NppStatus nppiFilter32f_16u_AC4R (const Npp16u * *pSrc*, int *nSrcStep*, Npp16u * *pDst*, int *nDstStep*, NppiSize *oSizeROI*, const Npp32f * *pKernel*, NppiSize *oKernelSize*, NppiPoint *oAnchor*)

Four channel 16-bit unsigned convolution filter, ignoring alpha channel.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pKernel Pointer to the start address of the kernel coefficient array. Coeffcients are expected to be stored in reverse order.

oKernelSize Width and Height of the rectangular kernel.

oAnchor X and Y offsets of the kernel origin frame of reference relative to the source pixel.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.68.1.6 NppStatus nppiFilter32f_16u_C1R (const Npp16u $*$ *pSrc*, int *nSrcStep*, Npp16u $*$ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, const Npp32f $*$ *pKernel*, NppiSize *oKernelSize*, NppiPoint *oAnchor*)

Single channel 16-bit unsigned convolution filter.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pKernel Pointer to the start address of the kernel coefficient array. Coeffcients are expected to be stored in reverse order.

oKernelSize Width and Height of the rectangular kernel.

oAnchor X and Y offsets of the kernel origin frame of reference relative to the source pixel.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.68.1.7 NppStatus nppiFilter32f_16u_C3R (const Npp16u $*$ *pSrc*, int *nSrcStep*, Npp16u $*$ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, const Npp32f $*$ *pKernel*, NppiSize *oKernelSize*, NppiPoint *oAnchor*)

Three channel 16-bit unsigned convolution filter.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pKernel Pointer to the start address of the kernel coefficient array. Coeffcients are expected to be stored in reverse order.

oKernelSize Width and Height of the rectangular kernel.

oAnchor X and Y offsets of the kernel origin frame of reference relative to the source pixel.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.68.1.8 NppStatus nppiFilter32f_16u_C4R (const Npp16u ∗ *pSrc*, int *nSrcStep*, Npp16u ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, const Npp32f ∗ *pKernel*, NppiSize *oKernelSize*, NppiPoint *oAnchor*)

Four channel 16-bit unsigned convolution filter.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pKernel Pointer to the start address of the kernel coefficient array. Coeffcients are expected to be stored in reverse order.

oKernelSize Width and Height of the rectangular kernel.

oAnchor X and Y offsets of the kernel origin frame of reference relative to the source pixel.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.68.1.9 NppStatus nppiFilter32f_32s_AC4R (const Npp32s ∗ *pSrc*, int *nSrcStep*, Npp32s ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, const Npp32f ∗ *pKernel*, NppiSize *oKernelSize*, NppiPoint *oAnchor*)

Four channel 32-bit convolution filter, ignoring alpha channel.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pKernel Pointer to the start address of the kernel coefficient array. Coeffcients are expected to be stored in reverse order.

oKernelSize Width and Height of the rectangular kernel.

oAnchor X and Y offsets of the kernel origin frame of reference relative to the source pixel.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.68.1.10 NppStatus nppiFilter32f_32s_C1R (const Npp32s ∗ *pSrc*, int *nSrcStep*, Npp32s ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, const Npp32f ∗ *pKernel*, NppiSize *oKernelSize*, NppiPoint *oAnchor*)

Single channel 32-bit convolution filter.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pKernel Pointer to the start address of the kernel coefficient array. Coeffcients are expected to be stored in reverse order.

oKernelSize Width and Height of the rectangular kernel.

oAnchor X and Y offsets of the kernel origin frame of reference relative to the source pixel.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.68.1.11 NppStatus nppiFilter32f_32s_C3R (const Npp32s ∗ *pSrc*, int *nSrcStep*, Npp32s ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, const Npp32f ∗ *pKernel*, NppiSize *oKernelSize*, NppiPoint *oAnchor*)

Three channel 32-bit convolution filter.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pKernel Pointer to the start address of the kernel coefficient array. Coeffcients are expected to be stored in reverse order.

oKernelSize Width and Height of the rectangular kernel.

oAnchor X and Y offsets of the kernel origin frame of reference relative to the source pixel.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.68.1.12 NppStatus nppiFilter32f_32s_C4R (const Npp32s ∗ *pSrc*, int *nSrcStep*, Npp32s ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, const Npp32f ∗ *pKernel*, NppiSize *oKernelSize*, NppiPoint *oAnchor*)

Four channel 32-bit convolution filter.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pKernel Pointer to the start address of the kernel coefficient array. Coeffcients are expected to be stored in reverse order.

oKernelSize Width and Height of the rectangular kernel.

oAnchor X and Y offsets of the kernel origin frame of reference relative to the source pixel.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.68.1.13 NppStatus nppiFilter32f_8s16s_AC4R (const Npp8s ∗ *pSrc*, int *nSrcStep*, Npp16s ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, const Npp32f ∗ *pKernel*, NppiSize *oKernelSize*, NppiPoint *oAnchor*)

Four channel 8-bit to 16-bit signed convolution filter, ignoring alpha channel.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pKernel Pointer to the start address of the kernel coefficient array. Coeffcients are expected to be stored in reverse order.

oKernelSize Width and Height of the rectangular kernel.

oAnchor X and Y offsets of the kernel origin frame of reference relative to the source pixel.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.68.1.14 NppStatus nppiFilter32f_8s16s_C1R (const Npp8s * *pSrc*, int *nSrcStep*, Npp16s * *pDst*, int *nDstStep*, NppiSize *oSizeROI*, const Npp32f * *pKernel*, NppiSize *oKernelSize*, NppiPoint *oAnchor*)

Single channel 8-bit to 16-bit signed convolution filter.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pKernel Pointer to the start address of the kernel coefficient array. Coeffcients are expected to be stored in reverse order.

oKernelSize Width and Height of the rectangular kernel.

oAnchor X and Y offsets of the kernel origin frame of reference relative to the source pixel.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.68.1.15 NppStatus nppiFilter32f_8s16s_C3R (const Npp8s * *pSrc*, int *nSrcStep*, Npp16s * *pDst*, int *nDstStep*, NppiSize *oSizeROI*, const Npp32f * *pKernel*, NppiSize *oKernelSize*, NppiPoint *oAnchor*)

Three channel 8-bit to 16-bit signed convolution filter.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pKernel Pointer to the start address of the kernel coefficient array. Coeffcients are expected to be stored in reverse order.

oKernelSize Width and Height of the rectangular kernel.

oAnchor X and Y offsets of the kernel origin frame of reference relative to the source pixel.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.68.1.16 NppStatus nppiFilter32f_8s16s_C4R (const Npp8s * *pSrc*, int *nSrcStep*, Npp16s * *pDst*, int *nDstStep*, NppiSize *oSizeROI*, const Npp32f * *pKernel*, NppiSize *oKernelSize*, NppiPoint *oAnchor*)

Four channel 8-bit to 16-bit signed convolution filter.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pKernel Pointer to the start address of the kernel coefficient array. Coeffcients are expected to be stored in reverse order.

oKernelSize Width and Height of the rectangular kernel.

oAnchor X and Y offsets of the kernel origin frame of reference relative to the source pixel.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.68.1.17 NppStatus nppiFilter32f_8s_AC4R (const Npp8s * *pSrc*, int *nSrcStep*, Npp8s * *pDst*, int *nDstStep*, NppiSize *oSizeROI*, const Npp32f * *pKernel*, NppiSize *oKernelSize*, NppiPoint *oAnchor*)

Four channel 8-bit signed convolution filter, ignoring alpha channel.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pKernel Pointer to the start address of the kernel coefficient array. Coeffcients are expected to be stored in reverse order.

oKernelSize Width and Height of the rectangular kernel.

oAnchor X and Y offsets of the kernel origin frame of reference relative to the source pixel.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.68.1.18 NppStatus nppiFilter32f_8s_C1R (const Npp8s $*$ *pSrc*, int *nSrcStep*, Npp8s $*$ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, const Npp32f $*$ *pKernel*, NppiSize *oKernelSize*, NppiPoint *oAnchor*)

Single channel 8-bit signed convolution filter.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pKernel Pointer to the start address of the kernel coefficient array. Coeffcients are expected to be stored in reverse order.

oKernelSize Width and Height of the rectangular kernel.

oAnchor X and Y offsets of the kernel origin frame of reference relative to the source pixel.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.68.1.19 NppStatus nppiFilter32f_8s_C2R (const Npp8s $*$ *pSrc*, int *nSrcStep*, Npp8s $*$ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, const Npp32f $*$ *pKernel*, NppiSize *oKernelSize*, NppiPoint *oAnchor*)

Two channel 8-bit signed convolution filter.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pKernel Pointer to the start address of the kernel coefficient array. Coeffcients are expected to be stored in reverse order.

oKernelSize Width and Height of the rectangular kernel.

oAnchor X and Y offsets of the kernel origin frame of reference relative to the source pixel.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.68.1.20 NppStatus nppiFilter32f_8s_C3R (const Npp8s $*$ *pSrc*, int *nSrcStep*, Npp8s $*$ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, const Npp32f $*$ *pKernel*, NppiSize *oKernelSize*, NppiPoint *oAnchor*)

Three channel 8-bit signed convolution filter.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pKernel Pointer to the start address of the kernel coefficient array. Coeffcients are expected to be stored in reverse order.

oKernelSize Width and Height of the rectangular kernel.

oAnchor X and Y offsets of the kernel origin frame of reference relative to the source pixel.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.68.1.21 NppStatus nppiFilter32f_8s_C4R (const Npp8s $*$ *pSrc*, int *nSrcStep*, Npp8s $*$ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, const Npp32f $*$ *pKernel*, NppiSize *oKernelSize*, NppiPoint *oAnchor*)

Four channel 8-bit signed convolution filter.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pKernel Pointer to the start address of the kernel coefficient array. Coeffcients are expected to be stored in reverse order.

oKernelSize Width and Height of the rectangular kernel.

oAnchor X and Y offsets of the kernel origin frame of reference relative to the source pixel.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.68.1.22 NppStatus nppiFilter32f_8u16s_AC4R (const Npp8u ∗ *pSrc*, int *nSrcStep*, Npp16s ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, const Npp32f ∗ *pKernel*, NppiSize *oKernelSize*, NppiPoint *oAnchor*)

Four channel 8-bit unsigned to 16-bit signed convolution filter, ignoring alpha channel.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pKernel Pointer to the start address of the kernel coefficient array. Coeffcients are expected to be stored in reverse order.

oKernelSize Width and Height of the rectangular kernel.

oAnchor X and Y offsets of the kernel origin frame of reference relative to the source pixel.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.68.1.23 NppStatus nppiFilter32f_8u16s_C1R (const Npp8u ∗ *pSrc*, int *nSrcStep*, Npp16s ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, const Npp32f ∗ *pKernel*, NppiSize *oKernelSize*, NppiPoint *oAnchor*)

Single channel 8-bit unsigned to 16-bit signed convolution filter.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pKernel Pointer to the start address of the kernel coefficient array. Coeffcients are expected to be stored in reverse order.

oKernelSize Width and Height of the rectangular kernel.

oAnchor X and Y offsets of the kernel origin frame of reference relative to the source pixel.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.68.1.24 NppStatus nppiFilter32f_8u16s_C3R (const Npp8u ∗ *pSrc*, int *nSrcStep*, Npp16s ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, const Npp32f ∗ *pKernel*, NppiSize *oKernelSize*, NppiPoint *oAnchor*)

Three channel 8-bit unsigned to 16-bit signed convolution filter.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pKernel Pointer to the start address of the kernel coefficient array. Coeffcients are expected to be stored in reverse order.

oKernelSize Width and Height of the rectangular kernel.

oAnchor X and Y offsets of the kernel origin frame of reference relative to the source pixel.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.68.1.25 NppStatus nppiFilter32f_8u16s_C4R (const Npp8u ∗ *pSrc*, int *nSrcStep*, Npp16s ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, const Npp32f ∗ *pKernel*, NppiSize *oKernelSize*, NppiPoint *oAnchor*)

Four channel 8-bit unsigned to 16-bit signed convolution filter.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pKernel Pointer to the start address of the kernel coefficient array. Coeffcients are expected to be stored in reverse order.

oKernelSize Width and Height of the rectangular kernel.

oAnchor X and Y offsets of the kernel origin frame of reference relative to the source pixel.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.68.1.26 NppStatus nppiFilter32f_8u_AC4R (const Npp8u ∗ *pSrc*, int *nSrcStep*, Npp8u ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, const Npp32f ∗ *pKernel*, NppiSize *oKernelSize*, NppiPoint *oAnchor*)

Four channel 8-bit unsigned convolution filter, ignorint alpha channel.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pKernel Pointer to the start address of the kernel coefficient array. Coeffcients are expected to be stored in reverse order.

oKernelSize Width and Height of the rectangular kernel.

oAnchor X and Y offsets of the kernel origin frame of reference relative to the source pixel.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.68.1.27 NppStatus nppiFilter32f_8u_C1R (const Npp8u ∗ *pSrc*, int *nSrcStep*, Npp8u ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, const Npp32f ∗ *pKernel*, NppiSize *oKernelSize*, NppiPoint *oAnchor*)

Single channel 8-bit unsigned convolution filter.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pKernel Pointer to the start address of the kernel coefficient array. Coeffcients are expected to be stored in reverse order.

oKernelSize Width and Height of the rectangular kernel.

oAnchor X and Y offsets of the kernel origin frame of reference relative to the source pixel.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.68.1.28 NppStatus nppiFilter32f_8u_C2R (const Npp8u ∗ *pSrc*, int *nSrcStep*, Npp8u ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, const Npp32f ∗ *pKernel*, NppiSize *oKernelSize*, NppiPoint *oAnchor*)

Two channel 8-bit unsigned convolution filter.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pKernel Pointer to the start address of the kernel coefficient array. Coeffcients are expected to be stored in reverse order.

oKernelSize Width and Height of the rectangular kernel.

oAnchor X and Y offsets of the kernel origin frame of reference relative to the source pixel.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.68.1.29 NppStatus nppiFilter32f_8u_C3R (const Npp8u ∗ *pSrc*, int *nSrcStep*, Npp8u ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, const Npp32f ∗ *pKernel*, NppiSize *oKernelSize*, NppiPoint *oAnchor*)

Three channel 8-bit unsigned convolution filter.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pKernel Pointer to the start address of the kernel coefficient array. Coeffcients are expected to be stored in reverse order.

oKernelSize Width and Height of the rectangular kernel.

oAnchor X and Y offsets of the kernel origin frame of reference relative to the source pixel.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.68.1.30 NppStatus nppiFilter32f_8u_C4R (const Npp8u ∗ *pSrc*, int *nSrcStep*, Npp8u ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, const Npp32f ∗ *pKernel*, NppiSize *oKernelSize*, NppiPoint *oAnchor*)

Four channel 8-bit unsigned convolution filter.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pKernel Pointer to the start address of the kernel coefficient array. Coeffcients are expected to be stored in reverse order.

oKernelSize Width and Height of the rectangular kernel.

oAnchor X and Y offsets of the kernel origin frame of reference relative to the source pixel.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.68.1.31 NppStatus nppiFilter_16s_AC4R (const Npp16s ∗ *pSrc*, Npp32s *nSrcStep*, Npp16s ∗ *pDst*, Npp32s *nDstStep*, NppiSize *oSizeROI*, const Npp32s ∗ *pKernel*, NppiSize *oKernelSize*, NppiPoint *oAnchor*, Npp32s *nDivisor*)

Four channel 16-bit convolution filter, ignoring alpha channel.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pKernel Pointer to the start address of the kernel coefficient array. Coeffcients are expected to be stored in reverse order.

oKernelSize Width and Height of the rectangular kernel.

oAnchor X and Y offsets of the kernel origin frame of reference relative to the source pixel.

nDivisor The factor by which the convolved summation from the Filter operation should be divided. If equal to the sum of coefficients, this will keep the maximum result value within full scale.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.68.1.32 NppStatus nppiFilter_16s_C1R (const Npp16s ∗ *pSrc*, Npp32s *nSrcStep*, Npp16s ∗ *pDst*, Npp32s *nDstStep*, NppiSize *oSizeROI*, const Npp32s ∗ *pKernel*, NppiSize *oKernelSize*, NppiPoint *oAnchor*, Npp32s *nDivisor*)

Single channel 16-bit convolution filter.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pKernel Pointer to the start address of the kernel coefficient array. Coeffcients are expected to be stored in reverse order.

oKernelSize Width and Height of the rectangular kernel.

oAnchor X and Y offsets of the kernel origin frame of reference relative to the source pixel.

nDivisor The factor by which the convolved summation from the Filter operation should be divided. If equal to the sum of coefficients, this will keep the maximum result value within full scale.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.68.1.33 NppStatus nppiFilter_16s_C3R (const Npp16s ∗ *pSrc*, Npp32s *nSrcStep*, Npp16s ∗ *pDst*, Npp32s *nDstStep*, NppiSize *oSizeROI*, const Npp32s ∗ *pKernel*, NppiSize *oKernelSize*, NppiPoint *oAnchor*, Npp32s *nDivisor*)

Three channel 16-bit convolution filter.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pKernel Pointer to the start address of the kernel coefficient array. Coeffcients are expected to be stored in reverse order.

oKernelSize Width and Height of the rectangular kernel.

oAnchor X and Y offsets of the kernel origin frame of reference relative to the source pixel.

nDivisor The factor by which the convolved summation from the Filter operation should be divided. If equal to the sum of coefficients, this will keep the maximum result value within full scale.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.68.1.34 NppStatus nppiFilter_16s_C4R (const Npp16s * *pSrc*, Npp32s *nSrcStep*, Npp16s * *pDst*, Npp32s *nDstStep*, NppiSize *oSizeROI*, const Npp32s * *pKernel*, NppiSize *oKernelSize*, NppiPoint *oAnchor*, Npp32s *nDivisor*)

Four channel channel 16-bit convolution filter.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pKernel Pointer to the start address of the kernel coefficient array. Coeffcients are expected to be stored in reverse order.

oKernelSize Width and Height of the rectangular kernel.

oAnchor X and Y offsets of the kernel origin frame of reference relative to the source pixel.

nDivisor The factor by which the convolved summation from the Filter operation should be divided. If equal to the sum of coefficients, this will keep the maximum result value within full scale.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.68.1.35 NppStatus nppiFilter_16u_AC4R (const Npp16u * *pSrc*, Npp32s *nSrcStep*, Npp16u * *pDst*, Npp32s *nDstStep*, NppiSize *oSizeROI*, const Npp32s * *pKernel*, NppiSize *oKernelSize*, NppiPoint *oAnchor*, Npp32s *nDivisor*)

Four channel 16-bit unsigned convolution filter, ignoring alpha channel.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pKernel Pointer to the start address of the kernel coefficient array. Coeffcients are expected to be stored in reverse order.

oKernelSize Width and Height of the rectangular kernel.

oAnchor X and Y offsets of the kernel origin frame of reference relative to the source pixel.

nDivisor The factor by which the convolved summation from the Filter operation should be divided. If equal to the sum of coefficients, this will keep the maximum result value within full scale.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.68.1.36 NppStatus nppiFilter_16u_C1R (const Npp16u * *pSrc*, Npp32s *nSrcStep*, Npp16u * *pDst*, Npp32s *nDstStep*, NppiSize *oSizeROI*, const Npp32s * *pKernel*, NppiSize *oKernelSize*, NppiPoint *oAnchor*, Npp32s *nDivisor*)

Single channel 16-bit unsigned convolution filter.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pKernel Pointer to the start address of the kernel coefficient array. Coeffcients are expected to be stored in reverse order.

oKernelSize Width and Height of the rectangular kernel.

oAnchor X and Y offsets of the kernel origin frame of reference relative to the source pixel.

nDivisor The factor by which the convolved summation from the Filter operation should be divided. If equal to the sum of coefficients, this will keep the maximum result value within full scale.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.68.1.37 NppStatus nppiFilter_16u_C3R (const Npp16u * *pSrc*, Npp32s *nSrcStep*, Npp16u * *pDst*, Npp32s *nDstStep*, NppiSize *oSizeROI*, const Npp32s * *pKernel*, NppiSize *oKernelSize*, NppiPoint *oAnchor*, Npp32s *nDivisor*)

Three channel 16-bit unsigned convolution filter.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pKernel Pointer to the start address of the kernel coefficient array. Coeffcients are expected to be stored in reverse order.

oKernelSize Width and Height of the rectangular kernel.

oAnchor X and Y offsets of the kernel origin frame of reference relative to the source pixel.

nDivisor The factor by which the convolved summation from the Filter operation should be divided. If equal to the sum of coefficients, this will keep the maximum result value within full scale.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.68.1.38 NppStatus nppiFilter_16u_C4R (const Npp16u ∗ *pSrc*, Npp32s *nSrcStep*, Npp16u ∗ *pDst*, Npp32s *nDstStep*, NppiSize *oSizeROI*, const Npp32s ∗ *pKernel*, NppiSize *oKernelSize*, NppiPoint *oAnchor*, Npp32s *nDivisor*)

Four channel channel 16-bit unsigned convolution filter.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pKernel Pointer to the start address of the kernel coefficient array. Coeffcients are expected to be stored in reverse order.

oKernelSize Width and Height of the rectangular kernel.

oAnchor X and Y offsets of the kernel origin frame of reference relative to the source pixel.

nDivisor The factor by which the convolved summation from the Filter operation should be divided. If equal to the sum of coefficients, this will keep the maximum result value within full scale.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.68.1.39 NppStatus nppiFilter_32f_AC4R (const Npp32f ∗ *pSrc*, Npp32s *nSrcStep*, Npp32f ∗ *pDst*, Npp32s *nDstStep*, NppiSize *oSizeROI*, const Npp32f ∗ *pKernel*, NppiSize *oKernelSize*, NppiPoint *oAnchor*)

Four channel 32-bit float convolution filter, ignoring alpha channel.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pKernel Pointer to the start address of the kernel coefficient array. Coeffcients are expected to be stored in reverse order.

oKernelSize Width and Height of the rectangular kernel.

oAnchor X and Y offsets of the kernel origin frame of reference relative to the source pixel.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.68.1.40 NppStatus nppiFilter_32f_C1R (const Npp32f * *pSrc*, Npp32s *nSrcStep*, Npp32f * *pDst*, Npp32s *nDstStep*, NppiSize *oSizeROI*, const Npp32f * *pKernel*, NppiSize *oKernelSize*, NppiPoint *oAnchor*)

Single channel 32-bit float convolution filter.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pKernel Pointer to the start address of the kernel coefficient array. Coeffcients are expected to be stored in reverse order.

oKernelSize Width and Height of the rectangular kernel.

oAnchor X and Y offsets of the kernel origin frame of reference relative to the source pixel.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.68.1.41 NppStatus nppiFilter_32f_C2R (const Npp32f * *pSrc*, Npp32s *nSrcStep*, Npp32f * *pDst*, Npp32s *nDstStep*, NppiSize *oSizeROI*, const Npp32f * *pKernel*, NppiSize *oKernelSize*, NppiPoint *oAnchor*)

Two channel 32-bit float convolution filter.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pKernel Pointer to the start address of the kernel coefficient array. Coeffcients are expected to be stored in reverse order.

oKernelSize Width and Height of the rectangular kernel.

oAnchor X and Y offsets of the kernel origin frame of reference relative to the source pixel.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.68.1.42 NppStatus nppiFilter_32f_C3R (const Npp32f $*$ *pSrc*, Npp32s *nSrcStep*, Npp32f $*$ *pDst*, Npp32s *nDstStep*, NppiSize *oSizeROI*, const Npp32f $*$ *pKernel*, NppiSize *oKernelSize*, NppiPoint *oAnchor*)

Three channel 32-bit float convolution filter.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pKernel Pointer to the start address of the kernel coefficient array. Coeffcients are expected to be stored in reverse order.

oKernelSize Width and Height of the rectangular kernel.

oAnchor X and Y offsets of the kernel origin frame of reference relative to the source pixel.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.68.1.43 NppStatus nppiFilter_32f_C4R (const Npp32f $*$ *pSrc*, Npp32s *nSrcStep*, Npp32f $*$ *pDst*, Npp32s *nDstStep*, NppiSize *oSizeROI*, const Npp32f $*$ *pKernel*, NppiSize *oKernelSize*, NppiPoint *oAnchor*)

Four channel 32-bit float convolution filter.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pKernel Pointer to the start address of the kernel coefficient array. Coeffcients are expected to be stored in reverse order.

oKernelSize Width and Height of the rectangular kernel.

oAnchor X and Y offsets of the kernel origin frame of reference relative to the source pixel.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.68.1.44 NppStatus nppiFilter_64f_C1R (const Npp64f ∗ *pSrc*, Npp32s *nSrcStep*, Npp64f ∗ *pDst*, Npp32s *nDstStep*, NppiSize *oSizeROI*, const Npp64f ∗ *pKernel*, NppiSize *oKernelSize*, NppiPoint *oAnchor*)

Single channel 64-bit float convolution filter.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pKernel Pointer to the start address of the kernel coefficient array. Coeffcients are expected to be stored in reverse order.

oKernelSize Width and Height of the rectangular kernel.

oAnchor X and Y offsets of the kernel origin frame of reference relative to the source pixel.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.68.1.45 NppStatus nppiFilter_8u_AC4R (const Npp8u ∗ *pSrc*, Npp32s *nSrcStep*, Npp8u ∗ *pDst*, Npp32s *nDstStep*, NppiSize *oSizeROI*, const Npp32s ∗ *pKernel*, NppiSize *oKernelSize*, NppiPoint *oAnchor*, Npp32s *nDivisor*)

Four channel 8-bit unsigned convolution filter, ignoring alpha channel.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pKernel Pointer to the start address of the kernel coefficient array. Coeffcients are expected to be stored in reverse order.

oKernelSize Width and Height of the rectangular kernel.

oAnchor X and Y offsets of the kernel origin frame of reference relative to the source pixel.

nDivisor The factor by which the convolved summation from the Filter operation should be divided. If equal to the sum of coefficients, this will keep the maximum result value within full scale.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.68.1.46 NppStatus nppiFilter_8u_C1R (const Npp8u ∗ *pSrc*, Npp32s *nSrcStep*, Npp8u ∗ *pDst*, Npp32s *nDstStep*, NppiSize *oSizeROI*, const Npp32s ∗ *pKernel*, NppiSize *oKernelSize*, NppiPoint *oAnchor*, Npp32s *nDivisor*)

Single channel 8-bit unsigned convolution filter.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pKernel Pointer to the start address of the kernel coefficient array. Coeffcients are expected to be stored in reverse order.

oKernelSize Width and Height of the rectangular kernel.

oAnchor X and Y offsets of the kernel origin frame of reference relative to the source pixel.

nDivisor The factor by which the convolved summation from the Filter operation should be divided. If equal to the sum of coefficients, this will keep the maximum result value within full scale.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.68.1.47 NppStatus nppiFilter_8u_C3R (const Npp8u ∗ *pSrc*, Npp32s *nSrcStep*, Npp8u ∗ *pDst*, Npp32s *nDstStep*, NppiSize *oSizeROI*, const Npp32s ∗ *pKernel*, NppiSize *oKernelSize*, NppiPoint *oAnchor*, Npp32s *nDivisor*)

Three channel 8-bit unsigned convolution filter.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pKernel Pointer to the start address of the kernel coefficient array. Coeffcients are expected to be stored in reverse order.

oKernelSize Width and Height of the rectangular kernel.

oAnchor X and Y offsets of the kernel origin frame of reference relative to the source pixel.

nDivisor The factor by which the convolved summation from the Filter operation should be divided. If equal to the sum of coefficients, this will keep the maximum result value within full scale.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.68.1.48 NppStatus nppiFilter_8u_C4R (const Npp8u $*$ *pSrc*, Npp32s *nSrcStep*, Npp8u $*$ *pDst*, Npp32s *nDstStep*, NppiSize *oSizeROI*, const Npp32s $*$ *pKernel*, NppiSize *oKernelSize*, NppiPoint *oAnchor*, Npp32s *nDivisor*)

Four channel channel 8-bit unsigned convolution filter.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pKernel Pointer to the start address of the kernel coefficient array. Coeffcients are expected to be stored in reverse order.

oKernelSize Width and Height of the rectangular kernel.

oAnchor X and Y offsets of the kernel origin frame of reference relative to the source pixel.

nDivisor The factor by which the convolved summation from the Filter operation should be divided. If equal to the sum of coefficients, this will keep the maximum result value within full scale.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.68.1.49 NppStatus nppiFilterBorder32f_16s_AC4R (const Npp16s $*$ *pSrc*, int *nSrcStep*, NppiSize *oSrcSize*, NppiPoint *oSrcOffset*, Npp16s $*$ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, const Npp32f $*$ *pKernel*, NppiSize *oKernelSize*, NppiPoint *oAnchor*, NppiBorderType *eBorderType*)

Four channel 16-bit convolution filter with border control, ignoring alpha channel.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSrcSize Source image width and height in pixels relative to pSrc.

oSrcOffset Source image starting point relative to pSrc.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pKernel Pointer to the start address of the kernel coefficient array. Coeffcients are expected to be stored in reverse order.

oKernelSize Width and Height of the rectangular kernel.

oAnchor X and Y offsets of the kernel origin frame of reference relative to the source pixel.

eBorderType The border type operation to be applied at source image border boundaries.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.68.1.50 NppStatus nppiFilterBorder32f_16s_C1R (const Npp16s ∗ *pSrc*, int *nSrcStep*, NppiSize *oSrcSize*, NppiPoint *oSrcOffset*, Npp16s ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, const Npp32f ∗ *pKernel*, NppiSize *oKernelSize*, NppiPoint *oAnchor*, NppiBorderType *eBorderType*)

Single channel 16-bit convolution filter with border control.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSrcSize Source image width and height in pixels relative to pSrc.

oSrcOffset Source image starting point relative to pSrc.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pKernel Pointer to the start address of the kernel coefficient array. Coeffcients are expected to be stored in reverse order.

oKernelSize Width and Height of the rectangular kernel.

oAnchor X and Y offsets of the kernel origin frame of reference relative to the source pixel.

eBorderType The border type operation to be applied at source image border boundaries.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.68.1.51 NppStatus nppiFilterBorder32f_16s_C3R (const Npp16s ∗ *pSrc*, int *nSrcStep*, NppiSize *oSrcSize*, NppiPoint *oSrcOffset*, Npp16s ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, const Npp32f ∗ *pKernel*, NppiSize *oKernelSize*, NppiPoint *oAnchor*, NppiBorderType *eBorderType*)

Three channel 16-bit convolution filter with border control.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSrcSize Source image width and height in pixels relative to pSrc.

oSrcOffset Source image starting point relative to pSrc.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pKernel Pointer to the start address of the kernel coefficient array. Coeffcients are expected to be stored in reverse order.

oKernelSize Width and Height of the rectangular kernel.

oAnchor X and Y offsets of the kernel origin frame of reference relative to the source pixel.

eBorderType The border type operation to be applied at source image border boundaries.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.68.1.52 NppStatus nppiFilterBorder32f_16s_C4R (const Npp16s * *pSrc*, int *nSrcStep*, NppiSize *oSrcSize*, NppiPoint *oSrcOffset*, Npp16s * *pDst*, int *nDstStep*, NppiSize *oSizeROI*, const Npp32f * *pKernel*, NppiSize *oKernelSize*, NppiPoint *oAnchor*, NppiBorderType *eBorderType*)

Four channel 16-bit convolution filter with border control.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSrcSize Source image width and height in pixels relative to pSrc.

oSrcOffset Source image starting point relative to pSrc.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pKernel Pointer to the start address of the kernel coefficient array. Coeffcients are expected to be stored in reverse order.

oKernelSize Width and Height of the rectangular kernel.

oAnchor X and Y offsets of the kernel origin frame of reference relative to the source pixel.

eBorderType The border type operation to be applied at source image border boundaries.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.68.1.53 NppStatus nppiFilterBorder32f_16u_AC4R (const Npp16u * *pSrc*, int *nSrcStep*, NppiSize *oSrcSize*, NppiPoint *oSrcOffset*, Npp16u * *pDst*, int *nDstStep*, NppiSize *oSizeROI*, const Npp32f * *pKernel*, NppiSize *oKernelSize*, NppiPoint *oAnchor*, NppiBorderType *eBorderType*)

Four channel 16-bit unsigned convolution filter with border control, ignoring alpha channel.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSrcSize Source image width and height in pixels relative to pSrc.

oSrcOffset Source image starting point relative to pSrc.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pKernel Pointer to the start address of the kernel coefficient array. Coeffcients are expected to be stored in reverse order.

oKernelSize Width and Height of the rectangular kernel.

oAnchor X and Y offsets of the kernel origin frame of reference relative to the source pixel.

eBorderType The border type operation to be applied at source image border boundaries.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.68.1.54 NppStatus nppiFilterBorder32f_16u_C1R (const Npp16u ∗ *pSrc*, int *nSrcStep*, NppiSize *oSrcSize*, NppiPoint *oSrcOffset*, Npp16u ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, const Npp32f ∗ *pKernel*, NppiSize *oKernelSize*, NppiPoint *oAnchor*, NppiBorderType *eBorderType*)

Single channel 16-bit unsigned convolution filter with border control.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSrcSize Source image width and height in pixels relative to pSrc.

oSrcOffset Source image starting point relative to pSrc.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pKernel Pointer to the start address of the kernel coefficient array. Coeffcients are expected to be stored in reverse order.

oKernelSize Width and Height of the rectangular kernel.

oAnchor X and Y offsets of the kernel origin frame of reference relative to the source pixel.

eBorderType The border type operation to be applied at source image border boundaries.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.68.1.55 NppStatus nppiFilterBorder32f_16u_C3R (const Npp16u ∗ *pSrc*, int *nSrcStep*, NppiSize *oSrcSize*, NppiPoint *oSrcOffset*, Npp16u ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, const Npp32f ∗ *pKernel*, NppiSize *oKernelSize*, NppiPoint *oAnchor*, NppiBorderType *eBorderType*)

Three channel 16-bit unsigned convolution filter with border control.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSrcSize Source image width and height in pixels relative to pSrc.

oSrcOffset Source image starting point relative to pSrc.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pKernel Pointer to the start address of the kernel coefficient array. Coeffcients are expected to be stored in reverse order.

oKernelSize Width and Height of the rectangular kernel.

oAnchor X and Y offsets of the kernel origin frame of reference relative to the source pixel.

eBorderType The border type operation to be applied at source image border boundaries.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.68.1.56 NppStatus nppiFilterBorder32f_16u_C4R (const Npp16u $*$ *pSrc*, int *nSrcStep*, NppiSize *oSrcSize*, NppiPoint *oSrcOffset*, Npp16u $*$ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, const Npp32f $*$ *pKernel*, NppiSize *oKernelSize*, NppiPoint *oAnchor*, NppiBorderType *eBorderType*)

Four channel 16-bit unsigned convolution filter with border control.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSrcSize Source image width and height in pixels relative to pSrc.

oSrcOffset Source image starting point relative to pSrc.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pKernel Pointer to the start address of the kernel coefficient array. Coeffcients are expected to be stored in reverse order.

oKernelSize Width and Height of the rectangular kernel.

oAnchor X and Y offsets of the kernel origin frame of reference relative to the source pixel.

eBorderType The border type operation to be applied at source image border boundaries.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.68.1.57 NppStatus nppiFilterBorder32f_32s_AC4R (const Npp32s $*$ *pSrc*, int *nSrcStep*, NppiSize *oSrcSize*, NppiPoint *oSrcOffset*, Npp32s $*$ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, const Npp32f $*$ *pKernel*, NppiSize *oKernelSize*, NppiPoint *oAnchor*, NppiBorderType *eBorderType*)

Four channel 32-bit convolution filter with border control, ignoring alpha channel.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSrcSize Source image width and height in pixels relative to pSrc.

oSrcOffset Source image starting point relative to pSrc.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pKernel Pointer to the start address of the kernel coefficient array. Coeffcients are expected to be stored in reverse order.

oKernelSize Width and Height of the rectangular kernel.

oAnchor X and Y offsets of the kernel origin frame of reference relative to the source pixel.

eBorderType The border type operation to be applied at source image border boundaries.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.68.1.58 NppStatus nppiFilterBorder32f_32s_C1R (const Npp32s ∗ *pSrc*, int *nSrcStep*, NppiSize *oSrcSize*, NppiPoint *oSrcOffset*, Npp32s ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, const Npp32f ∗ *pKernel*, NppiSize *oKernelSize*, NppiPoint *oAnchor*, NppiBorderType *eBorderType*)

Single channel 32-bit convolution filter with border control.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSrcSize Source image width and height in pixels relative to pSrc.

oSrcOffset Source image starting point relative to pSrc.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pKernel Pointer to the start address of the kernel coefficient array. Coeffcients are expected to be stored in reverse order.

oKernelSize Width and Height of the rectangular kernel.

oAnchor X and Y offsets of the kernel origin frame of reference relative to the source pixel.

eBorderType The border type operation to be applied at source image border boundaries.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.68.1.59 NppStatus nppiFilterBorder32f_32s_C3R (const Npp32s ∗ *pSrc*, int *nSrcStep*, NppiSize *oSrcSize*, NppiPoint *oSrcOffset*, Npp32s ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, const Npp32f ∗ *pKernel*, NppiSize *oKernelSize*, NppiPoint *oAnchor*, NppiBorderType *eBorderType*)

Three channel 32-bit convolution filter with border control.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSrcSize Source image width and height in pixels relative to pSrc.

oSrcOffset Source image starting point relative to pSrc.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pKernel Pointer to the start address of the kernel coefficient array. Coeffcients are expected to be stored in reverse order.

oKernelSize Width and Height of the rectangular kernel.

oAnchor X and Y offsets of the kernel origin frame of reference relative to the source pixel.

eBorderType The border type operation to be applied at source image border boundaries.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.68.1.60 NppStatus nppiFilterBorder32f_32s_C4R (const Npp32s ∗ *pSrc*, int *nSrcStep*, NppiSize *oSrcSize*, NppiPoint *oSrcOffset*, Npp32s ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, const Npp32f ∗ *pKernel*, NppiSize *oKernelSize*, NppiPoint *oAnchor*, NppiBorderType *eBorderType*)

Four channel 32-bit convolution filter with border control.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSrcSize Source image width and height in pixels relative to pSrc.

oSrcOffset Source image starting point relative to pSrc.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pKernel Pointer to the start address of the kernel coefficient array. Coeffcients are expected to be stored in reverse order.

oKernelSize Width and Height of the rectangular kernel.

oAnchor X and Y offsets of the kernel origin frame of reference relative to the source pixel.

eBorderType The border type operation to be applied at source image border boundaries.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.68.1.61 NppStatus nppiFilterBorder32f_8s16s_AC4R (const Npp8s ∗ *pSrc*, int *nSrcStep*, NppiSize *oSrcSize*, NppiPoint *oSrcOffset*, Npp16s ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, const Npp32f ∗ *pKernel*, NppiSize *oKernelSize*, NppiPoint *oAnchor*, NppiBorderType *eBorderType*)

Four channel 8-bit to 16-bit signed convolution filter with border control, ignoring alpha channel.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSrcSize Source image width and height in pixels relative to pSrc.

oSrcOffset Source image starting point relative to pSrc.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pKernel Pointer to the start address of the kernel coefficient array. Coeffcients are expected to be stored in reverse order.

oKernelSize Width and Height of the rectangular kernel.

oAnchor X and Y offsets of the kernel origin frame of reference relative to the source pixel.

eBorderType The border type operation to be applied at source image border boundaries.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.68.1.62 NppStatus nppiFilterBorder32f_8s16s_C1R (const Npp8s $*$ *pSrc*, int *nSrcStep*, NppiSize *oSrcSize*, NppiPoint *oSrcOffset*, Npp16s $*$ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, const Npp32f $*$ *pKernel*, NppiSize *oKernelSize*, NppiPoint *oAnchor*, NppiBorderType *eBorderType*)

Single channel 8-bit to 16-bit signed convolution filter with border control.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSrcSize Source image width and height in pixels relative to pSrc.

oSrcOffset Source image starting point relative to pSrc.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pKernel Pointer to the start address of the kernel coefficient array. Coeffcients are expected to be stored in reverse order.

oKernelSize Width and Height of the rectangular kernel.

oAnchor X and Y offsets of the kernel origin frame of reference relative to the source pixel.

eBorderType The border type operation to be applied at source image border boundaries.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.68.1.63 NppStatus nppiFilterBorder32f_8s16s_C3R (const Npp8s $*$ *pSrc*, int *nSrcStep*, NppiSize *oSrcSize*, NppiPoint *oSrcOffset*, Npp16s $*$ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, const Npp32f $*$ *pKernel*, NppiSize *oKernelSize*, NppiPoint *oAnchor*, NppiBorderType *eBorderType*)

Three channel 8-bit to 16-bit signed convolution filter with border control.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSrcSize Source image width and height in pixels relative to pSrc.

oSrcOffset Source image starting point relative to pSrc.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pKernel Pointer to the start address of the kernel coefficient array. Coeffcients are expected to be stored in reverse order.

oKernelSize Width and Height of the rectangular kernel.

oAnchor X and Y offsets of the kernel origin frame of reference relative to the source pixel.

eBorderType The border type operation to be applied at source image border boundaries.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.68.1.64 NppStatus nppiFilterBorder32f_8s16s_C4R (const Npp8s ∗ *pSrc*, int *nSrcStep*, NppiSize *oSrcSize*, NppiPoint *oSrcOffset*, Npp16s ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, const Npp32f ∗ *pKernel*, NppiSize *oKernelSize*, NppiPoint *oAnchor*, NppiBorderType *eBorderType*)

Four channel 8-bit to 16-bit signed convolution filter with border control.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSrcSize Source image width and height in pixels relative to pSrc.

oSrcOffset Source image starting point relative to pSrc.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pKernel Pointer to the start address of the kernel coefficient array. Coeffcients are expected to be stored in reverse order.

oKernelSize Width and Height of the rectangular kernel.

oAnchor X and Y offsets of the kernel origin frame of reference relative to the source pixel.

eBorderType The border type operation to be applied at source image border boundaries.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.68.1.65 NppStatus nppiFilterBorder32f_8s_AC4R (const Npp8s ∗ *pSrc*, int *nSrcStep*, NppiSize *oSrcSize*, NppiPoint *oSrcOffset*, Npp8s ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, const Npp32f ∗ *pKernel*, NppiSize *oKernelSize*, NppiPoint *oAnchor*, NppiBorderType *eBorderType*)

Four channel 8-bit signed convolution filter with border control, ignoring alpha channel.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSrcSize Source image width and height in pixels relative to pSrc.

oSrcOffset Source image starting point relative to pSrc.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pKernel Pointer to the start address of the kernel coefficient array. Coeffcients are expected to be stored in reverse order.

oKernelSize Width and Height of the rectangular kernel.

oAnchor X and Y offsets of the kernel origin frame of reference relative to the source pixel.

eBorderType The border type operation to be applied at source image border boundaries.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.68.1.66 NppStatus nppiFilterBorder32f_8s_C1R (const Npp8s ∗ *pSrc*, int *nSrcStep*, NppiSize *oSrcSize*, NppiPoint *oSrcOffset*, Npp8s ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, const Npp32f ∗ *pKernel*, NppiSize *oKernelSize*, NppiPoint *oAnchor*, NppiBorderType *eBorderType*)

Single channel 8-bit signed convolution filter with border control.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSrcSize Source image width and height in pixels relative to pSrc.

oSrcOffset Source image starting point relative to pSrc.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pKernel Pointer to the start address of the kernel coefficient array. Coeffcients are expected to be stored in reverse order.

oKernelSize Width and Height of the rectangular kernel.

oAnchor X and Y offsets of the kernel origin frame of reference relative to the source pixel.

eBorderType The border type operation to be applied at source image border boundaries.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.68.1.67 NppStatus nppiFilterBorder32f_8s_C2R (const Npp8s ∗ *pSrc*, int *nSrcStep*, NppiSize *oSrcSize*, NppiPoint *oSrcOffset*, Npp8s ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, const Npp32f ∗ *pKernel*, NppiSize *oKernelSize*, NppiPoint *oAnchor*, NppiBorderType *eBorderType*)

Two channel 8-bit signed convolution filter with border control.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSrcSize Source image width and height in pixels relative to pSrc.

oSrcOffset Source image starting point relative to pSrc.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pKernel Pointer to the start address of the kernel coefficient array. Coeffcients are expected to be stored in reverse order.

oKernelSize Width and Height of the rectangular kernel.

oAnchor X and Y offsets of the kernel origin frame of reference relative to the source pixel.

eBorderType The border type operation to be applied at source image border boundaries.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.68.1.68 NppStatus nppiFilterBorder32f_8s_C3R (const Npp8s $*$ *pSrc*, int *nSrcStep*, NppiSize *oSrcSize*, NppiPoint *oSrcOffset*, Npp8s $*$ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, const Npp32f $*$ *pKernel*, NppiSize *oKernelSize*, NppiPoint *oAnchor*, NppiBorderType *eBorderType*)

Three channel 8-bit signed convolution filter with border control.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSrcSize Source image width and height in pixels relative to pSrc.

oSrcOffset Source image starting point relative to pSrc.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pKernel Pointer to the start address of the kernel coefficient array. Coeffcients are expected to be stored in reverse order.

oKernelSize Width and Height of the rectangular kernel.

oAnchor X and Y offsets of the kernel origin frame of reference relative to the source pixel.

eBorderType The border type operation to be applied at source image border boundaries.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.68.1.69 NppStatus nppiFilterBorder32f_8s_C4R (const Npp8s $*$ *pSrc*, int *nSrcStep*, NppiSize *oSrcSize*, NppiPoint *oSrcOffset*, Npp8s $*$ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, const Npp32f $*$ *pKernel*, NppiSize *oKernelSize*, NppiPoint *oAnchor*, NppiBorderType *eBorderType*)

Four channel 8-bit signed convolution filter with border control.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSrcSize Source image width and height in pixels relative to pSrc.

oSrcOffset Source image starting point relative to pSrc.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pKernel Pointer to the start address of the kernel coefficient array. Coeffcients are expected to be stored in reverse order.

oKernelSize Width and Height of the rectangular kernel.

oAnchor X and Y offsets of the kernel origin frame of reference relative to the source pixel.

eBorderType The border type operation to be applied at source image border boundaries.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.68.1.70 NppStatus nppiFilterBorder32f_8u16s_AC4R (const Npp8u ∗ *pSrc*, int *nSrcStep*, NppiSize *oSrcSize*, NppiPoint *oSrcOffset*, Npp16s ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, const Npp32f ∗ *pKernel*, NppiSize *oKernelSize*, NppiPoint *oAnchor*, NppiBorderType *eBorderType*)

Four channel 8-bit unsigned to 16-bit signed convolution filter with border control, ignoring alpha channel.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSrcSize Source image width and height in pixels relative to pSrc.

oSrcOffset Source image starting point relative to pSrc.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pKernel Pointer to the start address of the kernel coefficient array. Coeffcients are expected to be stored in reverse order.

oKernelSize Width and Height of the rectangular kernel.

oAnchor X and Y offsets of the kernel origin frame of reference relative to the source pixel.

eBorderType The border type operation to be applied at source image border boundaries.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.68.1.71 NppStatus nppiFilterBorder32f_8u16s_C1R (const Npp8u ∗ *pSrc*, int *nSrcStep*, NppiSize *oSrcSize*, NppiPoint *oSrcOffset*, Npp16s ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, const Npp32f ∗ *pKernel*, NppiSize *oKernelSize*, NppiPoint *oAnchor*, NppiBorderType *eBorderType*)

Single channel 8-bit unsigned to 16-bit signed convolution filter with border control.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSrcSize Source image width and height in pixels relative to pSrc.

oSrcOffset Source image starting point relative to pSrc.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pKernel Pointer to the start address of the kernel coefficient array. Coeffcients are expected to be stored in reverse order.

oKernelSize Width and Height of the rectangular kernel.

oAnchor X and Y offsets of the kernel origin frame of reference relative to the source pixel.

eBorderType The border type operation to be applied at source image border boundaries.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.68.1.72 NppStatus nppiFilterBorder32f_8u16s_C3R (const Npp8u $*$ *pSrc*, int *nSrcStep*, NppiSize *oSrcSize*, NppiPoint *oSrcOffset*, Npp16s $*$ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, const Npp32f $*$ *pKernel*, NppiSize *oKernelSize*, NppiPoint *oAnchor*, NppiBorderType *eBorderType*)

Three channel 8-bit unsigned to 16-bit signed convolution filter with border control.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSrcSize Source image width and height in pixels relative to pSrc.

oSrcOffset Source image starting point relative to pSrc.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pKernel Pointer to the start address of the kernel coefficient array. Coeffcients are expected to be stored in reverse order.

oKernelSize Width and Height of the rectangular kernel.

oAnchor X and Y offsets of the kernel origin frame of reference relative to the source pixel.

eBorderType The border type operation to be applied at source image border boundaries.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.68.1.73 NppStatus nppiFilterBorder32f_8u16s_C4R (const Npp8u $*$ *pSrc*, int *nSrcStep*, NppiSize *oSrcSize*, NppiPoint *oSrcOffset*, Npp16s $*$ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, const Npp32f $*$ *pKernel*, NppiSize *oKernelSize*, NppiPoint *oAnchor*, NppiBorderType *eBorderType*)

Four channel 8-bit unsigned to 16-bit signed convolution filter with border control.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSrcSize Source image width and height in pixels relative to pSrc.

oSrcOffset Source image starting point relative to pSrc.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pKernel Pointer to the start address of the kernel coefficient array. Coeffcients are expected to be stored in reverse order.

oKernelSize Width and Height of the rectangular kernel.

oAnchor X and Y offsets of the kernel origin frame of reference relative to the source pixel.

eBorderType The border type operation to be applied at source image border boundaries.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.68.1.74 NppStatus nppiFilterBorder32f_8u_AC4R (const Npp8u $*$ *pSrc*, int *nSrcStep*, NppiSize *oSrcSize*, NppiPoint *oSrcOffset*, Npp8u $*$ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, const Npp32f $*$ *pKernel*, NppiSize *oKernelSize*, NppiPoint *oAnchor*, NppiBorderType *eBorderType*)

Four channel 8-bit unsigned convolution filter with border control, ignorint alpha channel.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSrcSize Source image width and height in pixels relative to pSrc.

oSrcOffset Source image starting point relative to pSrc.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pKernel Pointer to the start address of the kernel coefficient array. Coeffcients are expected to be stored in reverse order.

oKernelSize Width and Height of the rectangular kernel.

oAnchor X and Y offsets of the kernel origin frame of reference relative to the source pixel.

eBorderType The border type operation to be applied at source image border boundaries.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.68.1.75 NppStatus nppiFilterBorder32f_8u_C1R (const Npp8u $*$ *pSrc*, int *nSrcStep*, NppiSize *oSrcSize*, NppiPoint *oSrcOffset*, Npp8u $*$ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, const Npp32f $*$ *pKernel*, NppiSize *oKernelSize*, NppiPoint *oAnchor*, NppiBorderType *eBorderType*)

Single channel 8-bit unsigned convolution filter with border control.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSrcSize Source image width and height in pixels relative to pSrc.

oSrcOffset Source image starting point relative to pSrc.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pKernel Pointer to the start address of the kernel coefficient array. Coeffcients are expected to be stored in reverse order.

oKernelSize Width and Height of the rectangular kernel.

oAnchor X and Y offsets of the kernel origin frame of reference relative to the source pixel.

eBorderType The border type operation to be applied at source image border boundaries.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.68.1.76 NppStatus nppiFilterBorder32f_8u_C2R (const Npp8u ∗ *pSrc*, int *nSrcStep*, NppiSize *oSrcSize*, NppiPoint *oSrcOffset*, Npp8u ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, const Npp32f ∗ *pKernel*, NppiSize *oKernelSize*, NppiPoint *oAnchor*, NppiBorderType *eBorderType*)

Two channel 8-bit unsigned convolution filter with border control.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSrcSize Source image width and height in pixels relative to pSrc.

oSrcOffset Source image starting point relative to pSrc.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pKernel Pointer to the start address of the kernel coefficient array. Coeffcients are expected to be stored in reverse order.

oKernelSize Width and Height of the rectangular kernel.

oAnchor X and Y offsets of the kernel origin frame of reference relative to the source pixel.

eBorderType The border type operation to be applied at source image border boundaries.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.68.1.77 NppStatus nppiFilterBorder32f_8u_C3R (const Npp8u ∗ *pSrc*, int *nSrcStep*, NppiSize *oSrcSize*, NppiPoint *oSrcOffset*, Npp8u ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, const Npp32f ∗ *pKernel*, NppiSize *oKernelSize*, NppiPoint *oAnchor*, NppiBorderType *eBorderType*)

Three channel 8-bit unsigned convolution filter with border control.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSrcSize Source image width and height in pixels relative to pSrc.

oSrcOffset Source image starting point relative to pSrc.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pKernel Pointer to the start address of the kernel coefficient array. Coeffcients are expected to be stored in reverse order.

oKernelSize Width and Height of the rectangular kernel.

oAnchor X and Y offsets of the kernel origin frame of reference relative to the source pixel.

eBorderType The border type operation to be applied at source image border boundaries.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.68.1.78 NppStatus nppiFilterBorder32f_8u_C4R (const Npp8u ∗ *pSrc*, int *nSrcStep*, NppiSize *oSrcSize*, NppiPoint *oSrcOffset*, Npp8u ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, const Npp32f ∗ *pKernel*, NppiSize *oKernelSize*, NppiPoint *oAnchor*, NppiBorderType *eBorderType*)

Four channel 8-bit unsigned convolution filter with border control.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSrcSize Source image width and height in pixels relative to pSrc.

oSrcOffset Source image starting point relative to pSrc.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pKernel Pointer to the start address of the kernel coefficient array. Coeffcients are expected to be stored in reverse order.

oKernelSize Width and Height of the rectangular kernel.

oAnchor X and Y offsets of the kernel origin frame of reference relative to the source pixel.

eBorderType The border type operation to be applied at source image border boundaries.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.68.1.79 NppStatus nppiFilterBorder_16s_AC4R (const Npp16s ∗ *pSrc*, Npp32s *nSrcStep*, NppiSize *oSrcSize*, NppiPoint *oSrcOffset*, Npp16s ∗ *pDst*, Npp32s *nDstStep*, NppiSize *oSizeROI*, const Npp32s ∗ *pKernel*, NppiSize *oKernelSize*, NppiPoint *oAnchor*, Npp32s *nDivisor*, NppiBorderType *eBorderType*)

Four channel 16-bit convolution filter with border control, ignoring alpha channel.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSrcSize Source image width and height in pixels relative to pSrc.

oSrcOffset Source image starting point relative to pSrc.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pKernel Pointer to the start address of the kernel coefficient array. Coeffcients are expected to be stored in reverse order.

oKernelSize Width and Height of the rectangular kernel.

oAnchor X and Y offsets of the kernel origin frame of reference relative to the source pixel.

nDivisor The factor by which the convolved summation from the Filter operation should be divided. If equal to the sum of coefficients, this will keep the maximum result value within full scale.

eBorderType The border type operation to be applied at source image border boundaries.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.68.1.80 NppStatus nppiFilterBorder_16s_C1R (const Npp16s ∗ *pSrc*, Npp32s *nSrcStep*, NppiSize *oSrcSize*, NppiPoint *oSrcOffset*, Npp16s ∗ *pDst*, Npp32s *nDstStep*, NppiSize *oSizeROI*, const Npp32s ∗ *pKernel*, NppiSize *oKernelSize*, NppiPoint *oAnchor*, Npp32s *nDivisor*, NppiBorderType *eBorderType*)

Single channel 16-bit convolution filter with border control.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSrcSize Source image width and height in pixels relative to pSrc.

oSrcOffset Source image starting point relative to pSrc.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pKernel Pointer to the start address of the kernel coefficient array. Coeffcients are expected to be stored in reverse order.

oKernelSize Width and Height of the rectangular kernel.

oAnchor X and Y offsets of the kernel origin frame of reference relative to the source pixel.

nDivisor The factor by which the convolved summation from the Filter operation should be divided. If equal to the sum of coefficients, this will keep the maximum result value within full scale.

eBorderType The border type operation to be applied at source image border boundaries.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.68.1.81 NppStatus nppiFilterBorder_16s_C3R (const Npp16s ∗ *pSrc*, Npp32s *nSrcStep*, NppiSize *oSrcSize*, NppiPoint *oSrcOffset*, Npp16s ∗ *pDst*, Npp32s *nDstStep*, NppiSize *oSizeROI*, const Npp32s ∗ *pKernel*, NppiSize *oKernelSize*, NppiPoint *oAnchor*, Npp32s *nDivisor*, NppiBorderType *eBorderType*)

Three channel 16-bit convolution filter with border control.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSrcSize Source image width and height in pixels relative to pSrc.

oSrcOffset Source image starting point relative to pSrc.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pKernel Pointer to the start address of the kernel coefficient array. Coeffcients are expected to be stored in reverse order.

oKernelSize Width and Height of the rectangular kernel.

oAnchor X and Y offsets of the kernel origin frame of reference relative to the source pixel.

nDivisor The factor by which the convolved summation from the Filter operation should be divided. If equal to the sum of coefficients, this will keep the maximum result value within full scale.

eBorderType The border type operation to be applied at source image border boundaries.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.68.1.82 NppStatus nppiFilterBorder_16s_C4R (const Npp16s ∗ *pSrc*, Npp32s *nSrcStep*, NppiSize *oSrcSize*, NppiPoint *oSrcOffset*, Npp16s ∗ *pDst*, Npp32s *nDstStep*, NppiSize *oSizeROI*, const Npp32s ∗ *pKernel*, NppiSize *oKernelSize*, NppiPoint *oAnchor*, Npp32s *nDivisor*, NppiBorderType *eBorderType*)

Four channel channel 16-bit convolution filter with border control.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSrcSize Source image width and height in pixels relative to pSrc.

oSrcOffset Source image starting point relative to pSrc.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pKernel Pointer to the start address of the kernel coefficient array. Coeffcients are expected to be stored in reverse order.

oKernelSize Width and Height of the rectangular kernel.

oAnchor X and Y offsets of the kernel origin frame of reference relative to the source pixel.

nDivisor The factor by which the convolved summation from the Filter operation should be divided. If equal to the sum of coefficients, this will keep the maximum result value within full scale.

eBorderType The border type operation to be applied at source image border boundaries.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.68.1.83 NppStatus nppiFilterBorder_16u_AC4R (const Npp16u ∗ *pSrc*, Npp32s *nSrcStep*, NppiSize *oSrcSize*, NppiPoint *oSrcOffset*, Npp16u ∗ *pDst*, Npp32s *nDstStep*, NppiSize *oSizeROI*, const Npp32s ∗ *pKernel*, NppiSize *oKernelSize*, NppiPoint *oAnchor*, Npp32s *nDivisor*, NppiBorderType *eBorderType*)

Four channel 16-bit unsigned convolution filter with border control, ignoring alpha channel.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSrcSize Source image width and height in pixels relative to pSrc.

oSrcOffset Source image starting point relative to pSrc.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pKernel Pointer to the start address of the kernel coefficient array. Coeffcients are expected to be stored in reverse order.

oKernelSize Width and Height of the rectangular kernel.

oAnchor X and Y offsets of the kernel origin frame of reference relative to the source pixel.

nDivisor The factor by which the convolved summation from the Filter operation should be divided. If equal to the sum of coefficients, this will keep the maximum result value within full scale.

eBorderType The border type operation to be applied at source image border boundaries.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.68.1.84 NppStatus nppiFilterBorder_16u_C1R (const Npp16u ∗ *pSrc*, Npp32s *nSrcStep*, NppiSize *oSrcSize*, NppiPoint *oSrcOffset*, Npp16u ∗ *pDst*, Npp32s *nDstStep*, NppiSize *oSizeROI*, const Npp32s ∗ *pKernel*, NppiSize *oKernelSize*, NppiPoint *oAnchor*, Npp32s *nDivisor*, NppiBorderType *eBorderType*)

Single channel 16-bit unsigned convolution filter with border control.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSrcSize Source image width and height in pixels relative to pSrc.

oSrcOffset Source image starting point relative to pSrc.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pKernel Pointer to the start address of the kernel coefficient array. Coeffcients are expected to be stored in reverse order.

oKernelSize Width and Height of the rectangular kernel.

oAnchor X and Y offsets of the kernel origin frame of reference relative to the source pixel.

nDivisor The factor by which the convolved summation from the Filter operation should be divided. If equal to the sum of coefficients, this will keep the maximum result value within full scale.

eBorderType The border type operation to be applied at source image border boundaries.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.68.1.85 NppStatus nppiFilterBorder_16u_C3R (const Npp16u ∗ *pSrc*, Npp32s *nSrcStep*, NppiSize *oSrcSize*, NppiPoint *oSrcOffset*, Npp16u ∗ *pDst*, Npp32s *nDstStep*, NppiSize *oSizeROI*, const Npp32s ∗ *pKernel*, NppiSize *oKernelSize*, NppiPoint *oAnchor*, Npp32s *nDivisor*, NppiBorderType *eBorderType*)

Three channel 16-bit unsigned convolution filter with border control.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSrcSize Source image width and height in pixels relative to pSrc.

oSrcOffset Source image starting point relative to pSrc.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pKernel Pointer to the start address of the kernel coefficient array. Coeffcients are expected to be stored in reverse order.

oKernelSize Width and Height of the rectangular kernel.

oAnchor X and Y offsets of the kernel origin frame of reference relative to the source pixel.

nDivisor The factor by which the convolved summation from the Filter operation should be divided. If equal to the sum of coefficients, this will keep the maximum result value within full scale.

eBorderType The border type operation to be applied at source image border boundaries.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.68.1.86 NppStatus nppiFilterBorder_16u_C4R (const Npp16u ∗ *pSrc*, Npp32s *nSrcStep*, NppiSize *oSrcSize*, NppiPoint *oSrcOffset*, Npp16u ∗ *pDst*, Npp32s *nDstStep*, NppiSize *oSizeROI*, const Npp32s ∗ *pKernel*, NppiSize *oKernelSize*, NppiPoint *oAnchor*, Npp32s *nDivisor*, NppiBorderType *eBorderType*)

Four channel channel 16-bit unsigned convolution filter with border control.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSrcSize Source image width and height in pixels relative to pSrc.

oSrcOffset Source image starting point relative to pSrc.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pKernel Pointer to the start address of the kernel coefficient array. Coeffcients are expected to be stored in reverse order.

oKernelSize Width and Height of the rectangular kernel.

oAnchor X and Y offsets of the kernel origin frame of reference relative to the source pixel.

nDivisor The factor by which the convolved summation from the Filter operation should be divided. If equal to the sum of coefficients, this will keep the maximum result value within full scale.

eBorderType The border type operation to be applied at source image border boundaries.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.68.1.87 NppStatus nppiFilterBorder_32f_AC4R (const Npp32f * *pSrc*, Npp32s *nSrcStep*, NppiSize *oSrcSize*, NppiPoint *oSrcOffset*, Npp32f * *pDst*, Npp32s *nDstStep*, NppiSize *oSizeROI*, const Npp32f * *pKernel*, NppiSize *oKernelSize*, NppiPoint *oAnchor*, NppiBorderType *eBorderType*)

Four channel 32-bit float convolution filter with border control, ignoring alpha channel.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSrcSize Source image width and height in pixels relative to pSrc.

oSrcOffset Source image starting point relative to pSrc.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pKernel Pointer to the start address of the kernel coefficient array. Coeffcients are expected to be stored in reverse order.

oKernelSize Width and Height of the rectangular kernel.

oAnchor X and Y offsets of the kernel origin frame of reference relative to the source pixel.

eBorderType The border type operation to be applied at source image border boundaries.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.68.1.88 NppStatus nppiFilterBorder_32f_C1R (const Npp32f ∗ *pSrc*, Npp32s *nSrcStep*, NppiSize *oSrcSize*, NppiPoint *oSrcOffset*, Npp32f ∗ *pDst*, Npp32s *nDstStep*, NppiSize *oSizeROI*, const Npp32f ∗ *pKernel*, NppiSize *oKernelSize*, NppiPoint *oAnchor*, NppiBorderType *eBorderType*)

Single channel 32-bit float convolution filter with border control.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSrcSize Source image width and height in pixels relative to pSrc.

oSrcOffset Source image starting point relative to pSrc.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pKernel Pointer to the start address of the kernel coefficient array. Coeffcients are expected to be stored in reverse order.

oKernelSize Width and Height of the rectangular kernel.

oAnchor X and Y offsets of the kernel origin frame of reference relative to the source pixel.

eBorderType The border type operation to be applied at source image border boundaries.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.68.1.89 NppStatus nppiFilterBorder_32f_C2R (const Npp32f ∗ *pSrc*, Npp32s *nSrcStep*, NppiSize *oSrcSize*, NppiPoint *oSrcOffset*, Npp32f ∗ *pDst*, Npp32s *nDstStep*, NppiSize *oSizeROI*, const Npp32f ∗ *pKernel*, NppiSize *oKernelSize*, NppiPoint *oAnchor*, NppiBorderType *eBorderType*)

Two channel 32-bit float convolution filter with border control.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSrcSize Source image width and height in pixels relative to pSrc.

oSrcOffset Source image starting point relative to pSrc.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pKernel Pointer to the start address of the kernel coefficient array. Coeffcients are expected to be stored in reverse order.

oKernelSize Width and Height of the rectangular kernel.

oAnchor X and Y offsets of the kernel origin frame of reference relative to the source pixel.

eBorderType The border type operation to be applied at source image border boundaries.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.68.1.90 NppStatus nppiFilterBorder_32f_C3R (const Npp32f * *pSrc*, Npp32s *nSrcStep*, NppiSize *oSrcSize*, NppiPoint *oSrcOffset*, Npp32f * *pDst*, Npp32s *nDstStep*, NppiSize *oSizeROI*, const Npp32f * *pKernel*, NppiSize *oKernelSize*, NppiPoint *oAnchor*, NppiBorderType *eBorderType*)

Three channel 32-bit float convolution filter with border control.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSrcSize Source image width and height in pixels relative to pSrc.

oSrcOffset Source image starting point relative to pSrc.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pKernel Pointer to the start address of the kernel coefficient array. Coeffcients are expected to be stored in reverse order.

oKernelSize Width and Height of the rectangular kernel.

oAnchor X and Y offsets of the kernel origin frame of reference relative to the source pixel.

eBorderType The border type operation to be applied at source image border boundaries.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.68.1.91 NppStatus nppiFilterBorder_32f_C4R (const Npp32f * *pSrc*, Npp32s *nSrcStep*, NppiSize *oSrcSize*, NppiPoint *oSrcOffset*, Npp32f * *pDst*, Npp32s *nDstStep*, NppiSize *oSizeROI*, const Npp32f * *pKernel*, NppiSize *oKernelSize*, NppiPoint *oAnchor*, NppiBorderType *eBorderType*)

Four channel 32-bit float convolution filter with border control.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSrcSize Source image width and height in pixels relative to pSrc.

oSrcOffset Source image starting point relative to pSrc.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pKernel Pointer to the start address of the kernel coefficient array. Coeffcients are expected to be stored in reverse order.

oKernelSize Width and Height of the rectangular kernel.

oAnchor X and Y offsets of the kernel origin frame of reference relative to the source pixel.

eBorderType The border type operation to be applied at source image border boundaries.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.68.1.92 NppStatus nppiFilterBorder_8u_AC4R (const Npp8u $*$ *pSrc*, Npp32s *nSrcStep*, NppiSize *oSrcSize*, NppiPoint *oSrcOffset*, Npp8u $*$ *pDst*, Npp32s *nDstStep*, NppiSize *oSizeROI*, const Npp32s $*$ *pKernel*, NppiSize *oKernelSize*, NppiPoint *oAnchor*, Npp32s *nDivisor*, NppiBorderType *eBorderType*)

Four channel 8-bit unsigned convolution filter with border control, ignoring alpha channel.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSrcSize Source image width and height in pixels relative to pSrc.

oSrcOffset Source image starting point relative to pSrc.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pKernel Pointer to the start address of the kernel coefficient array. Coeffcients are expected to be stored in reverse order.

oKernelSize Width and Height of the rectangular kernel.

oAnchor X and Y offsets of the kernel origin frame of reference relative to the source pixel.

nDivisor The factor by which the convolved summation from the Filter operation should be divided. If equal to the sum of coefficients, this will keep the maximum result value within full scale.

eBorderType The border type operation to be applied at source image border boundaries.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.68.1.93 NppStatus nppiFilterBorder_8u_C1R (const Npp8u $*$ *pSrc*, Npp32s *nSrcStep*, NppiSize *oSrcSize*, NppiPoint *oSrcOffset*, Npp8u $*$ *pDst*, Npp32s *nDstStep*, NppiSize *oSizeROI*, const Npp32s $*$ *pKernel*, NppiSize *oKernelSize*, NppiPoint *oAnchor*, Npp32s *nDivisor*, NppiBorderType *eBorderType*)

Single channel 8-bit unsigned convolution filter with border control.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSrcSize Source image width and height in pixels relative to pSrc.

oSrcOffset Source image starting point relative to pSrc.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pKernel Pointer to the start address of the kernel coefficient array. Coeffcients are expected to be stored in reverse order.

oKernelSize Width and Height of the rectangular kernel.

oAnchor X and Y offsets of the kernel origin frame of reference relative to the source pixel.

nDivisor The factor by which the convolved summation from the Filter operation should be divided. If equal to the sum of coefficients, this will keep the maximum result value within full scale.

eBorderType The border type operation to be applied at source image border boundaries.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.68.1.94 NppStatus nppiFilterBorder_8u_C3R (const Npp8u * *pSrc*, Npp32s *nSrcStep*, NppiSize *oSrcSize*, NppiPoint *oSrcOffset*, Npp8u * *pDst*, Npp32s *nDstStep*, NppiSize *oSizeROI*, const Npp32s * *pKernel*, NppiSize *oKernelSize*, NppiPoint *oAnchor*, Npp32s *nDivisor*, NppiBorderType *eBorderType*)

Three channel 8-bit unsigned convolution filter with border control.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSrcSize Source image width and height in pixels relative to pSrc.

oSrcOffset Source image starting point relative to pSrc.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pKernel Pointer to the start address of the kernel coefficient array. Coeffcients are expected to be stored in reverse order.

oKernelSize Width and Height of the rectangular kernel.

oAnchor X and Y offsets of the kernel origin frame of reference relative to the source pixel.

nDivisor The factor by which the convolved summation from the Filter operation should be divided. If equal to the sum of coefficients, this will keep the maximum result value within full scale.

eBorderType The border type operation to be applied at source image border boundaries.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.68.1.95 NppStatus nppiFilterBorder_8u_C4R (const Npp8u * *pSrc*, Npp32s *nSrcStep*, NppiSize *oSrcSize*, NppiPoint *oSrcOffset*, Npp8u * *pDst*, Npp32s *nDstStep*, NppiSize *oSizeROI*, const Npp32s * *pKernel*, NppiSize *oKernelSize*, NppiPoint *oAnchor*, Npp32s *nDivisor*, NppiBorderType *eBorderType*)

Four channel channel 8-bit unsigned convolution filter with border control.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSrcSize Source image width and height in pixels relative to pSrc.

oSrcOffset Source image starting point relative to pSrc.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pKernel Pointer to the start address of the kernel coefficient array. Coeffcients are expected to be stored in reverse order.

oKernelSize Width and Height of the rectangular kernel.

oAnchor X and Y offsets of the kernel origin frame of reference relative to the source pixel.

nDivisor The factor by which the convolved summation from the Filter operation should be divided. If equal to the sum of coefficients, this will keep the maximum result value within full scale.

eBorderType The border type operation to be applied at source image border boundaries.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.69 2D Fixed Linear Filters

FilterBox

Computes the average pixel values of the pixels under a rectangular mask.

- NppStatus nppiFilterBox_8u_C1R (const Npp8u ∗pSrc, Npp32s nSrcStep, Npp8u ∗pDst, Npp32s nDstStep, NppiSize oSizeROI, NppiSize oMaskSize, NppiPoint oAnchor)

  Single channel 8-bit unsigned box filter.

- NppStatus nppiFilterBox_8u_C3R (const Npp8u ∗pSrc, Npp32s nSrcStep, Npp8u ∗pDst, Npp32s nDstStep, NppiSize oSizeROI, NppiSize oMaskSize, NppiPoint oAnchor)

  Three channel 8-bit unsigned box filter.

- NppStatus nppiFilterBox_8u_C4R (const Npp8u ∗pSrc, Npp32s nSrcStep, Npp8u ∗pDst, Npp32s nDstStep, NppiSize oSizeROI, NppiSize oMaskSize, NppiPoint oAnchor)

  Four channel 8-bit unsigned box filter.

- NppStatus nppiFilterBox_8u_AC4R (const Npp8u ∗pSrc, Npp32s nSrcStep, Npp8u ∗pDst, Npp32s nDstStep, NppiSize oSizeROI, NppiSize oMaskSize, NppiPoint oAnchor)

  Four channel 8-bit unsigned box filter, ignorting alpha channel.

- NppStatus nppiFilterBox_16u_C1R (const Npp16u ∗pSrc, Npp32s nSrcStep, Npp16u ∗pDst, Npp32s nDstStep, NppiSize oSizeROI, NppiSize oMaskSize, NppiPoint oAnchor)

  Single channel 16-bit unsigned box filter.

- NppStatus nppiFilterBox_16u_C3R (const Npp16u ∗pSrc, Npp32s nSrcStep, Npp16u ∗pDst, Npp32s nDstStep, NppiSize oSizeROI, NppiSize oMaskSize, NppiPoint oAnchor)

  Three channel 16-bit unsigned box filter.

- NppStatus nppiFilterBox_16u_C4R (const Npp16u ∗pSrc, Npp32s nSrcStep, Npp16u ∗pDst, Npp32s nDstStep, NppiSize oSizeROI, NppiSize oMaskSize, NppiPoint oAnchor)

  Four channel 16-bit unsigned box filter.

- NppStatus nppiFilterBox_16u_AC4R (const Npp16u ∗pSrc, Npp32s nSrcStep, Npp16u ∗pDst, Npp32s nDstStep, NppiSize oSizeROI, NppiSize oMaskSize, NppiPoint oAnchor)

  Four channel 16-bit unsigned box filter, ignorting alpha channel.

- NppStatus nppiFilterBox_16s_C1R (const Npp16s ∗pSrc, Npp32s nSrcStep, Npp16s ∗pDst, Npp32s nDstStep, NppiSize oSizeROI, NppiSize oMaskSize, NppiPoint oAnchor)

  Single channel 16-bit box filter.

- NppStatus nppiFilterBox_16s_C3R (const Npp16s ∗pSrc, Npp32s nSrcStep, Npp16s ∗pDst, Npp32s nDstStep, NppiSize oSizeROI, NppiSize oMaskSize, NppiPoint oAnchor)

  Three channel 16-bit box filter.

- NppStatus nppiFilterBox_16s_C4R (const Npp16s ∗pSrc, Npp32s nSrcStep, Npp16s ∗pDst, Npp32s nDstStep, NppiSize oSizeROI, NppiSize oMaskSize, NppiPoint oAnchor)

  Four channel 16-bit box filter.

- NppStatus nppiFilterBox_16s_AC4R (const Npp16s ∗pSrc, Npp32s nSrcStep, Npp16s ∗pDst, Npp32s nDstStep, NppiSize oSizeROI, NppiSize oMaskSize, NppiPoint oAnchor)

  Four channel 16-bit box filter, ignorting alpha channel.

- NppStatus nppiFilterBox_32f_C1R (const Npp32f ∗pSrc, Npp32s nSrcStep, Npp32f ∗pDst, Npp32s nDstStep, NppiSize oSizeROI, NppiSize oMaskSize, NppiPoint oAnchor)

  Single channel 32-bit floating-point box filter.

- NppStatus nppiFilterBox_32f_C3R (const Npp32f ∗pSrc, Npp32s nSrcStep, Npp32f ∗pDst, Npp32s nDstStep, NppiSize oSizeROI, NppiSize oMaskSize, NppiPoint oAnchor)

  Three channel 32-bit floating-point box filter.

- NppStatus nppiFilterBox_32f_C4R (const Npp32f ∗pSrc, Npp32s nSrcStep, Npp32f ∗pDst, Npp32s nDstStep, NppiSize oSizeROI, NppiSize oMaskSize, NppiPoint oAnchor)

  Four channel 32-bit floating-point box filter.

- NppStatus nppiFilterBox_32f_AC4R (const Npp32f ∗pSrc, Npp32s nSrcStep, Npp32f ∗pDst, Npp32s nDstStep, NppiSize oSizeROI, NppiSize oMaskSize, NppiPoint oAnchor)

  Four channel 32-bit floating-point box filter, ignorting alpha channel.

- NppStatus nppiFilterBox_64f_C1R (const Npp64f ∗pSrc, Npp32s nSrcStep, Npp64f ∗pDst, Npp32s nDstStep, NppiSize oSizeROI, NppiSize oMaskSize, NppiPoint oAnchor)

  Single channel 64-bit floating-point box filter.

7.69.1 Function Documentation

7.69.1.1 NppStatus nppiFilterBox_16s_AC4R (const Npp16s ∗ *pSrc*, Npp32s *nSrcStep*, Npp16s ∗ *pDst*, Npp32s *nDstStep*, NppiSize *oSizeROI*, NppiSize *oMaskSize*, NppiPoint *oAnchor*)

Four channel 16-bit box filter, ignorting alpha channel.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

oMaskSize Width and Height of the neighborhood region for the local Avg operation.

oAnchor X and Y offsets of the kernel origin frame of reference relative to the source pixel.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.69.1.2 NppStatus nppiFilterBox_16s_C1R (const Npp16s * *pSrc*, Npp32s *nSrcStep*, Npp16s * *pDst*, Npp32s *nDstStep*, NppiSize *oSizeROI*, NppiSize *oMaskSize*, NppiPoint *oAnchor*)

Single channel 16-bit box filter.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

oMaskSize Width and Height of the neighborhood region for the local Avg operation.

oAnchor X and Y offsets of the kernel origin frame of reference relative to the source pixel.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.69.1.3 NppStatus nppiFilterBox_16s_C3R (const Npp16s * *pSrc*, Npp32s *nSrcStep*, Npp16s * *pDst*, Npp32s *nDstStep*, NppiSize *oSizeROI*, NppiSize *oMaskSize*, NppiPoint *oAnchor*)

Three channel 16-bit box filter.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

oMaskSize Width and Height of the neighborhood region for the local Avg operation.

oAnchor X and Y offsets of the kernel origin frame of reference relative to the source pixel.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.69.1.4 NppStatus nppiFilterBox_16s_C4R (const Npp16s * *pSrc*, Npp32s *nSrcStep*, Npp16s * *pDst*, Npp32s *nDstStep*, NppiSize *oSizeROI*, NppiSize *oMaskSize*, NppiPoint *oAnchor*)

Four channel 16-bit box filter.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

oMaskSize Width and Height of the neighborhood region for the local Avg operation.

oAnchor X and Y offsets of the kernel origin frame of reference relative to the source pixel.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.69.1.5 NppStatus nppiFilterBox_16u_AC4R (const Npp16u ∗ *pSrc*, Npp32s *nSrcStep*, Npp16u ∗ *pDst*, Npp32s *nDstStep*, NppiSize *oSizeROI*, NppiSize *oMaskSize*, NppiPoint *oAnchor*)

Four channel 16-bit unsigned box filter, ignorting alpha channel.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

oMaskSize Width and Height of the neighborhood region for the local Avg operation.

oAnchor X and Y offsets of the kernel origin frame of reference relative to the source pixel.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.69.1.6 NppStatus nppiFilterBox_16u_C1R (const Npp16u ∗ *pSrc*, Npp32s *nSrcStep*, Npp16u ∗ *pDst*, Npp32s *nDstStep*, NppiSize *oSizeROI*, NppiSize *oMaskSize*, NppiPoint *oAnchor*)

Single channel 16-bit unsigned box filter.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

oMaskSize Width and Height of the neighborhood region for the local Avg operation.

oAnchor X and Y offsets of the kernel origin frame of reference relative to the source pixel.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.69.1.7 NppStatus nppiFilterBox_16u_C3R (const Npp16u ∗ *pSrc*, Npp32s *nSrcStep*, Npp16u ∗ *pDst*, Npp32s *nDstStep*, NppiSize *oSizeROI*, NppiSize *oMaskSize*, NppiPoint *oAnchor*)

Three channel 16-bit unsigned box filter.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

oMaskSize Width and Height of the neighborhood region for the local Avg operation.

oAnchor X and Y offsets of the kernel origin frame of reference relative to the source pixel.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.69.1.8 NppStatus nppiFilterBox_16u_C4R (const Npp16u ∗ *pSrc*, Npp32s *nSrcStep*, Npp16u ∗ *pDst*, Npp32s *nDstStep*, NppiSize *oSizeROI*, NppiSize *oMaskSize*, NppiPoint *oAnchor*)

Four channel 16-bit unsigned box filter.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

oMaskSize Width and Height of the neighborhood region for the local Avg operation.

oAnchor X and Y offsets of the kernel origin frame of reference relative to the source pixel.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.69.1.9 NppStatus nppiFilterBox_32f_AC4R (const Npp32f ∗ *pSrc*, Npp32s *nSrcStep*, Npp32f ∗ *pDst*, Npp32s *nDstStep*, NppiSize *oSizeROI*, NppiSize *oMaskSize*, NppiPoint *oAnchor*)

Four channel 32-bit floating-point box filter, ignorting alpha channel.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

oMaskSize Width and Height of the neighborhood region for the local Avg operation.

oAnchor X and Y offsets of the kernel origin frame of reference relative to the source pixel.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.69.1.10 NppStatus nppiFilterBox_32f_C1R (const Npp32f ∗ *pSrc*, Npp32s *nSrcStep*, Npp32f ∗ *pDst*, Npp32s *nDstStep*, NppiSize *oSizeROI*, NppiSize *oMaskSize*, NppiPoint *oAnchor*)

Single channel 32-bit floating-point box filter.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

oMaskSize Width and Height of the neighborhood region for the local Avg operation.

oAnchor X and Y offsets of the kernel origin frame of reference relative to the source pixel.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.69.1.11 NppStatus nppiFilterBox_32f_C3R (const Npp32f ∗ *pSrc*, Npp32s *nSrcStep*, Npp32f ∗ *pDst*, Npp32s *nDstStep*, NppiSize *oSizeROI*, NppiSize *oMaskSize*, NppiPoint *oAnchor*)

Three channel 32-bit floating-point box filter.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

oMaskSize Width and Height of the neighborhood region for the local Avg operation.

oAnchor X and Y offsets of the kernel origin frame of reference relative to the source pixel.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.69.1.12 NppStatus nppiFilterBox_32f_C4R (const Npp32f ∗ *pSrc*, Npp32s *nSrcStep*, Npp32f ∗ *pDst*, Npp32s *nDstStep*, NppiSize *oSizeROI*, NppiSize *oMaskSize*, NppiPoint *oAnchor*)

Four channel 32-bit floating-point box filter.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

oMaskSize Width and Height of the neighborhood region for the local Avg operation.

oAnchor X and Y offsets of the kernel origin frame of reference relative to the source pixel.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.69.1.13 NppStatus nppiFilterBox_64f_C1R (const Npp64f ∗ *pSrc*, Npp32s *nSrcStep*, Npp64f ∗ *pDst*, Npp32s *nDstStep*, NppiSize *oSizeROI*, NppiSize *oMaskSize*, NppiPoint *oAnchor*)

Single channel 64-bit floating-point box filter.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

oMaskSize Width and Height of the neighborhood region for the local Avg operation.

oAnchor X and Y offsets of the kernel origin frame of reference relative to the source pixel.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.69.1.14 NppStatus nppiFilterBox_8u_AC4R (const Npp8u ∗ *pSrc*, Npp32s *nSrcStep*, Npp8u ∗ *pDst*, Npp32s *nDstStep*, NppiSize *oSizeROI*, NppiSize *oMaskSize*, NppiPoint *oAnchor*)

Four channel 8-bit unsigned box filter, ignorting alpha channel.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

oMaskSize Width and Height of the neighborhood region for the local Avg operation.

oAnchor X and Y offsets of the kernel origin frame of reference relative to the source pixel.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.69.1.15 NppStatus nppiFilterBox_8u_C1R (const Npp8u ∗ *pSrc*, Npp32s *nSrcStep*, Npp8u ∗ *pDst*, Npp32s *nDstStep*, NppiSize *oSizeROI*, NppiSize *oMaskSize*, NppiPoint *oAnchor*)

Single channel 8-bit unsigned box filter.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

oMaskSize Width and Height of the neighborhood region for the local Avg operation.

oAnchor X and Y offsets of the kernel origin frame of reference relative to the source pixel.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.69.1.16 NppStatus nppiFilterBox_8u_C3R (const Npp8u ∗ *pSrc*, Npp32s *nSrcStep*, Npp8u ∗ *pDst*, Npp32s *nDstStep*, NppiSize *oSizeROI*, NppiSize *oMaskSize*, NppiPoint *oAnchor*)

Three channel 8-bit unsigned box filter.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

oMaskSize Width and Height of the neighborhood region for the local Avg operation.

oAnchor X and Y offsets of the kernel origin frame of reference relative to the source pixel.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.69.1.17 NppStatus nppiFilterBox_8u_C4R (const Npp8u $*$ *pSrc*, Npp32s *nSrcStep*, Npp8u $*$ *pDst*, Npp32s *nDstStep*, NppiSize *oSizeROI*, NppiSize *oMaskSize*, NppiPoint *oAnchor*)

Four channel 8-bit unsigned box filter.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

oMaskSize Width and Height of the neighborhood region for the local Avg operation.

oAnchor X and Y offsets of the kernel origin frame of reference relative to the source pixel.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.70 Rank Filters

ImageMax Filter

Result pixel value is the maximum of pixel values under the rectangular mask region.

- NppStatus nppiFilterMax_8u_C1R (const Npp8u ∗pSrc, Npp32s nSrcStep, Npp8u ∗pDst, Npp32s nDstStep, NppiSize oSizeROI, NppiSize oMaskSize, NppiPoint oAnchor)

  Single channel 8-bit unsigned maximum filter.

- NppStatus nppiFilterMax_8u_C3R (const Npp8u ∗pSrc, Npp32s nSrcStep, Npp8u ∗pDst, Npp32s nDstStep, NppiSize oSizeROI, NppiSize oMaskSize, NppiPoint oAnchor)

  Three channel 8-bit unsigned maximum filter.

- NppStatus nppiFilterMax_8u_C4R (const Npp8u ∗pSrc, Npp32s nSrcStep, Npp8u ∗pDst, Npp32s nDstStep, NppiSize oSizeROI, NppiSize oMaskSize, NppiPoint oAnchor)

  Four channel 8-bit unsigned maximum filter.

- NppStatus nppiFilterMax_8u_AC4R (const Npp8u ∗pSrc, Npp32s nSrcStep, Npp8u ∗pDst, Npp32s nDstStep, NppiSize oSizeROI, NppiSize oMaskSize, NppiPoint oAnchor)

  Four channel 8-bit unsigned maximum filter, ignoring alpha channel.

- NppStatus nppiFilterMax_16u_C1R (const Npp16u ∗pSrc, Npp32s nSrcStep, Npp16u ∗pDst, Npp32s nDstStep, NppiSize oSizeROI, NppiSize oMaskSize, NppiPoint oAnchor)

  Single channel 16-bit unsigned maximum filter.

- NppStatus nppiFilterMax_16u_C3R (const Npp16u ∗pSrc, Npp32s nSrcStep, Npp16u ∗pDst, Npp32s nDstStep, NppiSize oSizeROI, NppiSize oMaskSize, NppiPoint oAnchor)

  Three channel 16-bit unsigned maximum filter.

- NppStatus nppiFilterMax_16u_C4R (const Npp16u ∗pSrc, Npp32s nSrcStep, Npp16u ∗pDst, Npp32s nDstStep, NppiSize oSizeROI, NppiSize oMaskSize, NppiPoint oAnchor)

  Four channel 16-bit unsigned maximum filter.

- NppStatus nppiFilterMax_16u_AC4R (const Npp16u ∗pSrc, Npp32s nSrcStep, Npp16u ∗pDst, Npp32s nDstStep, NppiSize oSizeROI, NppiSize oMaskSize, NppiPoint oAnchor)

  Four channel 16-bit unsigned maximum filter, ignoring alpha channel.

- NppStatus nppiFilterMax_16s_C1R (const Npp16s ∗pSrc, Npp32s nSrcStep, Npp16s ∗pDst, Npp32s nDstStep, NppiSize oSizeROI, NppiSize oMaskSize, NppiPoint oAnchor)

  Single channel 16-bit signed maximum filter.

- NppStatus nppiFilterMax_16s_C3R (const Npp16s ∗pSrc, Npp32s nSrcStep, Npp16s ∗pDst, Npp32s nDstStep, NppiSize oSizeROI, NppiSize oMaskSize, NppiPoint oAnchor)

  Three channel 16-bit signed maximum filter.

- NppStatus nppiFilterMax_16s_C4R (const Npp16s ∗pSrc, Npp32s nSrcStep, Npp16s ∗pDst, Npp32s nDstStep, NppiSize oSizeROI, NppiSize oMaskSize, NppiPoint oAnchor)

  Four channel 16-bit signed maximum filter.

- NppStatus nppiFilterMax_16s_AC4R (const Npp16s ∗pSrc, Npp32s nSrcStep, Npp16s ∗pDst, Npp32s nDstStep, NppiSize oSizeROI, NppiSize oMaskSize, NppiPoint oAnchor)

  Four channel 16-bit signed maximum filter, ignoring alpha channel.

- NppStatus nppiFilterMax_32f_C1R (const Npp32f ∗pSrc, Npp32s nSrcStep, Npp32f ∗pDst, Npp32s nDstStep, NppiSize oSizeROI, NppiSize oMaskSize, NppiPoint oAnchor)

  Single channel 32-bit floating-point maximum filter.

- NppStatus nppiFilterMax_32f_C3R (const Npp32f ∗pSrc, Npp32s nSrcStep, Npp32f ∗pDst, Npp32s nDstStep, NppiSize oSizeROI, NppiSize oMaskSize, NppiPoint oAnchor)

  Three channel 32-bit floating-point maximum filter.

- NppStatus nppiFilterMax_32f_C4R (const Npp32f ∗pSrc, Npp32s nSrcStep, Npp32f ∗pDst, Npp32s nDstStep, NppiSize oSizeROI, NppiSize oMaskSize, NppiPoint oAnchor)

  Four channel 32-bit floating-point maximum filter.

- NppStatus nppiFilterMax_32f_AC4R (const Npp32f ∗pSrc, Npp32s nSrcStep, Npp32f ∗pDst, Npp32s nDstStep, NppiSize oSizeROI, NppiSize oMaskSize, NppiPoint oAnchor)

  Four channel 32-bit floating-point maximum filter, ignoring alpha channel.

ImageMin Filter

Result pixel value is the minimum of pixel values under the rectangular mask region.

- NppStatus nppiFilterMin_8u_C1R (const Npp8u ∗pSrc, Npp32s nSrcStep, Npp8u ∗pDst, Npp32s nDstStep, NppiSize oSizeROI, NppiSize oMaskSize, NppiPoint oAnchor)

  Single channel 8-bit unsigned minimum filter.

- NppStatus nppiFilterMin_8u_C3R (const Npp8u ∗pSrc, Npp32s nSrcStep, Npp8u ∗pDst, Npp32s nDstStep, NppiSize oSizeROI, NppiSize oMaskSize, NppiPoint oAnchor)

  Three channel 8-bit unsigned minimum filter.

- NppStatus nppiFilterMin_8u_C4R (const Npp8u ∗pSrc, Npp32s nSrcStep, Npp8u ∗pDst, Npp32s nDstStep, NppiSize oSizeROI, NppiSize oMaskSize, NppiPoint oAnchor)

  Four channel 8-bit unsigned minimum filter.

- NppStatus nppiFilterMin_8u_AC4R (const Npp8u ∗pSrc, Npp32s nSrcStep, Npp8u ∗pDst, Npp32s nDstStep, NppiSize oSizeROI, NppiSize oMaskSize, NppiPoint oAnchor)

  Four channel 8-bit unsigned minimum filter, ignoring alpha channel.

- NppStatus nppiFilterMin_16u_C1R (const Npp16u ∗pSrc, Npp32s nSrcStep, Npp16u ∗pDst, Npp32s nDstStep, NppiSize oSizeROI, NppiSize oMaskSize, NppiPoint oAnchor)

  Single channel 16-bit unsigned minimum filter.

- NppStatus nppiFilterMin_16u_C3R (const Npp16u ∗pSrc, Npp32s nSrcStep, Npp16u ∗pDst, Npp32s nDstStep, NppiSize oSizeROI, NppiSize oMaskSize, NppiPoint oAnchor)

  Three channel 16-bit unsigned minimum filter.

- NppStatus nppiFilterMin_16u_C4R (const Npp16u ∗pSrc, Npp32s nSrcStep, Npp16u ∗pDst, Npp32s nDstStep, NppiSize oSizeROI, NppiSize oMaskSize, NppiPoint oAnchor)

Four channel 16-bit unsigned minimum filter.

- NppStatus nppiFilterMin_16u_AC4R (const Npp16u ∗pSrc, Npp32s nSrcStep, Npp16u ∗pDst, Npp32s nDstStep, NppiSize oSizeROI, NppiSize oMaskSize, NppiPoint oAnchor)

  Four channel 16-bit unsigned minimum filter, ignoring alpha channel.

- NppStatus nppiFilterMin_16s_C1R (const Npp16s ∗pSrc, Npp32s nSrcStep, Npp16s ∗pDst, Npp32s nDstStep, NppiSize oSizeROI, NppiSize oMaskSize, NppiPoint oAnchor)

  Single channel 16-bit signed minimum filter.

- NppStatus nppiFilterMin_16s_C3R (const Npp16s ∗pSrc, Npp32s nSrcStep, Npp16s ∗pDst, Npp32s nDstStep, NppiSize oSizeROI, NppiSize oMaskSize, NppiPoint oAnchor)

  Three channel 16-bit signed minimum filter.

- NppStatus nppiFilterMin_16s_C4R (const Npp16s ∗pSrc, Npp32s nSrcStep, Npp16s ∗pDst, Npp32s nDstStep, NppiSize oSizeROI, NppiSize oMaskSize, NppiPoint oAnchor)

  Four channel 16-bit signed minimum filter.

- NppStatus nppiFilterMin_16s_AC4R (const Npp16s ∗pSrc, Npp32s nSrcStep, Npp16s ∗pDst, Npp32s nDstStep, NppiSize oSizeROI, NppiSize oMaskSize, NppiPoint oAnchor)

  Four channel 16-bit signed minimum filter, ignoring alpha channel.

- NppStatus nppiFilterMin_32f_C1R (const Npp32f ∗pSrc, Npp32s nSrcStep, Npp32f ∗pDst, Npp32s nDstStep, NppiSize oSizeROI, NppiSize oMaskSize, NppiPoint oAnchor)

  Single channel 32-bit floating-point minimum filter.

- NppStatus nppiFilterMin_32f_C3R (const Npp32f ∗pSrc, Npp32s nSrcStep, Npp32f ∗pDst, Npp32s nDstStep, NppiSize oSizeROI, NppiSize oMaskSize, NppiPoint oAnchor)

  Three channel 32-bit floating-point minimum filter.

- NppStatus nppiFilterMin_32f_C4R (const Npp32f ∗pSrc, Npp32s nSrcStep, Npp32f ∗pDst, Npp32s nDstStep, NppiSize oSizeROI, NppiSize oMaskSize, NppiPoint oAnchor)

  Four channel 32-bit floating-point minimum filter.

- NppStatus nppiFilterMin_32f_AC4R (const Npp32f ∗pSrc, Npp32s nSrcStep, Npp32f ∗pDst, Npp32s nDstStep, NppiSize oSizeROI, NppiSize oMaskSize, NppiPoint oAnchor)

  Four channel 32-bit floating-point minimum filter, ignoring alpha channel.

ImageMedian Filter

Result pixel value is the median of pixel values under the rectangular mask region.

- NppStatus nppiFilterMedian_8u_C1R (const Npp8u ∗pSrc, Npp32s nSrcStep, Npp8u ∗pDst, Npp32s nDstStep, NppiSize oSizeROI, NppiSize oMaskSize, NppiPoint oAnchor, Npp8u ∗pBuffer)

  Single channel 8-bit unsigned median filter.

- NppStatus nppiFilterMedian_8u_C3R (const Npp8u ∗pSrc, Npp32s nSrcStep, Npp8u ∗pDst, Npp32s nDstStep, NppiSize oSizeROI, NppiSize oMaskSize, NppiPoint oAnchor, Npp8u ∗pBuffer)

  Three channel 8-bit unsigned median filter.

- NppStatus nppiFilterMedian_8u_C4R (const Npp8u ∗pSrc, Npp32s nSrcStep, Npp8u ∗pDst, Npp32s nDstStep, NppiSize oSizeROI, NppiSize oMaskSize, NppiPoint oAnchor, Npp8u ∗pBuffer)

  Four channel 8-bit unsigned median filter.

- NppStatus nppiFilterMedian_8u_AC4R (const Npp8u ∗pSrc, Npp32s nSrcStep, Npp8u ∗pDst, Npp32s nDstStep, NppiSize oSizeROI, NppiSize oMaskSize, NppiPoint oAnchor, Npp8u ∗pBuffer)

  Four channel 8-bit unsigned median filter, ignoring alpha channel.

- NppStatus nppiFilterMedian_16u_C1R (const Npp16u ∗pSrc, Npp32s nSrcStep, Npp16u ∗pDst, Npp32s nDstStep, NppiSize oSizeROI, NppiSize oMaskSize, NppiPoint oAnchor, Npp8u ∗pBuffer)

  Single channel 16-bit unsigned median filter.

- NppStatus nppiFilterMedian_16u_C3R (const Npp16u ∗pSrc, Npp32s nSrcStep, Npp16u ∗pDst, Npp32s nDstStep, NppiSize oSizeROI, NppiSize oMaskSize, NppiPoint oAnchor, Npp8u ∗pBuffer)

  Three channel 16-bit unsigned median filter.

- NppStatus nppiFilterMedian_16u_C4R (const Npp16u ∗pSrc, Npp32s nSrcStep, Npp16u ∗pDst, Npp32s nDstStep, NppiSize oSizeROI, NppiSize oMaskSize, NppiPoint oAnchor, Npp8u ∗pBuffer)

  Four channel 16-bit unsigned median filter.

- NppStatus nppiFilterMedian_16u_AC4R (const Npp16u ∗pSrc, Npp32s nSrcStep, Npp16u ∗pDst, Npp32s nDstStep, NppiSize oSizeROI, NppiSize oMaskSize, NppiPoint oAnchor, Npp8u ∗pBuffer)

  Four channel 16-bit unsigned median filter, ignoring alpha channel.

- NppStatus nppiFilterMedian_16s_C1R (const Npp16s ∗pSrc, Npp32s nSrcStep, Npp16s ∗pDst, Npp32s nDstStep, NppiSize oSizeROI, NppiSize oMaskSize, NppiPoint oAnchor, Npp8u ∗pBuffer)

  Single channel 16-bit signed median filter.

- NppStatus nppiFilterMedian_16s_C3R (const Npp16s ∗pSrc, Npp32s nSrcStep, Npp16s ∗pDst, Npp32s nDstStep, NppiSize oSizeROI, NppiSize oMaskSize, NppiPoint oAnchor, Npp8u ∗pBuffer)

  Three channel 16-bit signed median filter.

- NppStatus nppiFilterMedian_16s_C4R (const Npp16s ∗pSrc, Npp32s nSrcStep, Npp16s ∗pDst, Npp32s nDstStep, NppiSize oSizeROI, NppiSize oMaskSize, NppiPoint oAnchor, Npp8u ∗pBuffer)

  Four channel 16-bit signed median filter.

- NppStatus nppiFilterMedian_16s_AC4R (const Npp16s ∗pSrc, Npp32s nSrcStep, Npp16s ∗pDst, Npp32s nDstStep, NppiSize oSizeROI, NppiSize oMaskSize, NppiPoint oAnchor, Npp8u ∗pBuffer)

  Four channel 16-bit signed median filter, ignoring alpha channel.

- NppStatus nppiFilterMedian_32f_C1R (const Npp32f ∗pSrc, Npp32s nSrcStep, Npp32f ∗pDst, Npp32s nDstStep, NppiSize oSizeROI, NppiSize oMaskSize, NppiPoint oAnchor, Npp8u ∗pBuffer)

  Single channel 32-bit floating-point median filter.

- NppStatus nppiFilterMedian_32f_C3R (const Npp32f ∗pSrc, Npp32s nSrcStep, Npp32f ∗pDst, Npp32s nDstStep, NppiSize oSizeROI, NppiSize oMaskSize, NppiPoint oAnchor, Npp8u ∗pBuffer)

  Three channel 32-bit floating-point median filter.

- NppStatus nppiFilterMedian_32f_C4R (const Npp32f ∗pSrc, Npp32s nSrcStep, Npp32f ∗pDst, Npp32s nDstStep, NppiSize oSizeROI, NppiSize oMaskSize, NppiPoint oAnchor, Npp8u ∗pBuffer)

  Four channel 32-bit floating-point median filter.

- NppStatus nppiFilterMedian_32f_AC4R (const Npp32f ∗pSrc, Npp32s nSrcStep, Npp32f ∗pDst, Npp32s nDstStep, NppiSize oSizeROI, NppiSize oMaskSize, NppiPoint oAnchor, Npp8u ∗pBuffer)

  Four channel 32-bit floating-point median filter, ignoring alpha channel.

- NppStatus nppiFilterMedianGetBufferSize_8u_C1R (NppiSize oSizeROI, NppiSize oMaskSize, Npp32u ∗nBufferSize)

  Single channel 8-bit unsigned median filter scratch memory size.

- NppStatus nppiFilterMedianGetBufferSize_8u_C3R (NppiSize oSizeROI, NppiSize oMaskSize, Npp32u ∗nBufferSize)

  Three channel 8-bit unsigned median filter scratch memory size.

- NppStatus nppiFilterMedianGetBufferSize_8u_C4R (NppiSize oSizeROI, NppiSize oMaskSize, Npp32u ∗nBufferSize)

  Four channel 8-bit unsigned median filter scratch memory size.

- NppStatus nppiFilterMedianGetBufferSize_8u_AC4R (NppiSize oSizeROI, NppiSize oMaskSize, Npp32u ∗nBufferSize)

  Four channel 8-bit unsigned median filter, ignoring alpha channel.

- NppStatus nppiFilterMedianGetBufferSize_16u_C1R (NppiSize oSizeROI, NppiSize oMaskSize, Npp32u ∗nBufferSize)

  Single channel 16-bit unsigned median filter scratch memory size.

- NppStatus nppiFilterMedianGetBufferSize_16u_C3R (NppiSize oSizeROI, NppiSize oMaskSize, Npp32u ∗nBufferSize)

  Three channel 16-bit unsigned median filter scratch memory size.

- NppStatus nppiFilterMedianGetBufferSize_16u_C4R (NppiSize oSizeROI, NppiSize oMaskSize, Npp32u ∗nBufferSize)

  Four channel 16-bit unsigned median filter scratch memory size.

- NppStatus nppiFilterMedianGetBufferSize_16u_AC4R (NppiSize oSizeROI, NppiSize oMaskSize, Npp32u ∗nBufferSize)

  Four channel 16-bit unsigned median filter, ignoring alpha channel.

- NppStatus nppiFilterMedianGetBufferSize_16s_C1R (NppiSize oSizeROI, NppiSize oMaskSize, Npp32u ∗nBufferSize)

  Single channel 16-bit signed median filter scratch memory size.

- NppStatus nppiFilterMedianGetBufferSize_16s_C3R (NppiSize oSizeROI, NppiSize oMaskSize, Npp32u ∗nBufferSize)

  Three channel 16-bit signed median filter scratch memory size.

- NppStatus nppiFilterMedianGetBufferSize_16s_C4R (NppiSize oSizeROI, NppiSize oMaskSize, Npp32u ∗nBufferSize)

  Four channel 16-bit signed median filter scratch memory size.

- NppStatus nppiFilterMedianGetBufferSize_16s_AC4R (NppiSize oSizeROI, NppiSize oMaskSize, Npp32u ∗nBufferSize)

  Four channel 16-bit signed median filter, ignoring alpha channel.

- NppStatus nppiFilterMedianGetBufferSize_32f_C1R (NppiSize oSizeROI, NppiSize oMaskSize, Npp32u ∗nBufferSize)

  Single channel 32-bit floating-point median filter scratch memory size.

- NppStatus nppiFilterMedianGetBufferSize_32f_C3R (NppiSize oSizeROI, NppiSize oMaskSize, Npp32u ∗nBufferSize)

  Three channel 32-bit floating-point median filter scratch memory size.

- NppStatus nppiFilterMedianGetBufferSize_32f_C4R (NppiSize oSizeROI, NppiSize oMaskSize, Npp32u ∗nBufferSize)

  Four channel 32-bit floating-point median filter scratch memory size.

- NppStatus nppiFilterMedianGetBufferSize_32f_AC4R (NppiSize oSizeROI, NppiSize oMaskSize, Npp32u ∗nBufferSize)

  Four channel 32-bit floating-point median filter, ignoring alpha channel.

7.70.1 Function Documentation

7.70.1.1 NppStatus nppiFilterMax_16s_AC4R (const Npp16s ∗ *pSrc*, Npp32s *nSrcStep*, Npp16s ∗ *pDst*, Npp32s *nDstStep*, NppiSize *oSizeROI*, NppiSize *oMaskSize*, NppiPoint *oAnchor*)

Four channel 16-bit signed maximum filter, ignoring alpha channel.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

oMaskSize Width and Height of the neighborhood region for the local Max operation.

oAnchor X and Y offsets of the kernel origin frame of reference relative to the source pixel.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.70.1.2 NppStatus nppiFilterMax_16s_C1R (const Npp16s * *pSrc*, Npp32s *nSrcStep*, Npp16s * *pDst*, Npp32s *nDstStep*, NppiSize *oSizeROI*, NppiSize *oMaskSize*, NppiPoint *oAnchor*)

Single channel 16-bit signed maximum filter.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

oMaskSize Width and Height of the neighborhood region for the local Max operation.

oAnchor X and Y offsets of the kernel origin frame of reference relative to the source pixel.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.70.1.3 NppStatus nppiFilterMax_16s_C3R (const Npp16s * *pSrc*, Npp32s *nSrcStep*, Npp16s * *pDst*, Npp32s *nDstStep*, NppiSize *oSizeROI*, NppiSize *oMaskSize*, NppiPoint *oAnchor*)

Three channel 16-bit signed maximum filter.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

oMaskSize Width and Height of the neighborhood region for the local Max operation.

oAnchor X and Y offsets of the kernel origin frame of reference relative to the source pixel.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.70.1.4 NppStatus nppiFilterMax_16s_C4R (const Npp16s * *pSrc*, Npp32s *nSrcStep*, Npp16s * *pDst*, Npp32s *nDstStep*, NppiSize *oSizeROI*, NppiSize *oMaskSize*, NppiPoint *oAnchor*)

Four channel 16-bit signed maximum filter.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

oMaskSize Width and Height of the neighborhood region for the local Max operation.

oAnchor X and Y offsets of the kernel origin frame of reference relative to the source pixel.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.70.1.5 NppStatus nppiFilterMax_16u_AC4R (const Npp16u ∗ *pSrc*, Npp32s *nSrcStep*, Npp16u ∗ *pDst*, Npp32s *nDstStep*, NppiSize *oSizeROI*, NppiSize *oMaskSize*, NppiPoint *oAnchor*)

Four channel 16-bit unsigned maximum filter, ignoring alpha channel.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

oMaskSize Width and Height of the neighborhood region for the local Max operation.

oAnchor X and Y offsets of the kernel origin frame of reference relative to the source pixel.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.70.1.6 NppStatus nppiFilterMax_16u_C1R (const Npp16u ∗ *pSrc*, Npp32s *nSrcStep*, Npp16u ∗ *pDst*, Npp32s *nDstStep*, NppiSize *oSizeROI*, NppiSize *oMaskSize*, NppiPoint *oAnchor*)

Single channel 16-bit unsigned maximum filter.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

oMaskSize Width and Height of the neighborhood region for the local Max operation.

oAnchor X and Y offsets of the kernel origin frame of reference relative to the source pixel.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.70.1.7 NppStatus nppiFilterMax_16u_C3R (const Npp16u ∗ *pSrc*, Npp32s *nSrcStep*, Npp16u ∗ *pDst*, Npp32s *nDstStep*, NppiSize *oSizeROI*, NppiSize *oMaskSize*, NppiPoint *oAnchor*)

Three channel 16-bit unsigned maximum filter.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

oMaskSize Width and Height of the neighborhood region for the local Max operation.

oAnchor X and Y offsets of the kernel origin frame of reference relative to the source pixel.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.70.1.8 NppStatus nppiFilterMax_16u_C4R (const Npp16u ∗ *pSrc*, Npp32s *nSrcStep*, Npp16u ∗ *pDst*, Npp32s *nDstStep*, NppiSize *oSizeROI*, NppiSize *oMaskSize*, NppiPoint *oAnchor*)

Four channel 16-bit unsigned maximum filter.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

oMaskSize Width and Height of the neighborhood region for the local Max operation.

oAnchor X and Y offsets of the kernel origin frame of reference relative to the source pixel.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.70.1.9 NppStatus nppiFilterMax_32f_AC4R (const Npp32f ∗ *pSrc*, Npp32s *nSrcStep*, Npp32f ∗ *pDst*, Npp32s *nDstStep*, NppiSize *oSizeROI*, NppiSize *oMaskSize*, NppiPoint *oAnchor*)

Four channel 32-bit floating-point maximum filter, ignoring alpha channel.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

oMaskSize Width and Height of the neighborhood region for the local Max operation.

oAnchor X and Y offsets of the kernel origin frame of reference relative to the source pixel.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.70.1.10 NppStatus nppiFilterMax_32f_C1R (const Npp32f ∗ *pSrc*, Npp32s *nSrcStep*, Npp32f ∗ *pDst*, Npp32s *nDstStep*, NppiSize *oSizeROI*, NppiSize *oMaskSize*, NppiPoint *oAnchor*)

Single channel 32-bit floating-point maximum filter.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

oMaskSize Width and Height of the neighborhood region for the local Max operation.

oAnchor X and Y offsets of the kernel origin frame of reference relative to the source pixel.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.70.1.11 NppStatus nppiFilterMax_32f_C3R (const Npp32f ∗ *pSrc*, Npp32s *nSrcStep*, Npp32f ∗ *pDst*, Npp32s *nDstStep*, NppiSize *oSizeROI*, NppiSize *oMaskSize*, NppiPoint *oAnchor*)

Three channel 32-bit floating-point maximum filter.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

oMaskSize Width and Height of the neighborhood region for the local Max operation.

oAnchor X and Y offsets of the kernel origin frame of reference relative to the source pixel.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.70.1.12 NppStatus nppiFilterMax_32f_C4R (const Npp32f ∗ *pSrc*, Npp32s *nSrcStep*, Npp32f ∗ *pDst*, Npp32s *nDstStep*, NppiSize *oSizeROI*, NppiSize *oMaskSize*, NppiPoint *oAnchor*)

Four channel 32-bit floating-point maximum filter.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

oMaskSize Width and Height of the neighborhood region for the local Max operation.

oAnchor X and Y offsets of the kernel origin frame of reference relative to the source pixel.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.70.1.13 NppStatus nppiFilterMax_8u_AC4R (const Npp8u ∗ *pSrc*, Npp32s *nSrcStep*, Npp8u ∗ *pDst*, Npp32s *nDstStep*, NppiSize *oSizeROI*, NppiSize *oMaskSize*, NppiPoint *oAnchor*)

Four channel 8-bit unsigned maximum filter, ignoring alpha channel.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

oMaskSize Width and Height of the neighborhood region for the local Max operation.

oAnchor X and Y offsets of the kernel origin frame of reference relative to the source pixel.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.70.1.14 NppStatus nppiFilterMax_8u_C1R (const Npp8u ∗ *pSrc*, Npp32s *nSrcStep*, Npp8u ∗ *pDst*, Npp32s *nDstStep*, NppiSize *oSizeROI*, NppiSize *oMaskSize*, NppiPoint *oAnchor*)

Single channel 8-bit unsigned maximum filter.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

oMaskSize Width and Height of the neighborhood region for the local Max operation.

oAnchor X and Y offsets of the kernel origin frame of reference relative to the source pixel.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.70.1.15 NppStatus nppiFilterMax_8u_C3R (const Npp8u ∗ *pSrc*, Npp32s *nSrcStep*, Npp8u ∗ *pDst*, Npp32s *nDstStep*, NppiSize *oSizeROI*, NppiSize *oMaskSize*, NppiPoint *oAnchor*)

Three channel 8-bit unsigned maximum filter.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

oMaskSize Width and Height of the neighborhood region for the local Max operation.

oAnchor X and Y offsets of the kernel origin frame of reference relative to the source pixel.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.70.1.16 NppStatus nppiFilterMax_8u_C4R (const Npp8u ∗ *pSrc*, Npp32s *nSrcStep*, Npp8u ∗ *pDst*, Npp32s *nDstStep*, NppiSize *oSizeROI*, NppiSize *oMaskSize*, NppiPoint *oAnchor*)

Four channel 8-bit unsigned maximum filter.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

oMaskSize Width and Height of the neighborhood region for the local Max operation.

oAnchor X and Y offsets of the kernel origin frame of reference relative to the source pixel.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.70.1.17 NppStatus nppiFilterMedian_16s_AC4R (const Npp16s * *pSrc*, Npp32s *nSrcStep*, Npp16s * *pDst*, Npp32s *nDstStep*, NppiSize *oSizeROI*, NppiSize *oMaskSize*, NppiPoint *oAnchor*, Npp8u * *pBuffer*)

Four channel 16-bit signed median filter, ignoring alpha channel.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

oMaskSize Width and Height of the neighborhood region for the local Median operation.

oAnchor X and Y offsets of the kernel origin frame of reference relative to the source pixel.

pBuffer Pointer to the user-allocated scratch buffer required for the Median operation.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.70.1.18 NppStatus nppiFilterMedian_16s_C1R (const Npp16s * *pSrc*, Npp32s *nSrcStep*, Npp16s * *pDst*, Npp32s *nDstStep*, NppiSize *oSizeROI*, NppiSize *oMaskSize*, NppiPoint *oAnchor*, Npp8u * *pBuffer*)

Single channel 16-bit signed median filter.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

oMaskSize Width and Height of the neighborhood region for the local Median operation.

oAnchor X and Y offsets of the kernel origin frame of reference relative to the source pixel.

pBuffer Pointer to the user-allocated scratch buffer required for the Median operation.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.70.1.19 NppStatus nppiFilterMedian_16s_C3R (const Npp16s * *pSrc*, Npp32s *nSrcStep*, Npp16s * *pDst*, Npp32s *nDstStep*, NppiSize *oSizeROI*, NppiSize *oMaskSize*, NppiPoint *oAnchor*, Npp8u * *pBuffer*)

Three channel 16-bit signed median filter.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

oMaskSize Width and Height of the neighborhood region for the local Median operation.

oAnchor X and Y offsets of the kernel origin frame of reference relative to the source pixel.

pBuffer Pointer to the user-allocated scratch buffer required for the Median operation.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.70.1.20 NppStatus nppiFilterMedian_16s_C4R (const Npp16s ∗ *pSrc*, Npp32s *nSrcStep*, Npp16s ∗ *pDst*, Npp32s *nDstStep*, NppiSize *oSizeROI*, NppiSize *oMaskSize*, NppiPoint *oAnchor*, Npp8u ∗ *pBuffer*)

Four channel 16-bit signed median filter.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

oMaskSize Width and Height of the neighborhood region for the local Median operation.

oAnchor X and Y offsets of the kernel origin frame of reference relative to the source pixel.

pBuffer Pointer to the user-allocated scratch buffer required for the Median operation.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.70.1.21 NppStatus nppiFilterMedian_16u_AC4R (const Npp16u ∗ *pSrc*, Npp32s *nSrcStep*, Npp16u ∗ *pDst*, Npp32s *nDstStep*, NppiSize *oSizeROI*, NppiSize *oMaskSize*, NppiPoint *oAnchor*, Npp8u ∗ *pBuffer*)

Four channel 16-bit unsigned median filter, ignoring alpha channel.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

oMaskSize Width and Height of the neighborhood region for the local Median operation.

oAnchor X and Y offsets of the kernel origin frame of reference relative to the source pixel.

pBuffer Pointer to the user-allocated scratch buffer required for the Median operation.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.70.1.22 NppStatus nppiFilterMedian_16u_C1R (const Npp16u * *pSrc*, Npp32s *nSrcStep*, Npp16u * *pDst*, Npp32s *nDstStep*, NppiSize *oSizeROI*, NppiSize *oMaskSize*, NppiPoint *oAnchor*, Npp8u * *pBuffer*)

Single channel 16-bit unsigned median filter.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

oMaskSize Width and Height of the neighborhood region for the local Median operation.

oAnchor X and Y offsets of the kernel origin frame of reference relative to the source pixel.

pBuffer Pointer to the user-allocated scratch buffer required for the Median operation.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.70.1.23 NppStatus nppiFilterMedian_16u_C3R (const Npp16u * *pSrc*, Npp32s *nSrcStep*, Npp16u * *pDst*, Npp32s *nDstStep*, NppiSize *oSizeROI*, NppiSize *oMaskSize*, NppiPoint *oAnchor*, Npp8u * *pBuffer*)

Three channel 16-bit unsigned median filter.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

oMaskSize Width and Height of the neighborhood region for the local Median operation.

oAnchor X and Y offsets of the kernel origin frame of reference relative to the source pixel.

pBuffer Pointer to the user-allocated scratch buffer required for the Median operation.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.70.1.24 NppStatus nppiFilterMedian_16u_C4R (const Npp16u ∗ *pSrc*, Npp32s *nSrcStep*, Npp16u ∗ *pDst*, Npp32s *nDstStep*, NppiSize *oSizeROI*, NppiSize *oMaskSize*, NppiPoint *oAnchor*, Npp8u ∗ *pBuffer*)

Four channel 16-bit unsigned median filter.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

oMaskSize Width and Height of the neighborhood region for the local Median operation.

oAnchor X and Y offsets of the kernel origin frame of reference relative to the source pixel.

pBuffer Pointer to the user-allocated scratch buffer required for the Median operation.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.70.1.25 NppStatus nppiFilterMedian_32f_AC4R (const Npp32f ∗ *pSrc*, Npp32s *nSrcStep*, Npp32f ∗ *pDst*, Npp32s *nDstStep*, NppiSize *oSizeROI*, NppiSize *oMaskSize*, NppiPoint *oAnchor*, Npp8u ∗ *pBuffer*)

Four channel 32-bit floating-point median filter, ignoring alpha channel.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

oMaskSize Width and Height of the neighborhood region for the local Median operation.

oAnchor X and Y offsets of the kernel origin frame of reference relative to the source pixel.

pBuffer Pointer to the user-allocated scratch buffer required for the Median operation.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.70.1.26 NppStatus nppiFilterMedian_32f_C1R (const Npp32f ∗ *pSrc*, Npp32s *nSrcStep*, Npp32f ∗ *pDst*, Npp32s *nDstStep*, NppiSize *oSizeROI*, NppiSize *oMaskSize*, NppiPoint *oAnchor*, Npp8u ∗ *pBuffer*)

Single channel 32-bit floating-point median filter.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

oMaskSize Width and Height of the neighborhood region for the local Median operation.

oAnchor X and Y offsets of the kernel origin frame of reference relative to the source pixel.

pBuffer Pointer to the user-allocated scratch buffer required for the Median operation.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.70.1.27 NppStatus nppiFilterMedian_32f_C3R (const Npp32f ∗ *pSrc*, Npp32s *nSrcStep*, Npp32f ∗ *pDst*, Npp32s *nDstStep*, NppiSize *oSizeROI*, NppiSize *oMaskSize*, NppiPoint *oAnchor*, Npp8u ∗ *pBuffer*)

Three channel 32-bit floating-point median filter.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

oMaskSize Width and Height of the neighborhood region for the local Median operation.

oAnchor X and Y offsets of the kernel origin frame of reference relative to the source pixel.

pBuffer Pointer to the user-allocated scratch buffer required for the Median operation.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.70.1.28 NppStatus nppiFilterMedian_32f_C4R (const Npp32f ∗ *pSrc*, Npp32s *nSrcStep*, Npp32f ∗ *pDst*, Npp32s *nDstStep*, NppiSize *oSizeROI*, NppiSize *oMaskSize*, NppiPoint *oAnchor*, Npp8u ∗ *pBuffer*)

Four channel 32-bit floating-point median filter.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

oMaskSize Width and Height of the neighborhood region for the local Median operation.

oAnchor X and Y offsets of the kernel origin frame of reference relative to the source pixel.

pBuffer Pointer to the user-allocated scratch buffer required for the Median operation.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.70.1.29 NppStatus nppiFilterMedian_8u_AC4R (const Npp8u ∗ *pSrc*, Npp32s *nSrcStep*, Npp8u ∗ *pDst*, Npp32s *nDstStep*, NppiSize *oSizeROI*, NppiSize *oMaskSize*, NppiPoint *oAnchor*, Npp8u ∗ *pBuffer*)

Four channel 8-bit unsigned median filter, ignoring alpha channel.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

oMaskSize Width and Height of the neighborhood region for the local Median operation.

oAnchor X and Y offsets of the kernel origin frame of reference relative to the source pixel.

pBuffer Pointer to the user-allocated scratch buffer required for the Median operation.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.70.1.30 NppStatus nppiFilterMedian_8u_C1R (const Npp8u ∗ *pSrc*, Npp32s *nSrcStep*, Npp8u ∗ *pDst*, Npp32s *nDstStep*, NppiSize *oSizeROI*, NppiSize *oMaskSize*, NppiPoint *oAnchor*, Npp8u ∗ *pBuffer*)

Single channel 8-bit unsigned median filter.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

oMaskSize Width and Height of the neighborhood region for the local Median operation.

oAnchor X and Y offsets of the kernel origin frame of reference relative to the source pixel.

pBuffer Pointer to the user-allocated scratch buffer required for the Median operation.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.70.1.31 NppStatus nppiFilterMedian_8u_C3R (const Npp8u ∗ *pSrc*, Npp32s *nSrcStep*, Npp8u ∗ *pDst*, Npp32s *nDstStep*, NppiSize *oSizeROI*, NppiSize *oMaskSize*, NppiPoint *oAnchor*, Npp8u ∗ *pBuffer*)

Three channel 8-bit unsigned median filter.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

oMaskSize Width and Height of the neighborhood region for the local Median operation.

oAnchor X and Y offsets of the kernel origin frame of reference relative to the source pixel.

pBuffer Pointer to the user-allocated scratch buffer required for the Median operation.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.70.1.32 NppStatus nppiFilterMedian_8u_C4R (const Npp8u ∗ *pSrc*, Npp32s *nSrcStep*, Npp8u ∗ *pDst*, Npp32s *nDstStep*, NppiSize *oSizeROI*, NppiSize *oMaskSize*, NppiPoint *oAnchor*, Npp8u ∗ *pBuffer*)

Four channel 8-bit unsigned median filter.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

oMaskSize Width and Height of the neighborhood region for the local Median operation.

oAnchor X and Y offsets of the kernel origin frame of reference relative to the source pixel.

pBuffer Pointer to the user-allocated scratch buffer required for the Median operation.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.70.1.33 NppStatus nppiFilterMedianGetBufferSize_16s_AC4R (NppiSize *oSizeROI*, NppiSize *oMaskSize*, Npp32u ∗ *nBufferSize*)

Four channel 16-bit signed median filter, ignoring alpha channel.

Parameters:

oSizeROI Region-of-Interest (ROI).

oMaskSize Width and Height of the neighborhood region for the local Median operation.

nBufferSize Pointer to the size of the scratch buffer required for the Median operation.

Returns:

Image Data Related Error Codes

7.70.1.34 NppStatus nppiFilterMedianGetBufferSize_16s_C1R (NppiSize *oSizeROI*, NppiSize *oMaskSize*, Npp32u ∗ *nBufferSize*)

Single channel 16-bit signed median filter scratch memory size.

Parameters:

oSizeROI Region-of-Interest (ROI).

oMaskSize Width and Height of the neighborhood region for the local Median operation.

nBufferSize Pointer to the size of the scratch buffer required for the Median operation.

Returns:

Image Data Related Error Codes

7.70.1.35 NppStatus nppiFilterMedianGetBufferSize_16s_C3R (NppiSize *oSizeROI*, NppiSize *oMaskSize*, Npp32u ∗ *nBufferSize*)

Three channel 16-bit signed median filter scratch memory size.

Parameters:

oSizeROI Region-of-Interest (ROI).

oMaskSize Width and Height of the neighborhood region for the local Median operation.

nBufferSize Pointer to the size of the scratch buffer required for the Median operation.

Returns:

Image Data Related Error Codes

7.70.1.36 NppStatus nppiFilterMedianGetBufferSize_16s_C4R (NppiSize *oSizeROI*, NppiSize *oMaskSize*, Npp32u ∗ *nBufferSize*)

Four channel 16-bit signed median filter scratch memory size.

Parameters:

oSizeROI Region-of-Interest (ROI).

oMaskSize Width and Height of the neighborhood region for the local Median operation.

nBufferSize Pointer to the size of the scratch buffer required for the Median operation.

Returns:

Image Data Related Error Codes

7.70.1.37 NppStatus nppiFilterMedianGetBufferSize_16u_AC4R (NppiSize *oSizeROI*, NppiSize *oMaskSize*, Npp32u ∗ *nBufferSize*)

Four channel 16-bit unsigned median filter, ignoring alpha channel.

Parameters:

oSizeROI Region-of-Interest (ROI).

oMaskSize Width and Height of the neighborhood region for the local Median operation.

nBufferSize Pointer to the size of the scratch buffer required for the Median operation.

Returns:

Image Data Related Error Codes

7.70.1.38 NppStatus nppiFilterMedianGetBufferSize_16u_C1R (NppiSize *oSizeROI*, NppiSize *oMaskSize*, Npp32u ∗ *nBufferSize*)

Single channel 16-bit unsigned median filter scratch memory size.

Parameters:

oSizeROI Region-of-Interest (ROI).

oMaskSize Width and Height of the neighborhood region for the local Median operation.

nBufferSize Pointer to the size of the scratch buffer required for the Median operation.

Returns:

Image Data Related Error Codes

7.70.1.39 NppStatus nppiFilterMedianGetBufferSize_16u_C3R (NppiSize *oSizeROI*, NppiSize *oMaskSize*, Npp32u ∗ *nBufferSize*)

Three channel 16-bit unsigned median filter scratch memory size.

Parameters:

oSizeROI Region-of-Interest (ROI).

oMaskSize Width and Height of the neighborhood region for the local Median operation.

nBufferSize Pointer to the size of the scratch buffer required for the Median operation.

Returns:

Image Data Related Error Codes

7.70.1.40 NppStatus nppiFilterMedianGetBufferSize_16u_C4R (NppiSize *oSizeROI*, NppiSize *oMaskSize*, Npp32u ∗ *nBufferSize*)

Four channel 16-bit unsigned median filter scratch memory size.

Parameters:

oSizeROI Region-of-Interest (ROI).

oMaskSize Width and Height of the neighborhood region for the local Median operation.

nBufferSize Pointer to the size of the scratch buffer required for the Median operation.

Returns:

Image Data Related Error Codes

7.70.1.41 NppStatus nppiFilterMedianGetBufferSize_32f_AC4R (NppiSize *oSizeROI*, NppiSize *oMaskSize*, Npp32u * *nBufferSize*)

Four channel 32-bit floating-point median filter, ignoring alpha channel.

Parameters:

oSizeROI Region-of-Interest (ROI).

oMaskSize Width and Height of the neighborhood region for the local Median operation.

nBufferSize Pointer to the size of the scratch buffer required for the Median operation.

Returns:

Image Data Related Error Codes

7.70.1.42 NppStatus nppiFilterMedianGetBufferSize_32f_C1R (NppiSize *oSizeROI*, NppiSize *oMaskSize*, Npp32u * *nBufferSize*)

Single channel 32-bit floating-point median filter scratch memory size.

Parameters:

oSizeROI Region-of-Interest (ROI).

oMaskSize Width and Height of the neighborhood region for the local Median operation.

nBufferSize Pointer to the size of the scratch buffer required for the Median operation.

Returns:

Image Data Related Error Codes

7.70.1.43 NppStatus nppiFilterMedianGetBufferSize_32f_C3R (NppiSize *oSizeROI*, NppiSize *oMaskSize*, Npp32u * *nBufferSize*)

Three channel 32-bit floating-point median filter scratch memory size.

Parameters:

oSizeROI Region-of-Interest (ROI).

oMaskSize Width and Height of the neighborhood region for the local Median operation.

nBufferSize Pointer to the size of the scratch buffer required for the Median operation.

Returns:

Image Data Related Error Codes

7.70.1.44 NppStatus nppiFilterMedianGetBufferSize_32f_C4R (NppiSize *oSizeROI*, NppiSize *oMaskSize*, Npp32u ∗ *nBufferSize*)

Four channel 32-bit floating-point median filter scratch memory size.

Parameters:

oSizeROI Region-of-Interest (ROI).

oMaskSize Width and Height of the neighborhood region for the local Median operation.

nBufferSize Pointer to the size of the scratch buffer required for the Median operation.

Returns:

Image Data Related Error Codes

7.70.1.45 NppStatus nppiFilterMedianGetBufferSize_8u_AC4R (NppiSize *oSizeROI*, NppiSize *oMaskSize*, Npp32u ∗ *nBufferSize*)

Four channel 8-bit unsigned median filter, ignoring alpha channel.

Parameters:

oSizeROI Region-of-Interest (ROI).

oMaskSize Width and Height of the neighborhood region for the local Median operation.

nBufferSize Pointer to the size of the scratch buffer required for the Median operation.

Returns:

Image Data Related Error Codes

7.70.1.46 NppStatus nppiFilterMedianGetBufferSize_8u_C1R (NppiSize *oSizeROI*, NppiSize *oMaskSize*, Npp32u ∗ *nBufferSize*)

Single channel 8-bit unsigned median filter scratch memory size.

Parameters:

oSizeROI Region-of-Interest (ROI).

oMaskSize Width and Height of the neighborhood region for the local Median operation.

nBufferSize Pointer to the size of the scratch buffer required for the Median operation.

Returns:

Image Data Related Error Codes

7.70.1.47 NppStatus nppiFilterMedianGetBufferSize_8u_C3R (NppiSize *oSizeROI*, NppiSize *oMaskSize*, Npp32u ∗ *nBufferSize*)

Three channel 8-bit unsigned median filter scratch memory size.

Parameters:

oSizeROI Region-of-Interest (ROI).

oMaskSize Width and Height of the neighborhood region for the local Median operation.

nBufferSize Pointer to the size of the scratch buffer required for the Median operation.

Returns:

Image Data Related Error Codes

7.70.1.48 NppStatus nppiFilterMedianGetBufferSize_8u_C4R (NppiSize *oSizeROI*, NppiSize *oMaskSize*, Npp32u ∗ *nBufferSize*)

Four channel 8-bit unsigned median filter scratch memory size.

Parameters:

oSizeROI Region-of-Interest (ROI).

oMaskSize Width and Height of the neighborhood region for the local Median operation.

nBufferSize Pointer to the size of the scratch buffer required for the Median operation.

Returns:

Image Data Related Error Codes

7.70.1.49 NppStatus nppiFilterMin_16s_AC4R (const Npp16s ∗ *pSrc*, Npp32s *nSrcStep*, Npp16s ∗ *pDst*, Npp32s *nDstStep*, NppiSize *oSizeROI*, NppiSize *oMaskSize*, NppiPoint *oAnchor*)

Four channel 16-bit signed minimum filter, ignoring alpha channel.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

oMaskSize Width and Height of the neighborhood region for the local Max operation.

oAnchor X and Y offsets of the kernel origin frame of reference relative to the source pixel.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.70.1.50 NppStatus nppiFilterMin_16s_C1R (const Npp16s ∗ *pSrc*, Npp32s *nSrcStep*, Npp16s ∗ *pDst*, Npp32s *nDstStep*, NppiSize *oSizeROI*, NppiSize *oMaskSize*, NppiPoint *oAnchor*)

Single channel 16-bit signed minimum filter.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

oMaskSize Width and Height of the neighborhood region for the local Max operation.

oAnchor X and Y offsets of the kernel origin frame of reference relative to the source pixel.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.70.1.51 NppStatus nppiFilterMin_16s_C3R (const Npp16s ∗ *pSrc*, Npp32s *nSrcStep*, Npp16s ∗ *pDst*, Npp32s *nDstStep*, NppiSize *oSizeROI*, NppiSize *oMaskSize*, NppiPoint *oAnchor*)

Three channel 16-bit signed minimum filter.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

oMaskSize Width and Height of the neighborhood region for the local Max operation.

oAnchor X and Y offsets of the kernel origin frame of reference relative to the source pixel.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.70.1.52 NppStatus nppiFilterMin_16s_C4R (const Npp16s ∗ *pSrc*, Npp32s *nSrcStep*, Npp16s ∗ *pDst*, Npp32s *nDstStep*, NppiSize *oSizeROI*, NppiSize *oMaskSize*, NppiPoint *oAnchor*)

Four channel 16-bit signed minimum filter.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

oMaskSize Width and Height of the neighborhood region for the local Max operation.

oAnchor X and Y offsets of the kernel origin frame of reference relative to the source pixel.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.70.1.53 NppStatus nppiFilterMin_16u_AC4R (const Npp16u ∗ *pSrc*, Npp32s *nSrcStep*, Npp16u ∗ *pDst*, Npp32s *nDstStep*, NppiSize *oSizeROI*, NppiSize *oMaskSize*, NppiPoint *oAnchor*)

Four channel 16-bit unsigned minimum filter, ignoring alpha channel.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

oMaskSize Width and Height of the neighborhood region for the local Max operation.

oAnchor X and Y offsets of the kernel origin frame of reference relative to the source pixel.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.70.1.54 NppStatus nppiFilterMin_16u_C1R (const Npp16u ∗ *pSrc*, Npp32s *nSrcStep*, Npp16u ∗ *pDst*, Npp32s *nDstStep*, NppiSize *oSizeROI*, NppiSize *oMaskSize*, NppiPoint *oAnchor*)

Single channel 16-bit unsigned minimum filter.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

oMaskSize Width and Height of the neighborhood region for the local Max operation.

oAnchor X and Y offsets of the kernel origin frame of reference relative to the source pixel.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.70.1.55 NppStatus nppiFilterMin_16u_C3R (const Npp16u ∗ *pSrc*, Npp32s *nSrcStep*, Npp16u ∗ *pDst*, Npp32s *nDstStep*, NppiSize *oSizeROI*, NppiSize *oMaskSize*, NppiPoint *oAnchor*)

Three channel 16-bit unsigned minimum filter.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

oMaskSize Width and Height of the neighborhood region for the local Max operation.

oAnchor X and Y offsets of the kernel origin frame of reference relative to the source pixel.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.70.1.56 NppStatus nppiFilterMin_16u_C4R (const Npp16u ∗ *pSrc*, Npp32s *nSrcStep*, Npp16u ∗ *pDst*, Npp32s *nDstStep*, NppiSize *oSizeROI*, NppiSize *oMaskSize*, NppiPoint *oAnchor*)

Four channel 16-bit unsigned minimum filter.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

oMaskSize Width and Height of the neighborhood region for the local Max operation.

oAnchor X and Y offsets of the kernel origin frame of reference relative to the source pixel.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.70.1.57 NppStatus nppiFilterMin_32f_AC4R (const Npp32f ∗ *pSrc*, Npp32s *nSrcStep*, Npp32f ∗ *pDst*, Npp32s *nDstStep*, NppiSize *oSizeROI*, NppiSize *oMaskSize*, NppiPoint *oAnchor*)

Four channel 32-bit floating-point minimum filter, ignoring alpha channel.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

oMaskSize Width and Height of the neighborhood region for the local Max operation.

oAnchor X and Y offsets of the kernel origin frame of reference relative to the source pixel.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.70.1.58 NppStatus nppiFilterMin_32f_C1R (const Npp32f * *pSrc*, Npp32s *nSrcStep*, Npp32f * *pDst*, Npp32s *nDstStep*, NppiSize *oSizeROI*, NppiSize *oMaskSize*, NppiPoint *oAnchor*)

Single channel 32-bit floating-point minimum filter.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

oMaskSize Width and Height of the neighborhood region for the local Max operation.

oAnchor X and Y offsets of the kernel origin frame of reference relative to the source pixel.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.70.1.59 NppStatus nppiFilterMin_32f_C3R (const Npp32f * *pSrc*, Npp32s *nSrcStep*, Npp32f * *pDst*, Npp32s *nDstStep*, NppiSize *oSizeROI*, NppiSize *oMaskSize*, NppiPoint *oAnchor*)

Three channel 32-bit floating-point minimum filter.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

oMaskSize Width and Height of the neighborhood region for the local Max operation.

oAnchor X and Y offsets of the kernel origin frame of reference relative to the source pixel.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.70.1.60 NppStatus nppiFilterMin_32f_C4R (const Npp32f ∗ *pSrc*, Npp32s *nSrcStep*, Npp32f ∗ *pDst*, Npp32s *nDstStep*, NppiSize *oSizeROI*, NppiSize *oMaskSize*, NppiPoint *oAnchor*)

Four channel 32-bit floating-point minimum filter.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

oMaskSize Width and Height of the neighborhood region for the local Max operation.

oAnchor X and Y offsets of the kernel origin frame of reference relative to the source pixel.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.70.1.61 NppStatus nppiFilterMin_8u_AC4R (const Npp8u ∗ *pSrc*, Npp32s *nSrcStep*, Npp8u ∗ *pDst*, Npp32s *nDstStep*, NppiSize *oSizeROI*, NppiSize *oMaskSize*, NppiPoint *oAnchor*)

Four channel 8-bit unsigned minimum filter, ignoring alpha channel.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

oMaskSize Width and Height of the neighborhood region for the local Max operation.

oAnchor X and Y offsets of the kernel origin frame of reference relative to the source pixel.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.70.1.62 NppStatus nppiFilterMin_8u_C1R (const Npp8u ∗ *pSrc*, Npp32s *nSrcStep*, Npp8u ∗ *pDst*, Npp32s *nDstStep*, NppiSize *oSizeROI*, NppiSize *oMaskSize*, NppiPoint *oAnchor*)

Single channel 8-bit unsigned minimum filter.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

oMaskSize Width and Height of the neighborhood region for the local Max operation.

oAnchor X and Y offsets of the kernel origin frame of reference relative to the source pixel.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.70.1.63 NppStatus nppiFilterMin_8u_C3R (const Npp8u ∗ *pSrc*, Npp32s *nSrcStep*, Npp8u ∗ *pDst*, Npp32s *nDstStep*, NppiSize *oSizeROI*, NppiSize *oMaskSize*, NppiPoint *oAnchor*)

Three channel 8-bit unsigned minimum filter.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

oMaskSize Width and Height of the neighborhood region for the local Max operation.

oAnchor X and Y offsets of the kernel origin frame of reference relative to the source pixel.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.70.1.64 NppStatus nppiFilterMin_8u_C4R (const Npp8u ∗ *pSrc*, Npp32s *nSrcStep*, Npp8u ∗ *pDst*, Npp32s *nDstStep*, NppiSize *oSizeROI*, NppiSize *oMaskSize*, NppiPoint *oAnchor*)

Four channel 8-bit unsigned minimum filter.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

oMaskSize Width and Height of the neighborhood region for the local Max operation.

oAnchor X and Y offsets of the kernel origin frame of reference relative to the source pixel.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.71 Fixed Filters

Fixed filters perform linear filtering operations (i.e.

FilterPrewittHoriz

Filters the image using a horizontal Prewitt filter kernel:

$$\begin{pmatrix} 1 & 1 & 1 \\ 0 & 0 & 0 \\ -1 & -1 & -1 \end{pmatrix}$$

- NppStatus nppiFilterPrewittHoriz_8u_C1R (const Npp8u ∗pSrc, Npp32s nSrcStep, Npp8u ∗pDst, Npp32s nDstStep, NppiSize oSizeROI)

  Single channel 8-bit unsigned horizontal Prewitt filter.

- NppStatus nppiFilterPrewittHoriz_8u_C3R (const Npp8u ∗pSrc, Npp32s nSrcStep, Npp8u ∗pDst, Npp32s nDstStep, NppiSize oSizeROI)

  Three channel 8-bit unsigned horizontal Prewitt filter.

- NppStatus nppiFilterPrewittHoriz_8u_C4R (const Npp8u ∗pSrc, Npp32s nSrcStep, Npp8u ∗pDst, Npp32s nDstStep, NppiSize oSizeROI)

  Four channel 8-bit unsigned horizontal Prewitt filter.

- NppStatus nppiFilterPrewittHoriz_8u_AC4R (const Npp8u ∗pSrc, Npp32s nSrcStep, Npp8u ∗pDst, Npp32s nDstStep, NppiSize oSizeROI)

  Four channel 8-bit unsigned horizontal Prewitt filter, ignoring alpha channel.

- NppStatus nppiFilterPrewittHoriz_16s_C1R (const Npp16s ∗pSrc, Npp32s nSrcStep, Npp16s ∗pDst, Npp32s nDstStep, NppiSize oSizeROI)

  Single channel 16-bit signed horizontal Prewitt filter.

- NppStatus nppiFilterPrewittHoriz_16s_C3R (const Npp16s ∗pSrc, Npp32s nSrcStep, Npp16s ∗pDst, Npp32s nDstStep, NppiSize oSizeROI)

  Three channel 16-bit signed horizontal Prewitt filter.

- NppStatus nppiFilterPrewittHoriz_16s_C4R (const Npp16s ∗pSrc, Npp32s nSrcStep, Npp16s ∗pDst, Npp32s nDstStep, NppiSize oSizeROI)

  Four channel 16-bit signed horizontal Prewitt filter.

- NppStatus nppiFilterPrewittHoriz_16s_AC4R (const Npp16s ∗pSrc, Npp32s nSrcStep, Npp16s ∗pDst, Npp32s nDstStep, NppiSize oSizeROI)

  Four channel 16-bit signed horizontal Prewitt filter, ignoring alpha channel.

- NppStatus nppiFilterPrewittHoriz_32f_C1R (const Npp32f ∗pSrc, Npp32s nSrcStep, Npp32f ∗pDst, Npp32s nDstStep, NppiSize oSizeROI)

  Single channel 32-bit floating-point horizontal Prewitt filter.

- NppStatus nppiFilterPrewittHoriz_32f_C3R (const Npp32f ∗pSrc, Npp32s nSrcStep, Npp32f ∗pDst, Npp32s nDstStep, NppiSize oSizeROI)

Three channel 32-bit floating-point horizontal Prewitt filter.

- NppStatus nppiFilterPrewittHoriz_32f_C4R (const Npp32f ∗pSrc, Npp32s nSrcStep, Npp32f ∗pDst, Npp32s nDstStep, NppiSize oSizeROI)

  Four channel 32-bit floating-point horizontal Prewitt filter.

- NppStatus nppiFilterPrewittHoriz_32f_AC4R (const Npp32f ∗pSrc, Npp32s nSrcStep, Npp32f ∗pDst, Npp32s nDstStep, NppiSize oSizeROI)

  Four channel 32-bit floating-point horizontal Prewitt filter, ignoring alpha channel.

FilterPrewittVert

Filters the image using a vertical Prewitt filter kernel:

$$\begin{pmatrix} -1 & 0 & 1 \\ -1 & 0 & 1 \\ -1 & 0 & 1 \end{pmatrix}$$

- NppStatus nppiFilterPrewittVert_8u_C1R (const Npp8u ∗pSrc, Npp32s nSrcStep, Npp8u ∗pDst, Npp32s nDstStep, NppiSize oSizeROI)

  Single channel 8-bit unsigned vertical Prewitt filter.

- NppStatus nppiFilterPrewittVert_8u_C3R (const Npp8u ∗pSrc, Npp32s nSrcStep, Npp8u ∗pDst, Npp32s nDstStep, NppiSize oSizeROI)

  Three channel 8-bit unsigned vertical Prewitt filter.

- NppStatus nppiFilterPrewittVert_8u_C4R (const Npp8u ∗pSrc, Npp32s nSrcStep, Npp8u ∗pDst, Npp32s nDstStep, NppiSize oSizeROI)

  Four channel 8-bit unsigned vertical Prewitt filter.

- NppStatus nppiFilterPrewittVert_8u_AC4R (const Npp8u ∗pSrc, Npp32s nSrcStep, Npp8u ∗pDst, Npp32s nDstStep, NppiSize oSizeROI)

  Four channel 8-bit unsigned vertical Prewitt filter, ignoring alpha channel.

- NppStatus nppiFilterPrewittVert_16s_C1R (const Npp16s ∗pSrc, Npp32s nSrcStep, Npp16s ∗pDst, Npp32s nDstStep, NppiSize oSizeROI)

  Single channel 16-bit signed vertical Prewitt filter.

- NppStatus nppiFilterPrewittVert_16s_C3R (const Npp16s ∗pSrc, Npp32s nSrcStep, Npp16s ∗pDst, Npp32s nDstStep, NppiSize oSizeROI)

  Three channel 16-bit signed vertical Prewitt filter.

- NppStatus nppiFilterPrewittVert_16s_C4R (const Npp16s ∗pSrc, Npp32s nSrcStep, Npp16s ∗pDst, Npp32s nDstStep, NppiSize oSizeROI)

  Four channel 16-bit signed vertical Prewitt filter.

- NppStatus nppiFilterPrewittVert_16s_AC4R (const Npp16s ∗pSrc, Npp32s nSrcStep, Npp16s ∗pDst, Npp32s nDstStep, NppiSize oSizeROI)

  Four channel 16-bit signed vertical Prewitt filter, ignoring alpha channel.

- NppStatus nppiFilterPrewittVert_32f_C1R (const Npp32f ∗pSrc, Npp32s nSrcStep, Npp32f ∗pDst, Npp32s nDstStep, NppiSize oSizeROI)

  Single channel 32-bit floating-point vertical Prewitt filter.

- NppStatus nppiFilterPrewittVert_32f_C3R (const Npp32f ∗pSrc, Npp32s nSrcStep, Npp32f ∗pDst, Npp32s nDstStep, NppiSize oSizeROI)

  Three channel 32-bit floating-point vertical Prewitt filter.

- NppStatus nppiFilterPrewittVert_32f_C4R (const Npp32f ∗pSrc, Npp32s nSrcStep, Npp32f ∗pDst, Npp32s nDstStep, NppiSize oSizeROI)

  Four channel 32-bit floating-point vertical Prewitt filter.

- NppStatus nppiFilterPrewittVert_32f_AC4R (const Npp32f ∗pSrc, Npp32s nSrcStep, Npp32f ∗pDst, Npp32s nDstStep, NppiSize oSizeROI)

  Four channel 32-bit floating-point vertical Prewitt filter, ignoring alpha channel.

FilterScharrHoriz

Filters the image using a horizontal Scharr filter kernel:

$$\begin{pmatrix} 3 & 10 & 3 \\ 0 & 0 & 0 \\ -3 & -10 & -3 \end{pmatrix}$$

- NppStatus nppiFilterScharrHoriz_8u16s_C1R (const Npp8u ∗pSrc, Npp32s nSrcStep, Npp16s ∗pDst, Npp32s nDstStep, NppiSize oSizeROI)

  Single channel 8-bit unsigned to 16-bit signed horizontal Scharr filter.

- NppStatus nppiFilterScharrHoriz_8s16s_C1R (const Npp8s ∗pSrc, Npp32s nSrcStep, Npp16s ∗pDst, Npp32s nDstStep, NppiSize oSizeROI)

  Single channel 8-bit signed to 16-bit signed horizontal Scharr filter.

- NppStatus nppiFilterScharrHoriz_32f_C1R (const Npp32f ∗pSrc, Npp32s nSrcStep, Npp32f ∗pDst, Npp32s nDstStep, NppiSize oSizeROI)

  Single channel 32-bit floating-point horizontal Scharr filter.

FilterScharrVert

Filters the image using a vertical Scharr filter kernel:

$$\begin{pmatrix} 3 & 0 & -3 \\ 10 & 0 & -10 \\ 3 & 0 & -3 \end{pmatrix}$$

- NppStatus nppiFilterScharrVert_8u16s_C1R (const Npp8u ∗pSrc, Npp32s nSrcStep, Npp16s ∗pDst, Npp32s nDstStep, NppiSize oSizeROI)

  Single channel 8-bit unsigned to 16-bit signed vertical Scharr filter.

- NppStatus nppiFilterScharrVert_8s16s_C1R (const Npp8s ∗pSrc, Npp32s nSrcStep, Npp16s ∗pDst, Npp32s nDstStep, NppiSize oSizeROI)

  Single channel 8-bit signed to 16-bit signed vertical Scharr filter.

- NppStatus nppiFilterScharrVert_32f_C1R (const Npp32f ∗pSrc, Npp32s nSrcStep, Npp32f ∗pDst, Npp32s nDstStep, NppiSize oSizeROI)

  Single channel 32-bit floating-point vertical Scharr filter.

FilterScharrHorizBorder

Filters the image using a horizontal Scharr filter kernel with border control:

$$\begin{pmatrix} 3 & 10 & 3 \\ 0 & 0 & 0 \\ -3 & -10 & -3 \end{pmatrix}$$

- NppStatus nppiFilterScharrHorizBorder_8u16s_C1R (const Npp8u ∗pSrc, Npp32s nSrcStep, NppiSize oSrcSize, NppiPoint oSrcOffset, Npp16s ∗pDst, Npp32s nDstStep, NppiSize oSizeROI, NppiBorderType eBorderType)

  Single channel 8-bit unsigned to 16-bit signed horizontal Scharr filter kernel with border control.

- NppStatus nppiFilterScharrHorizBorder_8s16s_C1R (const Npp8s ∗pSrc, Npp32s nSrcStep, NppiSize oSrcSize, NppiPoint oSrcOffset, Npp16s ∗pDst, Npp32s nDstStep, NppiSize oSizeROI, NppiBorderType eBorderType)

  Single channel 8-bit signed to 16-bit signed horizontal Scharr filter kernel with border control.

- NppStatus nppiFilterScharrHorizBorder_32f_C1R (const Npp32f ∗pSrc, Npp32s nSrcStep, NppiSize oSrcSize, NppiPoint oSrcOffset, Npp32f ∗pDst, Npp32s nDstStep, NppiSize oSizeROI, NppiBorderType eBorderType)

  Single channel 32-bit floating-point horizontal Scharr filter kernel with border control.

FilterScharrVertBorder

Filters the image using a vertical Scharr filter kernel kernel with border control:

$$\begin{pmatrix} 3 & 0 & -3 \\ 10 & 0 & -10 \\ 3 & 0 & -3 \end{pmatrix}$$

- NppStatus nppiFilterScharrVertBorder_8u16s_C1R (const Npp8u ∗pSrc, Npp32s nSrcStep, NppiSize oSrcSize, NppiPoint oSrcOffset, Npp16s ∗pDst, Npp32s nDstStep, NppiSize oSizeROI, NppiBorderType eBorderType)

  Single channel 8-bit unsigned to 16-bit signed vertical Scharr filter kernel with border control.

- NppStatus nppiFilterScharrVertBorder_8s16s_C1R (const Npp8s ∗pSrc, Npp32s nSrcStep, NppiSize oSrcSize, NppiPoint oSrcOffset, Npp16s ∗pDst, Npp32s nDstStep, NppiSize oSizeROI, NppiBorderType eBorderType)

Single channel 8-bit signed to 16-bit signed vertical Scharr filter kernel with border control.

- NppStatus nppiFilterScharrVertBorder_32f_C1R (const Npp32f ∗pSrc, Npp32s nSrcStep, NppiSize oSrcSize, NppiPoint oSrcOffset, Npp32f ∗pDst, Npp32s nDstStep, NppiSize oSizeROI, NppiBorderType eBorderType)

  Single channel 32-bit floating-point vertical Scharr filter kernel with border control.

FilterSobelHoriz

Filters the image using a horizontal Sobel filter kernel:

$$\begin{pmatrix} 1 & 2 & 1 \\ 0 & 0 & 0 \\ -1 & -2 & -1 \end{pmatrix} \begin{pmatrix} 1 & 4 & 6 & 4 & 1 \\ 2 & 8 & 12 & 8 & 2 \\ 0 & 0 & 0 & 0 & 0 \\ -2 & -8 & -12 & -8 & -2 \\ -1 & -4 & -6 & -4 & -1 \end{pmatrix}$$

- NppStatus nppiFilterSobelHoriz_8u_C1R (const Npp8u ∗pSrc, Npp32s nSrcStep, Npp8u ∗pDst, Npp32s nDstStep, NppiSize oSizeROI)

  Single channel 8-bit unsigned horizontal Sobel filter.

- NppStatus nppiFilterSobelHoriz_8u_C3R (const Npp8u ∗pSrc, Npp32s nSrcStep, Npp8u ∗pDst, Npp32s nDstStep, NppiSize oSizeROI)

  Three channel 8-bit unsigned horizontal Sobel filter.

- NppStatus nppiFilterSobelHoriz_8u_C4R (const Npp8u ∗pSrc, Npp32s nSrcStep, Npp8u ∗pDst, Npp32s nDstStep, NppiSize oSizeROI)

  Four channel 8-bit unsigned horizontal Sobel filter.

- NppStatus nppiFilterSobelHoriz_8u_AC4R (const Npp8u ∗pSrc, Npp32s nSrcStep, Npp8u ∗pDst, Npp32s nDstStep, NppiSize oSizeROI)

  Four channel 16-bit signed horizontal Sobel filter, ignoring alpha channel.

- NppStatus nppiFilterSobelHoriz_16s_C1R (const Npp16s ∗pSrc, Npp32s nSrcStep, Npp16s ∗pDst, Npp32s nDstStep, NppiSize oSizeROI)

  Single channel 16-bit signed horizontal Sobel filter.

- NppStatus nppiFilterSobelHoriz_16s_C3R (const Npp16s ∗pSrc, Npp32s nSrcStep, Npp16s ∗pDst, Npp32s nDstStep, NppiSize oSizeROI)

  Three channel 16-bit signed horizontal Sobel filter.

- NppStatus nppiFilterSobelHoriz_16s_C4R (const Npp16s ∗pSrc, Npp32s nSrcStep, Npp16s ∗pDst, Npp32s nDstStep, NppiSize oSizeROI)

  Four channel 16-bit signed horizontal Sobel filter.

- NppStatus nppiFilterSobelHoriz_16s_AC4R (const Npp16s ∗pSrc, Npp32s nSrcStep, Npp16s ∗pDst, Npp32s nDstStep, NppiSize oSizeROI)

  Four channel 8-bit unsigned horizontal Sobel filter, ignoring alpha channel.

- NppStatus nppiFilterSobelHoriz_32f_C1R (const Npp32f ∗pSrc, Npp32s nSrcStep, Npp32f ∗pDst, Npp32s nDstStep, NppiSize oSizeROI)

  Single channel 32-bit floating-point horizontal Sobel filter.

- NppStatus nppiFilterSobelHoriz_32f_C3R (const Npp32f ∗pSrc, Npp32s nSrcStep, Npp32f ∗pDst, Npp32s nDstStep, NppiSize oSizeROI)

  Three channel 32-bit floating-point horizontal Sobel filter.

- NppStatus nppiFilterSobelHoriz_32f_C4R (const Npp32f ∗pSrc, Npp32s nSrcStep, Npp32f ∗pDst, Npp32s nDstStep, NppiSize oSizeROI)

  Four channel 32-bit floating-point horizontal Sobel filter.

- NppStatus nppiFilterSobelHoriz_32f_AC4R (const Npp32f ∗pSrc, Npp32s nSrcStep, Npp32f ∗pDst, Npp32s nDstStep, NppiSize oSizeROI)

  Four channel 32-bit floating-point horizontal Sobel filter, ignoring alpha channel.

- NppStatus nppiFilterSobelHoriz_8u16s_C1R (const Npp8u ∗pSrc, Npp32s nSrcStep, Npp16s ∗pDst, Npp32s nDstStep, NppiSize oSizeROI, NppiMaskSize eMaskSize)

  Single channel 8-bit unsigned to 16-bit signed horizontal Sobel filter.

- NppStatus nppiFilterSobelHoriz_8s16s_C1R (const Npp8s ∗pSrc, Npp32s nSrcStep, Npp16s ∗pDst, Npp32s nDstStep, NppiSize oSizeROI, NppiMaskSize eMaskSize)

  Single channel 8-bit signed to 16-bit signed horizontal Sobel filter.

- NppStatus nppiFilterSobelHorizMask_32f_C1R (const Npp32f ∗pSrc, Npp32s nSrcStep, Npp32f ∗pDst, Npp32s nDstStep, NppiSize oSizeROI, NppiMaskSize eMaskSize)

  Single channel 32-bit floating-point horizontal Sobel filter.

FilterSobelVert

Filters the image using a vertical Sobel filter kernel:

$$\begin{pmatrix} -1 & 0 & 1 \\ -2 & 0 & 2 \\ -1 & 0 & 1 \end{pmatrix} \begin{pmatrix} -1 & -2 & 0 & 2 & 1 \\ -4 & -8 & 0 & 8 & 4 \\ -6 & -12 & 0 & 12 & 6 \\ -4 & -8 & 0 & 8 & 4 \\ -1 & -2 & 0 & 2 & 1 \end{pmatrix}$$

- NppStatus nppiFilterSobelVert_8u_C1R (const Npp8u ∗pSrc, Npp32s nSrcStep, Npp8u ∗pDst, Npp32s nDstStep, NppiSize oSizeROI)

  Single channel 8-bit unsigned vertical Sobel filter.

- NppStatus nppiFilterSobelVert_8u_C3R (const Npp8u ∗pSrc, Npp32s nSrcStep, Npp8u ∗pDst, Npp32s nDstStep, NppiSize oSizeROI)

  Three channel 8-bit unsigned vertical Sobel filter.

- NppStatus nppiFilterSobelVert_8u_C4R (const Npp8u ∗pSrc, Npp32s nSrcStep, Npp8u ∗pDst, Npp32s nDstStep, NppiSize oSizeROI)

  Four channel 8-bit unsigned vertical Sobel filter.

- NppStatus nppiFilterSobelVert_8u_AC4R (const Npp8u ∗pSrc, Npp32s nSrcStep, Npp8u ∗pDst, Npp32s nDstStep, NppiSize oSizeROI)

  Four channel 16-bit signed vertical Sobel filter, ignoring alpha channel.

- NppStatus nppiFilterSobelVert_16s_C1R (const Npp16s ∗pSrc, Npp32s nSrcStep, Npp16s ∗pDst, Npp32s nDstStep, NppiSize oSizeROI)

  Single channel 16-bit signed vertical Sobel filter.

- NppStatus nppiFilterSobelVert_16s_C3R (const Npp16s ∗pSrc, Npp32s nSrcStep, Npp16s ∗pDst, Npp32s nDstStep, NppiSize oSizeROI)

  Three channel 16-bit signed vertical Sobel filter.

- NppStatus nppiFilterSobelVert_16s_C4R (const Npp16s ∗pSrc, Npp32s nSrcStep, Npp16s ∗pDst, Npp32s nDstStep, NppiSize oSizeROI)

  Four channel 16-bit signed vertical Sobel filter.

- NppStatus nppiFilterSobelVert_16s_AC4R (const Npp16s ∗pSrc, Npp32s nSrcStep, Npp16s ∗pDst, Npp32s nDstStep, NppiSize oSizeROI)

  Four channel 8-bit unsigned vertical Sobel filter, ignoring alpha channel.

- NppStatus nppiFilterSobelVert_32f_C1R (const Npp32f ∗pSrc, Npp32s nSrcStep, Npp32f ∗pDst, Npp32s nDstStep, NppiSize oSizeROI)

  Single channel 32-bit floating-point vertical Sobel filter.

- NppStatus nppiFilterSobelVert_32f_C3R (const Npp32f ∗pSrc, Npp32s nSrcStep, Npp32f ∗pDst, Npp32s nDstStep, NppiSize oSizeROI)

  Three channel 32-bit floating-point vertical Sobel filter.

- NppStatus nppiFilterSobelVert_32f_C4R (const Npp32f ∗pSrc, Npp32s nSrcStep, Npp32f ∗pDst, Npp32s nDstStep, NppiSize oSizeROI)

  Four channel 32-bit floating-point vertical Sobel filter.

- NppStatus nppiFilterSobelVert_32f_AC4R (const Npp32f ∗pSrc, Npp32s nSrcStep, Npp32f ∗pDst, Npp32s nDstStep, NppiSize oSizeROI)

  Four channel 32-bit floating-point vertical Sobel filter, ignoring alpha channel.

- NppStatus nppiFilterSobelVert_8u16s_C1R (const Npp8u ∗pSrc, Npp32s nSrcStep, Npp16s ∗pDst, Npp32s nDstStep, NppiSize oSizeROI, NppiMaskSize eMaskSize)

  Single channel 8-bit unsigned to 16-bit signed vertical Sobel filter.

- NppStatus nppiFilterSobelVert_8s16s_C1R (const Npp8s ∗pSrc, Npp32s nSrcStep, Npp16s ∗pDst, Npp32s nDstStep, NppiSize oSizeROI, NppiMaskSize eMaskSize)

  Single channel 8-bit signed to 16-bit signed vertical Sobel filter.

- NppStatus nppiFilterSobelVertMask_32f_C1R (const Npp32f ∗pSrc, Npp32s nSrcStep, Npp32f ∗pDst, Npp32s nDstStep, NppiSize oSizeROI, NppiMaskSize eMaskSize)

  Single channel 32-bit floating-point vertical Sobel filter.

FilterSobelHorizSecond

Filters the image using a second derivative, horizontal Sobel filter kernel:

$$\begin{pmatrix} 1 & 2 & 1 \\ -2 & -4 & -2 \\ 1 & 2 & 1 \end{pmatrix} \begin{pmatrix} 1 & 4 & 6 & 4 & 1 \\ 0 & 0 & 0 & 0 & 0 \\ -2 & -8 & -12 & -8 & -2 \\ 0 & 0 & 0 & 0 & 0 \\ 1 & 4 & 6 & 4 & 1 \end{pmatrix}$$

- NppStatus nppiFilterSobelHorizSecond_8u16s_C1R (const Npp8u ∗pSrc, Npp32s nSrcStep, Npp16s ∗pDst, Npp32s nDstStep, NppiSize oSizeROI, NppiMaskSize eMaskSize)

  Single channel 8-bit unsigned to 16-bit signed second derivative, horizontal Sobel filter.

- NppStatus nppiFilterSobelHorizSecond_8s16s_C1R (const Npp8s ∗pSrc, Npp32s nSrcStep, Npp16s ∗pDst, Npp32s nDstStep, NppiSize oSizeROI, NppiMaskSize eMaskSize)

  Single channel 8-bit signed to 16-bit signed second derivative, horizontal Sobel filter.

- NppStatus nppiFilterSobelHorizSecond_32f_C1R (const Npp32f ∗pSrc, Npp32s nSrcStep, Npp32f ∗pDst, Npp32s nDstStep, NppiSize oSizeROI, NppiMaskSize eMaskSize)

  Single channel 32-bit floating-point second derivative, horizontal Sobel filter.

7.71.1 Detailed Description

Fixed filters perform linear filtering operations (i.e.

convolutions) with predefined kernels of fixed sizes.

Some of the fixed filters have versions with border control. For these functions, if any portion of the mask overlaps the source image boundary the requested border type operation is applied to all mask pixels which fall outside of the source image.

Currently only the NPP_BORDER_REPLICATE border type operation is supported for these functions.

7.71.2 Function Documentation

7.71.2.1 NppStatus nppiFilterPrewittHoriz_16s_AC4R (const Npp16s ∗ *pSrc*, Npp32s *nSrcStep*, Npp16s ∗ *pDst*, Npp32s *nDstStep*, NppiSize *oSizeROI*)

Four channel 16-bit signed horizontal Prewitt filter, ignoring alpha channel.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.71.2.2 NppStatus nppiFilterPrewittHoriz_16s_C1R (const Npp16s * *pSrc*, Npp32s *nSrcStep*, Npp16s * *pDst*, Npp32s *nDstStep*, NppiSize *oSizeROI*)

Single channel 16-bit signed horizontal Prewitt filter.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.71.2.3 NppStatus nppiFilterPrewittHoriz_16s_C3R (const Npp16s * *pSrc*, Npp32s *nSrcStep*, Npp16s * *pDst*, Npp32s *nDstStep*, NppiSize *oSizeROI*)

Three channel 16-bit signed horizontal Prewitt filter.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.71.2.4 NppStatus nppiFilterPrewittHoriz_16s_C4R (const Npp16s * *pSrc*, Npp32s *nSrcStep*, Npp16s * *pDst*, Npp32s *nDstStep*, NppiSize *oSizeROI*)

Four channel 16-bit signed horizontal Prewitt filter.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.71.2.5 NppStatus nppiFilterPrewittHoriz_32f_AC4R (const Npp32f ∗ *pSrc*, Npp32s *nSrcStep*, Npp32f ∗ *pDst*, Npp32s *nDstStep*, NppiSize *oSizeROI*)

Four channel 32-bit floating-point horizontal Prewitt filter, ignoring alpha channel.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.71.2.6 NppStatus nppiFilterPrewittHoriz_32f_C1R (const Npp32f ∗ *pSrc*, Npp32s *nSrcStep*, Npp32f ∗ *pDst*, Npp32s *nDstStep*, NppiSize *oSizeROI*)

Single channel 32-bit floating-point horizontal Prewitt filter.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.71.2.7 NppStatus nppiFilterPrewittHoriz_32f_C3R (const Npp32f ∗ *pSrc*, Npp32s *nSrcStep*, Npp32f ∗ *pDst*, Npp32s *nDstStep*, NppiSize *oSizeROI*)

Three channel 32-bit floating-point horizontal Prewitt filter.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.71.2.8 NppStatus nppiFilterPrewittHoriz_32f_C4R (const Npp32f ∗ *pSrc*, Npp32s *nSrcStep*, Npp32f ∗ *pDst*, Npp32s *nDstStep*, NppiSize *oSizeROI*)

Four channel 32-bit floating-point horizontal Prewitt filter.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.71.2.9 NppStatus nppiFilterPrewittHoriz_8u_AC4R (const Npp8u ∗ *pSrc*, Npp32s *nSrcStep*, Npp8u ∗ *pDst*, Npp32s *nDstStep*, NppiSize *oSizeROI*)

Four channel 8-bit unsigned horizontal Prewitt filter, ignoring alpha channel.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.71.2.10 NppStatus nppiFilterPrewittHoriz_8u_C1R (const Npp8u ∗ *pSrc*, Npp32s *nSrcStep*, Npp8u ∗ *pDst*, Npp32s *nDstStep*, NppiSize *oSizeROI*)

Single channel 8-bit unsigned horizontal Prewitt filter.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.71.2.11 NppStatus nppiFilterPrewittHoriz_8u_C3R (const Npp8u $*$ *pSrc*, Npp32s *nSrcStep*, Npp8u $*$ *pDst*, Npp32s *nDstStep*, NppiSize *oSizeROI*)

Three channel 8-bit unsigned horizontal Prewitt filter.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.71.2.12 NppStatus nppiFilterPrewittHoriz_8u_C4R (const Npp8u $*$ *pSrc*, Npp32s *nSrcStep*, Npp8u $*$ *pDst*, Npp32s *nDstStep*, NppiSize *oSizeROI*)

Four channel 8-bit unsigned horizontal Prewitt filter.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.71.2.13 NppStatus nppiFilterPrewittVert_16s_AC4R (const Npp16s $*$ *pSrc*, Npp32s *nSrcStep*, Npp16s $*$ *pDst*, Npp32s *nDstStep*, NppiSize *oSizeROI*)

Four channel 16-bit signed vertical Prewitt filter, ignoring alpha channel.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.71.2.14 NppStatus nppiFilterPrewittVert_16s_C1R (const Npp16s * *pSrc*, Npp32s *nSrcStep*, Npp16s * *pDst*, Npp32s *nDstStep*, NppiSize *oSizeROI*)

Single channel 16-bit signed vertical Prewitt filter.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.71.2.15 NppStatus nppiFilterPrewittVert_16s_C3R (const Npp16s * *pSrc*, Npp32s *nSrcStep*, Npp16s * *pDst*, Npp32s *nDstStep*, NppiSize *oSizeROI*)

Three channel 16-bit signed vertical Prewitt filter.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.71.2.16 NppStatus nppiFilterPrewittVert_16s_C4R (const Npp16s * *pSrc*, Npp32s *nSrcStep*, Npp16s * *pDst*, Npp32s *nDstStep*, NppiSize *oSizeROI*)

Four channel 16-bit signed vertical Prewitt filter.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.71.2.17 NppStatus nppiFilterPrewittVert_32f_AC4R (const Npp32f $*$ *pSrc*, Npp32s *nSrcStep*, Npp32f $*$ *pDst*, Npp32s *nDstStep*, NppiSize *oSizeROI*)

Four channel 32-bit floating-point vertical Prewitt filter, ignoring alpha channel.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.71.2.18 NppStatus nppiFilterPrewittVert_32f_C1R (const Npp32f $*$ *pSrc*, Npp32s *nSrcStep*, Npp32f $*$ *pDst*, Npp32s *nDstStep*, NppiSize *oSizeROI*)

Single channel 32-bit floating-point vertical Prewitt filter.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.71.2.19 NppStatus nppiFilterPrewittVert_32f_C3R (const Npp32f $*$ *pSrc*, Npp32s *nSrcStep*, Npp32f $*$ *pDst*, Npp32s *nDstStep*, NppiSize *oSizeROI*)

Three channel 32-bit floating-point vertical Prewitt filter.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.71.2.20 NppStatus nppiFilterPrewittVert_32f_C4R (const Npp32f * *pSrc*, Npp32s *nSrcStep*, Npp32f * *pDst*, Npp32s *nDstStep*, NppiSize *oSizeROI*)

Four channel 32-bit floating-point vertical Prewitt filter.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.71.2.21 NppStatus nppiFilterPrewittVert_8u_AC4R (const Npp8u * *pSrc*, Npp32s *nSrcStep*, Npp8u * *pDst*, Npp32s *nDstStep*, NppiSize *oSizeROI*)

Four channel 8-bit unsigned vertical Prewitt filter, ignoring alpha channel.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.71.2.22 NppStatus nppiFilterPrewittVert_8u_C1R (const Npp8u * *pSrc*, Npp32s *nSrcStep*, Npp8u * *pDst*, Npp32s *nDstStep*, NppiSize *oSizeROI*)

Single channel 8-bit unsigned vertical Prewitt filter.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.71.2.23 NppStatus nppiFilterPrewittVert_8u_C3R (const Npp8u * *pSrc*, Npp32s *nSrcStep*, Npp8u * *pDst*, Npp32s *nDstStep*, NppiSize *oSizeROI*)

Three channel 8-bit unsigned vertical Prewitt filter.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.71.2.24 NppStatus nppiFilterPrewittVert_8u_C4R (const Npp8u * *pSrc*, Npp32s *nSrcStep*, Npp8u * *pDst*, Npp32s *nDstStep*, NppiSize *oSizeROI*)

Four channel 8-bit unsigned vertical Prewitt filter.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.71.2.25 NppStatus nppiFilterScharrHoriz_32f_C1R (const Npp32f * *pSrc*, Npp32s *nSrcStep*, Npp32f * *pDst*, Npp32s *nDstStep*, NppiSize *oSizeROI*)

Single channel 32-bit floating-point horizontal Scharr filter.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.71.2.26 NppStatus nppiFilterScharrHoriz_8s16s_C1R (const Npp8s ∗ *pSrc*, Npp32s *nSrcStep*, Npp16s ∗ *pDst*, Npp32s *nDstStep*, NppiSize *oSizeROI*)

Single channel 8-bit signed to 16-bit signed horizontal Scharr filter.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.71.2.27 NppStatus nppiFilterScharrHoriz_8u16s_C1R (const Npp8u ∗ *pSrc*, Npp32s *nSrcStep*, Npp16s ∗ *pDst*, Npp32s *nDstStep*, NppiSize *oSizeROI*)

Single channel 8-bit unsigned to 16-bit signed horizontal Scharr filter.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.71.2.28 NppStatus nppiFilterScharrHorizBorder_32f_C1R (const Npp32f ∗ *pSrc*, Npp32s *nSrcStep*, NppiSize *oSrcSize*, NppiPoint *oSrcOffset*, Npp32f ∗ *pDst*, Npp32s *nDstStep*, NppiSize *oSizeROI*, NppiBorderType *eBorderType*)

Single channel 32-bit floating-point horizontal Scharr filter kernel with border control.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSrcSize Source image width and height in pixels relative to pSrc.

oSrcOffset Source image starting point relative to pSrc.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

eBorderType The border type operation to be applied at source image border boundaries.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.71.2.29 NppStatus nppiFilterScharrHorizBorder_8s16s_C1R (const Npp8s ∗ *pSrc*, Npp32s *nSrcStep*, NppiSize *oSrcSize*, NppiPoint *oSrcOffset*, Npp16s ∗ *pDst*, Npp32s *nDstStep*, NppiSize *oSizeROI*, NppiBorderType *eBorderType*)

Single channel 8-bit signed to 16-bit signed horizontal Scharr filter kernel with border control.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSrcSize Source image width and height in pixels relative to pSrc.

oSrcOffset Source image starting point relative to pSrc.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

eBorderType The border type operation to be applied at source image border boundaries.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.71.2.30 NppStatus nppiFilterScharrHorizBorder_8u16s_C1R (const Npp8u ∗ *pSrc*, Npp32s *nSrcStep*, NppiSize *oSrcSize*, NppiPoint *oSrcOffset*, Npp16s ∗ *pDst*, Npp32s *nDstStep*, NppiSize *oSizeROI*, NppiBorderType *eBorderType*)

Single channel 8-bit unsigned to 16-bit signed horizontal Scharr filter kernel with border control.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSrcSize Source image width and height in pixels relative to pSrc.

oSrcOffset Source image starting point relative to pSrc.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

eBorderType The border type operation to be applied at source image border boundaries.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.71.2.31 NppStatus nppiFilterScharrVert_32f_C1R (const Npp32f * *pSrc*, Npp32s *nSrcStep*, Npp32f * *pDst*, Npp32s *nDstStep*, NppiSize *oSizeROI*)

Single channel 32-bit floating-point vertical Scharr filter.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.71.2.32 NppStatus nppiFilterScharrVert_8s16s_C1R (const Npp8s * *pSrc*, Npp32s *nSrcStep*, Npp16s * *pDst*, Npp32s *nDstStep*, NppiSize *oSizeROI*)

Single channel 8-bit signed to 16-bit signed vertical Scharr filter.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.71.2.33 NppStatus nppiFilterScharrVert_8u16s_C1R (const Npp8u * *pSrc*, Npp32s *nSrcStep*, Npp16s * *pDst*, Npp32s *nDstStep*, NppiSize *oSizeROI*)

Single channel 8-bit unsigned to 16-bit signed vertical Scharr filter.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.71.2.34 NppStatus nppiFilterScharrVertBorder_32f_C1R (const Npp32f * *pSrc*, Npp32s *nSrcStep*, NppiSize *oSrcSize*, NppiPoint *oSrcOffset*, Npp32f * *pDst*, Npp32s *nDstStep*, NppiSize *oSizeROI*, NppiBorderType *eBorderType*)

Single channel 32-bit floating-point vertical Scharr filter kernel with border control.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSrcSize Source image width and height in pixels relative to pSrc.

oSrcOffset Source image starting point relative to pSrc.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

eBorderType The border type operation to be applied at source image border boundaries.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.71.2.35 NppStatus nppiFilterScharrVertBorder_8s16s_C1R (const Npp8s * *pSrc*, Npp32s *nSrcStep*, NppiSize *oSrcSize*, NppiPoint *oSrcOffset*, Npp16s * *pDst*, Npp32s *nDstStep*, NppiSize *oSizeROI*, NppiBorderType *eBorderType*)

Single channel 8-bit signed to 16-bit signed vertical Scharr filter kernel with border control.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSrcSize Source image width and height in pixels relative to pSrc.

oSrcOffset Source image starting point relative to pSrc.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

eBorderType The border type operation to be applied at source image border boundaries.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.71.2.36 NppStatus nppiFilterScharrVertBorder_8u16s_C1R (const Npp8u * *pSrc*, Npp32s *nSrcStep*, NppiSize *oSrcSize*, NppiPoint *oSrcOffset*, Npp16s * *pDst*, Npp32s *nDstStep*, NppiSize *oSizeROI*, NppiBorderType *eBorderType*)

Single channel 8-bit unsigned to 16-bit signed vertical Scharr filter kernel with border control.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSrcSize Source image width and height in pixels relative to pSrc.

oSrcOffset Source image starting point relative to pSrc.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

eBorderType The border type operation to be applied at source image border boundaries.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.71.2.37 NppStatus nppiFilterSobelHoriz_16s_AC4R (const Npp16s ∗ *pSrc*, Npp32s *nSrcStep*, Npp16s ∗ *pDst*, Npp32s *nDstStep*, NppiSize *oSizeROI*)

Four channel 8-bit unsigned horizontal Sobel filter, ignoring alpha channel.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.71.2.38 NppStatus nppiFilterSobelHoriz_16s_C1R (const Npp16s ∗ *pSrc*, Npp32s *nSrcStep*, Npp16s ∗ *pDst*, Npp32s *nDstStep*, NppiSize *oSizeROI*)

Single channel 16-bit signed horizontal Sobel filter.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.71.2.39 NppStatus nppiFilterSobelHoriz_16s_C3R (const Npp16s ∗ *pSrc*, Npp32s *nSrcStep*, Npp16s ∗ *pDst*, Npp32s *nDstStep*, NppiSize *oSizeROI*)

Three channel 16-bit signed horizontal Sobel filter.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.71.2.40 NppStatus nppiFilterSobelHoriz_16s_C4R (const Npp16s ∗ *pSrc*, Npp32s *nSrcStep*, Npp16s ∗ *pDst*, Npp32s *nDstStep*, NppiSize *oSizeROI*)

Four channel 16-bit signed horizontal Sobel filter.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.71.2.41 NppStatus nppiFilterSobelHoriz_32f_AC4R (const Npp32f ∗ *pSrc*, Npp32s *nSrcStep*, Npp32f ∗ *pDst*, Npp32s *nDstStep*, NppiSize *oSizeROI*)

Four channel 32-bit floating-point horizontal Sobel filter, ignoring alpha channel.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.71.2.42 NppStatus nppiFilterSobelHoriz_32f_C1R (const Npp32f $*$ *pSrc*, Npp32s *nSrcStep*, Npp32f $*$ *pDst*, Npp32s *nDstStep*, NppiSize *oSizeROI*)

Single channel 32-bit floating-point horizontal Sobel filter.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.71.2.43 NppStatus nppiFilterSobelHoriz_32f_C3R (const Npp32f $*$ *pSrc*, Npp32s *nSrcStep*, Npp32f $*$ *pDst*, Npp32s *nDstStep*, NppiSize *oSizeROI*)

Three channel 32-bit floating-point horizontal Sobel filter.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.71.2.44 NppStatus nppiFilterSobelHoriz_32f_C4R (const Npp32f $*$ *pSrc*, Npp32s *nSrcStep*, Npp32f $*$ *pDst*, Npp32s *nDstStep*, NppiSize *oSizeROI*)

Four channel 32-bit floating-point horizontal Sobel filter.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.71.2.45 NppStatus nppiFilterSobelHoriz_8s16s_C1R (const Npp8s ∗ *pSrc*, Npp32s *nSrcStep*, Npp16s ∗ *pDst*, Npp32s *nDstStep*, NppiSize *oSizeROI*, NppiMaskSize *eMaskSize*)

Single channel 8-bit signed to 16-bit signed horizontal Sobel filter.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

eMaskSize Enumeration value specifying the mask size.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.71.2.46 NppStatus nppiFilterSobelHoriz_8u16s_C1R (const Npp8u ∗ *pSrc*, Npp32s *nSrcStep*, Npp16s ∗ *pDst*, Npp32s *nDstStep*, NppiSize *oSizeROI*, NppiMaskSize *eMaskSize*)

Single channel 8-bit unsigned to 16-bit signed horizontal Sobel filter.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

eMaskSize Enumeration value specifying the mask size.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.71.2.47 NppStatus nppiFilterSobelHoriz_8u_AC4R (const Npp8u ∗ *pSrc*, Npp32s *nSrcStep*, Npp8u ∗ *pDst*, Npp32s *nDstStep*, NppiSize *oSizeROI*)

Four channel 16-bit signed horizontal Sobel filter, ignoring alpha channel.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.71.2.48 NppStatus nppiFilterSobelHoriz_8u_C1R (const Npp8u ∗ *pSrc*, Npp32s *nSrcStep*, Npp8u ∗ *pDst*, Npp32s *nDstStep*, NppiSize *oSizeROI*)

Single channel 8-bit unsigned horizontal Sobel filter.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.71.2.49 NppStatus nppiFilterSobelHoriz_8u_C3R (const Npp8u ∗ *pSrc*, Npp32s *nSrcStep*, Npp8u ∗ *pDst*, Npp32s *nDstStep*, NppiSize *oSizeROI*)

Three channel 8-bit unsigned horizontal Sobel filter.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.71.2.50 NppStatus nppiFilterSobelHoriz_8u_C4R (const Npp8u ∗ *pSrc*, Npp32s *nSrcStep*, Npp8u ∗ *pDst*, Npp32s *nDstStep*, NppiSize *oSizeROI*)

Four channel 8-bit unsigned horizontal Sobel filter.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.71.2.51 NppStatus nppiFilterSobelHorizMask_32f_C1R (const Npp32f ∗ *pSrc*, Npp32s *nSrcStep*, Npp32f ∗ *pDst*, Npp32s *nDstStep*, NppiSize *oSizeROI*, NppiMaskSize *eMaskSize*)

Single channel 32-bit floating-point horizontal Sobel filter.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

eMaskSize Enumeration value specifying the mask size.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.71.2.52 NppStatus nppiFilterSobelHorizSecond_32f_C1R (const Npp32f ∗ *pSrc*, Npp32s *nSrcStep*, Npp32f ∗ *pDst*, Npp32s *nDstStep*, NppiSize *oSizeROI*, NppiMaskSize *eMaskSize*)

Single channel 32-bit floating-point second derivative, horizontal Sobel filter.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

eMaskSize Enumeration value specifying the mask size.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.71.2.53 NppStatus nppiFilterSobelHorizSecond_8s16s_C1R (const Npp8s ∗ *pSrc*, Npp32s *nSrcStep*, Npp16s ∗ *pDst*, Npp32s *nDstStep*, NppiSize *oSizeROI*, NppiMaskSize *eMaskSize*)

Single channel 8-bit signed to 16-bit signed second derivative, horizontal Sobel filter.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

eMaskSize Enumeration value specifying the mask size.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.71.2.54 NppStatus nppiFilterSobelHorizSecond_8u16s_C1R (const Npp8u ∗ *pSrc*, Npp32s *nSrcStep*, Npp16s ∗ *pDst*, Npp32s *nDstStep*, NppiSize *oSizeROI*, NppiMaskSize *eMaskSize*)

Single channel 8-bit unsigned to 16-bit signed second derivative, horizontal Sobel filter.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

eMaskSize Enumeration value specifying the mask size.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.71.2.55 NppStatus nppiFilterSobelVert_16s_AC4R (const Npp16s ∗ *pSrc*, Npp32s *nSrcStep*, Npp16s ∗ *pDst*, Npp32s *nDstStep*, NppiSize *oSizeROI*)

Four channel 8-bit unsigned vertical Sobel filter, ignoring alpha channel.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.71.2.56 NppStatus nppiFilterSobelVert_16s_C1R (const Npp16s ∗ *pSrc*, Npp32s *nSrcStep*, Npp16s ∗ *pDst*, Npp32s *nDstStep*, NppiSize *oSizeROI*)

Single channel 16-bit signed vertical Sobel filter.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.71.2.57 NppStatus nppiFilterSobelVert_16s_C3R (const Npp16s $*$ *pSrc*, Npp32s *nSrcStep*, Npp16s $*$ *pDst*, Npp32s *nDstStep*, NppiSize *oSizeROI*)

Three channel 16-bit signed vertical Sobel filter.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.71.2.58 NppStatus nppiFilterSobelVert_16s_C4R (const Npp16s $*$ *pSrc*, Npp32s *nSrcStep*, Npp16s $*$ *pDst*, Npp32s *nDstStep*, NppiSize *oSizeROI*)

Four channel 16-bit signed vertical Sobel filter.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.71.2.59 NppStatus nppiFilterSobelVert_32f_AC4R (const Npp32f ∗ *pSrc*, Npp32s *nSrcStep*, Npp32f ∗ *pDst*, Npp32s *nDstStep*, NppiSize *oSizeROI*)

Four channel 32-bit floating-point vertical Sobel filter, ignoring alpha channel.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.71.2.60 NppStatus nppiFilterSobelVert_32f_C1R (const Npp32f ∗ *pSrc*, Npp32s *nSrcStep*, Npp32f ∗ *pDst*, Npp32s *nDstStep*, NppiSize *oSizeROI*)

Single channel 32-bit floating-point vertical Sobel filter.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.71.2.61 NppStatus nppiFilterSobelVert_32f_C3R (const Npp32f ∗ *pSrc*, Npp32s *nSrcStep*, Npp32f ∗ *pDst*, Npp32s *nDstStep*, NppiSize *oSizeROI*)

Three channel 32-bit floating-point vertical Sobel filter.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.71.2.62 NppStatus nppiFilterSobelVert_32f_C4R (const Npp32f ∗ *pSrc*, Npp32s *nSrcStep*, Npp32f ∗ *pDst*, Npp32s *nDstStep*, NppiSize *oSizeROI*)

Four channel 32-bit floating-point vertical Sobel filter.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.71.2.63 NppStatus nppiFilterSobelVert_8s16s_C1R (const Npp8s ∗ *pSrc*, Npp32s *nSrcStep*, Npp16s ∗ *pDst*, Npp32s *nDstStep*, NppiSize *oSizeROI*, NppiMaskSize *eMaskSize*)

Single channel 8-bit signed to 16-bit signed vertical Sobel filter.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

eMaskSize Enumeration value specifying the mask size.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.71.2.64 NppStatus nppiFilterSobelVert_8u16s_C1R (const Npp8u ∗ *pSrc*, Npp32s *nSrcStep*, Npp16s ∗ *pDst*, Npp32s *nDstStep*, NppiSize *oSizeROI*, NppiMaskSize *eMaskSize*)

Single channel 8-bit unsigned to 16-bit signed vertical Sobel filter.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

eMaskSize Enumeration value specifying the mask size.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.71.2.65 NppStatus nppiFilterSobelVert_8u_AC4R (const Npp8u ∗ *pSrc*, Npp32s *nSrcStep*, Npp8u ∗ *pDst*, Npp32s *nDstStep*, NppiSize *oSizeROI*)

Four channel 16-bit signed vertical Sobel filter, ignoring alpha channel.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.71.2.66 NppStatus nppiFilterSobelVert_8u_C1R (const Npp8u ∗ *pSrc*, Npp32s *nSrcStep*, Npp8u ∗ *pDst*, Npp32s *nDstStep*, NppiSize *oSizeROI*)

Single channel 8-bit unsigned vertical Sobel filter.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.71.2.67 NppStatus nppiFilterSobelVert_8u_C3R (const Npp8u ∗ *pSrc*, Npp32s *nSrcStep*, Npp8u ∗ *pDst*, Npp32s *nDstStep*, NppiSize *oSizeROI*)

Three channel 8-bit unsigned vertical Sobel filter.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.71.2.68 NppStatus nppiFilterSobelVert_8u_C4R (const Npp8u $*$ *pSrc*, Npp32s *nSrcStep*, Npp8u $*$ *pDst*, Npp32s *nDstStep*, NppiSize *oSizeROI*)

Four channel 8-bit unsigned vertical Sobel filter.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.71.2.69 NppStatus nppiFilterSobelVertMask_32f_C1R (const Npp32f $*$ *pSrc*, Npp32s *nSrcStep*, Npp32f $*$ *pDst*, Npp32s *nDstStep*, NppiSize *oSizeROI*, NppiMaskSize *eMaskSize*)

Single channel 32-bit floating-point vertical Sobel filter.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

eMaskSize Enumeration value specifying the mask size.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.72 Geometry Transforms

Routines manipulating an image's geometry.

Modules

- ResizeSqrPixel

  ResizeSqrPixel supports the following interpolation modes:.

- Resize

  This function has been deprecated.

- Remap

  Remap supports the following interpolation modes:.

- Rotate

  Rotates an image around the origin (0,0) and then shifts it.

- Mirror
- Affine Transforms
- Perspective Transform

7.72.1 Detailed Description

Routines manipulating an image's geometry.

7.72.2 Geometric Transform API Specifics

This section covers some of the unique API features common to the geometric transform primitives.

7.72.2.1 Geometric Transforms and ROIs

Geometric transforms operate on source and destination ROIs. The way these ROIs affect the processing of pixels differs from other (non geometric) image-processing primitives: Only pixels in the intersection of the destination ROI and the transformed source ROI are being processed.

The typical processing proceedes as follows:

1. Transform the rectangular source ROI (given in source image coordinates) into the destination image space. This yields a quadrilateral.
2. Write only pixels in the intersection of the transformed source ROI and the destination ROI.

7.72.2.2 Pixel Interpolation

The majority of image geometry transform operation need to perform a resampling of the source image as source and destination pixels are not coincident.

NPP supports the following pixel inerpolation modes (in order from fastest to slowest and lowest to highest quality):

- nearest neighbor
- linear interpolation
- cubic convolution
- supersampling
- interpolation using Lanczos window function

7.73 ResizeSqrPixel

ResizeSqrPixel supports the following interpolation modes:.

GetResizeRect

Returns NppiRect which represents the offset and size of the destination rectangle that would be generated by resizing the source NppiRect by the requested scale factors and shifts.

- NppStatus nppiGetResizeRect (NppiRect oSrcROI, NppiRect ∗pDstRect, double nXFactor, double nYFactor, double nXShift, double nYShift, int eInterpolation)

ResizeSqrPixel

Resizes images.

- NppStatus nppiResizeSqrPixel_8u_C1R (const Npp8u ∗pSrc, NppiSize oSrcSize, int nSrcStep, NppiRect oSrcROI, Npp8u ∗pDst, int nDstStep, NppiRect oDstROI, double nXFactor, double nYFactor, double nXShift, double nYShift, int eInterpolation)

  1 channel 8-bit unsigned image resize.

- NppStatus nppiResizeSqrPixel_8u_C3R (const Npp8u ∗pSrc, NppiSize oSrcSize, int nSrcStep, NppiRect oSrcROI, Npp8u ∗pDst, int nDstStep, NppiRect oDstROI, double nXFactor, double nYFactor, double nXShift, double nYShift, int eInterpolation)

  3 channel 8-bit unsigned image resize.

- NppStatus nppiResizeSqrPixel_8u_C4R (const Npp8u ∗pSrc, NppiSize oSrcSize, int nSrcStep, NppiRect oSrcROI, Npp8u ∗pDst, int nDstStep, NppiRect oDstROI, double nXFactor, double nYFactor, double nXShift, double nYShift, int eInterpolation)

  4 channel 8-bit unsigned image resize.

- NppStatus nppiResizeSqrPixel_8u_AC4R (const Npp8u ∗pSrc, NppiSize oSrcSize, int nSrcStep, NppiRect oSrcROI, Npp8u ∗pDst, int nDstStep, NppiRect oDstROI, double nXFactor, double nYFactor, double nXShift, double nYShift, int eInterpolation)

  4 channel 8-bit unsigned image resize not affecting alpha.

- NppStatus nppiResizeSqrPixel_8u_P3R (const Npp8u ∗const pSrc[3], NppiSize oSrcSize, int nSrcStep, NppiRect oSrcROI, Npp8u ∗pDst[3], int nDstStep, NppiRect oDstROI, double nXFactor, double nYFactor, double nXShift, double nYShift, int eInterpolation)

  3 channel 8-bit unsigned planar image resize.

- NppStatus nppiResizeSqrPixel_8u_P4R (const Npp8u ∗const pSrc[4], NppiSize oSrcSize, int nSrcStep, NppiRect oSrcROI, Npp8u ∗pDst[4], int nDstStep, NppiRect oDstROI, double nXFactor, double nYFactor, double nXShift, double nYShift, int eInterpolation)

  4 channel 8-bit unsigned planar image resize.

- NppStatus nppiResizeSqrPixel_16u_C1R (const Npp16u ∗pSrc, NppiSize oSrcSize, int nSrcStep, NppiRect oSrcROI, Npp16u ∗pDst, int nDstStep, NppiRect oDstROI, double nXFactor, double nYFactor, double nXShift, double nYShift, int eInterpolation)

  1 channel 16-bit unsigned image resize.

- NppStatus nppiResizeSqrPixel_16u_C3R (const Npp16u ∗pSrc, NppiSize oSrcSize, int nSrcStep, NppiRect oSrcROI, Npp16u ∗pDst, int nDstStep, NppiRect oDstROI, double nXFactor, double nYFactor, double nXShift, double nYShift, int eInterpolation)

  3 channel 16-bit unsigned image resize.

- NppStatus nppiResizeSqrPixel_16u_C4R (const Npp16u ∗pSrc, NppiSize oSrcSize, int nSrcStep, NppiRect oSrcROI, Npp16u ∗pDst, int nDstStep, NppiRect oDstROI, double nXFactor, double nYFactor, double nXShift, double nYShift, int eInterpolation)

  4 channel 16-bit unsigned image resize.

- NppStatus nppiResizeSqrPixel_16u_AC4R (const Npp16u ∗pSrc, NppiSize oSrcSize, int nSrcStep, NppiRect oSrcROI, Npp16u ∗pDst, int nDstStep, NppiRect oDstROI, double nXFactor, double nYFactor, double nXShift, double nYShift, int eInterpolation)

  4 channel 16-bit unsigned image resize not affecting alpha.

- NppStatus nppiResizeSqrPixel_16u_P3R (const Npp16u ∗const pSrc[3], NppiSize oSrcSize, int nSrcStep, NppiRect oSrcROI, Npp16u ∗pDst[3], int nDstStep, NppiRect oDstROI, double nXFactor, double nYFactor, double nXShift, double nYShift, int eInterpolation)

  3 channel 16-bit unsigned planar image resize.

- NppStatus nppiResizeSqrPixel_16u_P4R (const Npp16u ∗const pSrc[4], NppiSize oSrcSize, int nSrcStep, NppiRect oSrcROI, Npp16u ∗pDst[4], int nDstStep, NppiRect oDstROI, double nXFactor, double nYFactor, double nXShift, double nYShift, int eInterpolation)

  4 channel 16-bit unsigned planar image resize.

- NppStatus nppiResizeSqrPixel_16s_C1R (const Npp16s ∗pSrc, NppiSize oSrcSize, int nSrcStep, NppiRect oSrcROI, Npp16s ∗pDst, int nDstStep, NppiRect oDstROI, double nXFactor, double nYFactor, double nXShift, double nYShift, int eInterpolation)

  1 channel 16-bit signed image resize.

- NppStatus nppiResizeSqrPixel_16s_C3R (const Npp16s ∗pSrc, NppiSize oSrcSize, int nSrcStep, NppiRect oSrcROI, Npp16s ∗pDst, int nDstStep, NppiRect oDstROI, double nXFactor, double nYFactor, double nXShift, double nYShift, int eInterpolation)

  3 channel 16-bit signed image resize.

- NppStatus nppiResizeSqrPixel_16s_C4R (const Npp16s ∗pSrc, NppiSize oSrcSize, int nSrcStep, NppiRect oSrcROI, Npp16s ∗pDst, int nDstStep, NppiRect oDstROI, double nXFactor, double nYFactor, double nXShift, double nYShift, int eInterpolation)

  4 channel 16-bit signed image resize.

- NppStatus nppiResizeSqrPixel_16s_AC4R (const Npp16s ∗pSrc, NppiSize oSrcSize, int nSrcStep, NppiRect oSrcROI, Npp16s ∗pDst, int nDstStep, NppiRect oDstROI, double nXFactor, double nYFactor, double nXShift, double nYShift, int eInterpolation)

  4 channel 16-bit signed image resize not affecting alpha.

- NppStatus nppiResizeSqrPixel_16s_P3R (const Npp16s ∗const pSrc[3], NppiSize oSrcSize, int nSrcStep, NppiRect oSrcROI, Npp16s ∗pDst[3], int nDstStep, NppiRect oDstROI, double nXFactor, double nYFactor, double nXShift, double nYShift, int eInterpolation)

  3 channel 16-bit signed planar image resize.

- NppStatus nppiResizeSqrPixel_16s_P4R (const Npp16s ∗const pSrc[4], NppiSize oSrcSize, int nSrcStep, NppiRect oSrcROI, Npp16s ∗pDst[4], int nDstStep, NppiRect oDstROI, double nXFactor, double nYFactor, double nXShift, double nYShift, int eInterpolation)

  4 channel 16-bit signed planar image resize.

- NppStatus nppiResizeSqrPixel_32f_C1R (const Npp32f ∗pSrc, NppiSize oSrcSize, int nSrcStep, NppiRect oSrcROI, Npp32f ∗pDst, int nDstStep, NppiRect oDstROI, double nXFactor, double nYFactor, double nXShift, double nYShift, int eInterpolation)

  1 channel 32-bit floating point image resize.

- NppStatus nppiResizeSqrPixel_32f_C3R (const Npp32f ∗pSrc, NppiSize oSrcSize, int nSrcStep, NppiRect oSrcROI, Npp32f ∗pDst, int nDstStep, NppiRect oDstROI, double nXFactor, double nYFactor, double nXShift, double nYShift, int eInterpolation)

  3 channel 32-bit floating point image resize.

- NppStatus nppiResizeSqrPixel_32f_C4R (const Npp32f ∗pSrc, NppiSize oSrcSize, int nSrcStep, NppiRect oSrcROI, Npp32f ∗pDst, int nDstStep, NppiRect oDstROI, double nXFactor, double nYFactor, double nXShift, double nYShift, int eInterpolation)

  4 channel 32-bit floating point image resize.

- NppStatus nppiResizeSqrPixel_32f_AC4R (const Npp32f ∗pSrc, NppiSize oSrcSize, int nSrcStep, NppiRect oSrcROI, Npp32f ∗pDst, int nDstStep, NppiRect oDstROI, double nXFactor, double nYFactor, double nXShift, double nYShift, int eInterpolation)

  4 channel 32-bit floating point image resize not affecting alpha.

- NppStatus nppiResizeSqrPixel_32f_P3R (const Npp32f ∗const pSrc[3], NppiSize oSrcSize, int nSrcStep, NppiRect oSrcROI, Npp32f ∗pDst[3], int nDstStep, NppiRect oDstROI, double nXFactor, double nYFactor, double nXShift, double nYShift, int eInterpolation)

  3 channel 32-bit floating point planar image resize.

- NppStatus nppiResizeSqrPixel_32f_P4R (const Npp32f ∗const pSrc[4], NppiSize oSrcSize, int nSrcStep, NppiRect oSrcROI, Npp32f ∗pDst[4], int nDstStep, NppiRect oDstROI, double nXFactor, double nYFactor, double nXShift, double nYShift, int eInterpolation)

  4 channel 32-bit floating point planar image resize.

- NppStatus nppiResizeSqrPixel_64f_C1R (const Npp64f ∗pSrc, NppiSize oSrcSize, int nSrcStep, NppiRect oSrcROI, Npp64f ∗pDst, int nDstStep, NppiRect oDstROI, double nXFactor, double nYFactor, double nXShift, double nYShift, int eInterpolation)

  1 channel 64-bit floating point image resize.

- NppStatus nppiResizeSqrPixel_64f_C3R (const Npp64f ∗pSrc, NppiSize oSrcSize, int nSrcStep, NppiRect oSrcROI, Npp64f ∗pDst, int nDstStep, NppiRect oDstROI, double nXFactor, double nYFactor, double nXShift, double nYShift, int eInterpolation)

  3 channel 64-bit floating point image resize.

- NppStatus nppiResizeSqrPixel_64f_C4R (const Npp64f ∗pSrc, NppiSize oSrcSize, int nSrcStep, NppiRect oSrcROI, Npp64f ∗pDst, int nDstStep, NppiRect oDstROI, double nXFactor, double nYFactor, double nXShift, double nYShift, int eInterpolation)

  4 channel 64-bit floating point image resize.

- NppStatus nppiResizeSqrPixel_64f_AC4R (const Npp64f ∗pSrc, NppiSize oSrcSize, int nSrcStep, NppiRect oSrcROI, Npp64f ∗pDst, int nDstStep, NppiRect oDstROI, double nXFactor, double nYFactor, double nXShift, double nYShift, int eInterpolation)

  4 channel 64-bit floating point image resize not affecting alpha.

- NppStatus nppiResizeSqrPixel_64f_P3R (const Npp64f ∗const pSrc[3], NppiSize oSrcSize, int nSrcStep, NppiRect oSrcROI, Npp64f ∗pDst[3], int nDstStep, NppiRect oDstROI, double nXFactor, double nYFactor, double nXShift, double nYShift, int eInterpolation)

  3 channel 64-bit floating point planar image resize.

- NppStatus nppiResizeSqrPixel_64f_P4R (const Npp64f ∗const pSrc[4], NppiSize oSrcSize, int nSrcStep, NppiRect oSrcROI, Npp64f ∗pDst[4], int nDstStep, NppiRect oDstROI, double nXFactor, double nYFactor, double nXShift, double nYShift, int eInterpolation)

  4 channel 64-bit floating point planar image resize.

7.73.1 Detailed Description

ResizeSqrPixel supports the following interpolation modes:.

```
NPPI_INTER_NN
NPPI_INTER_LINEAR
NPPI_INTER_CUBIC
NPPI_INTER_CUBIC2P_BSPLINE
NPPI_INTER_CUBIC2P_CATMULLROM
NPPI_INTER_CUBIC2P_B05C03
NPPI_INTER_SUPER
NPPI_INTER_LANCZOS
```

ResizeSqrPixel attempts to choose source pixels that would approximately represent the center of the destination pixels. It does so by using the following scaling formula to select source pixels for interpolation:

```
nAdjustedXFactor = 1.0 / nXFactor;
nAdjustedYFactor = 1.0 / nYFactor;
nAdjustedXShift = nXShift * nAdjustedXFactor + ((1.0 - nAdjustedXFactor) * 0.5);
nAdjustedYShift = nYShift * nAdjustedYFactor + ((1.0 - nAdjustedYFactor) * 0.5);
nSrcX = nAdjustedXFactor * nDstX - nAdjustedXShift;
nSrcY = nAdjustedYFactor * nDstY - nAdjustedYShift;
```

In the ResizeSqrPixel functions below source image clip checking is handled as follows:

If the source pixel fractional x and y coordinates are greater than or equal to oSizeROI.x and less than oSizeROI.x + oSizeROI.width and greater than or equal to oSizeROI.y and less than oSizeROI.y + oSizeROI.height then the source pixel is considered to be within the source image clip rectangle and the source image is sampled. Otherwise the source image is not sampled and a destination pixel is not written to the destination image.

7.73.2 Error Codes

The resize primitives return the following error codes:

- NPP_WRONG_INTERSECTION_ROI_ERROR indicates an error condition if srcROIRect has no intersection with the source image.

- NPP_RESIZE_NO_OPERATION_ERROR if either destination ROI width or height is less than 1 pixel.
- NPP_RESIZE_FACTOR_ERROR Indicates an error condition if either nXFactor or nYFactor is less than or equal to zero.
- NPP_INTERPOLATION_ERROR if eInterpolation has an illegal value.
- NPP_SIZE_ERROR if source size width or height is less than 2 pixels.

7.73.3 Function Documentation

7.73.3.1 NppStatus nppiGetResizeRect (NppiRect *oSrcROI*, NppiRect ∗ *pDstRect*, double *nXFactor*, double *nYFactor*, double *nXShift*, double *nYShift*, int *eInterpolation*)

Parameters:

oSrcROI Region of interest in the source image.

pDstRect User supplied host memory pointer to an NppiRect structure that will be filled in by this function with the region of interest in the destination image.

nXFactor Factor by which x dimension is changed.

nYFactor Factor by which y dimension is changed.

nXShift Source pixel shift in x-direction.

nYShift Source pixel shift in y-direction.

eInterpolation The type of eInterpolation to perform resampling.

Returns:

Image Data Related Error Codes, ROI Related Error Codes, Error Codes

7.73.3.2 NppStatus nppiResizeSqrPixel_16s_AC4R (const Npp16s ∗ *pSrc*, NppiSize *oSrcSize*, int *nSrcStep*, NppiRect *oSrcROI*, Npp16s ∗ *pDst*, int *nDstStep*, NppiRect *oDstROI*, double *nXFactor*, double *nYFactor*, double *nXShift*, double *nYShift*, int *eInterpolation*)

4 channel 16-bit signed image resize not affecting alpha.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSrcSize Size in pixels of the source image.

oSrcROI Region of interest in the source image.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oDstROI Region of interest in the destination image.

nXFactor Factor by which x dimension is changed.

nYFactor Factor by which y dimension is changed.

nXShift Source pixel shift in x-direction.

nYShift Source pixel shift in y-direction.

eInterpolation The type of interpolation to perform resampling.

Returns:

Image Data Related Error Codes, ROI Related Error Codes, Error Codes

7.73.3.3 NppStatus nppiResizeSqrPixel_16s_C1R (const Npp16s ∗ *pSrc*, NppiSize *oSrcSize*, int *nSrcStep*, NppiRect *oSrcROI*, Npp16s ∗ *pDst*, int *nDstStep*, NppiRect *oDstROI*, double *nXFactor*, double *nYFactor*, double *nXShift*, double *nYShift*, int *eInterpolation*)

1 channel 16-bit signed image resize.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSrcSize Size in pixels of the source image.

oSrcROI Region of interest in the source image.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oDstROI Region of interest in the destination image.

nXFactor Factor by which x dimension is changed.

nYFactor Factor by which y dimension is changed.

nXShift Source pixel shift in x-direction.

nYShift Source pixel shift in y-direction.

eInterpolation The type of eInterpolation to perform resampling.

Returns:

Image Data Related Error Codes, ROI Related Error Codes, Error Codes

7.73.3.4 NppStatus nppiResizeSqrPixel_16s_C3R (const Npp16s ∗ *pSrc*, NppiSize *oSrcSize*, int *nSrcStep*, NppiRect *oSrcROI*, Npp16s ∗ *pDst*, int *nDstStep*, NppiRect *oDstROI*, double *nXFactor*, double *nYFactor*, double *nXShift*, double *nYShift*, int *eInterpolation*)

3 channel 16-bit signed image resize.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSrcSize Size in pixels of the source image.

oSrcROI Region of interest in the source image.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oDstROI Region of interest in the destination image.

nXFactor Factor by which x dimension is changed.

nYFactor Factor by which y dimension is changed.

nXShift Source pixel shift in x-direction.

nYShift Source pixel shift in y-direction.

eInterpolation The type of eInterpolation to perform resampling.

Returns:

Image Data Related Error Codes, ROI Related Error Codes, Error Codes

7.73.3.5 NppStatus nppiResizeSqrPixel_16s_C4R (const Npp16s ∗ *pSrc*, NppiSize *oSrcSize*, int *nSrcStep*, NppiRect *oSrcROI*, Npp16s ∗ *pDst*, int *nDstStep*, NppiRect *oDstROI*, double *nXFactor*, double *nYFactor*, double *nXShift*, double *nYShift*, int *eInterpolation*)

4 channel 16-bit signed image resize.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSrcSize Size in pixels of the source image.

oSrcROI Region of interest in the source image.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oDstROI Region of interest in the destination image.

nXFactor Factor by which x dimension is changed.

nYFactor Factor by which y dimension is changed.

nXShift Source pixel shift in x-direction.

nYShift Source pixel shift in y-direction.

eInterpolation The type of eInterpolation to perform resampling.

Returns:

Image Data Related Error Codes, ROI Related Error Codes, Error Codes

7.73.3.6 NppStatus nppiResizeSqrPixel_16s_P3R (const Npp16s ∗const *pSrc*[3], NppiSize *oSrcSize*, int *nSrcStep*, NppiRect *oSrcROI*, Npp16s ∗ *pDst*[3], int *nDstStep*, NppiRect *oDstROI*, double *nXFactor*, double *nYFactor*, double *nXShift*, double *nYShift*, int *eInterpolation*)

3 channel 16-bit signed planar image resize.

Parameters:

pSrc Source-Planar-Image Pointer Array (host memory array containing device memory image plane pointers).

nSrcStep Source-Image Line Step.

oSrcSize Size in pixels of the source image.

oSrcROI Region of interest in the source image.

pDst Destination-Planar-Image Pointer Array (host memory array containing device memory image plane pointers).

nDstStep Destination-Image Line Step.

oDstROI Region of interest in the destination image.

nXFactor Factor by which x dimension is changed.

nYFactor Factor by which y dimension is changed.

nXShift Source pixel shift in x-direction.

nYShift Source pixel shift in y-direction.

eInterpolation The type of eInterpolation to perform resampling.

Returns:

Image Data Related Error Codes, ROI Related Error Codes, Error Codes

7.73.3.7 NppStatus nppiResizeSqrPixel_16s_P4R (const Npp16s ∗const *pSrc*[4], NppiSize *oSrcSize*, int *nSrcStep*, NppiRect *oSrcROI*, Npp16s ∗ *pDst*[4], int *nDstStep*, NppiRect *oDstROI*, double *nXFactor*, double *nYFactor*, double *nXShift*, double *nYShift*, int *eInterpolation*)

4 channel 16-bit signed planar image resize.

Parameters:

pSrc Source-Planar-Image Pointer Array (host memory array containing device memory image plane pointers).

nSrcStep Source-Image Line Step.

oSrcSize Size in pixels of the source image.

oSrcROI Region of interest in the source image.

pDst Destination-Planar-Image Pointer Array (host memory array containing device memory image plane pointers).

nDstStep Destination-Image Line Step.

oDstROI Region of interest in the destination image.

nXFactor Factor by which x dimension is changed.

nYFactor Factor by which y dimension is changed.

nXShift Source pixel shift in x-direction.

nYShift Source pixel shift in y-direction.

eInterpolation The type of eInterpolation to perform resampling.

Returns:

Image Data Related Error Codes, ROI Related Error Codes, Error Codes

7.73.3.8 NppStatus nppiResizeSqrPixel_16u_AC4R (const Npp16u ∗ *pSrc*, NppiSize *oSrcSize*, int *nSrcStep*, NppiRect *oSrcROI*, Npp16u ∗ *pDst*, int *nDstStep*, NppiRect *oDstROI*, double *nXFactor*, double *nYFactor*, double *nXShift*, double *nYShift*, int *eInterpolation*)

4 channel 16-bit unsigned image resize not affecting alpha.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSrcSize Size in pixels of the source image.

oSrcROI Region of interest in the source image.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oDstROI Region of interest in the destination image.

nXFactor Factor by which x dimension is changed.

nYFactor Factor by which y dimension is changed.

nXShift Source pixel shift in x-direction.

nYShift Source pixel shift in y-direction.

eInterpolation The type of interpolation to perform resampling.

Returns:

Image Data Related Error Codes, ROI Related Error Codes, Error Codes

7.73.3.9 NppStatus nppiResizeSqrPixel_16u_C1R (const Npp16u ∗ *pSrc*, NppiSize *oSrcSize*, int *nSrcStep*, NppiRect *oSrcROI*, Npp16u ∗ *pDst*, int *nDstStep*, NppiRect *oDstROI*, double *nXFactor*, double *nYFactor*, double *nXShift*, double *nYShift*, int *eInterpolation*)

1 channel 16-bit unsigned image resize.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSrcSize Size in pixels of the source image.

oSrcROI Region of interest in the source image.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oDstROI Region of interest in the destination image.

nXFactor Factor by which x dimension is changed.

nYFactor Factor by which y dimension is changed.

nXShift Source pixel shift in x-direction.

nYShift Source pixel shift in y-direction.

eInterpolation The type of eInterpolation to perform resampling.

Returns:

Image Data Related Error Codes, ROI Related Error Codes, Error Codes

7.73.3.10 NppStatus nppiResizeSqrPixel_16u_C3R (const Npp16u * *pSrc*, NppiSize *oSrcSize*, int *nSrcStep*, NppiRect *oSrcROI*, Npp16u * *pDst*, int *nDstStep*, NppiRect *oDstROI*, double *nXFactor*, double *nYFactor*, double *nXShift*, double *nYShift*, int *eInterpolation*)

3 channel 16-bit unsigned image resize.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSrcSize Size in pixels of the source image.

oSrcROI Region of interest in the source image.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oDstROI Region of interest in the destination image.

nXFactor Factor by which x dimension is changed.

nYFactor Factor by which y dimension is changed.

nXShift Source pixel shift in x-direction.

nYShift Source pixel shift in y-direction.

eInterpolation The type of eInterpolation to perform resampling.

Returns:

Image Data Related Error Codes, ROI Related Error Codes, Error Codes

7.73.3.11 NppStatus nppiResizeSqrPixel_16u_C4R (const Npp16u * *pSrc*, NppiSize *oSrcSize*, int *nSrcStep*, NppiRect *oSrcROI*, Npp16u * *pDst*, int *nDstStep*, NppiRect *oDstROI*, double *nXFactor*, double *nYFactor*, double *nXShift*, double *nYShift*, int *eInterpolation*)

4 channel 16-bit unsigned image resize.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSrcSize Size in pixels of the source image.

oSrcROI Region of interest in the source image.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oDstROI Region of interest in the destination image.

nXFactor Factor by which x dimension is changed.

nYFactor Factor by which y dimension is changed.

nXShift Source pixel shift in x-direction.

nYShift Source pixel shift in y-direction.

eInterpolation The type of eInterpolation to perform resampling.

Returns:

Image Data Related Error Codes, ROI Related Error Codes, Error Codes

7.73.3.12 NppStatus nppiResizeSqrPixel_16u_P3R (const Npp16u ∗const *pSrc*[3], NppiSize *oSrcSize*, int *nSrcStep*, NppiRect *oSrcROI*, Npp16u ∗ *pDst*[3], int *nDstStep*, NppiRect *oDstROI*, double *nXFactor*, double *nYFactor*, double *nXShift*, double *nYShift*, int *eInterpolation*)

3 channel 16-bit unsigned planar image resize.

Parameters:

pSrc Source-Planar-Image Pointer Array (host memory array containing device memory image plane pointers).

nSrcStep Source-Image Line Step.

oSrcSize Size in pixels of the source image.

oSrcROI Region of interest in the source image.

pDst Destination-Planar-Image Pointer Array (host memory array containing device memory image plane pointers).

nDstStep Destination-Image Line Step.

oDstROI Region of interest in the destination image.

nXFactor Factor by which x dimension is changed.

nYFactor Factor by which y dimension is changed.

nXShift Source pixel shift in x-direction.

nYShift Source pixel shift in y-direction.

eInterpolation The type of eInterpolation to perform resampling.

Returns:

Image Data Related Error Codes, ROI Related Error Codes, Error Codes

7.73.3.13 NppStatus nppiResizeSqrPixel_16u_P4R (const Npp16u ∗const *pSrc*[4], NppiSize *oSrcSize*, int *nSrcStep*, NppiRect *oSrcROI*, Npp16u ∗ *pDst*[4], int *nDstStep*, NppiRect *oDstROI*, double *nXFactor*, double *nYFactor*, double *nXShift*, double *nYShift*, int *eInterpolation*)

4 channel 16-bit unsigned planar image resize.

Parameters:

pSrc Source-Planar-Image Pointer Array (host memory array containing device memory image plane pointers).

nSrcStep Source-Image Line Step.

oSrcSize Size in pixels of the source image.

oSrcROI Region of interest in the source image.

pDst Destination-Planar-Image Pointer Array (host memory array containing device memory image plane pointers).

nDstStep Destination-Image Line Step.

oDstROI Region of interest in the destination image.

nXFactor Factor by which x dimension is changed.

nYFactor Factor by which y dimension is changed.

nXShift Source pixel shift in x-direction.

nYShift Source pixel shift in y-direction.

eInterpolation The type of eInterpolation to perform resampling.

Returns:

Image Data Related Error Codes, ROI Related Error Codes, Error Codes

7.73.3.14 NppStatus nppiResizeSqrPixel_32f_AC4R (const Npp32f ∗ *pSrc*, NppiSize *oSrcSize*, int *nSrcStep*, NppiRect *oSrcROI*, Npp32f ∗ *pDst*, int *nDstStep*, NppiRect *oDstROI*, double *nXFactor*, double *nYFactor*, double *nXShift*, double *nYShift*, int *eInterpolation*)

4 channel 32-bit floating point image resize not affecting alpha.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSrcSize Size in pixels of the source image.

oSrcROI Region of interest in the source image.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oDstROI Region of interest in the destination image.

nXFactor Factor by which x dimension is changed.

nYFactor Factor by which y dimension is changed.

nXShift Source pixel shift in x-direction.

nYShift Source pixel shift in y-direction.

eInterpolation The type of interpolation to perform resampling.

Returns:

Image Data Related Error Codes, ROI Related Error Codes, Error Codes

7.73.3.15 NppStatus nppiResizeSqrPixel_32f_C1R (const Npp32f ∗ *pSrc*, NppiSize *oSrcSize*, int *nSrcStep*, NppiRect *oSrcROI*, Npp32f ∗ *pDst*, int *nDstStep*, NppiRect *oDstROI*, double *nXFactor*, double *nYFactor*, double *nXShift*, double *nYShift*, int *eInterpolation*)

1 channel 32-bit floating point image resize.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSrcSize Size in pixels of the source image.

oSrcROI Region of interest in the source image.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oDstROI Region of interest in the destination image.

nXFactor Factor by which x dimension is changed.

nYFactor Factor by which y dimension is changed.

nXShift Source pixel shift in x-direction.

nYShift Source pixel shift in y-direction.

eInterpolation The type of eInterpolation to perform resampling.

Returns:

Image Data Related Error Codes, ROI Related Error Codes, Error Codes

7.73.3.16 NppStatus nppiResizeSqrPixel_32f_C3R (const Npp32f ∗ *pSrc*, NppiSize *oSrcSize*, int *nSrcStep*, NppiRect *oSrcROI*, Npp32f ∗ *pDst*, int *nDstStep*, NppiRect *oDstROI*, double *nXFactor*, double *nYFactor*, double *nXShift*, double *nYShift*, int *eInterpolation*)

3 channel 32-bit floating point image resize.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSrcSize Size in pixels of the source image.

oSrcROI Region of interest in the source image.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oDstROI Region of interest in the destination image.

nXFactor Factor by which x dimension is changed.

nYFactor Factor by which y dimension is changed.

nXShift Source pixel shift in x-direction.

nYShift Source pixel shift in y-direction.

eInterpolation The type of eInterpolation to perform resampling.

Returns:

Image Data Related Error Codes, ROI Related Error Codes, Error Codes

7.73.3.17 NppStatus nppiResizeSqrPixel_32f_C4R (const Npp32f ∗ *pSrc*, NppiSize *oSrcSize*, int *nSrcStep*, NppiRect *oSrcROI*, Npp32f ∗ *pDst*, int *nDstStep*, NppiRect *oDstROI*, double *nXFactor*, double *nYFactor*, double *nXShift*, double *nYShift*, int *eInterpolation*)

4 channel 32-bit floating point image resize.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSrcSize Size in pixels of the source image.

oSrcROI Region of interest in the source image.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oDstROI Region of interest in the destination image.

nXFactor Factor by which x dimension is changed.

nYFactor Factor by which y dimension is changed.

nXShift Source pixel shift in x-direction.

nYShift Source pixel shift in y-direction.

eInterpolation The type of eInterpolation to perform resampling.

Returns:

Image Data Related Error Codes, ROI Related Error Codes, Error Codes

7.73.3.18 NppStatus nppiResizeSqrPixel_32f_P3R (const Npp32f ∗const *pSrc*[3], NppiSize *oSrcSize*, int *nSrcStep*, NppiRect *oSrcROI*, Npp32f ∗ *pDst*[3], int *nDstStep*, NppiRect *oDstROI*, double *nXFactor*, double *nYFactor*, double *nXShift*, double *nYShift*, int *eInterpolation*)

3 channel 32-bit floating point planar image resize.

Parameters:

pSrc Source-Planar-Image Pointer Array (host memory array containing device memory image plane pointers).

nSrcStep Source-Image Line Step.

oSrcSize Size in pixels of the source image.

oSrcROI Region of interest in the source image.

pDst Destination-Planar-Image Pointer Array (host memory array containing device memory image plane pointers).

nDstStep Destination-Image Line Step.

oDstROI Region of interest in the destination image.

nXFactor Factor by which x dimension is changed.

nYFactor Factor by which y dimension is changed.

nXShift Source pixel shift in x-direction.

nYShift Source pixel shift in y-direction.

eInterpolation The type of eInterpolation to perform resampling.

Returns:

Image Data Related Error Codes, ROI Related Error Codes, Error Codes

7.73.3.19 NppStatus nppiResizeSqrPixel_32f_P4R (const Npp32f ∗const *pSrc*[4], NppiSize *oSrcSize*, int *nSrcStep*, NppiRect *oSrcROI*, Npp32f ∗ *pDst*[4], int *nDstStep*, NppiRect *oDstROI*, double *nXFactor*, double *nYFactor*, double *nXShift*, double *nYShift*, int *eInterpolation*)

4 channel 32-bit floating point planar image resize.

Parameters:

pSrc Source-Planar-Image Pointer Array (host memory array containing device memory image plane pointers).

nSrcStep Source-Image Line Step.

oSrcSize Size in pixels of the source image.

oSrcROI Region of interest in the source image.

pDst Destination-Planar-Image Pointer Array (host memory array containing device memory image plane pointers).

nDstStep Destination-Image Line Step.

oDstROI Region of interest in the destination image.

nXFactor Factor by which x dimension is changed.

nYFactor Factor by which y dimension is changed.

nXShift Source pixel shift in x-direction.

nYShift Source pixel shift in y-direction.

eInterpolation The type of eInterpolation to perform resampling.

Returns:

Image Data Related Error Codes, ROI Related Error Codes, Error Codes

7.73.3.20 NppStatus nppiResizeSqrPixel_64f_AC4R (const Npp64f ∗ *pSrc*, NppiSize *oSrcSize*, int *nSrcStep*, NppiRect *oSrcROI*, Npp64f ∗ *pDst*, int *nDstStep*, NppiRect *oDstROI*, double *nXFactor*, double *nYFactor*, double *nXShift*, double *nYShift*, int *eInterpolation*)

4 channel 64-bit floating point image resize not affecting alpha.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSrcSize Size in pixels of the source image.

oSrcROI Region of interest in the source image.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oDstROI Region of interest in the destination image.

nXFactor Factor by which x dimension is changed.

nYFactor Factor by which y dimension is changed.

nXShift Source pixel shift in x-direction.

nYShift Source pixel shift in y-direction.

eInterpolation The type of interpolation to perform resampling.

Returns:

Image Data Related Error Codes, ROI Related Error Codes, Error Codes

7.73.3.21 NppStatus nppiResizeSqrPixel_64f_C1R (const Npp64f ∗ *pSrc*, NppiSize *oSrcSize*, int *nSrcStep*, NppiRect *oSrcROI*, Npp64f ∗ *pDst*, int *nDstStep*, NppiRect *oDstROI*, double *nXFactor*, double *nYFactor*, double *nXShift*, double *nYShift*, int *eInterpolation*)

1 channel 64-bit floating point image resize.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSrcSize Size in pixels of the source image.

oSrcROI Region of interest in the source image.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oDstROI Region of interest in the destination image.

nXFactor Factor by which x dimension is changed.

nYFactor Factor by which y dimension is changed.

nXShift Source pixel shift in x-direction.

nYShift Source pixel shift in y-direction.

eInterpolation The type of eInterpolation to perform resampling.

Returns:

Image Data Related Error Codes, ROI Related Error Codes, Error Codes

7.73.3.22 NppStatus nppiResizeSqrPixel_64f_C3R (const Npp64f ∗ *pSrc*, NppiSize *oSrcSize*, int *nSrcStep*, NppiRect *oSrcROI*, Npp64f ∗ *pDst*, int *nDstStep*, NppiRect *oDstROI*, double *nXFactor*, double *nYFactor*, double *nXShift*, double *nYShift*, int *eInterpolation*)

3 channel 64-bit floating point image resize.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSrcSize Size in pixels of the source image.

oSrcROI Region of interest in the source image.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oDstROI Region of interest in the destination image.

nXFactor Factor by which x dimension is changed.

nYFactor Factor by which y dimension is changed.

nXShift Source pixel shift in x-direction.

nYShift Source pixel shift in y-direction.

eInterpolation The type of eInterpolation to perform resampling.

Returns:

Image Data Related Error Codes, ROI Related Error Codes, Error Codes

7.73.3.23 NppStatus nppiResizeSqrPixel_64f_C4R (const Npp64f ∗ *pSrc*, NppiSize *oSrcSize*, int *nSrcStep*, NppiRect *oSrcROI*, Npp64f ∗ *pDst*, int *nDstStep*, NppiRect *oDstROI*, double *nXFactor*, double *nYFactor*, double *nXShift*, double *nYShift*, int *eInterpolation*)

4 channel 64-bit floating point image resize.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSrcSize Size in pixels of the source image.

oSrcROI Region of interest in the source image.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oDstROI Region of interest in the destination image.

nXFactor Factor by which x dimension is changed.

nYFactor Factor by which y dimension is changed.

nXShift Source pixel shift in x-direction.

nYShift Source pixel shift in y-direction.

eInterpolation The type of eInterpolation to perform resampling.

Returns:

Image Data Related Error Codes, ROI Related Error Codes, Error Codes

7.73.3.24 NppStatus nppiResizeSqrPixel_64f_P3R (const Npp64f ∗const *pSrc*[3], NppiSize *oSrcSize*, int *nSrcStep*, NppiRect *oSrcROI*, Npp64f ∗ *pDst*[3], int *nDstStep*, NppiRect *oDstROI*, double *nXFactor*, double *nYFactor*, double *nXShift*, double *nYShift*, int *eInterpolation*)

3 channel 64-bit floating point planar image resize.

Parameters:

pSrc Source-Planar-Image Pointer Array (host memory array containing device memory image plane pointers).

nSrcStep Source-Image Line Step.

oSrcSize Size in pixels of the source image.

oSrcROI Region of interest in the source image.

pDst Destination-Planar-Image Pointer Array (host memory array containing device memory image plane pointers).

nDstStep Destination-Image Line Step.

oDstROI Region of interest in the destination image.

nXFactor Factor by which x dimension is changed.

nYFactor Factor by which y dimension is changed.

nXShift Source pixel shift in x-direction.

nYShift Source pixel shift in y-direction.

eInterpolation The type of eInterpolation to perform resampling.

Returns:

Image Data Related Error Codes, ROI Related Error Codes, Error Codes

7.73.3.25 NppStatus nppiResizeSqrPixel_64f_P4R (const Npp64f ∗const *pSrc*[4], NppiSize *oSrcSize*, int *nSrcStep*, NppiRect *oSrcROI*, Npp64f ∗ *pDst*[4], int *nDstStep*, NppiRect *oDstROI*, double *nXFactor*, double *nYFactor*, double *nXShift*, double *nYShift*, int *eInterpolation*)

4 channel 64-bit floating point planar image resize.

Parameters:

pSrc Source-Planar-Image Pointer Array (host memory array containing device memory image plane pointers).

nSrcStep Source-Image Line Step.

oSrcSize Size in pixels of the source image.

oSrcROI Region of interest in the source image.

pDst Destination-Planar-Image Pointer Array (host memory array containing device memory image plane pointers).

nDstStep Destination-Image Line Step.

oDstROI Region of interest in the destination image.

nXFactor Factor by which x dimension is changed.

nYFactor Factor by which y dimension is changed.

nXShift Source pixel shift in x-direction.

nYShift Source pixel shift in y-direction.

eInterpolation The type of eInterpolation to perform resampling.

Returns:

Image Data Related Error Codes, ROI Related Error Codes, Error Codes

7.73.3.26 NppStatus nppiResizeSqrPixel_8u_AC4R (const Npp8u ∗ *pSrc*, NppiSize *oSrcSize*, int *nSrcStep*, NppiRect *oSrcROI*, Npp8u ∗ *pDst*, int *nDstStep*, NppiRect *oDstROI*, double *nXFactor*, double *nYFactor*, double *nXShift*, double *nYShift*, int *eInterpolation*)

4 channel 8-bit unsigned image resize not affecting alpha.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSrcSize Size in pixels of the source image.

oSrcROI Region of interest in the source image.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oDstROI Region of interest in the destination image.

nXFactor Factor by which x dimension is changed.

nYFactor Factor by which y dimension is changed.

nXShift Source pixel shift in x-direction.

nYShift Source pixel shift in y-direction.

eInterpolation The type of interpolation to perform resampling.

Returns:

Image Data Related Error Codes, ROI Related Error Codes, Error Codes

7.73.3.27 NppStatus nppiResizeSqrPixel_8u_C1R (const Npp8u ∗ *pSrc*, NppiSize *oSrcSize*, int *nSrcStep*, NppiRect *oSrcROI*, Npp8u ∗ *pDst*, int *nDstStep*, NppiRect *oDstROI*, double *nXFactor*, double *nYFactor*, double *nXShift*, double *nYShift*, int *eInterpolation*)

1 channel 8-bit unsigned image resize.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSrcSize Size in pixels of the source image.

oSrcROI Region of interest in the source image.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oDstROI Region of interest in the destination image.

nXFactor Factor by which x dimension is changed.

nYFactor Factor by which y dimension is changed.

nXShift Source pixel shift in x-direction.

nYShift Source pixel shift in y-direction.

eInterpolation The type of eInterpolation to perform resampling.

Returns:

Image Data Related Error Codes, ROI Related Error Codes, Error Codes

7.73.3.28 NppStatus nppiResizeSqrPixel_8u_C3R (const Npp8u $*$ *pSrc*, NppiSize *oSrcSize*, int *nSrcStep*, NppiRect *oSrcROI*, Npp8u $*$ *pDst*, int *nDstStep*, NppiRect *oDstROI*, double *nXFactor*, double *nYFactor*, double *nXShift*, double *nYShift*, int *eInterpolation*)

3 channel 8-bit unsigned image resize.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSrcSize Size in pixels of the source image.

oSrcROI Region of interest in the source image.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oDstROI Region of interest in the destination image.

nXFactor Factor by which x dimension is changed.

nYFactor Factor by which y dimension is changed.

nXShift Source pixel shift in x-direction.

nYShift Source pixel shift in y-direction.

eInterpolation The type of eInterpolation to perform resampling.

Returns:

Image Data Related Error Codes, ROI Related Error Codes, Error Codes

7.73.3.29 NppStatus nppiResizeSqrPixel_8u_C4R (const Npp8u $*$ *pSrc*, NppiSize *oSrcSize*, int *nSrcStep*, NppiRect *oSrcROI*, Npp8u $*$ *pDst*, int *nDstStep*, NppiRect *oDstROI*, double *nXFactor*, double *nYFactor*, double *nXShift*, double *nYShift*, int *eInterpolation*)

4 channel 8-bit unsigned image resize.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSrcSize Size in pixels of the source image.

oSrcROI Region of interest in the source image.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oDstROI Region of interest in the destination image.

nXFactor Factor by which x dimension is changed.

nYFactor Factor by which y dimension is changed.

nXShift Source pixel shift in x-direction.

nYShift Source pixel shift in y-direction.

eInterpolation The type of eInterpolation to perform resampling.

Returns:

Image Data Related Error Codes, ROI Related Error Codes, Error Codes

7.73.3.30 NppStatus nppiResizeSqrPixel_8u_P3R (const Npp8u ∗const *pSrc*[3], NppiSize *oSrcSize*, int *nSrcStep*, NppiRect *oSrcROI*, Npp8u ∗ *pDst*[3], int *nDstStep*, NppiRect *oDstROI*, double *nXFactor*, double *nYFactor*, double *nXShift*, double *nYShift*, int *eInterpolation*)

3 channel 8-bit unsigned planar image resize.

Parameters:

pSrc Source-Planar-Image Pointer Array (host memory array containing device memory image plane pointers).

nSrcStep Source-Image Line Step.

oSrcSize Size in pixels of the source image.

oSrcROI Region of interest in the source image.

pDst Destination-Planar-Image Pointer Array (host memory array containing device memory image plane pointers).

nDstStep Destination-Image Line Step.

oDstROI Region of interest in the destination image.

nXFactor Factor by which x dimension is changed.

nYFactor Factor by which y dimension is changed.

nXShift Source pixel shift in x-direction.

nYShift Source pixel shift in y-direction.

eInterpolation The type of eInterpolation to perform resampling.

Returns:

Image Data Related Error Codes, ROI Related Error Codes, Error Codes

7.73.3.31 NppStatus nppiResizeSqrPixel_8u_P4R (const Npp8u ∗const *pSrc*[4], NppiSize *oSrcSize*, int *nSrcStep*, NppiRect *oSrcROI*, Npp8u ∗ *pDst*[4], int *nDstStep*, NppiRect *oDstROI*, double *nXFactor*, double *nYFactor*, double *nXShift*, double *nYShift*, int *eInterpolation*)

4 channel 8-bit unsigned planar image resize.

Parameters:

pSrc Source-Planar-Image Pointer Array (host memory array containing device memory image plane pointers).

nSrcStep Source-Image Line Step.

oSrcSize Size in pixels of the source image.

oSrcROI Region of interest in the source image.

pDst Destination-Planar-Image Pointer Array (host memory array containing device memory image plane pointers).

nDstStep Destination-Image Line Step.

oDstROI Region of interest in the destination image.

nXFactor Factor by which x dimension is changed.

nYFactor Factor by which y dimension is changed.

nXShift Source pixel shift in x-direction.

nYShift Source pixel shift in y-direction.

eInterpolation The type of eInterpolation to perform resampling.

Returns:

Image Data Related Error Codes, ROI Related Error Codes, Error Codes

7.74 Resize

This function has been deprecated.

Resize

Resizes images.

- NppStatus nppiResize_8u_C1R (const Npp8u ∗pSrc, NppiSize oSrcSize, int nSrcStep, NppiRect oSrcROI, Npp8u ∗pDst, int nDstStep, NppiSize dstROISize, double nXFactor, double nYFactor, int eInterpolation)

  1 channel 8-bit unsigned image resize.

- NppStatus nppiResize_8u_C3R (const Npp8u ∗pSrc, NppiSize oSrcSize, int nSrcStep, NppiRect oSrcROI, Npp8u ∗pDst, int nDstStep, NppiSize dstROISize, double nXFactor, double nYFactor, int eInterpolation)

  3 channel 8-bit unsigned image resize.

- NppStatus nppiResize_8u_C4R (const Npp8u ∗pSrc, NppiSize oSrcSize, int nSrcStep, NppiRect oSrcROI, Npp8u ∗pDst, int nDstStep, NppiSize dstROISize, double nXFactor, double nYFactor, int eInterpolation)

  4 channel 8-bit unsigned image resize.

- NppStatus nppiResize_8u_AC4R (const Npp8u ∗pSrc, NppiSize oSrcSize, int nSrcStep, NppiRect oSrcROI, Npp8u ∗pDst, int nDstStep, NppiSize dstROISize, double nXFactor, double nYFactor, int eInterpolation)

  4 channel 8-bit unsigned image resize not affecting alpha.

- NppStatus nppiResize_8u_P3R (const Npp8u ∗const pSrc[3], NppiSize oSrcSize, int nSrcStep, NppiRect oSrcROI, Npp8u ∗pDst[3], int nDstStep, NppiSize dstROISize, double nXFactor, double nYFactor, int eInterpolation)

  3 channel 8-bit unsigned planar image resize.

- NppStatus nppiResize_8u_P4R (const Npp8u ∗const pSrc[4], NppiSize oSrcSize, int nSrcStep, NppiRect oSrcROI, Npp8u ∗pDst[4], int nDstStep, NppiSize dstROISize, double nXFactor, double nYFactor, int eInterpolation)

  4 channel 8-bit unsigned planar image resize.

- NppStatus nppiResize_16u_C1R (const Npp16u ∗pSrc, NppiSize oSrcSize, int nSrcStep, NppiRect oSrcROI, Npp16u ∗pDst, int nDstStep, NppiSize dstROISize, double nXFactor, double nYFactor, int eInterpolation)

  1 channel 16-bit unsigned image resize.

- NppStatus nppiResize_16u_C3R (const Npp16u ∗pSrc, NppiSize oSrcSize, int nSrcStep, NppiRect oSrcROI, Npp16u ∗pDst, int nDstStep, NppiSize dstROISize, double nXFactor, double nYFactor, int eInterpolation)

  3 channel 16-bit unsigned image resize.

- NppStatus nppiResize_16u_C4R (const Npp16u ∗pSrc, NppiSize oSrcSize, int nSrcStep, NppiRect oSrcROI, Npp16u ∗pDst, int nDstStep, NppiSize dstROISize, double nXFactor, double nYFactor, int eInterpolation)

4 channel 16-bit unsigned image resize.

- NppStatus nppiResize_16u_AC4R (const Npp16u ∗pSrc, NppiSize oSrcSize, int nSrcStep, NppiRect oSrcROI, Npp16u ∗pDst, int nDstStep, NppiSize dstROISize, double nXFactor, double nYFactor, int eInterpolation)

  4 channel 16-bit unsigned image resize not affecting alpha.

- NppStatus nppiResize_16u_P3R (const Npp16u ∗const pSrc[3], NppiSize oSrcSize, int nSrcStep, NppiRect oSrcROI, Npp16u ∗pDst[3], int nDstStep, NppiSize dstROISize, double nXFactor, double nYFactor, int eInterpolation)

  3 channel 16-bit unsigned planar image resize.

- NppStatus nppiResize_16u_P4R (const Npp16u ∗const pSrc[4], NppiSize oSrcSize, int nSrcStep, NppiRect oSrcROI, Npp16u ∗pDst[4], int nDstStep, NppiSize dstROISize, double nXFactor, double nYFactor, int eInterpolation)

  4 channel 16-bit unsigned planar image resize.

- NppStatus nppiResize_32f_C1R (const Npp32f ∗pSrc, NppiSize oSrcSize, int nSrcStep, NppiRect oSrcROI, Npp32f ∗pDst, int nDstStep, NppiSize dstROISize, double nXFactor, double nYFactor, int eInterpolation)

  1 channel 32-bit floating point image resize.

- NppStatus nppiResize_32f_C3R (const Npp32f ∗pSrc, NppiSize oSrcSize, int nSrcStep, NppiRect oSrcROI, Npp32f ∗pDst, int nDstStep, NppiSize dstROISize, double nXFactor, double nYFactor, int eInterpolation)

  3 channel 32-bit floating point image resize.

- NppStatus nppiResize_32f_C4R (const Npp32f ∗pSrc, NppiSize oSrcSize, int nSrcStep, NppiRect oSrcROI, Npp32f ∗pDst, int nDstStep, NppiSize dstROISize, double nXFactor, double nYFactor, int eInterpolation)

  4 channel 32-bit floating point image resize.

- NppStatus nppiResize_32f_AC4R (const Npp32f ∗pSrc, NppiSize oSrcSize, int nSrcStep, NppiRect oSrcROI, Npp32f ∗pDst, int nDstStep, NppiSize dstROISize, double nXFactor, double nYFactor, int eInterpolation)

  4 channel 32-bit floating point image resize not affecting alpha.

- NppStatus nppiResize_32f_P3R (const Npp32f ∗const pSrc[3], NppiSize oSrcSize, int nSrcStep, NppiRect oSrcROI, Npp32f ∗pDst[3], int nDstStep, NppiSize dstROISize, double nXFactor, double nYFactor, int eInterpolation)

  3 channel 32-bit floating point planar image resize.

- NppStatus nppiResize_32f_P4R (const Npp32f ∗const pSrc[4], NppiSize oSrcSize, int nSrcStep, NppiRect oSrcROI, Npp32f ∗pDst[4], int nDstStep, NppiSize dstROISize, double nXFactor, double nYFactor, int eInterpolation)

  4 channel 32-bit floating point planar image resize.

7.74.1 Detailed Description

This function has been deprecated.

ResizeSqrPixel provides the same functionality and more.

Resize supports the following interpolation modes:

```
NPPI_INTER_NN
NPPI_INTER_LINEAR
NPPI_INTER_CUBIC
NPPI_INTER_SUPER
NPPI_INTER_LANCZOS
```

Resize uses the following scaling formula to select source pixels for interpolation:

```
scaledSrcSize.width = nXFactor * srcRectROI.width;
scaledSrcSize.height = nYFactor * srcRectROI.height;
nAdjustedXFactor = (srcRectROI.width - 1) / (scaledSrcSize.width - 1);
nAdjustedYFactor = (srcRectROI.height - 1) / (scaledSrcSize.height - 1);
nSrcX = nAdjustedXFactor * nDstX;
nSrcY = nAdjustedYFactor * nDstY;
```

In the Resize functions below source image clip checking is handled as follows:

If the source pixel fractional x and y coordinates are greater than or equal to oSizeROI.x and less than oSizeROI.x + oSizeROI.width and greater than or equal to oSizeROI.y and less than oSizeROI.y + oSizeROI.height then the source pixel is considered to be within the source image clip rectangle and the source image is sampled. Otherwise the source image is not sampled and a destination pixel is not written to the destination image.

7.74.2 Error Codes

The resize primitives return the following error codes:

- NPP_WRONG_INTERSECTION_ROI_ERROR indicates an error condition if srcROIRect has no intersection with the source image.
- NPP_RESIZE_NO_OPERATION_ERROR if either destination ROI width or height is less than 1 pixel.
- NPP_RESIZE_FACTOR_ERROR Indicates an error condition if either nXFactor or nYFactor is less than or equal to zero.
- NPP_INTERPOLATION_ERROR if eInterpolation has an illegal value.
- NPP_SIZE_ERROR if source size width or height is less than 2 pixels.

7.74.3 Function Documentation

7.74.3.1 NppStatus nppiResize_16u_AC4R (const Npp16u ∗ *pSrc*, NppiSize *oSrcSize*, int *nSrcStep*, NppiRect *oSrcROI*, Npp16u ∗ *pDst*, int *nDstStep*, NppiSize *dstROISize*, double *nXFactor*, double *nYFactor*, int *eInterpolation*)

4 channel 16-bit unsigned image resize not affecting alpha.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSrcSize Size in pixels of the source image

oSrcROI Region of interest in the source image.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

dstROISize Size in pixels of the destination image.

nXFactor Factor by which x dimension is changed.

nYFactor Factor by which y dimension is changed.

eInterpolation The type of interpolation to perform resampling.

Returns:

Image Data Related Error Codes, ROI Related Error Codes, Error Codes

7.74.3.2 NppStatus nppiResize_16u_C1R (const Npp16u ∗ *pSrc*, NppiSize *oSrcSize*, int *nSrcStep*, NppiRect *oSrcROI*, Npp16u ∗ *pDst*, int *nDstStep*, NppiSize *dstROISize*, double *nXFactor*, double *nYFactor*, int *eInterpolation*)

1 channel 16-bit unsigned image resize.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSrcSize Size in pixels of the source image

oSrcROI Region of interest in the source image.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

dstROISize Size in pixels of the destination image.

nXFactor Factor by which x dimension is changed.

nYFactor Factor by which y dimension is changed.

eInterpolation The type of eInterpolation to perform resampling.

Returns:

Image Data Related Error Codes, ROI Related Error Codes, Error Codes

7.74.3.3 NppStatus nppiResize_16u_C3R (const Npp16u ∗ *pSrc*, NppiSize *oSrcSize*, int *nSrcStep*, NppiRect *oSrcROI*, Npp16u ∗ *pDst*, int *nDstStep*, NppiSize *dstROISize*, double *nXFactor*, double *nYFactor*, int *eInterpolation*)

3 channel 16-bit unsigned image resize.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSrcSize Size in pixels of the source image

oSrcROI Region of interest in the source image.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

dstROISize Size in pixels of the destination image.

nXFactor Factor by which x dimension is changed.

nYFactor Factor by which y dimension is changed.

eInterpolation The type of eInterpolation to perform resampling.

Returns:

Image Data Related Error Codes, ROI Related Error Codes, Error Codes

7.74.3.4 NppStatus nppiResize_16u_C4R (const Npp16u * *pSrc*, NppiSize *oSrcSize*, int *nSrcStep*, NppiRect *oSrcROI*, Npp16u * *pDst*, int *nDstStep*, NppiSize *dstROISize*, double *nXFactor*, double *nYFactor*, int *eInterpolation*)

4 channel 16-bit unsigned image resize.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSrcSize Size in pixels of the source image

oSrcROI Region of interest in the source image.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

dstROISize Size in pixels of the destination image.

nXFactor Factor by which x dimension is changed.

nYFactor Factor by which y dimension is changed.

eInterpolation The type of eInterpolation to perform resampling.

Returns:

Image Data Related Error Codes, ROI Related Error Codes, Error Codes

7.74.3.5 NppStatus nppiResize_16u_P3R (const Npp16u *const *pSrc*[3], NppiSize *oSrcSize*, int *nSrcStep*, NppiRect *oSrcROI*, Npp16u * *pDst*[3], int *nDstStep*, NppiSize *dstROISize*, double *nXFactor*, double *nYFactor*, int *eInterpolation*)

3 channel 16-bit unsigned planar image resize.

Parameters:

pSrc Source-Planar-Image Pointer Array (host memory array containing device memory image plane pointers).

nSrcStep Source-Image Line Step.

oSrcSize Size in pixels of the source image.

oSrcROI Region of interest in the source image.

pDst Destination-Planar-Image Pointer Array (host memory array containing device memory image plane pointers).

nDstStep Destination-Image Line Step.

dstROISize Size in pixels of the destination image.

nXFactor Factor by which x dimension is changed.

nYFactor Factor by which y dimension is changed.

eInterpolation The type of eInterpolation to perform resampling.

Returns:

Image Data Related Error Codes, ROI Related Error Codes, Error Codes

7.74.3.6 NppStatus nppiResize_16u_P4R (const Npp16u ∗const *pSrc*[4], NppiSize *oSrcSize*, int *nSrcStep*, NppiRect *oSrcROI*, Npp16u ∗ *pDst*[4], int *nDstStep*, NppiSize *dstROISize*, double *nXFactor*, double *nYFactor*, int *eInterpolation*)

4 channel 16-bit unsigned planar image resize.

Parameters:

pSrc Source-Planar-Image Pointer Array (host memory array containing device memory image plane pointers).

nSrcStep Source-Image Line Step.

oSrcSize Size in pixels of the source image.

oSrcROI Region of interest in the source image.

pDst Destination-Planar-Image Pointer Array (host memory array containing device memory image plane pointers).

nDstStep Destination-Image Line Step.

dstROISize Size in pixels of the destination image.

nXFactor Factor by which x dimension is changed.

nYFactor Factor by which y dimension is changed.

eInterpolation The type of eInterpolation to perform resampling.

Returns:

Image Data Related Error Codes, ROI Related Error Codes, Error Codes

7.74.3.7 NppStatus nppiResize_32f_AC4R (const Npp32f ∗ *pSrc*, NppiSize *oSrcSize*, int *nSrcStep*, NppiRect *oSrcROI*, Npp32f ∗ *pDst*, int *nDstStep*, NppiSize *dstROISize*, double *nXFactor*, double *nYFactor*, int *eInterpolation*)

4 channel 32-bit floating point image resize not affecting alpha.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSrcSize Size in pixels of the source image

oSrcROI Region of interest in the source image.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

dstROISize Size in pixels of the destination image.

nXFactor Factor by which x dimension is changed.

nYFactor Factor by which y dimension is changed.

eInterpolation The type of interpolation to perform resampling.

Returns:

Image Data Related Error Codes, ROI Related Error Codes, Error Codes

7.74.3.8 NppStatus nppiResize_32f_C1R (const Npp32f ∗ *pSrc*, NppiSize *oSrcSize*, int *nSrcStep*, NppiRect *oSrcROI*, Npp32f ∗ *pDst*, int *nDstStep*, NppiSize *dstROISize*, double *nXFactor*, double *nYFactor*, int *eInterpolation*)

1 channel 32-bit floating point image resize.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSrcSize Size in pixels of the source image

oSrcROI Region of interest in the source image.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

dstROISize Size in pixels of the destination image.

nXFactor Factor by which x dimension is changed.

nYFactor Factor by which y dimension is changed.

eInterpolation The type of eInterpolation to perform resampling.

Returns:

Image Data Related Error Codes, ROI Related Error Codes, Error Codes

7.74.3.9 NppStatus nppiResize_32f_C3R (const Npp32f ∗ *pSrc*, NppiSize *oSrcSize*, int *nSrcStep*, NppiRect *oSrcROI*, Npp32f ∗ *pDst*, int *nDstStep*, NppiSize *dstROISize*, double *nXFactor*, double *nYFactor*, int *eInterpolation*)

3 channel 32-bit floating point image resize.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSrcSize Size in pixels of the source image

oSrcROI Region of interest in the source image.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

dstROISize Size in pixels of the destination image.

nXFactor Factor by which x dimension is changed.

nYFactor Factor by which y dimension is changed.

eInterpolation The type of eInterpolation to perform resampling.

Returns:

Image Data Related Error Codes, ROI Related Error Codes, Error Codes

7.74.3.10 NppStatus nppiResize_32f_C4R (const Npp32f $*$ *pSrc*, NppiSize *oSrcSize*, int *nSrcStep*, NppiRect *oSrcROI*, Npp32f $*$ *pDst*, int *nDstStep*, NppiSize *dstROISize*, double *nXFactor*, double *nYFactor*, int *eInterpolation*)

4 channel 32-bit floating point image resize.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSrcSize Size in pixels of the source image

oSrcROI Region of interest in the source image.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

dstROISize Size in pixels of the destination image.

nXFactor Factor by which x dimension is changed.

nYFactor Factor by which y dimension is changed.

eInterpolation The type of eInterpolation to perform resampling.

Returns:

Image Data Related Error Codes, ROI Related Error Codes, Error Codes

7.74.3.11 NppStatus nppiResize_32f_P3R (const Npp32f $*$const *pSrc*[3], NppiSize *oSrcSize*, int *nSrcStep*, NppiRect *oSrcROI*, Npp32f $*$ *pDst*[3], int *nDstStep*, NppiSize *dstROISize*, double *nXFactor*, double *nYFactor*, int *eInterpolation*)

3 channel 32-bit floating point planar image resize.

Parameters:

pSrc Source-Planar-Image Pointer Array (host memory array containing device memory image plane pointers).

nSrcStep Source-Image Line Step.

oSrcSize Size in pixels of the source image.

oSrcROI Region of interest in the source image.

pDst Destination-Planar-Image Pointer Array (host memory array containing device memory image plane pointers).

nDstStep Destination-Image Line Step.

dstROISize Size in pixels of the destination image.

nXFactor Factor by which x dimension is changed.

nYFactor Factor by which y dimension is changed.

eInterpolation The type of eInterpolation to perform resampling.

Returns:

Image Data Related Error Codes, ROI Related Error Codes, Error Codes

7.74.3.12 NppStatus nppiResize_32f_P4R (const Npp32f ∗const *pSrc*[4], NppiSize *oSrcSize*, int *nSrcStep*, NppiRect *oSrcROI*, Npp32f ∗ *pDst*[4], int *nDstStep*, NppiSize *dstROISize*, double *nXFactor*, double *nYFactor*, int *eInterpolation*)

4 channel 32-bit floating point planar image resize.

Parameters:

pSrc Source-Planar-Image Pointer Array (host memory array containing device memory image plane pointers).

nSrcStep Source-Image Line Step.

oSrcSize Size in pixels of the source image.

oSrcROI Region of interest in the source image.

pDst Destination-Planar-Image Pointer Array (host memory array containing device memory image plane pointers).

nDstStep Destination-Image Line Step.

dstROISize Size in pixels of the destination image.

nXFactor Factor by which x dimension is changed.

nYFactor Factor by which y dimension is changed.

eInterpolation The type of eInterpolation to perform resampling.

Returns:

Image Data Related Error Codes, ROI Related Error Codes, Error Codes

7.74.3.13 NppStatus nppiResize_8u_AC4R (const Npp8u ∗ *pSrc*, NppiSize *oSrcSize*, int *nSrcStep*, NppiRect *oSrcROI*, Npp8u ∗ *pDst*, int *nDstStep*, NppiSize *dstROISize*, double *nXFactor*, double *nYFactor*, int *eInterpolation*)

4 channel 8-bit unsigned image resize not affecting alpha.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSrcSize Size in pixels of the source image

oSrcROI Region of interest in the source image.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

dstROISize Size in pixels of the destination image.

nXFactor Factor by which x dimension is changed.

nYFactor Factor by which y dimension is changed.

eInterpolation The type of interpolation to perform resampling.

Returns:

Image Data Related Error Codes, ROI Related Error Codes, Error Codes

7.74.3.14 NppStatus nppiResize_8u_C1R (const Npp8u ∗ *pSrc*, NppiSize *oSrcSize*, int *nSrcStep*, NppiRect *oSrcROI*, Npp8u ∗ *pDst*, int *nDstStep*, NppiSize *dstROISize*, double *nXFactor*, double *nYFactor*, int *eInterpolation*)

1 channel 8-bit unsigned image resize.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSrcSize Size in pixels of the source image

oSrcROI Region of interest in the source image.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

dstROISize Size in pixels of the destination image.

nXFactor Factor by which x dimension is changed.

nYFactor Factor by which y dimension is changed.

eInterpolation The type of eInterpolation to perform resampling.

Returns:

Image Data Related Error Codes, ROI Related Error Codes, Error Codes

7.74.3.15 NppStatus nppiResize_8u_C3R (const Npp8u ∗ *pSrc*, NppiSize *oSrcSize*, int *nSrcStep*, NppiRect *oSrcROI*, Npp8u ∗ *pDst*, int *nDstStep*, NppiSize *dstROISize*, double *nXFactor*, double *nYFactor*, int *eInterpolation*)

3 channel 8-bit unsigned image resize.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSrcSize Size in pixels of the source image

oSrcROI Region of interest in the source image.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

dstROISize Size in pixels of the destination image.

nXFactor Factor by which x dimension is changed.

nYFactor Factor by which y dimension is changed.

eInterpolation The type of eInterpolation to perform resampling.

Returns:

Image Data Related Error Codes, ROI Related Error Codes, Error Codes

7.74.3.16 NppStatus nppiResize_8u_C4R (const Npp8u ∗ *pSrc*, NppiSize *oSrcSize*, int *nSrcStep*, NppiRect *oSrcROI*, Npp8u ∗ *pDst*, int *nDstStep*, NppiSize *dstROISize*, double *nXFactor*, double *nYFactor*, int *eInterpolation*)

4 channel 8-bit unsigned image resize.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSrcSize Size in pixels of the source image

oSrcROI Region of interest in the source image.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

dstROISize Size in pixels of the destination image.

nXFactor Factor by which x dimension is changed.

nYFactor Factor by which y dimension is changed.

eInterpolation The type of eInterpolation to perform resampling.

Returns:

Image Data Related Error Codes, ROI Related Error Codes, Error Codes

7.74.3.17 NppStatus nppiResize_8u_P3R (const Npp8u ∗const *pSrc*[3], NppiSize *oSrcSize*, int *nSrcStep*, NppiRect *oSrcROI*, Npp8u ∗ *pDst*[3], int *nDstStep*, NppiSize *dstROISize*, double *nXFactor*, double *nYFactor*, int *eInterpolation*)

3 channel 8-bit unsigned planar image resize.

Parameters:

pSrc Source-Planar-Image Pointer Array (host memory array containing device memory image plane pointers).

nSrcStep Source-Image Line Step.

oSrcSize Size in pixels of the source image.

oSrcROI Region of interest in the source image.

pDst Destination-Planar-Image Pointer Array (host memory array containing device memory image plane pointers).

nDstStep Destination-Image Line Step.

dstROISize Size in pixels of the destination image

nXFactor Factor by which x dimension is changed.

nYFactor Factor by which y dimension is changed.

eInterpolation The type of eInterpolation to perform resampling.

Returns:

Image Data Related Error Codes, ROI Related Error Codes, Error Codes

7.74.3.18 NppStatus nppiResize_8u_P4R (const Npp8u ∗const *pSrc*[4], NppiSize *oSrcSize*, int *nSrcStep*, NppiRect *oSrcROI*, Npp8u ∗ *pDst*[4], int *nDstStep*, NppiSize *dstROISize*, double *nXFactor*, double *nYFactor*, int *eInterpolation*)

4 channel 8-bit unsigned planar image resize.

Parameters:

pSrc Source-Planar-Image Pointer Array (host memory array containing device memory image plane pointers).

nSrcStep Source-Image Line Step.

oSrcSize Size in pixels of the source image.

oSrcROI Region of interest in the source image.

pDst Destination-Planar-Image Pointer Array (host memory array containing device memory image plane pointers).

nDstStep Destination-Image Line Step.

dstROISize Size in pixels of the destination image.

nXFactor Factor by which x dimension is changed.

nYFactor Factor by which y dimension is changed.

eInterpolation The type of eInterpolation to perform resampling.

Returns:

Image Data Related Error Codes, ROI Related Error Codes, Error Codes

7.75 Remap

Remap supports the following interpolation modes:.

Remap

Remaps images.

- NppStatus nppiRemap_8u_C1R (const Npp8u ∗pSrc, NppiSize oSrcSize, int nSrcStep, NppiRect oSrcROI, const Npp32f ∗pXMap, int nXMapStep, const Npp32f ∗pYMap, int nYMapStep, Npp8u ∗pDst, int nDstStep, NppiSize oDstSizeROI, int eInterpolation)

  1 channel 8-bit unsigned image remap.

- NppStatus nppiRemap_8u_C3R (const Npp8u ∗pSrc, NppiSize oSrcSize, int nSrcStep, NppiRect oSrcROI, const Npp32f ∗pXMap, int nXMapStep, const Npp32f ∗pYMap, int nYMapStep, Npp8u ∗pDst, int nDstStep, NppiSize oDstSizeROI, int eInterpolation)

  3 channel 8-bit unsigned image remap.

- NppStatus nppiRemap_8u_C4R (const Npp8u ∗pSrc, NppiSize oSrcSize, int nSrcStep, NppiRect oSrcROI, const Npp32f ∗pXMap, int nXMapStep, const Npp32f ∗pYMap, int nYMapStep, Npp8u ∗pDst, int nDstStep, NppiSize oDstSizeROI, int eInterpolation)

  4 channel 8-bit unsigned image remap.

- NppStatus nppiRemap_8u_AC4R (const Npp8u ∗pSrc, NppiSize oSrcSize, int nSrcStep, NppiRect oSrcROI, const Npp32f ∗pXMap, int nXMapStep, const Npp32f ∗pYMap, int nYMapStep, Npp8u ∗pDst, int nDstStep, NppiSize oDstSizeROI, int eInterpolation)

  4 channel 8-bit unsigned image remap not affecting alpha.

- NppStatus nppiRemap_8u_P3R (const Npp8u ∗const pSrc[3], NppiSize oSrcSize, int nSrcStep, NppiRect oSrcROI, const Npp32f ∗pXMap, int nXMapStep, const Npp32f ∗pYMap, int nYMapStep, Npp8u ∗pDst[3], int nDstStep, NppiSize oDstSizeROI, int eInterpolation)

  3 channel 8-bit unsigned planar image remap.

- NppStatus nppiRemap_8u_P4R (const Npp8u ∗const pSrc[4], NppiSize oSrcSize, int nSrcStep, NppiRect oSrcROI, const Npp32f ∗pXMap, int nXMapStep, const Npp32f ∗pYMap, int nYMapStep, Npp8u ∗pDst[4], int nDstStep, NppiSize oDstSizeROI, int eInterpolation)

  4 channel 8-bit unsigned planar image remap.

- NppStatus nppiRemap_16u_C1R (const Npp16u ∗pSrc, NppiSize oSrcSize, int nSrcStep, NppiRect oSrcROI, const Npp32f ∗pXMap, int nXMapStep, const Npp32f ∗pYMap, int nYMapStep, Npp16u ∗pDst, int nDstStep, NppiSize oDstSizeROI, int eInterpolation)

  1 channel 16-bit unsigned image remap.

- NppStatus nppiRemap_16u_C3R (const Npp16u ∗pSrc, NppiSize oSrcSize, int nSrcStep, NppiRect oSrcROI, const Npp32f ∗pXMap, int nXMapStep, const Npp32f ∗pYMap, int nYMapStep, Npp16u ∗pDst, int nDstStep, NppiSize oDstSizeROI, int eInterpolation)

  3 channel 16-bit unsigned image remap.

- NppStatus nppiRemap_16u_C4R (const Npp16u ∗pSrc, NppiSize oSrcSize, int nSrcStep, NppiRect oSrcROI, const Npp32f ∗pXMap, int nXMapStep, const Npp32f ∗pYMap, int nYMapStep, Npp16u ∗pDst, int nDstStep, NppiSize oDstSizeROI, int eInterpolation)

4 channel 16-bit unsigned image remap.

- NppStatus nppiRemap_16u_AC4R (const Npp16u ∗pSrc, NppiSize oSrcSize, int nSrcStep, NppiRect oSrcROI, const Npp32f ∗pXMap, int nXMapStep, const Npp32f ∗pYMap, int nYMapStep, Npp16u ∗pDst, int nDstStep, NppiSize oDstSizeROI, int eInterpolation)

  4 channel 16-bit unsigned image remap not affecting alpha.

- NppStatus nppiRemap_16u_P3R (const Npp16u ∗const pSrc[3], NppiSize oSrcSize, int nSrcStep, NppiRect oSrcROI, const Npp32f ∗pXMap, int nXMapStep, const Npp32f ∗pYMap, int nYMapStep, Npp16u ∗pDst[3], int nDstStep, NppiSize oDstSizeROI, int eInterpolation)

  3 channel 16-bit unsigned planar image remap.

- NppStatus nppiRemap_16u_P4R (const Npp16u ∗const pSrc[4], NppiSize oSrcSize, int nSrcStep, NppiRect oSrcROI, const Npp32f ∗pXMap, int nXMapStep, const Npp32f ∗pYMap, int nYMapStep, Npp16u ∗pDst[4], int nDstStep, NppiSize oDstSizeROI, int eInterpolation)

  4 channel 16-bit unsigned planar image remap.

- NppStatus nppiRemap_16s_C1R (const Npp16s ∗pSrc, NppiSize oSrcSize, int nSrcStep, NppiRect oSrcROI, const Npp32f ∗pXMap, int nXMapStep, const Npp32f ∗pYMap, int nYMapStep, Npp16s ∗pDst, int nDstStep, NppiSize oDstSizeROI, int eInterpolation)

  1 channel 16-bit signed image remap.

- NppStatus nppiRemap_16s_C3R (const Npp16s ∗pSrc, NppiSize oSrcSize, int nSrcStep, NppiRect oSrcROI, const Npp32f ∗pXMap, int nXMapStep, const Npp32f ∗pYMap, int nYMapStep, Npp16s ∗pDst, int nDstStep, NppiSize oDstSizeROI, int eInterpolation)

  3 channel 16-bit signed image remap.

- NppStatus nppiRemap_16s_C4R (const Npp16s ∗pSrc, NppiSize oSrcSize, int nSrcStep, NppiRect oSrcROI, const Npp32f ∗pXMap, int nXMapStep, const Npp32f ∗pYMap, int nYMapStep, Npp16s ∗pDst, int nDstStep, NppiSize oDstSizeROI, int eInterpolation)

  4 channel 16-bit signed image remap.

- NppStatus nppiRemap_16s_AC4R (const Npp16s ∗pSrc, NppiSize oSrcSize, int nSrcStep, NppiRect oSrcROI, const Npp32f ∗pXMap, int nXMapStep, const Npp32f ∗pYMap, int nYMapStep, Npp16s ∗pDst, int nDstStep, NppiSize oDstSizeROI, int eInterpolation)

  4 channel 16-bit signed image remap not affecting alpha.

- NppStatus nppiRemap_16s_P3R (const Npp16s ∗const pSrc[3], NppiSize oSrcSize, int nSrcStep, NppiRect oSrcROI, const Npp32f ∗pXMap, int nXMapStep, const Npp32f ∗pYMap, int nYMapStep, Npp16s ∗pDst[3], int nDstStep, NppiSize oDstSizeROI, int eInterpolation)

  3 channel 16-bit signed planar image remap.

- NppStatus nppiRemap_16s_P4R (const Npp16s ∗const pSrc[4], NppiSize oSrcSize, int nSrcStep, NppiRect oSrcROI, const Npp32f ∗pXMap, int nXMapStep, const Npp32f ∗pYMap, int nYMapStep, Npp16s ∗pDst[4], int nDstStep, NppiSize oDstSizeROI, int eInterpolation)

  4 channel 16-bit signed planar image remap.

- NppStatus nppiRemap_32f_C1R (const Npp32f ∗pSrc, NppiSize oSrcSize, int nSrcStep, NppiRect oSrcROI, const Npp32f ∗pXMap, int nXMapStep, const Npp32f ∗pYMap, int nYMapStep, Npp32f ∗pDst, int nDstStep, NppiSize oDstSizeROI, int eInterpolation)

  1 channel 32-bit floating point image remap.

- NppStatus nppiRemap_32f_C3R (const Npp32f ∗pSrc, NppiSize oSrcSize, int nSrcStep, NppiRect oSrcROI, const Npp32f ∗pXMap, int nXMapStep, const Npp32f ∗pYMap, int nYMapStep, Npp32f ∗pDst, int nDstStep, NppiSize oDstSizeROI, int eInterpolation)

  3 channel 32-bit floating point image remap.

- NppStatus nppiRemap_32f_C4R (const Npp32f ∗pSrc, NppiSize oSrcSize, int nSrcStep, NppiRect oSrcROI, const Npp32f ∗pXMap, int nXMapStep, const Npp32f ∗pYMap, int nYMapStep, Npp32f ∗pDst, int nDstStep, NppiSize oDstSizeROI, int eInterpolation)

  4 channel 32-bit floating point image remap.

- NppStatus nppiRemap_32f_AC4R (const Npp32f ∗pSrc, NppiSize oSrcSize, int nSrcStep, NppiRect oSrcROI, const Npp32f ∗pXMap, int nXMapStep, const Npp32f ∗pYMap, int nYMapStep, Npp32f ∗pDst, int nDstStep, NppiSize oDstSizeROI, int eInterpolation)

  4 channel 32-bit floating point image remap not affecting alpha.

- NppStatus nppiRemap_32f_P3R (const Npp32f ∗const pSrc[3], NppiSize oSrcSize, int nSrcStep, NppiRect oSrcROI, const Npp32f ∗pXMap, int nXMapStep, const Npp32f ∗pYMap, int nYMapStep, Npp32f ∗pDst[3], int nDstStep, NppiSize oDstSizeROI, int eInterpolation)

  3 channel 32-bit floating point planar image remap.

- NppStatus nppiRemap_32f_P4R (const Npp32f ∗const pSrc[4], NppiSize oSrcSize, int nSrcStep, NppiRect oSrcROI, const Npp32f ∗pXMap, int nXMapStep, const Npp32f ∗pYMap, int nYMapStep, Npp32f ∗pDst[4], int nDstStep, NppiSize oDstSizeROI, int eInterpolation)

  4 channel 32-bit floating point planar image remap.

- NppStatus nppiRemap_64f_C1R (const Npp64f ∗pSrc, NppiSize oSrcSize, int nSrcStep, NppiRect oSrcROI, const Npp64f ∗pXMap, int nXMapStep, const Npp64f ∗pYMap, int nYMapStep, Npp64f ∗pDst, int nDstStep, NppiSize oDstSizeROI, int eInterpolation)

  1 channel 64-bit floating point image remap.

- NppStatus nppiRemap_64f_C3R (const Npp64f ∗pSrc, NppiSize oSrcSize, int nSrcStep, NppiRect oSrcROI, const Npp64f ∗pXMap, int nXMapStep, const Npp64f ∗pYMap, int nYMapStep, Npp64f ∗pDst, int nDstStep, NppiSize oDstSizeROI, int eInterpolation)

  3 channel 64-bit floating point image remap.

- NppStatus nppiRemap_64f_C4R (const Npp64f ∗pSrc, NppiSize oSrcSize, int nSrcStep, NppiRect oSrcROI, const Npp64f ∗pXMap, int nXMapStep, const Npp64f ∗pYMap, int nYMapStep, Npp64f ∗pDst, int nDstStep, NppiSize oDstSizeROI, int eInterpolation)

  4 channel 64-bit floating point image remap.

- NppStatus nppiRemap_64f_AC4R (const Npp64f ∗pSrc, NppiSize oSrcSize, int nSrcStep, NppiRect oSrcROI, const Npp64f ∗pXMap, int nXMapStep, const Npp64f ∗pYMap, int nYMapStep, Npp64f ∗pDst, int nDstStep, NppiSize oDstSizeROI, int eInterpolation)

  4 channel 64-bit floating point image remap not affecting alpha.

- NppStatus nppiRemap_64f_P3R (const Npp64f ∗const pSrc[3], NppiSize oSrcSize, int nSrcStep, NppiRect oSrcROI, const Npp64f ∗pXMap, int nXMapStep, const Npp64f ∗pYMap, int nYMapStep, Npp64f ∗pDst[3], int nDstStep, NppiSize oDstSizeROI, int eInterpolation)

  3 channel 64-bit floating point planar image remap.

- NppStatus nppiRemap_64f_P4R (const Npp64f ∗const pSrc[4], NppiSize oSrcSize, int nSrcStep, NppiRect oSrcROI, const Npp64f ∗pXMap, int nXMapStep, const Npp64f ∗pYMap, int nYMapStep, Npp64f ∗pDst[4], int nDstStep, NppiSize oDstSizeROI, int eInterpolation)

  4 channel 64-bit floating point planar image remap.

7.75.1 Detailed Description

Remap supports the following interpolation modes:.

NPPI_INTER_NN NPPI_INTER_LINEAR NPPI_INTER_CUBIC NPPI_INTER_CUBIC2P_BSPLINE NPPI_INTER_CUBIC2P_CATMULLROM NPPI_INTER_CUBIC2P_B05C03 NPPI_INTER_-LANCZOS

Remap chooses source pixels using pixel coordinates explicitely supplied in two 2D device memory image arrays pointed to by the pXMap and pYMap pointers. The pXMap array contains the X coordinated and the pYMap array contains the Y coordinate of the corresponding source image pixel to use as input. These coordinates are in floating point format so fraction pixel positions can be used. The coordinates of the source pixel to sample are determined as follows:

nSrcX = pxMap[nDstX, nDstY] nSrcY = pyMap[nDstX, nDstY]

In the Remap functions below source image clip checking is handled as follows:

If the source pixel fractional x and y coordinates are greater than or equal to oSizeROI.x and less than oSizeROI.x + oSizeROI.width and greater than or equal to oSizeROI.y and less than oSizeROI.y + oSizeROI.height then the source pixel is considered to be within the source image clip rectangle and the source image is sampled. Otherwise the source image is not sampled and a destination pixel is not written to the destination image.

7.75.2 Error Codes

The remap primitives return the following error codes:

- NPP_WRONG_INTERSECTION_ROI_ERROR indicates an error condition if srcROIRect has no intersection with the source image.
- NPP_INTERPOLATION_ERROR if eInterpolation has an illegal value.

7.75.3 Function Documentation

7.75.3.1 NppStatus nppiRemap_16s_AC4R (const Npp16s ∗ *pSrc*, NppiSize *oSrcSize*, int *nSrcStep*, NppiRect *oSrcROI*, const Npp32f ∗ *pXMap*, int *nXMapStep*, const Npp32f ∗ *pYMap*, int *nYMapStep*, Npp16s ∗ *pDst*, int *nDstStep*, NppiSize *oDstSizeROI*, int *eInterpolation*)

4 channel 16-bit signed image remap not affecting alpha.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSrcSize Size in pixels of the source image.

oSrcROI Region of interest in the source image.

pXMap Device memory pointer to 2D image array of X coordinate values to be used when sampling source image.

nXMapStep pXMap image array line step in bytes.

pYMap Device memory pointer to 2D image array of Y coordinate values to be used when sampling source image.

nYMapStep pYMap image array line step in bytes.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oDstSizeROI Region of interest size in the destination image.

eInterpolation The type of interpolation to perform resampling

Returns:

Image Data Related Error Codes, ROI Related Error Codes, Error Codes

7.75.3.2 NppStatus nppiRemap_16s_C1R (const Npp16s * *pSrc*, NppiSize *oSrcSize*, int *nSrcStep*, NppiRect *oSrcROI*, const Npp32f * *pXMap*, int *nXMapStep*, const Npp32f * *pYMap*, int *nYMapStep*, Npp16s * *pDst*, int *nDstStep*, NppiSize *oDstSizeROI*, int *eInterpolation*)

1 channel 16-bit signed image remap.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSrcSize Size in pixels of the source image.

oSrcROI Region of interest in the source image.

pXMap Device memory pointer to 2D image array of X coordinate values to be used when sampling source image.

nXMapStep pXMap image array line step in bytes.

pYMap Device memory pointer to 2D image array of Y coordinate values to be used when sampling source image.

nYMapStep pYMap image array line step in bytes.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oDstSizeROI Region of interest size in the destination image.

eInterpolation The type of eInterpolation to perform resampling.

Returns:

Image Data Related Error Codes, ROI Related Error Codes, Error Codes

7.75.3.3 NppStatus nppiRemap_16s_C3R (const Npp16s * *pSrc*, NppiSize *oSrcSize*, int *nSrcStep*, NppiRect *oSrcROI*, const Npp32f * *pXMap*, int *nXMapStep*, const Npp32f * *pYMap*, int *nYMapStep*, Npp16s * *pDst*, int *nDstStep*, NppiSize *oDstSizeROI*, int *eInterpolation*)

3 channel 16-bit signed image remap.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSrcSize Size in pixels of the source image.

oSrcROI Region of interest in the source image.

pXMap Device memory pointer to 2D image array of X coordinate values to be used when sampling source image.

nXMapStep pXMap image array line step in bytes.

pYMap Device memory pointer to 2D image array of Y coordinate values to be used when sampling source image.

nYMapStep pYMap image array line step in bytes.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oDstSizeROI Region of interest size in the destination image.

eInterpolation The type of eInterpolation to perform resampling.

Returns:

Image Data Related Error Codes, ROI Related Error Codes, Error Codes

7.75.3.4 NppStatus nppiRemap_16s_C4R (const Npp16s * *pSrc*, NppiSize *oSrcSize*, int *nSrcStep*, NppiRect *oSrcROI*, const Npp32f * *pXMap*, int *nXMapStep*, const Npp32f * *pYMap*, int *nYMapStep*, Npp16s * *pDst*, int *nDstStep*, NppiSize *oDstSizeROI*, int *eInterpolation*)

4 channel 16-bit signed image remap.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSrcSize Size in pixels of the source image.

oSrcROI Region of interest in the source image.

pXMap Device memory pointer to 2D image array of X coordinate values to be used when sampling source image.

nXMapStep pXMap image array line step in bytes.

pYMap Device memory pointer to 2D image array of Y coordinate values to be used when sampling source image.

nYMapStep pYMap image array line step in bytes.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oDstSizeROI Region of interest size in the destination image.

eInterpolation The type of eInterpolation to perform resampling.

Returns:

Image Data Related Error Codes, ROI Related Error Codes, Error Codes

7.75.3.5 NppStatus nppiRemap_16s_P3R (const Npp16s ∗const *pSrc*[3], NppiSize *oSrcSize*, int *nSrcStep*, NppiRect *oSrcROI*, const Npp32f ∗ *pXMap*, int *nXMapStep*, const Npp32f ∗ *pYMap*, int *nYMapStep*, Npp16s ∗ *pDst*[3], int *nDstStep*, NppiSize *oDstSizeROI*, int *eInterpolation*)

3 channel 16-bit signed planar image remap.

Parameters:

pSrc Source-Planar-Image Pointer Array.

nSrcStep Source-Image Line Step.

oSrcSize Size in pixels of the source image.

oSrcROI Region of interest in the source image.

pXMap Device memory pointer to 2D image array of X coordinate values to be used when sampling source image.

nXMapStep pXMap image array line step in bytes.

pYMap Device memory pointer to 2D image array of Y coordinate values to be used when sampling source image.

nYMapStep pYMap image array line step in bytes.

pDst Destination-Planar-Image Pointer Array.

nDstStep Destination-Image Line Step.

oDstSizeROI Region of interest size in the destination image.

eInterpolation The type of eInterpolation to perform resampling.

Returns:

Image Data Related Error Codes, ROI Related Error Codes, Error Codes

7.75.3.6 NppStatus nppiRemap_16s_P4R (const Npp16s ∗const *pSrc*[4], NppiSize *oSrcSize*, int *nSrcStep*, NppiRect *oSrcROI*, const Npp32f ∗ *pXMap*, int *nXMapStep*, const Npp32f ∗ *pYMap*, int *nYMapStep*, Npp16s ∗ *pDst*[4], int *nDstStep*, NppiSize *oDstSizeROI*, int *eInterpolation*)

4 channel 16-bit signed planar image remap.

Parameters:

pSrc Source-Planar-Image Pointer Array.

nSrcStep Source-Image Line Step.

oSrcSize Size in pixels of the source image.

oSrcROI Region of interest in the source image.

pXMap Device memory pointer to 2D image array of X coordinate values to be used when sampling source image.

nXMapStep pXMap image array line step in bytes.

pYMap Device memory pointer to 2D image array of Y coordinate values to be used when sampling source image.

nYMapStep pYMap image array line step in bytes.

pDst Destination-Planar-Image Pointer Array.

nDstStep Destination-Image Line Step.

oDstSizeROI Region of interest size in the destination image.

eInterpolation The type of eInterpolation to perform resampling.

Returns:

Image Data Related Error Codes, ROI Related Error Codes, Error Codes

7.75.3.7 NppStatus nppiRemap_16u_AC4R (const Npp16u ∗ *pSrc*, NppiSize *oSrcSize*, int *nSrcStep*, NppiRect *oSrcROI*, const Npp32f ∗ *pXMap*, int *nXMapStep*, const Npp32f ∗ *pYMap*, int *nYMapStep*, Npp16u ∗ *pDst*, int *nDstStep*, NppiSize *oDstSizeROI*, int *eInterpolation*)

4 channel 16-bit unsigned image remap not affecting alpha.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSrcSize Size in pixels of the source image.

oSrcROI Region of interest in the source image.

pXMap Device memory pointer to 2D image array of X coordinate values to be used when sampling source image.

nXMapStep pXMap image array line step in bytes.

pYMap Device memory pointer to 2D image array of Y coordinate values to be used when sampling source image.

nYMapStep pYMap image array line step in bytes.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oDstSizeROI Region of interest size in the destination image.

eInterpolation The type of interpolation to perform resampling.

Returns:

Image Data Related Error Codes, ROI Related Error Codes, Error Codes

7.75.3.8 NppStatus nppiRemap_16u_C1R (const Npp16u ∗ *pSrc*, NppiSize *oSrcSize*, int *nSrcStep*, NppiRect *oSrcROI*, const Npp32f ∗ *pXMap*, int *nXMapStep*, const Npp32f ∗ *pYMap*, int *nYMapStep*, Npp16u ∗ *pDst*, int *nDstStep*, NppiSize *oDstSizeROI*, int *eInterpolation*)

1 channel 16-bit unsigned image remap.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSrcSize Size in pixels of the source image.

oSrcROI Region of interest in the source image.

pXMap Device memory pointer to 2D image array of X coordinate values to be used when sampling source image.

nXMapStep pXMap image array line step in bytes.

pYMap Device memory pointer to 2D image array of Y coordinate values to be used when sampling source image.

nYMapStep pYMap image array line step in bytes.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oDstSizeROI Region of interest size in the destination image.

eInterpolation The type of eInterpolation to perform resampling.

Returns:

Image Data Related Error Codes, ROI Related Error Codes, Error Codes

7.75.3.9 NppStatus nppiRemap_16u_C3R (const Npp16u ∗ *pSrc*, NppiSize *oSrcSize*, int *nSrcStep*, NppiRect *oSrcROI*, const Npp32f ∗ *pXMap*, int *nXMapStep*, const Npp32f ∗ *pYMap*, int *nYMapStep*, Npp16u ∗ *pDst*, int *nDstStep*, NppiSize *oDstSizeROI*, int *eInterpolation*)

3 channel 16-bit unsigned image remap.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSrcSize Size in pixels of the source image.

oSrcROI Region of interest in the source image.

pXMap Device memory pointer to 2D image array of X coordinate values to be used when sampling source image.

nXMapStep pXMap image array line step in bytes.

pYMap Device memory pointer to 2D image array of Y coordinate values to be used when sampling source image.

nYMapStep pYMap image array line step in bytes.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oDstSizeROI Region of interest size in the destination image.

eInterpolation The type of eInterpolation to perform resampling.

Returns:

Image Data Related Error Codes, ROI Related Error Codes, Error Codes

7.75.3.10 NppStatus nppiRemap_16u_C4R (const Npp16u * *pSrc*, NppiSize *oSrcSize*, int *nSrcStep*, NppiRect *oSrcROI*, const Npp32f * *pXMap*, int *nXMapStep*, const Npp32f * *pYMap*, int *nYMapStep*, Npp16u * *pDst*, int *nDstStep*, NppiSize *oDstSizeROI*, int *eInterpolation*)

4 channel 16-bit unsigned image remap.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSrcSize Size in pixels of the source image.

oSrcROI Region of interest in the source image.

pXMap Device memory pointer to 2D image array of X coordinate values to be used when sampling source image.

nXMapStep pXMap image array line step in bytes.

pYMap Device memory pointer to 2D image array of Y coordinate values to be used when sampling source image.

nYMapStep pYMap image array line step in bytes.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oDstSizeROI Region of interest size in the destination image.

eInterpolation The type of eInterpolation to perform resampling.

Returns:

Image Data Related Error Codes, ROI Related Error Codes, Error Codes

7.75.3.11 NppStatus nppiRemap_16u_P3R (const Npp16u *const *pSrc*[3], NppiSize *oSrcSize*, int *nSrcStep*, NppiRect *oSrcROI*, const Npp32f * *pXMap*, int *nXMapStep*, const Npp32f * *pYMap*, int *nYMapStep*, Npp16u * *pDst*[3], int *nDstStep*, NppiSize *oDstSizeROI*, int *eInterpolation*)

3 channel 16-bit unsigned planar image remap.

Parameters:

pSrc Source-Planar-Image Pointer Array.

nSrcStep Source-Image Line Step.

oSrcSize Size in pixels of the source image.

oSrcROI Region of interest in the source image.

pXMap Device memory pointer to 2D image array of X coordinate values to be used when sampling source image.

nXMapStep pXMap image array line step in bytes.

pYMap Device memory pointer to 2D image array of Y coordinate values to be used when sampling source image.

nYMapStep pYMap image array line step in bytes.

pDst Destination-Planar-Image Pointer Array.

nDstStep Destination-Image Line Step.

oDstSizeROI Region of interest size in the destination image.

eInterpolation The type of eInterpolation to perform resampling.

Returns:

Image Data Related Error Codes, ROI Related Error Codes, Error Codes

7.75.3.12 NppStatus nppiRemap_16u_P4R (const Npp16u ∗const *pSrc*[4], NppiSize *oSrcSize*, int *nSrcStep*, NppiRect *oSrcROI*, const Npp32f ∗ *pXMap*, int *nXMapStep*, const Npp32f ∗ *pYMap*, int *nYMapStep*, Npp16u ∗ *pDst*[4], int *nDstStep*, NppiSize *oDstSizeROI*, int *eInterpolation*)

4 channel 16-bit unsigned planar image remap.

Parameters:

pSrc Source-Planar-Image Pointer Array.

nSrcStep Source-Image Line Step.

oSrcSize Size in pixels of the source image.

oSrcROI Region of interest in the source image.

pXMap Device memory pointer to 2D image array of X coordinate values to be used when sampling source image.

nXMapStep pXMap image array line step in bytes.

pYMap Device memory pointer to 2D image array of Y coordinate values to be used when sampling source image.

nYMapStep pYMap image array line step in bytes.

pDst Destination-Planar-Image Pointer Array.

nDstStep Destination-Image Line Step.

oDstSizeROI Region of interest size in the destination image.

eInterpolation The type of eInterpolation to perform resampling.

Returns:

Image Data Related Error Codes, ROI Related Error Codes, Error Codes

7.75.3.13 NppStatus nppiRemap_32f_AC4R (const Npp32f $*$ *pSrc*, NppiSize *oSrcSize*, int *nSrcStep*, NppiRect *oSrcROI*, const Npp32f $*$ *pXMap*, int *nXMapStep*, const Npp32f $*$ *pYMap*, int *nYMapStep*, Npp32f $*$ *pDst*, int *nDstStep*, NppiSize *oDstSizeROI*, int *eInterpolation*)

4 channel 32-bit floating point image remap not affecting alpha.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSrcSize Size in pixels of the source image.

oSrcROI Region of interest in the source image.

pXMap Device memory pointer to 2D image array of X coordinate values to be used when sampling source image.

nXMapStep pXMap image array line step in bytes.

pYMap Device memory pointer to 2D image array of Y coordinate values to be used when sampling source image.

nYMapStep pYMap image array line step in bytes.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oDstSizeROI Region of interest size in the destination image.

eInterpolation The type of interpolation to perform resampling

Returns:

Image Data Related Error Codes, ROI Related Error Codes, Error Codes

7.75.3.14 NppStatus nppiRemap_32f_C1R (const Npp32f $*$ *pSrc*, NppiSize *oSrcSize*, int *nSrcStep*, NppiRect *oSrcROI*, const Npp32f $*$ *pXMap*, int *nXMapStep*, const Npp32f $*$ *pYMap*, int *nYMapStep*, Npp32f $*$ *pDst*, int *nDstStep*, NppiSize *oDstSizeROI*, int *eInterpolation*)

1 channel 32-bit floating point image remap.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSrcSize Size in pixels of the source image.

oSrcROI Region of interest in the source image.

pXMap Device memory pointer to 2D image array of X coordinate values to be used when sampling source image.

nXMapStep pXMap image array line step in bytes.

pYMap Device memory pointer to 2D image array of Y coordinate values to be used when sampling source image.

nYMapStep pYMap image array line step in bytes.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oDstSizeROI Region of interest size in the destination image.

eInterpolation The type of eInterpolation to perform resampling

Returns:

Image Data Related Error Codes, ROI Related Error Codes, Error Codes

7.75.3.15 NppStatus nppiRemap_32f_C3R (const Npp32f $*$ *pSrc*, NppiSize *oSrcSize*, int *nSrcStep*, NppiRect *oSrcROI*, const Npp32f $*$ *pXMap*, int *nXMapStep*, const Npp32f $*$ *pYMap*, int *nYMapStep*, Npp32f $*$ *pDst*, int *nDstStep*, NppiSize *oDstSizeROI*, int *eInterpolation*)

3 channel 32-bit floating point image remap.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSrcSize Size in pixels of the source image.

oSrcROI Region of interest in the source image.

pXMap Device memory pointer to 2D image array of X coordinate values to be used when sampling source image.

nXMapStep pXMap image array line step in bytes.

pYMap Device memory pointer to 2D image array of Y coordinate values to be used when sampling source image.

nYMapStep pYMap image array line step in bytes.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oDstSizeROI Region of interest size in the destination image.

eInterpolation The type of eInterpolation to perform resampling

Returns:

Image Data Related Error Codes, ROI Related Error Codes, Error Codes

7.75.3.16 NppStatus nppiRemap_32f_C4R (const Npp32f $*$ *pSrc*, NppiSize *oSrcSize*, int *nSrcStep*, NppiRect *oSrcROI*, const Npp32f $*$ *pXMap*, int *nXMapStep*, const Npp32f $*$ *pYMap*, int *nYMapStep*, Npp32f $*$ *pDst*, int *nDstStep*, NppiSize *oDstSizeROI*, int *eInterpolation*)

4 channel 32-bit floating point image remap.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSrcSize Size in pixels of the source image.

oSrcROI Region of interest in the source image.

pXMap Device memory pointer to 2D image array of X coordinate values to be used when sampling source image.

nXMapStep pXMap image array line step in bytes.

pYMap Device memory pointer to 2D image array of Y coordinate values to be used when sampling source image.

nYMapStep pYMap image array line step in bytes.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oDstSizeROI Region of interest size in the destination image.

eInterpolation The type of eInterpolation to perform resampling

Returns:

Image Data Related Error Codes, ROI Related Error Codes, Error Codes

7.75.3.17 NppStatus nppiRemap_32f_P3R (const Npp32f ∗const *pSrc*[3], NppiSize *oSrcSize*, int *nSrcStep*, NppiRect *oSrcROI*, const Npp32f ∗ *pXMap*, int *nXMapStep*, const Npp32f ∗ *pYMap*, int *nYMapStep*, Npp32f ∗ *pDst*[3], int *nDstStep*, NppiSize *oDstSizeROI*, int *eInterpolation*)

3 channel 32-bit floating point planar image remap.

Parameters:

pSrc Source-Planar-Image Pointer Array.

nSrcStep Source-Image Line Step.

oSrcSize Size in pixels of the source image.

oSrcROI Region of interest in the source image.

pXMap Device memory pointer to 2D image array of X coordinate values to be used when sampling source image.

nXMapStep pXMap image array line step in bytes.

pYMap Device memory pointer to 2D image array of Y coordinate values to be used when sampling source image.

nYMapStep pYMap image array line step in bytes.

pDst Destination-Planar-Image Pointer Array.

nDstStep Destination-Image Line Step.

oDstSizeROI Region of interest size in the destination image.

eInterpolation The type of eInterpolation to perform resampling.

Returns:

Image Data Related Error Codes, ROI Related Error Codes, Error Codes

7.75.3.18 NppStatus nppiRemap_32f_P4R (const Npp32f ∗const *pSrc*[4], NppiSize *oSrcSize*, int *nSrcStep*, NppiRect *oSrcROI*, const Npp32f ∗ *pXMap*, int *nXMapStep*, const Npp32f ∗ *pYMap*, int *nYMapStep*, Npp32f ∗ *pDst*[4], int *nDstStep*, NppiSize *oDstSizeROI*, int *eInterpolation*)

4 channel 32-bit floating point planar image remap.

Parameters:

pSrc Source-Planar-Image Pointer Array.

nSrcStep Source-Image Line Step.

oSrcSize Size in pixels of the source image.

oSrcROI Region of interest in the source image.

pXMap Device memory pointer to 2D image array of X coordinate values to be used when sampling source image.

nXMapStep pXMap image array line step in bytes.

pYMap Device memory pointer to 2D image array of Y coordinate values to be used when sampling source image.

nYMapStep pYMap image array line step in bytes.

pDst Destination-Planar-Image Pointer Array.

nDstStep Destination-Image Line Step.

oDstSizeROI Region of interest size in the destination image.

eInterpolation The type of eInterpolation to perform resampling.

Returns:

Image Data Related Error Codes, ROI Related Error Codes, Error Codes

7.75.3.19 NppStatus nppiRemap_64f_AC4R (const Npp64f ∗ *pSrc*, NppiSize *oSrcSize*, int *nSrcStep*, NppiRect *oSrcROI*, const Npp64f ∗ *pXMap*, int *nXMapStep*, const Npp64f ∗ *pYMap*, int *nYMapStep*, Npp64f ∗ *pDst*, int *nDstStep*, NppiSize *oDstSizeROI*, int *eInterpolation*)

4 channel 64-bit floating point image remap not affecting alpha.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSrcSize Size in pixels of the source image.

oSrcROI Region of interest in the source image.

pXMap Device memory pointer to 2D image array of X coordinate values to be used when sampling source image.

nXMapStep pXMap image array line step in bytes.

pYMap Device memory pointer to 2D image array of Y coordinate values to be used when sampling source image.

nYMapStep pYMap image array line step in bytes.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oDstSizeROI Region of interest size in the destination image.

eInterpolation The type of interpolation to perform resampling

Returns:

Image Data Related Error Codes, ROI Related Error Codes, Error Codes

7.75.3.20 NppStatus nppiRemap_64f_C1R (const Npp64f ∗ *pSrc*, NppiSize *oSrcSize*, int *nSrcStep*, NppiRect *oSrcROI*, const Npp64f ∗ *pXMap*, int *nXMapStep*, const Npp64f ∗ *pYMap*, int *nYMapStep*, Npp64f ∗ *pDst*, int *nDstStep*, NppiSize *oDstSizeROI*, int *eInterpolation*)

1 channel 64-bit floating point image remap.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSrcSize Size in pixels of the source image.

oSrcROI Region of interest in the source image.

pXMap Device memory pointer to 2D image array of X coordinate values to be used when sampling source image.

nXMapStep pXMap image array line step in bytes.

pYMap Device memory pointer to 2D image array of Y coordinate values to be used when sampling source image.

nYMapStep pYMap image array line step in bytes.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oDstSizeROI Region of interest size in the destination image.

eInterpolation The type of eInterpolation to perform resampling

Returns:

Image Data Related Error Codes, ROI Related Error Codes, Error Codes

7.75.3.21 NppStatus nppiRemap_64f_C3R (const Npp64f ∗ *pSrc*, NppiSize *oSrcSize*, int *nSrcStep*, NppiRect *oSrcROI*, const Npp64f ∗ *pXMap*, int *nXMapStep*, const Npp64f ∗ *pYMap*, int *nYMapStep*, Npp64f ∗ *pDst*, int *nDstStep*, NppiSize *oDstSizeROI*, int *eInterpolation*)

3 channel 64-bit floating point image remap.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSrcSize Size in pixels of the source image.

oSrcROI Region of interest in the source image.

pXMap Device memory pointer to 2D image array of X coordinate values to be used when sampling source image.

nXMapStep pXMap image array line step in bytes.

pYMap Device memory pointer to 2D image array of Y coordinate values to be used when sampling source image.

nYMapStep pYMap image array line step in bytes.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oDstSizeROI Region of interest size in the destination image.

eInterpolation The type of eInterpolation to perform resampling

Returns:

Image Data Related Error Codes, ROI Related Error Codes, Error Codes

7.75.3.22 NppStatus nppiRemap_64f_C4R (const Npp64f ∗ *pSrc*, NppiSize *oSrcSize*, int *nSrcStep*, NppiRect *oSrcROI*, const Npp64f ∗ *pXMap*, int *nXMapStep*, const Npp64f ∗ *pYMap*, int *nYMapStep*, Npp64f ∗ *pDst*, int *nDstStep*, NppiSize *oDstSizeROI*, int *eInterpolation*)

4 channel 64-bit floating point image remap.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSrcSize Size in pixels of the source image.

oSrcROI Region of interest in the source image.

pXMap Device memory pointer to 2D image array of X coordinate values to be used when sampling source image.

nXMapStep pXMap image array line step in bytes.

pYMap Device memory pointer to 2D image array of Y coordinate values to be used when sampling source image.

nYMapStep pYMap image array line step in bytes.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oDstSizeROI Region of interest size in the destination image.

eInterpolation The type of eInterpolation to perform resampling

Returns:

Image Data Related Error Codes, ROI Related Error Codes, Error Codes

7.75.3.23 NppStatus nppiRemap_64f_P3R (const Npp64f ∗const *pSrc*[3], NppiSize *oSrcSize*, int *nSrcStep*, NppiRect *oSrcROI*, const Npp64f ∗ *pXMap*, int *nXMapStep*, const Npp64f ∗ *pYMap*, int *nYMapStep*, Npp64f ∗ *pDst*[3], int *nDstStep*, NppiSize *oDstSizeROI*, int *eInterpolation*)

3 channel 64-bit floating point planar image remap.

Parameters:

pSrc Source-Planar-Image Pointer Array.

nSrcStep Source-Image Line Step.

oSrcSize Size in pixels of the source image.

oSrcROI Region of interest in the source image.

pXMap Device memory pointer to 2D image array of X coordinate values to be used when sampling source image.

nXMapStep pXMap image array line step in bytes.

pYMap Device memory pointer to 2D image array of Y coordinate values to be used when sampling source image.

nYMapStep pYMap image array line step in bytes.

pDst Destination-Planar-Image Pointer Array.

nDstStep Destination-Image Line Step.

oDstSizeROI Region of interest size in the destination image.

eInterpolation The type of eInterpolation to perform resampling.

Returns:

Image Data Related Error Codes, ROI Related Error Codes, Error Codes

7.75.3.24 NppStatus nppiRemap_64f_P4R (const Npp64f ∗const *pSrc*[4], NppiSize *oSrcSize*, int *nSrcStep*, NppiRect *oSrcROI*, const Npp64f ∗ *pXMap*, int *nXMapStep*, const Npp64f ∗ *pYMap*, int *nYMapStep*, Npp64f ∗ *pDst*[4], int *nDstStep*, NppiSize *oDstSizeROI*, int *eInterpolation*)

4 channel 64-bit floating point planar image remap.

Parameters:

pSrc Source-Planar-Image Pointer Array.

nSrcStep Source-Image Line Step.

oSrcSize Size in pixels of the source image.

oSrcROI Region of interest in the source image.

pXMap Device memory pointer to 2D image array of X coordinate values to be used when sampling source image.

nXMapStep pXMap image array line step in bytes.

pYMap Device memory pointer to 2D image array of Y coordinate values to be used when sampling source image.

nYMapStep pYMap image array line step in bytes.

pDst Destination-Planar-Image Pointer Array.

nDstStep Destination-Image Line Step.

oDstSizeROI Region of interest size in the destination image.

eInterpolation The type of eInterpolation to perform resampling.

Returns:

Image Data Related Error Codes, ROI Related Error Codes, Error Codes

7.75.3.25 NppStatus nppiRemap_8u_AC4R (const Npp8u ∗ *pSrc*, NppiSize *oSrcSize*, int *nSrcStep*, NppiRect *oSrcROI*, const Npp32f ∗ *pXMap*, int *nXMapStep*, const Npp32f ∗ *pYMap*, int *nYMapStep*, Npp8u ∗ *pDst*, int *nDstStep*, NppiSize *oDstSizeROI*, int *eInterpolation*)

4 channel 8-bit unsigned image remap not affecting alpha.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSrcSize Size in pixels of the source image.

oSrcROI Region of interest in the source image.

pXMap Device memory pointer to 2D image array of X coordinate values to be used when sampling source image.

nXMapStep pXMap image array line step in bytes.

pYMap Device memory pointer to 2D image array of Y coordinate values to be used when sampling source image.

nYMapStep pYMap image array line step in bytes.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oDstSizeROI Region of interest size in the destination image.

eInterpolation The type of interpolation to perform resampling.

Returns:

Image Data Related Error Codes, ROI Related Error Codes, Error Codes

7.75.3.26 NppStatus nppiRemap_8u_C1R (const Npp8u ∗ *pSrc*, NppiSize *oSrcSize*, int *nSrcStep*, NppiRect *oSrcROI*, const Npp32f ∗ *pXMap*, int *nXMapStep*, const Npp32f ∗ *pYMap*, int *nYMapStep*, Npp8u ∗ *pDst*, int *nDstStep*, NppiSize *oDstSizeROI*, int *eInterpolation*)

1 channel 8-bit unsigned image remap.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSrcSize Size in pixels of the source image.

oSrcROI Region of interest in the source image.

pXMap Device memory pointer to 2D image array of X coordinate values to be used when sampling source image.

nXMapStep pXMap image array line step in bytes.

pYMap Device memory pointer to 2D image array of Y coordinate values to be used when sampling source image.

nYMapStep pYMap image array line step in bytes.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oDstSizeROI Region of interest size in the destination image.

eInterpolation The type of eInterpolation to perform resampling.

Returns:

Image Data Related Error Codes, ROI Related Error Codes, Error Codes

7.75.3.27 NppStatus nppiRemap_8u_C3R (const Npp8u * *pSrc*, NppiSize *oSrcSize*, int *nSrcStep*, NppiRect *oSrcROI*, const Npp32f * *pXMap*, int *nXMapStep*, const Npp32f * *pYMap*, int *nYMapStep*, Npp8u * *pDst*, int *nDstStep*, NppiSize *oDstSizeROI*, int *eInterpolation*)

3 channel 8-bit unsigned image remap.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSrcSize Size in pixels of the source image.

oSrcROI Region of interest in the source image.

pXMap Device memory pointer to 2D image array of X coordinate values to be used when sampling source image.

nXMapStep pXMap image array line step in bytes.

pYMap Device memory pointer to 2D image array of Y coordinate values to be used when sampling source image.

nYMapStep pYMap image array line step in bytes.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oDstSizeROI Region of interest size in the destination image.

eInterpolation The type of eInterpolation to perform resampling.

Returns:

Image Data Related Error Codes, ROI Related Error Codes, Error Codes

7.75.3.28 NppStatus nppiRemap_8u_C4R (const Npp8u ∗ *pSrc*, NppiSize *oSrcSize*, int *nSrcStep*, NppiRect *oSrcROI*, const Npp32f ∗ *pXMap*, int *nXMapStep*, const Npp32f ∗ *pYMap*, int *nYMapStep*, Npp8u ∗ *pDst*, int *nDstStep*, NppiSize *oDstSizeROI*, int *eInterpolation*)

4 channel 8-bit unsigned image remap.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSrcSize Size in pixels of the source image.

oSrcROI Region of interest in the source image.

pXMap Device memory pointer to 2D image array of X coordinate values to be used when sampling source image.

nXMapStep pXMap image array line step in bytes.

pYMap Device memory pointer to 2D image array of Y coordinate values to be used when sampling source image.

nYMapStep pYMap image array line step in bytes.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oDstSizeROI Region of interest size in the destination image.

eInterpolation The type of eInterpolation to perform resampling.

Returns:

Image Data Related Error Codes, ROI Related Error Codes, Error Codes

7.75.3.29 NppStatus nppiRemap_8u_P3R (const Npp8u ∗const *pSrc*[3], NppiSize *oSrcSize*, int *nSrcStep*, NppiRect *oSrcROI*, const Npp32f ∗ *pXMap*, int *nXMapStep*, const Npp32f ∗ *pYMap*, int *nYMapStep*, Npp8u ∗ *pDst*[3], int *nDstStep*, NppiSize *oDstSizeROI*, int *eInterpolation*)

3 channel 8-bit unsigned planar image remap.

Parameters:

pSrc Source-Planar-Image Pointer Array.

nSrcStep Source-Image Line Step.

oSrcSize Size in pixels of the source image.

oSrcROI Region of interest in the source image.

pXMap Device memory pointer to 2D image array of X coordinate values to be used when sampling source image.

nXMapStep pXMap image array line step in bytes.

pYMap Device memory pointer to 2D image array of Y coordinate values to be used when sampling source image.

nYMapStep pYMap image array line step in bytes.

pDst Destination-Planar-Image Pointer Array.

nDstStep Destination-Image Line Step.

oDstSizeROI Region of interest size in the destination image.

eInterpolation The type of eInterpolation to perform resampling.

Returns:

Image Data Related Error Codes, ROI Related Error Codes, Error Codes

7.75.3.30 NppStatus nppiRemap_8u_P4R (const Npp8u ∗const *pSrc*[4], NppiSize *oSrcSize*, int *nSrcStep*, NppiRect *oSrcROI*, const Npp32f ∗ *pXMap*, int *nXMapStep*, const Npp32f ∗ *pYMap*, int *nYMapStep*, Npp8u ∗ *pDst*[4], int *nDstStep*, NppiSize *oDstSizeROI*, int *eInterpolation*)

4 channel 8-bit unsigned planar image remap.

Parameters:

pSrc Source-Planar-Image Pointer Array.

nSrcStep Source-Image Line Step.

oSrcSize Size in pixels of the source image.

oSrcROI Region of interest in the source image.

pXMap Device memory pointer to 2D image array of X coordinate values to be used when sampling source image.

nXMapStep pXMap image array line step in bytes.

pYMap Device memory pointer to 2D image array of Y coordinate values to be used when sampling source image.

nYMapStep pYMap image array line step in bytes.

pDst Destination-Planar-Image Pointer Array.

nDstStep Destination-Image Line Step.

oDstSizeROI Region of interest size in the destination image.

eInterpolation The type of eInterpolation to perform resampling.

Returns:

Image Data Related Error Codes, ROI Related Error Codes, Error Codes

7.76 Rotate

Rotates an image around the origin (0,0) and then shifts it.

Utility Functions

- NppStatus nppiGetRotateQuad (NppiRect oSrcROI, double aQuad[4][2], double nAngle, double nShiftX, double nShiftY)

  Compute shape of rotated image.

- NppStatus nppiGetRotateBound (NppiRect oSrcROI, double aBoundingBox[2][2], double nAngle, double nShiftX, double nShiftY)

  Compute bounding-box of rotated image.

Rotate

- NppStatus nppiRotate_8u_C1R (const Npp8u ∗pSrc, NppiSize oSrcSize, int nSrcStep, NppiRect oSrcROI, Npp8u ∗pDst, int nDstStep, NppiRect oDstROI, double nAngle, double nShiftX, double nShiftY, int eInterpolation)

  8-bit unsigned image rotate.

- NppStatus nppiRotate_8u_C3R (const Npp8u ∗pSrc, NppiSize oSrcSize, int nSrcStep, NppiRect oSrcROI, Npp8u ∗pDst, int nDstStep, NppiRect oDstROI, double nAngle, double nShiftX, double nShiftY, int eInterpolation)

  3 channel 8-bit unsigned image rotate.

- NppStatus nppiRotate_8u_C4R (const Npp8u ∗pSrc, NppiSize oSrcSize, int nSrcStep, NppiRect oSrcROI, Npp8u ∗pDst, int nDstStep, NppiRect oDstROI, double nAngle, double nShiftX, double nShiftY, int eInterpolation)

  4 channel 8-bit unsigned image rotate.

- NppStatus nppiRotate_8u_AC4R (const Npp8u ∗pSrc, NppiSize oSrcSize, int nSrcStep, NppiRect oSrcROI, Npp8u ∗pDst, int nDstStep, NppiRect oDstROI, double nAngle, double nShiftX, double nShiftY, int eInterpolation)

  4 channel 8-bit unsigned image rotate ignoring alpha channel.

- NppStatus nppiRotate_16u_C1R (const Npp16u ∗pSrc, NppiSize oSrcSize, int nSrcStep, NppiRect oSrcROI, Npp16u ∗pDst, int nDstStep, NppiRect oDstROI, double nAngle, double nShiftX, double nShiftY, int eInterpolation)

  16-bit unsigned image rotate.

- NppStatus nppiRotate_16u_C3R (const Npp16u ∗pSrc, NppiSize oSrcSize, int nSrcStep, NppiRect oSrcROI, Npp16u ∗pDst, int nDstStep, NppiRect oDstROI, double nAngle, double nShiftX, double nShiftY, int eInterpolation)

  3 channel 16-bit unsigned image rotate.

- NppStatus nppiRotate_16u_C4R (const Npp16u ∗pSrc, NppiSize oSrcSize, int nSrcStep, NppiRect oSrcROI, Npp16u ∗pDst, int nDstStep, NppiRect oDstROI, double nAngle, double nShiftX, double nShiftY, int eInterpolation)

4 channel 16-bit unsigned image rotate.

- NppStatus nppiRotate_16u_AC4R (const Npp16u ∗pSrc, NppiSize oSrcSize, int nSrcStep, NppiRect oSrcROI, Npp16u ∗pDst, int nDstStep, NppiRect oDstROI, double nAngle, double nShiftX, double nShiftY, int eInterpolation)

  4 channel 16-bit unsigned image rotate ignoring alpha channel.

- NppStatus nppiRotate_32f_C1R (const Npp32f ∗pSrc, NppiSize oSrcSize, int nSrcStep, NppiRect oSrcROI, Npp32f ∗pDst, int nDstStep, NppiRect oDstROI, double nAngle, double nShiftX, double nShiftY, int eInterpolation)

  32-bit float image rotate.

- NppStatus nppiRotate_32f_C3R (const Npp32f ∗pSrc, NppiSize oSrcSize, int nSrcStep, NppiRect oSrcROI, Npp32f ∗pDst, int nDstStep, NppiRect oDstROI, double nAngle, double nShiftX, double nShiftY, int eInterpolation)

  3 channel 32-bit float image rotate.

- NppStatus nppiRotate_32f_C4R (const Npp32f ∗pSrc, NppiSize oSrcSize, int nSrcStep, NppiRect oSrcROI, Npp32f ∗pDst, int nDstStep, NppiRect oDstROI, double nAngle, double nShiftX, double nShiftY, int eInterpolation)

  4 channel 32-bit float image rotate.

- NppStatus nppiRotate_32f_AC4R (const Npp32f ∗pSrc, NppiSize oSrcSize, int nSrcStep, NppiRect oSrcROI, Npp32f ∗pDst, int nDstStep, NppiRect oDstROI, double nAngle, double nShiftX, double nShiftY, int eInterpolation)

  4 channel 32-bit float image rotate ignoring alpha channel.

7.76.1 Detailed Description

Rotates an image around the origin (0,0) and then shifts it.

7.76.2 Rotate Error Codes

- NPP_INTERPOLATION_ERROR if eInterpolation has an illegal value.
- NPP_RECTANGLE_ERROR Indicates an error condition if width or height of the intersection of the oSrcROI and source image is less than or equal to 1.
- NPP_WRONG_INTERSECTION_ROI_ERROR indicates an error condition if srcROIRect has no intersection with the source image.
- NPP_WRONG_INTERSECTION_QUAD_WARNING indicates a warning that no operation is performed if the transformed source ROI does not intersect the destination ROI.

7.76.3 Function Documentation

7.76.3.1 NppStatus nppiGetRotateBound (NppiRect *oSrcROI*, double *aBoundingBox*[2][2], double *nAngle*, double *nShiftX*, double *nShiftY*)

Compute bounding-box of rotated image.

Parameters:

oSrcROI Region-of-interest of the source image.

aBoundingBox Two 2D points representing the bounding-box of the rotated image. All four points from nppiGetRotateQuad are contained inside the axis-aligned rectangle spanned by the the two points of this bounding box.

nAngle The rotation angle.

nShiftX Post-rotation shift in x-direction.

nShiftY Post-rotation shift in y-direction.

Returns:

ROI Related Error Codes.

7.76.3.2 NppStatus nppiGetRotateQuad (NppiRect *oSrcROI*, double *aQuad*[4][2], double *nAngle*, double *nShiftX*, double *nShiftY*)

Compute shape of rotated image.

Parameters:

oSrcROI Region-of-interest of the source image.

aQuad Array of 2D points. These points are the locations of the corners of the rotated ROI.

nAngle The rotation nAngle.

nShiftX Post-rotation shift in x-direction

nShiftY Post-rotation shift in y-direction

Returns:

ROI Related Error Codes.

7.76.3.3 NppStatus nppiRotate_16u_AC4R (const Npp16u ∗ *pSrc*, NppiSize *oSrcSize*, int *nSrcStep*, NppiRect *oSrcROI*, Npp16u ∗ *pDst*, int *nDstStep*, NppiRect *oDstROI*, double *nAngle*, double *nShiftX*, double *nShiftY*, int *eInterpolation*)

4 channel 16-bit unsigned image rotate ignoring alpha channel.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSrcSize Size in pixels of the source image

oSrcROI Region of interest in the source image.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oDstROI Region of interest in the destination image.

nAngle The angle of rotation in degrees.

nShiftX Shift along horizontal axis

nShiftY Shift along vertical axis

eInterpolation The type of interpolation to perform resampling

Returns:

Image Data Related Error Codes, ROI Related Error Codes, Rotate Error Codes

7.76.3.4 NppStatus nppiRotate_16u_C1R (const Npp16u ∗ *pSrc*, NppiSize *oSrcSize*, int *nSrcStep*, NppiRect *oSrcROI*, Npp16u ∗ *pDst*, int *nDstStep*, NppiRect *oDstROI*, double *nAngle*, double *nShiftX*, double *nShiftY*, int *eInterpolation*)

16-bit unsigned image rotate.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSrcSize Size in pixels of the source image

oSrcROI Region of interest in the source image.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oDstROI Region of interest in the destination image.

nAngle The angle of rotation in degrees.

nShiftX Shift along horizontal axis

nShiftY Shift along vertical axis

eInterpolation The type of interpolation to perform resampling

Returns:

Image Data Related Error Codes, ROI Related Error Codes, Rotate Error Codes

7.76.3.5 NppStatus nppiRotate_16u_C3R (const Npp16u ∗ *pSrc*, NppiSize *oSrcSize*, int *nSrcStep*, NppiRect *oSrcROI*, Npp16u ∗ *pDst*, int *nDstStep*, NppiRect *oDstROI*, double *nAngle*, double *nShiftX*, double *nShiftY*, int *eInterpolation*)

3 channel 16-bit unsigned image rotate.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSrcSize Size in pixels of the source image

oSrcROI Region of interest in the source image.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oDstROI Region of interest in the destination image.

nAngle The angle of rotation in degrees.

nShiftX Shift along horizontal axis

nShiftY Shift along vertical axis

eInterpolation The type of interpolation to perform resampling

Returns:

Image Data Related Error Codes, ROI Related Error Codes, Rotate Error Codes

7.76.3.6 NppStatus nppiRotate_16u_C4R (const Npp16u ∗ *pSrc*, NppiSize *oSrcSize*, int *nSrcStep*, NppiRect *oSrcROI*, Npp16u ∗ *pDst*, int *nDstStep*, NppiRect *oDstROI*, double *nAngle*, double *nShiftX*, double *nShiftY*, int *eInterpolation*)

4 channel 16-bit unsigned image rotate.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSrcSize Size in pixels of the source image

oSrcROI Region of interest in the source image.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oDstROI Region of interest in the destination image.

nAngle The angle of rotation in degrees.

nShiftX Shift along horizontal axis

nShiftY Shift along vertical axis

eInterpolation The type of interpolation to perform resampling

Returns:

Image Data Related Error Codes, ROI Related Error Codes, Rotate Error Codes

7.76.3.7 NppStatus nppiRotate_32f_AC4R (const Npp32f ∗ *pSrc*, NppiSize *oSrcSize*, int *nSrcStep*, NppiRect *oSrcROI*, Npp32f ∗ *pDst*, int *nDstStep*, NppiRect *oDstROI*, double *nAngle*, double *nShiftX*, double *nShiftY*, int *eInterpolation*)

4 channel 32-bit float image rotate ignoring alpha channel.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSrcSize Size in pixels of the source image

oSrcROI Region of interest in the source image.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oDstROI Region of interest in the destination image.

nAngle The angle of rotation in degrees.

nShiftX Shift along horizontal axis

nShiftY Shift along vertical axis

eInterpolation The type of interpolation to perform resampling

Returns:

Image Data Related Error Codes, ROI Related Error Codes, Rotate Error Codes

7.76.3.8 NppStatus nppiRotate_32f_C1R (const Npp32f $*$ *pSrc*, NppiSize *oSrcSize*, int *nSrcStep*, NppiRect *oSrcROI*, Npp32f $*$ *pDst*, int *nDstStep*, NppiRect *oDstROI*, double *nAngle*, double *nShiftX*, double *nShiftY*, int *eInterpolation*)

32-bit float image rotate.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSrcSize Size in pixels of the source image

oSrcROI Region of interest in the source image.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oDstROI Region of interest in the destination image.

nAngle The angle of rotation in degrees.

nShiftX Shift along horizontal axis

nShiftY Shift along vertical axis

eInterpolation The type of interpolation to perform resampling

Returns:

Image Data Related Error Codes, ROI Related Error Codes, Rotate Error Codes

7.76.3.9 NppStatus nppiRotate_32f_C3R (const Npp32f $*$ *pSrc*, NppiSize *oSrcSize*, int *nSrcStep*, NppiRect *oSrcROI*, Npp32f $*$ *pDst*, int *nDstStep*, NppiRect *oDstROI*, double *nAngle*, double *nShiftX*, double *nShiftY*, int *eInterpolation*)

3 channel 32-bit float image rotate.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSrcSize Size in pixels of the source image

oSrcROI Region of interest in the source image.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oDstROI Region of interest in the destination image.

nAngle The angle of rotation in degrees.

nShiftX Shift along horizontal axis

nShiftY Shift along vertical axis

eInterpolation The type of interpolation to perform resampling

Returns:

Image Data Related Error Codes, ROI Related Error Codes, Rotate Error Codes

7.76.3.10 NppStatus nppiRotate_32f_C4R (const Npp32f ∗ *pSrc*, NppiSize *oSrcSize*, int *nSrcStep*, NppiRect *oSrcROI*, Npp32f ∗ *pDst*, int *nDstStep*, NppiRect *oDstROI*, double *nAngle*, double *nShiftX*, double *nShiftY*, int *eInterpolation*)

4 channel 32-bit float image rotate.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSrcSize Size in pixels of the source image

oSrcROI Region of interest in the source image.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oDstROI Region of interest in the destination image.

nAngle The angle of rotation in degrees.

nShiftX Shift along horizontal axis

nShiftY Shift along vertical axis

eInterpolation The type of interpolation to perform resampling

Returns:

Image Data Related Error Codes, ROI Related Error Codes, Rotate Error Codes

7.76.3.11 NppStatus nppiRotate_8u_AC4R (const Npp8u ∗ *pSrc*, NppiSize *oSrcSize*, int *nSrcStep*, NppiRect *oSrcROI*, Npp8u ∗ *pDst*, int *nDstStep*, NppiRect *oDstROI*, double *nAngle*, double *nShiftX*, double *nShiftY*, int *eInterpolation*)

4 channel 8-bit unsigned image rotate ignoring alpha channel.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSrcSize Size in pixels of the source image

oSrcROI Region of interest in the source image.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oDstROI Region of interest in the destination image.

nAngle The angle of rotation in degrees.

nShiftX Shift along horizontal axis

nShiftY Shift along vertical axis

eInterpolation The type of interpolation to perform resampling

Returns:

Image Data Related Error Codes, ROI Related Error Codes, Rotate Error Codes

7.76.3.12 NppStatus nppiRotate_8u_C1R (const Npp8u ∗ *pSrc*, NppiSize *oSrcSize*, int *nSrcStep*, NppiRect *oSrcROI*, Npp8u ∗ *pDst*, int *nDstStep*, NppiRect *oDstROI*, double *nAngle*, double *nShiftX*, double *nShiftY*, int *eInterpolation*)

8-bit unsigned image rotate.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSrcSize Size in pixels of the source image

oSrcROI Region of interest in the source image.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oDstROI Region of interest in the destination image.

nAngle The angle of rotation in degrees.

nShiftX Shift along horizontal axis

nShiftY Shift along vertical axis

eInterpolation The type of interpolation to perform resampling

Returns:

Image Data Related Error Codes, ROI Related Error Codes, Rotate Error Codes

7.76.3.13 NppStatus nppiRotate_8u_C3R (const Npp8u ∗ *pSrc*, NppiSize *oSrcSize*, int *nSrcStep*, NppiRect *oSrcROI*, Npp8u ∗ *pDst*, int *nDstStep*, NppiRect *oDstROI*, double *nAngle*, double *nShiftX*, double *nShiftY*, int *eInterpolation*)

3 channel 8-bit unsigned image rotate.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSrcSize Size in pixels of the source image

oSrcROI Region of interest in the source image.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oDstROI Region of interest in the destination image.

nAngle The angle of rotation in degrees.

nShiftX Shift along horizontal axis

nShiftY Shift along vertical axis

eInterpolation The type of interpolation to perform resampling

Returns:

Image Data Related Error Codes, ROI Related Error Codes, Rotate Error Codes

7.76.3.14 NppStatus nppiRotate_8u_C4R (const Npp8u ∗ *pSrc*, NppiSize *oSrcSize*, int *nSrcStep*, NppiRect *oSrcROI*, Npp8u ∗ *pDst*, int *nDstStep*, NppiRect *oDstROI*, double *nAngle*, double *nShiftX*, double *nShiftY*, int *eInterpolation*)

4 channel 8-bit unsigned image rotate.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSrcSize Size in pixels of the source image

oSrcROI Region of interest in the source image.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oDstROI Region of interest in the destination image.

nAngle The angle of rotation in degrees.

nShiftX Shift along horizontal axis

nShiftY Shift along vertical axis

eInterpolation The type of interpolation to perform resampling

Returns:

Image Data Related Error Codes, ROI Related Error Codes, Rotate Error Codes

7.77 Mirror

Mirror

Mirrors images horizontally, vertically and diagonally.

- NppStatus nppiMirror_8u_C1R (const Npp8u ∗pSrc, int nSrcStep, Npp8u ∗pDst, int nDstStep, NppiSize oROI, NppiAxis flip)

  1 channel 8-bit unsigned image mirror.

- NppStatus nppiMirror_8u_C1IR (Npp8u ∗pSrcDst, int nSrcDstStep, NppiSize oROI, NppiAxis flip)

  1 channel 8-bit unsigned in place image mirror.

- NppStatus nppiMirror_8u_C3R (const Npp8u ∗pSrc, int nSrcStep, Npp8u ∗pDst, int nDstStep, NppiSize oROI, NppiAxis flip)

  3 channel 8-bit unsigned image mirror.

- NppStatus nppiMirror_8u_C3IR (Npp8u ∗pSrcDst, int nSrcDstStep, NppiSize oROI, NppiAxis flip)

  3 channel 8-bit unsigned in place image mirror.

- NppStatus nppiMirror_8u_C4R (const Npp8u ∗pSrc, int nSrcStep, Npp8u ∗pDst, int nDstStep, NppiSize oROI, NppiAxis flip)

  4 channel 8-bit unsigned image mirror.

- NppStatus nppiMirror_8u_C4IR (Npp8u ∗pSrcDst, int nSrcDstStep, NppiSize oROI, NppiAxis flip)

  4 channel 8-bit unsigned in place image mirror.

- NppStatus nppiMirror_8u_AC4R (const Npp8u ∗pSrc, int nSrcStep, Npp8u ∗pDst, int nDstStep, NppiSize oROI, NppiAxis flip)

  4 channel 8-bit unsigned image mirror not affecting alpha.

- NppStatus nppiMirror_8u_AC4IR (Npp8u ∗pSrcDst, int nSrcDstStep, NppiSize oROI, NppiAxis flip)

  4 channel 8-bit unsigned in place image mirror not affecting alpha.

- NppStatus nppiMirror_16u_C1R (const Npp16u ∗pSrc, int nSrcStep, Npp16u ∗pDst, int nDstStep, NppiSize oROI, NppiAxis flip)

  1 channel 16-bit unsigned image mirror.

- NppStatus nppiMirror_16u_C1IR (Npp16u ∗pSrcDst, int nSrcDstStep, NppiSize oROI, NppiAxis flip)

  1 channel 16-bit unsigned in place image mirror.

- NppStatus nppiMirror_16u_C3R (const Npp16u ∗pSrc, int nSrcStep, Npp16u ∗pDst, int nDstStep, NppiSize oROI, NppiAxis flip)

  3 channel 16-bit unsigned image mirror.

- NppStatus nppiMirror_16u_C3IR (Npp16u ∗pSrcDst, int nSrcDstStep, NppiSize oROI, NppiAxis flip)

  3 channel 16-bit unsigned in place image mirror.

- NppStatus nppiMirror_16u_C4R (const Npp16u ∗pSrc, int nSrcStep, Npp16u ∗pDst, int nDstStep, NppiSize oROI, NppiAxis flip)

  4 channel 16-bit unsigned image mirror.

- NppStatus nppiMirror_16u_C4IR (Npp16u ∗pSrcDst, int nSrcDstStep, NppiSize oROI, NppiAxis flip)

  4 channel 16-bit unsigned in place image mirror.

- NppStatus nppiMirror_16u_AC4R (const Npp16u ∗pSrc, int nSrcStep, Npp16u ∗pDst, int nDstStep, NppiSize oROI, NppiAxis flip)

  4 channel 16-bit unsigned image mirror not affecting alpha.

- NppStatus nppiMirror_16u_AC4IR (Npp16u ∗pSrcDst, int nSrcDstStep, NppiSize oROI, NppiAxis flip)

  4 channel 16-bit unsigned in place image mirror not affecting alpha.

- NppStatus nppiMirror_16s_C1R (const Npp16s ∗pSrc, int nSrcStep, Npp16s ∗pDst, int nDstStep, NppiSize oROI, NppiAxis flip)

  1 channel 16-bit signed image mirror.

- NppStatus nppiMirror_16s_C1IR (Npp16s ∗pSrcDst, int nSrcDstStep, NppiSize oROI, NppiAxis flip)

  1 channel 16-bit signed in place image mirror.

- NppStatus nppiMirror_16s_C3R (const Npp16s ∗pSrc, int nSrcStep, Npp16s ∗pDst, int nDstStep, NppiSize oROI, NppiAxis flip)

  3 channel 16-bit signed image mirror.

- NppStatus nppiMirror_16s_C3IR (Npp16s ∗pSrcDst, int nSrcDstStep, NppiSize oROI, NppiAxis flip)

  3 channel 16-bit signed in place image mirror.

- NppStatus nppiMirror_16s_C4R (const Npp16s ∗pSrc, int nSrcStep, Npp16s ∗pDst, int nDstStep, NppiSize oROI, NppiAxis flip)

  4 channel 16-bit signed image mirror.

- NppStatus nppiMirror_16s_C4IR (Npp16s ∗pSrcDst, int nSrcDstStep, NppiSize oROI, NppiAxis flip)

  4 channel 16-bit signed in place image mirror.

- NppStatus nppiMirror_16s_AC4R (const Npp16s ∗pSrc, int nSrcStep, Npp16s ∗pDst, int nDstStep, NppiSize oROI, NppiAxis flip)

  4 channel 16-bit signed image mirror not affecting alpha.

- NppStatus nppiMirror_16s_AC4IR (Npp16s ∗pSrcDst, int nSrcDstStep, NppiSize oROI, NppiAxis flip)

  4 channel 16-bit signed in place image mirror not affecting alpha.

- NppStatus nppiMirror_32s_C1R (const Npp32s ∗pSrc, int nSrcStep, Npp32s ∗pDst, int nDstStep, NppiSize oROI, NppiAxis flip)

  1 channel 32-bit image mirror.

- NppStatus nppiMirror_32s_C1IR (Npp32s ∗pSrcDst, int nSrcDstStep, NppiSize oROI, NppiAxis flip)

  1 channel 32-bit signed in place image mirror.

- NppStatus nppiMirror_32s_C3R (const Npp32s ∗pSrc, int nSrcStep, Npp32s ∗pDst, int nDstStep, NppiSize oROI, NppiAxis flip)

  3 channel 32-bit image mirror.

- NppStatus nppiMirror_32s_C3IR (Npp32s ∗pSrcDst, int nSrcDstStep, NppiSize oROI, NppiAxis flip)

  3 channel 32-bit signed in place image mirror.

- NppStatus nppiMirror_32s_C4R (const Npp32s ∗pSrc, int nSrcStep, Npp32s ∗pDst, int nDstStep, NppiSize oROI, NppiAxis flip)

  4 channel 32-bit image mirror.

- NppStatus nppiMirror_32s_C4IR (Npp32s ∗pSrcDst, int nSrcDstStep, NppiSize oROI, NppiAxis flip)

  4 channel 32-bit signed in place image mirror.

- NppStatus nppiMirror_32s_AC4R (const Npp32s ∗pSrc, int nSrcStep, Npp32s ∗pDst, int nDstStep, NppiSize oROI, NppiAxis flip)

  4 channel 32-bit image mirror not affecting alpha.

- NppStatus nppiMirror_32s_AC4IR (Npp32s ∗pSrcDst, int nSrcDstStep, NppiSize oROI, NppiAxis flip)

  4 channel 32-bit signed in place image mirror not affecting alpha.

- NppStatus nppiMirror_32f_C1R (const Npp32f ∗pSrc, int nSrcStep, Npp32f ∗pDst, int nDstStep, NppiSize oROI, NppiAxis flip)

  1 channel 32-bit float image mirror.

- NppStatus nppiMirror_32f_C1IR (Npp32f ∗pSrcDst, int nSrcDstStep, NppiSize oROI, NppiAxis flip)

  1 channel 32-bit float in place image mirror.

- NppStatus nppiMirror_32f_C3R (const Npp32f ∗pSrc, int nSrcStep, Npp32f ∗pDst, int nDstStep, NppiSize oROI, NppiAxis flip)

  3 channel 32-bit float image mirror.

- NppStatus nppiMirror_32f_C3IR (Npp32f ∗pSrcDst, int nSrcDstStep, NppiSize oROI, NppiAxis flip)

  3 channel 32-bit float in place image mirror.

- NppStatus nppiMirror_32f_C4R (const Npp32f ∗pSrc, int nSrcStep, Npp32f ∗pDst, int nDstStep, NppiSize oROI, NppiAxis flip)

4 channel 32-bit float image mirror.

- NppStatus nppiMirror_32f_C4IR (Npp32f ∗pSrcDst, int nSrcDstStep, NppiSize oROI, NppiAxis flip)

  4 channel 32-bit float in place image mirror.

- NppStatus nppiMirror_32f_AC4R (const Npp32f ∗pSrc, int nSrcStep, Npp32f ∗pDst, int nDstStep, NppiSize oROI, NppiAxis flip)

  4 channel 32-bit float image mirror not affecting alpha.

- NppStatus nppiMirror_32f_AC4IR (Npp32f ∗pSrcDst, int nSrcDstStep, NppiSize oROI, NppiAxis flip)

  4 channel 32-bit float in place image mirror not affecting alpha.

7.77.1 Detailed Description

7.77.2 Mirror Error Codes

- NPP_MIRROR_FLIP_ERR if flip has an illegal value.

7.77.3 Function Documentation

7.77.3.1 NppStatus nppiMirror_16s_AC4IR (Npp16s ∗ *pSrcDst*, int *nSrcDstStep*, NppiSize *oROI*, NppiAxis *flip*)

4 channel 16-bit signed in place image mirror not affecting alpha.

Parameters:

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oROI Region-of-Interest (ROI).

flip Specifies the axis about which the image is to be mirrored.

Returns:

Image Data Related Error Codes, ROI Related Error Codes, Mirror Error Codes

7.77.3.2 NppStatus nppiMirror_16s_AC4R (const Npp16s ∗ *pSrc*, int *nSrcStep*, Npp16s ∗ *pDst*, int *nDstStep*, NppiSize *oROI*, NppiAxis *flip*)

4 channel 16-bit signed image mirror not affecting alpha.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Distance in bytes between starts of consecutive lines of the destination image.

oROI Region-of-Interest (ROI).

flip Specifies the axis about which the image is to be mirrored.

Returns:

Image Data Related Error Codes, ROI Related Error Codes, Mirror Error Codes

7.77.3.3 NppStatus nppiMirror_16s_C1IR (Npp16s ∗ *pSrcDst*, int *nSrcDstStep*, NppiSize *oROI*, NppiAxis *flip*)

1 channel 16-bit signed in place image mirror.

Parameters:

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oROI Region-of-Interest (ROI).

flip Specifies the axis about which the image is to be mirrored.

Returns:

Image Data Related Error Codes, ROI Related Error Codes, Mirror Error Codes

7.77.3.4 NppStatus nppiMirror_16s_C1R (const Npp16s ∗ *pSrc*, int *nSrcStep*, Npp16s ∗ *pDst*, int *nDstStep*, NppiSize *oROI*, NppiAxis *flip*)

1 channel 16-bit signed image mirror.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oROI Region-of-Interest (ROI).

flip Specifies the axis about which the image is to be mirrored.

Returns:

Image Data Related Error Codes, ROI Related Error Codes, Mirror Error Codes

7.77.3.5 NppStatus nppiMirror_16s_C3IR (Npp16s ∗ *pSrcDst*, int *nSrcDstStep*, NppiSize *oROI*, NppiAxis *flip*)

3 channel 16-bit signed in place image mirror.

Parameters:

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oROI Region-of-Interest (ROI).

flip Specifies the axis about which the image is to be mirrored.

Returns:

Image Data Related Error Codes, ROI Related Error Codes, Mirror Error Codes

7.77.3.6 NppStatus nppiMirror_16s_C3R (const Npp16s ∗ *pSrc*, int *nSrcStep*, Npp16s ∗ *pDst*, int *nDstStep*, NppiSize *oROI*, NppiAxis *flip*)

3 channel 16-bit signed image mirror.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oROI Region-of-Interest (ROI).

flip Specifies the axis about which the image is to be mirrored.

Returns:

Image Data Related Error Codes, ROI Related Error Codes, Mirror Error Codes

7.77.3.7 NppStatus nppiMirror_16s_C4IR (Npp16s ∗ *pSrcDst*, int *nSrcDstStep*, NppiSize *oROI*, NppiAxis *flip*)

4 channel 16-bit signed in place image mirror.

Parameters:

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oROI Region-of-Interest (ROI).

flip Specifies the axis about which the image is to be mirrored.

Returns:

Image Data Related Error Codes, ROI Related Error Codes, Mirror Error Codes

7.77.3.8 NppStatus nppiMirror_16s_C4R (const Npp16s ∗ *pSrc*, int *nSrcStep*, Npp16s ∗ *pDst*, int *nDstStep*, NppiSize *oROI*, NppiAxis *flip*)

4 channel 16-bit signed image mirror.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Distance in bytes between starts of consecutive lines of the destination image.

oROI Region-of-Interest (ROI).

flip Specifies the axis about which the image is to be mirrored.

Returns:

Image Data Related Error Codes, ROI Related Error Codes, Mirror Error Codes

7.77.3.9 NppStatus nppiMirror_16u_AC4IR (Npp16u ∗ *pSrcDst*, int *nSrcDstStep*, NppiSize *oROI*, NppiAxis *flip*)

4 channel 16-bit unsigned in place image mirror not affecting alpha.

Parameters:

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oROI Region-of-Interest (ROI).

flip Specifies the axis about which the image is to be mirrored.

Returns:

Image Data Related Error Codes, ROI Related Error Codes, Mirror Error Codes

7.77.3.10 NppStatus nppiMirror_16u_AC4R (const Npp16u ∗ *pSrc*, int *nSrcStep*, Npp16u ∗ *pDst*, int *nDstStep*, NppiSize *oROI*, NppiAxis *flip*)

4 channel 16-bit unsigned image mirror not affecting alpha.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Distance in bytes between starts of consecutive lines of the destination image.

oROI Region-of-Interest (ROI).

flip Specifies the axis about which the image is to be mirrored.

Returns:

Image Data Related Error Codes, ROI Related Error Codes, Mirror Error Codes

7.77.3.11 NppStatus nppiMirror_16u_C1IR (Npp16u ∗ *pSrcDst*, int *nSrcDstStep*, NppiSize *oROI*, NppiAxis *flip*)

1 channel 16-bit unsigned in place image mirror.

Parameters:

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oROI Region-of-Interest (ROI).

flip Specifies the axis about which the image is to be mirrored.

Returns:

Image Data Related Error Codes, ROI Related Error Codes, Mirror Error Codes

7.77.3.12 NppStatus nppiMirror_16u_C1R (const Npp16u ∗ *pSrc*, int *nSrcStep*, Npp16u ∗ *pDst*, int *nDstStep*, NppiSize *oROI*, NppiAxis *flip*)

1 channel 16-bit unsigned image mirror.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oROI Region-of-Interest (ROI).

flip Specifies the axis about which the image is to be mirrored.

Returns:

Image Data Related Error Codes, ROI Related Error Codes, Mirror Error Codes

7.77.3.13 NppStatus nppiMirror_16u_C3IR (Npp16u ∗ *pSrcDst*, int *nSrcDstStep*, NppiSize *oROI*, NppiAxis *flip*)

3 channel 16-bit unsigned in place image mirror.

Parameters:

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oROI Region-of-Interest (ROI).

flip Specifies the axis about which the image is to be mirrored.

Returns:

Image Data Related Error Codes, ROI Related Error Codes, Mirror Error Codes

7.77.3.14 NppStatus nppiMirror_16u_C3R (const Npp16u * *pSrc*, int *nSrcStep*, Npp16u * *pDst*, int *nDstStep*, NppiSize *oROI*, NppiAxis *flip*)

3 channel 16-bit unsigned image mirror.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oROI Region-of-Interest (ROI).

flip Specifies the axis about which the image is to be mirrored.

Returns:

Image Data Related Error Codes, ROI Related Error Codes, Mirror Error Codes

7.77.3.15 NppStatus nppiMirror_16u_C4IR (Npp16u * *pSrcDst*, int *nSrcDstStep*, NppiSize *oROI*, NppiAxis *flip*)

4 channel 16-bit unsigned in place image mirror.

Parameters:

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oROI Region-of-Interest (ROI).

flip Specifies the axis about which the image is to be mirrored.

Returns:

Image Data Related Error Codes, ROI Related Error Codes, Mirror Error Codes

7.77.3.16 NppStatus nppiMirror_16u_C4R (const Npp16u * *pSrc*, int *nSrcStep*, Npp16u * *pDst*, int *nDstStep*, NppiSize *oROI*, NppiAxis *flip*)

4 channel 16-bit unsigned image mirror.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Distance in bytes between starts of consecutive lines of the destination image.

oROI Region-of-Interest (ROI).

flip Specifies the axis about which the image is to be mirrored.

Returns:

Image Data Related Error Codes, ROI Related Error Codes, Mirror Error Codes

7.77.3.17 NppStatus nppiMirror_32f_AC4IR (Npp32f ∗ *pSrcDst*, int *nSrcDstStep*, NppiSize *oROI*, NppiAxis *flip*)

4 channel 32-bit float in place image mirror not affecting alpha.

Parameters:

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oROI Region-of-Interest (ROI).

flip Specifies the axis about which the image is to be mirrored.

Returns:

Image Data Related Error Codes, ROI Related Error Codes, Mirror Error Codes

7.77.3.18 NppStatus nppiMirror_32f_AC4R (const Npp32f ∗ *pSrc*, int *nSrcStep*, Npp32f ∗ *pDst*, int *nDstStep*, NppiSize *oROI*, NppiAxis *flip*)

4 channel 32-bit float image mirror not affecting alpha.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Distance in bytes between starts of consecutive lines of the destination image.

oROI Region-of-Interest (ROI).

flip Specifies the axis about which the image is to be mirrored.

Returns:

Image Data Related Error Codes, ROI Related Error Codes, Mirror Error Codes

7.77.3.19 NppStatus nppiMirror_32f_C1IR (Npp32f ∗ *pSrcDst*, int *nSrcDstStep*, NppiSize *oROI*, NppiAxis *flip*)

1 channel 32-bit float in place image mirror.

Parameters:

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oROI Region-of-Interest (ROI).

flip Specifies the axis about which the image is to be mirrored.

Returns:

Image Data Related Error Codes, ROI Related Error Codes, Mirror Error Codes

7.77.3.20 NppStatus nppiMirror_32f_C1R (const Npp32f ∗ *pSrc*, int *nSrcStep*, Npp32f ∗ *pDst*, int *nDstStep*, NppiSize *oROI*, NppiAxis *flip*)

1 channel 32-bit float image mirror.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oROI Region-of-Interest (ROI).

flip Specifies the axis about which the image is to be mirrored.

Returns:

Image Data Related Error Codes, ROI Related Error Codes, Mirror Error Codes

7.77.3.21 NppStatus nppiMirror_32f_C3IR (Npp32f ∗ *pSrcDst*, int *nSrcDstStep*, NppiSize *oROI*, NppiAxis *flip*)

3 channel 32-bit float in place image mirror.

Parameters:

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oROI Region-of-Interest (ROI).

flip Specifies the axis about which the image is to be mirrored.

Returns:

Image Data Related Error Codes, ROI Related Error Codes, Mirror Error Codes

7.77.3.22 NppStatus nppiMirror_32f_C3R (const Npp32f ∗ *pSrc*, int *nSrcStep*, Npp32f ∗ *pDst*, int *nDstStep*, NppiSize *oROI*, NppiAxis *flip*)

3 channel 32-bit float image mirror.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oROI Region-of-Interest (ROI).

flip Specifies the axis about which the image is to be mirrored.

Returns:

Image Data Related Error Codes, ROI Related Error Codes, Mirror Error Codes

7.77.3.23 NppStatus nppiMirror_32f_C4IR (Npp32f ∗ *pSrcDst*, int *nSrcDstStep*, NppiSize *oROI*, NppiAxis *flip*)

4 channel 32-bit float in place image mirror.

Parameters:

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oROI Region-of-Interest (ROI).

flip Specifies the axis about which the image is to be mirrored.

Returns:

Image Data Related Error Codes, ROI Related Error Codes, Mirror Error Codes

7.77.3.24 NppStatus nppiMirror_32f_C4R (const Npp32f ∗ *pSrc*, int *nSrcStep*, Npp32f ∗ *pDst*, int *nDstStep*, NppiSize *oROI*, NppiAxis *flip*)

4 channel 32-bit float image mirror.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Distance in bytes between starts of consecutive lines of the destination image.

oROI Region-of-Interest (ROI).

flip Specifies the axis about which the image is to be mirrored.

Returns:

Image Data Related Error Codes, ROI Related Error Codes, Mirror Error Codes

7.77.3.25 NppStatus nppiMirror_32s_AC4IR (Npp32s ∗ *pSrcDst*, int *nSrcDstStep*, NppiSize *oROI*, NppiAxis *flip*)

4 channel 32-bit signed in place image mirror not affecting alpha.

Parameters:

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oROI Region-of-Interest (ROI).

flip Specifies the axis about which the image is to be mirrored.

Returns:

Image Data Related Error Codes, ROI Related Error Codes, Mirror Error Codes

7.77.3.26 NppStatus nppiMirror_32s_AC4R (const Npp32s ∗ *pSrc*, int *nSrcStep*, Npp32s ∗ *pDst*, int *nDstStep*, NppiSize *oROI*, NppiAxis *flip*)

4 channel 32-bit image mirror not affecting alpha.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Distance in bytes between starts of consecutive lines of the destination image.

oROI Region-of-Interest (ROI).

flip Specifies the axis about which the image is to be mirrored.

Returns:

Image Data Related Error Codes, ROI Related Error Codes, Mirror Error Codes

7.77.3.27 NppStatus nppiMirror_32s_C1IR (Npp32s ∗ *pSrcDst*, int *nSrcDstStep*, NppiSize *oROI*, NppiAxis *flip*)

1 channel 32-bit signed in place image mirror.

Parameters:

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oROI Region-of-Interest (ROI).

flip Specifies the axis about which the image is to be mirrored.

Returns:

Image Data Related Error Codes, ROI Related Error Codes, Mirror Error Codes

7.77.3.28 NppStatus nppiMirror_32s_C1R (const Npp32s ∗ *pSrc*, int *nSrcStep*, Npp32s ∗ *pDst*, int *nDstStep*, NppiSize *oROI*, NppiAxis *flip*)

1 channel 32-bit image mirror.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oROI Region-of-Interest (ROI).

flip Specifies the axis about which the image is to be mirrored.

Returns:

Image Data Related Error Codes, ROI Related Error Codes, Mirror Error Codes

7.77.3.29 NppStatus nppiMirror_32s_C3IR (Npp32s ∗ *pSrcDst*, int *nSrcDstStep*, NppiSize *oROI*, NppiAxis *flip*)

3 channel 32-bit signed in place image mirror.

Parameters:

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oROI Region-of-Interest (ROI).

flip Specifies the axis about which the image is to be mirrored.

Returns:

Image Data Related Error Codes, ROI Related Error Codes, Mirror Error Codes

7.77.3.30 NppStatus nppiMirror_32s_C3R (const Npp32s ∗ *pSrc*, int *nSrcStep*, Npp32s ∗ *pDst*, int *nDstStep*, NppiSize *oROI*, NppiAxis *flip*)

3 channel 32-bit image mirror.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oROI Region-of-Interest (ROI).

flip Specifies the axis about which the image is to be mirrored.

Returns:

Image Data Related Error Codes, ROI Related Error Codes, Mirror Error Codes

7.77.3.31 NppStatus nppiMirror_32s_C4IR (Npp32s ∗ *pSrcDst*, int *nSrcDstStep*, NppiSize *oROI*, NppiAxis *flip*)

4 channel 32-bit signed in place image mirror.

Parameters:

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oROI Region-of-Interest (ROI).

flip Specifies the axis about which the image is to be mirrored.

Returns:

Image Data Related Error Codes, ROI Related Error Codes, Mirror Error Codes

7.77.3.32 NppStatus nppiMirror_32s_C4R (const Npp32s ∗ *pSrc*, int *nSrcStep*, Npp32s ∗ *pDst*, int *nDstStep*, NppiSize *oROI*, NppiAxis *flip*)

4 channel 32-bit image mirror.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Distance in bytes between starts of consecutive lines of the destination image.

oROI Region-of-Interest (ROI).

flip Specifies the axis about which the image is to be mirrored.

Returns:

Image Data Related Error Codes, ROI Related Error Codes, Mirror Error Codes

7.77.3.33 NppStatus nppiMirror_8u_AC4IR (Npp8u ∗ *pSrcDst*, int *nSrcDstStep*, NppiSize *oROI*, NppiAxis *flip*)

4 channel 8-bit unsigned in place image mirror not affecting alpha.

Parameters:

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oROI Region-of-Interest (ROI).

flip Specifies the axis about which the image is to be mirrored.

Returns:

Image Data Related Error Codes, ROI Related Error Codes, Mirror Error Codes

7.77.3.34 NppStatus nppiMirror_8u_AC4R (const Npp8u ∗ *pSrc*, int *nSrcStep*, Npp8u ∗ *pDst*, int *nDstStep*, NppiSize *oROI*, NppiAxis *flip*)

4 channel 8-bit unsigned image mirror not affecting alpha.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Distance in bytes between starts of consecutive lines of the destination image.

oROI Region-of-Interest (ROI).

flip Specifies the axis about which the image is to be mirrored.

Returns:

Image Data Related Error Codes, ROI Related Error Codes, Mirror Error Codes

7.77.3.35 NppStatus nppiMirror_8u_C1IR (Npp8u ∗ *pSrcDst*, int *nSrcDstStep*, NppiSize *oROI*, NppiAxis *flip*)

1 channel 8-bit unsigned in place image mirror.

Parameters:

- ***pSrcDst*** In-Place Image Pointer.
- ***nSrcDstStep*** In-Place-Image Line Step.
- ***oROI*** Region-of-Interest (ROI).
- ***flip*** Specifies the axis about which the image is to be mirrored.

Returns:

Image Data Related Error Codes, ROI Related Error Codes, Mirror Error Codes

7.77.3.36 NppStatus nppiMirror_8u_C1R (const Npp8u ∗ *pSrc*, int *nSrcStep*, Npp8u ∗ *pDst*, int *nDstStep*, NppiSize *oROI*, NppiAxis *flip*)

1 channel 8-bit unsigned image mirror.

Parameters:

- ***pSrc*** Source-Image Pointer.
- ***nSrcStep*** Source-Image Line Step.
- ***pDst*** Destination-Image Pointer.
- ***nDstStep*** Destination-Image Line Step.
- ***oROI*** Region-of-Interest (ROI).
- ***flip*** Specifies the axis about which the image is to be mirrored.

Returns:

Image Data Related Error Codes, ROI Related Error Codes, Mirror Error Codes

7.77.3.37 NppStatus nppiMirror_8u_C3IR (Npp8u ∗ *pSrcDst*, int *nSrcDstStep*, NppiSize *oROI*, NppiAxis *flip*)

3 channel 8-bit unsigned in place image mirror.

Parameters:

- ***pSrcDst*** In-Place Image Pointer.
- ***nSrcDstStep*** In-Place-Image Line Step.
- ***oROI*** Region-of-Interest (ROI).
- ***flip*** Specifies the axis about which the image is to be mirrored.

Returns:

Image Data Related Error Codes, ROI Related Error Codes, Mirror Error Codes

7.77.3.38 NppStatus nppiMirror_8u_C3R (const Npp8u ∗ *pSrc*, int *nSrcStep*, Npp8u ∗ *pDst*, int *nDstStep*, NppiSize *oROI*, NppiAxis *flip*)

3 channel 8-bit unsigned image mirror.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oROI Region-of-Interest (ROI).

flip Specifies the axis about which the image is to be mirrored.

Returns:

Image Data Related Error Codes, ROI Related Error Codes, Mirror Error Codes

7.77.3.39 NppStatus nppiMirror_8u_C4IR (Npp8u ∗ *pSrcDst*, int *nSrcDstStep*, NppiSize *oROI*, NppiAxis *flip*)

4 channel 8-bit unsigned in place image mirror.

Parameters:

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oROI Region-of-Interest (ROI).

flip Specifies the axis about which the image is to be mirrored.

Returns:

Image Data Related Error Codes, ROI Related Error Codes, Mirror Error Codes

7.77.3.40 NppStatus nppiMirror_8u_C4R (const Npp8u ∗ *pSrc*, int *nSrcStep*, Npp8u ∗ *pDst*, int *nDstStep*, NppiSize *oROI*, NppiAxis *flip*)

4 channel 8-bit unsigned image mirror.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Distance in bytes between starts of consecutive lines of the destination image.

oROI Region-of-Interest (ROI).

flip Specifies the axis about which the image is to be mirrored.

Returns:

Image Data Related Error Codes, ROI Related Error Codes, Mirror Error Codes

7.78 Affine Transforms

Utility Functions

- NppStatus nppiGetAffineTransform (NppiRect oSrcROI, const double aQuad[4][2], double aCoeffs[2][3])

  Computes affine transform coefficients based on source ROI and destination quadrilateral.

- NppStatus nppiGetAffineQuad (NppiRect oSrcROI, double aQuad[4][2], const double aCoeffs[2][3])

  Compute shape of transformed image.

- NppStatus nppiGetAffineBound (NppiRect oSrcROI, double aBound[2][2], const double aCoeffs[2][3])

  Compute bounding-box of transformed image.

Affine Transform

Transforms (warps) an image based on an affine transform.

The affine transform is given as a 2 × 3 matrix C. A pixel location (x, y) in the source image is mapped to the location (x', y') in the destination image. The destination image coorodinates are computed as follows:

$$x' = c_{00} * x + c_{01} * y + c_{02} \qquad y' = c_{10} * x + c_{11} * y + c_{12} \qquad C = \begin{bmatrix} c_{00} & c_{01} & c_{02} \\ c_{10} & c_{11} & c_{12} \end{bmatrix}$$

Affine transforms can be understood as a linear transformation (traditional matrix multiplication) and a shift operation. The 2 × 2 matrix

$$L = \begin{bmatrix} c_{00} & c_{01} \\ c_{10} & c_{11} \end{bmatrix}$$

represents the linear transform portion of the affine transformation. The vector

$$v = \begin{pmatrix} c_{02} \\ c_{12} \end{pmatrix}$$

represents the post-transform shift, i.e. after the pixel location is transformed by L it is translated by v.

- NppStatus nppiWarpAffine_8u_C1R (const Npp8u *pSrc, NppiSize oSrcSize, int nSrcStep, NppiRect oSrcROI, Npp8u *pDst, int nDstStep, NppiRect oDstROI, const double aCoeffs[2][3], int eInterpolation)

  Single-channel 8-bit unsigned affine warp.

- NppStatus nppiWarpAffine_8u_C3R (const Npp8u *pSrc, NppiSize oSrcSize, int nSrcStep, NppiRect oSrcROI, Npp8u *pDst, int nDstStep, NppiRect oDstROI, const double aCoeffs[2][3], int eInterpolation)

  Three-channel 8-bit unsigned affine warp.

- NppStatus nppiWarpAffine_8u_C4R (const Npp8u *pSrc, NppiSize oSrcSize, int nSrcStep, NppiRect oSrcROI, Npp8u *pDst, int nDstStep, NppiRect oDstROI, const double aCoeffs[2][3], int eInterpolation)

  Four-channel 8-bit unsigned affine warp.

- NppStatus nppiWarpAffine_8u_AC4R (const Npp8u ∗pSrc, NppiSize oSrcSize, int nSrcStep, NppiRect oSrcROI, Npp8u ∗pDst, int nDstStep, NppiRect oDstROI, const double aCoeffs[2][3], int eInterpolation)

  Four-channel 8-bit unsigned affine warp, ignoring alpha channel.

- NppStatus nppiWarpAffine_8u_P3R (const Npp8u ∗pSrc[3], NppiSize oSrcSize, int nSrcStep, NppiRect oSrcROI, Npp8u ∗pDst[3], int nDstStep, NppiRect oDstROI, const double aCoeffs[2][3], int eInterpolation)

  Three-channel planar 8-bit unsigned affine warp.

- NppStatus nppiWarpAffine_8u_P4R (const Npp8u ∗pSrc[4], NppiSize oSrcSize, int nSrcStep, NppiRect oSrcROI, Npp8u ∗pDst[4], int nDstStep, NppiRect oDstROI, const double aCoeffs[2][3], int eInterpolation)

  Four-channel planar 8-bit unsigned affine warp.

- NppStatus nppiWarpAffine_16u_C1R (const Npp16u ∗pSrc, NppiSize oSrcSize, int nSrcStep, NppiRect oSrcROI, Npp16u ∗pDst, int nDstStep, NppiRect oDstROI, const double aCoeffs[2][3], int eInterpolation)

  Single-channel 16-bit unsigned affine warp.

- NppStatus nppiWarpAffine_16u_C3R (const Npp16u ∗pSrc, NppiSize oSrcSize, int nSrcStep, NppiRect oSrcROI, Npp16u ∗pDst, int nDstStep, NppiRect oDstROI, const double aCoeffs[2][3], int eInterpolation)

  Three-channel 16-bit unsigned affine warp.

- NppStatus nppiWarpAffine_16u_C4R (const Npp16u ∗pSrc, NppiSize oSrcSize, int nSrcStep, NppiRect oSrcROI, Npp16u ∗pDst, int nDstStep, NppiRect oDstROI, const double aCoeffs[2][3], int eInterpolation)

  Four-channel 16-bit unsigned affine warp.

- NppStatus nppiWarpAffine_16u_AC4R (const Npp16u ∗pSrc, NppiSize oSrcSize, int nSrcStep, NppiRect oSrcROI, Npp16u ∗pDst, int nDstStep, NppiRect oDstROI, const double aCoeffs[2][3], int eInterpolation)

  Four-channel 16-bit unsigned affine warp, ignoring alpha channel.

- NppStatus nppiWarpAffine_16u_P3R (const Npp16u ∗pSrc[3], NppiSize oSrcSize, int nSrcStep, NppiRect oSrcROI, Npp16u ∗pDst[3], int nDstStep, NppiRect oDstROI, const double aCoeffs[2][3], int eInterpolation)

  Three-channel planar 16-bit unsigned affine warp.

- NppStatus nppiWarpAffine_16u_P4R (const Npp16u ∗pSrc[4], NppiSize oSrcSize, int nSrcStep, NppiRect oSrcROI, Npp16u ∗pDst[4], int nDstStep, NppiRect oDstROI, const double aCoeffs[2][3], int eInterpolation)

  Four-channel planar 16-bit unsigned affine warp.

- NppStatus nppiWarpAffine_32s_C1R (const Npp32s ∗pSrc, NppiSize oSrcSize, int nSrcStep, NppiRect oSrcROI, Npp32s ∗pDst, int nDstStep, NppiRect oDstROI, const double aCoeffs[2][3], int eInterpolation)

  Single-channel 32-bit signed affine warp.

- NppStatus nppiWarpAffine_32s_C3R (const Npp32s ∗pSrc, NppiSize oSrcSize, int nSrcStep, NppiRect oSrcROI, Npp32s ∗pDst, int nDstStep, NppiRect oDstROI, const double aCoeffs[2][3], int eInterpolation)

  Three-channel 32-bit signed affine warp.

- NppStatus nppiWarpAffine_32s_C4R (const Npp32s ∗pSrc, NppiSize oSrcSize, int nSrcStep, NppiRect oSrcROI, Npp32s ∗pDst, int nDstStep, NppiRect oDstROI, const double aCoeffs[2][3], int eInterpolation)

  Four-channel 32-bit signed affine warp.

- NppStatus nppiWarpAffine_32s_AC4R (const Npp32s ∗pSrc, NppiSize oSrcSize, int nSrcStep, NppiRect oSrcROI, Npp32s ∗pDst, int nDstStep, NppiRect oDstROI, const double aCoeffs[2][3], int eInterpolation)

  Four-channel 32-bit signed affine warp, ignoring alpha channel.

- NppStatus nppiWarpAffine_32s_P3R (const Npp32s ∗pSrc[3], NppiSize oSrcSize, int nSrcStep, NppiRect oSrcROI, Npp32s ∗pDst[3], int nDstStep, NppiRect oDstROI, const double aCoeffs[2][3], int eInterpolation)

  Three-channel planar 32-bit signed affine warp.

- NppStatus nppiWarpAffine_32s_P4R (const Npp32s ∗pSrc[4], NppiSize oSrcSize, int nSrcStep, NppiRect oSrcROI, Npp32s ∗pDst[4], int nDstStep, NppiRect oDstROI, const double aCoeffs[2][3], int eInterpolation)

  Four-channel planar 32-bit signed affine warp.

- NppStatus nppiWarpAffine_32f_C1R (const Npp32f ∗pSrc, NppiSize oSrcSize, int nSrcStep, NppiRect oSrcROI, Npp32f ∗pDst, int nDstStep, NppiRect oDstROI, const double aCoeffs[2][3], int eInterpolation)

  Single-channel 32-bit floating-point affine warp.

- NppStatus nppiWarpAffine_32f_C3R (const Npp32f ∗pSrc, NppiSize oSrcSize, int nSrcStep, NppiRect oSrcROI, Npp32f ∗pDst, int nDstStep, NppiRect oDstROI, const double aCoeffs[2][3], int eInterpolation)

  Three-channel 32-bit floating-point affine warp.

- NppStatus nppiWarpAffine_32f_C4R (const Npp32f ∗pSrc, NppiSize oSrcSize, int nSrcStep, NppiRect oSrcROI, Npp32f ∗pDst, int nDstStep, NppiRect oDstROI, const double aCoeffs[2][3], int eInterpolation)

  Four-channel 32-bit floating-point affine warp.

- NppStatus nppiWarpAffine_32f_AC4R (const Npp32f ∗pSrc, NppiSize oSrcSize, int nSrcStep, NppiRect oSrcROI, Npp32f ∗pDst, int nDstStep, NppiRect oDstROI, const double aCoeffs[2][3], int eInterpolation)

  Four-channel 32-bit floating-point affine warp, ignoring alpha channel.

- NppStatus nppiWarpAffine_32f_P3R (const Npp32f ∗pSrc[3], NppiSize oSrcSize, int nSrcStep, NppiRect oSrcROI, Npp32f ∗pDst[3], int nDstStep, NppiRect oDstROI, const double aCoeffs[2][3], int eInterpolation)

  Three-channel planar 32-bit floating-point affine warp.

- NppStatus nppiWarpAffine_32f_P4R (const Npp32f ∗pSrc[4], NppiSize oSrcSize, int nSrcStep, NppiRect oSrcROI, Npp32f ∗pDst[4], int nDstStep, NppiRect oDstROI, const double aCoeffs[2][3], int eInterpolation)

  Four-channel planar 32-bit floating-point affine warp.

- NppStatus nppiWarpAffine_64f_C1R (const Npp64f ∗pSrc, NppiSize oSrcSize, int nSrcStep, NppiRect oSrcROI, Npp64f ∗pDst, int nDstStep, NppiRect oDstROI, const double aCoeffs[2][3], int eInterpolation)

  Single-channel 64-bit floating-point affine warp.

- NppStatus nppiWarpAffine_64f_C3R (const Npp64f ∗pSrc, NppiSize oSrcSize, int nSrcStep, NppiRect oSrcROI, Npp64f ∗pDst, int nDstStep, NppiRect oDstROI, const double aCoeffs[2][3], int eInterpolation)

  Three-channel 64-bit floating-point affine warp.

- NppStatus nppiWarpAffine_64f_C4R (const Npp64f ∗pSrc, NppiSize oSrcSize, int nSrcStep, NppiRect oSrcROI, Npp64f ∗pDst, int nDstStep, NppiRect oDstROI, const double aCoeffs[2][3], int eInterpolation)

  Four-channel 64-bit floating-point affine warp.

- NppStatus nppiWarpAffine_64f_AC4R (const Npp64f ∗pSrc, NppiSize oSrcSize, int nSrcStep, NppiRect oSrcROI, Npp64f ∗pDst, int nDstStep, NppiRect oDstROI, const double aCoeffs[2][3], int eInterpolation)

  Four-channel 64-bit floating-point affine warp, ignoring alpha channel.

- NppStatus nppiWarpAffine_64f_P3R (const Npp64f ∗aSrc[3], NppiSize oSrcSize, int nSrcStep, NppiRect oSrcROI, Npp64f ∗aDst[3], int nDstStep, NppiRect oDstROI, const double aCoeffs[2][3], int eInterpolation)

  Three-channel planar 64-bit floating-point affine warp.

- NppStatus nppiWarpAffine_64f_P4R (const Npp64f ∗aSrc[4], NppiSize oSrcSize, int nSrcStep, NppiRect oSrcROI, Npp64f ∗aDst[4], int nDstStep, NppiRect oDstROI, const double aCoeffs[2][3], int eInterpolation)

  Four-channel planar 64-bit floating-point affine warp.

Backwards Affine Transform

Transforms (warps) an image based on an affine transform.

The affine transform is given as a 2 × 3 matrix C. A pixel location (x, y) in the source image is mapped to the location (x', y') in the destination image. The destination image coorodinates fullfil the following properties:

$$x = c_{00} * x' + c_{01} * y' + c_{02} \qquad y = c_{10} * x' + c_{11} * y' + c_{12} \qquad C = \begin{bmatrix} c_{00} & c_{01} & c_{02} \\ c_{10} & c_{11} & c_{12} \end{bmatrix}$$

In other words, given matrix C the source image's shape is transfored to the destination image using the inverse matrix C^{-1}:

$$M = C^{-1} = \begin{bmatrix} m_{00} & m_{01} & m_{02} \\ m_{10} & m_{11} & m_{12} \end{bmatrix} x' = m_{00} * x + m_{01} * y + m_{02} \qquad y' = m_{10} * x + m_{11} * y + m_{12}$$

- NppStatus nppiWarpAffineBack_8u_C1R (const Npp8u ∗pSrc, NppiSize oSrcSize, int nSrcStep, NppiRect oSrcROI, Npp8u ∗pDst, int nDstStep, NppiRect oDstROI, const double aCoeffs[2][3], int eInterpolation)

  Single-channel 8-bit unsigned integer backwards affine warp.

- NppStatus nppiWarpAffineBack_8u_C3R (const Npp8u ∗pSrc, NppiSize oSrcSize, int nSrcStep, NppiRect oSrcROI, Npp8u ∗pDst, int nDstStep, NppiRect oDstROI, const double aCoeffs[2][3], int eInterpolation)

  Three-channel 8-bit unsigned integer backwards affine warp.

- NppStatus nppiWarpAffineBack_8u_C4R (const Npp8u ∗pSrc, NppiSize oSrcSize, int nSrcStep, NppiRect oSrcROI, Npp8u ∗pDst, int nDstStep, NppiRect oDstROI, const double aCoeffs[2][3], int eInterpolation)

  Four-channel 8-bit unsigned integer backwards affine warp.

- NppStatus nppiWarpAffineBack_8u_AC4R (const Npp8u ∗pSrc, NppiSize oSrcSize, int nSrcStep, NppiRect oSrcROI, Npp8u ∗pDst, int nDstStep, NppiRect oDstROI, const double aCoeffs[2][3], int eInterpolation)

  Four-channel 8-bit unsigned integer backwards affine warp, ignoring alpha channel.

- NppStatus nppiWarpAffineBack_8u_P3R (const Npp8u ∗pSrc[3], NppiSize oSrcSize, int nSrcStep, NppiRect oSrcROI, Npp8u ∗pDst[3], int nDstStep, NppiRect oDstROI, const double aCoeffs[2][3], int eInterpolation)

  Three-channel planar 8-bit unsigned integer backwards affine warp.

- NppStatus nppiWarpAffineBack_8u_P4R (const Npp8u ∗pSrc[4], NppiSize oSrcSize, int nSrcStep, NppiRect oSrcROI, Npp8u ∗pDst[4], int nDstStep, NppiRect oDstROI, const double aCoeffs[2][3], int eInterpolation)

  Four-channel planar 8-bit unsigned integer backwards affine warp.

- NppStatus nppiWarpAffineBack_16u_C1R (const Npp16u ∗pSrc, NppiSize oSrcSize, int nSrcStep, NppiRect oSrcROI, Npp16u ∗pDst, int nDstStep, NppiRect oDstROI, const double aCoeffs[2][3], int eInterpolation)

  Single-channel 16-bit unsigned integer backwards affine warp.

- NppStatus nppiWarpAffineBack_16u_C3R (const Npp16u ∗pSrc, NppiSize oSrcSize, int nSrcStep, NppiRect oSrcROI, Npp16u ∗pDst, int nDstStep, NppiRect oDstROI, const double aCoeffs[2][3], int eInterpolation)

  Three-channel 16-bit unsigned integer backwards affine warp.

- NppStatus nppiWarpAffineBack_16u_C4R (const Npp16u ∗pSrc, NppiSize oSrcSize, int nSrcStep, NppiRect oSrcROI, Npp16u ∗pDst, int nDstStep, NppiRect oDstROI, const double aCoeffs[2][3], int eInterpolation)

  Four-channel 16-bit unsigned integer backwards affine warp.

- NppStatus nppiWarpAffineBack_16u_AC4R (const Npp16u ∗pSrc, NppiSize oSrcSize, int nSrcStep, NppiRect oSrcROI, Npp16u ∗pDst, int nDstStep, NppiRect oDstROI, const double aCoeffs[2][3], int eInterpolation)

  Four-channel 16-bit unsigned integer backwards affine warp, ignoring alpha channel.

- NppStatus nppiWarpAffineBack_16u_P3R (const Npp16u ∗pSrc[3], NppiSize oSrcSize, int nSrcStep, NppiRect oSrcROI, Npp16u ∗pDst[3], int nDstStep, NppiRect oDstROI, const double aCoeffs[2][3], int eInterpolation)

  Three-channel planar 16-bit unsigned integer backwards affine warp.

- NppStatus nppiWarpAffineBack_16u_P4R (const Npp16u ∗pSrc[4], NppiSize oSrcSize, int nSrcStep, NppiRect oSrcROI, Npp16u ∗pDst[4], int nDstStep, NppiRect oDstROI, const double aCoeffs[2][3], int eInterpolation)

  Four-channel planar 16-bit unsigned integer backwards affine warp.

- NppStatus nppiWarpAffineBack_32s_C1R (const Npp32s ∗pSrc, NppiSize oSrcSize, int nSrcStep, NppiRect oSrcROI, Npp32s ∗pDst, int nDstStep, NppiRect oDstROI, const double aCoeffs[2][3], int eInterpolation)

  Single-channel 32-bit signed integer backwards affine warp.

- NppStatus nppiWarpAffineBack_32s_C3R (const Npp32s ∗pSrc, NppiSize oSrcSize, int nSrcStep, NppiRect oSrcROI, Npp32s ∗pDst, int nDstStep, NppiRect oDstROI, const double aCoeffs[2][3], int eInterpolation)

  Three-channel 32-bit signed integer backwards affine warp.

- NppStatus nppiWarpAffineBack_32s_C4R (const Npp32s ∗pSrc, NppiSize oSrcSize, int nSrcStep, NppiRect oSrcROI, Npp32s ∗pDst, int nDstStep, NppiRect oDstROI, const double aCoeffs[2][3], int eInterpolation)

  Four-channel 32-bit signed integer backwards affine warp.

- NppStatus nppiWarpAffineBack_32s_AC4R (const Npp32s ∗pSrc, NppiSize oSrcSize, int nSrcStep, NppiRect oSrcROI, Npp32s ∗pDst, int nDstStep, NppiRect oDstROI, const double aCoeffs[2][3], int eInterpolation)

  Four-channel 32-bit signed integer backwards affine warp, ignoring alpha channel.

- NppStatus nppiWarpAffineBack_32s_P3R (const Npp32s ∗pSrc[3], NppiSize oSrcSize, int nSrcStep, NppiRect oSrcROI, Npp32s ∗pDst[3], int nDstStep, NppiRect oDstROI, const double aCoeffs[2][3], int eInterpolation)

  Three-channel planar 32-bit signed integer backwards affine warp.

- NppStatus nppiWarpAffineBack_32s_P4R (const Npp32s ∗pSrc[4], NppiSize oSrcSize, int nSrcStep, NppiRect oSrcROI, Npp32s ∗pDst[4], int nDstStep, NppiRect oDstROI, const double aCoeffs[2][3], int eInterpolation)

  Four-channel planar 32-bit signed integer backwards affine warp.

- NppStatus nppiWarpAffineBack_32f_C1R (const Npp32f ∗pSrc, NppiSize oSrcSize, int nSrcStep, NppiRect oSrcROI, Npp32f ∗pDst, int nDstStep, NppiRect oDstROI, const double aCoeffs[2][3], int eInterpolation)

  Single-channel 32-bit floating-point backwards affine warp.

- NppStatus nppiWarpAffineBack_32f_C3R (const Npp32f ∗pSrc, NppiSize oSrcSize, int nSrcStep, NppiRect oSrcROI, Npp32f ∗pDst, int nDstStep, NppiRect oDstROI, const double aCoeffs[2][3], int eInterpolation)

  Three-channel 32-bit floating-point backwards affine warp.

- NppStatus nppiWarpAffineBack_32f_C4R (const Npp32f ∗pSrc, NppiSize oSrcSize, int nSrcStep, NppiRect oSrcROI, Npp32f ∗pDst, int nDstStep, NppiRect oDstROI, const double aCoeffs[2][3], int eInterpolation)

  Four-channel 32-bit floating-point backwards affine warp.

- NppStatus nppiWarpAffineBack_32f_AC4R (const Npp32f ∗pSrc, NppiSize oSrcSize, int nSrcStep, NppiRect oSrcROI, Npp32f ∗pDst, int nDstStep, NppiRect oDstROI, const double aCoeffs[2][3], int eInterpolation)

  Four-channel 32-bit floating-point backwards affine warp, ignoring alpha channel.

- NppStatus nppiWarpAffineBack_32f_P3R (const Npp32f ∗pSrc[3], NppiSize oSrcSize, int nSrcStep, NppiRect oSrcROI, Npp32f ∗pDst[3], int nDstStep, NppiRect oDstROI, const double aCoeffs[2][3], int eInterpolation)

  Three-channel planar 32-bit floating-point backwards affine warp.

- NppStatus nppiWarpAffineBack_32f_P4R (const Npp32f ∗pSrc[4], NppiSize oSrcSize, int nSrcStep, NppiRect oSrcROI, Npp32f ∗pDst[4], int nDstStep, NppiRect oDstROI, const double aCoeffs[2][3], int eInterpolation)

  Four-channel planar 32-bit floating-point backwards affine warp.

Quad-Based Affine Transform

Transforms (warps) an image based on an affine transform.

The affine transform is computed such that it maps a quadrilateral in source image space to a quadrilateral in destination image space.

An affine transform is fully determined by the mapping of 3 discrete points. The following primitives compute an affine transformation matrix that maps the first three corners of the source quad are mapped to the first three vertices of the destination image quad. If the fourth vertices do not match the transform, an NPP_AFFINE_QUAD_INCORRECT_WARNING is returned by the primitive.

- NppStatus nppiWarpAffineQuad_8u_C1R (const Npp8u ∗pSrc, NppiSize oSrcSize, int nSrcStep, NppiRect oSrcROI, const double aSrcQuad[4][2], Npp8u ∗pDst, int nDstStep, NppiRect oDstROI, const double aDstQuad[4][2], int eInterpolation)

  Single-channel 32-bit floating-point quad-based affine warp.

- NppStatus nppiWarpAffineQuad_8u_C3R (const Npp8u ∗pSrc, NppiSize oSrcSize, int nSrcStep, NppiRect oSrcROI, const double aSrcQuad[4][2], Npp8u ∗pDst, int nDstStep, NppiRect oDstROI, const double aDstQuad[4][2], int eInterpolation)

  Three-channel 8-bit unsigned integer quad-based affine warp.

- NppStatus nppiWarpAffineQuad_8u_C4R (const Npp8u ∗pSrc, NppiSize oSrcSize, int nSrcStep, NppiRect oSrcROI, const double aSrcQuad[4][2], Npp8u ∗pDst, int nDstStep, NppiRect oDstROI, const double aDstQuad[4][2], int eInterpolation)

  Four-channel 8-bit unsigned integer quad-based affine warp.

- NppStatus nppiWarpAffineQuad_8u_AC4R (const Npp8u ∗pSrc, NppiSize oSrcSize, int nSrcStep, NppiRect oSrcROI, const double aSrcQuad[4][2], Npp8u ∗pDst, int nDstStep, NppiRect oDstROI, const double aDstQuad[4][2], int eInterpolation)

  Four-channel 8-bit unsigned integer quad-based affine warp, ignoring alpha channel.

- NppStatus nppiWarpAffineQuad_8u_P3R (const Npp8u ∗pSrc[3], NppiSize oSrcSize, int nSrcStep, NppiRect oSrcROI, const double aSrcQuad[4][2], Npp8u ∗pDst[3], int nDstStep, NppiRect oDstROI, const double aDstQuad[4][2], int eInterpolation)

  Three-channel planar 8-bit unsigned integer quad-based affine warp.

- NppStatus nppiWarpAffineQuad_8u_P4R (const Npp8u ∗pSrc[4], NppiSize oSrcSize, int nSrcStep, NppiRect oSrcROI, const double aSrcQuad[4][2], Npp8u ∗pDst[4], int nDstStep, NppiRect oDstROI, const double aDstQuad[4][2], int eInterpolation)

  Four-channel planar 8-bit unsigned integer quad-based affine warp.

- NppStatus nppiWarpAffineQuad_16u_C1R (const Npp16u ∗pSrc, NppiSize oSrcSize, int nSrcStep, NppiRect oSrcROI, const double aSrcQuad[4][2], Npp16u ∗pDst, int nDstStep, NppiRect oDstROI, const double aDstQuad[4][2], int eInterpolation)

  Single-channel 16-bit unsigned integer quad-based affine warp.

- NppStatus nppiWarpAffineQuad_16u_C3R (const Npp16u ∗pSrc, NppiSize oSrcSize, int nSrcStep, NppiRect oSrcROI, const double aSrcQuad[4][2], Npp16u ∗pDst, int nDstStep, NppiRect oDstROI, const double aDstQuad[4][2], int eInterpolation)

  Three-channel 16-bit unsigned integer quad-based affine warp.

- NppStatus nppiWarpAffineQuad_16u_C4R (const Npp16u ∗pSrc, NppiSize oSrcSize, int nSrcStep, NppiRect oSrcROI, const double aSrcQuad[4][2], Npp16u ∗pDst, int nDstStep, NppiRect oDstROI, const double aDstQuad[4][2], int eInterpolation)

  Four-channel 16-bit unsigned integer quad-based affine warp.

- NppStatus nppiWarpAffineQuad_16u_AC4R (const Npp16u ∗pSrc, NppiSize oSrcSize, int nSrcStep, NppiRect oSrcROI, const double aSrcQuad[4][2], Npp16u ∗pDst, int nDstStep, NppiRect oDstROI, const double aDstQuad[4][2], int eInterpolation)

  Four-channel 16-bit unsigned integer quad-based affine warp, ignoring alpha channel.

- NppStatus nppiWarpAffineQuad_16u_P3R (const Npp16u ∗pSrc[3], NppiSize oSrcSize, int nSrcStep, NppiRect oSrcROI, const double aSrcQuad[4][2], Npp16u ∗pDst[3], int nDstStep, NppiRect oDstROI, const double aDstQuad[4][2], int eInterpolation)

  Three-channel planar 16-bit unsigned integer quad-based affine warp.

- NppStatus nppiWarpAffineQuad_16u_P4R (const Npp16u ∗pSrc[4], NppiSize oSrcSize, int nSrcStep, NppiRect oSrcROI, const double aSrcQuad[4][2], Npp16u ∗pDst[4], int nDstStep, NppiRect oDstROI, const double aDstQuad[4][2], int eInterpolation)

  Four-channel planar 16-bit unsigned integer quad-based affine warp.

- NppStatus nppiWarpAffineQuad_32s_C1R (const Npp32s ∗pSrc, NppiSize oSrcSize, int nSrcStep, NppiRect oSrcROI, const double aSrcQuad[4][2], Npp32s ∗pDst, int nDstStep, NppiRect oDstROI, const double aDstQuad[4][2], int eInterpolation)

  Single-channel 32-bit signed integer quad-based affine warp.

- NppStatus nppiWarpAffineQuad_32s_C3R (const Npp32s ∗pSrc, NppiSize oSrcSize, int nSrcStep, NppiRect oSrcROI, const double aSrcQuad[4][2], Npp32s ∗pDst, int nDstStep, NppiRect oDstROI, const double aDstQuad[4][2], int eInterpolation)

  Three-channel 32-bit signed integer quad-based affine warp.

- NppStatus nppiWarpAffineQuad_32s_C4R (const Npp32s ∗pSrc, NppiSize oSrcSize, int nSrcStep, NppiRect oSrcROI, const double aSrcQuad[4][2], Npp32s ∗pDst, int nDstStep, NppiRect oDstROI, const double aDstQuad[4][2], int eInterpolation)

  Four-channel 32-bit signed integer quad-based affine warp.

- NppStatus nppiWarpAffineQuad_32s_AC4R (const Npp32s ∗pSrc, NppiSize oSrcSize, int nSrcStep, NppiRect oSrcROI, const double aSrcQuad[4][2], Npp32s ∗pDst, int nDstStep, NppiRect oDstROI, const double aDstQuad[4][2], int eInterpolation)

  Four-channel 32-bit signed integer quad-based affine warp, ignoring alpha channel.

- NppStatus nppiWarpAffineQuad_32s_P3R (const Npp32s ∗pSrc[3], NppiSize oSrcSize, int nSrcStep, NppiRect oSrcROI, const double aSrcQuad[4][2], Npp32s ∗pDst[3], int nDstStep, NppiRect oDstROI, const double aDstQuad[4][2], int eInterpolation)

  Three-channel planar 32-bit signed integer quad-based affine warp.

- NppStatus nppiWarpAffineQuad_32s_P4R (const Npp32s ∗pSrc[4], NppiSize oSrcSize, int nSrcStep, NppiRect oSrcROI, const double aSrcQuad[4][2], Npp32s ∗pDst[4], int nDstStep, NppiRect oDstROI, const double aDstQuad[4][2], int eInterpolation)

  Four-channel planar 32-bit signed integer quad-based affine warp.

- NppStatus nppiWarpAffineQuad_32f_C1R (const Npp32f ∗pSrc, NppiSize oSrcSize, int nSrcStep, NppiRect oSrcROI, const double aSrcQuad[4][2], Npp32f ∗pDst, int nDstStep, NppiRect oDstROI, const double aDstQuad[4][2], int eInterpolation)

  Single-channel 32-bit floating-point quad-based affine warp.

- NppStatus nppiWarpAffineQuad_32f_C3R (const Npp32f ∗pSrc, NppiSize oSrcSize, int nSrcStep, NppiRect oSrcROI, const double aSrcQuad[4][2], Npp32f ∗pDst, int nDstStep, NppiRect oDstROI, const double aDstQuad[4][2], int eInterpolation)

  Three-channel 32-bit floating-point quad-based affine warp.

- NppStatus nppiWarpAffineQuad_32f_C4R (const Npp32f ∗pSrc, NppiSize oSrcSize, int nSrcStep, NppiRect oSrcROI, const double aSrcQuad[4][2], Npp32f ∗pDst, int nDstStep, NppiRect oDstROI, const double aDstQuad[4][2], int eInterpolation)

  Four-channel 32-bit floating-point quad-based affine warp.

- NppStatus nppiWarpAffineQuad_32f_AC4R (const Npp32f ∗pSrc, NppiSize oSrcSize, int nSrcStep, NppiRect oSrcROI, const double aSrcQuad[4][2], Npp32f ∗pDst, int nDstStep, NppiRect oDstROI, const double aDstQuad[4][2], int eInterpolation)

  Four-channel 32-bit floating-point quad-based affine warp, ignoring alpha channel.

- NppStatus nppiWarpAffineQuad_32f_P3R (const Npp32f ∗pSrc[3], NppiSize oSrcSize, int nSrcStep, NppiRect oSrcROI, const double aSrcQuad[4][2], Npp32f ∗pDst[3], int nDstStep, NppiRect oDstROI, const double aDstQuad[4][2], int eInterpolation)

  Three-channel planar 32-bit floating-point quad-based affine warp.

- NppStatus nppiWarpAffineQuad_32f_P4R (const Npp32f ∗pSrc[4], NppiSize oSrcSize, int nSrcStep, NppiRect oSrcROI, const double aSrcQuad[4][2], Npp32f ∗pDst[4], int nDstStep, NppiRect oDstROI, const double aDstQuad[4][2], int eInterpolation)

  Four-channel planar 32-bit floating-point quad-based affine warp.

7.78.1 Detailed Description

7.78.2 Affine Transform Error Codes

- NPP_RECT_ERROR Indicates an error condition if width or height of the intersection of the oSrcROI and source image is less than or equal to 1
- NPP_WRONG_INTERSECTION_ROI_ERROR Indicates an error condition if oSrcROI has no intersection with the source image
- NPP_INTERPOLATION_ERROR Indicates an error condition if interpolation has an illegal value
- NPP_COEFF_ERROR Indicates an error condition if coefficient values are invalid
- NPP_WRONG_INTERSECTION_QUAD_WARNING Indicates a warning that no operation is performed if the transformed source ROI has no intersection with the destination ROI

7.78.3 Function Documentation

7.78.3.1 NppStatus nppiGetAffineBound (NppiRect *oSrcROI*, double *aBound*[2][2], const double *aCoeffs*[2][3])

Compute bounding-box of transformed image.

The method effectively computes the bounding box (axis aligned rectangle) of the transformed source ROI (see nppiGetAffineQuad()).

Parameters:

oSrcROI The source ROI.

aBound The resulting bounding box.

aCoeffs The afine transform coefficients.

Returns:

Error codes:

- NPP_SIZE_ERROR Indicates an error condition if any image dimension has zero or negative value
- NPP_RECT_ERROR Indicates an error condition if width or height of the intersection of the oSrcROI and source image is less than or equal to 1
- NPP_COEFF_ERROR Indicates an error condition if coefficient values are invalid

7.78.3.2 NppStatus nppiGetAffineQuad (NppiRect *oSrcROI*, double *aQuad*[4][2], const double *aCoeffs*[2][3])

Compute shape of transformed image.

This method computes the quadrilateral in the destination image that the source ROI is transformed into by the affine transformation expressed by the coefficients array (aCoeffs).

Parameters:

oSrcROI The source ROI.

aQuad The resulting destination quadrangle.

aCoeffs The afine transform coefficients.

Returns:

Error codes:

- NPP_SIZE_ERROR Indicates an error condition if any image dimension has zero or negative value
- NPP_RECT_ERROR Indicates an error condition if width or height of the intersection of the oSrcROI and source image is less than or equal to 1
- NPP_COEFF_ERROR Indicates an error condition if coefficient values are invalid

7.78.3.3 NppStatus nppiGetAffineTransform (NppiRect *oSrcROI*, const double *aQuad*[4][2], double *aCoeffs*[2][3])

Computes affine transform coefficients based on source ROI and destination quadrilateral.

The function computes the coefficients of an affine transformation that maps the given source ROI (axis aligned rectangle with integer coordinates) to a quadrilateral in the destination image.

An affine transform in 2D is fully determined by the mapping of just three vertices. This function's API allows for passing a complete quadrilateral effectively making the prolem overdetermined. What this means in practice is, that for certain quadrilaterals it is not possible to find an affine transform that would map all four corners of the source ROI to the four vertices of that quadrilateral.

The function circumvents this problem by only looking at the first three vertices of the destination image quadrilateral to determine the affine transformation's coefficients. If the destination quadrilateral is indeed one that cannot be mapped using an affine transformation the functions informs the user of this situation by returning a NPP_AFFINE_QUAD_INCORRECT_WARNING.

Parameters:

oSrcROI The source ROI. This rectangle needs to be at least one pixel wide and high. If either width or hight are less than one an NPP_RECT_ERROR is returned.

aQuad The destination quadrilateral.

aCoeffs The resulting affine transform coefficients.

Returns:

Error codes:

- NPP_SIZE_ERROR Indicates an error condition if any image dimension has zero or negative value
- NPP_RECT_ERROR Indicates an error condition if width or height of the intersection of the oSrcROI and source image is less than or equal to 1
- NPP_COEFF_ERROR Indicates an error condition if coefficient values are invalid
- NPP_AFFINE_QUAD_INCORRECT_WARNING Indicates a warning when quad does not conform to the transform properties. Fourth vertex is ignored, internally computed coordinates are used instead

7.78.3.4 NppStatus nppiWarpAffine_16u_AC4R (const Npp16u ∗ *pSrc*, NppiSize *oSrcSize*, int *nSrcStep*, NppiRect *oSrcROI*, Npp16u ∗ *pDst*, int *nDstStep*, NppiRect *oDstROI*, const double *aCoeffs*[2][3], int *eInterpolation*)

Four-channel 16-bit unsigned affine warp, ignoring alpha channel.

Parameters:

pSrc Source-Image Pointer.

oSrcSize Size of source image in pixels

nSrcStep Source-Image Line Step.

oSrcROI Source ROI

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oDstROI Destination ROI

aCoeffs Affine transform coefficients

eInterpolation Interpolation mode: can be NPPI_INTER_NN, NPPI_INTER_LINEAR or NPPI_INTER_CUBIC

Returns:

Image Data Related Error Codes, ROI Related Error Codes, Affine Transform Error Codes

7.78.3.5 NppStatus nppiWarpAffine_16u_C1R (const Npp16u ∗ *pSrc*, NppiSize *oSrcSize*, int *nSrcStep*, NppiRect *oSrcROI*, Npp16u ∗ *pDst*, int *nDstStep*, NppiRect *oDstROI*, const double *aCoeffs*[2][3], int *eInterpolation*)

Single-channel 16-bit unsigned affine warp.

Parameters:

pSrc Source-Image Pointer.

oSrcSize Size of source image in pixels

nSrcStep Source-Image Line Step.

oSrcROI Source ROI

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oDstROI Destination ROI

aCoeffs Affine transform coefficients

eInterpolation Interpolation mode: can be NPPI_INTER_NN, NPPI_INTER_LINEAR or NPPI_INTER_CUBIC

Returns:

Image Data Related Error Codes, ROI Related Error Codes, Affine Transform Error Codes

7.78.3.6 NppStatus nppiWarpAffine_16u_C3R (const Npp16u ∗ *pSrc*, NppiSize *oSrcSize*, int *nSrcStep*, NppiRect *oSrcROI*, Npp16u ∗ *pDst*, int *nDstStep*, NppiRect *oDstROI*, const double *aCoeffs*[2][3], int *eInterpolation*)

Three-channel 16-bit unsigned affine warp.

Parameters:

pSrc Source-Image Pointer.

oSrcSize Size of source image in pixels

nSrcStep Source-Image Line Step.

oSrcROI Source ROI

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oDstROI Destination ROI

aCoeffs Affine transform coefficients

eInterpolation Interpolation mode: can be NPPI_INTER_NN, NPPI_INTER_LINEAR or NPPI_-INTER_CUBIC

Returns:

Image Data Related Error Codes, ROI Related Error Codes, Affine Transform Error Codes

7.78.3.7 NppStatus nppiWarpAffine_16u_C4R (const Npp16u ∗ *pSrc*, NppiSize *oSrcSize*, int *nSrcStep*, NppiRect *oSrcROI*, Npp16u ∗ *pDst*, int *nDstStep*, NppiRect *oDstROI*, const double *aCoeffs*[2][3], int *eInterpolation*)

Four-channel 16-bit unsigned affine warp.

Parameters:

pSrc Source-Image Pointer.

oSrcSize Size of source image in pixels

nSrcStep Source-Image Line Step.

oSrcROI Source ROI

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oDstROI Destination ROI

aCoeffs Affine transform coefficients

eInterpolation Interpolation mode: can be NPPI_INTER_NN, NPPI_INTER_LINEAR or NPPI_-INTER_CUBIC

Returns:

Image Data Related Error Codes, ROI Related Error Codes, Affine Transform Error Codes

7.78.3.8 NppStatus nppiWarpAffine_16u_P3R (const Npp16u ∗ *pSrc*[3], NppiSize *oSrcSize*, int *nSrcStep*, NppiRect *oSrcROI*, Npp16u ∗ *pDst*[3], int *nDstStep*, NppiRect *oDstROI*, const double *aCoeffs*[2][3], int *eInterpolation*)

Three-channel planar 16-bit unsigned affine warp.

Parameters:

pSrc Source-Image Pointer.

oSrcSize Size of source image in pixels

nSrcStep Source-Image Line Step.

oSrcROI Source ROI

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oDstROI Destination ROI

aCoeffs Affine transform coefficients

eInterpolation Interpolation mode: can be NPPI_INTER_NN, NPPI_INTER_LINEAR or NPPI_INTER_CUBIC

Returns:

Image Data Related Error Codes, ROI Related Error Codes, Affine Transform Error Codes

7.78.3.9 NppStatus nppiWarpAffine_16u_P4R (const Npp16u ∗ *pSrc*[4], NppiSize *oSrcSize*, int *nSrcStep*, NppiRect *oSrcROI*, Npp16u ∗ *pDst*[4], int *nDstStep*, NppiRect *oDstROI*, const double *aCoeffs*[2][3], int *eInterpolation*)

Four-channel planar 16-bit unsigned affine warp.

Parameters:

pSrc Source-Image Pointer.

oSrcSize Size of source image in pixels

nSrcStep Source-Image Line Step.

oSrcROI Source ROI

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oDstROI Destination ROI

aCoeffs Affine transform coefficients

eInterpolation Interpolation mode: can be NPPI_INTER_NN, NPPI_INTER_LINEAR or NPPI_INTER_CUBIC

Returns:

Image Data Related Error Codes, ROI Related Error Codes, Affine Transform Error Codes

7.78.3.10 NppStatus nppiWarpAffine_32f_AC4R (const Npp32f ∗ *pSrc*, NppiSize *oSrcSize*, int *nSrcStep*, NppiRect *oSrcROI*, Npp32f ∗ *pDst*, int *nDstStep*, NppiRect *oDstROI*, const double *aCoeffs*[2][3], int *eInterpolation*)

Four-channel 32-bit floating-point affine warp, ignoring alpha channel.

Parameters:

pSrc Source-Image Pointer.

oSrcSize Size of source image in pixels

nSrcStep Source-Image Line Step.

oSrcROI Source ROI

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oDstROI Destination ROI

aCoeffs Affine transform coefficients

eInterpolation Interpolation mode: can be NPPI_INTER_NN, NPPI_INTER_LINEAR or NPPI_INTER_CUBIC

Returns:

Image Data Related Error Codes, ROI Related Error Codes, Affine Transform Error Codes

7.78.3.11 NppStatus nppiWarpAffine_32f_C1R (const Npp32f ∗ *pSrc*, NppiSize *oSrcSize*, int *nSrcStep*, NppiRect *oSrcROI*, Npp32f ∗ *pDst*, int *nDstStep*, NppiRect *oDstROI*, const double *aCoeffs*[2][3], int *eInterpolation*)

Single-channel 32-bit floating-point affine warp.

Parameters:

pSrc Source-Image Pointer.

oSrcSize Size of source image in pixels

nSrcStep Source-Image Line Step.

oSrcROI Source ROI

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oDstROI Destination ROI

aCoeffs Affine transform coefficients

eInterpolation Interpolation mode: can be NPPI_INTER_NN, NPPI_INTER_LINEAR or NPPI_INTER_CUBIC

Returns:

Image Data Related Error Codes, ROI Related Error Codes, Affine Transform Error Codes

7.78.3.12 NppStatus nppiWarpAffine_32f_C3R (const Npp32f ∗ *pSrc*, NppiSize *oSrcSize*, int *nSrcStep*, NppiRect *oSrcROI*, Npp32f ∗ *pDst*, int *nDstStep*, NppiRect *oDstROI*, const double *aCoeffs*[2][3], int *eInterpolation*)

Three-channel 32-bit floating-point affine warp.

Parameters:

pSrc Source-Image Pointer.

oSrcSize Size of source image in pixels

nSrcStep Source-Image Line Step.

oSrcROI Source ROI

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oDstROI Destination ROI

aCoeffs Affine transform coefficients

eInterpolation Interpolation mode: can be NPPI_INTER_NN, NPPI_INTER_LINEAR or NPPI_INTER_CUBIC

Returns:

Image Data Related Error Codes, ROI Related Error Codes, Affine Transform Error Codes

7.78.3.13 NppStatus nppiWarpAffine_32f_C4R (const Npp32f ∗ *pSrc*, NppiSize *oSrcSize*, int *nSrcStep*, NppiRect *oSrcROI*, Npp32f ∗ *pDst*, int *nDstStep*, NppiRect *oDstROI*, const double *aCoeffs*[2][3], int *eInterpolation*)

Four-channel 32-bit floating-point affine warp.

Parameters:

pSrc Source-Image Pointer.

oSrcSize Size of source image in pixels

nSrcStep Source-Image Line Step.

oSrcROI Source ROI

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oDstROI Destination ROI

aCoeffs Affine transform coefficients

eInterpolation Interpolation mode: can be NPPI_INTER_NN, NPPI_INTER_LINEAR or NPPI_INTER_CUBIC

Returns:

Image Data Related Error Codes, ROI Related Error Codes, Affine Transform Error Codes

7.78.3.14 NppStatus nppiWarpAffine_32f_P3R (const Npp32f ∗ *pSrc*[3], NppiSize *oSrcSize*, int *nSrcStep*, NppiRect *oSrcROI*, Npp32f ∗ *pDst*[3], int *nDstStep*, NppiRect *oDstROI*, const double *aCoeffs*[2][3], int *eInterpolation*)

Three-channel planar 32-bit floating-point affine warp.

Parameters:

pSrc Source-Image Pointer.

oSrcSize Size of source image in pixels

nSrcStep Source-Image Line Step.

oSrcROI Source ROI

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oDstROI Destination ROI

aCoeffs Affine transform coefficients

eInterpolation Interpolation mode: can be NPPI_INTER_NN, NPPI_INTER_LINEAR or NPPI_INTER_CUBIC

Returns:

Image Data Related Error Codes, ROI Related Error Codes, Affine Transform Error Codes

7.78.3.15 NppStatus nppiWarpAffine_32f_P4R (const Npp32f ∗ *pSrc*[4], NppiSize *oSrcSize*, int *nSrcStep*, NppiRect *oSrcROI*, Npp32f ∗ *pDst*[4], int *nDstStep*, NppiRect *oDstROI*, const double *aCoeffs*[2][3], int *eInterpolation*)

Four-channel planar 32-bit floating-point affine warp.

Parameters:

pSrc Source-Image Pointer.

oSrcSize Size of source image in pixels

nSrcStep Source-Image Line Step.

oSrcROI Source ROI

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oDstROI Destination ROI

aCoeffs Affine transform coefficients

eInterpolation Interpolation mode: can be NPPI_INTER_NN, NPPI_INTER_LINEAR or NPPI_INTER_CUBIC

Returns:

Image Data Related Error Codes, ROI Related Error Codes, Affine Transform Error Codes

7.78.3.16 NppStatus nppiWarpAffine_32s_AC4R (const Npp32s $*$ *pSrc*, NppiSize *oSrcSize*, int *nSrcStep*, NppiRect *oSrcROI*, Npp32s $*$ *pDst*, int *nDstStep*, NppiRect *oDstROI*, const double *aCoeffs*[2][3], int *eInterpolation*)

Four-channel 32-bit signed affine warp, ignoring alpha channel.

Parameters:

pSrc Source-Image Pointer.

oSrcSize Size of source image in pixels

nSrcStep Source-Image Line Step.

oSrcROI Source ROI

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oDstROI Destination ROI

aCoeffs Affine transform coefficients

eInterpolation Interpolation mode: can be NPPI_INTER_NN, NPPI_INTER_LINEAR or NPPI_-INTER_CUBIC

Returns:

Image Data Related Error Codes, ROI Related Error Codes, Affine Transform Error Codes

7.78.3.17 NppStatus nppiWarpAffine_32s_C1R (const Npp32s $*$ *pSrc*, NppiSize *oSrcSize*, int *nSrcStep*, NppiRect *oSrcROI*, Npp32s $*$ *pDst*, int *nDstStep*, NppiRect *oDstROI*, const double *aCoeffs*[2][3], int *eInterpolation*)

Single-channel 32-bit signed affine warp.

Parameters:

pSrc Source-Image Pointer.

oSrcSize Size of source image in pixels

nSrcStep Source-Image Line Step.

oSrcROI Source ROI

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oDstROI Destination ROI

aCoeffs Affine transform coefficients

eInterpolation Interpolation mode: can be NPPI_INTER_NN, NPPI_INTER_LINEAR or NPPI_-INTER_CUBIC

Returns:

Image Data Related Error Codes, ROI Related Error Codes, Affine Transform Error Codes

7.78.3.18 NppStatus nppiWarpAffine_32s_C3R (const Npp32s ∗ *pSrc*, NppiSize *oSrcSize*, int *nSrcStep*, NppiRect *oSrcROI*, Npp32s ∗ *pDst*, int *nDstStep*, NppiRect *oDstROI*, const double *aCoeffs*[2][3], int *eInterpolation*)

Three-channel 32-bit signed affine warp.

Parameters:

pSrc Source-Image Pointer.

oSrcSize Size of source image in pixels

nSrcStep Source-Image Line Step.

oSrcROI Source ROI

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oDstROI Destination ROI

aCoeffs Affine transform coefficients

eInterpolation Interpolation mode: can be NPPI_INTER_NN, NPPI_INTER_LINEAR or NPPI_INTER_CUBIC

Returns:

Image Data Related Error Codes, ROI Related Error Codes, Affine Transform Error Codes

7.78.3.19 NppStatus nppiWarpAffine_32s_C4R (const Npp32s ∗ *pSrc*, NppiSize *oSrcSize*, int *nSrcStep*, NppiRect *oSrcROI*, Npp32s ∗ *pDst*, int *nDstStep*, NppiRect *oDstROI*, const double *aCoeffs*[2][3], int *eInterpolation*)

Four-channel 32-bit signed affine warp.

Parameters:

pSrc Source-Image Pointer.

oSrcSize Size of source image in pixels

nSrcStep Source-Image Line Step.

oSrcROI Source ROI

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oDstROI Destination ROI

aCoeffs Affine transform coefficients

eInterpolation Interpolation mode: can be NPPI_INTER_NN, NPPI_INTER_LINEAR or NPPI_INTER_CUBIC

Returns:

Image Data Related Error Codes, ROI Related Error Codes, Affine Transform Error Codes

7.78.3.20 NppStatus nppiWarpAffine_32s_P3R (const Npp32s * *pSrc*[3], NppiSize *oSrcSize*, int *nSrcStep*, NppiRect *oSrcROI*, Npp32s * *pDst*[3], int *nDstStep*, NppiRect *oDstROI*, const double *aCoeffs*[2][3], int *eInterpolation*)

Three-channel planar 32-bit signed affine warp.

Parameters:

pSrc Source-Image Pointer.

oSrcSize Size of source image in pixels

nSrcStep Source-Image Line Step.

oSrcROI Source ROI

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oDstROI Destination ROI

aCoeffs Affine transform coefficients

eInterpolation Interpolation mode: can be NPPI_INTER_NN, NPPI_INTER_LINEAR or NPPI_INTER_CUBIC

Returns:

Image Data Related Error Codes, ROI Related Error Codes, Affine Transform Error Codes

7.78.3.21 NppStatus nppiWarpAffine_32s_P4R (const Npp32s * *pSrc*[4], NppiSize *oSrcSize*, int *nSrcStep*, NppiRect *oSrcROI*, Npp32s * *pDst*[4], int *nDstStep*, NppiRect *oDstROI*, const double *aCoeffs*[2][3], int *eInterpolation*)

Four-channel planar 32-bit signed affine warp.

Parameters:

pSrc Source-Image Pointer.

oSrcSize Size of source image in pixels

nSrcStep Source-Image Line Step.

oSrcROI Source ROI

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oDstROI Destination ROI

aCoeffs Affine transform coefficients

eInterpolation Interpolation mode: can be NPPI_INTER_NN, NPPI_INTER_LINEAR or NPPI_INTER_CUBIC

Returns:

Image Data Related Error Codes, ROI Related Error Codes, Affine Transform Error Codes

7.78.3.22 NppStatus nppiWarpAffine_64f_AC4R (const Npp64f ∗ *pSrc*, NppiSize *oSrcSize*, int *nSrcStep*, NppiRect *oSrcROI*, Npp64f ∗ *pDst*, int *nDstStep*, NppiRect *oDstROI*, const double *aCoeffs*[2][3], int *eInterpolation*)

Four-channel 64-bit floating-point affine warp, ignoring alpha channel.

Parameters:

pSrc Source-Image Pointer.

oSrcSize Size of source image in pixels

nSrcStep Source-Image Line Step.

oSrcROI Source ROI

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oDstROI Destination ROI

aCoeffs Affine transform coefficients

eInterpolation Interpolation mode: can be NPPI_INTER_NN, NPPI_INTER_LINEAR or NPPI_INTER_CUBIC

Returns:

Image Data Related Error Codes, ROI Related Error Codes, Affine Transform Error Codes

7.78.3.23 NppStatus nppiWarpAffine_64f_C1R (const Npp64f ∗ *pSrc*, NppiSize *oSrcSize*, int *nSrcStep*, NppiRect *oSrcROI*, Npp64f ∗ *pDst*, int *nDstStep*, NppiRect *oDstROI*, const double *aCoeffs*[2][3], int *eInterpolation*)

Single-channel 64-bit floating-point affine warp.

Parameters:

pSrc Source-Image Pointer.

oSrcSize Size of source image in pixels

nSrcStep Source-Image Line Step.

oSrcROI Source ROI

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oDstROI Destination ROI

aCoeffs Affine transform coefficients

eInterpolation Interpolation mode: can be NPPI_INTER_NN, NPPI_INTER_LINEAR or NPPI_INTER_CUBIC

Returns:

Image Data Related Error Codes, ROI Related Error Codes, Affine Transform Error Codes

7.78.3.24 NppStatus nppiWarpAffine_64f_C3R (const Npp64f $*$ *pSrc*, NppiSize *oSrcSize*, int *nSrcStep*, NppiRect *oSrcROI*, Npp64f $*$ *pDst*, int *nDstStep*, NppiRect *oDstROI*, const double *aCoeffs*[2][3], int *eInterpolation*)

Three-channel 64-bit floating-point affine warp.

Parameters:

pSrc Source-Image Pointer.

oSrcSize Size of source image in pixels

nSrcStep Source-Image Line Step.

oSrcROI Source ROI

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oDstROI Destination ROI

aCoeffs Affine transform coefficients

eInterpolation Interpolation mode: can be NPPI_INTER_NN, NPPI_INTER_LINEAR or NPPI_INTER_CUBIC

Returns:

Image Data Related Error Codes, ROI Related Error Codes, Affine Transform Error Codes

7.78.3.25 NppStatus nppiWarpAffine_64f_C4R (const Npp64f $*$ *pSrc*, NppiSize *oSrcSize*, int *nSrcStep*, NppiRect *oSrcROI*, Npp64f $*$ *pDst*, int *nDstStep*, NppiRect *oDstROI*, const double *aCoeffs*[2][3], int *eInterpolation*)

Four-channel 64-bit floating-point affine warp.

Parameters:

pSrc Source-Image Pointer.

oSrcSize Size of source image in pixels

nSrcStep Source-Image Line Step.

oSrcROI Source ROI

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oDstROI Destination ROI

aCoeffs Affine transform coefficients

eInterpolation Interpolation mode: can be NPPI_INTER_NN, NPPI_INTER_LINEAR or NPPI_INTER_CUBIC

Returns:

Image Data Related Error Codes, ROI Related Error Codes, Affine Transform Error Codes

7.78.3.26 NppStatus nppiWarpAffine_64f_P3R (const Npp64f ∗ *aSrc*[3], NppiSize *oSrcSize*, int *nSrcStep*, NppiRect *oSrcROI*, Npp64f ∗ *aDst*[3], int *nDstStep*, NppiRect *oDstROI*, const double *aCoeffs*[2][3], int *eInterpolation*)

Three-channel planar 64-bit floating-point affine warp.

Parameters:

aSrc Source-Image Pointer.

oSrcSize Size of source image in pixels

nSrcStep Source-Image Line Step.

oSrcROI Source ROI

aDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oDstROI Destination ROI

aCoeffs Affine transform coefficients

eInterpolation Interpolation mode: can be NPPI_INTER_NN, NPPI_INTER_LINEAR or NPPI_-INTER_CUBIC

Returns:

Image Data Related Error Codes, ROI Related Error Codes, Affine Transform Error Codes

7.78.3.27 NppStatus nppiWarpAffine_64f_P4R (const Npp64f ∗ *aSrc*[4], NppiSize *oSrcSize*, int *nSrcStep*, NppiRect *oSrcROI*, Npp64f ∗ *aDst*[4], int *nDstStep*, NppiRect *oDstROI*, const double *aCoeffs*[2][3], int *eInterpolation*)

Four-channel planar 64-bit floating-point affine warp.

Parameters:

aSrc Source-Image Pointer.

oSrcSize Size of source image in pixels

nSrcStep Source-Image Line Step.

oSrcROI Source ROI

aDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oDstROI Destination ROI

aCoeffs Affine transform coefficients

eInterpolation Interpolation mode: can be NPPI_INTER_NN, NPPI_INTER_LINEAR or NPPI_-INTER_CUBIC

Returns:

Image Data Related Error Codes, ROI Related Error Codes, Affine Transform Error Codes

7.78.3.28 NppStatus nppiWarpAffine_8u_AC4R (const Npp8u $*$ *pSrc*, NppiSize *oSrcSize*, int *nSrcStep*, NppiRect *oSrcROI*, Npp8u $*$ *pDst*, int *nDstStep*, NppiRect *oDstROI*, const double *aCoeffs*[2][3], int *eInterpolation*)

Four-channel 8-bit unsigned affine warp, ignoring alpha channel.

Parameters:

pSrc Source-Image Pointer.

oSrcSize Size of source image in pixels

nSrcStep Source-Image Line Step.

oSrcROI Source ROI

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oDstROI Destination ROI

aCoeffs Affine transform coefficients

eInterpolation Interpolation mode: can be NPPI_INTER_NN, NPPI_INTER_LINEAR or NPPI_INTER_CUBIC

Returns:

Image Data Related Error Codes, ROI Related Error Codes, Affine Transform Error Codes

7.78.3.29 NppStatus nppiWarpAffine_8u_C1R (const Npp8u $*$ *pSrc*, NppiSize *oSrcSize*, int *nSrcStep*, NppiRect *oSrcROI*, Npp8u $*$ *pDst*, int *nDstStep*, NppiRect *oDstROI*, const double *aCoeffs*[2][3], int *eInterpolation*)

Single-channel 8-bit unsigned affine warp.

Parameters:

pSrc Source-Image Pointer.

oSrcSize Size of source image in pixels

nSrcStep Source-Image Line Step.

oSrcROI Source ROI

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oDstROI Destination ROI

aCoeffs Affine transform coefficients

eInterpolation Interpolation mode: can be NPPI_INTER_NN, NPPI_INTER_LINEAR or NPPI_INTER_CUBIC

Returns:

Image Data Related Error Codes, ROI Related Error Codes, Affine Transform Error Codes

7.78.3.30 NppStatus nppiWarpAffine_8u_C3R (const Npp8u ∗ *pSrc*, NppiSize *oSrcSize*, int *nSrcStep*, NppiRect *oSrcROI*, Npp8u ∗ *pDst*, int *nDstStep*, NppiRect *oDstROI*, const double *aCoeffs*[2][3], int *eInterpolation*)

Three-channel 8-bit unsigned affine warp.

Parameters:

pSrc Source-Image Pointer.

oSrcSize Size of source image in pixels

nSrcStep Source-Image Line Step.

oSrcROI Source ROI

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oDstROI Destination ROI

aCoeffs Affine transform coefficients

eInterpolation Interpolation mode: can be NPPI_INTER_NN, NPPI_INTER_LINEAR or NPPI_-INTER_CUBIC

Returns:

Image Data Related Error Codes, ROI Related Error Codes, Affine Transform Error Codes

7.78.3.31 NppStatus nppiWarpAffine_8u_C4R (const Npp8u ∗ *pSrc*, NppiSize *oSrcSize*, int *nSrcStep*, NppiRect *oSrcROI*, Npp8u ∗ *pDst*, int *nDstStep*, NppiRect *oDstROI*, const double *aCoeffs*[2][3], int *eInterpolation*)

Four-channel 8-bit unsigned affine warp.

Parameters:

pSrc Source-Image Pointer.

oSrcSize Size of source image in pixels

nSrcStep Source-Image Line Step.

oSrcROI Source ROI

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oDstROI Destination ROI

aCoeffs Affine transform coefficients

eInterpolation Interpolation mode: can be NPPI_INTER_NN, NPPI_INTER_LINEAR or NPPI_-INTER_CUBIC

Returns:

Image Data Related Error Codes, ROI Related Error Codes, Affine Transform Error Codes

7.78.3.32 NppStatus nppiWarpAffine_8u_P3R (const Npp8u * *pSrc*[3], NppiSize *oSrcSize*, int *nSrcStep*, NppiRect *oSrcROI*, Npp8u * *pDst*[3], int *nDstStep*, NppiRect *oDstROI*, const double *aCoeffs*[2][3], int *eInterpolation*)

Three-channel planar 8-bit unsigned affine warp.

Parameters:

pSrc Source-Image Pointer.

oSrcSize Size of source image in pixels

nSrcStep Source-Image Line Step.

oSrcROI Source ROI

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oDstROI Destination ROI

aCoeffs Affine transform coefficients

eInterpolation Interpolation mode: can be NPPI_INTER_NN, NPPI_INTER_LINEAR or NPPI_INTER_CUBIC

Returns:

Image Data Related Error Codes, ROI Related Error Codes, Affine Transform Error Codes

7.78.3.33 NppStatus nppiWarpAffine_8u_P4R (const Npp8u * *pSrc*[4], NppiSize *oSrcSize*, int *nSrcStep*, NppiRect *oSrcROI*, Npp8u * *pDst*[4], int *nDstStep*, NppiRect *oDstROI*, const double *aCoeffs*[2][3], int *eInterpolation*)

Four-channel planar 8-bit unsigned affine warp.

Parameters:

pSrc Source-Image Pointer.

oSrcSize Size of source image in pixels

nSrcStep Source-Image Line Step.

oSrcROI Source ROI

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oDstROI Destination ROI

aCoeffs Affine transform coefficients

eInterpolation Interpolation mode: can be NPPI_INTER_NN, NPPI_INTER_LINEAR or NPPI_INTER_CUBIC

Returns:

Image Data Related Error Codes, ROI Related Error Codes, Affine Transform Error Codes

7.78.3.34 NppStatus nppiWarpAffineBack_16u_AC4R (const Npp16u ∗ *pSrc*, NppiSize *oSrcSize*, int *nSrcStep*, NppiRect *oSrcROI*, Npp16u ∗ *pDst*, int *nDstStep*, NppiRect *oDstROI*, const double *aCoeffs*[2][3], int *eInterpolation*)

Four-channel 16-bit unsigned integer backwards affine warp, ignoring alpha channel.

Parameters:

pSrc Source-Image Pointer.

oSrcSize Size of source image in pixels

nSrcStep Source-Image Line Step.

oSrcROI Source ROI

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oDstROI Destination ROI

aCoeffs Affine transform coefficients

eInterpolation Interpolation mode: can be NPPI_INTER_NN, NPPI_INTER_LINEAR or NPPI_INTER_CUBIC

Returns:

Image Data Related Error Codes, ROI Related Error Codes, Affine Transform Error Codes

7.78.3.35 NppStatus nppiWarpAffineBack_16u_C1R (const Npp16u ∗ *pSrc*, NppiSize *oSrcSize*, int *nSrcStep*, NppiRect *oSrcROI*, Npp16u ∗ *pDst*, int *nDstStep*, NppiRect *oDstROI*, const double *aCoeffs*[2][3], int *eInterpolation*)

Single-channel 16-bit unsigned integer backwards affine warp.

Parameters:

pSrc Source-Image Pointer.

oSrcSize Size of source image in pixels

nSrcStep Source-Image Line Step.

oSrcROI Source ROI

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oDstROI Destination ROI

aCoeffs Affine transform coefficients

eInterpolation Interpolation mode: can be NPPI_INTER_NN, NPPI_INTER_LINEAR or NPPI_INTER_CUBIC

Returns:

Image Data Related Error Codes, ROI Related Error Codes, Affine Transform Error Codes

7.78.3.36 NppStatus nppiWarpAffineBack_16u_C3R (const Npp16u ∗ *pSrc*, NppiSize *oSrcSize*, int *nSrcStep*, NppiRect *oSrcROI*, Npp16u ∗ *pDst*, int *nDstStep*, NppiRect *oDstROI*, const double *aCoeffs*[2][3], int *eInterpolation*)

Three-channel 16-bit unsigned integer backwards affine warp.

Parameters:

pSrc Source-Image Pointer.

oSrcSize Size of source image in pixels

nSrcStep Source-Image Line Step.

oSrcROI Source ROI

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oDstROI Destination ROI

aCoeffs Affine transform coefficients

eInterpolation Interpolation mode: can be NPPI_INTER_NN, NPPI_INTER_LINEAR or NPPI_INTER_CUBIC

Returns:

Image Data Related Error Codes, ROI Related Error Codes, Affine Transform Error Codes

7.78.3.37 NppStatus nppiWarpAffineBack_16u_C4R (const Npp16u ∗ *pSrc*, NppiSize *oSrcSize*, int *nSrcStep*, NppiRect *oSrcROI*, Npp16u ∗ *pDst*, int *nDstStep*, NppiRect *oDstROI*, const double *aCoeffs*[2][3], int *eInterpolation*)

Four-channel 16-bit unsigned integer backwards affine warp.

Parameters:

pSrc Source-Image Pointer.

oSrcSize Size of source image in pixels

nSrcStep Source-Image Line Step.

oSrcROI Source ROI

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oDstROI Destination ROI

aCoeffs Affine transform coefficients

eInterpolation Interpolation mode: can be NPPI_INTER_NN, NPPI_INTER_LINEAR or NPPI_INTER_CUBIC

Returns:

Image Data Related Error Codes, ROI Related Error Codes, Affine Transform Error Codes

7.78.3.38 NppStatus nppiWarpAffineBack_16u_P3R (const Npp16u ∗ *pSrc*[3], NppiSize *oSrcSize*, int *nSrcStep*, NppiRect *oSrcROI*, Npp16u ∗ *pDst*[3], int *nDstStep*, NppiRect *oDstROI*, const double *aCoeffs*[2][3], int *eInterpolation*)

Three-channel planar 16-bit unsigned integer backwards affine warp.

Parameters:

pSrc Source-Image Pointer.

oSrcSize Size of source image in pixels

nSrcStep Source-Image Line Step.

oSrcROI Source ROI

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oDstROI Destination ROI

aCoeffs Affine transform coefficients

eInterpolation Interpolation mode: can be NPPI_INTER_NN, NPPI_INTER_LINEAR or NPPI_INTER_CUBIC

Returns:

Image Data Related Error Codes, ROI Related Error Codes, Affine Transform Error Codes

7.78.3.39 NppStatus nppiWarpAffineBack_16u_P4R (const Npp16u ∗ *pSrc*[4], NppiSize *oSrcSize*, int *nSrcStep*, NppiRect *oSrcROI*, Npp16u ∗ *pDst*[4], int *nDstStep*, NppiRect *oDstROI*, const double *aCoeffs*[2][3], int *eInterpolation*)

Four-channel planar 16-bit unsigned integer backwards affine warp.

Parameters:

pSrc Source-Image Pointer.

oSrcSize Size of source image in pixels

nSrcStep Source-Image Line Step.

oSrcROI Source ROI

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oDstROI Destination ROI

aCoeffs Affine transform coefficients

eInterpolation Interpolation mode: can be NPPI_INTER_NN, NPPI_INTER_LINEAR or NPPI_INTER_CUBIC

Returns:

Image Data Related Error Codes, ROI Related Error Codes, Affine Transform Error Codes

7.78.3.40 NppStatus nppiWarpAffineBack_32f_AC4R (const Npp32f ∗ *pSrc*, NppiSize *oSrcSize*, int *nSrcStep*, NppiRect *oSrcROI*, Npp32f ∗ *pDst*, int *nDstStep*, NppiRect *oDstROI*, const double *aCoeffs*[2][3], int *eInterpolation*)

Four-channel 32-bit floating-point backwards affine warp, ignoring alpha channel.

Parameters:

pSrc Source-Image Pointer.

oSrcSize Size of source image in pixels

nSrcStep Source-Image Line Step.

oSrcROI Source ROI

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oDstROI Destination ROI

aCoeffs Affine transform coefficients

eInterpolation Interpolation mode: can be NPPI_INTER_NN, NPPI_INTER_LINEAR or NPPI_INTER_CUBIC

Returns:

Image Data Related Error Codes, ROI Related Error Codes, Affine Transform Error Codes

7.78.3.41 NppStatus nppiWarpAffineBack_32f_C1R (const Npp32f ∗ *pSrc*, NppiSize *oSrcSize*, int *nSrcStep*, NppiRect *oSrcROI*, Npp32f ∗ *pDst*, int *nDstStep*, NppiRect *oDstROI*, const double *aCoeffs*[2][3], int *eInterpolation*)

Single-channel 32-bit floating-point backwards affine warp.

Parameters:

pSrc Source-Image Pointer.

oSrcSize Size of source image in pixels

nSrcStep Source-Image Line Step.

oSrcROI Source ROI

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oDstROI Destination ROI

aCoeffs Affine transform coefficients

eInterpolation Interpolation mode: can be NPPI_INTER_NN, NPPI_INTER_LINEAR or NPPI_INTER_CUBIC

Returns:

Image Data Related Error Codes, ROI Related Error Codes, Affine Transform Error Codes

7.78.3.42 NppStatus nppiWarpAffineBack_32f_C3R (const Npp32f ∗ *pSrc*, NppiSize *oSrcSize*, int *nSrcStep*, NppiRect *oSrcROI*, Npp32f ∗ *pDst*, int *nDstStep*, NppiRect *oDstROI*, const double *aCoeffs*[2][3], int *eInterpolation*)

Three-channel 32-bit floating-point backwards affine warp.

Parameters:

pSrc Source-Image Pointer.

oSrcSize Size of source image in pixels

nSrcStep Source-Image Line Step.

oSrcROI Source ROI

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oDstROI Destination ROI

aCoeffs Affine transform coefficients

eInterpolation Interpolation mode: can be NPPI_INTER_NN, NPPI_INTER_LINEAR or NPPI_INTER_CUBIC

Returns:

Image Data Related Error Codes, ROI Related Error Codes, Affine Transform Error Codes

7.78.3.43 NppStatus nppiWarpAffineBack_32f_C4R (const Npp32f ∗ *pSrc*, NppiSize *oSrcSize*, int *nSrcStep*, NppiRect *oSrcROI*, Npp32f ∗ *pDst*, int *nDstStep*, NppiRect *oDstROI*, const double *aCoeffs*[2][3], int *eInterpolation*)

Four-channel 32-bit floating-point backwards affine warp.

Parameters:

pSrc Source-Image Pointer.

oSrcSize Size of source image in pixels

nSrcStep Source-Image Line Step.

oSrcROI Source ROI

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oDstROI Destination ROI

aCoeffs Affine transform coefficients

eInterpolation Interpolation mode: can be NPPI_INTER_NN, NPPI_INTER_LINEAR or NPPI_INTER_CUBIC

Returns:

Image Data Related Error Codes, ROI Related Error Codes, Affine Transform Error Codes

7.78.3.44 NppStatus nppiWarpAffineBack_32f_P3R (const Npp32f $*$ *pSrc*[3], NppiSize *oSrcSize*, int *nSrcStep*, NppiRect *oSrcROI*, Npp32f $*$ *pDst*[3], int *nDstStep*, NppiRect *oDstROI*, const double *aCoeffs*[2][3], int *eInterpolation*)

Three-channel planar 32-bit floating-point backwards affine warp.

Parameters:

pSrc Source-Image Pointer.

oSrcSize Size of source image in pixels

nSrcStep Source-Image Line Step.

oSrcROI Source ROI

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oDstROI Destination ROI

aCoeffs Affine transform coefficients

eInterpolation Interpolation mode: can be NPPI_INTER_NN, NPPI_INTER_LINEAR or NPPI_INTER_CUBIC

Returns:

Image Data Related Error Codes, ROI Related Error Codes, Affine Transform Error Codes

7.78.3.45 NppStatus nppiWarpAffineBack_32f_P4R (const Npp32f $*$ *pSrc*[4], NppiSize *oSrcSize*, int *nSrcStep*, NppiRect *oSrcROI*, Npp32f $*$ *pDst*[4], int *nDstStep*, NppiRect *oDstROI*, const double *aCoeffs*[2][3], int *eInterpolation*)

Four-channel planar 32-bit floating-point backwards affine warp.

Parameters:

pSrc Source-Image Pointer.

oSrcSize Size of source image in pixels

nSrcStep Source-Image Line Step.

oSrcROI Source ROI

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oDstROI Destination ROI

aCoeffs Affine transform coefficients

eInterpolation Interpolation mode: can be NPPI_INTER_NN, NPPI_INTER_LINEAR or NPPI_INTER_CUBIC

Returns:

Image Data Related Error Codes, ROI Related Error Codes, Affine Transform Error Codes

7.78.3.46 NppStatus nppiWarpAffineBack_32s_AC4R (const Npp32s ∗ *pSrc*, NppiSize *oSrcSize*, int *nSrcStep*, NppiRect *oSrcROI*, Npp32s ∗ *pDst*, int *nDstStep*, NppiRect *oDstROI*, const double *aCoeffs*[2][3], int *eInterpolation*)

Four-channel 32-bit signed integer backwards affine warp, ignoring alpha channel.

Parameters:

pSrc Source-Image Pointer.

oSrcSize Size of source image in pixels

nSrcStep Source-Image Line Step.

oSrcROI Source ROI

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oDstROI Destination ROI

aCoeffs Affine transform coefficients

eInterpolation Interpolation mode: can be NPPI_INTER_NN, NPPI_INTER_LINEAR or NPPI_-INTER_CUBIC

Returns:

Image Data Related Error Codes, ROI Related Error Codes, Affine Transform Error Codes

7.78.3.47 NppStatus nppiWarpAffineBack_32s_C1R (const Npp32s ∗ *pSrc*, NppiSize *oSrcSize*, int *nSrcStep*, NppiRect *oSrcROI*, Npp32s ∗ *pDst*, int *nDstStep*, NppiRect *oDstROI*, const double *aCoeffs*[2][3], int *eInterpolation*)

Single-channel 32-bit signed integer backwards affine warp.

Parameters:

pSrc Source-Image Pointer.

oSrcSize Size of source image in pixels

nSrcStep Source-Image Line Step.

oSrcROI Source ROI

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oDstROI Destination ROI

aCoeffs Affine transform coefficients

eInterpolation Interpolation mode: can be NPPI_INTER_NN, NPPI_INTER_LINEAR or NPPI_-INTER_CUBIC

Returns:

Image Data Related Error Codes, ROI Related Error Codes, Affine Transform Error Codes

7.78.3.48 NppStatus nppiWarpAffineBack_32s_C3R (const Npp32s $*$ *pSrc*, NppiSize *oSrcSize*, int *nSrcStep*, NppiRect *oSrcROI*, Npp32s $*$ *pDst*, int *nDstStep*, NppiRect *oDstROI*, const double *aCoeffs*[2][3], int *eInterpolation*)

Three-channel 32-bit signed integer backwards affine warp.

Parameters:

pSrc Source-Image Pointer.

oSrcSize Size of source image in pixels

nSrcStep Source-Image Line Step.

oSrcROI Source ROI

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oDstROI Destination ROI

aCoeffs Affine transform coefficients

eInterpolation Interpolation mode: can be NPPI_INTER_NN, NPPI_INTER_LINEAR or NPPI_-INTER_CUBIC

Returns:

Image Data Related Error Codes, ROI Related Error Codes, Affine Transform Error Codes

7.78.3.49 NppStatus nppiWarpAffineBack_32s_C4R (const Npp32s $*$ *pSrc*, NppiSize *oSrcSize*, int *nSrcStep*, NppiRect *oSrcROI*, Npp32s $*$ *pDst*, int *nDstStep*, NppiRect *oDstROI*, const double *aCoeffs*[2][3], int *eInterpolation*)

Four-channel 32-bit signed integer backwards affine warp.

Parameters:

pSrc Source-Image Pointer.

oSrcSize Size of source image in pixels

nSrcStep Source-Image Line Step.

oSrcROI Source ROI

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oDstROI Destination ROI

aCoeffs Affine transform coefficients

eInterpolation Interpolation mode: can be NPPI_INTER_NN, NPPI_INTER_LINEAR or NPPI_-INTER_CUBIC

Returns:

Image Data Related Error Codes, ROI Related Error Codes, Affine Transform Error Codes

7.78.3.50 NppStatus nppiWarpAffineBack_32s_P3R (const Npp32s $*$ *pSrc*[3], NppiSize *oSrcSize*, int *nSrcStep*, NppiRect *oSrcROI*, Npp32s $*$ *pDst*[3], int *nDstStep*, NppiRect *oDstROI*, const double *aCoeffs*[2][3], int *eInterpolation*)

Three-channel planar 32-bit signed integer backwards affine warp.

Parameters:

pSrc Source-Image Pointer.

oSrcSize Size of source image in pixels

nSrcStep Source-Image Line Step.

oSrcROI Source ROI

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oDstROI Destination ROI

aCoeffs Affine transform coefficients

eInterpolation Interpolation mode: can be NPPI_INTER_NN, NPPI_INTER_LINEAR or NPPI_INTER_CUBIC

Returns:

Image Data Related Error Codes, ROI Related Error Codes, Affine Transform Error Codes

7.78.3.51 NppStatus nppiWarpAffineBack_32s_P4R (const Npp32s $*$ *pSrc*[4], NppiSize *oSrcSize*, int *nSrcStep*, NppiRect *oSrcROI*, Npp32s $*$ *pDst*[4], int *nDstStep*, NppiRect *oDstROI*, const double *aCoeffs*[2][3], int *eInterpolation*)

Four-channel planar 32-bit signed integer backwards affine warp.

Parameters:

pSrc Source-Image Pointer.

oSrcSize Size of source image in pixels

nSrcStep Source-Image Line Step.

oSrcROI Source ROI

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oDstROI Destination ROI

aCoeffs Affine transform coefficients

eInterpolation Interpolation mode: can be NPPI_INTER_NN, NPPI_INTER_LINEAR or NPPI_INTER_CUBIC

Returns:

Image Data Related Error Codes, ROI Related Error Codes, Affine Transform Error Codes

7.78.3.52 NppStatus nppiWarpAffineBack_8u_AC4R (const Npp8u * *pSrc*, NppiSize *oSrcSize*, int *nSrcStep*, NppiRect *oSrcROI*, Npp8u * *pDst*, int *nDstStep*, NppiRect *oDstROI*, const double *aCoeffs*[2][3], int *eInterpolation*)

Four-channel 8-bit unsigned integer backwards affine warp, ignoring alpha channel.

Parameters:

pSrc Source-Image Pointer.

oSrcSize Size of source image in pixels

nSrcStep Source-Image Line Step.

oSrcROI Source ROI

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oDstROI Destination ROI

aCoeffs Affine transform coefficients

eInterpolation Interpolation mode: can be NPPI_INTER_NN, NPPI_INTER_LINEAR or NPPI_-INTER_CUBIC

Returns:

Image Data Related Error Codes, ROI Related Error Codes, Affine Transform Error Codes

7.78.3.53 NppStatus nppiWarpAffineBack_8u_C1R (const Npp8u * *pSrc*, NppiSize *oSrcSize*, int *nSrcStep*, NppiRect *oSrcROI*, Npp8u * *pDst*, int *nDstStep*, NppiRect *oDstROI*, const double *aCoeffs*[2][3], int *eInterpolation*)

Single-channel 8-bit unsigned integer backwards affine warp.

Parameters:

pSrc Source-Image Pointer.

oSrcSize Size of source image in pixels

nSrcStep Source-Image Line Step.

oSrcROI Source ROI

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oDstROI Destination ROI

aCoeffs Affine transform coefficients

eInterpolation Interpolation mode: can be NPPI_INTER_NN, NPPI_INTER_LINEAR or NPPI_-INTER_CUBIC

Returns:

Image Data Related Error Codes, ROI Related Error Codes, Affine Transform Error Codes

7.78.3.54 NppStatus nppiWarpAffineBack_8u_C3R (const Npp8u ∗ *pSrc*, NppiSize *oSrcSize*, int *nSrcStep*, NppiRect *oSrcROI*, Npp8u ∗ *pDst*, int *nDstStep*, NppiRect *oDstROI*, const double *aCoeffs*[2][3], int *eInterpolation*)

Three-channel 8-bit unsigned integer backwards affine warp.

Parameters:

pSrc Source-Image Pointer.

oSrcSize Size of source image in pixels

nSrcStep Source-Image Line Step.

oSrcROI Source ROI

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oDstROI Destination ROI

aCoeffs Affine transform coefficients

eInterpolation Interpolation mode: can be NPPI_INTER_NN, NPPI_INTER_LINEAR or NPPI_INTER_CUBIC

Returns:

Image Data Related Error Codes, ROI Related Error Codes, Affine Transform Error Codes

7.78.3.55 NppStatus nppiWarpAffineBack_8u_C4R (const Npp8u ∗ *pSrc*, NppiSize *oSrcSize*, int *nSrcStep*, NppiRect *oSrcROI*, Npp8u ∗ *pDst*, int *nDstStep*, NppiRect *oDstROI*, const double *aCoeffs*[2][3], int *eInterpolation*)

Four-channel 8-bit unsigned integer backwards affine warp.

Parameters:

pSrc Source-Image Pointer.

oSrcSize Size of source image in pixels

nSrcStep Source-Image Line Step.

oSrcROI Source ROI

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oDstROI Destination ROI

aCoeffs Affine transform coefficients

eInterpolation Interpolation mode: can be NPPI_INTER_NN, NPPI_INTER_LINEAR or NPPI_INTER_CUBIC

Returns:

Image Data Related Error Codes, ROI Related Error Codes, Affine Transform Error Codes

7.78.3.56 NppStatus nppiWarpAffineBack_8u_P3R (const Npp8u $*$ *pSrc*[3], NppiSize *oSrcSize*, int *nSrcStep*, NppiRect *oSrcROI*, Npp8u $*$ *pDst*[3], int *nDstStep*, NppiRect *oDstROI*, const double *aCoeffs*[2][3], int *eInterpolation*)

Three-channel planar 8-bit unsigned integer backwards affine warp.

Parameters:

pSrc Source-Image Pointer.

oSrcSize Size of source image in pixels

nSrcStep Source-Image Line Step.

oSrcROI Source ROI

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oDstROI Destination ROI

aCoeffs Affine transform coefficients

eInterpolation Interpolation mode: can be NPPI_INTER_NN, NPPI_INTER_LINEAR or NPPI_INTER_CUBIC

Returns:

Image Data Related Error Codes, ROI Related Error Codes, Affine Transform Error Codes

7.78.3.57 NppStatus nppiWarpAffineBack_8u_P4R (const Npp8u $*$ *pSrc*[4], NppiSize *oSrcSize*, int *nSrcStep*, NppiRect *oSrcROI*, Npp8u $*$ *pDst*[4], int *nDstStep*, NppiRect *oDstROI*, const double *aCoeffs*[2][3], int *eInterpolation*)

Four-channel planar 8-bit unsigned integer backwards affine warp.

Parameters:

pSrc Source-Image Pointer.

oSrcSize Size of source image in pixels

nSrcStep Source-Image Line Step.

oSrcROI Source ROI

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oDstROI Destination ROI

aCoeffs Affine transform coefficients

eInterpolation Interpolation mode: can be NPPI_INTER_NN, NPPI_INTER_LINEAR or NPPI_INTER_CUBIC

Returns:

Image Data Related Error Codes, ROI Related Error Codes, Affine Transform Error Codes

7.78.3.58 NppStatus nppiWarpAffineQuad_16u_AC4R (const Npp16u ∗ *pSrc*, NppiSize *oSrcSize*, int *nSrcStep*, NppiRect *oSrcROI*, const double *aSrcQuad*[4][2], Npp16u ∗ *pDst*, int *nDstStep*, NppiRect *oDstROI*, const double *aDstQuad*[4][2], int *eInterpolation*)

Four-channel 16-bit unsigned integer quad-based affine warp, ignoring alpha channel.

Parameters:

pSrc Source-Image Pointer.

oSrcSize Size of source image in pixels

nSrcStep Source-Image Line Step.

oSrcROI Source ROI

aSrcQuad Source quad.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oDstROI Destination ROI

aDstQuad Destination quad.

eInterpolation Interpolation mode: can be NPPI_INTER_NN, NPPI_INTER_LINEAR or NPPI_-INTER_CUBIC

Returns:

Image Data Related Error Codes, ROI Related Error Codes, Affine Transform Error Codes

7.78.3.59 NppStatus nppiWarpAffineQuad_16u_C1R (const Npp16u ∗ *pSrc*, NppiSize *oSrcSize*, int *nSrcStep*, NppiRect *oSrcROI*, const double *aSrcQuad*[4][2], Npp16u ∗ *pDst*, int *nDstStep*, NppiRect *oDstROI*, const double *aDstQuad*[4][2], int *eInterpolation*)

Single-channel 16-bit unsigned integer quad-based affine warp.

Parameters:

pSrc Source-Image Pointer.

oSrcSize Size of source image in pixels

nSrcStep Source-Image Line Step.

oSrcROI Source ROI

aSrcQuad Source quad.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oDstROI Destination ROI

aDstQuad Destination quad.

eInterpolation Interpolation mode: can be NPPI_INTER_NN, NPPI_INTER_LINEAR or NPPI_-INTER_CUBIC

Returns:

Image Data Related Error Codes, ROI Related Error Codes, Affine Transform Error Codes

7.78.3.60 NppStatus nppiWarpAffineQuad_16u_C3R (const Npp16u $*$ *pSrc*, NppiSize *oSrcSize*, int *nSrcStep*, NppiRect *oSrcROI*, const double *aSrcQuad*[4][2], Npp16u $*$ *pDst*, int *nDstStep*, NppiRect *oDstROI*, const double *aDstQuad*[4][2], int *eInterpolation*)

Three-channel 16-bit unsigned integer quad-based affine warp.

Parameters:

pSrc Source-Image Pointer.

oSrcSize Size of source image in pixels

nSrcStep Source-Image Line Step.

oSrcROI Source ROI

aSrcQuad Source quad.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oDstROI Destination ROI

aDstQuad Destination quad.

eInterpolation Interpolation mode: can be NPPI_INTER_NN, NPPI_INTER_LINEAR or NPPI_INTER_CUBIC

Returns:

Image Data Related Error Codes, ROI Related Error Codes, Affine Transform Error Codes

7.78.3.61 NppStatus nppiWarpAffineQuad_16u_C4R (const Npp16u $*$ *pSrc*, NppiSize *oSrcSize*, int *nSrcStep*, NppiRect *oSrcROI*, const double *aSrcQuad*[4][2], Npp16u $*$ *pDst*, int *nDstStep*, NppiRect *oDstROI*, const double *aDstQuad*[4][2], int *eInterpolation*)

Four-channel 16-bit unsigned integer quad-based affine warp.

Parameters:

pSrc Source-Image Pointer.

oSrcSize Size of source image in pixels

nSrcStep Source-Image Line Step.

oSrcROI Source ROI

aSrcQuad Source quad.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oDstROI Destination ROI

aDstQuad Destination quad.

eInterpolation Interpolation mode: can be NPPI_INTER_NN, NPPI_INTER_LINEAR or NPPI_INTER_CUBIC

Returns:

Image Data Related Error Codes, ROI Related Error Codes, Affine Transform Error Codes

7.78.3.62 NppStatus nppiWarpAffineQuad_16u_P3R (const Npp16u ∗ *pSrc*[3], NppiSize *oSrcSize*, int *nSrcStep*, NppiRect *oSrcROI*, const double *aSrcQuad*[4][2], Npp16u ∗ *pDst*[3], int *nDstStep*, NppiRect *oDstROI*, const double *aDstQuad*[4][2], int *eInterpolation*)

Three-channel planar 16-bit unsigned integer quad-based affine warp.

Parameters:

pSrc Source-Image Pointer.

oSrcSize Size of source image in pixels

nSrcStep Source-Image Line Step.

oSrcROI Source ROI

aSrcQuad Source quad.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oDstROI Destination ROI

aDstQuad Destination quad.

eInterpolation Interpolation mode: can be NPPI_INTER_NN, NPPI_INTER_LINEAR or NPPI_INTER_CUBIC

Returns:

Image Data Related Error Codes, ROI Related Error Codes, Affine Transform Error Codes

7.78.3.63 NppStatus nppiWarpAffineQuad_16u_P4R (const Npp16u ∗ *pSrc*[4], NppiSize *oSrcSize*, int *nSrcStep*, NppiRect *oSrcROI*, const double *aSrcQuad*[4][2], Npp16u ∗ *pDst*[4], int *nDstStep*, NppiRect *oDstROI*, const double *aDstQuad*[4][2], int *eInterpolation*)

Four-channel planar 16-bit unsigned integer quad-based affine warp.

Parameters:

pSrc Source-Image Pointer.

oSrcSize Size of source image in pixels

nSrcStep Source-Image Line Step.

oSrcROI Source ROI

aSrcQuad Source quad.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oDstROI Destination ROI

aDstQuad Destination quad.

eInterpolation Interpolation mode: can be NPPI_INTER_NN, NPPI_INTER_LINEAR or NPPI_INTER_CUBIC

Returns:

Image Data Related Error Codes, ROI Related Error Codes, Affine Transform Error Codes

7.78.3.64 NppStatus nppiWarpAffineQuad_32f_AC4R (const Npp32f ∗ *pSrc*, NppiSize *oSrcSize*, int *nSrcStep*, NppiRect *oSrcROI*, const double *aSrcQuad*[4][2], Npp32f ∗ *pDst*, int *nDstStep*, NppiRect *oDstROI*, const double *aDstQuad*[4][2], int *eInterpolation*)

Four-channel 32-bit floating-point quad-based affine warp, ignoring alpha channel.

Parameters:

pSrc Source-Image Pointer.

oSrcSize Size of source image in pixels

nSrcStep Source-Image Line Step.

oSrcROI Source ROI

aSrcQuad Source quad.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oDstROI Destination ROI

aDstQuad Destination quad.

eInterpolation Interpolation mode: can be NPPI_INTER_NN, NPPI_INTER_LINEAR or NPPI_-INTER_CUBIC

Returns:

Image Data Related Error Codes, ROI Related Error Codes, Affine Transform Error Codes

7.78.3.65 NppStatus nppiWarpAffineQuad_32f_C1R (const Npp32f ∗ *pSrc*, NppiSize *oSrcSize*, int *nSrcStep*, NppiRect *oSrcROI*, const double *aSrcQuad*[4][2], Npp32f ∗ *pDst*, int *nDstStep*, NppiRect *oDstROI*, const double *aDstQuad*[4][2], int *eInterpolation*)

Single-channel 32-bit floating-point quad-based affine warp.

Parameters:

pSrc Source-Image Pointer.

oSrcSize Size of source image in pixels

nSrcStep Source-Image Line Step.

oSrcROI Source ROI

aSrcQuad Source quad.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oDstROI Destination ROI

aDstQuad Destination quad.

eInterpolation Interpolation mode: can be NPPI_INTER_NN, NPPI_INTER_LINEAR or NPPI_-INTER_CUBIC

Returns:

Image Data Related Error Codes, ROI Related Error Codes, Affine Transform Error Codes

7.78.3.66 NppStatus nppiWarpAffineQuad_32f_C3R (const Npp32f ∗ *pSrc*, NppiSize *oSrcSize*, int *nSrcStep*, NppiRect *oSrcROI*, const double *aSrcQuad*[4][2], Npp32f ∗ *pDst*, int *nDstStep*, NppiRect *oDstROI*, const double *aDstQuad*[4][2], int *eInterpolation*)

Three-channel 32-bit floating-point quad-based affine warp.

Parameters:

pSrc Source-Image Pointer.

oSrcSize Size of source image in pixels

nSrcStep Source-Image Line Step.

oSrcROI Source ROI

aSrcQuad Source quad.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oDstROI Destination ROI

aDstQuad Destination quad.

eInterpolation Interpolation mode: can be NPPI_INTER_NN, NPPI_INTER_LINEAR or NPPI_INTER_CUBIC

Returns:

Image Data Related Error Codes, ROI Related Error Codes, Affine Transform Error Codes

7.78.3.67 NppStatus nppiWarpAffineQuad_32f_C4R (const Npp32f ∗ *pSrc*, NppiSize *oSrcSize*, int *nSrcStep*, NppiRect *oSrcROI*, const double *aSrcQuad*[4][2], Npp32f ∗ *pDst*, int *nDstStep*, NppiRect *oDstROI*, const double *aDstQuad*[4][2], int *eInterpolation*)

Four-channel 32-bit floating-point quad-based affine warp.

Parameters:

pSrc Source-Image Pointer.

oSrcSize Size of source image in pixels

nSrcStep Source-Image Line Step.

oSrcROI Source ROI

aSrcQuad Source quad.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oDstROI Destination ROI

aDstQuad Destination quad.

eInterpolation Interpolation mode: can be NPPI_INTER_NN, NPPI_INTER_LINEAR or NPPI_INTER_CUBIC

Returns:

Image Data Related Error Codes, ROI Related Error Codes, Affine Transform Error Codes

7.78.3.68 NppStatus nppiWarpAffineQuad_32f_P3R (const Npp32f ∗ *pSrc*[3], NppiSize *oSrcSize*, int *nSrcStep*, NppiRect *oSrcROI*, const double *aSrcQuad*[4][2], Npp32f ∗ *pDst*[3], int *nDstStep*, NppiRect *oDstROI*, const double *aDstQuad*[4][2], int *eInterpolation*)

Three-channel planar 32-bit floating-point quad-based affine warp.

Parameters:

pSrc Source-Image Pointer.

oSrcSize Size of source image in pixels

nSrcStep Source-Image Line Step.

oSrcROI Source ROI

aSrcQuad Source quad.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oDstROI Destination ROI

aDstQuad Destination quad.

eInterpolation Interpolation mode: can be NPPI_INTER_NN, NPPI_INTER_LINEAR or NPPI_INTER_CUBIC

Returns:

Image Data Related Error Codes, ROI Related Error Codes, Affine Transform Error Codes

7.78.3.69 NppStatus nppiWarpAffineQuad_32f_P4R (const Npp32f ∗ *pSrc*[4], NppiSize *oSrcSize*, int *nSrcStep*, NppiRect *oSrcROI*, const double *aSrcQuad*[4][2], Npp32f ∗ *pDst*[4], int *nDstStep*, NppiRect *oDstROI*, const double *aDstQuad*[4][2], int *eInterpolation*)

Four-channel planar 32-bit floating-point quad-based affine warp.

Parameters:

pSrc Source-Image Pointer.

oSrcSize Size of source image in pixels

nSrcStep Source-Image Line Step.

oSrcROI Source ROI

aSrcQuad Source quad.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oDstROI Destination ROI

aDstQuad Destination quad.

eInterpolation Interpolation mode: can be NPPI_INTER_NN, NPPI_INTER_LINEAR or NPPI_INTER_CUBIC

Returns:

Image Data Related Error Codes, ROI Related Error Codes, Affine Transform Error Codes

7.78.3.70 NppStatus nppiWarpAffineQuad_32s_AC4R (const Npp32s ∗ *pSrc*, NppiSize *oSrcSize*, int *nSrcStep*, NppiRect *oSrcROI*, const double *aSrcQuad*[4][2], Npp32s ∗ *pDst*, int *nDstStep*, NppiRect *oDstROI*, const double *aDstQuad*[4][2], int *eInterpolation*)

Four-channel 32-bit signed integer quad-based affine warp, ignoring alpha channel.

Parameters:

pSrc Source-Image Pointer.

oSrcSize Size of source image in pixels

nSrcStep Source-Image Line Step.

oSrcROI Source ROI

aSrcQuad Source quad.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oDstROI Destination ROI

aDstQuad Destination quad.

eInterpolation Interpolation mode: can be NPPI_INTER_NN, NPPI_INTER_LINEAR or NPPI_INTER_CUBIC

Returns:

Image Data Related Error Codes, ROI Related Error Codes, Affine Transform Error Codes

7.78.3.71 NppStatus nppiWarpAffineQuad_32s_C1R (const Npp32s ∗ *pSrc*, NppiSize *oSrcSize*, int *nSrcStep*, NppiRect *oSrcROI*, const double *aSrcQuad*[4][2], Npp32s ∗ *pDst*, int *nDstStep*, NppiRect *oDstROI*, const double *aDstQuad*[4][2], int *eInterpolation*)

Single-channel 32-bit signed integer quad-based affine warp.

Parameters:

pSrc Source-Image Pointer.

oSrcSize Size of source image in pixels

nSrcStep Source-Image Line Step.

oSrcROI Source ROI

aSrcQuad Source quad.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oDstROI Destination ROI

aDstQuad Destination quad.

eInterpolation Interpolation mode: can be NPPI_INTER_NN, NPPI_INTER_LINEAR or NPPI_INTER_CUBIC

Returns:

Image Data Related Error Codes, ROI Related Error Codes, Affine Transform Error Codes

7.78.3.72 NppStatus nppiWarpAffineQuad_32s_C3R (const Npp32s ∗ *pSrc*, NppiSize *oSrcSize*, int *nSrcStep*, NppiRect *oSrcROI*, const double *aSrcQuad*[4][2], Npp32s ∗ *pDst*, int *nDstStep*, NppiRect *oDstROI*, const double *aDstQuad*[4][2], int *eInterpolation*)

Three-channel 32-bit signed integer quad-based affine warp.

Parameters:

pSrc Source-Image Pointer.

oSrcSize Size of source image in pixels

nSrcStep Source-Image Line Step.

oSrcROI Source ROI

aSrcQuad Source quad.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oDstROI Destination ROI

aDstQuad Destination quad.

eInterpolation Interpolation mode: can be NPPI_INTER_NN, NPPI_INTER_LINEAR or NPPI_INTER_CUBIC

Returns:

Image Data Related Error Codes, ROI Related Error Codes, Affine Transform Error Codes

7.78.3.73 NppStatus nppiWarpAffineQuad_32s_C4R (const Npp32s ∗ *pSrc*, NppiSize *oSrcSize*, int *nSrcStep*, NppiRect *oSrcROI*, const double *aSrcQuad*[4][2], Npp32s ∗ *pDst*, int *nDstStep*, NppiRect *oDstROI*, const double *aDstQuad*[4][2], int *eInterpolation*)

Four-channel 32-bit signed integer quad-based affine warp.

Parameters:

pSrc Source-Image Pointer.

oSrcSize Size of source image in pixels

nSrcStep Source-Image Line Step.

oSrcROI Source ROI

aSrcQuad Source quad.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oDstROI Destination ROI

aDstQuad Destination quad.

eInterpolation Interpolation mode: can be NPPI_INTER_NN, NPPI_INTER_LINEAR or NPPI_INTER_CUBIC

Returns:

Image Data Related Error Codes, ROI Related Error Codes, Affine Transform Error Codes

7.78.3.74 NppStatus nppiWarpAffineQuad_32s_P3R (const Npp32s ∗ *pSrc*[3], NppiSize *oSrcSize*, int *nSrcStep*, NppiRect *oSrcROI*, const double *aSrcQuad*[4][2], Npp32s ∗ *pDst*[3], int *nDstStep*, NppiRect *oDstROI*, const double *aDstQuad*[4][2], int *eInterpolation*)

Three-channel planar 32-bit signed integer quad-based affine warp.

Parameters:

pSrc Source-Image Pointer.

oSrcSize Size of source image in pixels

nSrcStep Source-Image Line Step.

oSrcROI Source ROI

aSrcQuad Source quad.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oDstROI Destination ROI

aDstQuad Destination quad.

eInterpolation Interpolation mode: can be NPPI_INTER_NN, NPPI_INTER_LINEAR or NPPI_INTER_CUBIC

Returns:

Image Data Related Error Codes, ROI Related Error Codes, Affine Transform Error Codes

7.78.3.75 NppStatus nppiWarpAffineQuad_32s_P4R (const Npp32s ∗ *pSrc*[4], NppiSize *oSrcSize*, int *nSrcStep*, NppiRect *oSrcROI*, const double *aSrcQuad*[4][2], Npp32s ∗ *pDst*[4], int *nDstStep*, NppiRect *oDstROI*, const double *aDstQuad*[4][2], int *eInterpolation*)

Four-channel planar 32-bit signed integer quad-based affine warp.

Parameters:

pSrc Source-Image Pointer.

oSrcSize Size of source image in pixels

nSrcStep Source-Image Line Step.

oSrcROI Source ROI

aSrcQuad Source quad.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oDstROI Destination ROI

aDstQuad Destination quad.

eInterpolation Interpolation mode: can be NPPI_INTER_NN, NPPI_INTER_LINEAR or NPPI_INTER_CUBIC

Returns:

Image Data Related Error Codes, ROI Related Error Codes, Affine Transform Error Codes

7.78.3.76 NppStatus nppiWarpAffineQuad_8u_AC4R (const Npp8u ∗ *pSrc*, NppiSize *oSrcSize*, int *nSrcStep*, NppiRect *oSrcROI*, const double *aSrcQuad*[4][2], Npp8u ∗ *pDst*, int *nDstStep*, NppiRect *oDstROI*, const double *aDstQuad*[4][2], int *eInterpolation*)

Four-channel 8-bit unsigned integer quad-based affine warp, ignoring alpha channel.

Parameters:

pSrc Source-Image Pointer.

oSrcSize Size of source image in pixels

nSrcStep Source-Image Line Step.

oSrcROI Source ROI

aSrcQuad Source quad.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oDstROI Destination ROI

aDstQuad Destination quad.

eInterpolation Interpolation mode: can be NPPI_INTER_NN, NPPI_INTER_LINEAR or NPPI_INTER_CUBIC

Returns:

Image Data Related Error Codes, ROI Related Error Codes, Affine Transform Error Codes

7.78.3.77 NppStatus nppiWarpAffineQuad_8u_C1R (const Npp8u ∗ *pSrc*, NppiSize *oSrcSize*, int *nSrcStep*, NppiRect *oSrcROI*, const double *aSrcQuad*[4][2], Npp8u ∗ *pDst*, int *nDstStep*, NppiRect *oDstROI*, const double *aDstQuad*[4][2], int *eInterpolation*)

Single-channel 32-bit floating-point quad-based affine warp.

Parameters:

pSrc Source-Image Pointer.

oSrcSize Size of source image in pixels

nSrcStep Source-Image Line Step.

oSrcROI Source ROI

aSrcQuad Source quad.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oDstROI Destination ROI

aDstQuad Destination quad.

eInterpolation Interpolation mode: can be NPPI_INTER_NN, NPPI_INTER_LINEAR or NPPI_INTER_CUBIC

Returns:

Image Data Related Error Codes, ROI Related Error Codes, Affine Transform Error Codes

7.78.3.78 NppStatus nppiWarpAffineQuad_8u_C3R (const Npp8u ∗ *pSrc*, NppiSize *oSrcSize*, int *nSrcStep*, NppiRect *oSrcROI*, const double *aSrcQuad*[4][2], Npp8u ∗ *pDst*, int *nDstStep*, NppiRect *oDstROI*, const double *aDstQuad*[4][2], int *eInterpolation*)

Three-channel 8-bit unsigned integer quad-based affine warp.

Parameters:

pSrc Source-Image Pointer.

oSrcSize Size of source image in pixels

nSrcStep Source-Image Line Step.

oSrcROI Source ROI

aSrcQuad Source quad.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oDstROI Destination ROI

aDstQuad Destination quad.

eInterpolation Interpolation mode: can be NPPI_INTER_NN, NPPI_INTER_LINEAR or NPPI_-INTER_CUBIC

Returns:

Image Data Related Error Codes, ROI Related Error Codes, Affine Transform Error Codes

7.78.3.79 NppStatus nppiWarpAffineQuad_8u_C4R (const Npp8u ∗ *pSrc*, NppiSize *oSrcSize*, int *nSrcStep*, NppiRect *oSrcROI*, const double *aSrcQuad*[4][2], Npp8u ∗ *pDst*, int *nDstStep*, NppiRect *oDstROI*, const double *aDstQuad*[4][2], int *eInterpolation*)

Four-channel 8-bit unsigned integer quad-based affine warp.

Parameters:

pSrc Source-Image Pointer.

oSrcSize Size of source image in pixels

nSrcStep Source-Image Line Step.

oSrcROI Source ROI

aSrcQuad Source quad.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oDstROI Destination ROI

aDstQuad Destination quad.

eInterpolation Interpolation mode: can be NPPI_INTER_NN, NPPI_INTER_LINEAR or NPPI_-INTER_CUBIC

Returns:

Image Data Related Error Codes, ROI Related Error Codes, Affine Transform Error Codes

7.78.3.80 NppStatus nppiWarpAffineQuad_8u_P3R (const Npp8u * *pSrc*[3], NppiSize *oSrcSize*, int *nSrcStep*, NppiRect *oSrcROI*, const double *aSrcQuad*[4][2], Npp8u * *pDst*[3], int *nDstStep*, NppiRect *oDstROI*, const double *aDstQuad*[4][2], int *eInterpolation*)

Three-channel planar 8-bit unsigned integer quad-based affine warp.

Parameters:

pSrc Source-Image Pointer.

oSrcSize Size of source image in pixels

nSrcStep Source-Image Line Step.

oSrcROI Source ROI

aSrcQuad Source quad.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oDstROI Destination ROI

aDstQuad Destination quad.

eInterpolation Interpolation mode: can be NPPI_INTER_NN, NPPI_INTER_LINEAR or NPPI_INTER_CUBIC

Returns:

Image Data Related Error Codes, ROI Related Error Codes, Affine Transform Error Codes

7.78.3.81 NppStatus nppiWarpAffineQuad_8u_P4R (const Npp8u * *pSrc*[4], NppiSize *oSrcSize*, int *nSrcStep*, NppiRect *oSrcROI*, const double *aSrcQuad*[4][2], Npp8u * *pDst*[4], int *nDstStep*, NppiRect *oDstROI*, const double *aDstQuad*[4][2], int *eInterpolation*)

Four-channel planar 8-bit unsigned integer quad-based affine warp.

Parameters:

pSrc Source-Image Pointer.

oSrcSize Size of source image in pixels

nSrcStep Source-Image Line Step.

oSrcROI Source ROI

aSrcQuad Source quad.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oDstROI Destination ROI

aDstQuad Destination quad.

eInterpolation Interpolation mode: can be NPPI_INTER_NN, NPPI_INTER_LINEAR or NPPI_INTER_CUBIC

Returns:

Image Data Related Error Codes, ROI Related Error Codes, Affine Transform Error Codes

7.79 Perspective Transform

Utility Functions

- NppStatus nppiGetPerspectiveTransform (NppiRect oSrcROI, const double quad[4][2], double aCoeffs[3][3])

  Calculates perspective transform coefficients given source rectangular ROI and its destination quadrangle projection.

- NppStatus nppiGetPerspectiveQuad (NppiRect oSrcROI, double quad[4][2], const double aCoeffs[3][3])

  Calculates perspective transform projection of given source rectangular ROI.

- NppStatus nppiGetPerspectiveBound (NppiRect oSrcROI, double bound[2][2], const double aCoeffs[3][3])

  Calculates bounding box of the perspective transform projection of the given source rectangular ROI.

Perspective Transform

Transforms (warps) an image based on a perspective transform.

The perspective transform is given as a 3×3 matrix C. A pixel location (x, y) in the source image is mapped to the location (x', y') in the destination image. The destination image coorodinates are computed as follows:

$$x' = \frac{c_{00} * x + c_{01} * y + c_{02}}{c_{20} * x + c_{21} * y + c_{22}} \qquad y' = \frac{c_{10} * x + c_{11} * y + c_{12}}{c_{20} * x + c_{21} * y + c_{22}}$$

$$C = \begin{bmatrix} c_{00} & c_{01} & c_{02} \\ c_{10} & c_{11} & c_{12} \\ c_{20} & c_{21} & c_{22} \end{bmatrix}$$

- NppStatus nppiWarpPerspective_8u_C1R (const Npp8u ∗pSrc, NppiSize oSrcSize, int nSrcStep, NppiRect oSrcROI, Npp8u ∗pDst, int nDstStep, NppiRect oDstROI, const double aCoeffs[3][3], int eInterpolation)

  Single-channel 8-bit unsigned integer perspective warp.

- NppStatus nppiWarpPerspective_8u_C3R (const Npp8u ∗pSrc, NppiSize oSrcSize, int nSrcStep, NppiRect oSrcROI, Npp8u ∗pDst, int nDstStep, NppiRect oDstROI, const double aCoeffs[3][3], int eInterpolation)

  Three-channel 8-bit unsigned integer perspective warp.

- NppStatus nppiWarpPerspective_8u_C4R (const Npp8u ∗pSrc, NppiSize oSrcSize, int nSrcStep, NppiRect oSrcROI, Npp8u ∗pDst, int nDstStep, NppiRect oDstROI, const double aCoeffs[3][3], int eInterpolation)

  Four-channel 8-bit unsigned integer perspective warp.

- NppStatus nppiWarpPerspective_8u_AC4R (const Npp8u ∗pSrc, NppiSize oSrcSize, int nSrcStep, NppiRect oSrcROI, Npp8u ∗pDst, int nDstStep, NppiRect oDstROI, const double aCoeffs[3][3], int eInterpolation)

  Four-channel 8-bit unsigned integer perspective warp, ignoring alpha channel.

- NppStatus nppiWarpPerspective_8u_P3R (const Npp8u ∗pSrc[3], NppiSize oSrcSize, int nSrcStep, NppiRect oSrcROI, Npp8u ∗pDst[3], int nDstStep, NppiRect oDstROI, const double aCoeffs[3][3], int eInterpolation)

  Three-channel planar 8-bit unsigned integer perspective warp.

- NppStatus nppiWarpPerspective_8u_P4R (const Npp8u ∗pSrc[4], NppiSize oSrcSize, int nSrcStep, NppiRect oSrcROI, Npp8u ∗pDst[4], int nDstStep, NppiRect oDstROI, const double aCoeffs[3][3], int eInterpolation)

  Four-channel planar 8-bit unsigned integer perspective warp.

- NppStatus nppiWarpPerspective_16u_C1R (const Npp16u ∗pSrc, NppiSize oSrcSize, int nSrcStep, NppiRect oSrcROI, Npp16u ∗pDst, int nDstStep, NppiRect oDstROI, const double aCoeffs[3][3], int eInterpolation)

  Single-channel 16-bit unsigned integer perspective warp.

- NppStatus nppiWarpPerspective_16u_C3R (const Npp16u ∗pSrc, NppiSize oSrcSize, int nSrcStep, NppiRect oSrcROI, Npp16u ∗pDst, int nDstStep, NppiRect oDstROI, const double aCoeffs[3][3], int eInterpolation)

  Three-channel 16-bit unsigned integer perspective warp.

- NppStatus nppiWarpPerspective_16u_C4R (const Npp16u ∗pSrc, NppiSize oSrcSize, int nSrcStep, NppiRect oSrcROI, Npp16u ∗pDst, int nDstStep, NppiRect oDstROI, const double aCoeffs[3][3], int eInterpolation)

  Four-channel 16-bit unsigned integer perspective warp.

- NppStatus nppiWarpPerspective_16u_AC4R (const Npp16u ∗pSrc, NppiSize oSrcSize, int nSrcStep, NppiRect oSrcROI, Npp16u ∗pDst, int nDstStep, NppiRect oDstROI, const double aCoeffs[3][3], int eInterpolation)

  Four-channel 16-bit unsigned integer perspective warp, igoring alpha channel.

- NppStatus nppiWarpPerspective_16u_P3R (const Npp16u ∗pSrc[3], NppiSize oSrcSize, int nSrcStep, NppiRect oSrcROI, Npp16u ∗pDst[3], int nDstStep, NppiRect oDstROI, const double aCoeffs[3][3], int eInterpolation)

  Three-channel planar 16-bit unsigned integer perspective warp.

- NppStatus nppiWarpPerspective_16u_P4R (const Npp16u ∗pSrc[4], NppiSize oSrcSize, int nSrcStep, NppiRect oSrcROI, Npp16u ∗pDst[4], int nDstStep, NppiRect oDstROI, const double aCoeffs[3][3], int eInterpolation)

  Four-channel planar 16-bit unsigned integer perspective warp.

- NppStatus nppiWarpPerspective_32s_C1R (const Npp32s ∗pSrc, NppiSize oSrcSize, int nSrcStep, NppiRect oSrcROI, Npp32s ∗pDst, int nDstStep, NppiRect oDstROI, const double aCoeffs[3][3], int eInterpolation)

  Single-channel 32-bit signed integer perspective warp.

- NppStatus nppiWarpPerspective_32s_C3R (const Npp32s ∗pSrc, NppiSize oSrcSize, int nSrcStep, NppiRect oSrcROI, Npp32s ∗pDst, int nDstStep, NppiRect oDstROI, const double aCoeffs[3][3], int eInterpolation)

  Three-channel 32-bit signed integer perspective warp.

- NppStatus nppiWarpPerspective_32s_C4R (const Npp32s ∗pSrc, NppiSize oSrcSize, int nSrcStep, NppiRect oSrcROI, Npp32s ∗pDst, int nDstStep, NppiRect oDstROI, const double aCoeffs[3][3], int eInterpolation)

  Four-channel 32-bit signed integer perspective warp.

- NppStatus nppiWarpPerspective_32s_AC4R (const Npp32s ∗pSrc, NppiSize oSrcSize, int nSrcStep, NppiRect oSrcROI, Npp32s ∗pDst, int nDstStep, NppiRect oDstROI, const double aCoeffs[3][3], int eInterpolation)

  Four-channel 32-bit signed integer perspective warp, igoring alpha channel.

- NppStatus nppiWarpPerspective_32s_P3R (const Npp32s ∗pSrc[3], NppiSize oSrcSize, int nSrcStep, NppiRect oSrcROI, Npp32s ∗pDst[3], int nDstStep, NppiRect oDstROI, const double aCoeffs[3][3], int eInterpolation)

  Three-channel planar 32-bit signed integer perspective warp.

- NppStatus nppiWarpPerspective_32s_P4R (const Npp32s ∗pSrc[4], NppiSize oSrcSize, int nSrcStep, NppiRect oSrcROI, Npp32s ∗pDst[4], int nDstStep, NppiRect oDstROI, const double aCoeffs[3][3], int eInterpolation)

  Four-channel planar 32-bit signed integer perspective warp.

- NppStatus nppiWarpPerspective_32f_C1R (const Npp32f ∗pSrc, NppiSize oSrcSize, int nSrcStep, NppiRect oSrcROI, Npp32f ∗pDst, int nDstStep, NppiRect oDstROI, const double aCoeffs[3][3], int eInterpolation)

  Single-channel 32-bit floating-point perspective warp.

- NppStatus nppiWarpPerspective_32f_C3R (const Npp32f ∗pSrc, NppiSize oSrcSize, int nSrcStep, NppiRect oSrcROI, Npp32f ∗pDst, int nDstStep, NppiRect oDstROI, const double aCoeffs[3][3], int eInterpolation)

  Three-channel 32-bit floating-point perspective warp.

- NppStatus nppiWarpPerspective_32f_C4R (const Npp32f ∗pSrc, NppiSize oSrcSize, int nSrcStep, NppiRect oSrcROI, Npp32f ∗pDst, int nDstStep, NppiRect oDstROI, const double aCoeffs[3][3], int eInterpolation)

  Four-channel 32-bit floating-point perspective warp.

- NppStatus nppiWarpPerspective_32f_AC4R (const Npp32f ∗pSrc, NppiSize oSrcSize, int nSrcStep, NppiRect oSrcROI, Npp32f ∗pDst, int nDstStep, NppiRect oDstROI, const double aCoeffs[3][3], int eInterpolation)

  Four-channel 32-bit floating-point perspective warp, ignoring alpha channel.

- NppStatus nppiWarpPerspective_32f_P3R (const Npp32f ∗pSrc[3], NppiSize oSrcSize, int nSrcStep, NppiRect oSrcROI, Npp32f ∗pDst[3], int nDstStep, NppiRect oDstROI, const double aCoeffs[3][3], int eInterpolation)

  Three-channel planar 32-bit floating-point perspective warp.

- NppStatus nppiWarpPerspective_32f_P4R (const Npp32f ∗pSrc[4], NppiSize oSrcSize, int nSrcStep, NppiRect oSrcROI, Npp32f ∗pDst[4], int nDstStep, NppiRect oDstROI, const double aCoeffs[3][3], int eInterpolation)

  Four-channel planar 32-bit floating-point perspective warp.

Backwards Perspective Transform

Transforms (warps) an image based on a perspective transform.

The perspective transform is given as a 3×3 matrix C. A pixel location (x, y) in the source image is mapped to the location (x', y') in the destination image. The destination image coorodinates fullfil the following properties:

$$x = \frac{c_{00} * x' + c_{01} * y' + c_{02}}{c_{20} * x' + c_{21} * y' + c_{22}} \qquad y = \frac{c_{10} * x' + c_{11} * y' + c_{12}}{c_{20} * x' + c_{21} * y' + c_{22}}$$

$$C = \begin{bmatrix} c_{00} & c_{01} & c_{02} \\ c_{10} & c_{11} & c_{12} \\ c_{20} & c_{21} & c_{22} \end{bmatrix}$$

In other words, given matrix C the source image's shape is transfored to the destination image using the inverse matrix C^{-1}:

$$M = C^{-1} = \begin{bmatrix} m_{00} & m_{01} & m_{02} \\ m_{10} & m_{11} & m_{12} \\ m_{20} & m_{21} & m_{22} \end{bmatrix} x' = \frac{c_{00} * x + c_{01} * y + c_{02}}{c_{20} * x + c_{21} * y + c_{22}} \qquad y' = \frac{c_{10} * x + c_{11} * y + c_{12}}{c_{20} * x + c_{21} * y + c_{22}}$$

- NppStatus nppiWarpPerspectiveBack_8u_C1R (const Npp8u ∗pSrc, NppiSize oSrcSize, int nSrcStep, NppiRect oSrcROI, Npp8u ∗pDst, int nDstStep, NppiRect oDstROI, const double aCoeffs[3][3], int eInterpolation)

  Single-channel 8-bit unsigned integer backwards perspective warp.

- NppStatus nppiWarpPerspectiveBack_8u_C3R (const Npp8u ∗pSrc, NppiSize oSrcSize, int nSrcStep, NppiRect oSrcROI, Npp8u ∗pDst, int nDstStep, NppiRect oDstROI, const double aCoeffs[3][3], int eInterpolation)

  Three-channel 8-bit unsigned integer backwards perspective warp.

- NppStatus nppiWarpPerspectiveBack_8u_C4R (const Npp8u ∗pSrc, NppiSize oSrcSize, int nSrcStep, NppiRect oSrcROI, Npp8u ∗pDst, int nDstStep, NppiRect oDstROI, const double aCoeffs[3][3], int eInterpolation)

  Four-channel 8-bit unsigned integer backwards perspective warp.

- NppStatus nppiWarpPerspectiveBack_8u_AC4R (const Npp8u ∗pSrc, NppiSize oSrcSize, int nSrcStep, NppiRect oSrcROI, Npp8u ∗pDst, int nDstStep, NppiRect oDstROI, const double aCoeffs[3][3], int eInterpolation)

  Four-channel 8-bit unsigned integer backwards perspective warp, igoring alpha channel.

- NppStatus nppiWarpPerspectiveBack_8u_P3R (const Npp8u ∗pSrc[3], NppiSize oSrcSize, int nSrcStep, NppiRect oSrcROI, Npp8u ∗pDst[3], int nDstStep, NppiRect oDstROI, const double aCoeffs[3][3], int eInterpolation)

  Three-channel planar 8-bit unsigned integer backwards perspective warp.

- NppStatus nppiWarpPerspectiveBack_8u_P4R (const Npp8u ∗pSrc[4], NppiSize oSrcSize, int nSrcStep, NppiRect oSrcROI, Npp8u ∗pDst[4], int nDstStep, NppiRect oDstROI, const double aCoeffs[3][3], int eInterpolation)

  Four-channel planar 8-bit unsigned integer backwards perspective warp.

- NppStatus nppiWarpPerspectiveBack_16u_C1R (const Npp16u ∗pSrc, NppiSize oSrcSize, int nSrcStep, NppiRect oSrcROI, Npp16u ∗pDst, int nDstStep, NppiRect oDstROI, const double aCoeffs[3][3], int eInterpolation)

Single-channel 16-bit unsigned integer backwards perspective warp.

- NppStatus nppiWarpPerspectiveBack_16u_C3R (const Npp16u ∗pSrc, NppiSize oSrcSize, int nSrcStep, NppiRect oSrcROI, Npp16u ∗pDst, int nDstStep, NppiRect oDstROI, const double aCoeffs[3][3], int eInterpolation)

  Three-channel 16-bit unsigned integer backwards perspective warp.

- NppStatus nppiWarpPerspectiveBack_16u_C4R (const Npp16u ∗pSrc, NppiSize oSrcSize, int nSrcStep, NppiRect oSrcROI, Npp16u ∗pDst, int nDstStep, NppiRect oDstROI, const double aCoeffs[3][3], int eInterpolation)

  Four-channel 16-bit unsigned integer backwards perspective warp.

- NppStatus nppiWarpPerspectiveBack_16u_AC4R (const Npp16u ∗pSrc, NppiSize oSrcSize, int nSrcStep, NppiRect oSrcROI, Npp16u ∗pDst, int nDstStep, NppiRect oDstROI, const double aCoeffs[3][3], int eInterpolation)

  Four-channel 16-bit unsigned integer backwards perspective warp, ignoring alpha channel.

- NppStatus nppiWarpPerspectiveBack_16u_P3R (const Npp16u ∗pSrc[3], NppiSize oSrcSize, int nSrcStep, NppiRect oSrcROI, Npp16u ∗pDst[3], int nDstStep, NppiRect oDstROI, const double aCoeffs[3][3], int eInterpolation)

  Four-channel planar 16-bit unsigned integer backwards perspective warp.

- NppStatus nppiWarpPerspectiveBack_16u_P4R (const Npp16u ∗pSrc[4], NppiSize oSrcSize, int nSrcStep, NppiRect oSrcROI, Npp16u ∗pDst[4], int nDstStep, NppiRect oDstROI, const double aCoeffs[3][3], int eInterpolation)

  Four-channel planar 16-bit unsigned integer backwards perspective warp.

- NppStatus nppiWarpPerspectiveBack_32s_C1R (const Npp32s ∗pSrc, NppiSize oSrcSize, int nSrcStep, NppiRect oSrcROI, Npp32s ∗pDst, int nDstStep, NppiRect oDstROI, const double aCoeffs[3][3], int eInterpolation)

  Single-channel 32-bit signed integer backwards perspective warp.

- NppStatus nppiWarpPerspectiveBack_32s_C3R (const Npp32s ∗pSrc, NppiSize oSrcSize, int nSrcStep, NppiRect oSrcROI, Npp32s ∗pDst, int nDstStep, NppiRect oDstROI, const double aCoeffs[3][3], int eInterpolation)

  Three-channel 32-bit signed integer backwards perspective warp.

- NppStatus nppiWarpPerspectiveBack_32s_C4R (const Npp32s ∗pSrc, NppiSize oSrcSize, int nSrcStep, NppiRect oSrcROI, Npp32s ∗pDst, int nDstStep, NppiRect oDstROI, const double aCoeffs[3][3], int eInterpolation)

  Four-channel 32-bit signed integer backwards perspective warp.

- NppStatus nppiWarpPerspectiveBack_32s_AC4R (const Npp32s ∗pSrc, NppiSize oSrcSize, int nSrcStep, NppiRect oSrcROI, Npp32s ∗pDst, int nDstStep, NppiRect oDstROI, const double aCoeffs[3][3], int eInterpolation)

  Four-channel 32-bit signed integer backwards perspective warp, ignoring alpha channel.

- NppStatus nppiWarpPerspectiveBack_32s_P3R (const Npp32s ∗pSrc[3], NppiSize oSrcSize, int nSrcStep, NppiRect oSrcROI, Npp32s ∗pDst[3], int nDstStep, NppiRect oDstROI, const double aCoeffs[3][3], int eInterpolation)

  Three-channel planar 32-bit signed integer backwards perspective warp.

- NppStatus nppiWarpPerspectiveBack_32s_P4R (const Npp32s ∗pSrc[4], NppiSize oSrcSize, int nSrcStep, NppiRect oSrcROI, Npp32s ∗pDst[4], int nDstStep, NppiRect oDstROI, const double aCoeffs[3][3], int eInterpolation)

  Four-channel planar 32-bit signed integer backwards perspective warp.

- NppStatus nppiWarpPerspectiveBack_32f_C1R (const Npp32f ∗pSrc, NppiSize oSrcSize, int nSrcStep, NppiRect oSrcROI, Npp32f ∗pDst, int nDstStep, NppiRect oDstROI, const double aCoeffs[3][3], int eInterpolation)

  Single-channel 32-bit floating-point backwards perspective warp.

- NppStatus nppiWarpPerspectiveBack_32f_C3R (const Npp32f ∗pSrc, NppiSize oSrcSize, int nSrcStep, NppiRect oSrcROI, Npp32f ∗pDst, int nDstStep, NppiRect oDstROI, const double aCoeffs[3][3], int eInterpolation)

  Three-channel 32-bit floating-point backwards perspective warp.

- NppStatus nppiWarpPerspectiveBack_32f_C4R (const Npp32f ∗pSrc, NppiSize oSrcSize, int nSrcStep, NppiRect oSrcROI, Npp32f ∗pDst, int nDstStep, NppiRect oDstROI, const double aCoeffs[3][3], int eInterpolation)

  Four-channel 32-bit floating-point backwards perspective warp.

- NppStatus nppiWarpPerspectiveBack_32f_AC4R (const Npp32f ∗pSrc, NppiSize oSrcSize, int nSrcStep, NppiRect oSrcROI, Npp32f ∗pDst, int nDstStep, NppiRect oDstROI, const double aCoeffs[3][3], int eInterpolation)

  Four-channel 32-bit floating-point backwards perspective warp, ignorning alpha channel.

- NppStatus nppiWarpPerspectiveBack_32f_P3R (const Npp32f ∗pSrc[3], NppiSize oSrcSize, int nSrcStep, NppiRect oSrcROI, Npp32f ∗pDst[3], int nDstStep, NppiRect oDstROI, const double aCoeffs[3][3], int eInterpolation)

  Three-channel planar 32-bit floating-point backwards perspective warp.

- NppStatus nppiWarpPerspectiveBack_32f_P4R (const Npp32f ∗pSrc[4], NppiSize oSrcSize, int nSrcStep, NppiRect oSrcROI, Npp32f ∗pDst[4], int nDstStep, NppiRect oDstROI, const double aCoeffs[3][3], int eInterpolation)

  Four-channel planar 32-bit floating-point backwards perspective warp.

Quad-Based Perspective Transform

Transforms (warps) an image based on an perspective transform.

The perspective transform is computed such that it maps a quadrilateral in source image space to a quadrilateral in destination image space.

- NppStatus nppiWarpPerspectiveQuad_8u_C1R (const Npp8u ∗pSrc, NppiSize oSrcSize, int nSrcStep, NppiRect oSrcROI, const double aSrcQuad[4][2], Npp8u ∗pDst, int nDstStep, NppiRect oDstROI, const double aDstQuad[4][2], int eInterpolation)

  Single-channel 8-bit unsigned integer quad-based perspective warp.

- NppStatus nppiWarpPerspectiveQuad_8u_C3R (const Npp8u ∗pSrc, NppiSize oSrcSize, int nSrcStep, NppiRect oSrcROI, const double aSrcQuad[4][2], Npp8u ∗pDst, int nDstStep, NppiRect oDstROI, const double aDstQuad[4][2], int eInterpolation)

Three-channel 8-bit unsigned integer quad-based perspective warp.

- NppStatus nppiWarpPerspectiveQuad_8u_C4R (const Npp8u ∗pSrc, NppiSize oSrcSize, int nSrcStep, NppiRect oSrcROI, const double aSrcQuad[4][2], Npp8u ∗pDst, int nDstStep, NppiRect oDstROI, const double aDstQuad[4][2], int eInterpolation)

  Four-channel 8-bit unsigned integer quad-based perspective warp.

- NppStatus nppiWarpPerspectiveQuad_8u_AC4R (const Npp8u ∗pSrc, NppiSize oSrcSize, int nSrcStep, NppiRect oSrcROI, const double aSrcQuad[4][2], Npp8u ∗pDst, int nDstStep, NppiRect oDstROI, const double aDstQuad[4][2], int eInterpolation)

  Four-channel 8-bit unsigned integer quad-based perspective warp, ignoring alpha channel.

- NppStatus nppiWarpPerspectiveQuad_8u_P3R (const Npp8u ∗pSrc[3], NppiSize oSrcSize, int nSrcStep, NppiRect oSrcROI, const double aSrcQuad[4][2], Npp8u ∗pDst[3], int nDstStep, NppiRect oDstROI, const double aDstQuad[4][2], int eInterpolation)

  Three-channel planar 8-bit unsigned integer quad-based perspective warp.

- NppStatus nppiWarpPerspectiveQuad_8u_P4R (const Npp8u ∗pSrc[4], NppiSize oSrcSize, int nSrcStep, NppiRect oSrcROI, const double aSrcQuad[4][2], Npp8u ∗pDst[4], int nDstStep, NppiRect oDstROI, const double aDstQuad[4][2], int eInterpolation)

  Four-channel planar 8-bit unsigned integer quad-based perspective warp.

- NppStatus nppiWarpPerspectiveQuad_16u_C1R (const Npp16u ∗pSrc, NppiSize oSrcSize, int nSrcStep, NppiRect oSrcROI, const double aSrcQuad[4][2], Npp16u ∗pDst, int nDstStep, NppiRect oDstROI, const double aDstQuad[4][2], int eInterpolation)

  Single-channel 16-bit unsigned integer quad-based perspective warp.

- NppStatus nppiWarpPerspectiveQuad_16u_C3R (const Npp16u ∗pSrc, NppiSize oSrcSize, int nSrcStep, NppiRect oSrcROI, const double aSrcQuad[4][2], Npp16u ∗pDst, int nDstStep, NppiRect oDstROI, const double aDstQuad[4][2], int eInterpolation)

  Three-channel 16-bit unsigned integer quad-based perspective warp.

- NppStatus nppiWarpPerspectiveQuad_16u_C4R (const Npp16u ∗pSrc, NppiSize oSrcSize, int nSrcStep, NppiRect oSrcROI, const double aSrcQuad[4][2], Npp16u ∗pDst, int nDstStep, NppiRect oDstROI, const double aDstQuad[4][2], int eInterpolation)

  Four-channel 16-bit unsigned integer quad-based perspective warp.

- NppStatus nppiWarpPerspectiveQuad_16u_AC4R (const Npp16u ∗pSrc, NppiSize oSrcSize, int nSrcStep, NppiRect oSrcROI, const double aSrcQuad[4][2], Npp16u ∗pDst, int nDstStep, NppiRect oDstROI, const double aDstQuad[4][2], int eInterpolation)

  Four-channel 16-bit unsigned integer quad-based perspective warp, ignoring alpha channel.

- NppStatus nppiWarpPerspectiveQuad_16u_P3R (const Npp16u ∗pSrc[3], NppiSize oSrcSize, int nSrcStep, NppiRect oSrcROI, const double aSrcQuad[4][2], Npp16u ∗pDst[3], int nDstStep, NppiRect oDstROI, const double aDstQuad[4][2], int eInterpolation)

  Three-channel planar 16-bit unsigned integer quad-based perspective warp.

- NppStatus nppiWarpPerspectiveQuad_16u_P4R (const Npp16u ∗pSrc[4], NppiSize oSrcSize, int nSrcStep, NppiRect oSrcROI, const double aSrcQuad[4][2], Npp16u ∗pDst[4], int nDstStep, NppiRect oDstROI, const double aDstQuad[4][2], int eInterpolation)

  Four-channel planar 16-bit unsigned integer quad-based perspective warp.

- NppStatus nppiWarpPerspectiveQuad_32s_C1R (const Npp32s ∗pSrc, NppiSize oSrcSize, int nSrcStep, NppiRect oSrcROI, const double aSrcQuad[4][2], Npp32s ∗pDst, int nDstStep, NppiRect oDstROI, const double aDstQuad[4][2], int eInterpolation)

  Single-channel 32-bit signed integer quad-based perspective warp.

- NppStatus nppiWarpPerspectiveQuad_32s_C3R (const Npp32s ∗pSrc, NppiSize oSrcSize, int nSrcStep, NppiRect oSrcROI, const double aSrcQuad[4][2], Npp32s ∗pDst, int nDstStep, NppiRect oDstROI, const double aDstQuad[4][2], int eInterpolation)

  Three-channel 32-bit signed integer quad-based perspective warp.

- NppStatus nppiWarpPerspectiveQuad_32s_C4R (const Npp32s ∗pSrc, NppiSize oSrcSize, int nSrcStep, NppiRect oSrcROI, const double aSrcQuad[4][2], Npp32s ∗pDst, int nDstStep, NppiRect oDstROI, const double aDstQuad[4][2], int eInterpolation)

  Four-channel 32-bit signed integer quad-based perspective warp.

- NppStatus nppiWarpPerspectiveQuad_32s_AC4R (const Npp32s ∗pSrc, NppiSize oSrcSize, int nSrcStep, NppiRect oSrcROI, const double aSrcQuad[4][2], Npp32s ∗pDst, int nDstStep, NppiRect oDstROI, const double aDstQuad[4][2], int eInterpolation)

  Four-channel 32-bit signed integer quad-based perspective warp, ignoring alpha channel.

- NppStatus nppiWarpPerspectiveQuad_32s_P3R (const Npp32s ∗pSrc[3], NppiSize oSrcSize, int nSrcStep, NppiRect oSrcROI, const double aSrcQuad[4][2], Npp32s ∗pDst[3], int nDstStep, NppiRect oDstROI, const double aDstQuad[4][2], int eInterpolation)

  Three-channel planar 32-bit signed integer quad-based perspective warp.

- NppStatus nppiWarpPerspectiveQuad_32s_P4R (const Npp32s ∗pSrc[4], NppiSize oSrcSize, int nSrcStep, NppiRect oSrcROI, const double aSrcQuad[4][2], Npp32s ∗pDst[4], int nDstStep, NppiRect oDstROI, const double aDstQuad[4][2], int eInterpolation)

  Four-channel planar 32-bit signed integer quad-based perspective warp.

- NppStatus nppiWarpPerspectiveQuad_32f_C1R (const Npp32f ∗pSrc, NppiSize oSrcSize, int nSrcStep, NppiRect oSrcROI, const double aSrcQuad[4][2], Npp32f ∗pDst, int nDstStep, NppiRect oDstROI, const double aDstQuad[4][2], int eInterpolation)

  Single-channel 32-bit floating-point quad-based perspective warp.

- NppStatus nppiWarpPerspectiveQuad_32f_C3R (const Npp32f ∗pSrc, NppiSize oSrcSize, int nSrcStep, NppiRect oSrcROI, const double aSrcQuad[4][2], Npp32f ∗pDst, int nDstStep, NppiRect oDstROI, const double aDstQuad[4][2], int eInterpolation)

  Three-channel 32-bit floating-point quad-based perspective warp.

- NppStatus nppiWarpPerspectiveQuad_32f_C4R (const Npp32f ∗pSrc, NppiSize oSrcSize, int nSrcStep, NppiRect oSrcROI, const double aSrcQuad[4][2], Npp32f ∗pDst, int nDstStep, NppiRect oDstROI, const double aDstQuad[4][2], int eInterpolation)

  Four-channel 32-bit floating-point quad-based perspective warp.

- NppStatus nppiWarpPerspectiveQuad_32f_AC4R (const Npp32f ∗pSrc, NppiSize oSrcSize, int nSrcStep, NppiRect oSrcROI, const double aSrcQuad[4][2], Npp32f ∗pDst, int nDstStep, NppiRect oDstROI, const double aDstQuad[4][2], int eInterpolation)

  Four-channel 32-bit floating-point quad-based perspective warp, ignoring alpha channel.

- NppStatus nppiWarpPerspectiveQuad_32f_P3R (const Npp32f ∗pSrc[3], NppiSize oSrcSize, int nSrcStep, NppiRect oSrcROI, const double aSrcQuad[4][2], Npp32f ∗pDst[3], int nDstStep, NppiRect oDstROI, const double aDstQuad[4][2], int eInterpolation)

  Three-channel planar 32-bit floating-point quad-based perspective warp.

- NppStatus nppiWarpPerspectiveQuad_32f_P4R (const Npp32f ∗pSrc[4], NppiSize oSrcSize, int nSrcStep, NppiRect oSrcROI, const double aSrcQuad[4][2], Npp32f ∗pDst[4], int nDstStep, NppiRect oDstROI, const double aDstQuad[4][2], int eInterpolation)

  Four-channel planar 32-bit floating-point quad-based perspective warp.

7.79.1 Detailed Description

7.79.2 Perspective Transform Error Codes

- NPP_RECT_ERROR Indicates an error condition if width or height of the intersection of the oSrcROI and source image is less than or equal to 1
- NPP_WRONG_INTERSECTION_ROI_ERROR Indicates an error condition if oSrcROI has no intersection with the source image
- NPP_INTERPOLATION_ERROR Indicates an error condition if interpolation has an illegal value
- NPP_COEFF_ERROR Indicates an error condition if coefficient values are invalid
- NPP_WRONG_INTERSECTION_QUAD_WARNING Indicates a warning that no operation is performed if the transformed source ROI has no intersection with the destination ROI

7.79.3 Function Documentation

7.79.3.1 NppStatus nppiGetPerspectiveBound (NppiRect *oSrcROI*, double *bound*[2][2], const double *aCoeffs*[3][3])

Calculates bounding box of the perspective transform projection of the given source rectangular ROI.

Parameters:

oSrcROI Source ROI

bound Bounding box of the transformed source ROI

aCoeffs Perspective transform coefficients

Returns:

Error codes:

- NPP_SIZE_ERROR Indicates an error condition if any image dimension has zero or negative value
- NPP_RECT_ERROR Indicates an error condition if width or height of the intersection of the oSrcROI and source image is less than or equal to 1
- NPP_COEFF_ERROR Indicates an error condition if coefficient values are invalid

7.79.3.2 NppStatus nppiGetPerspectiveQuad (NppiRect *oSrcROI*, double *quad*[4][2], const double *aCoeffs*[3][3])

Calculates perspective transform projection of given source rectangular ROI.

Parameters:

oSrcROI Source ROI

quad Destination quadrangle

aCoeffs Perspective transform coefficients

Returns:

Error codes:

- NPP_SIZE_ERROR Indicates an error condition if any image dimension has zero or negative value
- NPP_RECT_ERROR Indicates an error condition if width or height of the intersection of the oSrcROI and source image is less than or equal to 1
- NPP_COEFF_ERROR Indicates an error condition if coefficient values are invalid

7.79.3.3 NppStatus nppiGetPerspectiveTransform (NppiRect *oSrcROI*, const double *quad*[4][2], double *aCoeffs*[3][3])

Calculates perspective transform coefficients given source rectangular ROI and its destination quadrangle projection.

Parameters:

oSrcROI Source ROI

quad Destination quadrangle

aCoeffs Perspective transform coefficients

Returns:

Error codes:

- NPP_SIZE_ERROR Indicates an error condition if any image dimension has zero or negative value
- NPP_RECT_ERROR Indicates an error condition if width or height of the intersection of the oSrcROI and source image is less than or equal to 1
- NPP_COEFF_ERROR Indicates an error condition if coefficient values are invalid

7.79.3.4 NppStatus nppiWarpPerspective_16u_AC4R (const Npp16u ∗ *pSrc*, NppiSize *oSrcSize*, int *nSrcStep*, NppiRect *oSrcROI*, Npp16u ∗ *pDst*, int *nDstStep*, NppiRect *oDstROI*, const double *aCoeffs*[3][3], int *eInterpolation*)

Four-channel 16-bit unsigned integer perspective warp, igoring alpha channel.

Parameters:

pSrc Source-Image Pointer.

oSrcSize Size of source image in pixels

nSrcStep Source-Image Line Step.

oSrcROI Source ROI

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oDstROI Destination ROI

aCoeffs Perspective transform coefficients

eInterpolation Interpolation mode: can be NPPI_INTER_NN, NPPI_INTER_LINEAR or NPPI_INTER_CUBIC

Returns:

Image Data Related Error Codes, ROI Related Error Codes, Perspective Transform Error Codes

7.79.3.5 NppStatus nppiWarpPerspective_16u_C1R (const Npp16u ∗ *pSrc*, NppiSize *oSrcSize*, int *nSrcStep*, NppiRect *oSrcROI*, Npp16u ∗ *pDst*, int *nDstStep*, NppiRect *oDstROI*, const double *aCoeffs*[3][3], int *eInterpolation*)

Single-channel 16-bit unsigned integer perspective warp.

Parameters:

pSrc Source-Image Pointer.

oSrcSize Size of source image in pixels

nSrcStep Source-Image Line Step.

oSrcROI Source ROI

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oDstROI Destination ROI

aCoeffs Perspective transform coefficients

eInterpolation Interpolation mode: can be NPPI_INTER_NN, NPPI_INTER_LINEAR or NPPI_INTER_CUBIC

Returns:

Image Data Related Error Codes, ROI Related Error Codes, Perspective Transform Error Codes

7.79.3.6 NppStatus nppiWarpPerspective_16u_C3R (const Npp16u ∗ *pSrc*, NppiSize *oSrcSize*, int *nSrcStep*, NppiRect *oSrcROI*, Npp16u ∗ *pDst*, int *nDstStep*, NppiRect *oDstROI*, const double *aCoeffs*[3][3], int *eInterpolation*)

Three-channel 16-bit unsigned integer perspective warp.

Parameters:

pSrc Source-Image Pointer.

oSrcSize Size of source image in pixels

nSrcStep Source-Image Line Step.

oSrcROI Source ROI

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oDstROI Destination ROI

aCoeffs Perspective transform coefficients

eInterpolation Interpolation mode: can be NPPI_INTER_NN, NPPI_INTER_LINEAR or NPPI_INTER_CUBIC

Returns:

Image Data Related Error Codes, ROI Related Error Codes, Perspective Transform Error Codes

7.79.3.7 NppStatus nppiWarpPerspective_16u_C4R (const Npp16u ∗ *pSrc*, NppiSize *oSrcSize*, int *nSrcStep*, NppiRect *oSrcROI*, Npp16u ∗ *pDst*, int *nDstStep*, NppiRect *oDstROI*, const double *aCoeffs*[3][3], int *eInterpolation*)

Four-channel 16-bit unsigned integer perspective warp.

Parameters:

pSrc Source-Image Pointer.

oSrcSize Size of source image in pixels

nSrcStep Source-Image Line Step.

oSrcROI Source ROI

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oDstROI Destination ROI

aCoeffs Perspective transform coefficients

eInterpolation Interpolation mode: can be NPPI_INTER_NN, NPPI_INTER_LINEAR or NPPI_INTER_CUBIC

Returns:

Image Data Related Error Codes, ROI Related Error Codes, Perspective Transform Error Codes

7.79.3.8 NppStatus nppiWarpPerspective_16u_P3R (const Npp16u ∗ *pSrc*[3], NppiSize *oSrcSize*, int *nSrcStep*, NppiRect *oSrcROI*, Npp16u ∗ *pDst*[3], int *nDstStep*, NppiRect *oDstROI*, const double *aCoeffs*[3][3], int *eInterpolation*)

Three-channel planar 16-bit unsigned integer perspective warp.

Parameters:

pSrc Source-Image Pointer.

oSrcSize Size of source image in pixels

nSrcStep Source-Image Line Step.

oSrcROI Source ROI

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oDstROI Destination ROI

aCoeffs Perspective transform coefficients

eInterpolation Interpolation mode: can be NPPI_INTER_NN, NPPI_INTER_LINEAR or NPPI_INTER_CUBIC

Returns:

Image Data Related Error Codes, ROI Related Error Codes, Perspective Transform Error Codes

7.79.3.9 NppStatus nppiWarpPerspective_16u_P4R (const Npp16u ∗ *pSrc*[4], NppiSize *oSrcSize*, int *nSrcStep*, NppiRect *oSrcROI*, Npp16u ∗ *pDst*[4], int *nDstStep*, NppiRect *oDstROI*, const double *aCoeffs*[3][3], int *eInterpolation*)

Four-channel planar 16-bit unsigned integer perspective warp.

Parameters:

pSrc Source-Image Pointer.

oSrcSize Size of source image in pixels

nSrcStep Source-Image Line Step.

oSrcROI Source ROI

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oDstROI Destination ROI

aCoeffs Perspective transform coefficients

eInterpolation Interpolation mode: can be NPPI_INTER_NN, NPPI_INTER_LINEAR or NPPI_INTER_CUBIC

Returns:

Image Data Related Error Codes, ROI Related Error Codes, Perspective Transform Error Codes

7.79.3.10 NppStatus nppiWarpPerspective_32f_AC4R (const Npp32f ∗ *pSrc*, NppiSize *oSrcSize*, int *nSrcStep*, NppiRect *oSrcROI*, Npp32f ∗ *pDst*, int *nDstStep*, NppiRect *oDstROI*, const double *aCoeffs*[3][3], int *eInterpolation*)

Four-channel 32-bit floating-point perspective warp, ignoring alpha channel.

Parameters:

pSrc Source-Image Pointer.

oSrcSize Size of source image in pixels

nSrcStep Source-Image Line Step.

oSrcROI Source ROI

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oDstROI Destination ROI

aCoeffs Perspective transform coefficients

eInterpolation Interpolation mode: can be NPPI_INTER_NN, NPPI_INTER_LINEAR or NPPI_-INTER_CUBIC

Returns:

Image Data Related Error Codes, ROI Related Error Codes, Perspective Transform Error Codes

7.79.3.11 NppStatus nppiWarpPerspective_32f_C1R (const Npp32f ∗ *pSrc*, NppiSize *oSrcSize*, int *nSrcStep*, NppiRect *oSrcROI*, Npp32f ∗ *pDst*, int *nDstStep*, NppiRect *oDstROI*, const double *aCoeffs*[3][3], int *eInterpolation*)

Single-channel 32-bit floating-point perspective warp.

Parameters:

pSrc Source-Image Pointer.

oSrcSize Size of source image in pixels

nSrcStep Source-Image Line Step.

oSrcROI Source ROI

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oDstROI Destination ROI

aCoeffs Perspective transform coefficients

eInterpolation Interpolation mode: can be NPPI_INTER_NN, NPPI_INTER_LINEAR or NPPI_-INTER_CUBIC

Returns:

Image Data Related Error Codes, ROI Related Error Codes, Perspective Transform Error Codes

7.79.3.12 NppStatus nppiWarpPerspective_32f_C3R (const Npp32f ∗ *pSrc*, NppiSize *oSrcSize*, int *nSrcStep*, NppiRect *oSrcROI*, Npp32f ∗ *pDst*, int *nDstStep*, NppiRect *oDstROI*, const double *aCoeffs*[3][3], int *eInterpolation*)

Three-channel 32-bit floating-point perspective warp.

Parameters:

pSrc Source-Image Pointer.

oSrcSize Size of source image in pixels

nSrcStep Source-Image Line Step.

oSrcROI Source ROI

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oDstROI Destination ROI

aCoeffs Perspective transform coefficients

eInterpolation Interpolation mode: can be NPPI_INTER_NN, NPPI_INTER_LINEAR or NPPI_INTER_CUBIC

Returns:

Image Data Related Error Codes, ROI Related Error Codes, Perspective Transform Error Codes

7.79.3.13 NppStatus nppiWarpPerspective_32f_C4R (const Npp32f ∗ *pSrc*, NppiSize *oSrcSize*, int *nSrcStep*, NppiRect *oSrcROI*, Npp32f ∗ *pDst*, int *nDstStep*, NppiRect *oDstROI*, const double *aCoeffs*[3][3], int *eInterpolation*)

Four-channel 32-bit floating-point perspective warp.

Parameters:

pSrc Source-Image Pointer.

oSrcSize Size of source image in pixels

nSrcStep Source-Image Line Step.

oSrcROI Source ROI

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oDstROI Destination ROI

aCoeffs Perspective transform coefficients

eInterpolation Interpolation mode: can be NPPI_INTER_NN, NPPI_INTER_LINEAR or NPPI_INTER_CUBIC

Returns:

Image Data Related Error Codes, ROI Related Error Codes, Perspective Transform Error Codes

7.79.3.14 NppStatus nppiWarpPerspective_32f_P3R (const Npp32f ∗ *pSrc*[3], NppiSize *oSrcSize*, int *nSrcStep*, NppiRect *oSrcROI*, Npp32f ∗ *pDst*[3], int *nDstStep*, NppiRect *oDstROI*, const double *aCoeffs*[3][3], int *eInterpolation*)

Three-channel planar 32-bit floating-point perspective warp.

Parameters:

pSrc Source-Image Pointer.

oSrcSize Size of source image in pixels

nSrcStep Source-Image Line Step.

oSrcROI Source ROI

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oDstROI Destination ROI

aCoeffs Perspective transform coefficients

eInterpolation Interpolation mode: can be NPPI_INTER_NN, NPPI_INTER_LINEAR or NPPI_INTER_CUBIC

Returns:

Image Data Related Error Codes, ROI Related Error Codes, Perspective Transform Error Codes

7.79.3.15 NppStatus nppiWarpPerspective_32f_P4R (const Npp32f ∗ *pSrc*[4], NppiSize *oSrcSize*, int *nSrcStep*, NppiRect *oSrcROI*, Npp32f ∗ *pDst*[4], int *nDstStep*, NppiRect *oDstROI*, const double *aCoeffs*[3][3], int *eInterpolation*)

Four-channel planar 32-bit floating-point perspective warp.

Parameters:

pSrc Source-Image Pointer.

oSrcSize Size of source image in pixels

nSrcStep Source-Image Line Step.

oSrcROI Source ROI

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oDstROI Destination ROI

aCoeffs Perspective transform coefficients

eInterpolation Interpolation mode: can be NPPI_INTER_NN, NPPI_INTER_LINEAR or NPPI_INTER_CUBIC

Returns:

Image Data Related Error Codes, ROI Related Error Codes, Perspective Transform Error Codes

7.79.3.16 NppStatus nppiWarpPerspective_32s_AC4R (const Npp32s ∗ *pSrc*, NppiSize *oSrcSize*, int *nSrcStep*, NppiRect *oSrcROI*, Npp32s ∗ *pDst*, int *nDstStep*, NppiRect *oDstROI*, const double *aCoeffs*[3][3], int *eInterpolation*)

Four-channel 32-bit signed integer perspective warp, igoring alpha channel.

Parameters:

pSrc Source-Image Pointer.

oSrcSize Size of source image in pixels

nSrcStep Source-Image Line Step.

oSrcROI Source ROI

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oDstROI Destination ROI

aCoeffs Perspective transform coefficients

eInterpolation Interpolation mode: can be NPPI_INTER_NN, NPPI_INTER_LINEAR or NPPI_-INTER_CUBIC

Returns:

Image Data Related Error Codes, ROI Related Error Codes, Perspective Transform Error Codes

7.79.3.17 NppStatus nppiWarpPerspective_32s_C1R (const Npp32s ∗ *pSrc*, NppiSize *oSrcSize*, int *nSrcStep*, NppiRect *oSrcROI*, Npp32s ∗ *pDst*, int *nDstStep*, NppiRect *oDstROI*, const double *aCoeffs*[3][3], int *eInterpolation*)

Single-channel 32-bit signed integer perspective warp.

Parameters:

pSrc Source-Image Pointer.

oSrcSize Size of source image in pixels

nSrcStep Source-Image Line Step.

oSrcROI Source ROI

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oDstROI Destination ROI

aCoeffs Perspective transform coefficients

eInterpolation Interpolation mode: can be NPPI_INTER_NN, NPPI_INTER_LINEAR or NPPI_-INTER_CUBIC

Returns:

Image Data Related Error Codes, ROI Related Error Codes, Perspective Transform Error Codes

7.79.3.18 NppStatus nppiWarpPerspective_32s_C3R (const Npp32s ∗ *pSrc*, NppiSize *oSrcSize*, int *nSrcStep*, NppiRect *oSrcROI*, Npp32s ∗ *pDst*, int *nDstStep*, NppiRect *oDstROI*, const double *aCoeffs*[3][3], int *eInterpolation*)

Three-channel 32-bit signed integer perspective warp.

Parameters:

pSrc Source-Image Pointer.

oSrcSize Size of source image in pixels

nSrcStep Source-Image Line Step.

oSrcROI Source ROI

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oDstROI Destination ROI

aCoeffs Perspective transform coefficients

eInterpolation Interpolation mode: can be NPPI_INTER_NN, NPPI_INTER_LINEAR or NPPI_-INTER_CUBIC

Returns:

Image Data Related Error Codes, ROI Related Error Codes, Perspective Transform Error Codes

7.79.3.19 NppStatus nppiWarpPerspective_32s_C4R (const Npp32s ∗ *pSrc*, NppiSize *oSrcSize*, int *nSrcStep*, NppiRect *oSrcROI*, Npp32s ∗ *pDst*, int *nDstStep*, NppiRect *oDstROI*, const double *aCoeffs*[3][3], int *eInterpolation*)

Four-channel 32-bit signed integer perspective warp.

Parameters:

pSrc Source-Image Pointer.

oSrcSize Size of source image in pixels

nSrcStep Source-Image Line Step.

oSrcROI Source ROI

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oDstROI Destination ROI

aCoeffs Perspective transform coefficients

eInterpolation Interpolation mode: can be NPPI_INTER_NN, NPPI_INTER_LINEAR or NPPI_-INTER_CUBIC

Returns:

Image Data Related Error Codes, ROI Related Error Codes, Perspective Transform Error Codes

7.79.3.20 NppStatus nppiWarpPerspective_32s_P3R (const Npp32s ∗ *pSrc*[3], NppiSize *oSrcSize*, int *nSrcStep*, NppiRect *oSrcROI*, Npp32s ∗ *pDst*[3], int *nDstStep*, NppiRect *oDstROI*, const double *aCoeffs*[3][3], int *eInterpolation*)

Three-channel planar 32-bit signed integer perspective warp.

Parameters:

pSrc Source-Image Pointer.

oSrcSize Size of source image in pixels

nSrcStep Source-Image Line Step.

oSrcROI Source ROI

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oDstROI Destination ROI

aCoeffs Perspective transform coefficients

eInterpolation Interpolation mode: can be NPPI_INTER_NN, NPPI_INTER_LINEAR or NPPI_-INTER_CUBIC

Returns:

Image Data Related Error Codes, ROI Related Error Codes, Perspective Transform Error Codes

7.79.3.21 NppStatus nppiWarpPerspective_32s_P4R (const Npp32s ∗ *pSrc*[4], NppiSize *oSrcSize*, int *nSrcStep*, NppiRect *oSrcROI*, Npp32s ∗ *pDst*[4], int *nDstStep*, NppiRect *oDstROI*, const double *aCoeffs*[3][3], int *eInterpolation*)

Four-channel planar 32-bit signed integer perspective warp.

Parameters:

pSrc Source-Image Pointer.

oSrcSize Size of source image in pixels

nSrcStep Source-Image Line Step.

oSrcROI Source ROI

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oDstROI Destination ROI

aCoeffs Perspective transform coefficients

eInterpolation Interpolation mode: can be NPPI_INTER_NN, NPPI_INTER_LINEAR or NPPI_INTER_CUBIC

Returns:

Image Data Related Error Codes, ROI Related Error Codes, Perspective Transform Error Codes

7.79.3.22 NppStatus nppiWarpPerspective_8u_AC4R (const Npp8u ∗ *pSrc*, NppiSize *oSrcSize*, int *nSrcStep*, NppiRect *oSrcROI*, Npp8u ∗ *pDst*, int *nDstStep*, NppiRect *oDstROI*, const double *aCoeffs*[3][3], int *eInterpolation*)

Four-channel 8-bit unsigned integer perspective warp, ignoring alpha channel.

Parameters:

pSrc Source-Image Pointer.

oSrcSize Size of source image in pixels

nSrcStep Source-Image Line Step.

oSrcROI Source ROI

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oDstROI Destination ROI

aCoeffs Perspective transform coefficients

eInterpolation Interpolation mode: can be NPPI_INTER_NN, NPPI_INTER_LINEAR or NPPI_INTER_CUBIC

Returns:

Image Data Related Error Codes, ROI Related Error Codes, Perspective Transform Error Codes

7.79.3.23 NppStatus nppiWarpPerspective_8u_C1R (const Npp8u ∗ *pSrc*, NppiSize *oSrcSize*, int *nSrcStep*, NppiRect *oSrcROI*, Npp8u ∗ *pDst*, int *nDstStep*, NppiRect *oDstROI*, const double *aCoeffs*[3][3], int *eInterpolation*)

Single-channel 8-bit unsigned integer perspective warp.

Parameters:

pSrc Source-Image Pointer.

oSrcSize Size of source image in pixels

nSrcStep Source-Image Line Step.

oSrcROI Source ROI

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oDstROI Destination ROI

aCoeffs Perspective transform coefficients

eInterpolation Interpolation mode: can be NPPI_INTER_NN, NPPI_INTER_LINEAR or NPPI_INTER_CUBIC

Returns:

Image Data Related Error Codes, ROI Related Error Codes, Perspective Transform Error Codes

7.79.3.24 NppStatus nppiWarpPerspective_8u_C3R (const Npp8u ∗ *pSrc*, NppiSize *oSrcSize*, int *nSrcStep*, NppiRect *oSrcROI*, Npp8u ∗ *pDst*, int *nDstStep*, NppiRect *oDstROI*, const double *aCoeffs*[3][3], int *eInterpolation*)

Three-channel 8-bit unsigned integer perspective warp.

Parameters:

pSrc Source-Image Pointer.

oSrcSize Size of source image in pixels

nSrcStep Source-Image Line Step.

oSrcROI Source ROI

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oDstROI Destination ROI

aCoeffs Perspective transform coefficients

eInterpolation Interpolation mode: can be NPPI_INTER_NN, NPPI_INTER_LINEAR or NPPI_INTER_CUBIC

Returns:

Image Data Related Error Codes, ROI Related Error Codes, Perspective Transform Error Codes

7.79.3.25 NppStatus nppiWarpPerspective_8u_C4R (const Npp8u $*$ *pSrc*, NppiSize *oSrcSize*, int *nSrcStep*, NppiRect *oSrcROI*, Npp8u $*$ *pDst*, int *nDstStep*, NppiRect *oDstROI*, const double *aCoeffs*[3][3], int *eInterpolation*)

Four-channel 8-bit unsigned integer perspective warp.

Parameters:

pSrc Source-Image Pointer.

oSrcSize Size of source image in pixels

nSrcStep Source-Image Line Step.

oSrcROI Source ROI

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oDstROI Destination ROI

aCoeffs Perspective transform coefficients

eInterpolation Interpolation mode: can be NPPI_INTER_NN, NPPI_INTER_LINEAR or NPPI_INTER_CUBIC

Returns:

Image Data Related Error Codes, ROI Related Error Codes, Perspective Transform Error Codes

7.79.3.26 NppStatus nppiWarpPerspective_8u_P3R (const Npp8u $*$ *pSrc*[3], NppiSize *oSrcSize*, int *nSrcStep*, NppiRect *oSrcROI*, Npp8u $*$ *pDst*[3], int *nDstStep*, NppiRect *oDstROI*, const double *aCoeffs*[3][3], int *eInterpolation*)

Three-channel planar 8-bit unsigned integer perspective warp.

Parameters:

pSrc Source-Image Pointer.

oSrcSize Size of source image in pixels

nSrcStep Source-Image Line Step.

oSrcROI Source ROI

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oDstROI Destination ROI

aCoeffs Perspective transform coefficients

eInterpolation Interpolation mode: can be NPPI_INTER_NN, NPPI_INTER_LINEAR or NPPI_INTER_CUBIC

Returns:

Image Data Related Error Codes, ROI Related Error Codes, Perspective Transform Error Codes

7.79.3.27 NppStatus nppiWarpPerspective_8u_P4R (const Npp8u ∗ *pSrc*[4], NppiSize *oSrcSize*, int *nSrcStep*, NppiRect *oSrcROI*, Npp8u ∗ *pDst*[4], int *nDstStep*, NppiRect *oDstROI*, const double *aCoeffs*[3][3], int *eInterpolation*)

Four-channel planar 8-bit unsigned integer perspective warp.

Parameters:

pSrc Source-Image Pointer.

oSrcSize Size of source image in pixels

nSrcStep Source-Image Line Step.

oSrcROI Source ROI

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oDstROI Destination ROI

aCoeffs Perspective transform coefficients

eInterpolation Interpolation mode: can be NPPI_INTER_NN, NPPI_INTER_LINEAR or NPPI_INTER_CUBIC

Returns:

Image Data Related Error Codes, ROI Related Error Codes, Perspective Transform Error Codes

7.79.3.28 NppStatus nppiWarpPerspectiveBack_16u_AC4R (const Npp16u ∗ *pSrc*, NppiSize *oSrcSize*, int *nSrcStep*, NppiRect *oSrcROI*, Npp16u ∗ *pDst*, int *nDstStep*, NppiRect *oDstROI*, const double *aCoeffs*[3][3], int *eInterpolation*)

Four-channel 16-bit unsigned integer backwards perspective warp, ignoring alpha channel.

Parameters:

pSrc Source-Image Pointer.

oSrcSize Size of source image in pixels

nSrcStep Source-Image Line Step.

oSrcROI Source ROI

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oDstROI Destination ROI

aCoeffs Perspective transform coefficients

eInterpolation Interpolation mode: can be NPPI_INTER_NN, NPPI_INTER_LINEAR or NPPI_INTER_CUBIC

Returns:

Image Data Related Error Codes, ROI Related Error Codes, Perspective Transform Error Codes

7.79.3.29 NppStatus nppiWarpPerspectiveBack_16u_C1R (const Npp16u ∗ *pSrc*, NppiSize *oSrcSize*, int *nSrcStep*, NppiRect *oSrcROI*, Npp16u ∗ *pDst*, int *nDstStep*, NppiRect *oDstROI*, const double *aCoeffs*[3][3], int *eInterpolation*)

Single-channel 16-bit unsigned integer backwards perspective warp.

Parameters:

pSrc Source-Image Pointer.

oSrcSize Size of source image in pixels

nSrcStep Source-Image Line Step.

oSrcROI Source ROI

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oDstROI Destination ROI

aCoeffs Perspective transform coefficients

eInterpolation Interpolation mode: can be NPPI_INTER_NN, NPPI_INTER_LINEAR or NPPI_INTER_CUBIC

Returns:

Image Data Related Error Codes, ROI Related Error Codes, Perspective Transform Error Codes

7.79.3.30 NppStatus nppiWarpPerspectiveBack_16u_C3R (const Npp16u ∗ *pSrc*, NppiSize *oSrcSize*, int *nSrcStep*, NppiRect *oSrcROI*, Npp16u ∗ *pDst*, int *nDstStep*, NppiRect *oDstROI*, const double *aCoeffs*[3][3], int *eInterpolation*)

Three-channel 16-bit unsigned integer backwards perspective warp.

Parameters:

pSrc Source-Image Pointer.

oSrcSize Size of source image in pixels

nSrcStep Source-Image Line Step.

oSrcROI Source ROI

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oDstROI Destination ROI

aCoeffs Perspective transform coefficients

eInterpolation Interpolation mode: can be NPPI_INTER_NN, NPPI_INTER_LINEAR or NPPI_INTER_CUBIC

Returns:

Image Data Related Error Codes, ROI Related Error Codes, Perspective Transform Error Codes

7.79.3.31 NppStatus nppiWarpPerspectiveBack_16u_C4R (const Npp16u $*$ *pSrc*, NppiSize *oSrcSize*, int *nSrcStep*, NppiRect *oSrcROI*, Npp16u $*$ *pDst*, int *nDstStep*, NppiRect *oDstROI*, const double *aCoeffs*[3][3], int *eInterpolation*)

Four-channel 16-bit unsigned integer backwards perspective warp.

Parameters:

pSrc Source-Image Pointer.

oSrcSize Size of source image in pixels

nSrcStep Source-Image Line Step.

oSrcROI Source ROI

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oDstROI Destination ROI

aCoeffs Perspective transform coefficients

eInterpolation Interpolation mode: can be NPPI_INTER_NN, NPPI_INTER_LINEAR or NPPI_INTER_CUBIC

Returns:

Image Data Related Error Codes, ROI Related Error Codes, Perspective Transform Error Codes

7.79.3.32 NppStatus nppiWarpPerspectiveBack_16u_P3R (const Npp16u $*$ *pSrc*[3], NppiSize *oSrcSize*, int *nSrcStep*, NppiRect *oSrcROI*, Npp16u $*$ *pDst*[3], int *nDstStep*, NppiRect *oDstROI*, const double *aCoeffs*[3][3], int *eInterpolation*)

Four-channel planar 16-bit unsigned integer backwards perspective warp.

Parameters:

pSrc Source-Image Pointer.

oSrcSize Size of source image in pixels

nSrcStep Source-Image Line Step.

oSrcROI Source ROI

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oDstROI Destination ROI

aCoeffs Perspective transform coefficients

eInterpolation Interpolation mode: can be NPPI_INTER_NN, NPPI_INTER_LINEAR or NPPI_INTER_CUBIC

Returns:

Image Data Related Error Codes, ROI Related Error Codes, Perspective Transform Error Codes

7.79.3.33 NppStatus nppiWarpPerspectiveBack_16u_P4R (const Npp16u ∗ *pSrc*[4], NppiSize *oSrcSize*, int *nSrcStep*, NppiRect *oSrcROI*, Npp16u ∗ *pDst*[4], int *nDstStep*, NppiRect *oDstROI*, const double *aCoeffs*[3][3], int *eInterpolation*)

Four-channel planar 16-bit unsigned integer backwards perspective warp.

Parameters:

pSrc Source-Image Pointer.

oSrcSize Size of source image in pixels

nSrcStep Source-Image Line Step.

oSrcROI Source ROI

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oDstROI Destination ROI

aCoeffs Perspective transform coefficients

eInterpolation Interpolation mode: can be NPPI_INTER_NN, NPPI_INTER_LINEAR or NPPI_-INTER_CUBIC

Returns:

Image Data Related Error Codes, ROI Related Error Codes, Perspective Transform Error Codes

7.79.3.34 NppStatus nppiWarpPerspectiveBack_32f_AC4R (const Npp32f ∗ *pSrc*, NppiSize *oSrcSize*, int *nSrcStep*, NppiRect *oSrcROI*, Npp32f ∗ *pDst*, int *nDstStep*, NppiRect *oDstROI*, const double *aCoeffs*[3][3], int *eInterpolation*)

Four-channel 32-bit floating-point backwards perspective warp, ignorning alpha channel.

Parameters:

pSrc Source-Image Pointer.

oSrcSize Size of source image in pixels

nSrcStep Source-Image Line Step.

oSrcROI Source ROI

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oDstROI Destination ROI

aCoeffs Perspective transform coefficients

eInterpolation Interpolation mode: can be NPPI_INTER_NN, NPPI_INTER_LINEAR or NPPI_-INTER_CUBIC

Returns:

Image Data Related Error Codes, ROI Related Error Codes, Perspective Transform Error Codes

7.79.3.35 NppStatus nppiWarpPerspectiveBack_32f_C1R (const Npp32f ∗ *pSrc*, NppiSize *oSrcSize*, int *nSrcStep*, NppiRect *oSrcROI*, Npp32f ∗ *pDst*, int *nDstStep*, NppiRect *oDstROI*, const double *aCoeffs*[3][3], int *eInterpolation*)

Single-channel 32-bit floating-point backwards perspective warp.

Parameters:

pSrc Source-Image Pointer.

oSrcSize Size of source image in pixels

nSrcStep Source-Image Line Step.

oSrcROI Source ROI

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oDstROI Destination ROI

aCoeffs Perspective transform coefficients

eInterpolation Interpolation mode: can be NPPI_INTER_NN, NPPI_INTER_LINEAR or NPPI_INTER_CUBIC

Returns:

Image Data Related Error Codes, ROI Related Error Codes, Perspective Transform Error Codes

7.79.3.36 NppStatus nppiWarpPerspectiveBack_32f_C3R (const Npp32f ∗ *pSrc*, NppiSize *oSrcSize*, int *nSrcStep*, NppiRect *oSrcROI*, Npp32f ∗ *pDst*, int *nDstStep*, NppiRect *oDstROI*, const double *aCoeffs*[3][3], int *eInterpolation*)

Three-channel 32-bit floating-point backwards perspective warp.

Parameters:

pSrc Source-Image Pointer.

oSrcSize Size of source image in pixels

nSrcStep Source-Image Line Step.

oSrcROI Source ROI

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oDstROI Destination ROI

aCoeffs Perspective transform coefficients

eInterpolation Interpolation mode: can be NPPI_INTER_NN, NPPI_INTER_LINEAR or NPPI_INTER_CUBIC

Returns:

Image Data Related Error Codes, ROI Related Error Codes, Perspective Transform Error Codes

7.79.3.37 NppStatus nppiWarpPerspectiveBack_32f_C4R (const Npp32f * *pSrc*, NppiSize *oSrcSize*, int *nSrcStep*, NppiRect *oSrcROI*, Npp32f * *pDst*, int *nDstStep*, NppiRect *oDstROI*, const double *aCoeffs*[3][3], int *eInterpolation*)

Four-channel 32-bit floating-point backwards perspective warp.

Parameters:

pSrc Source-Image Pointer.

oSrcSize Size of source image in pixels

nSrcStep Source-Image Line Step.

oSrcROI Source ROI

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oDstROI Destination ROI

aCoeffs Perspective transform coefficients

eInterpolation Interpolation mode: can be NPPI_INTER_NN, NPPI_INTER_LINEAR or NPPI_INTER_CUBIC

Returns:

Image Data Related Error Codes, ROI Related Error Codes, Perspective Transform Error Codes

7.79.3.38 NppStatus nppiWarpPerspectiveBack_32f_P3R (const Npp32f * *pSrc*[3], NppiSize *oSrcSize*, int *nSrcStep*, NppiRect *oSrcROI*, Npp32f * *pDst*[3], int *nDstStep*, NppiRect *oDstROI*, const double *aCoeffs*[3][3], int *eInterpolation*)

Three-channel planar 32-bit floating-point backwards perspective warp.

Parameters:

pSrc Source-Image Pointer.

oSrcSize Size of source image in pixels

nSrcStep Source-Image Line Step.

oSrcROI Source ROI

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oDstROI Destination ROI

aCoeffs Perspective transform coefficients

eInterpolation Interpolation mode: can be NPPI_INTER_NN, NPPI_INTER_LINEAR or NPPI_INTER_CUBIC

Returns:

Image Data Related Error Codes, ROI Related Error Codes, Perspective Transform Error Codes

7.79.3.39 NppStatus nppiWarpPerspectiveBack_32f_P4R (const Npp32f ∗ *pSrc*[4], NppiSize *oSrcSize*, int *nSrcStep*, NppiRect *oSrcROI*, Npp32f ∗ *pDst*[4], int *nDstStep*, NppiRect *oDstROI*, const double *aCoeffs*[3][3], int *eInterpolation*)

Four-channel planar 32-bit floating-point backwards perspective warp.

Parameters:

pSrc Source-Image Pointer.

oSrcSize Size of source image in pixels

nSrcStep Source-Image Line Step.

oSrcROI Source ROI

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oDstROI Destination ROI

aCoeffs Perspective transform coefficients

eInterpolation Interpolation mode: can be NPPI_INTER_NN, NPPI_INTER_LINEAR or NPPI_-INTER_CUBIC

Returns:

Image Data Related Error Codes, ROI Related Error Codes, Perspective Transform Error Codes

7.79.3.40 NppStatus nppiWarpPerspectiveBack_32s_AC4R (const Npp32s ∗ *pSrc*, NppiSize *oSrcSize*, int *nSrcStep*, NppiRect *oSrcROI*, Npp32s ∗ *pDst*, int *nDstStep*, NppiRect *oDstROI*, const double *aCoeffs*[3][3], int *eInterpolation*)

Four-channel 32-bit signed integer backwards perspective warp, ignoring alpha channel.

Parameters:

pSrc Source-Image Pointer.

oSrcSize Size of source image in pixels

nSrcStep Source-Image Line Step.

oSrcROI Source ROI

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oDstROI Destination ROI

aCoeffs Perspective transform coefficients

eInterpolation Interpolation mode: can be NPPI_INTER_NN, NPPI_INTER_LINEAR or NPPI_-INTER_CUBIC

Returns:

Image Data Related Error Codes, ROI Related Error Codes, Perspective Transform Error Codes

7.79.3.41 NppStatus nppiWarpPerspectiveBack_32s_C1R (const Npp32s ∗ *pSrc*, NppiSize *oSrcSize*, int *nSrcStep*, NppiRect *oSrcROI*, Npp32s ∗ *pDst*, int *nDstStep*, NppiRect *oDstROI*, const double *aCoeffs*[3][3], int *eInterpolation*)

Single-channel 32-bit signed integer backwards perspective warp.

Parameters:

pSrc Source-Image Pointer.

oSrcSize Size of source image in pixels

nSrcStep Source-Image Line Step.

oSrcROI Source ROI

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oDstROI Destination ROI

aCoeffs Perspective transform coefficients

eInterpolation Interpolation mode: can be NPPI_INTER_NN, NPPI_INTER_LINEAR or NPPI_-INTER_CUBIC

Returns:

Image Data Related Error Codes, ROI Related Error Codes, Perspective Transform Error Codes

7.79.3.42 NppStatus nppiWarpPerspectiveBack_32s_C3R (const Npp32s ∗ *pSrc*, NppiSize *oSrcSize*, int *nSrcStep*, NppiRect *oSrcROI*, Npp32s ∗ *pDst*, int *nDstStep*, NppiRect *oDstROI*, const double *aCoeffs*[3][3], int *eInterpolation*)

Three-channel 32-bit signed integer backwards perspective warp.

Parameters:

pSrc Source-Image Pointer.

oSrcSize Size of source image in pixels

nSrcStep Source-Image Line Step.

oSrcROI Source ROI

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oDstROI Destination ROI

aCoeffs Perspective transform coefficients

eInterpolation Interpolation mode: can be NPPI_INTER_NN, NPPI_INTER_LINEAR or NPPI_-INTER_CUBIC

Returns:

Image Data Related Error Codes, ROI Related Error Codes, Perspective Transform Error Codes

7.79.3.43 NppStatus nppiWarpPerspectiveBack_32s_C4R (const Npp32s ∗ *pSrc*, NppiSize *oSrcSize*, int *nSrcStep*, NppiRect *oSrcROI*, Npp32s ∗ *pDst*, int *nDstStep*, NppiRect *oDstROI*, const double *aCoeffs*[3][3], int *eInterpolation*)

Four-channel 32-bit signed integer backwards perspective warp.

Parameters:

pSrc Source-Image Pointer.

oSrcSize Size of source image in pixels

nSrcStep Source-Image Line Step.

oSrcROI Source ROI

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oDstROI Destination ROI

aCoeffs Perspective transform coefficients

eInterpolation Interpolation mode: can be NPPI_INTER_NN, NPPI_INTER_LINEAR or NPPI_INTER_CUBIC

Returns:

Image Data Related Error Codes, ROI Related Error Codes, Perspective Transform Error Codes

7.79.3.44 NppStatus nppiWarpPerspectiveBack_32s_P3R (const Npp32s ∗ *pSrc*[3], NppiSize *oSrcSize*, int *nSrcStep*, NppiRect *oSrcROI*, Npp32s ∗ *pDst*[3], int *nDstStep*, NppiRect *oDstROI*, const double *aCoeffs*[3][3], int *eInterpolation*)

Three-channel planar 32-bit signed integer backwards perspective warp.

Parameters:

pSrc Source-Image Pointer.

oSrcSize Size of source image in pixels

nSrcStep Source-Image Line Step.

oSrcROI Source ROI

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oDstROI Destination ROI

aCoeffs Perspective transform coefficients

eInterpolation Interpolation mode: can be NPPI_INTER_NN, NPPI_INTER_LINEAR or NPPI_INTER_CUBIC

Returns:

Image Data Related Error Codes, ROI Related Error Codes, Perspective Transform Error Codes

7.79.3.45 NppStatus nppiWarpPerspectiveBack_32s_P4R (const Npp32s ∗ *pSrc*[4], NppiSize *oSrcSize*, int *nSrcStep*, NppiRect *oSrcROI*, Npp32s ∗ *pDst*[4], int *nDstStep*, NppiRect *oDstROI*, const double *aCoeffs*[3][3], int *eInterpolation*)

Four-channel planar 32-bit signed integer backwards perspective warp.

Parameters:

pSrc Source-Image Pointer.

oSrcSize Size of source image in pixels

nSrcStep Source-Image Line Step.

oSrcROI Source ROI

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oDstROI Destination ROI

aCoeffs Perspective transform coefficients

eInterpolation Interpolation mode: can be NPPI_INTER_NN, NPPI_INTER_LINEAR or NPPI_INTER_CUBIC

Returns:

Image Data Related Error Codes, ROI Related Error Codes, Perspective Transform Error Codes

7.79.3.46 NppStatus nppiWarpPerspectiveBack_8u_AC4R (const Npp8u ∗ *pSrc*, NppiSize *oSrcSize*, int *nSrcStep*, NppiRect *oSrcROI*, Npp8u ∗ *pDst*, int *nDstStep*, NppiRect *oDstROI*, const double *aCoeffs*[3][3], int *eInterpolation*)

Four-channel 8-bit unsigned integer backwards perspective warp, igoring alpha channel.

Parameters:

pSrc Source-Image Pointer.

oSrcSize Size of source image in pixels

nSrcStep Source-Image Line Step.

oSrcROI Source ROI

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oDstROI Destination ROI

aCoeffs Perspective transform coefficients

eInterpolation Interpolation mode: can be NPPI_INTER_NN, NPPI_INTER_LINEAR or NPPI_INTER_CUBIC

Returns:

Image Data Related Error Codes, ROI Related Error Codes, Perspective Transform Error Codes

7.79.3.47 NppStatus nppiWarpPerspectiveBack_8u_C1R (const Npp8u * *pSrc*, NppiSize *oSrcSize*, int *nSrcStep*, NppiRect *oSrcROI*, Npp8u * *pDst*, int *nDstStep*, NppiRect *oDstROI*, const double *aCoeffs*[3][3], int *eInterpolation*)

Single-channel 8-bit unsigned integer backwards perspective warp.

Parameters:

pSrc Source-Image Pointer.

oSrcSize Size of source image in pixels

nSrcStep Source-Image Line Step.

oSrcROI Source ROI

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oDstROI Destination ROI

aCoeffs Perspective transform coefficients

eInterpolation Interpolation mode: can be NPPI_INTER_NN, NPPI_INTER_LINEAR or NPPI_INTER_CUBIC

Returns:

Image Data Related Error Codes, ROI Related Error Codes, Perspective Transform Error Codes

7.79.3.48 NppStatus nppiWarpPerspectiveBack_8u_C3R (const Npp8u * *pSrc*, NppiSize *oSrcSize*, int *nSrcStep*, NppiRect *oSrcROI*, Npp8u * *pDst*, int *nDstStep*, NppiRect *oDstROI*, const double *aCoeffs*[3][3], int *eInterpolation*)

Three-channel 8-bit unsigned integer backwards perspective warp.

Parameters:

pSrc Source-Image Pointer.

oSrcSize Size of source image in pixels

nSrcStep Source-Image Line Step.

oSrcROI Source ROI

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oDstROI Destination ROI

aCoeffs Perspective transform coefficients

eInterpolation Interpolation mode: can be NPPI_INTER_NN, NPPI_INTER_LINEAR or NPPI_INTER_CUBIC

Returns:

Image Data Related Error Codes, ROI Related Error Codes, Perspective Transform Error Codes

7.79.3.49 NppStatus nppiWarpPerspectiveBack_8u_C4R (const Npp8u ∗ *pSrc*, NppiSize *oSrcSize*, int *nSrcStep*, NppiRect *oSrcROI*, Npp8u ∗ *pDst*, int *nDstStep*, NppiRect *oDstROI*, const double *aCoeffs*[3][3], int *eInterpolation*)

Four-channel 8-bit unsigned integer backwards perspective warp.

Parameters:

pSrc Source-Image Pointer.

oSrcSize Size of source image in pixels

nSrcStep Source-Image Line Step.

oSrcROI Source ROI

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oDstROI Destination ROI

aCoeffs Perspective transform coefficients

eInterpolation Interpolation mode: can be NPPI_INTER_NN, NPPI_INTER_LINEAR or NPPI_-INTER_CUBIC

Returns:

Image Data Related Error Codes, ROI Related Error Codes, Perspective Transform Error Codes

7.79.3.50 NppStatus nppiWarpPerspectiveBack_8u_P3R (const Npp8u ∗ *pSrc*[3], NppiSize *oSrcSize*, int *nSrcStep*, NppiRect *oSrcROI*, Npp8u ∗ *pDst*[3], int *nDstStep*, NppiRect *oDstROI*, const double *aCoeffs*[3][3], int *eInterpolation*)

Three-channel planar 8-bit unsigned integer backwards perspective warp.

Parameters:

pSrc Source-Image Pointer.

oSrcSize Size of source image in pixels

nSrcStep Source-Image Line Step.

oSrcROI Source ROI

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oDstROI Destination ROI

aCoeffs Perspective transform coefficients

eInterpolation Interpolation mode: can be NPPI_INTER_NN, NPPI_INTER_LINEAR or NPPI_-INTER_CUBIC

Returns:

Image Data Related Error Codes, ROI Related Error Codes, Perspective Transform Error Codes

7.79.3.51 NppStatus nppiWarpPerspectiveBack_8u_P4R (const Npp8u * *pSrc*[4], NppiSize *oSrcSize*, int *nSrcStep*, NppiRect *oSrcROI*, Npp8u * *pDst*[4], int *nDstStep*, NppiRect *oDstROI*, const double *aCoeffs*[3][3], int *eInterpolation*)

Four-channel planar 8-bit unsigned integer backwards perspective warp.

Parameters:

pSrc Source-Image Pointer.

oSrcSize Size of source image in pixels

nSrcStep Source-Image Line Step.

oSrcROI Source ROI

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oDstROI Destination ROI

aCoeffs Perspective transform coefficients

eInterpolation Interpolation mode: can be NPPI_INTER_NN, NPPI_INTER_LINEAR or NPPI_INTER_CUBIC

Returns:

Image Data Related Error Codes, ROI Related Error Codes, Perspective Transform Error Codes

7.79.3.52 NppStatus nppiWarpPerspectiveQuad_16u_AC4R (const Npp16u * *pSrc*, NppiSize *oSrcSize*, int *nSrcStep*, NppiRect *oSrcROI*, const double *aSrcQuad*[4][2], Npp16u * *pDst*, int *nDstStep*, NppiRect *oDstROI*, const double *aDstQuad*[4][2], int *eInterpolation*)

Four-channel 16-bit unsigned integer quad-based perspective warp, ignoring alpha channel.

Parameters:

pSrc Source-Image Pointer.

oSrcSize Size of source image in pixels

nSrcStep Source-Image Line Step.

oSrcROI Source ROI

aSrcQuad Source quad.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oDstROI Destination ROI

aDstQuad Destination quad.

eInterpolation Interpolation mode: can be NPPI_INTER_NN, NPPI_INTER_LINEAR or NPPI_INTER_CUBIC

Returns:

Image Data Related Error Codes, ROI Related Error Codes, Perspective Transform Error Codes

7.79.3.53 NppStatus nppiWarpPerspectiveQuad_16u_C1R (const Npp16u ∗ *pSrc*, NppiSize *oSrcSize*, int *nSrcStep*, NppiRect *oSrcROI*, const double *aSrcQuad*[4][2], Npp16u ∗ *pDst*, int *nDstStep*, NppiRect *oDstROI*, const double *aDstQuad*[4][2], int *eInterpolation*)

Single-channel 16-bit unsigned integer quad-based perspective warp.

Parameters:

pSrc Source-Image Pointer.

oSrcSize Size of source image in pixels

nSrcStep Source-Image Line Step.

oSrcROI Source ROI

aSrcQuad Source quad.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oDstROI Destination ROI

aDstQuad Destination quad.

eInterpolation Interpolation mode: can be NPPI_INTER_NN, NPPI_INTER_LINEAR or NPPI_INTER_CUBIC

Returns:

Image Data Related Error Codes, ROI Related Error Codes, Perspective Transform Error Codes

7.79.3.54 NppStatus nppiWarpPerspectiveQuad_16u_C3R (const Npp16u ∗ *pSrc*, NppiSize *oSrcSize*, int *nSrcStep*, NppiRect *oSrcROI*, const double *aSrcQuad*[4][2], Npp16u ∗ *pDst*, int *nDstStep*, NppiRect *oDstROI*, const double *aDstQuad*[4][2], int *eInterpolation*)

Three-channel 16-bit unsigned integer quad-based perspective warp.

Parameters:

pSrc Source-Image Pointer.

oSrcSize Size of source image in pixels

nSrcStep Source-Image Line Step.

oSrcROI Source ROI

aSrcQuad Source quad.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oDstROI Destination ROI

aDstQuad Destination quad.

eInterpolation Interpolation mode: can be NPPI_INTER_NN, NPPI_INTER_LINEAR or NPPI_INTER_CUBIC

Returns:

Image Data Related Error Codes, ROI Related Error Codes, Perspective Transform Error Codes

7.79.3.55 NppStatus nppiWarpPerspectiveQuad_16u_C4R (const Npp16u ∗ *pSrc*, NppiSize *oSrcSize*, int *nSrcStep*, NppiRect *oSrcROI*, const double *aSrcQuad*[4][2], Npp16u ∗ *pDst*, int *nDstStep*, NppiRect *oDstROI*, const double *aDstQuad*[4][2], int *eInterpolation*)

Four-channel 16-bit unsigned integer quad-based perspective warp.

Parameters:

pSrc Source-Image Pointer.

oSrcSize Size of source image in pixels

nSrcStep Source-Image Line Step.

oSrcROI Source ROI

aSrcQuad Source quad.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oDstROI Destination ROI

aDstQuad Destination quad.

eInterpolation Interpolation mode: can be NPPI_INTER_NN, NPPI_INTER_LINEAR or NPPI_INTER_CUBIC

Returns:

Image Data Related Error Codes, ROI Related Error Codes, Perspective Transform Error Codes

7.79.3.56 NppStatus nppiWarpPerspectiveQuad_16u_P3R (const Npp16u ∗ *pSrc*[3], NppiSize *oSrcSize*, int *nSrcStep*, NppiRect *oSrcROI*, const double *aSrcQuad*[4][2], Npp16u ∗ *pDst*[3], int *nDstStep*, NppiRect *oDstROI*, const double *aDstQuad*[4][2], int *eInterpolation*)

Three-channel planar 16-bit unsigned integer quad-based perspective warp.

Parameters:

pSrc Source-Image Pointer.

oSrcSize Size of source image in pixels

nSrcStep Source-Image Line Step.

oSrcROI Source ROI

aSrcQuad Source quad.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oDstROI Destination ROI

aDstQuad Destination quad.

eInterpolation Interpolation mode: can be NPPI_INTER_NN, NPPI_INTER_LINEAR or NPPI_INTER_CUBIC

Returns:

Image Data Related Error Codes, ROI Related Error Codes, Perspective Transform Error Codes

7.79.3.57 NppStatus nppiWarpPerspectiveQuad_16u_P4R (const Npp16u * *pSrc*[4], NppiSize *oSrcSize*, int *nSrcStep*, NppiRect *oSrcROI*, const double *aSrcQuad*[4][2], Npp16u * *pDst*[4], int *nDstStep*, NppiRect *oDstROI*, const double *aDstQuad*[4][2], int *eInterpolation*)

Four-channel planar 16-bit unsigned integer quad-based perspective warp.

Parameters:

pSrc Source-Image Pointer.

oSrcSize Size of source image in pixels

nSrcStep Source-Image Line Step.

oSrcROI Source ROI

aSrcQuad Source quad.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oDstROI Destination ROI

aDstQuad Destination quad.

eInterpolation Interpolation mode: can be NPPI_INTER_NN, NPPI_INTER_LINEAR or NPPI_-INTER_CUBIC

Returns:

Image Data Related Error Codes, ROI Related Error Codes, Perspective Transform Error Codes

7.79.3.58 NppStatus nppiWarpPerspectiveQuad_32f_AC4R (const Npp32f * *pSrc*, NppiSize *oSrcSize*, int *nSrcStep*, NppiRect *oSrcROI*, const double *aSrcQuad*[4][2], Npp32f * *pDst*, int *nDstStep*, NppiRect *oDstROI*, const double *aDstQuad*[4][2], int *eInterpolation*)

Four-channel 32-bit floating-point quad-based perspective warp, ignoring alpha channel.

Parameters:

pSrc Source-Image Pointer.

oSrcSize Size of source image in pixels

nSrcStep Source-Image Line Step.

oSrcROI Source ROI

aSrcQuad Source quad.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oDstROI Destination ROI

aDstQuad Destination quad.

eInterpolation Interpolation mode: can be NPPI_INTER_NN, NPPI_INTER_LINEAR or NPPI_-INTER_CUBIC

Returns:

Image Data Related Error Codes, ROI Related Error Codes, Perspective Transform Error Codes

7.79.3.59 NppStatus nppiWarpPerspectiveQuad_32f_C1R (const Npp32f * *pSrc*, NppiSize *oSrcSize*, int *nSrcStep*, NppiRect *oSrcROI*, const double *aSrcQuad*[4][2], Npp32f * *pDst*, int *nDstStep*, NppiRect *oDstROI*, const double *aDstQuad*[4][2], int *eInterpolation*)

Single-channel 32-bit floating-point quad-based perspective warp.

Parameters:

pSrc Source-Image Pointer.

oSrcSize Size of source image in pixels

nSrcStep Source-Image Line Step.

oSrcROI Source ROI

aSrcQuad Source quad.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oDstROI Destination ROI

aDstQuad Destination quad.

eInterpolation Interpolation mode: can be NPPI_INTER_NN, NPPI_INTER_LINEAR or NPPI_-INTER_CUBIC

Returns:

Image Data Related Error Codes, ROI Related Error Codes, Perspective Transform Error Codes

7.79.3.60 NppStatus nppiWarpPerspectiveQuad_32f_C3R (const Npp32f * *pSrc*, NppiSize *oSrcSize*, int *nSrcStep*, NppiRect *oSrcROI*, const double *aSrcQuad*[4][2], Npp32f * *pDst*, int *nDstStep*, NppiRect *oDstROI*, const double *aDstQuad*[4][2], int *eInterpolation*)

Three-channel 32-bit floating-point quad-based perspective warp.

Parameters:

pSrc Source-Image Pointer.

oSrcSize Size of source image in pixels

nSrcStep Source-Image Line Step.

oSrcROI Source ROI

aSrcQuad Source quad.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oDstROI Destination ROI

aDstQuad Destination quad.

eInterpolation Interpolation mode: can be NPPI_INTER_NN, NPPI_INTER_LINEAR or NPPI_-INTER_CUBIC

Returns:

Image Data Related Error Codes, ROI Related Error Codes, Perspective Transform Error Codes

7.79.3.61 NppStatus nppiWarpPerspectiveQuad_32f_C4R (const Npp32f ∗ *pSrc*, NppiSize *oSrcSize*, int *nSrcStep*, NppiRect *oSrcROI*, const double *aSrcQuad*[4][2], Npp32f ∗ *pDst*, int *nDstStep*, NppiRect *oDstROI*, const double *aDstQuad*[4][2], int *eInterpolation*)

Four-channel 32-bit floating-point quad-based perspective warp.

Parameters:

pSrc Source-Image Pointer.

oSrcSize Size of source image in pixels

nSrcStep Source-Image Line Step.

oSrcROI Source ROI

aSrcQuad Source quad.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oDstROI Destination ROI

aDstQuad Destination quad.

eInterpolation Interpolation mode: can be NPPI_INTER_NN, NPPI_INTER_LINEAR or NPPI_INTER_CUBIC

Returns:

Image Data Related Error Codes, ROI Related Error Codes, Perspective Transform Error Codes

7.79.3.62 NppStatus nppiWarpPerspectiveQuad_32f_P3R (const Npp32f ∗ *pSrc*[3], NppiSize *oSrcSize*, int *nSrcStep*, NppiRect *oSrcROI*, const double *aSrcQuad*[4][2], Npp32f ∗ *pDst*[3], int *nDstStep*, NppiRect *oDstROI*, const double *aDstQuad*[4][2], int *eInterpolation*)

Three-channel planar 32-bit floating-point quad-based perspective warp.

Parameters:

pSrc Source-Image Pointer.

oSrcSize Size of source image in pixels

nSrcStep Source-Image Line Step.

oSrcROI Source ROI

aSrcQuad Source quad.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oDstROI Destination ROI

aDstQuad Destination quad.

eInterpolation Interpolation mode: can be NPPI_INTER_NN, NPPI_INTER_LINEAR or NPPI_INTER_CUBIC

Returns:

Image Data Related Error Codes, ROI Related Error Codes, Perspective Transform Error Codes

7.79.3.63 NppStatus nppiWarpPerspectiveQuad_32f_P4R (const Npp32f ∗ *pSrc*[4], NppiSize *oSrcSize*, int *nSrcStep*, NppiRect *oSrcROI*, const double *aSrcQuad*[4][2], Npp32f ∗ *pDst*[4], int *nDstStep*, NppiRect *oDstROI*, const double *aDstQuad*[4][2], int *eInterpolation*)

Four-channel planar 32-bit floating-point quad-based perspective warp.

Parameters:

pSrc Source-Image Pointer.

oSrcSize Size of source image in pixels

nSrcStep Source-Image Line Step.

oSrcROI Source ROI

aSrcQuad Source quad.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oDstROI Destination ROI

aDstQuad Destination quad.

eInterpolation Interpolation mode: can be NPPI_INTER_NN, NPPI_INTER_LINEAR or NPPI_INTER_CUBIC

Returns:

Image Data Related Error Codes, ROI Related Error Codes, Perspective Transform Error Codes

7.79.3.64 NppStatus nppiWarpPerspectiveQuad_32s_AC4R (const Npp32s ∗ *pSrc*, NppiSize *oSrcSize*, int *nSrcStep*, NppiRect *oSrcROI*, const double *aSrcQuad*[4][2], Npp32s ∗ *pDst*, int *nDstStep*, NppiRect *oDstROI*, const double *aDstQuad*[4][2], int *eInterpolation*)

Four-channel 32-bit signed integer quad-based perspective warp, ignoring alpha channel.

Parameters:

pSrc Source-Image Pointer.

oSrcSize Size of source image in pixels

nSrcStep Source-Image Line Step.

oSrcROI Source ROI

aSrcQuad Source quad.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oDstROI Destination ROI

aDstQuad Destination quad.

eInterpolation Interpolation mode: can be NPPI_INTER_NN, NPPI_INTER_LINEAR or NPPI_INTER_CUBIC

Returns:

Image Data Related Error Codes, ROI Related Error Codes, Perspective Transform Error Codes

7.79.3.65 NppStatus nppiWarpPerspectiveQuad_32s_C1R (const Npp32s $*$ *pSrc*, NppiSize *oSrcSize*, int *nSrcStep*, NppiRect *oSrcROI*, const double *aSrcQuad*[4][2], Npp32s $*$ *pDst*, int *nDstStep*, NppiRect *oDstROI*, const double *aDstQuad*[4][2], int *eInterpolation*)

Single-channel 32-bit signed integer quad-based perspective warp.

Parameters:

pSrc Source-Image Pointer.

oSrcSize Size of source image in pixels

nSrcStep Source-Image Line Step.

oSrcROI Source ROI

aSrcQuad Source quad.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oDstROI Destination ROI

aDstQuad Destination quad.

eInterpolation Interpolation mode: can be NPPI_INTER_NN, NPPI_INTER_LINEAR or NPPI_INTER_CUBIC

Returns:

Image Data Related Error Codes, ROI Related Error Codes, Perspective Transform Error Codes

7.79.3.66 NppStatus nppiWarpPerspectiveQuad_32s_C3R (const Npp32s $*$ *pSrc*, NppiSize *oSrcSize*, int *nSrcStep*, NppiRect *oSrcROI*, const double *aSrcQuad*[4][2], Npp32s $*$ *pDst*, int *nDstStep*, NppiRect *oDstROI*, const double *aDstQuad*[4][2], int *eInterpolation*)

Three-channel 32-bit signed integer quad-based perspective warp.

Parameters:

pSrc Source-Image Pointer.

oSrcSize Size of source image in pixels

nSrcStep Source-Image Line Step.

oSrcROI Source ROI

aSrcQuad Source quad.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oDstROI Destination ROI

aDstQuad Destination quad.

eInterpolation Interpolation mode: can be NPPI_INTER_NN, NPPI_INTER_LINEAR or NPPI_INTER_CUBIC

Returns:

Image Data Related Error Codes, ROI Related Error Codes, Perspective Transform Error Codes

7.79.3.67 NppStatus nppiWarpPerspectiveQuad_32s_C4R (const Npp32s * *pSrc*, NppiSize *oSrcSize*, int *nSrcStep*, NppiRect *oSrcROI*, const double *aSrcQuad*[4][2], Npp32s * *pDst*, int *nDstStep*, NppiRect *oDstROI*, const double *aDstQuad*[4][2], int *eInterpolation*)

Four-channel 32-bit signed integer quad-based perspective warp.

Parameters:

pSrc Source-Image Pointer.

oSrcSize Size of source image in pixels

nSrcStep Source-Image Line Step.

oSrcROI Source ROI

aSrcQuad Source quad.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oDstROI Destination ROI

aDstQuad Destination quad.

eInterpolation Interpolation mode: can be NPPI_INTER_NN, NPPI_INTER_LINEAR or NPPI_INTER_CUBIC

Returns:

Image Data Related Error Codes, ROI Related Error Codes, Perspective Transform Error Codes

7.79.3.68 NppStatus nppiWarpPerspectiveQuad_32s_P3R (const Npp32s * *pSrc*[3], NppiSize *oSrcSize*, int *nSrcStep*, NppiRect *oSrcROI*, const double *aSrcQuad*[4][2], Npp32s * *pDst*[3], int *nDstStep*, NppiRect *oDstROI*, const double *aDstQuad*[4][2], int *eInterpolation*)

Three-channel planar 32-bit signed integer quad-based perspective warp.

Parameters:

pSrc Source-Image Pointer.

oSrcSize Size of source image in pixels

nSrcStep Source-Image Line Step.

oSrcROI Source ROI

aSrcQuad Source quad.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oDstROI Destination ROI

aDstQuad Destination quad.

eInterpolation Interpolation mode: can be NPPI_INTER_NN, NPPI_INTER_LINEAR or NPPI_INTER_CUBIC

Returns:

Image Data Related Error Codes, ROI Related Error Codes, Perspective Transform Error Codes

7.79.3.69 NppStatus nppiWarpPerspectiveQuad_32s_P4R (const Npp32s ∗ *pSrc*[4], NppiSize *oSrcSize*, int *nSrcStep*, NppiRect *oSrcROI*, const double *aSrcQuad*[4][2], Npp32s ∗ *pDst*[4], int *nDstStep*, NppiRect *oDstROI*, const double *aDstQuad*[4][2], int *eInterpolation*)

Four-channel planar 32-bit signed integer quad-based perspective warp.

Parameters:

pSrc Source-Image Pointer.

oSrcSize Size of source image in pixels

nSrcStep Source-Image Line Step.

oSrcROI Source ROI

aSrcQuad Source quad.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oDstROI Destination ROI

aDstQuad Destination quad.

eInterpolation Interpolation mode: can be NPPI_INTER_NN, NPPI_INTER_LINEAR or NPPI_INTER_CUBIC

Returns:

Image Data Related Error Codes, ROI Related Error Codes, Perspective Transform Error Codes

7.79.3.70 NppStatus nppiWarpPerspectiveQuad_8u_AC4R (const Npp8u ∗ *pSrc*, NppiSize *oSrcSize*, int *nSrcStep*, NppiRect *oSrcROI*, const double *aSrcQuad*[4][2], Npp8u ∗ *pDst*, int *nDstStep*, NppiRect *oDstROI*, const double *aDstQuad*[4][2], int *eInterpolation*)

Four-channel 8-bit unsigned integer quad-based perspective warp, ignoring alpha channel.

Parameters:

pSrc Source-Image Pointer.

oSrcSize Size of source image in pixels

nSrcStep Source-Image Line Step.

oSrcROI Source ROI

aSrcQuad Source quad.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oDstROI Destination ROI

aDstQuad Destination quad.

eInterpolation Interpolation mode: can be NPPI_INTER_NN, NPPI_INTER_LINEAR or NPPI_INTER_CUBIC

Returns:

Image Data Related Error Codes, ROI Related Error Codes, Perspective Transform Error Codes

7.79.3.71 NppStatus nppiWarpPerspectiveQuad_8u_C1R (const Npp8u * *pSrc*, NppiSize *oSrcSize*, int *nSrcStep*, NppiRect *oSrcROI*, const double *aSrcQuad*[4][2], Npp8u * *pDst*, int *nDstStep*, NppiRect *oDstROI*, const double *aDstQuad*[4][2], int *eInterpolation*)

Single-channel 8-bit unsigned integer quad-based perspective warp.

Parameters:

pSrc Source-Image Pointer.

oSrcSize Size of source image in pixels

nSrcStep Source-Image Line Step.

oSrcROI Source ROI

aSrcQuad Source quad.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oDstROI Destination ROI

aDstQuad Destination quad.

eInterpolation Interpolation mode: can be NPPI_INTER_NN, NPPI_INTER_LINEAR or NPPI_-INTER_CUBIC

Returns:

Image Data Related Error Codes, ROI Related Error Codes, Perspective Transform Error Codes

7.79.3.72 NppStatus nppiWarpPerspectiveQuad_8u_C3R (const Npp8u * *pSrc*, NppiSize *oSrcSize*, int *nSrcStep*, NppiRect *oSrcROI*, const double *aSrcQuad*[4][2], Npp8u * *pDst*, int *nDstStep*, NppiRect *oDstROI*, const double *aDstQuad*[4][2], int *eInterpolation*)

Three-channel 8-bit unsigned integer quad-based perspective warp.

Parameters:

pSrc Source-Image Pointer.

oSrcSize Size of source image in pixels

nSrcStep Source-Image Line Step.

oSrcROI Source ROI

aSrcQuad Source quad.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oDstROI Destination ROI

aDstQuad Destination quad.

eInterpolation Interpolation mode: can be NPPI_INTER_NN, NPPI_INTER_LINEAR or NPPI_-INTER_CUBIC

Returns:

Image Data Related Error Codes, ROI Related Error Codes, Perspective Transform Error Codes

7.79.3.73 NppStatus nppiWarpPerspectiveQuad_8u_C4R (const Npp8u ∗ *pSrc*, NppiSize *oSrcSize*, int *nSrcStep*, NppiRect *oSrcROI*, const double *aSrcQuad*[4][2], Npp8u ∗ *pDst*, int *nDstStep*, NppiRect *oDstROI*, const double *aDstQuad*[4][2], int *eInterpolation*)

Four-channel 8-bit unsigned integer quad-based perspective warp.

Parameters:

pSrc Source-Image Pointer.

oSrcSize Size of source image in pixels

nSrcStep Source-Image Line Step.

oSrcROI Source ROI

aSrcQuad Source quad.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oDstROI Destination ROI

aDstQuad Destination quad.

eInterpolation Interpolation mode: can be NPPI_INTER_NN, NPPI_INTER_LINEAR or NPPI_INTER_CUBIC

Returns:

Image Data Related Error Codes, ROI Related Error Codes, Perspective Transform Error Codes

7.79.3.74 NppStatus nppiWarpPerspectiveQuad_8u_P3R (const Npp8u ∗ *pSrc*[3], NppiSize *oSrcSize*, int *nSrcStep*, NppiRect *oSrcROI*, const double *aSrcQuad*[4][2], Npp8u ∗ *pDst*[3], int *nDstStep*, NppiRect *oDstROI*, const double *aDstQuad*[4][2], int *eInterpolation*)

Three-channel planar 8-bit unsigned integer quad-based perspective warp.

Parameters:

pSrc Source-Image Pointer.

oSrcSize Size of source image in pixels

nSrcStep Source-Image Line Step.

oSrcROI Source ROI

aSrcQuad Source quad.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oDstROI Destination ROI

aDstQuad Destination quad.

eInterpolation Interpolation mode: can be NPPI_INTER_NN, NPPI_INTER_LINEAR or NPPI_INTER_CUBIC

Returns:

Image Data Related Error Codes, ROI Related Error Codes, Perspective Transform Error Codes

7.79.3.75 NppStatus nppiWarpPerspectiveQuad_8u_P4R (const Npp8u $*$ *pSrc*[4], NppiSize *oSrcSize*, int *nSrcStep*, NppiRect *oSrcROI*, const double *aSrcQuad*[4][2], Npp8u $*$ *pDst*[4], int *nDstStep*, NppiRect *oDstROI*, const double *aDstQuad*[4][2], int *eInterpolation*)

Four-channel planar 8-bit unsigned integer quad-based perspective warp.

Parameters:

pSrc Source-Image Pointer.

oSrcSize Size of source image in pixels

nSrcStep Source-Image Line Step.

oSrcROI Source ROI

aSrcQuad Source quad.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oDstROI Destination ROI

aDstQuad Destination quad.

eInterpolation Interpolation mode: can be NPPI_INTER_NN, NPPI_INTER_LINEAR or NPPI_INTER_CUBIC

Returns:

Image Data Related Error Codes, ROI Related Error Codes, Perspective Transform Error Codes

7.80 Linear Transforms

Linear image transformations.

Modules

- Fourier Transforms

7.80.1 Detailed Description

Linear image transformations.

7.81 Fourier Transforms

Functions

- NppStatus nppiMagnitude_32fc32f_C1R (const Npp32fc ∗pSrc, int nSrcStep, Npp32f ∗pDst, int nDstStep, NppiSize oSizeROI)

  32-bit floating point complex to 32-bit floating point magnitude.

- NppStatus nppiMagnitudeSqr_32fc32f_C1R (const Npp32fc ∗pSrc, int nSrcStep, Npp32f ∗pDst, int nDstStep, NppiSize oSizeROI)

  32-bit floating point complex to 32-bit floating point squared magnitude.

7.81.1 Function Documentation

7.81.1.1 NppStatus nppiMagnitude_32fc32f_C1R (const Npp32fc ∗ *pSrc*, int *nSrcStep*, Npp32f ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*)

32-bit floating point complex to 32-bit floating point magnitude.

Converts complex-number pixel image to single channel image computing the result pixels as the magnitude of the complex values.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.81.1.2 NppStatus nppiMagnitudeSqr_32fc32f_C1R (const Npp32fc ∗ *pSrc*, int *nSrcStep*, Npp32f ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*)

32-bit floating point complex to 32-bit floating point squared magnitude.

Converts complex-number pixel image to single channel image computing the result pixels as the squared magnitude of the complex values.

The squared magnitude is an itermediate result of magnitude computation and can thus be computed faster than actual magnitude. If magnitudes are required for sorting/comparing only, using this function instead of nppiMagnitude_32fc32f_C1R can be a worthwhile performance optimization.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.82 Morphological Operations

Morphological image operations.

Modules

- Dilation

    Dilation computes the output pixel as the maximum pixel value of the pixels under the mask.

- Dilation with border control

    Dilation computes the output pixel as the maximum pixel value of the pixels under the mask.

- Dilate3x3

    Dilation using a 3x3 mask with the anchor at its center pixel.

- Dilate3x3Border

    Dilation using a 3x3 mask with the anchor at its center pixel with border control.

- Erode

    Erosion computes the output pixel as the minimum pixel value of the pixels under the mask.

- Erosion with border control

    Erosion computes the output pixel as the minimum pixel value of the pixels under the mask.

- Erode3x3

    Erosion using a 3x3 mask with the anchor at its center pixel.

- Erode3x3Border

    Erosion using a 3x3 mask with the anchor at its center pixel with border control.

7.82.1 Detailed Description

Morphological image operations.

Morphological operations are classified as Neighborhood Operations.

7.83 Dilation

Dilation computes the output pixel as the maximum pixel value of the pixels under the mask.

Functions

- NppStatus nppiDilate_8u_C1R (const Npp8u ∗pSrc, Npp32s nSrcStep, Npp8u ∗pDst, Npp32s nDstStep, NppiSize oSizeROI, const Npp8u ∗pMask, NppiSize oMaskSize, NppiPoint oAnchor)

  Single-channel 8-bit unsigned integer dilation.

- NppStatus nppiDilate_8u_C3R (const Npp8u ∗pSrc, Npp32s nSrcStep, Npp8u ∗pDst, Npp32s nDstStep, NppiSize oSizeROI, const Npp8u ∗pMask, NppiSize oMaskSize, NppiPoint oAnchor)

  Three-channel 8-bit unsigned integer dilation.

- NppStatus nppiDilate_8u_C4R (const Npp8u ∗pSrc, int nSrcStep, Npp8u ∗pDst, int nDstStep, NppiSize oSizeROI, const Npp8u ∗pMask, NppiSize oMaskSize, NppiPoint oAnchor)

  Four-channel 8-bit unsigned integer dilation.

- NppStatus nppiDilate_8u_AC4R (const Npp8u ∗pSrc, int nSrcStep, Npp8u ∗pDst, int nDstStep, NppiSize oSizeROI, const Npp8u ∗pMask, NppiSize oMaskSize, NppiPoint oAnchor)

  Four-channel 8-bit unsigned integer dilation, ignoring alpha-channel.

- NppStatus nppiDilate_16u_C1R (const Npp16u ∗pSrc, Npp32s nSrcStep, Npp16u ∗pDst, Npp32s nDstStep, NppiSize oSizeROI, const Npp8u ∗pMask, NppiSize oMaskSize, NppiPoint oAnchor)

  Single-channel 16-bit unsigned integer dilation.

- NppStatus nppiDilate_16u_C3R (const Npp16u ∗pSrc, Npp32s nSrcStep, Npp16u ∗pDst, Npp32s nDstStep, NppiSize oSizeROI, const Npp8u ∗pMask, NppiSize oMaskSize, NppiPoint oAnchor)

  Three-channel 16-bit unsigned integer dilation.

- NppStatus nppiDilate_16u_C4R (const Npp16u ∗pSrc, int nSrcStep, Npp16u ∗pDst, int nDstStep, NppiSize oSizeROI, const Npp8u ∗pMask, NppiSize oMaskSize, NppiPoint oAnchor)

  Four-channel 16-bit unsigned integer dilation.

- NppStatus nppiDilate_16u_AC4R (const Npp16u ∗pSrc, int nSrcStep, Npp16u ∗pDst, int nDstStep, NppiSize oSizeROI, const Npp8u ∗pMask, NppiSize oMaskSize, NppiPoint oAnchor)

  Four-channel 16-bit unsigned integer dilation, ignoring alpha-channel.

- NppStatus nppiDilate_32f_C1R (const Npp32f ∗pSrc, Npp32s nSrcStep, Npp32f ∗pDst, Npp32s nDstStep, NppiSize oSizeROI, const Npp8u ∗pMask, NppiSize oMaskSize, NppiPoint oAnchor)

  Single-channel 32-bit floating-point dilation.

- NppStatus nppiDilate_32f_C3R (const Npp32f ∗pSrc, Npp32s nSrcStep, Npp32f ∗pDst, Npp32s nDstStep, NppiSize oSizeROI, const Npp8u ∗pMask, NppiSize oMaskSize, NppiPoint oAnchor)

  Three-channel 32-bit floating-point dilation.

- NppStatus nppiDilate_32f_C4R (const Npp32f ∗pSrc, int nSrcStep, Npp32f ∗pDst, int nDstStep, NppiSize oSizeROI, const Npp8u ∗pMask, NppiSize oMaskSize, NppiPoint oAnchor)

  Four-channel 32-bit floating-point dilation.

- NppStatus nppiDilate_32f_AC4R (const Npp32f ∗pSrc, int nSrcStep, Npp32f ∗pDst, int nDstStep, NppiSize oSizeROI, const Npp8u ∗pMask, NppiSize oMaskSize, NppiPoint oAnchor)

  Four-channel 32-bit floating-point dilation, ignoring alpha-channel.

7.83.1 Detailed Description

Dilation computes the output pixel as the maximum pixel value of the pixels under the mask.

Pixels who's corresponding mask values are zero do not participate in the maximum search.

It is the user's responsibility to avoid Sampling Beyond Image Boundaries.

7.83.2 Function Documentation

7.83.2.1 NppStatus nppiDilate_16u_AC4R (const Npp16u ∗ *pSrc*, int *nSrcStep*, Npp16u ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, const Npp8u ∗ *pMask*, NppiSize *oMaskSize*, NppiPoint *oAnchor*)

Four-channel 16-bit unsigned integer dilation, ignoring alpha-channel.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pMask Pointer to the start address of the mask array

oMaskSize Width and Height mask array.

oAnchor X and Y offsets of the mask origin frame of reference w.r.t the source pixel.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.83.2.2 NppStatus nppiDilate_16u_C1R (const Npp16u ∗ *pSrc*, Npp32s *nSrcStep*, Npp16u ∗ *pDst*, Npp32s *nDstStep*, NppiSize *oSizeROI*, const Npp8u ∗ *pMask*, NppiSize *oMaskSize*, NppiPoint *oAnchor*)

Single-channel 16-bit unsigned integer dilation.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pMask Pointer to the start address of the mask array

oMaskSize Width and Height mask array.

oAnchor X and Y offsets of the mask origin frame of reference w.r.t the source pixel.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.83.2.3 NppStatus nppiDilate_16u_C3R (const Npp16u ∗ *pSrc*, Npp32s *nSrcStep*, Npp16u ∗ *pDst*, Npp32s *nDstStep*, NppiSize *oSizeROI*, const Npp8u ∗ *pMask*, NppiSize *oMaskSize*, NppiPoint *oAnchor*)

Three-channel 16-bit unsigned integer dilation.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pMask Pointer to the start address of the mask array

oMaskSize Width and Height mask array.

oAnchor X and Y offsets of the mask origin frame of reference w.r.t the source pixel.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.83.2.4 NppStatus nppiDilate_16u_C4R (const Npp16u ∗ *pSrc*, int *nSrcStep*, Npp16u ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, const Npp8u ∗ *pMask*, NppiSize *oMaskSize*, NppiPoint *oAnchor*)

Four-channel 16-bit unsigned integer dilation.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pMask Pointer to the start address of the mask array

oMaskSize Width and Height mask array.

oAnchor X and Y offsets of the mask origin frame of reference w.r.t the source pixel.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.83.2.5 NppStatus nppiDilate_32f_AC4R (const Npp32f ∗ *pSrc*, int *nSrcStep*, Npp32f ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, const Npp8u ∗ *pMask*, NppiSize *oMaskSize*, NppiPoint *oAnchor*)

Four-channel 32-bit floating-point dilation, ignoring alpha-channel.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pMask Pointer to the start address of the mask array

oMaskSize Width and Height mask array.

oAnchor X and Y offsets of the mask origin frame of reference w.r.t the source pixel.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.83.2.6 NppStatus nppiDilate_32f_C1R (const Npp32f ∗ *pSrc*, Npp32s *nSrcStep*, Npp32f ∗ *pDst*, Npp32s *nDstStep*, NppiSize *oSizeROI*, const Npp8u ∗ *pMask*, NppiSize *oMaskSize*, NppiPoint *oAnchor*)

Single-channel 32-bit floating-point dilation.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pMask Pointer to the start address of the mask array

oMaskSize Width and Height mask array.

oAnchor X and Y offsets of the mask origin frame of reference w.r.t the source pixel.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.83.2.7 NppStatus nppiDilate_32f_C3R (const Npp32f ∗ *pSrc*, Npp32s *nSrcStep*, Npp32f ∗ *pDst*, Npp32s *nDstStep*, NppiSize *oSizeROI*, const Npp8u ∗ *pMask*, NppiSize *oMaskSize*, NppiPoint *oAnchor*)

Three-channel 32-bit floating-point dilation.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pMask Pointer to the start address of the mask array

oMaskSize Width and Height mask array.

oAnchor X and Y offsets of the mask origin frame of reference w.r.t the source pixel.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.83.2.8 NppStatus nppiDilate_32f_C4R (const Npp32f ∗ *pSrc*, int *nSrcStep*, Npp32f ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, const Npp8u ∗ *pMask*, NppiSize *oMaskSize*, NppiPoint *oAnchor*)

Four-channel 32-bit floating-point dilation.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pMask Pointer to the start address of the mask array

oMaskSize Width and Height mask array.

oAnchor X and Y offsets of the mask origin frame of reference w.r.t the source pixel.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.83.2.9 NppStatus nppiDilate_8u_AC4R (const Npp8u ∗ *pSrc*, int *nSrcStep*, Npp8u ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, const Npp8u ∗ *pMask*, NppiSize *oMaskSize*, NppiPoint *oAnchor*)

Four-channel 8-bit unsigned integer dilation, ignoring alpha-channel.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pMask Pointer to the start address of the mask array

oMaskSize Width and Height mask array.

oAnchor X and Y offsets of the mask origin frame of reference w.r.t the source pixel.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.83.2.10 NppStatus nppiDilate_8u_C1R (const Npp8u * *pSrc*, Npp32s *nSrcStep*, Npp8u * *pDst*, Npp32s *nDstStep*, NppiSize *oSizeROI*, const Npp8u * *pMask*, NppiSize *oMaskSize*, NppiPoint *oAnchor*)

Single-channel 8-bit unsigned integer dilation.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pMask Pointer to the start address of the mask array

oMaskSize Width and Height mask array.

oAnchor X and Y offsets of the mask origin frame of reference w.r.t the source pixel.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.83.2.11 NppStatus nppiDilate_8u_C3R (const Npp8u * *pSrc*, Npp32s *nSrcStep*, Npp8u * *pDst*, Npp32s *nDstStep*, NppiSize *oSizeROI*, const Npp8u * *pMask*, NppiSize *oMaskSize*, NppiPoint *oAnchor*)

Three-channel 8-bit unsigned integer dilation.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pMask Pointer to the start address of the mask array

oMaskSize Width and Height mask array.

oAnchor X and Y offsets of the mask origin frame of reference w.r.t the source pixel.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.83.2.12 NppStatus nppiDilate_8u_C4R (const Npp8u ∗ *pSrc*, int *nSrcStep*, Npp8u ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, const Npp8u ∗ *pMask*, NppiSize *oMaskSize*, NppiPoint *oAnchor*)

Four-channel 8-bit unsigned integer dilation.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pMask Pointer to the start address of the mask array

oMaskSize Width and Height mask array.

oAnchor X and Y offsets of the mask origin frame of reference w.r.t the source pixel.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.84 Dilation with border control

Dilation computes the output pixel as the maximum pixel value of the pixels under the mask.

Functions

- NppStatus nppiDilateBorder_8u_C1R (const Npp8u ∗pSrc, Npp32s nSrcStep, NppiSize oSrcSize, NppiPoint oSrcOffset, Npp8u ∗pDst, Npp32s nDstStep, NppiSize oSizeROI, const Npp8u ∗pMask, NppiSize oMaskSize, NppiPoint oAnchor, NppiBorderType eBorderType)

  Single-channel 8-bit unsigned integer dilation with border control.

- NppStatus nppiDilateBorder_8u_C3R (const Npp8u ∗pSrc, Npp32s nSrcStep, NppiSize oSrcSize, NppiPoint oSrcOffset, Npp8u ∗pDst, Npp32s nDstStep, NppiSize oSizeROI, const Npp8u ∗pMask, NppiSize oMaskSize, NppiPoint oAnchor, NppiBorderType eBorderType)

  Three-channel 8-bit unsigned integer dilation with border control.

- NppStatus nppiDilateBorder_8u_C4R (const Npp8u ∗pSrc, int nSrcStep, NppiSize oSrcSize, NppiPoint oSrcOffset, Npp8u ∗pDst, int nDstStep, NppiSize oSizeROI, const Npp8u ∗pMask, NppiSize oMaskSize, NppiPoint oAnchor, NppiBorderType eBorderType)

  Four-channel 8-bit unsigned integer dilation with border control.

- NppStatus nppiDilateBorder_8u_AC4R (const Npp8u ∗pSrc, int nSrcStep, NppiSize oSrcSize, NppiPoint oSrcOffset, Npp8u ∗pDst, int nDstStep, NppiSize oSizeROI, const Npp8u ∗pMask, NppiSize oMaskSize, NppiPoint oAnchor, NppiBorderType eBorderType)

  Four-channel 8-bit unsigned integer dilation with border control, ignoring alpha-channel.

- NppStatus nppiDilateBorder_16u_C1R (const Npp16u ∗pSrc, Npp32s nSrcStep, NppiSize oSrcSize, NppiPoint oSrcOffset, Npp16u ∗pDst, Npp32s nDstStep, NppiSize oSizeROI, const Npp8u ∗pMask, NppiSize oMaskSize, NppiPoint oAnchor, NppiBorderType eBorderType)

  Single-channel 16-bit unsigned integer dilation with border control.

- NppStatus nppiDilateBorder_16u_C3R (const Npp16u ∗pSrc, Npp32s nSrcStep, NppiSize oSrcSize, NppiPoint oSrcOffset, Npp16u ∗pDst, Npp32s nDstStep, NppiSize oSizeROI, const Npp8u ∗pMask, NppiSize oMaskSize, NppiPoint oAnchor, NppiBorderType eBorderType)

  Three-channel 16-bit unsigned integer dilation with border control.

- NppStatus nppiDilateBorder_16u_C4R (const Npp16u ∗pSrc, int nSrcStep, NppiSize oSrcSize, NppiPoint oSrcOffset, Npp16u ∗pDst, int nDstStep, NppiSize oSizeROI, const Npp8u ∗pMask, NppiSize oMaskSize, NppiPoint oAnchor, NppiBorderType eBorderType)

  Four-channel 16-bit unsigned integer dilation with border control.

- NppStatus nppiDilateBorder_16u_AC4R (const Npp16u ∗pSrc, int nSrcStep, NppiSize oSrcSize, NppiPoint oSrcOffset, Npp16u ∗pDst, int nDstStep, NppiSize oSizeROI, const Npp8u ∗pMask, NppiSize oMaskSize, NppiPoint oAnchor, NppiBorderType eBorderType)

  Four-channel 16-bit unsigned integer dilation with border control, ignoring alpha-channel.

- NppStatus nppiDilateBorder_32f_C1R (const Npp32f ∗pSrc, Npp32s nSrcStep, NppiSize oSrcSize, NppiPoint oSrcOffset, Npp32f ∗pDst, Npp32s nDstStep, NppiSize oSizeROI, const Npp8u ∗pMask, NppiSize oMaskSize, NppiPoint oAnchor, NppiBorderType eBorderType)

  Single-channel 32-bit floating-point dilation with border control.

- NppStatus nppiDilateBorder_32f_C3R (const Npp32f ∗pSrc, Npp32s nSrcStep, NppiSize oSrcSize, NppiPoint oSrcOffset, Npp32f ∗pDst, Npp32s nDstStep, NppiSize oSizeROI, const Npp8u ∗pMask, NppiSize oMaskSize, NppiPoint oAnchor, NppiBorderType eBorderType)

  Three-channel 32-bit floating-point dilation with border control.

- NppStatus nppiDilateBorder_32f_C4R (const Npp32f ∗pSrc, int nSrcStep, NppiSize oSrcSize, NppiPoint oSrcOffset, Npp32f ∗pDst, int nDstStep, NppiSize oSizeROI, const Npp8u ∗pMask, NppiSize oMaskSize, NppiPoint oAnchor, NppiBorderType eBorderType)

  Four-channel 32-bit floating-point dilation with border control.

- NppStatus nppiDilateBorder_32f_AC4R (const Npp32f ∗pSrc, int nSrcStep, NppiSize oSrcSize, NppiPoint oSrcOffset, Npp32f ∗pDst, int nDstStep, NppiSize oSizeROI, const Npp8u ∗pMask, NppiSize oMaskSize, NppiPoint oAnchor, NppiBorderType eBorderType)

  Four-channel 32-bit floating-point dilation with border control, ignoring alpha-channel.

7.84.1 Detailed Description

Dilation computes the output pixel as the maximum pixel value of the pixels under the mask.

Pixels who's corresponding mask values are zero do not participate in the maximum search.

If any portion of the mask overlaps the source image boundary the requested border type operation is applied to all mask pixels which fall outside of the source image.

Currently only the NPP_BORDER_REPLICATE border type operation is supported.

7.84.2 Function Documentation

7.84.2.1 NppStatus nppiDilateBorder_16u_AC4R (const Npp16u ∗ *pSrc*, int *nSrcStep*, NppiSize *oSrcSize*, NppiPoint *oSrcOffset*, Npp16u ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, const Npp8u ∗ *pMask*, NppiSize *oMaskSize*, NppiPoint *oAnchor*, NppiBorderType *eBorderType*)

Four-channel 16-bit unsigned integer dilation with border control, ignoring alpha-channel.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSrcSize Source image width and height in pixels relative to pSrc.

oSrcOffset Source image starting point relative to pSrc.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pMask Pointer to the start address of the mask array

oMaskSize Width and Height mask array.

oAnchor X and Y offsets of the mask origin frame of reference w.r.t the source pixel.

eBorderType The border type operation to be applied at source image border boundaries.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.84.2.2 NppStatus nppiDilateBorder_16u_C1R (const Npp16u ∗ *pSrc*, Npp32s *nSrcStep*, NppiSize *oSrcSize*, NppiPoint *oSrcOffset*, Npp16u ∗ *pDst*, Npp32s *nDstStep*, NppiSize *oSizeROI*, const Npp8u ∗ *pMask*, NppiSize *oMaskSize*, NppiPoint *oAnchor*, NppiBorderType *eBorderType*)

Single-channel 16-bit unsigned integer dilation with border control.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSrcSize Source image width and height in pixels relative to pSrc.

oSrcOffset Source image starting point relative to pSrc.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pMask Pointer to the start address of the mask array

oMaskSize Width and Height mask array.

oAnchor X and Y offsets of the mask origin frame of reference w.r.t the source pixel.

eBorderType The border type operation to be applied at source image border boundaries.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.84.2.3 NppStatus nppiDilateBorder_16u_C3R (const Npp16u ∗ *pSrc*, Npp32s *nSrcStep*, NppiSize *oSrcSize*, NppiPoint *oSrcOffset*, Npp16u ∗ *pDst*, Npp32s *nDstStep*, NppiSize *oSizeROI*, const Npp8u ∗ *pMask*, NppiSize *oMaskSize*, NppiPoint *oAnchor*, NppiBorderType *eBorderType*)

Three-channel 16-bit unsigned integer dilation with border control.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSrcSize Source image width and height in pixels relative to pSrc.

oSrcOffset Source image starting point relative to pSrc.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pMask Pointer to the start address of the mask array

oMaskSize Width and Height mask array.

oAnchor X and Y offsets of the mask origin frame of reference w.r.t the source pixel.

eBorderType The border type operation to be applied at source image border boundaries.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.84.2.4 NppStatus nppiDilateBorder_16u_C4R (const Npp16u ∗ *pSrc*, int *nSrcStep*, NppiSize *oSrcSize*, NppiPoint *oSrcOffset*, Npp16u ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, const Npp8u ∗ *pMask*, NppiSize *oMaskSize*, NppiPoint *oAnchor*, NppiBorderType *eBorderType*)

Four-channel 16-bit unsigned integer dilation with border control.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSrcSize Source image width and height in pixels relative to pSrc.

oSrcOffset Source image starting point relative to pSrc.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pMask Pointer to the start address of the mask array

oMaskSize Width and Height mask array.

oAnchor X and Y offsets of the mask origin frame of reference w.r.t the source pixel.

eBorderType The border type operation to be applied at source image border boundaries.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.84.2.5 NppStatus nppiDilateBorder_32f_AC4R (const Npp32f ∗ *pSrc*, int *nSrcStep*, NppiSize *oSrcSize*, NppiPoint *oSrcOffset*, Npp32f ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, const Npp8u ∗ *pMask*, NppiSize *oMaskSize*, NppiPoint *oAnchor*, NppiBorderType *eBorderType*)

Four-channel 32-bit floating-point dilation with border control, ignoring alpha-channel.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSrcSize Source image width and height in pixels relative to pSrc.

oSrcOffset Source image starting point relative to pSrc.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pMask Pointer to the start address of the mask array

oMaskSize Width and Height mask array.

oAnchor X and Y offsets of the mask origin frame of reference w.r.t the source pixel.

eBorderType The border type operation to be applied at source image border boundaries.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.84.2.6 NppStatus nppiDilateBorder_32f_C1R (const Npp32f ∗ *pSrc*, Npp32s *nSrcStep*, NppiSize *oSrcSize*, NppiPoint *oSrcOffset*, Npp32f ∗ *pDst*, Npp32s *nDstStep*, NppiSize *oSizeROI*, const Npp8u ∗ *pMask*, NppiSize *oMaskSize*, NppiPoint *oAnchor*, NppiBorderType *eBorderType*)

Single-channel 32-bit floating-point dilation with border control.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSrcSize Source image width and height in pixels relative to pSrc.

oSrcOffset Source image starting point relative to pSrc.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pMask Pointer to the start address of the mask array

oMaskSize Width and Height mask array.

oAnchor X and Y offsets of the mask origin frame of reference w.r.t the source pixel.

eBorderType The border type operation to be applied at source image border boundaries.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.84.2.7 NppStatus nppiDilateBorder_32f_C3R (const Npp32f ∗ *pSrc*, Npp32s *nSrcStep*, NppiSize *oSrcSize*, NppiPoint *oSrcOffset*, Npp32f ∗ *pDst*, Npp32s *nDstStep*, NppiSize *oSizeROI*, const Npp8u ∗ *pMask*, NppiSize *oMaskSize*, NppiPoint *oAnchor*, NppiBorderType *eBorderType*)

Three-channel 32-bit floating-point dilation with border control.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSrcSize Source image width and height in pixels relative to pSrc.

oSrcOffset Source image starting point relative to pSrc.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pMask Pointer to the start address of the mask array

oMaskSize Width and Height mask array.

oAnchor X and Y offsets of the mask origin frame of reference w.r.t the source pixel.

eBorderType The border type operation to be applied at source image border boundaries.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.84.2.8 NppStatus nppiDilateBorder_32f_C4R (const Npp32f ∗ *pSrc*, int *nSrcStep*, NppiSize *oSrcSize*, NppiPoint *oSrcOffset*, Npp32f ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, const Npp8u ∗ *pMask*, NppiSize *oMaskSize*, NppiPoint *oAnchor*, NppiBorderType *eBorderType*)

Four-channel 32-bit floating-point dilation with border control.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSrcSize Source image width and height in pixels relative to pSrc.

oSrcOffset Source image starting point relative to pSrc.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pMask Pointer to the start address of the mask array

oMaskSize Width and Height mask array.

oAnchor X and Y offsets of the mask origin frame of reference w.r.t the source pixel.

eBorderType The border type operation to be applied at source image border boundaries.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.84.2.9 NppStatus nppiDilateBorder_8u_AC4R (const Npp8u ∗ *pSrc*, int *nSrcStep*, NppiSize *oSrcSize*, NppiPoint *oSrcOffset*, Npp8u ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, const Npp8u ∗ *pMask*, NppiSize *oMaskSize*, NppiPoint *oAnchor*, NppiBorderType *eBorderType*)

Four-channel 8-bit unsigned integer dilation with border control, ignoring alpha-channel.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSrcSize Source image width and height in pixels relative to pSrc.

oSrcOffset Source image starting point relative to pSrc.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pMask Pointer to the start address of the mask array

oMaskSize Width and Height mask array.

oAnchor X and Y offsets of the mask origin frame of reference w.r.t the source pixel.

eBorderType The border type operation to be applied at source image border boundaries.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.84.2.10 NppStatus nppiDilateBorder_8u_C1R (const Npp8u ∗ *pSrc*, Npp32s *nSrcStep*, NppiSize *oSrcSize*, NppiPoint *oSrcOffset*, Npp8u ∗ *pDst*, Npp32s *nDstStep*, NppiSize *oSizeROI*, const Npp8u ∗ *pMask*, NppiSize *oMaskSize*, NppiPoint *oAnchor*, NppiBorderType *eBorderType*)

Single-channel 8-bit unsigned integer dilation with border control.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSrcSize Source image width and height in pixels relative to pSrc.

oSrcOffset Source image starting point relative to pSrc.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pMask Pointer to the start address of the mask array

oMaskSize Width and Height mask array.

oAnchor X and Y offsets of the mask origin frame of reference w.r.t the source pixel.

eBorderType The border type operation to be applied at source image border boundaries.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.84.2.11 NppStatus nppiDilateBorder_8u_C3R (const Npp8u ∗ *pSrc*, Npp32s *nSrcStep*, NppiSize *oSrcSize*, NppiPoint *oSrcOffset*, Npp8u ∗ *pDst*, Npp32s *nDstStep*, NppiSize *oSizeROI*, const Npp8u ∗ *pMask*, NppiSize *oMaskSize*, NppiPoint *oAnchor*, NppiBorderType *eBorderType*)

Three-channel 8-bit unsigned integer dilation with border control.

Parameters:

- ***pSrc*** Source-Image Pointer.
- ***nSrcStep*** Source-Image Line Step.
- ***oSrcSize*** Source image width and height in pixels relative to pSrc.
- ***oSrcOffset*** Source image starting point relative to pSrc.
- ***pDst*** Destination-Image Pointer.
- ***nDstStep*** Destination-Image Line Step.
- ***oSizeROI*** Region-of-Interest (ROI).
- ***pMask*** Pointer to the start address of the mask array
- ***oMaskSize*** Width and Height mask array.
- ***oAnchor*** X and Y offsets of the mask origin frame of reference w.r.t the source pixel.
- ***eBorderType*** The border type operation to be applied at source image border boundaries.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.84.2.12 NppStatus nppiDilateBorder_8u_C4R (const Npp8u ∗ *pSrc*, int *nSrcStep*, NppiSize *oSrcSize*, NppiPoint *oSrcOffset*, Npp8u ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, const Npp8u ∗ *pMask*, NppiSize *oMaskSize*, NppiPoint *oAnchor*, NppiBorderType *eBorderType*)

Four-channel 8-bit unsigned integer dilation with border control.

Parameters:

- ***pSrc*** Source-Image Pointer.
- ***nSrcStep*** Source-Image Line Step.
- ***oSrcSize*** Source image width and height in pixels relative to pSrc.
- ***oSrcOffset*** Source image starting point relative to pSrc.
- ***pDst*** Destination-Image Pointer.
- ***nDstStep*** Destination-Image Line Step.
- ***oSizeROI*** Region-of-Interest (ROI).
- ***pMask*** Pointer to the start address of the mask array
- ***oMaskSize*** Width and Height mask array.
- ***oAnchor*** X and Y offsets of the mask origin frame of reference w.r.t the source pixel.
- ***eBorderType*** The border type operation to be applied at source image border boundaries.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.85 Dilate3x3

Dilation using a 3x3 mask with the anchor at its center pixel.

Functions

- NppStatus nppiDilate3x3_8u_C1R (const Npp8u ∗pSrc, Npp32s nSrcStep, Npp8u ∗pDst, Npp32s nDstStep, NppiSize oSizeROI)

  Single-channel 8-bit unsigned integer 3x3 dilation.

- NppStatus nppiDilate3x3_8u_C3R (const Npp8u ∗pSrc, Npp32s nSrcStep, Npp8u ∗pDst, Npp32s nDstStep, NppiSize oSizeROI)

  Three-channel 8-bit unsigned integer 3x3 dilation.

- NppStatus nppiDilate3x3_8u_C4R (const Npp8u ∗pSrc, int nSrcStep, Npp8u ∗pDst, int nDstStep, NppiSize oSizeROI)

  Four-channel 8-bit unsigned integer 3x3 dilation.

- NppStatus nppiDilate3x3_8u_AC4R (const Npp8u ∗pSrc, int nSrcStep, Npp8u ∗pDst, int nDstStep, NppiSize oSizeROI)

  Four-channel 8-bit unsigned integer 3x3 dilation, ignoring alpha-channel.

- NppStatus nppiDilate3x3_16u_C1R (const Npp16u ∗pSrc, Npp32s nSrcStep, Npp16u ∗pDst, Npp32s nDstStep, NppiSize oSizeROI)

  Single-channel 16-bit unsigned integer 3x3 dilation.

- NppStatus nppiDilate3x3_16u_C3R (const Npp16u ∗pSrc, Npp32s nSrcStep, Npp16u ∗pDst, Npp32s nDstStep, NppiSize oSizeROI)

  Three-channel 16-bit unsigned integer 3x3 dilation.

- NppStatus nppiDilate3x3_16u_C4R (const Npp16u ∗pSrc, int nSrcStep, Npp16u ∗pDst, int nDstStep, NppiSize oSizeROI)

  Four-channel 16-bit unsigned integer 3x3 dilation.

- NppStatus nppiDilate3x3_16u_AC4R (const Npp16u ∗pSrc, int nSrcStep, Npp16u ∗pDst, int nDstStep, NppiSize oSizeROI)

  Four-channel 16-bit unsigned integer 3x3 dilation, ignoring alpha-channel.

- NppStatus nppiDilate3x3_32f_C1R (const Npp32f ∗pSrc, Npp32s nSrcStep, Npp32f ∗pDst, Npp32s nDstStep, NppiSize oSizeROI)

  Single-channel 32-bit floating-point 3x3 dilation.

- NppStatus nppiDilate3x3_32f_C3R (const Npp32f ∗pSrc, Npp32s nSrcStep, Npp32f ∗pDst, Npp32s nDstStep, NppiSize oSizeROI)

  Three-channel 32-bit floating-point 3x3 dilation.

- NppStatus nppiDilate3x3_32f_C4R (const Npp32f ∗pSrc, int nSrcStep, Npp32f ∗pDst, int nDstStep, NppiSize oSizeROI)

  Four-channel 32-bit floating-point 3x3 dilation.

- NppStatus nppiDilate3x3_32f_AC4R (const Npp32f ∗pSrc, int nSrcStep, Npp32f ∗pDst, int nDstStep, NppiSize oSizeROI)

  Four-channel 32-bit floating-point 3x3 dilation, ignoring alpha-channel.

- NppStatus nppiDilate3x3_64f_C1R (const Npp64f ∗pSrc, Npp32s nSrcStep, Npp64f ∗pDst, Npp32s nDstStep, NppiSize oSizeROI)

  Single-channel 64-bit floating-point 3x3 dilation.

7.85.1 Detailed Description

Dilation using a 3x3 mask with the anchor at its center pixel.

It is the user's responsibility to avoid Sampling Beyond Image Boundaries.

7.85.2 Function Documentation

7.85.2.1 NppStatus nppiDilate3x3_16u_AC4R (const Npp16u ∗ *pSrc*, int *nSrcStep*, Npp16u ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*)

Four-channel 16-bit unsigned integer 3x3 dilation, ignoring alpha-channel.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.85.2.2 NppStatus nppiDilate3x3_16u_C1R (const Npp16u ∗ *pSrc*, Npp32s *nSrcStep*, Npp16u ∗ *pDst*, Npp32s *nDstStep*, NppiSize *oSizeROI*)

Single-channel 16-bit unsigned integer 3x3 dilation.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.85.2.3 NppStatus nppiDilate3x3_16u_C3R (const Npp16u ∗ *pSrc*, Npp32s *nSrcStep*, Npp16u ∗ *pDst*, Npp32s *nDstStep*, NppiSize *oSizeROI*)

Three-channel 16-bit unsigned integer 3x3 dilation.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.85.2.4 NppStatus nppiDilate3x3_16u_C4R (const Npp16u ∗ *pSrc*, int *nSrcStep*, Npp16u ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*)

Four-channel 16-bit unsigned integer 3x3 dilation.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.85.2.5 NppStatus nppiDilate3x3_32f_AC4R (const Npp32f ∗ *pSrc*, int *nSrcStep*, Npp32f ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*)

Four-channel 32-bit floating-point 3x3 dilation, ignoring alpha-channel.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.85.2.6 NppStatus nppiDilate3x3_32f_C1R (const Npp32f ∗ *pSrc*, Npp32s *nSrcStep*, Npp32f ∗ *pDst*, Npp32s *nDstStep*, NppiSize *oSizeROI*)

Single-channel 32-bit floating-point 3x3 dilation.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.85.2.7 NppStatus nppiDilate3x3_32f_C3R (const Npp32f ∗ *pSrc*, Npp32s *nSrcStep*, Npp32f ∗ *pDst*, Npp32s *nDstStep*, NppiSize *oSizeROI*)

Three-channel 32-bit floating-point 3x3 dilation.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.85.2.8 NppStatus nppiDilate3x3_32f_C4R (const Npp32f ∗ *pSrc*, int *nSrcStep*, Npp32f ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*)

Four-channel 32-bit floating-point 3x3 dilation.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.85.2.9 NppStatus nppiDilate3x3_64f_C1R (const Npp64f ∗ *pSrc*, Npp32s *nSrcStep*, Npp64f ∗ *pDst*, Npp32s *nDstStep*, NppiSize *oSizeROI*)

Single-channel 64-bit floating-point 3x3 dilation.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.85.2.10 NppStatus nppiDilate3x3_8u_AC4R (const Npp8u ∗ *pSrc*, int *nSrcStep*, Npp8u ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*)

Four-channel 8-bit unsigned integer 3x3 dilation, ignoring alpha-channel.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.85.2.11 NppStatus nppiDilate3x3_8u_C1R (const Npp8u ∗ *pSrc*, Npp32s *nSrcStep*, Npp8u ∗ *pDst*, Npp32s *nDstStep*, NppiSize *oSizeROI*)

Single-channel 8-bit unsigned integer 3x3 dilation.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.85.2.12 NppStatus nppiDilate3x3_8u_C3R (const Npp8u ∗ *pSrc*, Npp32s *nSrcStep*, Npp8u ∗ *pDst*, Npp32s *nDstStep*, NppiSize *oSizeROI*)

Three-channel 8-bit unsigned integer 3x3 dilation.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.85.2.13 NppStatus nppiDilate3x3_8u_C4R (const Npp8u ∗ *pSrc*, int *nSrcStep*, Npp8u ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*)

Four-channel 8-bit unsigned integer 3x3 dilation.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.86 Dilate3x3Border

Dilation using a 3x3 mask with the anchor at its center pixel with border control.

Functions

- NppStatus nppiDilate3x3Border_8u_C1R (const Npp8u ∗pSrc, Npp32s nSrcStep, NppiSize oSrcSize, NppiPoint oSrcOffset, Npp8u ∗pDst, Npp32s nDstStep, NppiSize oSizeROI, NppiBorderType eBorderType)

  Single-channel 8-bit unsigned integer 3x3 dilation with border control.

- NppStatus nppiDilate3x3Border_8u_C3R (const Npp8u ∗pSrc, Npp32s nSrcStep, NppiSize oSrcSize, NppiPoint oSrcOffset, Npp8u ∗pDst, Npp32s nDstStep, NppiSize oSizeROI, NppiBorderType eBorderType)

  Three-channel 8-bit unsigned integer 3x3 dilation with border control.

- NppStatus nppiDilate3x3Border_8u_C4R (const Npp8u ∗pSrc, int nSrcStep, NppiSize oSrcSize, NppiPoint oSrcOffset, Npp8u ∗pDst, int nDstStep, NppiSize oSizeROI, NppiBorderType eBorderType)

  Four-channel 8-bit unsigned integer 3x3 dilation with border control.

- NppStatus nppiDilate3x3Border_8u_AC4R (const Npp8u ∗pSrc, int nSrcStep, NppiSize oSrcSize, NppiPoint oSrcOffset, Npp8u ∗pDst, int nDstStep, NppiSize oSizeROI, NppiBorderType eBorderType)

  Four-channel 8-bit unsigned integer 3x3 dilation with border control, ignoring alpha-channel.

- NppStatus nppiDilate3x3Border_16u_C1R (const Npp16u ∗pSrc, Npp32s nSrcStep, NppiSize oSrcSize, NppiPoint oSrcOffset, Npp16u ∗pDst, Npp32s nDstStep, NppiSize oSizeROI, NppiBorderType eBorderType)

  Single-channel 16-bit unsigned integer 3x3 dilation with border control.

- NppStatus nppiDilate3x3Border_16u_C3R (const Npp16u ∗pSrc, Npp32s nSrcStep, NppiSize oSrcSize, NppiPoint oSrcOffset, Npp16u ∗pDst, Npp32s nDstStep, NppiSize oSizeROI, NppiBorderType eBorderType)

  Three-channel 16-bit unsigned integer 3x3 dilation with border control.

- NppStatus nppiDilate3x3Border_16u_C4R (const Npp16u ∗pSrc, int nSrcStep, NppiSize oSrcSize, NppiPoint oSrcOffset, Npp16u ∗pDst, int nDstStep, NppiSize oSizeROI, NppiBorderType eBorderType)

  Four-channel 16-bit unsigned integer 3x3 dilation with border control.

- NppStatus nppiDilate3x3Border_16u_AC4R (const Npp16u ∗pSrc, int nSrcStep, NppiSize oSrcSize, NppiPoint oSrcOffset, Npp16u ∗pDst, int nDstStep, NppiSize oSizeROI, NppiBorderType eBorderType)

  Four-channel 16-bit unsigned integer 3x3 dilation with border control, ignoring alpha-channel.

- NppStatus nppiDilate3x3Border_32f_C1R (const Npp32f ∗pSrc, Npp32s nSrcStep, NppiSize oSrcSize, NppiPoint oSrcOffset, Npp32f ∗pDst, Npp32s nDstStep, NppiSize oSizeROI, NppiBorderType eBorderType)

  Single-channel 32-bit floating-point 3x3 dilation with border control.

- NppStatus nppiDilate3x3Border_32f_C3R (const Npp32f ∗pSrc, Npp32s nSrcStep, NppiSize oSrcSize, NppiPoint oSrcOffset, Npp32f ∗pDst, Npp32s nDstStep, NppiSize oSizeROI, NppiBorderType eBorderType)

  Three-channel 32-bit floating-point 3x3 dilation with border control.

- NppStatus nppiDilate3x3Border_32f_C4R (const Npp32f ∗pSrc, int nSrcStep, NppiSize oSrcSize, NppiPoint oSrcOffset, Npp32f ∗pDst, int nDstStep, NppiSize oSizeROI, NppiBorderType eBorderType)

  Four-channel 32-bit floating-point 3x3 dilation with border control.

- NppStatus nppiDilate3x3Border_32f_AC4R (const Npp32f ∗pSrc, int nSrcStep, NppiSize oSrcSize, NppiPoint oSrcOffset, Npp32f ∗pDst, int nDstStep, NppiSize oSizeROI, NppiBorderType eBorderType)

  Four-channel 32-bit floating-point 3x3 dilation with border control, ignoring alpha-channel.

7.86.1 Detailed Description

Dilation using a 3x3 mask with the anchor at its center pixel with border control.

If any portion of the mask overlaps the source image boundary the requested border type operation is applied to all mask pixels which fall outside of the source image.

Currently only the NPP_BORDER_REPLICATE border type operation is supported.

7.86.2 Function Documentation

7.86.2.1 NppStatus nppiDilate3x3Border_16u_AC4R (const Npp16u ∗ *pSrc*, int *nSrcStep*, NppiSize *oSrcSize*, NppiPoint *oSrcOffset*, Npp16u ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, NppiBorderType *eBorderType*)

Four-channel 16-bit unsigned integer 3x3 dilation with border control, ignoring alpha-channel.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSrcSize Source image width and height in pixels relative to pSrc.

oSrcOffset Source image starting point relative to pSrc.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

eBorderType The border type operation to be applied at source image border boundaries.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.86.2.2 NppStatus nppiDilate3x3Border_16u_C1R (const Npp16u ∗ *pSrc*, Npp32s *nSrcStep*, NppiSize *oSrcSize*, NppiPoint *oSrcOffset*, Npp16u ∗ *pDst*, Npp32s *nDstStep*, NppiSize *oSizeROI*, NppiBorderType *eBorderType*)

Single-channel 16-bit unsigned integer 3x3 dilation with border control.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSrcSize Source image width and height in pixels relative to pSrc.

oSrcOffset Source image starting point relative to pSrc.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

eBorderType The border type operation to be applied at source image border boundaries.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.86.2.3 NppStatus nppiDilate3x3Border_16u_C3R (const Npp16u ∗ *pSrc*, Npp32s *nSrcStep*, NppiSize *oSrcSize*, NppiPoint *oSrcOffset*, Npp16u ∗ *pDst*, Npp32s *nDstStep*, NppiSize *oSizeROI*, NppiBorderType *eBorderType*)

Three-channel 16-bit unsigned integer 3x3 dilation with border control.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSrcSize Source image width and height in pixels relative to pSrc.

oSrcOffset Source image starting point relative to pSrc.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

eBorderType The border type operation to be applied at source image border boundaries.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.86.2.4 NppStatus nppiDilate3x3Border_16u_C4R (const Npp16u ∗ *pSrc*, int *nSrcStep*, NppiSize *oSrcSize*, NppiPoint *oSrcOffset*, Npp16u ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, NppiBorderType *eBorderType*)

Four-channel 16-bit unsigned integer 3x3 dilation with border control.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSrcSize Source image width and height in pixels relative to pSrc.

oSrcOffset Source image starting point relative to pSrc.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

eBorderType The border type operation to be applied at source image border boundaries.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.86.2.5 NppStatus nppiDilate3x3Border_32f_AC4R (const Npp32f * *pSrc*, int *nSrcStep*, NppiSize *oSrcSize*, NppiPoint *oSrcOffset*, Npp32f * *pDst*, int *nDstStep*, NppiSize *oSizeROI*, NppiBorderType *eBorderType*)

Four-channel 32-bit floating-point 3x3 dilation with border control, ignoring alpha-channel.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSrcSize Source image width and height in pixels relative to pSrc.

oSrcOffset Source image starting point relative to pSrc.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

eBorderType The border type operation to be applied at source image border boundaries.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.86.2.6 NppStatus nppiDilate3x3Border_32f_C1R (const Npp32f * *pSrc*, Npp32s *nSrcStep*, NppiSize *oSrcSize*, NppiPoint *oSrcOffset*, Npp32f * *pDst*, Npp32s *nDstStep*, NppiSize *oSizeROI*, NppiBorderType *eBorderType*)

Single-channel 32-bit floating-point 3x3 dilation with border control.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSrcSize Source image width and height in pixels relative to pSrc.

oSrcOffset Source image starting point relative to pSrc.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

eBorderType The border type operation to be applied at source image border boundaries.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.86.2.7 NppStatus nppiDilate3x3Border_32f_C3R (const Npp32f ∗ *pSrc*, Npp32s *nSrcStep*, NppiSize *oSrcSize*, NppiPoint *oSrcOffset*, Npp32f ∗ *pDst*, Npp32s *nDstStep*, NppiSize *oSizeROI*, NppiBorderType *eBorderType*)

Three-channel 32-bit floating-point 3x3 dilation with border control.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSrcSize Source image width and height in pixels relative to pSrc.

oSrcOffset Source image starting point relative to pSrc.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

eBorderType The border type operation to be applied at source image border boundaries.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.86.2.8 NppStatus nppiDilate3x3Border_32f_C4R (const Npp32f ∗ *pSrc*, int *nSrcStep*, NppiSize *oSrcSize*, NppiPoint *oSrcOffset*, Npp32f ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, NppiBorderType *eBorderType*)

Four-channel 32-bit floating-point 3x3 dilation with border control.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSrcSize Source image width and height in pixels relative to pSrc.

oSrcOffset Source image starting point relative to pSrc.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

eBorderType The border type operation to be applied at source image border boundaries.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.86.2.9 NppStatus nppiDilate3x3Border_8u_AC4R (const Npp8u ∗ *pSrc*, int *nSrcStep*, NppiSize *oSrcSize*, NppiPoint *oSrcOffset*, Npp8u ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, NppiBorderType *eBorderType*)

Four-channel 8-bit unsigned integer 3x3 dilation with border control, ignoring alpha-channel.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSrcSize Source image width and height in pixels relative to pSrc.

oSrcOffset Source image starting point relative to pSrc.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

eBorderType The border type operation to be applied at source image border boundaries.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.86.2.10 NppStatus nppiDilate3x3Border_8u_C1R (const Npp8u ∗ *pSrc*, Npp32s *nSrcStep*, NppiSize *oSrcSize*, NppiPoint *oSrcOffset*, Npp8u ∗ *pDst*, Npp32s *nDstStep*, NppiSize *oSizeROI*, NppiBorderType *eBorderType*)

Single-channel 8-bit unsigned integer 3x3 dilation with border control.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSrcSize Source image width and height in pixels relative to pSrc.

oSrcOffset Source image starting point relative to pSrc.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

eBorderType The border type operation to be applied at source image border boundaries.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.86.2.11 NppStatus nppiDilate3x3Border_8u_C3R (const Npp8u ∗ *pSrc*, Npp32s *nSrcStep*, NppiSize *oSrcSize*, NppiPoint *oSrcOffset*, Npp8u ∗ *pDst*, Npp32s *nDstStep*, NppiSize *oSizeROI*, NppiBorderType *eBorderType*)

Three-channel 8-bit unsigned integer 3x3 dilation with border control.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSrcSize Source image width and height in pixels relative to pSrc.

oSrcOffset Source image starting point relative to pSrc.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

eBorderType The border type operation to be applied at source image border boundaries.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.86.2.12 NppStatus nppiDilate3x3Border_8u_C4R (const Npp8u ∗ *pSrc*, int *nSrcStep*, NppiSize *oSrcSize*, NppiPoint *oSrcOffset*, Npp8u ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, NppiBorderType *eBorderType*)

Four-channel 8-bit unsigned integer 3x3 dilation with border control.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSrcSize Source image width and height in pixels relative to pSrc.

oSrcOffset Source image starting point relative to pSrc.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

eBorderType The border type operation to be applied at source image border boundaries.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.87 Erode

Erosion computes the output pixel as the minimum pixel value of the pixels under the mask.

Functions

- NppStatus nppiErode_8u_C1R (const Npp8u ∗pSrc, Npp32s nSrcStep, Npp8u ∗pDst, Npp32s nDstStep, NppiSize oSizeROI, const Npp8u ∗pMask, NppiSize oMaskSize, NppiPoint oAnchor)

  Single-channel 8-bit unsigned integer erosion.

- NppStatus nppiErode_8u_C3R (const Npp8u ∗pSrc, Npp32s nSrcStep, Npp8u ∗pDst, Npp32s nDstStep, NppiSize oSizeROI, const Npp8u ∗pMask, NppiSize oMaskSize, NppiPoint oAnchor)

  Three-channel 8-bit unsigned integer erosion.

- NppStatus nppiErode_8u_C4R (const Npp8u ∗pSrc, int nSrcStep, Npp8u ∗pDst, int nDstStep, NppiSize oSizeROI, const Npp8u ∗pMask, NppiSize oMaskSize, NppiPoint oAnchor)

  Four-channel 8-bit unsigned integer erosion.

- NppStatus nppiErode_8u_AC4R (const Npp8u ∗pSrc, int nSrcStep, Npp8u ∗pDst, int nDstStep, NppiSize oSizeROI, const Npp8u ∗pMask, NppiSize oMaskSize, NppiPoint oAnchor)

  Four-channel 8-bit unsigned integer erosion, ignoring alpha-channel.

- NppStatus nppiErode_16u_C1R (const Npp16u ∗pSrc, Npp32s nSrcStep, Npp16u ∗pDst, Npp32s nDstStep, NppiSize oSizeROI, const Npp8u ∗pMask, NppiSize oMaskSize, NppiPoint oAnchor)

  Single-channel 16-bit unsigned integer erosion.

- NppStatus nppiErode_16u_C3R (const Npp16u ∗pSrc, Npp32s nSrcStep, Npp16u ∗pDst, Npp32s nDstStep, NppiSize oSizeROI, const Npp8u ∗pMask, NppiSize oMaskSize, NppiPoint oAnchor)

  Three-channel 16-bit unsigned integer erosion.

- NppStatus nppiErode_16u_C4R (const Npp16u ∗pSrc, int nSrcStep, Npp16u ∗pDst, int nDstStep, NppiSize oSizeROI, const Npp8u ∗pMask, NppiSize oMaskSize, NppiPoint oAnchor)

  Four-channel 16-bit unsigned integer erosion.

- NppStatus nppiErode_16u_AC4R (const Npp16u ∗pSrc, int nSrcStep, Npp16u ∗pDst, int nDstStep, NppiSize oSizeROI, const Npp8u ∗pMask, NppiSize oMaskSize, NppiPoint oAnchor)

  Four-channel 16-bit unsigned integer erosion, ignoring alpha-channel.

- NppStatus nppiErode_32f_C1R (const Npp32f ∗pSrc, Npp32s nSrcStep, Npp32f ∗pDst, Npp32s nDstStep, NppiSize oSizeROI, const Npp8u ∗pMask, NppiSize oMaskSize, NppiPoint oAnchor)

  Single-channel 32-bit floating-point erosion.

- NppStatus nppiErode_32f_C3R (const Npp32f ∗pSrc, Npp32s nSrcStep, Npp32f ∗pDst, Npp32s nDstStep, NppiSize oSizeROI, const Npp8u ∗pMask, NppiSize oMaskSize, NppiPoint oAnchor)

  Three-channel 32-bit floating-point erosion.

- NppStatus nppiErode_32f_C4R (const Npp32f ∗pSrc, int nSrcStep, Npp32f ∗pDst, int nDstStep, NppiSize oSizeROI, const Npp8u ∗pMask, NppiSize oMaskSize, NppiPoint oAnchor)

  Four-channel 32-bit floating-point erosion.

- NppStatus nppiErode_32f_AC4R (const Npp32f ∗pSrc, int nSrcStep, Npp32f ∗pDst, int nDstStep, NppiSize oSizeROI, const Npp8u ∗pMask, NppiSize oMaskSize, NppiPoint oAnchor)

  Four-channel 32-bit floating-point erosion, ignoring alpha-channel.

7.87.1 Detailed Description

Erosion computes the output pixel as the minimum pixel value of the pixels under the mask.

Pixels who's corresponding mask values are zero do not participate in the maximum search.

It is the user's responsibility to avoid Sampling Beyond Image Boundaries.

7.87.2 Function Documentation

7.87.2.1 NppStatus nppiErode_16u_AC4R (const Npp16u ∗ *pSrc*, int *nSrcStep*, Npp16u ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, const Npp8u ∗ *pMask*, NppiSize *oMaskSize*, NppiPoint *oAnchor*)

Four-channel 16-bit unsigned integer erosion, ignoring alpha-channel.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pMask Pointer to the start address of the mask array

oMaskSize Width and Height mask array.

oAnchor X and Y offsets of the mask origin frame of reference w.r.t the source pixel.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.87.2.2 NppStatus nppiErode_16u_C1R (const Npp16u ∗ *pSrc*, Npp32s *nSrcStep*, Npp16u ∗ *pDst*, Npp32s *nDstStep*, NppiSize *oSizeROI*, const Npp8u ∗ *pMask*, NppiSize *oMaskSize*, NppiPoint *oAnchor*)

Single-channel 16-bit unsigned integer erosion.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pMask Pointer to the start address of the mask array

oMaskSize Width and Height mask array.

oAnchor X and Y offsets of the mask origin frame of reference w.r.t the source pixel.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.87.2.3 NppStatus nppiErode_16u_C3R (const Npp16u ∗ *pSrc*, Npp32s *nSrcStep*, Npp16u ∗ *pDst*, Npp32s *nDstStep*, NppiSize *oSizeROI*, const Npp8u ∗ *pMask*, NppiSize *oMaskSize*, NppiPoint *oAnchor*)

Three-channel 16-bit unsigned integer erosion.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pMask Pointer to the start address of the mask array

oMaskSize Width and Height mask array.

oAnchor X and Y offsets of the mask origin frame of reference w.r.t the source pixel.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.87.2.4 NppStatus nppiErode_16u_C4R (const Npp16u ∗ *pSrc*, int *nSrcStep*, Npp16u ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, const Npp8u ∗ *pMask*, NppiSize *oMaskSize*, NppiPoint *oAnchor*)

Four-channel 16-bit unsigned integer erosion.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pMask Pointer to the start address of the mask array

oMaskSize Width and Height mask array.

oAnchor X and Y offsets of the mask origin frame of reference w.r.t the source pixel.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.87.2.5 NppStatus nppiErode_32f_AC4R (const Npp32f ∗ *pSrc*, int *nSrcStep*, Npp32f ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, const Npp8u ∗ *pMask*, NppiSize *oMaskSize*, NppiPoint *oAnchor*)

Four-channel 32-bit floating-point erosion, ignoring alpha-channel.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pMask Pointer to the start address of the mask array

oMaskSize Width and Height mask array.

oAnchor X and Y offsets of the mask origin frame of reference w.r.t the source pixel.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.87.2.6 NppStatus nppiErode_32f_C1R (const Npp32f ∗ *pSrc*, Npp32s *nSrcStep*, Npp32f ∗ *pDst*, Npp32s *nDstStep*, NppiSize *oSizeROI*, const Npp8u ∗ *pMask*, NppiSize *oMaskSize*, NppiPoint *oAnchor*)

Single-channel 32-bit floating-point erosion.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pMask Pointer to the start address of the mask array

oMaskSize Width and Height mask array.

oAnchor X and Y offsets of the mask origin frame of reference w.r.t the source pixel.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.87.2.7 NppStatus nppiErode_32f_C3R (const Npp32f ∗ *pSrc*, Npp32s *nSrcStep*, Npp32f ∗ *pDst*, Npp32s *nDstStep*, NppiSize *oSizeROI*, const Npp8u ∗ *pMask*, NppiSize *oMaskSize*, NppiPoint *oAnchor*)

Three-channel 32-bit floating-point erosion.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pMask Pointer to the start address of the mask array

oMaskSize Width and Height mask array.

oAnchor X and Y offsets of the mask origin frame of reference w.r.t the source pixel.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.87.2.8 NppStatus nppiErode_32f_C4R (const Npp32f ∗ *pSrc*, int *nSrcStep*, Npp32f ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, const Npp8u ∗ *pMask*, NppiSize *oMaskSize*, NppiPoint *oAnchor*)

Four-channel 32-bit floating-point erosion.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pMask Pointer to the start address of the mask array

oMaskSize Width and Height mask array.

oAnchor X and Y offsets of the mask origin frame of reference w.r.t the source pixel.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.87.2.9 NppStatus nppiErode_8u_AC4R (const Npp8u ∗ *pSrc*, int *nSrcStep*, Npp8u ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, const Npp8u ∗ *pMask*, NppiSize *oMaskSize*, NppiPoint *oAnchor*)

Four-channel 8-bit unsigned integer erosion, ignoring alpha-channel.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pMask Pointer to the start address of the mask array

oMaskSize Width and Height mask array.

oAnchor X and Y offsets of the mask origin frame of reference w.r.t the source pixel.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.87.2.10 NppStatus nppiErode_8u_C1R (const Npp8u ∗ *pSrc*, Npp32s *nSrcStep*, Npp8u ∗ *pDst*, Npp32s *nDstStep*, NppiSize *oSizeROI*, const Npp8u ∗ *pMask*, NppiSize *oMaskSize*, NppiPoint *oAnchor*)

Single-channel 8-bit unsigned integer erosion.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pMask Pointer to the start address of the mask array

oMaskSize Width and Height mask array.

oAnchor X and Y offsets of the mask origin frame of reference w.r.t the source pixel.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.87.2.11 NppStatus nppiErode_8u_C3R (const Npp8u ∗ *pSrc*, Npp32s *nSrcStep*, Npp8u ∗ *pDst*, Npp32s *nDstStep*, NppiSize *oSizeROI*, const Npp8u ∗ *pMask*, NppiSize *oMaskSize*, NppiPoint *oAnchor*)

Three-channel 8-bit unsigned integer erosion.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pMask Pointer to the start address of the mask array

oMaskSize Width and Height mask array.

oAnchor X and Y offsets of the mask origin frame of reference w.r.t the source pixel.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.87.2.12 NppStatus nppiErode_8u_C4R (const Npp8u ∗ *pSrc*, int *nSrcStep*, Npp8u ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, const Npp8u ∗ *pMask*, NppiSize *oMaskSize*, NppiPoint *oAnchor*)

Four-channel 8-bit unsigned integer erosion.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pMask Pointer to the start address of the mask array

oMaskSize Width and Height mask array.

oAnchor X and Y offsets of the mask origin frame of reference w.r.t the source pixel.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.88 Erosion with border control

Erosion computes the output pixel as the minimum pixel value of the pixels under the mask.

Functions

- NppStatus nppiErodeBorder_8u_C1R (const Npp8u ∗pSrc, Npp32s nSrcStep, NppiSize oSrcSize, NppiPoint oSrcOffset, Npp8u ∗pDst, Npp32s nDstStep, NppiSize oSizeROI, const Npp8u ∗pMask, NppiSize oMaskSize, NppiPoint oAnchor, NppiBorderType eBorderType)

  Single-channel 8-bit unsigned integer erosion with border control.

- NppStatus nppiErodeBorder_8u_C3R (const Npp8u ∗pSrc, Npp32s nSrcStep, NppiSize oSrcSize, NppiPoint oSrcOffset, Npp8u ∗pDst, Npp32s nDstStep, NppiSize oSizeROI, const Npp8u ∗pMask, NppiSize oMaskSize, NppiPoint oAnchor, NppiBorderType eBorderType)

  Three-channel 8-bit unsigned integer erosion with border control.

- NppStatus nppiErodeBorder_8u_C4R (const Npp8u ∗pSrc, int nSrcStep, NppiSize oSrcSize, NppiPoint oSrcOffset, Npp8u ∗pDst, int nDstStep, NppiSize oSizeROI, const Npp8u ∗pMask, NppiSize oMaskSize, NppiPoint oAnchor, NppiBorderType eBorderType)

  Four-channel 8-bit unsigned integer erosion with border control.

- NppStatus nppiErodeBorder_8u_AC4R (const Npp8u ∗pSrc, int nSrcStep, NppiSize oSrcSize, NppiPoint oSrcOffset, Npp8u ∗pDst, int nDstStep, NppiSize oSizeROI, const Npp8u ∗pMask, NppiSize oMaskSize, NppiPoint oAnchor, NppiBorderType eBorderType)

  Four-channel 8-bit unsigned integer erosion with border control, ignoring alpha-channel.

- NppStatus nppiErodeBorder_16u_C1R (const Npp16u ∗pSrc, Npp32s nSrcStep, NppiSize oSrcSize, NppiPoint oSrcOffset, Npp16u ∗pDst, Npp32s nDstStep, NppiSize oSizeROI, const Npp8u ∗pMask, NppiSize oMaskSize, NppiPoint oAnchor, NppiBorderType eBorderType)

  Single-channel 16-bit unsigned integer erosion with border control.

- NppStatus nppiErodeBorder_16u_C3R (const Npp16u ∗pSrc, Npp32s nSrcStep, NppiSize oSrcSize, NppiPoint oSrcOffset, Npp16u ∗pDst, Npp32s nDstStep, NppiSize oSizeROI, const Npp8u ∗pMask, NppiSize oMaskSize, NppiPoint oAnchor, NppiBorderType eBorderType)

  Three-channel 16-bit unsigned integer erosion with border control.

- NppStatus nppiErodeBorder_16u_C4R (const Npp16u ∗pSrc, int nSrcStep, NppiSize oSrcSize, NppiPoint oSrcOffset, Npp16u ∗pDst, int nDstStep, NppiSize oSizeROI, const Npp8u ∗pMask, NppiSize oMaskSize, NppiPoint oAnchor, NppiBorderType eBorderType)

  Four-channel 16-bit unsigned integer erosion with border control.

- NppStatus nppiErodeBorder_16u_AC4R (const Npp16u ∗pSrc, int nSrcStep, NppiSize oSrcSize, NppiPoint oSrcOffset, Npp16u ∗pDst, int nDstStep, NppiSize oSizeROI, const Npp8u ∗pMask, NppiSize oMaskSize, NppiPoint oAnchor, NppiBorderType eBorderType)

  Four-channel 16-bit unsigned integer erosion with border control, ignoring alpha-channel.

- NppStatus nppiErodeBorder_32f_C1R (const Npp32f ∗pSrc, Npp32s nSrcStep, NppiSize oSrcSize, NppiPoint oSrcOffset, Npp32f ∗pDst, Npp32s nDstStep, NppiSize oSizeROI, const Npp8u ∗pMask, NppiSize oMaskSize, NppiPoint oAnchor, NppiBorderType eBorderType)

  Single-channel 32-bit floating-point erosion with border control.

- NppStatus nppiErodeBorder_32f_C3R (const Npp32f ∗pSrc, Npp32s nSrcStep, NppiSize oSrcSize, NppiPoint oSrcOffset, Npp32f ∗pDst, Npp32s nDstStep, NppiSize oSizeROI, const Npp8u ∗pMask, NppiSize oMaskSize, NppiPoint oAnchor, NppiBorderType eBorderType)

  Three-channel 32-bit floating-point erosion with border control.

- NppStatus nppiErodeBorder_32f_C4R (const Npp32f ∗pSrc, int nSrcStep, NppiSize oSrcSize, NppiPoint oSrcOffset, Npp32f ∗pDst, int nDstStep, NppiSize oSizeROI, const Npp8u ∗pMask, NppiSize oMaskSize, NppiPoint oAnchor, NppiBorderType eBorderType)

  Four-channel 32-bit floating-point erosion with border control.

- NppStatus nppiErodeBorder_32f_AC4R (const Npp32f ∗pSrc, int nSrcStep, NppiSize oSrcSize, NppiPoint oSrcOffset, Npp32f ∗pDst, int nDstStep, NppiSize oSizeROI, const Npp8u ∗pMask, NppiSize oMaskSize, NppiPoint oAnchor, NppiBorderType eBorderType)

  Four-channel 32-bit floating-point erosion with border control, ignoring alpha-channel.

7.88.1 Detailed Description

Erosion computes the output pixel as the minimum pixel value of the pixels under the mask.

Pixels who's corresponding mask values are zero do not participate in the minimum search.

If any portion of the mask overlaps the source image boundary the requested border type operation is applied to all mask pixels which fall outside of the source image.

Currently only the NPP_BORDER_REPLICATE border type operation is supported.

7.88.2 Function Documentation

7.88.2.1 NppStatus nppiErodeBorder_16u_AC4R (const Npp16u ∗ *pSrc*, int *nSrcStep*, NppiSize *oSrcSize*, NppiPoint *oSrcOffset*, Npp16u ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, const Npp8u ∗ *pMask*, NppiSize *oMaskSize*, NppiPoint *oAnchor*, NppiBorderType *eBorderType*)

Four-channel 16-bit unsigned integer erosion with border control, ignoring alpha-channel.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSrcSize Source image width and height in pixels relative to pSrc.

oSrcOffset Source image starting point relative to pSrc.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pMask Pointer to the start address of the mask array

oMaskSize Width and Height mask array.

oAnchor X and Y offsets of the mask origin frame of reference w.r.t the source pixel.

eBorderType The border type operation to be applied at source image border boundaries.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.88.2.2 NppStatus nppiErodeBorder_16u_C1R (const Npp16u ∗ *pSrc*, Npp32s *nSrcStep*, NppiSize *oSrcSize*, NppiPoint *oSrcOffset*, Npp16u ∗ *pDst*, Npp32s *nDstStep*, NppiSize *oSizeROI*, const Npp8u ∗ *pMask*, NppiSize *oMaskSize*, NppiPoint *oAnchor*, NppiBorderType *eBorderType*)

Single-channel 16-bit unsigned integer erosion with border control.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSrcSize Source image width and height in pixels relative to pSrc.

oSrcOffset Source image starting point relative to pSrc.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pMask Pointer to the start address of the mask array

oMaskSize Width and Height mask array.

oAnchor X and Y offsets of the mask origin frame of reference w.r.t the source pixel.

eBorderType The border type operation to be applied at source image border boundaries.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.88.2.3 NppStatus nppiErodeBorder_16u_C3R (const Npp16u ∗ *pSrc*, Npp32s *nSrcStep*, NppiSize *oSrcSize*, NppiPoint *oSrcOffset*, Npp16u ∗ *pDst*, Npp32s *nDstStep*, NppiSize *oSizeROI*, const Npp8u ∗ *pMask*, NppiSize *oMaskSize*, NppiPoint *oAnchor*, NppiBorderType *eBorderType*)

Three-channel 16-bit unsigned integer erosion with border control.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSrcSize Source image width and height in pixels relative to pSrc.

oSrcOffset Source image starting point relative to pSrc.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pMask Pointer to the start address of the mask array

oMaskSize Width and Height mask array.

oAnchor X and Y offsets of the mask origin frame of reference w.r.t the source pixel.

eBorderType The border type operation to be applied at source image border boundaries.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.88.2.4 NppStatus nppiErodeBorder_16u_C4R (const Npp16u ∗ *pSrc*, int *nSrcStep*, NppiSize *oSrcSize*, NppiPoint *oSrcOffset*, Npp16u ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, const Npp8u ∗ *pMask*, NppiSize *oMaskSize*, NppiPoint *oAnchor*, NppiBorderType *eBorderType*)

Four-channel 16-bit unsigned integer erosion with border control.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSrcSize Source image width and height in pixels relative to pSrc.

oSrcOffset Source image starting point relative to pSrc.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pMask Pointer to the start address of the mask array

oMaskSize Width and Height mask array.

oAnchor X and Y offsets of the mask origin frame of reference w.r.t the source pixel.

eBorderType The border type operation to be applied at source image border boundaries.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.88.2.5 NppStatus nppiErodeBorder_32f_AC4R (const Npp32f ∗ *pSrc*, int *nSrcStep*, NppiSize *oSrcSize*, NppiPoint *oSrcOffset*, Npp32f ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, const Npp8u ∗ *pMask*, NppiSize *oMaskSize*, NppiPoint *oAnchor*, NppiBorderType *eBorderType*)

Four-channel 32-bit floating-point erosion with border control, ignoring alpha-channel.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSrcSize Source image width and height in pixels relative to pSrc.

oSrcOffset Source image starting point relative to pSrc.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pMask Pointer to the start address of the mask array

oMaskSize Width and Height mask array.

oAnchor X and Y offsets of the mask origin frame of reference w.r.t the source pixel.

eBorderType The border type operation to be applied at source image border boundaries.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.88.2.6 NppStatus nppiErodeBorder_32f_C1R (const Npp32f * *pSrc*, Npp32s *nSrcStep*, NppiSize *oSrcSize*, NppiPoint *oSrcOffset*, Npp32f * *pDst*, Npp32s *nDstStep*, NppiSize *oSizeROI*, const Npp8u * *pMask*, NppiSize *oMaskSize*, NppiPoint *oAnchor*, NppiBorderType *eBorderType*)

Single-channel 32-bit floating-point erosion with border control.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSrcSize Source image width and height in pixels relative to pSrc.

oSrcOffset Source image starting point relative to pSrc.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pMask Pointer to the start address of the mask array

oMaskSize Width and Height mask array.

oAnchor X and Y offsets of the mask origin frame of reference w.r.t the source pixel.

eBorderType The border type operation to be applied at source image border boundaries.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.88.2.7 NppStatus nppiErodeBorder_32f_C3R (const Npp32f * *pSrc*, Npp32s *nSrcStep*, NppiSize *oSrcSize*, NppiPoint *oSrcOffset*, Npp32f * *pDst*, Npp32s *nDstStep*, NppiSize *oSizeROI*, const Npp8u * *pMask*, NppiSize *oMaskSize*, NppiPoint *oAnchor*, NppiBorderType *eBorderType*)

Three-channel 32-bit floating-point erosion with border control.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSrcSize Source image width and height in pixels relative to pSrc.

oSrcOffset Source image starting point relative to pSrc.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pMask Pointer to the start address of the mask array

oMaskSize Width and Height mask array.

oAnchor X and Y offsets of the mask origin frame of reference w.r.t the source pixel.

eBorderType The border type operation to be applied at source image border boundaries.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.88.2.8 NppStatus nppiErodeBorder_32f_C4R (const Npp32f ∗ *pSrc*, int *nSrcStep*, NppiSize *oSrcSize*, NppiPoint *oSrcOffset*, Npp32f ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, const Npp8u ∗ *pMask*, NppiSize *oMaskSize*, NppiPoint *oAnchor*, NppiBorderType *eBorderType*)

Four-channel 32-bit floating-point erosion with border control.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSrcSize Source image width and height in pixels relative to pSrc.

oSrcOffset Source image starting point relative to pSrc.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pMask Pointer to the start address of the mask array

oMaskSize Width and Height mask array.

oAnchor X and Y offsets of the mask origin frame of reference w.r.t the source pixel.

eBorderType The border type operation to be applied at source image border boundaries.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.88.2.9 NppStatus nppiErodeBorder_8u_AC4R (const Npp8u ∗ *pSrc*, int *nSrcStep*, NppiSize *oSrcSize*, NppiPoint *oSrcOffset*, Npp8u ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, const Npp8u ∗ *pMask*, NppiSize *oMaskSize*, NppiPoint *oAnchor*, NppiBorderType *eBorderType*)

Four-channel 8-bit unsigned integer erosion with border control, ignoring alpha-channel.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSrcSize Source image width and height in pixels relative to pSrc.

oSrcOffset Source image starting point relative to pSrc.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pMask Pointer to the start address of the mask array

oMaskSize Width and Height mask array.

oAnchor X and Y offsets of the mask origin frame of reference w.r.t the source pixel.

eBorderType The border type operation to be applied at source image border boundaries.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.88.2.10 NppStatus nppiErodeBorder_8u_C1R (const Npp8u ∗ *pSrc*, Npp32s *nSrcStep*, NppiSize *oSrcSize*, NppiPoint *oSrcOffset*, Npp8u ∗ *pDst*, Npp32s *nDstStep*, NppiSize *oSizeROI*, const Npp8u ∗ *pMask*, NppiSize *oMaskSize*, NppiPoint *oAnchor*, NppiBorderType *eBorderType*)

Single-channel 8-bit unsigned integer erosion with border control.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSrcSize Source image width and height in pixels relative to pSrc.

oSrcOffset Source image starting point relative to pSrc.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pMask Pointer to the start address of the mask array

oMaskSize Width and Height mask array.

oAnchor X and Y offsets of the mask origin frame of reference w.r.t the source pixel.

eBorderType The border type operation to be applied at source image border boundaries.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.88.2.11 NppStatus nppiErodeBorder_8u_C3R (const Npp8u ∗ *pSrc*, Npp32s *nSrcStep*, NppiSize *oSrcSize*, NppiPoint *oSrcOffset*, Npp8u ∗ *pDst*, Npp32s *nDstStep*, NppiSize *oSizeROI*, const Npp8u ∗ *pMask*, NppiSize *oMaskSize*, NppiPoint *oAnchor*, NppiBorderType *eBorderType*)

Three-channel 8-bit unsigned integer erosion with border control.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSrcSize Source image width and height in pixels relative to pSrc.

oSrcOffset Source image starting point relative to pSrc.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pMask Pointer to the start address of the mask array

oMaskSize Width and Height mask array.

oAnchor X and Y offsets of the mask origin frame of reference w.r.t the source pixel.

eBorderType The border type operation to be applied at source image border boundaries.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.88.2.12 NppStatus nppiErodeBorder_8u_C4R (const Npp8u ∗ *pSrc*, int *nSrcStep*, NppiSize *oSrcSize*, NppiPoint *oSrcOffset*, Npp8u ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, const Npp8u ∗ *pMask*, NppiSize *oMaskSize*, NppiPoint *oAnchor*, NppiBorderType *eBorderType*)

Four-channel 8-bit unsigned integer erosion with border control.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSrcSize Source image width and height in pixels relative to pSrc.

oSrcOffset Source image starting point relative to pSrc.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pMask Pointer to the start address of the mask array

oMaskSize Width and Height mask array.

oAnchor X and Y offsets of the mask origin frame of reference w.r.t the source pixel.

eBorderType The border type operation to be applied at source image border boundaries.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.89 Erode3x3

Erosion using a 3x3 mask with the anchor at its center pixel.

Functions

- NppStatus nppiErode3x3_8u_C1R (const Npp8u ∗pSrc, Npp32s nSrcStep, Npp8u ∗pDst, Npp32s nDstStep, NppiSize oSizeROI)

  Single-channel 8-bit unsigned integer 3x3 erosion.

- NppStatus nppiErode3x3_8u_C3R (const Npp8u ∗pSrc, Npp32s nSrcStep, Npp8u ∗pDst, Npp32s nDstStep, NppiSize oSizeROI)

  Three-channel 8-bit unsigned integer 3x3 erosion.

- NppStatus nppiErode3x3_8u_C4R (const Npp8u ∗pSrc, int nSrcStep, Npp8u ∗pDst, int nDstStep, NppiSize oSizeROI)

  Four-channel 8-bit unsigned integer 3x3 erosion.

- NppStatus nppiErode3x3_8u_AC4R (const Npp8u ∗pSrc, int nSrcStep, Npp8u ∗pDst, int nDstStep, NppiSize oSizeROI)

  Four-channel 8-bit unsigned integer 3x3 erosion, ignoring alpha-channel.

- NppStatus nppiErode3x3_16u_C1R (const Npp16u ∗pSrc, Npp32s nSrcStep, Npp16u ∗pDst, Npp32s nDstStep, NppiSize oSizeROI)

  Single-channel 16-bit unsigned integer 3x3 erosion.

- NppStatus nppiErode3x3_16u_C3R (const Npp16u ∗pSrc, Npp32s nSrcStep, Npp16u ∗pDst, Npp32s nDstStep, NppiSize oSizeROI)

  Three-channel 16-bit unsigned integer 3x3 erosion.

- NppStatus nppiErode3x3_16u_C4R (const Npp16u ∗pSrc, int nSrcStep, Npp16u ∗pDst, int nDstStep, NppiSize oSizeROI)

  Four-channel 16-bit unsigned integer 3x3 erosion.

- NppStatus nppiErode3x3_16u_AC4R (const Npp16u ∗pSrc, int nSrcStep, Npp16u ∗pDst, int nDstStep, NppiSize oSizeROI)

  Four-channel 16-bit unsigned integer 3x3 erosion, ignoring alpha-channel.

- NppStatus nppiErode3x3_32f_C1R (const Npp32f ∗pSrc, Npp32s nSrcStep, Npp32f ∗pDst, Npp32s nDstStep, NppiSize oSizeROI)

  Single-channel 32-bit floating-point 3x3 erosion.

- NppStatus nppiErode3x3_32f_C3R (const Npp32f ∗pSrc, Npp32s nSrcStep, Npp32f ∗pDst, Npp32s nDstStep, NppiSize oSizeROI)

  Three-channel 32-bit floating-point 3x3 erosion.

- NppStatus nppiErode3x3_32f_C4R (const Npp32f ∗pSrc, int nSrcStep, Npp32f ∗pDst, int nDstStep, NppiSize oSizeROI)

  Four-channel 32-bit floating-point 3x3 erosion.

- NppStatus nppiErode3x3_32f_AC4R (const Npp32f ∗pSrc, int nSrcStep, Npp32f ∗pDst, int nDstStep, NppiSize oSizeROI)

  Four-channel 32-bit floating-point 3x3 erosion, ignoring alpha-channel.

- NppStatus nppiErode3x3_64f_C1R (const Npp64f ∗pSrc, Npp32s nSrcStep, Npp64f ∗pDst, Npp32s nDstStep, NppiSize oSizeROI)

  Single-channel 64-bit floating-point 3x3 erosion.

7.89.1 Detailed Description

Erosion using a 3x3 mask with the anchor at its center pixel.

It is the user's responsibility to avoid Sampling Beyond Image Boundaries.

7.89.2 Function Documentation

7.89.2.1 NppStatus nppiErode3x3_16u_AC4R (const Npp16u ∗ *pSrc*, int *nSrcStep*, Npp16u ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*)

Four-channel 16-bit unsigned integer 3x3 erosion, ignoring alpha-channel.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.89.2.2 NppStatus nppiErode3x3_16u_C1R (const Npp16u ∗ *pSrc*, Npp32s *nSrcStep*, Npp16u ∗ *pDst*, Npp32s *nDstStep*, NppiSize *oSizeROI*)

Single-channel 16-bit unsigned integer 3x3 erosion.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.89.2.3 NppStatus nppiErode3x3_16u_C3R (const Npp16u ∗ *pSrc*, Npp32s *nSrcStep*, Npp16u ∗ *pDst*, Npp32s *nDstStep*, NppiSize *oSizeROI*)

Three-channel 16-bit unsigned integer 3x3 erosion.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.89.2.4 NppStatus nppiErode3x3_16u_C4R (const Npp16u ∗ *pSrc*, int *nSrcStep*, Npp16u ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*)

Four-channel 16-bit unsigned integer 3x3 erosion.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.89.2.5 NppStatus nppiErode3x3_32f_AC4R (const Npp32f ∗ *pSrc*, int *nSrcStep*, Npp32f ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*)

Four-channel 32-bit floating-point 3x3 erosion, ignoring alpha-channel.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.89.2.6 NppStatus nppiErode3x3_32f_C1R (const Npp32f * *pSrc*, Npp32s *nSrcStep*, Npp32f * *pDst*, Npp32s *nDstStep*, NppiSize *oSizeROI*)

Single-channel 32-bit floating-point 3x3 erosion.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.89.2.7 NppStatus nppiErode3x3_32f_C3R (const Npp32f * *pSrc*, Npp32s *nSrcStep*, Npp32f * *pDst*, Npp32s *nDstStep*, NppiSize *oSizeROI*)

Three-channel 32-bit floating-point 3x3 erosion.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.89.2.8 NppStatus nppiErode3x3_32f_C4R (const Npp32f * *pSrc*, int *nSrcStep*, Npp32f * *pDst*, int *nDstStep*, NppiSize *oSizeROI*)

Four-channel 32-bit floating-point 3x3 erosion.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.89.2.9 NppStatus nppiErode3x3_64f_C1R (const Npp64f * *pSrc*, Npp32s *nSrcStep*, Npp64f * *pDst*, Npp32s *nDstStep*, NppiSize *oSizeROI*)

Single-channel 64-bit floating-point 3x3 erosion.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.89.2.10 NppStatus nppiErode3x3_8u_AC4R (const Npp8u * *pSrc*, int *nSrcStep*, Npp8u * *pDst*, int *nDstStep*, NppiSize *oSizeROI*)

Four-channel 8-bit unsigned integer 3x3 erosion, ignoring alpha-channel.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.89.2.11 NppStatus nppiErode3x3_8u_C1R (const Npp8u * *pSrc*, Npp32s *nSrcStep*, Npp8u * *pDst*, Npp32s *nDstStep*, NppiSize *oSizeROI*)

Single-channel 8-bit unsigned integer 3x3 erosion.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.89.2.12 NppStatus nppiErode3x3_8u_C3R (const Npp8u ∗ *pSrc*, Npp32s *nSrcStep*, Npp8u ∗ *pDst*, Npp32s *nDstStep*, NppiSize *oSizeROI*)

Three-channel 8-bit unsigned integer 3x3 erosion.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.89.2.13 NppStatus nppiErode3x3_8u_C4R (const Npp8u ∗ *pSrc*, int *nSrcStep*, Npp8u ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*)

Four-channel 8-bit unsigned integer 3x3 erosion.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.90 Erode3x3Border

Erosion using a 3x3 mask with the anchor at its center pixel with border control.

Functions

- NppStatus nppiErode3x3Border_8u_C1R (const Npp8u ∗pSrc, Npp32s nSrcStep, NppiSize oSrcSize, NppiPoint oSrcOffset, Npp8u ∗pDst, Npp32s nDstStep, NppiSize oSizeROI, NppiBorderType eBorderType)

  Single-channel 8-bit unsigned integer 3x3 erosion with border control.

- NppStatus nppiErode3x3Border_8u_C3R (const Npp8u ∗pSrc, Npp32s nSrcStep, NppiSize oSrcSize, NppiPoint oSrcOffset, Npp8u ∗pDst, Npp32s nDstStep, NppiSize oSizeROI, NppiBorderType eBorderType)

  Three-channel 8-bit unsigned integer 3x3 erosion with border control.

- NppStatus nppiErode3x3Border_8u_C4R (const Npp8u ∗pSrc, int nSrcStep, NppiSize oSrcSize, NppiPoint oSrcOffset, Npp8u ∗pDst, int nDstStep, NppiSize oSizeROI, NppiBorderType eBorderType)

  Four-channel 8-bit unsigned integer 3x3 erosion with border control.

- NppStatus nppiErode3x3Border_8u_AC4R (const Npp8u ∗pSrc, int nSrcStep, NppiSize oSrcSize, NppiPoint oSrcOffset, Npp8u ∗pDst, int nDstStep, NppiSize oSizeROI, NppiBorderType eBorderType)

  Four-channel 8-bit unsigned integer 3x3 erosion with border control, ignoring alpha-channel.

- NppStatus nppiErode3x3Border_16u_C1R (const Npp16u ∗pSrc, Npp32s nSrcStep, NppiSize oSrcSize, NppiPoint oSrcOffset, Npp16u ∗pDst, Npp32s nDstStep, NppiSize oSizeROI, NppiBorderType eBorderType)

  Single-channel 16-bit unsigned integer 3x3 erosion with border control.

- NppStatus nppiErode3x3Border_16u_C3R (const Npp16u ∗pSrc, Npp32s nSrcStep, NppiSize oSrcSize, NppiPoint oSrcOffset, Npp16u ∗pDst, Npp32s nDstStep, NppiSize oSizeROI, NppiBorderType eBorderType)

  Three-channel 16-bit unsigned integer 3x3 erosion with border control.

- NppStatus nppiErode3x3Border_16u_C4R (const Npp16u ∗pSrc, int nSrcStep, NppiSize oSrcSize, NppiPoint oSrcOffset, Npp16u ∗pDst, int nDstStep, NppiSize oSizeROI, NppiBorderType eBorderType)

  Four-channel 16-bit unsigned integer 3x3 erosion with border control.

- NppStatus nppiErode3x3Border_16u_AC4R (const Npp16u ∗pSrc, int nSrcStep, NppiSize oSrcSize, NppiPoint oSrcOffset, Npp16u ∗pDst, int nDstStep, NppiSize oSizeROI, NppiBorderType eBorderType)

  Four-channel 16-bit unsigned integer 3x3 erosion with border control, ignoring alpha-channel.

- NppStatus nppiErode3x3Border_32f_C1R (const Npp32f ∗pSrc, Npp32s nSrcStep, NppiSize oSrcSize, NppiPoint oSrcOffset, Npp32f ∗pDst, Npp32s nDstStep, NppiSize oSizeROI, NppiBorderType eBorderType)

  Single-channel 32-bit floating-point 3x3 erosion with border control.

- NppStatus nppiErode3x3Border_32f_C3R (const Npp32f ∗pSrc, Npp32s nSrcStep, NppiSize oSrcSize, NppiPoint oSrcOffset, Npp32f ∗pDst, Npp32s nDstStep, NppiSize oSizeROI, NppiBorderType eBorderType)

  Three-channel 32-bit floating-point 3x3 erosion with border control.

- NppStatus nppiErode3x3Border_32f_C4R (const Npp32f ∗pSrc, int nSrcStep, NppiSize oSrcSize, NppiPoint oSrcOffset, Npp32f ∗pDst, int nDstStep, NppiSize oSizeROI, NppiBorderType eBorderType)

  Four-channel 32-bit floating-point 3x3 erosion with border control.

- NppStatus nppiErode3x3Border_32f_AC4R (const Npp32f ∗pSrc, int nSrcStep, NppiSize oSrcSize, NppiPoint oSrcOffset, Npp32f ∗pDst, int nDstStep, NppiSize oSizeROI, NppiBorderType eBorderType)

  Four-channel 32-bit floating-point 3x3 erosion with border control, ignoring alpha-channel.

7.90.1 Detailed Description

Erosion using a 3x3 mask with the anchor at its center pixel with border control.

If any portion of the mask overlaps the source image boundary the requested border type operation is applied to all mask pixels which fall outside of the source image.

Currently only the NPP_BORDER_REPLICATE border type operation is supported.

7.90.2 Function Documentation

7.90.2.1 NppStatus nppiErode3x3Border_16u_AC4R (const Npp16u ∗ *pSrc*, int *nSrcStep*, NppiSize *oSrcSize*, NppiPoint *oSrcOffset*, Npp16u ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, NppiBorderType *eBorderType*)

Four-channel 16-bit unsigned integer 3x3 erosion with border control, ignoring alpha-channel.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSrcSize Source image width and height in pixels relative to pSrc.

oSrcOffset Source image starting point relative to pSrc.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

eBorderType The border type operation to be applied at source image border boundaries.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.90.2.2 NppStatus nppiErode3x3Border_16u_C1R (const Npp16u ∗ *pSrc*, Npp32s *nSrcStep*, NppiSize *oSrcSize*, NppiPoint *oSrcOffset*, Npp16u ∗ *pDst*, Npp32s *nDstStep*, NppiSize *oSizeROI*, NppiBorderType *eBorderType*)

Single-channel 16-bit unsigned integer 3x3 erosion with border control.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSrcSize Source image width and height in pixels relative to pSrc.

oSrcOffset Source image starting point relative to pSrc.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

eBorderType The border type operation to be applied at source image border boundaries.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.90.2.3 NppStatus nppiErode3x3Border_16u_C3R (const Npp16u ∗ *pSrc*, Npp32s *nSrcStep*, NppiSize *oSrcSize*, NppiPoint *oSrcOffset*, Npp16u ∗ *pDst*, Npp32s *nDstStep*, NppiSize *oSizeROI*, NppiBorderType *eBorderType*)

Three-channel 16-bit unsigned integer 3x3 erosion with border control.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSrcSize Source image width and height in pixels relative to pSrc.

oSrcOffset Source image starting point relative to pSrc.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

eBorderType The border type operation to be applied at source image border boundaries.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.90.2.4 NppStatus nppiErode3x3Border_16u_C4R (const Npp16u ∗ *pSrc*, int *nSrcStep*, NppiSize *oSrcSize*, NppiPoint *oSrcOffset*, Npp16u ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, NppiBorderType *eBorderType*)

Four-channel 16-bit unsigned integer 3x3 erosion with border control.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSrcSize Source image width and height in pixels relative to pSrc.

oSrcOffset Source image starting point relative to pSrc.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

eBorderType The border type operation to be applied at source image border boundaries.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.90.2.5 NppStatus nppiErode3x3Border_32f_AC4R (const Npp32f ∗ *pSrc*, int *nSrcStep*, NppiSize *oSrcSize*, NppiPoint *oSrcOffset*, Npp32f ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, NppiBorderType *eBorderType*)

Four-channel 32-bit floating-point 3x3 erosion with border control, ignoring alpha-channel.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSrcSize Source image width and height in pixels relative to pSrc.

oSrcOffset Source image starting point relative to pSrc.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

eBorderType The border type operation to be applied at source image border boundaries.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.90.2.6 NppStatus nppiErode3x3Border_32f_C1R (const Npp32f ∗ *pSrc*, Npp32s *nSrcStep*, NppiSize *oSrcSize*, NppiPoint *oSrcOffset*, Npp32f ∗ *pDst*, Npp32s *nDstStep*, NppiSize *oSizeROI*, NppiBorderType *eBorderType*)

Single-channel 32-bit floating-point 3x3 erosion with border control.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSrcSize Source image width and height in pixels relative to pSrc.

oSrcOffset Source image starting point relative to pSrc.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

eBorderType The border type operation to be applied at source image border boundaries.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.90.2.7 NppStatus nppiErode3x3Border_32f_C3R (const Npp32f ∗ *pSrc*, Npp32s *nSrcStep*, NppiSize *oSrcSize*, NppiPoint *oSrcOffset*, Npp32f ∗ *pDst*, Npp32s *nDstStep*, NppiSize *oSizeROI*, NppiBorderType *eBorderType*)

Three-channel 32-bit floating-point 3x3 erosion with border control.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSrcSize Source image width and height in pixels relative to pSrc.

oSrcOffset Source image starting point relative to pSrc.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

eBorderType The border type operation to be applied at source image border boundaries.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.90.2.8 NppStatus nppiErode3x3Border_32f_C4R (const Npp32f ∗ *pSrc*, int *nSrcStep*, NppiSize *oSrcSize*, NppiPoint *oSrcOffset*, Npp32f ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, NppiBorderType *eBorderType*)

Four-channel 32-bit floating-point 3x3 erosion with border control.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSrcSize Source image width and height in pixels relative to pSrc.

oSrcOffset Source image starting point relative to pSrc.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

eBorderType The border type operation to be applied at source image border boundaries.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.90.2.9 NppStatus nppiErode3x3Border_8u_AC4R (const Npp8u ∗ *pSrc*, int *nSrcStep*, NppiSize *oSrcSize*, NppiPoint *oSrcOffset*, Npp8u ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, NppiBorderType *eBorderType*)

Four-channel 8-bit unsigned integer 3x3 erosion with border control, ignoring alpha-channel.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSrcSize Source image width and height in pixels relative to pSrc.

oSrcOffset Source image starting point relative to pSrc.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

eBorderType The border type operation to be applied at source image border boundaries.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.90.2.10 NppStatus nppiErode3x3Border_8u_C1R (const Npp8u ∗ *pSrc*, Npp32s *nSrcStep*, NppiSize *oSrcSize*, NppiPoint *oSrcOffset*, Npp8u ∗ *pDst*, Npp32s *nDstStep*, NppiSize *oSizeROI*, NppiBorderType *eBorderType*)

Single-channel 8-bit unsigned integer 3x3 erosion with border control.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSrcSize Source image width and height in pixels relative to pSrc.

oSrcOffset Source image starting point relative to pSrc.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

eBorderType The border type operation to be applied at source image border boundaries.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.90.2.11 NppStatus nppiErode3x3Border_8u_C3R (const Npp8u ∗ *pSrc*, Npp32s *nSrcStep*, NppiSize *oSrcSize*, NppiPoint *oSrcOffset*, Npp8u ∗ *pDst*, Npp32s *nDstStep*, NppiSize *oSizeROI*, NppiBorderType *eBorderType*)

Three-channel 8-bit unsigned integer 3x3 erosion with border control.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSrcSize Source image width and height in pixels relative to pSrc.

oSrcOffset Source image starting point relative to pSrc.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

eBorderType The border type operation to be applied at source image border boundaries.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.90.2.12 NppStatus nppiErode3x3Border_8u_C4R (const Npp8u ∗ *pSrc*, int *nSrcStep*, NppiSize *oSrcSize*, NppiPoint *oSrcOffset*, Npp8u ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, NppiBorderType *eBorderType*)

Four-channel 8-bit unsigned integer 3x3 erosion with border control.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSrcSize Source image width and height in pixels relative to pSrc.

oSrcOffset Source image starting point relative to pSrc.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

eBorderType The border type operation to be applied at source image border boundaries.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.91 Statistical Operations

Primitives for computing the statistical properties of an image.

Modules

- Sum

  Primitives for computing the sum of all the pixel values in an image.

- Min

  Primitives for computing the minimal pixel value of an image.

- MinIndx

  Primitives for computing the minimal value and its indices (X and Y coordinates) of an image.

- Max

  Primitives for computing the maximal pixel value of an image.

- MaxIndx

  Primitives for computing the maximal value and its indices (X and Y coordinates) of an image.

- MinMax

  Primitives for computing both the minimal and the maximal values of an image.

- MinMaxIndx

  Primitives for computing the minimal and the maximal values with their indices (X and Y coordinates) of an image.

- Mean

  Primitives for computing the arithmetic mean of all the pixel values in an image.

- Mean_StdDev

  Primitives for computing both the arithmetic mean and the standard deviation of an image.

- Image Norms

  Primitives for computing the norms of an image, the norms of difference, and the relative errors of two images.

- DotProd

  Primitives for computing the dot product of two images.

- CountInRange.

  Primitives for computing the amount of pixels that fall into the specified intensity range.

- MaxEvery

  Primitives for computing the maximal value of the pixel pair from two images.

- MinEvery

  Primitives for computing the minimal value of the pixel pair from two images.

- Integral

  Primitives for computing the integral image of a given image.

- SqrIntegral

  Primitives for computing both the integral and the squared integral images of a given image.

- RectStdDev

  Primitives for computing the standard deviation of the integral images.

- HistogramEven

  Primitives for computing the histogram of an image with evenly distributed bins.

- HistogramRange

  Primitives for computing the histogram of an image within specified ranges.

- Image Proximity

  Primitives for computing the proximity measure between a source image and a template image.

- Image Quality Index

  Primitives for computing the image quality index of two images.

- MaximumError

  Primitives for computing the maximum error between two images.

- AverageError

  Primitives for computing the average error between two images.

- MaximumRelativeError

  Primitives for computing the maximum relative error between two images.

- AverageRelativeError

  Primitives for computing the average relative error between two images.

NormDiffInfGetBufferHostSize

Companion primitives for computing the device buffer size (in bytes) required by the NormDiff_Inf primitives.

- NppStatus nppiMaximumErrorGetBufferHostSize_8u_C1R (NppiSize oSizeROI, int ∗hpBufferSize)

  Buffer size for nppiMaximumError_8u_C1R.

- NppStatus nppiMaximumErrorGetBufferHostSize_8s_C1R (NppiSize oSizeROI, int ∗hpBufferSize)

  Buffer size for nppiMaximumError_8s_C1R.

- NppStatus nppiMaximumErrorGetBufferHostSize_16u_C1R (NppiSize oSizeROI, int ∗hpBufferSize)

Buffer size for nppiMaximumError_16u_C1R.

- NppStatus nppiMaximumErrorGetBufferHostSize_16s_C1R (NppiSize oSizeROI, int ∗hpBufferSize)

  Buffer size for nppiMaximumError_16s_C1R.

- NppStatus nppiMaximumErrorGetBufferHostSize_16sc_C1R (NppiSize oSizeROI, int ∗hpBufferSize)

  Buffer size for nppiMaximumError_16sc_C1R.

- NppStatus nppiMaximumErrorGetBufferHostSize_32u_C1R (NppiSize oSizeROI, int ∗hpBufferSize)

  Buffer size for nppiMaximumError_32u_C1R.

- NppStatus nppiMaximumErrorGetBufferHostSize_32s_C1R (NppiSize oSizeROI, int ∗hpBufferSize)

  Buffer size for nppiMaximumError_32s_C1R.

- NppStatus nppiMaximumErrorGetBufferHostSize_32sc_C1R (NppiSize oSizeROI, int ∗hpBufferSize)

  Buffer size for nppiMaximumError_32sc_C1R.

- NppStatus nppiMaximumErrorGetBufferHostSize_32f_C1R (NppiSize oSizeROI, int ∗hpBufferSize)

  Buffer size for nppiMaximumError_32f_C1R.

- NppStatus nppiMaximumErrorGetBufferHostSize_32fc_C1R (NppiSize oSizeROI, int ∗hpBufferSize)

  Buffer size for nppiMaximumError_32fc_C1R.

- NppStatus nppiMaximumErrorGetBufferHostSize_64f_C1R (NppiSize oSizeROI, int ∗hpBufferSize)

  Buffer size for nppiMaximumError_64f_C1R.

- NppStatus nppiMaximumErrorGetBufferHostSize_8u_C2R (NppiSize oSizeROI, int ∗hpBufferSize)

  Buffer size for nppiMaximumError_8u_C2R.

- NppStatus nppiMaximumErrorGetBufferHostSize_8s_C2R (NppiSize oSizeROI, int ∗hpBufferSize)

  Buffer size for nppiMaximumError_8s_C2R.

- NppStatus nppiMaximumErrorGetBufferHostSize_16u_C2R (NppiSize oSizeROI, int ∗hpBufferSize)

  Buffer size for nppiMaximumError_16u_C2R.

- NppStatus nppiMaximumErrorGetBufferHostSize_16s_C2R (NppiSize oSizeROI, int ∗hpBufferSize)

  Buffer size for nppiMaximumError_16s_C2R.

- NppStatus nppiMaximumErrorGetBufferHostSize_16sc_C2R (NppiSize oSizeROI, int ∗hpBufferSize)

  Buffer size for nppiMaximumError_16sc_C2R.

- NppStatus nppiMaximumErrorGetBufferHostSize_32u_C2R (NppiSize oSizeROI, int ∗hpBufferSize)

  Buffer size for nppiMaximumError_32u_C2R.

- NppStatus nppiMaximumErrorGetBufferHostSize_32s_C2R (NppiSize oSizeROI, int ∗hpBufferSize)

  Buffer size for nppiMaximumError_32s_C2R.

- NppStatus nppiMaximumErrorGetBufferHostSize_32sc_C2R (NppiSize oSizeROI, int ∗hpBufferSize)

  Buffer size for nppiMaximumError_32sc_C2R.

- NppStatus nppiMaximumErrorGetBufferHostSize_32f_C2R (NppiSize oSizeROI, int ∗hpBufferSize)

  Buffer size for nppiMaximumError_32f_C2R.

- NppStatus nppiMaximumErrorGetBufferHostSize_32fc_C2R (NppiSize oSizeROI, int ∗hpBufferSize)

  Buffer size for nppiMaximumError_32fc_C2R.

- NppStatus nppiMaximumErrorGetBufferHostSize_64f_C2R (NppiSize oSizeROI, int ∗hpBufferSize)

  Buffer size for nppiMaximumError_64f_C2R.

- NppStatus nppiMaximumErrorGetBufferHostSize_8u_C3R (NppiSize oSizeROI, int ∗hpBufferSize)

  Buffer size for nppiMaximumError_8u_C3R.

- NppStatus nppiMaximumErrorGetBufferHostSize_8s_C3R (NppiSize oSizeROI, int ∗hpBufferSize)

  Buffer size for nppiMaximumError_8s_C3R.

- NppStatus nppiMaximumErrorGetBufferHostSize_16u_C3R (NppiSize oSizeROI, int ∗hpBufferSize)

  Buffer size for nppiMaximumError_16u_C3R.

- NppStatus nppiMaximumErrorGetBufferHostSize_16s_C3R (NppiSize oSizeROI, int ∗hpBufferSize)

  Buffer size for nppiMaximumError_16s_C3R.

- NppStatus nppiMaximumErrorGetBufferHostSize_16sc_C3R (NppiSize oSizeROI, int ∗hpBufferSize)

  Buffer size for nppiMaximumError_16sc_C3R.

- NppStatus nppiMaximumErrorGetBufferHostSize_32u_C3R (NppiSize oSizeROI, int ∗hpBufferSize)

  Buffer size for nppiMaximumError_32u_C3R.

- NppStatus nppiMaximumErrorGetBufferHostSize_32s_C3R (NppiSize oSizeROI, int ∗hpBufferSize)

  Buffer size for nppiMaximumError_32s_C3R.

- NppStatus nppiMaximumErrorGetBufferHostSize_32sc_C3R (NppiSize oSizeROI, int ∗hpBufferSize)

  Buffer size for nppiMaximumError_32sc_C3R.

- NppStatus nppiMaximumErrorGetBufferHostSize_32f_C3R (NppiSize oSizeROI, int ∗hpBufferSize)

  Buffer size for nppiMaximumError_32f_C3R.

- NppStatus nppiMaximumErrorGetBufferHostSize_32fc_C3R (NppiSize oSizeROI, int ∗hpBufferSize)

  Buffer size for nppiMaximumError_32fc_C3R.

- NppStatus nppiMaximumErrorGetBufferHostSize_64f_C3R (NppiSize oSizeROI, int ∗hpBufferSize)

  Buffer size for nppiMaximumError_64f_C3R.

- NppStatus nppiMaximumErrorGetBufferHostSize_8u_C4R (NppiSize oSizeROI, int ∗hpBufferSize)

  Buffer size for nppiMaximumError_8u_C4R.

- NppStatus nppiMaximumErrorGetBufferHostSize_8s_C4R (NppiSize oSizeROI, int ∗hpBufferSize)

  Buffer size for nppiMaximumError_8s_C4R.

- NppStatus nppiMaximumErrorGetBufferHostSize_16u_C4R (NppiSize oSizeROI, int ∗hpBufferSize)

  Buffer size for nppiMaximumError_16u_C4R.

- NppStatus nppiMaximumErrorGetBufferHostSize_16s_C4R (NppiSize oSizeROI, int ∗hpBufferSize)

  Buffer size for nppiMaximumError_16s_C4R.

- NppStatus nppiMaximumErrorGetBufferHostSize_16sc_C4R (NppiSize oSizeROI, int ∗hpBufferSize)

  Buffer size for nppiMaximumError_16sc_C4R.

- NppStatus nppiMaximumErrorGetBufferHostSize_32u_C4R (NppiSize oSizeROI, int ∗hpBufferSize)

  Buffer size for nppiMaximumError_32u_C4R.

- NppStatus nppiMaximumErrorGetBufferHostSize_32s_C4R (NppiSize oSizeROI, int ∗hpBufferSize)

  Buffer size for nppiMaximumError_32s_C4R.

- NppStatus nppiMaximumErrorGetBufferHostSize_32sc_C4R (NppiSize oSizeROI, int ∗hpBufferSize)

Buffer size for nppiMaximumError_32sc_C4R.

- NppStatus nppiMaximumErrorGetBufferHostSize_32f_C4R (NppiSize oSizeROI, int ∗hpBufferSize)

  Buffer size for nppiMaximumError_32f_C4R.

- NppStatus nppiMaximumErrorGetBufferHostSize_32fc_C4R (NppiSize oSizeROI, int ∗hpBufferSize)

  Buffer size for nppiMaximumError_32fc_C4R.

- NppStatus nppiMaximumErrorGetBufferHostSize_64f_C4R (NppiSize oSizeROI, int ∗hpBufferSize)

  Buffer size for nppiMaximumError_64f_C4R.

NormDiffInfGetBufferHostSize

Companion primitives for computing the device buffer size (in bytes) required by the NormDiff_Inf primitives.

- NppStatus nppiAverageErrorGetBufferHostSize_8u_C1R (NppiSize oSizeROI, int ∗hpBufferSize)

  Buffer size for nppiAverageError_8u_C1R.

- NppStatus nppiAverageErrorGetBufferHostSize_8s_C1R (NppiSize oSizeROI, int ∗hpBufferSize)

  Buffer size for nppiAverageError_8s_C1R.

- NppStatus nppiAverageErrorGetBufferHostSize_16u_C1R (NppiSize oSizeROI, int ∗hpBufferSize)

  Buffer size for nppiAverageError_16u_C1R.

- NppStatus nppiAverageErrorGetBufferHostSize_16s_C1R (NppiSize oSizeROI, int ∗hpBufferSize)

  Buffer size for nppiAverageError_16s_C1R.

- NppStatus nppiAverageErrorGetBufferHostSize_16sc_C1R (NppiSize oSizeROI, int ∗hpBufferSize)

  Buffer size for nppiAverageError_16sc_C1R.

- NppStatus nppiAverageErrorGetBufferHostSize_32u_C1R (NppiSize oSizeROI, int ∗hpBufferSize)

  Buffer size for nppiAverageError_32u_C1R.

- NppStatus nppiAverageErrorGetBufferHostSize_32s_C1R (NppiSize oSizeROI, int ∗hpBufferSize)

  Buffer size for nppiAverageError_32s_C1R.

- NppStatus nppiAverageErrorGetBufferHostSize_32sc_C1R (NppiSize oSizeROI, int ∗hpBufferSize)

  Buffer size for nppiAverageError_32sc_C1R.

- NppStatus nppiAverageErrorGetBufferHostSize_32f_C1R (NppiSize oSizeROI, int ∗hpBufferSize)

  Buffer size for nppiAverageError_32f_C1R.

- NppStatus nppiAverageErrorGetBufferHostSize_32fc_C1R (NppiSize oSizeROI, int ∗hpBufferSize)

  Buffer size for nppiAverageError_32fc_C1R.

- NppStatus nppiAverageErrorGetBufferHostSize_64f_C1R (NppiSize oSizeROI, int ∗hpBufferSize)

  Buffer size for nppiAverageError_64f_C1R.

- NppStatus nppiAverageErrorGetBufferHostSize_8u_C2R (NppiSize oSizeROI, int ∗hpBufferSize)

  Buffer size for nppiAverageError_8u_C2R.

- NppStatus nppiAverageErrorGetBufferHostSize_8s_C2R (NppiSize oSizeROI, int ∗hpBufferSize)

  Buffer size for nppiAverageError_8s_C2R.

- NppStatus nppiAverageErrorGetBufferHostSize_16u_C2R (NppiSize oSizeROI, int ∗hpBufferSize)

  Buffer size for nppiAverageError_16u_C2R.

- NppStatus nppiAverageErrorGetBufferHostSize_16s_C2R (NppiSize oSizeROI, int ∗hpBufferSize)

  Buffer size for nppiAverageError_16s_C2R.

- NppStatus nppiAverageErrorGetBufferHostSize_16sc_C2R (NppiSize oSizeROI, int ∗hpBufferSize)

  Buffer size for nppiAverageError_16sc_C2R.

- NppStatus nppiAverageErrorGetBufferHostSize_32u_C2R (NppiSize oSizeROI, int ∗hpBufferSize)

  Buffer size for nppiAverageError_32u_C2R.

- NppStatus nppiAverageErrorGetBufferHostSize_32s_C2R (NppiSize oSizeROI, int ∗hpBufferSize)

  Buffer size for nppiAverageError_32s_C2R.

- NppStatus nppiAverageErrorGetBufferHostSize_32sc_C2R (NppiSize oSizeROI, int ∗hpBufferSize)

  Buffer size for nppiAverageError_32sc_C2R.

- NppStatus nppiAverageErrorGetBufferHostSize_32f_C2R (NppiSize oSizeROI, int ∗hpBufferSize)

  Buffer size for nppiAverageError_32f_C2R.

- NppStatus nppiAverageErrorGetBufferHostSize_32fc_C2R (NppiSize oSizeROI, int ∗hpBufferSize)

  Buffer size for nppiAverageError_32fc_C2R.

- NppStatus nppiAverageErrorGetBufferHostSize_64f_C2R (NppiSize oSizeROI, int ∗hpBufferSize)

  Buffer size for nppiAverageError_64f_C2R.

- NppStatus nppiAverageErrorGetBufferHostSize_8u_C3R (NppiSize oSizeROI, int ∗hpBufferSize)

  Buffer size for nppiAverageError_8u_C3R.

- NppStatus nppiAverageErrorGetBufferHostSize_8s_C3R (NppiSize oSizeROI, int ∗hpBufferSize)

  Buffer size for nppiAverageError_8s_C3R.

- NppStatus nppiAverageErrorGetBufferHostSize_16u_C3R (NppiSize oSizeROI, int ∗hpBufferSize)

  Buffer size for nppiAverageError_16u_C3R.

- NppStatus nppiAverageErrorGetBufferHostSize_16s_C3R (NppiSize oSizeROI, int ∗hpBufferSize)

  Buffer size for nppiAverageError_16s_C3R.

- NppStatus nppiAverageErrorGetBufferHostSize_16sc_C3R (NppiSize oSizeROI, int ∗hpBufferSize)

  Buffer size for nppiAverageError_16sc_C3R.

- NppStatus nppiAverageErrorGetBufferHostSize_32u_C3R (NppiSize oSizeROI, int ∗hpBufferSize)

  Buffer size for nppiAverageError_32u_C3R.

- NppStatus nppiAverageErrorGetBufferHostSize_32s_C3R (NppiSize oSizeROI, int ∗hpBufferSize)

  Buffer size for nppiAverageError_32s_C3R.

- NppStatus nppiAverageErrorGetBufferHostSize_32sc_C3R (NppiSize oSizeROI, int ∗hpBufferSize)

  Buffer size for nppiAverageError_32sc_C3R.

- NppStatus nppiAverageErrorGetBufferHostSize_32f_C3R (NppiSize oSizeROI, int ∗hpBufferSize)

  Buffer size for nppiAverageError_32f_C3R.

- NppStatus nppiAverageErrorGetBufferHostSize_32fc_C3R (NppiSize oSizeROI, int ∗hpBufferSize)

  Buffer size for nppiAverageError_32fc_C3R.

- NppStatus nppiAverageErrorGetBufferHostSize_64f_C3R (NppiSize oSizeROI, int ∗hpBufferSize)

  Buffer size for nppiAverageError_64f_C3R.

- NppStatus nppiAverageErrorGetBufferHostSize_8u_C4R (NppiSize oSizeROI, int ∗hpBufferSize)

  Buffer size for nppiAverageError_8u_C4R.

- NppStatus nppiAverageErrorGetBufferHostSize_8s_C4R (NppiSize oSizeROI, int ∗hpBufferSize)

  Buffer size for nppiAverageError_8s_C4R.

- NppStatus nppiAverageErrorGetBufferHostSize_16u_C4R (NppiSize oSizeROI, int ∗hpBufferSize)

  Buffer size for nppiAverageError_16u_C4R.

- NppStatus nppiAverageErrorGetBufferHostSize_16s_C4R (NppiSize oSizeROI, int ∗hpBufferSize)

  Buffer size for nppiAverageError_16s_C4R.

- NppStatus nppiAverageErrorGetBufferHostSize_16sc_C4R (NppiSize oSizeROI, int ∗hpBufferSize)

  Buffer size for nppiAverageError_16sc_C4R.

- NppStatus nppiAverageErrorGetBufferHostSize_32u_C4R (NppiSize oSizeROI, int ∗hpBufferSize)

  Buffer size for nppiAverageError_32u_C4R.

- NppStatus nppiAverageErrorGetBufferHostSize_32s_C4R (NppiSize oSizeROI, int ∗hpBufferSize)

  Buffer size for nppiAverageError_32s_C4R.

- NppStatus nppiAverageErrorGetBufferHostSize_32sc_C4R (NppiSize oSizeROI, int ∗hpBufferSize)

  Buffer size for nppiAverageError_32sc_C4R.

- NppStatus nppiAverageErrorGetBufferHostSize_32f_C4R (NppiSize oSizeROI, int ∗hpBufferSize)

  Buffer size for nppiAverageError_32f_C4R.

- NppStatus nppiAverageErrorGetBufferHostSize_32fc_C4R (NppiSize oSizeROI, int ∗hpBufferSize)

  Buffer size for nppiAverageError_32fc_C4R.

- NppStatus nppiAverageErrorGetBufferHostSize_64f_C4R (NppiSize oSizeROI, int ∗hpBufferSize)

  Buffer size for nppiAverageError_64f_C4R.

NormDiffInfGetBufferHostSize

Companion primitives for computing the device buffer size (in bytes) required by the NormDiff_Inf primitives.

- NppStatus nppiMaximumRelativeErrorGetBufferHostSize_8u_C1R (NppiSize oSizeROI, int ∗hpBufferSize)

  Buffer size for nppiMaximumRelativeError_8u_C1R.

- NppStatus nppiMaximumRelativeErrorGetBufferHostSize_8s_C1R (NppiSize oSizeROI, int ∗hpBufferSize)

  Buffer size for nppiMaximumRelativeError_8s_C1R.

- NppStatus nppiMaximumRelativeErrorGetBufferHostSize_16u_C1R (NppiSize oSizeROI, int ∗hpBufferSize)

  Buffer size for nppiMaximumRelativeError_16u_C1R.

- NppStatus nppiMaximumRelativeErrorGetBufferHostSize_16s_C1R (NppiSize oSizeROI, int ∗hpBufferSize)

  Buffer size for nppiMaximumRelativeError_16s_C1R.

- NppStatus nppiMaximumRelativeErrorGetBufferHostSize_16sc_C1R (NppiSize oSizeROI, int ∗hpBufferSize)

  Buffer size for nppiMaximumRelativeError_16sc_C1R.

- NppStatus nppiMaximumRelativeErrorGetBufferHostSize_32u_C1R (NppiSize oSizeROI, int ∗hpBufferSize)

  Buffer size for nppiMaximumRelativeError_32u_C1R.

- NppStatus nppiMaximumRelativeErrorGetBufferHostSize_32s_C1R (NppiSize oSizeROI, int ∗hpBufferSize)

  Buffer size for nppiMaximumRelativeError_32s_C1R.

- NppStatus nppiMaximumRelativeErrorGetBufferHostSize_32sc_C1R (NppiSize oSizeROI, int ∗hpBufferSize)

  Buffer size for nppiMaximumRelativeError_32sc_C1R.

- NppStatus nppiMaximumRelativeErrorGetBufferHostSize_32f_C1R (NppiSize oSizeROI, int ∗hpBufferSize)

  Buffer size for nppiMaximumRelativeError_32f_C1R.

- NppStatus nppiMaximumRelativeErrorGetBufferHostSize_32fc_C1R (NppiSize oSizeROI, int ∗hpBufferSize)

  Buffer size for nppiMaximumRelativeError_32fc_C1R.

- NppStatus nppiMaximumRelativeErrorGetBufferHostSize_64f_C1R (NppiSize oSizeROI, int ∗hpBufferSize)

  Buffer size for nppiMaximumRelativeError_64f_C1R.

- NppStatus nppiMaximumRelativeErrorGetBufferHostSize_8u_C2R (NppiSize oSizeROI, int ∗hpBufferSize)

  Buffer size for nppiMaximumRelativeError_8u_C2R.

- NppStatus nppiMaximumRelativeErrorGetBufferHostSize_8s_C2R (NppiSize oSizeROI, int ∗hpBufferSize)

  Buffer size for nppiMaximumRelativeError_8s_C2R.

- NppStatus nppiMaximumRelativeErrorGetBufferHostSize_16u_C2R (NppiSize oSizeROI, int ∗hpBufferSize)

  Buffer size for nppiMaximumRelativeError_16u_C2R.

- NppStatus nppiMaximumRelativeErrorGetBufferHostSize_16s_C2R (NppiSize oSizeROI, int ∗hpBufferSize)

Buffer size for nppiMaximumRelativeError_16s_C2R.

- NppStatus nppiMaximumRelativeErrorGetBufferHostSize_16sc_C2R (NppiSize oSizeROI, int ∗hpBufferSize)

  Buffer size for nppiMaximumRelativeError_16sc_C2R.

- NppStatus nppiMaximumRelativeErrorGetBufferHostSize_32u_C2R (NppiSize oSizeROI, int ∗hpBufferSize)

  Buffer size for nppiMaximumRelativeError_32u_C2R.

- NppStatus nppiMaximumRelativeErrorGetBufferHostSize_32s_C2R (NppiSize oSizeROI, int ∗hpBufferSize)

  Buffer size for nppiMaximumRelativeError_32s_C2R.

- NppStatus nppiMaximumRelativeErrorGetBufferHostSize_32sc_C2R (NppiSize oSizeROI, int ∗hpBufferSize)

  Buffer size for nppiMaximumRelativeError_32sc_C2R.

- NppStatus nppiMaximumRelativeErrorGetBufferHostSize_32f_C2R (NppiSize oSizeROI, int ∗hpBufferSize)

  Buffer size for nppiMaximumRelativeError_32f_C2R.

- NppStatus nppiMaximumRelativeErrorGetBufferHostSize_32fc_C2R (NppiSize oSizeROI, int ∗hpBufferSize)

  Buffer size for nppiMaximumRelativeError_32fc_C2R.

- NppStatus nppiMaximumRelativeErrorGetBufferHostSize_64f_C2R (NppiSize oSizeROI, int ∗hpBufferSize)

  Buffer size for nppiMaximumRelativeError_64f_C2R.

- NppStatus nppiMaximumRelativeErrorGetBufferHostSize_8u_C3R (NppiSize oSizeROI, int ∗hpBufferSize)

  Buffer size for nppiMaximumRelativeError_8u_C3R.

- NppStatus nppiMaximumRelativeErrorGetBufferHostSize_8s_C3R (NppiSize oSizeROI, int ∗hpBufferSize)

  Buffer size for nppiMaximumRelativeError_8s_C3R.

- NppStatus nppiMaximumRelativeErrorGetBufferHostSize_16u_C3R (NppiSize oSizeROI, int ∗hpBufferSize)

  Buffer size for nppiMaximumRelativeError_16u_C3R.

- NppStatus nppiMaximumRelativeErrorGetBufferHostSize_16s_C3R (NppiSize oSizeROI, int ∗hpBufferSize)

  Buffer size for nppiMaximumRelativeError_16s_C3R.

- NppStatus nppiMaximumRelativeErrorGetBufferHostSize_16sc_C3R (NppiSize oSizeROI, int ∗hpBufferSize)

  Buffer size for nppiMaximumRelativeError_16sc_C3R.

- NppStatus nppiMaximumRelativeErrorGetBufferHostSize_32u_C3R (NppiSize oSizeROI, int ∗hpBufferSize)

  Buffer size for nppiMaximumRelativeError_32u_C3R.

- NppStatus nppiMaximumRelativeErrorGetBufferHostSize_32s_C3R (NppiSize oSizeROI, int ∗hpBufferSize)

  Buffer size for nppiMaximumRelativeError_32s_C3R.

- NppStatus nppiMaximumRelativeErrorGetBufferHostSize_32sc_C3R (NppiSize oSizeROI, int ∗hpBufferSize)

  Buffer size for nppiMaximumRelativeError_32sc_C3R.

- NppStatus nppiMaximumRelativeErrorGetBufferHostSize_32f_C3R (NppiSize oSizeROI, int ∗hpBufferSize)

  Buffer size for nppiMaximumRelativeError_32f_C3R.

- NppStatus nppiMaximumRelativeErrorGetBufferHostSize_32fc_C3R (NppiSize oSizeROI, int ∗hpBufferSize)

  Buffer size for nppiMaximumRelativeError_32fc_C3R.

- NppStatus nppiMaximumRelativeErrorGetBufferHostSize_64f_C3R (NppiSize oSizeROI, int ∗hpBufferSize)

  Buffer size for nppiMaximumRelativeError_64f_C3R.

- NppStatus nppiMaximumRelativeErrorGetBufferHostSize_8u_C4R (NppiSize oSizeROI, int ∗hpBufferSize)

  Buffer size for nppiMaximumRelativeError_8u_C4R.

- NppStatus nppiMaximumRelativeErrorGetBufferHostSize_8s_C4R (NppiSize oSizeROI, int ∗hpBufferSize)

  Buffer size for nppiMaximumRelativeError_8s_C4R.

- NppStatus nppiMaximumRelativeErrorGetBufferHostSize_16u_C4R (NppiSize oSizeROI, int ∗hpBufferSize)

  Buffer size for nppiMaximumRelativeError_16u_C4R.

- NppStatus nppiMaximumRelativeErrorGetBufferHostSize_16s_C4R (NppiSize oSizeROI, int ∗hpBufferSize)

  Buffer size for nppiMaximumRelativeError_16s_C4R.

- NppStatus nppiMaximumRelativeErrorGetBufferHostSize_16sc_C4R (NppiSize oSizeROI, int ∗hpBufferSize)

  Buffer size for nppiMaximumRelativeError_16sc_C4R.

- NppStatus nppiMaximumRelativeErrorGetBufferHostSize_32u_C4R (NppiSize oSizeROI, int ∗hpBufferSize)

  Buffer size for nppiMaximumRelativeError_32u_C4R.

- NppStatus nppiMaximumRelativeErrorGetBufferHostSize_32s_C4R (NppiSize oSizeROI, int ∗hpBufferSize)

  Buffer size for nppiMaximumRelativeError_32s_C4R.

- NppStatus nppiMaximumRelativeErrorGetBufferHostSize_32sc_C4R (NppiSize oSizeROI, int ∗hpBufferSize)

  Buffer size for nppiMaximumRelativeError_32sc_C4R.

- NppStatus nppiMaximumRelativeErrorGetBufferHostSize_32f_C4R (NppiSize oSizeROI, int ∗hpBufferSize)

  Buffer size for nppiMaximumRelativeError_32f_C4R.

- NppStatus nppiMaximumRelativeErrorGetBufferHostSize_32fc_C4R (NppiSize oSizeROI, int ∗hpBufferSize)

  Buffer size for nppiMaximumRelativeError_32fc_C4R.

- NppStatus nppiMaximumRelativeErrorGetBufferHostSize_64f_C4R (NppiSize oSizeROI, int ∗hpBufferSize)

  Buffer size for nppiMaximumRelativeError_64f_C4R.

NormDiffInfGetBufferHostSize

Companion primitives for computing the device buffer size (in bytes) required by the NormDiff_Inf primitives.

- NppStatus nppiAverageRelativeErrorGetBufferHostSize_8u_C1R (NppiSize oSizeROI, int ∗hpBufferSize)

  Buffer size for nppiAverageRelativeError_8u_C1R.

- NppStatus nppiAverageRelativeErrorGetBufferHostSize_8s_C1R (NppiSize oSizeROI, int ∗hpBufferSize)

  Buffer size for nppiAverageRelativeError_8s_C1R.

- NppStatus nppiAverageRelativeErrorGetBufferHostSize_16u_C1R (NppiSize oSizeROI, int ∗hpBufferSize)

  Buffer size for nppiAverageRelativeError_16u_C1R.

- NppStatus nppiAverageRelativeErrorGetBufferHostSize_16s_C1R (NppiSize oSizeROI, int ∗hpBufferSize)

  Buffer size for nppiAverageRelativeError_16s_C1R.

- NppStatus nppiAverageRelativeErrorGetBufferHostSize_16sc_C1R (NppiSize oSizeROI, int ∗hpBufferSize)

  Buffer size for nppiAverageRelativeError_16sc_C1R.

- NppStatus nppiAverageRelativeErrorGetBufferHostSize_32u_C1R (NppiSize oSizeROI, int ∗hpBufferSize)

  Buffer size for nppiAverageRelativeError_32u_C1R.

- NppStatus nppiAverageRelativeErrorGetBufferHostSize_32s_C1R (NppiSize oSizeROI, int ∗hpBufferSize)

  Buffer size for nppiAverageRelativeError_32s_C1R.

- NppStatus nppiAverageRelativeErrorGetBufferHostSize_32sc_C1R (NppiSize oSizeROI, int ∗hpBufferSize)

  Buffer size for nppiAverageRelativeError_32sc_C1R.

- NppStatus nppiAverageRelativeErrorGetBufferHostSize_32f_C1R (NppiSize oSizeROI, int ∗hpBufferSize)

  Buffer size for nppiAverageRelativeError_32f_C1R.

- NppStatus nppiAverageRelativeErrorGetBufferHostSize_32fc_C1R (NppiSize oSizeROI, int ∗hpBufferSize)

  Buffer size for nppiAverageRelativeError_32fc_C1R.

- NppStatus nppiAverageRelativeErrorGetBufferHostSize_64f_C1R (NppiSize oSizeROI, int ∗hpBufferSize)

  Buffer size for nppiAverageRelativeError_64f_C1R.

- NppStatus nppiAverageRelativeErrorGetBufferHostSize_8u_C2R (NppiSize oSizeROI, int ∗hpBufferSize)

  Buffer size for nppiAverageRelativeError_8u_C2R.

- NppStatus nppiAverageRelativeErrorGetBufferHostSize_8s_C2R (NppiSize oSizeROI, int ∗hpBufferSize)

  Buffer size for nppiAverageRelativeError_8s_C2R.

- NppStatus nppiAverageRelativeErrorGetBufferHostSize_16u_C2R (NppiSize oSizeROI, int ∗hpBufferSize)

  Buffer size for nppiAverageRelativeError_16u_C2R.

- NppStatus nppiAverageRelativeErrorGetBufferHostSize_16s_C2R (NppiSize oSizeROI, int ∗hpBufferSize)

  Buffer size for nppiAverageRelativeError_16s_C2R.

- NppStatus nppiAverageRelativeErrorGetBufferHostSize_16sc_C2R (NppiSize oSizeROI, int ∗hpBufferSize)

  Buffer size for nppiAverageRelativeError_16sc_C2R.

- NppStatus nppiAverageRelativeErrorGetBufferHostSize_32u_C2R (NppiSize oSizeROI, int ∗hpBufferSize)

  Buffer size for nppiAverageRelativeError_32u_C2R.

- NppStatus nppiAverageRelativeErrorGetBufferHostSize_32s_C2R (NppiSize oSizeROI, int ∗hpBufferSize)

  Buffer size for nppiAverageRelativeError_32s_C2R.

- NppStatus nppiAverageRelativeErrorGetBufferHostSize_32sc_C2R (NppiSize oSizeROI, int ∗hpBufferSize)

  Buffer size for nppiAverageRelativeError_32sc_C2R.

- NppStatus nppiAverageRelativeErrorGetBufferHostSize_32f_C2R (NppiSize oSizeROI, int ∗hpBufferSize)

Buffer size for nppiAverageRelativeError_32f_C2R.

- NppStatus nppiAverageRelativeErrorGetBufferHostSize_32fc_C2R (NppiSize oSizeROI, int ∗hpBufferSize)

  Buffer size for nppiAverageRelativeError_32fc_C2R.

- NppStatus nppiAverageRelativeErrorGetBufferHostSize_64f_C2R (NppiSize oSizeROI, int ∗hpBufferSize)

  Buffer size for nppiAverageRelativeError_64f_C2R.

- NppStatus nppiAverageRelativeErrorGetBufferHostSize_8u_C3R (NppiSize oSizeROI, int ∗hpBufferSize)

  Buffer size for nppiAverageRelativeError_8u_C3R.

- NppStatus nppiAverageRelativeErrorGetBufferHostSize_8s_C3R (NppiSize oSizeROI, int ∗hpBufferSize)

  Buffer size for nppiAverageRelativeError_8s_C3R.

- NppStatus nppiAverageRelativeErrorGetBufferHostSize_16u_C3R (NppiSize oSizeROI, int ∗hpBufferSize)

  Buffer size for nppiAverageRelativeError_16u_C3R.

- NppStatus nppiAverageRelativeErrorGetBufferHostSize_16s_C3R (NppiSize oSizeROI, int ∗hpBufferSize)

  Buffer size for nppiAverageRelativeError_16s_C3R.

- NppStatus nppiAverageRelativeErrorGetBufferHostSize_16sc_C3R (NppiSize oSizeROI, int ∗hpBufferSize)

  Buffer size for nppiAverageRelativeError_16sc_C3R.

- NppStatus nppiAverageRelativeErrorGetBufferHostSize_32u_C3R (NppiSize oSizeROI, int ∗hpBufferSize)

  Buffer size for nppiAverageRelativeError_32u_C3R.

- NppStatus nppiAverageRelativeErrorGetBufferHostSize_32s_C3R (NppiSize oSizeROI, int ∗hpBufferSize)

  Buffer size for nppiAverageRelativeError_32s_C3R.

- NppStatus nppiAverageRelativeErrorGetBufferHostSize_32sc_C3R (NppiSize oSizeROI, int ∗hpBufferSize)

  Buffer size for nppiAverageRelativeError_32sc_C3R.

- NppStatus nppiAverageRelativeErrorGetBufferHostSize_32f_C3R (NppiSize oSizeROI, int ∗hpBufferSize)

  Buffer size for nppiAverageRelativeError_32f_C3R.

- NppStatus nppiAverageRelativeErrorGetBufferHostSize_32fc_C3R (NppiSize oSizeROI, int ∗hpBufferSize)

  Buffer size for nppiAverageRelativeError_32fc_C3R.

- NppStatus nppiAverageRelativeErrorGetBufferHostSize_64f_C3R (NppiSize oSizeROI, int ∗hpBufferSize)

  Buffer size for nppiAverageRelativeError_64f_C3R.

- NppStatus nppiAverageRelativeErrorGetBufferHostSize_8u_C4R (NppiSize oSizeROI, int ∗hpBufferSize)

  Buffer size for nppiAverageRelativeError_8u_C4R.

- NppStatus nppiAverageRelativeErrorGetBufferHostSize_8s_C4R (NppiSize oSizeROI, int ∗hpBufferSize)

  Buffer size for nppiAverageRelativeError_8s_C4R.

- NppStatus nppiAverageRelativeErrorGetBufferHostSize_16u_C4R (NppiSize oSizeROI, int ∗hpBufferSize)

  Buffer size for nppiAverageRelativeError_16u_C4R.

- NppStatus nppiAverageRelativeErrorGetBufferHostSize_16s_C4R (NppiSize oSizeROI, int ∗hpBufferSize)

  Buffer size for nppiAverageRelativeError_16s_C4R.

- NppStatus nppiAverageRelativeErrorGetBufferHostSize_16sc_C4R (NppiSize oSizeROI, int ∗hpBufferSize)

  Buffer size for nppiAverageRelativeError_16sc_C4R.

- NppStatus nppiAverageRelativeErrorGetBufferHostSize_32u_C4R (NppiSize oSizeROI, int ∗hpBufferSize)

  Buffer size for nppiAverageRelativeError_32u_C4R.

- NppStatus nppiAverageRelativeErrorGetBufferHostSize_32s_C4R (NppiSize oSizeROI, int ∗hpBufferSize)

  Buffer size for nppiAverageRelativeError_32s_C4R.

- NppStatus nppiAverageRelativeErrorGetBufferHostSize_32sc_C4R (NppiSize oSizeROI, int ∗hpBufferSize)

  Buffer size for nppiAverageRelativeError_32sc_C4R.

- NppStatus nppiAverageRelativeErrorGetBufferHostSize_32f_C4R (NppiSize oSizeROI, int ∗hpBufferSize)

  Buffer size for nppiAverageRelativeError_32f_C4R.

- NppStatus nppiAverageRelativeErrorGetBufferHostSize_32fc_C4R (NppiSize oSizeROI, int ∗hpBufferSize)

  Buffer size for nppiAverageRelativeError_32fc_C4R.

- NppStatus nppiAverageRelativeErrorGetBufferHostSize_64f_C4R (NppiSize oSizeROI, int ∗hpBufferSize)

  Buffer size for nppiAverageRelativeError_64f_C4R.

7.91.1 Detailed Description

Primitives for computing the statistical properties of an image.

Some statistical primitives also require scratch buffer during the computation. For details, please refer to Scratch Buffer and Host Pointer.

7.91.2 Function Documentation

7.91.2.1 NppStatus nppiAverageErrorGetBufferHostSize_16s_C1R (NppiSize *oSizeROI*, int ∗ *hpBufferSize*)

Buffer size for nppiAverageError_16s_C1R.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.91.2.2 NppStatus nppiAverageErrorGetBufferHostSize_16s_C2R (NppiSize *oSizeROI*, int ∗ *hpBufferSize*)

Buffer size for nppiAverageError_16s_C2R.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.91.2.3 NppStatus nppiAverageErrorGetBufferHostSize_16s_C3R (NppiSize *oSizeROI*, int ∗ *hpBufferSize*)

Buffer size for nppiAverageError_16s_C3R.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.91.2.4 NppStatus nppiAverageErrorGetBufferHostSize_16s_C4R (NppiSize *oSizeROI*, int ∗ *hpBufferSize*)

Buffer size for nppiAverageError_16s_C4R.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.91.2.5 NppStatus nppiAverageErrorGetBufferHostSize_16sc_C1R (NppiSize *oSizeROI*, int ∗ *hpBufferSize*)

Buffer size for nppiAverageError_16sc_C1R.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.91.2.6 NppStatus nppiAverageErrorGetBufferHostSize_16sc_C2R (NppiSize *oSizeROI*, int ∗ *hpBufferSize*)

Buffer size for nppiAverageError_16sc_C2R.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.91.2.7 NppStatus nppiAverageErrorGetBufferHostSize_16sc_C3R (NppiSize *oSizeROI*, int ∗ *hpBufferSize*)

Buffer size for nppiAverageError_16sc_C3R.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.91.2.8 NppStatus nppiAverageErrorGetBufferHostSize_16sc_C4R (NppiSize *oSizeROI*, int ∗ *hpBufferSize*)

Buffer size for nppiAverageError_16sc_C4R.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.91.2.9 NppStatus nppiAverageErrorGetBufferHostSize_16u_C1R (NppiSize *oSizeROI*, int ∗ *hpBufferSize*)

Buffer size for nppiAverageError_16u_C1R.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.91.2.10 NppStatus nppiAverageErrorGetBufferHostSize_16u_C2R (NppiSize *oSizeROI*, int ∗ *hpBufferSize*)

Buffer size for nppiAverageError_16u_C2R.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.91.2.11 NppStatus nppiAverageErrorGetBufferHostSize_16u_C3R (NppiSize *oSizeROI*, int * *hpBufferSize*)

Buffer size for nppiAverageError_16u_C3R.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.91.2.12 NppStatus nppiAverageErrorGetBufferHostSize_16u_C4R (NppiSize *oSizeROI*, int * *hpBufferSize*)

Buffer size for nppiAverageError_16u_C4R.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.91.2.13 NppStatus nppiAverageErrorGetBufferHostSize_32f_C1R (NppiSize *oSizeROI*, int * *hpBufferSize*)

Buffer size for nppiAverageError_32f_C1R.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.91.2.14 NppStatus nppiAverageErrorGetBufferHostSize_32f_C2R (NppiSize *oSizeROI*, int * *hpBufferSize*)

Buffer size for nppiAverageError_32f_C2R.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.91.2.15 NppStatus nppiAverageErrorGetBufferHostSize_32f_C3R (NppiSize *oSizeROI*, int * *hpBufferSize*)

Buffer size for nppiAverageError_32f_C3R.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.91.2.16 NppStatus nppiAverageErrorGetBufferHostSize_32f_C4R (NppiSize *oSizeROI*, int * *hpBufferSize*)

Buffer size for nppiAverageError_32f_C4R.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.91.2.17 NppStatus nppiAverageErrorGetBufferHostSize_32fc_C1R (NppiSize *oSizeROI*, int * *hpBufferSize*)

Buffer size for nppiAverageError_32fc_C1R.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.91.2.18 NppStatus nppiAverageErrorGetBufferHostSize_32fc_C2R (NppiSize *oSizeROI*, int * *hpBufferSize*)

Buffer size for nppiAverageError_32fc_C2R.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.91.2.19 NppStatus nppiAverageErrorGetBufferHostSize_32fc_C3R (NppiSize *oSizeROI*, int * *hpBufferSize*)

Buffer size for nppiAverageError_32fc_C3R.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.91.2.20 NppStatus nppiAverageErrorGetBufferHostSize_32fc_C4R (NppiSize *oSizeROI*, int * *hpBufferSize*)

Buffer size for nppiAverageError_32fc_C4R.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.91.2.21 NppStatus nppiAverageErrorGetBufferHostSize_32s_C1R (NppiSize *oSizeROI*, int * *hpBufferSize*)

Buffer size for nppiAverageError_32s_C1R.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.91.2.22 NppStatus nppiAverageErrorGetBufferHostSize_32s_C2R (NppiSize *oSizeROI*, int ∗ *hpBufferSize*)

Buffer size for nppiAverageError_32s_C2R.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.91.2.23 NppStatus nppiAverageErrorGetBufferHostSize_32s_C3R (NppiSize *oSizeROI*, int ∗ *hpBufferSize*)

Buffer size for nppiAverageError_32s_C3R.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.91.2.24 NppStatus nppiAverageErrorGetBufferHostSize_32s_C4R (NppiSize *oSizeROI*, int ∗ *hpBufferSize*)

Buffer size for nppiAverageError_32s_C4R.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.91.2.25 NppStatus nppiAverageErrorGetBufferHostSize_32sc_C1R (NppiSize *oSizeROI*, int ∗ *hpBufferSize*)

Buffer size for nppiAverageError_32sc_C1R.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.91.2.26 NppStatus nppiAverageErrorGetBufferHostSize_32sc_C2R (NppiSize *oSizeROI*, int ∗ *hpBufferSize*)

Buffer size for nppiAverageError_32sc_C2R.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.91.2.27 NppStatus nppiAverageErrorGetBufferHostSize_32sc_C3R (NppiSize *oSizeROI*, int ∗ *hpBufferSize*)

Buffer size for nppiAverageError_32sc_C3R.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.91.2.28 NppStatus nppiAverageErrorGetBufferHostSize_32sc_C4R (NppiSize *oSizeROI*, int ∗ *hpBufferSize*)

Buffer size for nppiAverageError_32sc_C4R.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.91.2.29 NppStatus nppiAverageErrorGetBufferHostSize_32u_C1R (NppiSize *oSizeROI*, int ∗ *hpBufferSize*)

Buffer size for nppiAverageError_32u_C1R.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.91.2.30 NppStatus nppiAverageErrorGetBufferHostSize_32u_C2R (NppiSize *oSizeROI*, int ∗ *hpBufferSize*)

Buffer size for nppiAverageError_32u_C2R.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.91.2.31 NppStatus nppiAverageErrorGetBufferHostSize_32u_C3R (NppiSize *oSizeROI*, int ∗ *hpBufferSize*)

Buffer size for nppiAverageError_32u_C3R.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.91.2.32 NppStatus nppiAverageErrorGetBufferHostSize_32u_C4R (NppiSize *oSizeROI*, int ∗ *hpBufferSize*)

Buffer size for nppiAverageError_32u_C4R.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.91.2.33 NppStatus nppiAverageErrorGetBufferHostSize_64f_C1R (NppiSize *oSizeROI*, int ∗ *hpBufferSize*)

Buffer size for nppiAverageError_64f_C1R.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.91.2.34 NppStatus nppiAverageErrorGetBufferHostSize_64f_C2R (NppiSize *oSizeROI*, int ∗ *hpBufferSize*)

Buffer size for nppiAverageError_64f_C2R.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.91.2.35 NppStatus nppiAverageErrorGetBufferHostSize_64f_C3R (NppiSize *oSizeROI*, int ∗ *hpBufferSize*)

Buffer size for nppiAverageError_64f_C3R.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.91.2.36 NppStatus nppiAverageErrorGetBufferHostSize_64f_C4R (NppiSize *oSizeROI*, int * *hpBufferSize*)

Buffer size for nppiAverageError_64f_C4R.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.91.2.37 NppStatus nppiAverageErrorGetBufferHostSize_8s_C1R (NppiSize *oSizeROI*, int * *hpBufferSize*)

Buffer size for nppiAverageError_8s_C1R.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.91.2.38 NppStatus nppiAverageErrorGetBufferHostSize_8s_C2R (NppiSize *oSizeROI*, int * *hpBufferSize*)

Buffer size for nppiAverageError_8s_C2R.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.91.2.39 NppStatus nppiAverageErrorGetBufferHostSize_8s_C3R (NppiSize *oSizeROI*, int * *hpBufferSize*)

Buffer size for nppiAverageError_8s_C3R.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.91.2.40 NppStatus nppiAverageErrorGetBufferHostSize_8s_C4R (NppiSize *oSizeROI*, int * *hpBufferSize*)

Buffer size for nppiAverageError_8s_C4R.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.91.2.41 NppStatus nppiAverageErrorGetBufferHostSize_8u_C1R (NppiSize *oSizeROI*, int * *hpBufferSize*)

Buffer size for nppiAverageError_8u_C1R.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.91.2.42 NppStatus nppiAverageErrorGetBufferHostSize_8u_C2R (NppiSize *oSizeROI*, int * *hpBufferSize*)

Buffer size for nppiAverageError_8u_C2R.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.91.2.43 NppStatus nppiAverageErrorGetBufferHostSize_8u_C3R (NppiSize *oSizeROI*, int ∗ *hpBufferSize*)

Buffer size for nppiAverageError_8u_C3R.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.91.2.44 NppStatus nppiAverageErrorGetBufferHostSize_8u_C4R (NppiSize *oSizeROI*, int ∗ *hpBufferSize*)

Buffer size for nppiAverageError_8u_C4R.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.91.2.45 NppStatus nppiAverageRelativeErrorGetBufferHostSize_16s_C1R (NppiSize *oSizeROI*, int ∗ *hpBufferSize*)

Buffer size for nppiAverageRelativeError_16s_C1R.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.91.2.46 NppStatus nppiAverageRelativeErrorGetBufferHostSize_16s_C2R (NppiSize *oSizeROI*, int ∗ *hpBufferSize*)

Buffer size for nppiAverageRelativeError_16s_C2R.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.91.2.47 NppStatus nppiAverageRelativeErrorGetBufferHostSize_16s_C3R (NppiSize *oSizeROI*, int ∗ *hpBufferSize*)

Buffer size for nppiAverageRelativeError_16s_C3R.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.91.2.48 NppStatus nppiAverageRelativeErrorGetBufferHostSize_16s_C4R (NppiSize *oSizeROI*, int ∗ *hpBufferSize*)

Buffer size for nppiAverageRelativeError_16s_C4R.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.91.2.49 NppStatus nppiAverageRelativeErrorGetBufferHostSize_16sc_C1R (NppiSize *oSizeROI*, int ∗ *hpBufferSize*)

Buffer size for nppiAverageRelativeError_16sc_C1R.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.91.2.50 NppStatus nppiAverageRelativeErrorGetBufferHostSize_16sc_C2R (NppiSize *oSizeROI*, int ∗ *hpBufferSize*)

Buffer size for nppiAverageRelativeError_16sc_C2R.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.91.2.51 NppStatus nppiAverageRelativeErrorGetBufferHostSize_16sc_C3R (NppiSize *oSizeROI*, int ∗ *hpBufferSize*)

Buffer size for nppiAverageRelativeError_16sc_C3R.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.91.2.52 NppStatus nppiAverageRelativeErrorGetBufferHostSize_16sc_C4R (NppiSize *oSizeROI*, int ∗ *hpBufferSize*)

Buffer size for nppiAverageRelativeError_16sc_C4R.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.91.2.53 NppStatus nppiAverageRelativeErrorGetBufferHostSize_16u_C1R (NppiSize *oSizeROI*, int ∗ *hpBufferSize*)

Buffer size for nppiAverageRelativeError_16u_C1R.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.91.2.54 NppStatus nppiAverageRelativeErrorGetBufferHostSize_16u_C2R (NppiSize *oSizeROI*, int ∗ *hpBufferSize*)

Buffer size for nppiAverageRelativeError_16u_C2R.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.91.2.55 NppStatus nppiAverageRelativeErrorGetBufferHostSize_16u_C3R (NppiSize *oSizeROI*, int ∗ *hpBufferSize*)

Buffer size for nppiAverageRelativeError_16u_C3R.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.91.2.56 NppStatus nppiAverageRelativeErrorGetBufferHostSize_16u_C4R (NppiSize *oSizeROI*, int ∗ *hpBufferSize*)

Buffer size for nppiAverageRelativeError_16u_C4R.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.91.2.57 NppStatus nppiAverageRelativeErrorGetBufferHostSize_32f_C1R (NppiSize *oSizeROI*, int ∗ *hpBufferSize*)

Buffer size for nppiAverageRelativeError_32f_C1R.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.91.2.58 NppStatus nppiAverageRelativeErrorGetBufferHostSize_32f_C2R (NppiSize *oSizeROI*, int ∗ *hpBufferSize*)

Buffer size for nppiAverageRelativeError_32f_C2R.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.91.2.59 NppStatus nppiAverageRelativeErrorGetBufferHostSize_32f_C3R (NppiSize *oSizeROI*, int ∗ *hpBufferSize*)

Buffer size for nppiAverageRelativeError_32f_C3R.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.91.2.60 NppStatus nppiAverageRelativeErrorGetBufferHostSize_32f_C4R (NppiSize *oSizeROI*, int ∗ *hpBufferSize*)

Buffer size for nppiAverageRelativeError_32f_C4R.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.91.2.61 NppStatus nppiAverageRelativeErrorGetBufferHostSize_32fc_C1R (NppiSize *oSizeROI*, int ∗ *hpBufferSize*)

Buffer size for nppiAverageRelativeError_32fc_C1R.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.91.2.62 NppStatus nppiAverageRelativeErrorGetBufferHostSize_32fc_C2R (NppiSize *oSizeROI*, int ∗ *hpBufferSize*)

Buffer size for nppiAverageRelativeError_32fc_C2R.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.91.2.63 NppStatus nppiAverageRelativeErrorGetBufferHostSize_32fc_C3R (NppiSize *oSizeROI*, int ∗ *hpBufferSize*)

Buffer size for nppiAverageRelativeError_32fc_C3R.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.91.2.64 NppStatus nppiAverageRelativeErrorGetBufferHostSize_32fc_C4R (NppiSize *oSizeROI*, int ∗ *hpBufferSize*)

Buffer size for nppiAverageRelativeError_32fc_C4R.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.91.2.65 NppStatus nppiAverageRelativeErrorGetBufferHostSize_32s_C1R (NppiSize *oSizeROI*, int ∗ *hpBufferSize*)

Buffer size for nppiAverageRelativeError_32s_C1R.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.91.2.66 NppStatus nppiAverageRelativeErrorGetBufferHostSize_32s_C2R (NppiSize *oSizeROI*, int ∗ *hpBufferSize*)

Buffer size for nppiAverageRelativeError_32s_C2R.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.91.2.67 NppStatus nppiAverageRelativeErrorGetBufferHostSize_32s_C3R (NppiSize *oSizeROI*, int ∗ *hpBufferSize*)

Buffer size for nppiAverageRelativeError_32s_C3R.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.91.2.68 NppStatus nppiAverageRelativeErrorGetBufferHostSize_32s_C4R (NppiSize *oSizeROI*, int ∗ *hpBufferSize*)

Buffer size for nppiAverageRelativeError_32s_C4R.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.91.2.69 NppStatus nppiAverageRelativeErrorGetBufferHostSize_32sc_C1R (NppiSize *oSizeROI*, int ∗ *hpBufferSize*)

Buffer size for nppiAverageRelativeError_32sc_C1R.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.91.2.70 NppStatus nppiAverageRelativeErrorGetBufferHostSize_32sc_C2R (NppiSize *oSizeROI*, int ∗ *hpBufferSize*)

Buffer size for nppiAverageRelativeError_32sc_C2R.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.91.2.71 NppStatus nppiAverageRelativeErrorGetBufferHostSize_32sc_C3R (NppiSize *oSizeROI*, int ∗ *hpBufferSize*)

Buffer size for nppiAverageRelativeError_32sc_C3R.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.91.2.72 NppStatus nppiAverageRelativeErrorGetBufferHostSize_32sc_C4R (NppiSize *oSizeROI*, int ∗ *hpBufferSize*)

Buffer size for nppiAverageRelativeError_32sc_C4R.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.91.2.73 NppStatus nppiAverageRelativeErrorGetBufferHostSize_32u_C1R (NppiSize *oSizeROI*, int ∗ *hpBufferSize*)

Buffer size for nppiAverageRelativeError_32u_C1R.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.91.2.74 NppStatus nppiAverageRelativeErrorGetBufferHostSize_32u_C2R (NppiSize *oSizeROI*, int ∗ *hpBufferSize*)

Buffer size for nppiAverageRelativeError_32u_C2R.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.91.2.75 NppStatus nppiAverageRelativeErrorGetBufferHostSize_32u_C3R (NppiSize *oSizeROI*, int ∗ *hpBufferSize*)

Buffer size for nppiAverageRelativeError_32u_C3R.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.91.2.76 NppStatus nppiAverageRelativeErrorGetBufferHostSize_32u_C4R (NppiSize *oSizeROI*, int ∗ *hpBufferSize*)

Buffer size for nppiAverageRelativeError_32u_C4R.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.91.2.77 NppStatus nppiAverageRelativeErrorGetBufferHostSize_64f_C1R (NppiSize *oSizeROI*, int ∗ *hpBufferSize*)

Buffer size for nppiAverageRelativeError_64f_C1R.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.91.2.78 NppStatus nppiAverageRelativeErrorGetBufferHostSize_64f_C2R (NppiSize *oSizeROI*, int ∗ *hpBufferSize*)

Buffer size for nppiAverageRelativeError_64f_C2R.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.91.2.79 NppStatus nppiAverageRelativeErrorGetBufferHostSize_64f_C3R (NppiSize *oSizeROI*, int ∗ *hpBufferSize*)

Buffer size for nppiAverageRelativeError_64f_C3R.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.91.2.80 NppStatus nppiAverageRelativeErrorGetBufferHostSize_64f_C4R (NppiSize *oSizeROI*, int ∗ *hpBufferSize*)

Buffer size for nppiAverageRelativeError_64f_C4R.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.91.2.81 NppStatus nppiAverageRelativeErrorGetBufferHostSize_8s_C1R (NppiSize *oSizeROI*, int ∗ *hpBufferSize*)

Buffer size for nppiAverageRelativeError_8s_C1R.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.91.2.82 NppStatus nppiAverageRelativeErrorGetBufferHostSize_8s_C2R (NppiSize *oSizeROI*, int ∗ *hpBufferSize*)

Buffer size for nppiAverageRelativeError_8s_C2R.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.91.2.83 NppStatus nppiAverageRelativeErrorGetBufferHostSize_8s_C3R (NppiSize *oSizeROI*, int ∗ *hpBufferSize*)

Buffer size for nppiAverageRelativeError_8s_C3R.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.91.2.84 NppStatus nppiAverageRelativeErrorGetBufferHostSize_8s_C4R (NppiSize *oSizeROI*, int ∗ *hpBufferSize*)

Buffer size for nppiAverageRelativeError_8s_C4R.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.91.2.85 NppStatus nppiAverageRelativeErrorGetBufferHostSize_8u_C1R (NppiSize *oSizeROI*, int ∗ *hpBufferSize*)

Buffer size for nppiAverageRelativeError_8u_C1R.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.91.2.86 NppStatus nppiAverageRelativeErrorGetBufferHostSize_8u_C2R (NppiSize *oSizeROI*, int ∗ *hpBufferSize*)

Buffer size for nppiAverageRelativeError_8u_C2R.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.91.2.87 NppStatus nppiAverageRelativeErrorGetBufferHostSize_8u_C3R (NppiSize *oSizeROI*, int ∗ *hpBufferSize*)

Buffer size for nppiAverageRelativeError_8u_C3R.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.91.2.88 NppStatus nppiAverageRelativeErrorGetBufferHostSize_8u_C4R (NppiSize *oSizeROI*, int ∗ *hpBufferSize*)

Buffer size for nppiAverageRelativeError_8u_C4R.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.91.2.89 NppStatus nppiMaximumErrorGetBufferHostSize_16s_C1R (NppiSize *oSizeROI*, int ∗ *hpBufferSize*)

Buffer size for nppiMaximumError_16s_C1R.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.91.2.90 NppStatus nppiMaximumErrorGetBufferHostSize_16s_C2R (NppiSize *oSizeROI*, int ∗ *hpBufferSize*)

Buffer size for nppiMaximumError_16s_C2R.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.91.2.91 NppStatus nppiMaximumErrorGetBufferHostSize_16s_C3R (NppiSize *oSizeROI*, int ∗ *hpBufferSize*)

Buffer size for nppiMaximumError_16s_C3R.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.91.2.92 NppStatus nppiMaximumErrorGetBufferHostSize_16s_C4R (NppiSize *oSizeROI*, int ∗ *hpBufferSize*)

Buffer size for nppiMaximumError_16s_C4R.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.91.2.93 NppStatus nppiMaximumErrorGetBufferHostSize_16sc_C1R (NppiSize *oSizeROI*, int ∗ *hpBufferSize*)

Buffer size for nppiMaximumError_16sc_C1R.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.91.2.94 NppStatus nppiMaximumErrorGetBufferHostSize_16sc_C2R (NppiSize *oSizeROI*, int ∗ *hpBufferSize*)

Buffer size for nppiMaximumError_16sc_C2R.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.91.2.95 NppStatus nppiMaximumErrorGetBufferHostSize_16sc_C3R (NppiSize *oSizeROI*, int * *hpBufferSize*)

Buffer size for nppiMaximumError_16sc_C3R.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.91.2.96 NppStatus nppiMaximumErrorGetBufferHostSize_16sc_C4R (NppiSize *oSizeROI*, int * *hpBufferSize*)

Buffer size for nppiMaximumError_16sc_C4R.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.91.2.97 NppStatus nppiMaximumErrorGetBufferHostSize_16u_C1R (NppiSize *oSizeROI*, int * *hpBufferSize*)

Buffer size for nppiMaximumError_16u_C1R.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.91.2.98 NppStatus nppiMaximumErrorGetBufferHostSize_16u_C2R (NppiSize *oSizeROI*, int * *hpBufferSize*)

Buffer size for nppiMaximumError_16u_C2R.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.91.2.99 NppStatus nppiMaximumErrorGetBufferHostSize_16u_C3R (NppiSize *oSizeROI*, int * *hpBufferSize*)

Buffer size for nppiMaximumError_16u_C3R.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.91.2.100 NppStatus nppiMaximumErrorGetBufferHostSize_16u_C4R (NppiSize *oSizeROI*, int * *hpBufferSize*)

Buffer size for nppiMaximumError_16u_C4R.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.91.2.101 NppStatus nppiMaximumErrorGetBufferHostSize_32f_C1R (NppiSize *oSizeROI*, int * *hpBufferSize*)

Buffer size for nppiMaximumError_32f_C1R.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.91.2.102 NppStatus nppiMaximumErrorGetBufferHostSize_32f_C2R (NppiSize *oSizeROI*, int ∗ *hpBufferSize*)

Buffer size for nppiMaximumError_32f_C2R.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.91.2.103 NppStatus nppiMaximumErrorGetBufferHostSize_32f_C3R (NppiSize *oSizeROI*, int ∗ *hpBufferSize*)

Buffer size for nppiMaximumError_32f_C3R.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.91.2.104 NppStatus nppiMaximumErrorGetBufferHostSize_32f_C4R (NppiSize *oSizeROI*, int ∗ *hpBufferSize*)

Buffer size for nppiMaximumError_32f_C4R.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.91.2.105 NppStatus nppiMaximumErrorGetBufferHostSize_32fc_C1R (NppiSize *oSizeROI*, int ∗ *hpBufferSize*)

Buffer size for nppiMaximumError_32fc_C1R.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.91.2.106 NppStatus nppiMaximumErrorGetBufferHostSize_32fc_C2R (NppiSize *oSizeROI*, int ∗ *hpBufferSize*)

Buffer size for nppiMaximumError_32fc_C2R.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.91.2.107 NppStatus nppiMaximumErrorGetBufferHostSize_32fc_C3R (NppiSize *oSizeROI*, int ∗ *hpBufferSize*)

Buffer size for nppiMaximumError_32fc_C3R.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.91.2.108 NppStatus nppiMaximumErrorGetBufferHostSize_32fc_C4R (NppiSize *oSizeROI*, int ∗ *hpBufferSize*)

Buffer size for nppiMaximumError_32fc_C4R.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.91.2.109 NppStatus nppiMaximumErrorGetBufferHostSize_32s_C1R (NppiSize *oSizeROI*, int ∗ *hpBufferSize*)

Buffer size for nppiMaximumError_32s_C1R.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.91.2.110 NppStatus nppiMaximumErrorGetBufferHostSize_32s_C2R (NppiSize *oSizeROI*, int ∗ *hpBufferSize*)

Buffer size for nppiMaximumError_32s_C2R.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.91.2.111 NppStatus nppiMaximumErrorGetBufferHostSize_32s_C3R (NppiSize *oSizeROI*, int ∗ *hpBufferSize*)

Buffer size for nppiMaximumError_32s_C3R.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.91.2.112 NppStatus nppiMaximumErrorGetBufferHostSize_32s_C4R (NppiSize *oSizeROI*, int ∗ *hpBufferSize*)

Buffer size for nppiMaximumError_32s_C4R.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.91.2.113 NppStatus nppiMaximumErrorGetBufferHostSize_32sc_C1R (NppiSize *oSizeROI*, int ∗ *hpBufferSize*)

Buffer size for nppiMaximumError_32sc_C1R.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.91.2.114 NppStatus nppiMaximumErrorGetBufferHostSize_32sc_C2R (NppiSize *oSizeROI*, int ∗ *hpBufferSize*)

Buffer size for nppiMaximumError_32sc_C2R.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.91.2.115 NppStatus nppiMaximumErrorGetBufferHostSize_32sc_C3R (NppiSize *oSizeROI*, int ∗ *hpBufferSize*)

Buffer size for nppiMaximumError_32sc_C3R.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.91.2.116 NppStatus nppiMaximumErrorGetBufferHostSize_32sc_C4R (NppiSize *oSizeROI*, int ∗ *hpBufferSize*)

Buffer size for nppiMaximumError_32sc_C4R.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.91.2.117 NppStatus nppiMaximumErrorGetBufferHostSize_32u_C1R (NppiSize *oSizeROI*, int ∗ *hpBufferSize*)

Buffer size for nppiMaximumError_32u_C1R.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.91.2.118 NppStatus nppiMaximumErrorGetBufferHostSize_32u_C2R (NppiSize *oSizeROI*, int ∗ *hpBufferSize*)

Buffer size for nppiMaximumError_32u_C2R.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.91.2.119 NppStatus nppiMaximumErrorGetBufferHostSize_32u_C3R (NppiSize *oSizeROI*, int ∗ *hpBufferSize*)

Buffer size for nppiMaximumError_32u_C3R.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.91.2.120 NppStatus nppiMaximumErrorGetBufferHostSize_32u_C4R (NppiSize *oSizeROI*, int ∗ *hpBufferSize*)

Buffer size for nppiMaximumError_32u_C4R.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.91.2.121 NppStatus nppiMaximumErrorGetBufferHostSize_64f_C1R (NppiSize *oSizeROI*, int ∗ *hpBufferSize*)

Buffer size for nppiMaximumError_64f_C1R.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.91.2.122 NppStatus nppiMaximumErrorGetBufferHostSize_64f_C2R (NppiSize *oSizeROI*, int ∗ *hpBufferSize*)

Buffer size for nppiMaximumError_64f_C2R.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.91.2.123 NppStatus nppiMaximumErrorGetBufferHostSize_64f_C3R (NppiSize *oSizeROI*, int ∗ *hpBufferSize*)

Buffer size for nppiMaximumError_64f_C3R.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.91.2.124 NppStatus nppiMaximumErrorGetBufferHostSize_64f_C4R (NppiSize *oSizeROI*, int ∗ *hpBufferSize*)

Buffer size for nppiMaximumError_64f_C4R.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.91.2.125 NppStatus nppiMaximumErrorGetBufferHostSize_8s_C1R (NppiSize *oSizeROI*, int ∗ *hpBufferSize*)

Buffer size for nppiMaximumError_8s_C1R.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.91.2.126 NppStatus nppiMaximumErrorGetBufferHostSize_8s_C2R (NppiSize *oSizeROI*, int ∗ *hpBufferSize*)

Buffer size for nppiMaximumError_8s_C2R.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.91.2.127 NppStatus nppiMaximumErrorGetBufferHostSize_8s_C3R (NppiSize *oSizeROI*, int * *hpBufferSize*)

Buffer size for nppiMaximumError_8s_C3R.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.91.2.128 NppStatus nppiMaximumErrorGetBufferHostSize_8s_C4R (NppiSize *oSizeROI*, int * *hpBufferSize*)

Buffer size for nppiMaximumError_8s_C4R.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.91.2.129 NppStatus nppiMaximumErrorGetBufferHostSize_8u_C1R (NppiSize *oSizeROI*, int * *hpBufferSize*)

Buffer size for nppiMaximumError_8u_C1R.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.91.2.130 NppStatus nppiMaximumErrorGetBufferHostSize_8u_C2R (NppiSize *oSizeROI*, int * *hpBufferSize*)

Buffer size for nppiMaximumError_8u_C2R.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.91.2.131 NppStatus nppiMaximumErrorGetBufferHostSize_8u_C3R (NppiSize *oSizeROI*, int * *hpBufferSize*)

Buffer size for nppiMaximumError_8u_C3R.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.91.2.132 NppStatus nppiMaximumErrorGetBufferHostSize_8u_C4R (NppiSize *oSizeROI*, int * *hpBufferSize*)

Buffer size for nppiMaximumError_8u_C4R.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.91.2.133 NppStatus nppiMaximumRelativeErrorGetBufferHostSize_16s_C1R (NppiSize *oSizeROI*, int * *hpBufferSize*)

Buffer size for nppiMaximumRelativeError_16s_C1R.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.91.2.134 NppStatus nppiMaximumRelativeErrorGetBufferHostSize_16s_C2R (NppiSize *oSizeROI*, int * *hpBufferSize*)

Buffer size for nppiMaximumRelativeError_16s_C2R.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.91.2.135 NppStatus nppiMaximumRelativeErrorGetBufferHostSize_16s_C3R (NppiSize *oSizeROI*, int * *hpBufferSize*)

Buffer size for nppiMaximumRelativeError_16s_C3R.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.91.2.136 NppStatus nppiMaximumRelativeErrorGetBufferHostSize_16s_C4R (NppiSize *oSizeROI*, int * *hpBufferSize*)

Buffer size for nppiMaximumRelativeError_16s_C4R.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.91.2.137 NppStatus nppiMaximumRelativeErrorGetBufferHostSize_16sc_C1R (NppiSize *oSizeROI*, int ∗ *hpBufferSize*)

Buffer size for nppiMaximumRelativeError_16sc_C1R.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.91.2.138 NppStatus nppiMaximumRelativeErrorGetBufferHostSize_16sc_C2R (NppiSize *oSizeROI*, int ∗ *hpBufferSize*)

Buffer size for nppiMaximumRelativeError_16sc_C2R.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.91.2.139 NppStatus nppiMaximumRelativeErrorGetBufferHostSize_16sc_C3R (NppiSize *oSizeROI*, int ∗ *hpBufferSize*)

Buffer size for nppiMaximumRelativeError_16sc_C3R.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.91.2.140 NppStatus nppiMaximumRelativeErrorGetBufferHostSize_16sc_C4R (NppiSize *oSizeROI*, int ∗ *hpBufferSize*)

Buffer size for nppiMaximumRelativeError_16sc_C4R.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.91.2.141 NppStatus nppiMaximumRelativeErrorGetBufferHostSize_16u_C1R (NppiSize *oSizeROI*, int ∗ *hpBufferSize*)

Buffer size for nppiMaximumRelativeError_16u_C1R.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.91.2.142 NppStatus nppiMaximumRelativeErrorGetBufferHostSize_16u_C2R (NppiSize *oSizeROI*, int ∗ *hpBufferSize*)

Buffer size for nppiMaximumRelativeError_16u_C2R.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.91.2.143 NppStatus nppiMaximumRelativeErrorGetBufferHostSize_16u_C3R (NppiSize *oSizeROI*, int ∗ *hpBufferSize*)

Buffer size for nppiMaximumRelativeError_16u_C3R.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.91.2.144 NppStatus nppiMaximumRelativeErrorGetBufferHostSize_16u_C4R (NppiSize *oSizeROI*, int ∗ *hpBufferSize*)

Buffer size for nppiMaximumRelativeError_16u_C4R.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.91.2.145 NppStatus nppiMaximumRelativeErrorGetBufferHostSize_32f_C1R (NppiSize *oSizeROI*, int ∗ *hpBufferSize*)

Buffer size for nppiMaximumRelativeError_32f_C1R.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.91.2.146 NppStatus nppiMaximumRelativeErrorGetBufferHostSize_32f_C2R (NppiSize *oSizeROI*, int ∗ *hpBufferSize*)

Buffer size for nppiMaximumRelativeError_32f_C2R.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.91.2.147 NppStatus nppiMaximumRelativeErrorGetBufferHostSize_32f_C3R (NppiSize *oSizeROI*, int ∗ *hpBufferSize*)

Buffer size for nppiMaximumRelativeError_32f_C3R.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.91.2.148 NppStatus nppiMaximumRelativeErrorGetBufferHostSize_32f_C4R (NppiSize *oSizeROI*, int * *hpBufferSize*)

Buffer size for nppiMaximumRelativeError_32f_C4R.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.91.2.149 NppStatus nppiMaximumRelativeErrorGetBufferHostSize_32fc_C1R (NppiSize *oSizeROI*, int * *hpBufferSize*)

Buffer size for nppiMaximumRelativeError_32fc_C1R.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.91.2.150 NppStatus nppiMaximumRelativeErrorGetBufferHostSize_32fc_C2R (NppiSize *oSizeROI*, int * *hpBufferSize*)

Buffer size for nppiMaximumRelativeError_32fc_C2R.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.91.2.151 NppStatus nppiMaximumRelativeErrorGetBufferHostSize_32fc_C3R (NppiSize *oSizeROI*, int ∗ *hpBufferSize*)

Buffer size for nppiMaximumRelativeError_32fc_C3R.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.91.2.152 NppStatus nppiMaximumRelativeErrorGetBufferHostSize_32fc_C4R (NppiSize *oSizeROI*, int ∗ *hpBufferSize*)

Buffer size for nppiMaximumRelativeError_32fc_C4R.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.91.2.153 NppStatus nppiMaximumRelativeErrorGetBufferHostSize_32s_C1R (NppiSize *oSizeROI*, int ∗ *hpBufferSize*)

Buffer size for nppiMaximumRelativeError_32s_C1R.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.91.2.154 NppStatus nppiMaximumRelativeErrorGetBufferHostSize_32s_C2R (NppiSize *oSizeROI*, int ∗ *hpBufferSize*)

Buffer size for nppiMaximumRelativeError_32s_C2R.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.91.2.155 NppStatus nppiMaximumRelativeErrorGetBufferHostSize_32s_C3R (NppiSize *oSizeROI*, int ∗ *hpBufferSize*)

Buffer size for nppiMaximumRelativeError_32s_C3R.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.91.2.156 NppStatus nppiMaximumRelativeErrorGetBufferHostSize_32s_C4R (NppiSize *oSizeROI*, int ∗ *hpBufferSize*)

Buffer size for nppiMaximumRelativeError_32s_C4R.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.91.2.157 NppStatus nppiMaximumRelativeErrorGetBufferHostSize_32sc_C1R (NppiSize *oSizeROI*, int ∗ *hpBufferSize*)

Buffer size for nppiMaximumRelativeError_32sc_C1R.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.91.2.158 NppStatus nppiMaximumRelativeErrorGetBufferHostSize_32sc_C2R (NppiSize *oSizeROI*, int ∗ *hpBufferSize*)

Buffer size for nppiMaximumRelativeError_32sc_C2R.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.91.2.159 NppStatus nppiMaximumRelativeErrorGetBufferHostSize_32sc_C3R (NppiSize *oSizeROI*, int ∗ *hpBufferSize*)

Buffer size for nppiMaximumRelativeError_32sc_C3R.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.91.2.160 NppStatus nppiMaximumRelativeErrorGetBufferHostSize_32sc_C4R (NppiSize *oSizeROI*, int ∗ *hpBufferSize*)

Buffer size for nppiMaximumRelativeError_32sc_C4R.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.91.2.161 NppStatus nppiMaximumRelativeErrorGetBufferHostSize_32u_C1R (NppiSize *oSizeROI*, int ∗ *hpBufferSize*)

Buffer size for nppiMaximumRelativeError_32u_C1R.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.91.2.162 NppStatus nppiMaximumRelativeErrorGetBufferHostSize_32u_C2R (NppiSize *oSizeROI*, int ∗ *hpBufferSize*)

Buffer size for nppiMaximumRelativeError_32u_C2R.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.91.2.163 NppStatus nppiMaximumRelativeErrorGetBufferHostSize_32u_C3R (NppiSize *oSizeROI*, int ∗ *hpBufferSize*)

Buffer size for nppiMaximumRelativeError_32u_C3R.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.91.2.164 NppStatus nppiMaximumRelativeErrorGetBufferHostSize_32u_C4R (NppiSize *oSizeROI*, int ∗ *hpBufferSize*)

Buffer size for nppiMaximumRelativeError_32u_C4R.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.91.2.165 NppStatus nppiMaximumRelativeErrorGetBufferHostSize_64f_C1R (NppiSize *oSizeROI*, int ∗ *hpBufferSize*)

Buffer size for nppiMaximumRelativeError_64f_C1R.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.91.2.166 NppStatus nppiMaximumRelativeErrorGetBufferHostSize_64f_C2R (NppiSize *oSizeROI*, int ∗ *hpBufferSize*)

Buffer size for nppiMaximumRelativeError_64f_C2R.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.91.2.167 NppStatus nppiMaximumRelativeErrorGetBufferHostSize_64f_C3R (NppiSize *oSizeROI*, int ∗ *hpBufferSize*)

Buffer size for nppiMaximumRelativeError_64f_C3R.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.91.2.168 NppStatus nppiMaximumRelativeErrorGetBufferHostSize_64f_C4R (NppiSize *oSizeROI*, int ∗ *hpBufferSize*)

Buffer size for nppiMaximumRelativeError_64f_C4R.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.91.2.169 NppStatus nppiMaximumRelativeErrorGetBufferHostSize_8s_C1R (NppiSize *oSizeROI*, int ∗ *hpBufferSize*)

Buffer size for nppiMaximumRelativeError_8s_C1R.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.91.2.170 NppStatus nppiMaximumRelativeErrorGetBufferHostSize_8s_C2R (NppiSize *oSizeROI*, int ∗ *hpBufferSize*)

Buffer size for nppiMaximumRelativeError_8s_C2R.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.91.2.171 NppStatus nppiMaximumRelativeErrorGetBufferHostSize_8s_C3R (NppiSize *oSizeROI*, int ∗ *hpBufferSize*)

Buffer size for nppiMaximumRelativeError_8s_C3R.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.91.2.172 NppStatus nppiMaximumRelativeErrorGetBufferHostSize_8s_C4R (NppiSize *oSizeROI*, int ∗ *hpBufferSize*)

Buffer size for nppiMaximumRelativeError_8s_C4R.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.91.2.173 NppStatus nppiMaximumRelativeErrorGetBufferHostSize_8u_C1R (NppiSize *oSizeROI*, int ∗ *hpBufferSize*)

Buffer size for nppiMaximumRelativeError_8u_C1R.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.91.2.174 NppStatus nppiMaximumRelativeErrorGetBufferHostSize_8u_C2R (NppiSize *oSizeROI*, int ∗ *hpBufferSize*)

Buffer size for nppiMaximumRelativeError_8u_C2R.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.91.2.175 NppStatus nppiMaximumRelativeErrorGetBufferHostSize_8u_C3R (NppiSize *oSizeROI*, int ∗ *hpBufferSize*)

Buffer size for nppiMaximumRelativeError_8u_C3R.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.91.2.176 NppStatus nppiMaximumRelativeErrorGetBufferHostSize_8u_C4R (NppiSize *oSizeROI*, int ∗ *hpBufferSize*)

Buffer size for nppiMaximumRelativeError_8u_C4R.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.92 Sum

Primitives for computing the sum of all the pixel values in an image.

Sum

Given an image $pSrc$ with width W and height H, the sum will be computed as

$$Sum = \sum_{j=0}^{H-1} \sum_{i=0}^{W-1} pSrc(j, i)$$

All the results are stored in a 64-bit double precision format, except for two primitives nppiSum_8u64s_C1R and nppiSum_8u64s_C4R.

The sum functions require additional scratch buffer for computations.

- NppStatus nppiSum_8u_C1R (const Npp8u ∗pSrc, int nSrcStep, NppiSize oSizeROI, Npp8u ∗pDeviceBuffer, Npp64f ∗pSum)

  One-channel 8-bit unsigned image sum.

- NppStatus nppiSum_8u64s_C1R (const Npp8u ∗pSrc, int nSrcStep, NppiSize oSizeROI, Npp8u ∗pDeviceBuffer, Npp64s ∗pSum)

  One-channel 8-bit unsigned image sum.

- NppStatus nppiSum_16u_C1R (const Npp16u ∗pSrc, int nSrcStep, NppiSize oSizeROI, Npp8u ∗pDeviceBuffer, Npp64f ∗pSum)

  One-channel 16-bit unsigned image sum.

- NppStatus nppiSum_16s_C1R (const Npp16s ∗pSrc, int nSrcStep, NppiSize oSizeROI, Npp8u ∗pDeviceBuffer, Npp64f ∗pSum)

  One-channel 16-bit signed image sum.

- NppStatus nppiSum_32f_C1R (const Npp32f ∗pSrc, int nSrcStep, NppiSize oSizeROI, Npp8u ∗pDeviceBuffer, Npp64f ∗pSum)

  One-channel 32-bit floating point image sum.

- NppStatus nppiSum_8u_C3R (const Npp8u ∗pSrc, int nSrcStep, NppiSize oSizeROI, Npp8u ∗pDeviceBuffer, Npp64f aSum[3])

  Three-channel 8-bit unsigned image sum.

- NppStatus nppiSum_16u_C3R (const Npp16u ∗pSrc, int nSrcStep, NppiSize oSizeROI, Npp8u ∗pDeviceBuffer, Npp64f aSum[3])

  Three-channel 16-bit unsigned image sum.

- NppStatus nppiSum_16s_C3R (const Npp16s ∗pSrc, int nSrcStep, NppiSize oSizeROI, Npp8u ∗pDeviceBuffer, Npp64f aSum[3])

  Three-channel 16-bit signed image sum.

- NppStatus nppiSum_32f_C3R (const Npp32f ∗pSrc, int nSrcStep, NppiSize oSizeROI, Npp8u ∗pDeviceBuffer, Npp64f aSum[3])

  Three-channel 32-bit floating point image sum.

- NppStatus nppiSum_8u_AC4R (const Npp8u ∗pSrc, int nSrcStep, NppiSize oSizeROI, Npp8u ∗pDeviceBuffer, Npp64f aSum[3])

  Four-channel 8-bit unsigned image sum ignoring alpha channel.

- NppStatus nppiSum_16u_AC4R (const Npp16u ∗pSrc, int nSrcStep, NppiSize oSizeROI, Npp8u ∗pDeviceBuffer, Npp64f aSum[3])

  Four-channel 16-bit unsigned image sum ignoring alpha channel.

- NppStatus nppiSum_16s_AC4R (const Npp16s ∗pSrc, int nSrcStep, NppiSize oSizeROI, Npp8u ∗pDeviceBuffer, Npp64f aSum[3])

  Four-channel 16-bit signed image sum ignoring alpha channel.

- NppStatus nppiSum_32f_AC4R (const Npp32f ∗pSrc, int nSrcStep, NppiSize oSizeROI, Npp8u ∗pDeviceBuffer, Npp64f aSum[3])

  Four-channel 32-bit floating point image sum ignoring alpha channel.

- NppStatus nppiSum_8u_C4R (const Npp8u ∗pSrc, int nSrcStep, NppiSize oSizeROI, Npp8u ∗pDeviceBuffer, Npp64f aSum[4])

  Four-channel 8-bit unsigned image sum.

- NppStatus nppiSum_8u64s_C4R (const Npp8u ∗pSrc, int nSrcStep, NppiSize oSizeROI, Npp8u ∗pDeviceBuffer, Npp64s aSum[4])

  Four-channel 8-bit unsigned image sum.

- NppStatus nppiSum_16u_C4R (const Npp16u ∗pSrc, int nSrcStep, NppiSize oSizeROI, Npp8u ∗pDeviceBuffer, Npp64f aSum[4])

  Four-channel 16-bit unsigned image sum.

- NppStatus nppiSum_16s_C4R (const Npp16s ∗pSrc, int nSrcStep, NppiSize oSizeROI, Npp8u ∗pDeviceBuffer, Npp64f aSum[4])

  Four-channel 16-bit signed image sum.

- NppStatus nppiSum_32f_C4R (const Npp32f ∗pSrc, int nSrcStep, NppiSize oSizeROI, Npp8u ∗pDeviceBuffer, Npp64f aSum[4])

  Four-channel 32-bit floating point image sum.

SumGetBufferHostSize

Companion primitives for computing the device buffer size (in bytes) required by the sum primitives.

- NppStatus nppiSumGetBufferHostSize_8u_C1R (NppiSize oSizeROI, int ∗hpBufferSize)

  Buffer size for nppiSum_8u_C1R.

- NppStatus nppiSumGetBufferHostSize_8u64s_C1R (NppiSize oSizeROI, int ∗hpBufferSize)

  Buffer size for nppiSum_8u64s_C1R.

- NppStatus nppiSumGetBufferHostSize_16u_C1R (NppiSize oSizeROI, int ∗hpBufferSize)

  Buffer size for nppiSum_16u_C1R.

- NppStatus nppiSumGetBufferHostSize_16s_C1R (NppiSize oSizeROI, int ∗hpBufferSize)

  Buffer size for nppiSum_16s_C1R.
- NppStatus nppiSumGetBufferHostSize_32f_C1R (NppiSize oSizeROI, int ∗hpBufferSize)

  Buffer size for nppiSum_32f_C1R.
- NppStatus nppiSumGetBufferHostSize_8u_C3R (NppiSize oSizeROI, int ∗hpBufferSize)

  Buffer size for nppiSum_8u_C3R.
- NppStatus nppiSumGetBufferHostSize_16u_C3R (NppiSize oSizeROI, int ∗hpBufferSize)

  Buffer size for nppiSum_16u_C3R.
- NppStatus nppiSumGetBufferHostSize_16s_C3R (NppiSize oSizeROI, int ∗hpBufferSize)

  Buffer size for nppiSum_16s_C3R.
- NppStatus nppiSumGetBufferHostSize_32f_C3R (NppiSize oSizeROI, int ∗hpBufferSize)

  Buffer size for nppiSum_32f_C3R.
- NppStatus nppiSumGetBufferHostSize_8u_AC4R (NppiSize oSizeROI, int ∗hpBufferSize)

  Buffer size for nppiSum_8u_AC4R.
- NppStatus nppiSumGetBufferHostSize_16u_AC4R (NppiSize oSizeROI, int ∗hpBufferSize)

  Buffer size for nppiSum_16u_AC4R.
- NppStatus nppiSumGetBufferHostSize_16s_AC4R (NppiSize oSizeROI, int ∗hpBufferSize)

  Buffer size for nppiSum_16s_AC4R.
- NppStatus nppiSumGetBufferHostSize_32f_AC4R (NppiSize oSizeROI, int ∗hpBufferSize)

  Buffer size for nppiSum_32f_AC4R.
- NppStatus nppiSumGetBufferHostSize_8u64s_C4R (NppiSize oSizeROI, int ∗hpBufferSize)

  Buffer size for nppiSum_8u64s_C4R.
- NppStatus nppiSumGetBufferHostSize_8u_C4R (NppiSize oSizeROI, int ∗hpBufferSize)

  Buffer size for nppiSum_8u_C4R.
- NppStatus nppiSumGetBufferHostSize_16u_C4R (NppiSize oSizeROI, int ∗hpBufferSize)

  Buffer size for nppiSum_16u_C4R.
- NppStatus nppiSumGetBufferHostSize_16s_C4R (NppiSize oSizeROI, int ∗hpBufferSize)

  Buffer size for nppiSum_16s_C4R.
- NppStatus nppiSumGetBufferHostSize_32f_C4R (NppiSize oSizeROI, int ∗hpBufferSize)

  Buffer size for nppiSum_32f_C4R.

7.92.1 Detailed Description

Primitives for computing the sum of all the pixel values in an image.

7.92.2 Function Documentation

7.92.2.1 NppStatus nppiSum_16s_AC4R (const Npp16s ∗ *pSrc*, int *nSrcStep*, NppiSize *oSizeROI*, Npp8u ∗ *pDeviceBuffer*, Npp64f *aSum*[3])

Four-channel 16-bit signed image sum ignoring alpha channel.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppiSumGetBufferHostSize_16s_AC4R to determine the minium number of bytes required.

aSum Array that contains computed sum for each channel (alpha channel is not computed).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.92.2.2 NppStatus nppiSum_16s_C1R (const Npp16s ∗ *pSrc*, int *nSrcStep*, NppiSize *oSizeROI*, Npp8u ∗ *pDeviceBuffer*, Npp64f ∗ *pSum*)

One-channel 16-bit signed image sum.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppiSumGetBufferHostSize_16s_C1R to determine the minium number of bytes required.

pSum Pointer to the computed sum.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.92.2.3 NppStatus nppiSum_16s_C3R (const Npp16s ∗ *pSrc*, int *nSrcStep*, NppiSize *oSizeROI*, Npp8u ∗ *pDeviceBuffer*, Npp64f *aSum*[3])

Three-channel 16-bit signed image sum.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppiSumGetBufferHostSize_16s_C3R to determine the minium number of bytes required.

aSum Array that contains computed sum for each channel.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.92.2.4 NppStatus nppiSum_16s_C4R (const Npp16s ∗ *pSrc*, int *nSrcStep*, NppiSize *oSizeROI*, Npp8u ∗ *pDeviceBuffer*, Npp64f *aSum*[4])

Four-channel 16-bit signed image sum.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer Use nppiSumGetBufferHostSize_16s_C4R to determine the minium number of bytes required.

aSum Array that contains computed sum for each channel.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.92.2.5 NppStatus nppiSum_16u_AC4R (const Npp16u ∗ *pSrc*, int *nSrcStep*, NppiSize *oSizeROI*, Npp8u ∗ *pDeviceBuffer*, Npp64f *aSum*[3])

Four-channel 16-bit unsigned image sum ignoring alpha channel.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppiSumGetBufferHostSize_16u_AC4R to determine the minium number of bytes required.

aSum Array that contains computed sum for each channel (alpha channel is not computed).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.92.2.6 NppStatus nppiSum_16u_C1R (const Npp16u ∗ *pSrc*, int *nSrcStep*, NppiSize *oSizeROI*, Npp8u ∗ *pDeviceBuffer*, Npp64f ∗ *pSum*)

One-channel 16-bit unsigned image sum.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppiSumGetBufferHostSize_16u_C1R to determine the minium number of bytes required.

pSum Pointer to the computed sum.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.92.2.7 NppStatus nppiSum_16u_C3R (const Npp16u ∗ *pSrc*, int *nSrcStep*, NppiSize *oSizeROI*, Npp8u ∗ *pDeviceBuffer*, Npp64f *aSum*[3])

Three-channel 16-bit unsigned image sum.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppiSumGetBufferHostSize_16u_C3R to determine the minium number of bytes required.

aSum Array that contains computed sum for each channel.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.92.2.8 NppStatus nppiSum_16u_C4R (const Npp16u ∗ *pSrc*, int *nSrcStep*, NppiSize *oSizeROI*, Npp8u ∗ *pDeviceBuffer*, Npp64f *aSum*[4])

Four-channel 16-bit unsigned image sum.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer Use nppiSumGetBufferHostSize_16u_C4R to determine the minium number of bytes required.

aSum Array that contains computed sum for each channel.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.92.2.9 NppStatus nppiSum_32f_AC4R (const Npp32f * *pSrc*, int *nSrcStep*, NppiSize *oSizeROI*, Npp8u * *pDeviceBuffer*, Npp64f *aSum*[3])

Four-channel 32-bit floating point image sum ignoring alpha channel.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer Use nppiSumGetBufferHostSize_32f_AC4R to determine the minium number of bytes required.

aSum Array that contains computed sum for each channel (alpha channel is not computed).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.92.2.10 NppStatus nppiSum_32f_C1R (const Npp32f * *pSrc*, int *nSrcStep*, NppiSize *oSizeROI*, Npp8u * *pDeviceBuffer*, Npp64f * *pSum*)

One-channel 32-bit floating point image sum.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer Use nppiSumGetBufferHostSize_32f_C1R to determine the minium number of bytes required.

pSum Pointer to the computed sum.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.92.2.11 NppStatus nppiSum_32f_C3R (const Npp32f * *pSrc*, int *nSrcStep*, NppiSize *oSizeROI*, Npp8u * *pDeviceBuffer*, Npp64f *aSum*[3])

Three-channel 32-bit floating point image sum.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppiSumGetBufferHostSize_32f_C3R to determine the minium number of bytes required.

aSum Array that contains computed sum for each channel.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.92.2.12 NppStatus nppiSum_32f_C4R (const Npp32f ∗ *pSrc*, int *nSrcStep*, NppiSize *oSizeROI*, Npp8u ∗ *pDeviceBuffer*, Npp64f *aSum*[4])

Four-channel 32-bit floating point image sum.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer Use nppiSumGetBufferHostSize_32f_C4R to determine the minium number of bytes required.

aSum Array that contains computed sum for each channel.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.92.2.13 NppStatus nppiSum_8u64s_C1R (const Npp8u ∗ *pSrc*, int *nSrcStep*, NppiSize *oSizeROI*, Npp8u ∗ *pDeviceBuffer*, Npp64s ∗ *pSum*)

One-channel 8-bit unsigned image sum.

The result is 64-bit long long integer.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppiSumGetBufferHostSize_8u64s_C1R to determine the minium number of bytes required.

pSum Pointer to the computed sum.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.92.2.14 NppStatus nppiSum_8u64s_C4R (const Npp8u ∗ *pSrc*, int *nSrcStep*, NppiSize *oSizeROI*, Npp8u ∗ *pDeviceBuffer*, Npp64s *aSum*[4])

Four-channel 8-bit unsigned image sum.

The result is 64-bit long long integer.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer Use nppiSumGetBufferHostSize_8u64s_C4R to determine the minium number of bytes required.

aSum Array that contains computed sum for each channel.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.92.2.15 NppStatus nppiSum_8u_AC4R (const Npp8u ∗ *pSrc*, int *nSrcStep*, NppiSize *oSizeROI*, Npp8u ∗ *pDeviceBuffer*, Npp64f *aSum*[3])

Four-channel 8-bit unsigned image sum ignoring alpha channel.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppiSumGetBufferHostSize_8u_AC4R to determine the minium number of bytes required.

aSum Array that contains computed sum for each channel (alpha channel is not computed).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.92.2.16 NppStatus nppiSum_8u_C1R (const Npp8u ∗ *pSrc*, int *nSrcStep*, NppiSize *oSizeROI*, Npp8u ∗ *pDeviceBuffer*, Npp64f ∗ *pSum*)

One-channel 8-bit unsigned image sum.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppiSumGetBufferHostSize_8u_C1R to determine the minium number of bytes required.

pSum Pointer to the computed sum.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.92.2.17 NppStatus nppiSum_8u_C3R (const Npp8u ∗ *pSrc*, int *nSrcStep*, NppiSize *oSizeROI*, Npp8u ∗ *pDeviceBuffer*, Npp64f *aSum*[3])

Three-channel 8-bit unsigned image sum.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppiSumGetBufferHostSize_8u_C3R to determine the minium number of bytes required.

aSum Array that contains computed sum for each channel.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.92.2.18 NppStatus nppiSum_8u_C4R (const Npp8u ∗ *pSrc*, int *nSrcStep*, NppiSize *oSizeROI*, Npp8u ∗ *pDeviceBuffer*, Npp64f *aSum*[4])

Four-channel 8-bit unsigned image sum.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer Use nppiSumGetBufferHostSize_8u_C4R to determine the minium number of bytes required.

aSum Array that contains computed sum for each channel.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.92.2.19 NppStatus nppiSumGetBufferHostSize_16s_AC4R (NppiSize *oSizeROI*, int ∗ *hpBufferSize*)

Buffer size for nppiSum_16s_AC4R.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.92.2.20 NppStatus nppiSumGetBufferHostSize_16s_C1R (NppiSize *oSizeROI*, int ∗ *hpBufferSize*)

Buffer size for nppiSum_16s_C1R.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.92.2.21 NppStatus nppiSumGetBufferHostSize_16s_C3R (NppiSize *oSizeROI*, int ∗ *hpBufferSize*)

Buffer size for nppiSum_16s_C3R.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.92.2.22 NppStatus nppiSumGetBufferHostSize_16s_C4R (NppiSize *oSizeROI*, int ∗ *hpBufferSize*)

Buffer size for nppiSum_16s_C4R.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.92.2.23 NppStatus nppiSumGetBufferHostSize_16u_AC4R (NppiSize *oSizeROI*, int ∗ *hpBufferSize*)

Buffer size for nppiSum_16u_AC4R.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.92.2.24 NppStatus nppiSumGetBufferHostSize_16u_C1R (NppiSize *oSizeROI*, int * *hpBufferSize*)

Buffer size for nppiSum_16u_C1R.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.92.2.25 NppStatus nppiSumGetBufferHostSize_16u_C3R (NppiSize *oSizeROI*, int * *hpBufferSize*)

Buffer size for nppiSum_16u_C3R.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.92.2.26 NppStatus nppiSumGetBufferHostSize_16u_C4R (NppiSize *oSizeROI*, int * *hpBufferSize*)

Buffer size for nppiSum_16u_C4R.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.92.2.27 NppStatus nppiSumGetBufferHostSize_32f_AC4R (NppiSize *oSizeROI*, int ∗ *hpBufferSize*)

Buffer size for nppiSum_32f_AC4R.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.92.2.28 NppStatus nppiSumGetBufferHostSize_32f_C1R (NppiSize *oSizeROI*, int ∗ *hpBufferSize*)

Buffer size for nppiSum_32f_C1R.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.92.2.29 NppStatus nppiSumGetBufferHostSize_32f_C3R (NppiSize *oSizeROI*, int ∗ *hpBufferSize*)

Buffer size for nppiSum_32f_C3R.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.92.2.30 NppStatus nppiSumGetBufferHostSize_32f_C4R (NppiSize *oSizeROI*, int ∗ *hpBufferSize*)

Buffer size for nppiSum_32f_C4R.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.92.2.31 NppStatus nppiSumGetBufferHostSize_8u64s_C1R (NppiSize *oSizeROI*, int ∗ *hpBufferSize*)

Buffer size for nppiSum_8u64s_C1R.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.92.2.32 NppStatus nppiSumGetBufferHostSize_8u64s_C4R (NppiSize *oSizeROI*, int ∗ *hpBufferSize*)

Buffer size for nppiSum_8u64s_C4R.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.92.2.33 NppStatus nppiSumGetBufferHostSize_8u_AC4R (NppiSize *oSizeROI*, int ∗ *hpBufferSize*)

Buffer size for nppiSum_8u_AC4R.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.92.2.34 NppStatus nppiSumGetBufferHostSize_8u_C1R (NppiSize *oSizeROI*, int * *hpBufferSize*)

Buffer size for nppiSum_8u_C1R.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.92.2.35 NppStatus nppiSumGetBufferHostSize_8u_C3R (NppiSize *oSizeROI*, int * *hpBufferSize*)

Buffer size for nppiSum_8u_C3R.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.92.2.36 NppStatus nppiSumGetBufferHostSize_8u_C4R (NppiSize *oSizeROI*, int * *hpBufferSize*)

Buffer size for nppiSum_8u_C4R.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.93 Min

Primitives for computing the minimal pixel value of an image.

Min

The scratch buffer is required by the min functions.

- NppStatus nppiMin_8u_C1R (const Npp8u ∗pSrc, int nSrcStep, NppiSize oSizeROI, Npp8u ∗pDeviceBuffer, Npp8u ∗pMin)

  One-channel 8-bit unsigned image min.

- NppStatus nppiMin_16u_C1R (const Npp16u ∗pSrc, int nSrcStep, NppiSize oSizeROI, Npp8u ∗pDeviceBuffer, Npp16u ∗pMin)

  One-channel 16-bit unsigned image min.

- NppStatus nppiMin_16s_C1R (const Npp16s ∗pSrc, int nSrcStep, NppiSize oSizeROI, Npp8u ∗pDeviceBuffer, Npp16s ∗pMin)

  One-channel 16-bit signed image min.

- NppStatus nppiMin_32f_C1R (const Npp32f ∗pSrc, int nSrcStep, NppiSize oSizeROI, Npp8u ∗pDeviceBuffer, Npp32f ∗pMin)

  One-channel 32-bit floating point image min.

- NppStatus nppiMin_8u_C3R (const Npp8u ∗pSrc, int nSrcStep, NppiSize oSizeROI, Npp8u ∗pDeviceBuffer, Npp8u aMin[3])

  Three-channel 8-bit unsigned image min.

- NppStatus nppiMin_16u_C3R (const Npp16u ∗pSrc, int nSrcStep, NppiSize oSizeROI, Npp8u ∗pDeviceBuffer, Npp16u aMin[3])

  Three-channel 16-bit unsigned image min.

- NppStatus nppiMin_16s_C3R (const Npp16s ∗pSrc, int nSrcStep, NppiSize oSizeROI, Npp8u ∗pDeviceBuffer, Npp16s aMin[3])

  Three-channel 16-bit signed image min.

- NppStatus nppiMin_32f_C3R (const Npp32f ∗pSrc, int nSrcStep, NppiSize oSizeROI, Npp8u ∗pDeviceBuffer, Npp32f aMin[3])

  Three-channel 32-bit floating point image min.

- NppStatus nppiMin_8u_C4R (const Npp8u ∗pSrc, int nSrcStep, NppiSize oSizeROI, Npp8u ∗pDeviceBuffer, Npp8u aMin[4])

  Four-channel 8-bit unsigned image min.

- NppStatus nppiMin_16u_C4R (const Npp16u ∗pSrc, int nSrcStep, NppiSize oSizeROI, Npp8u ∗pDeviceBuffer, Npp16u aMin[4])

  Four-channel 16-bit unsigned image min.

- NppStatus nppiMin_16s_C4R (const Npp16s ∗pSrc, int nSrcStep, NppiSize oSizeROI, Npp8u ∗pDeviceBuffer, Npp16s aMin[4])

Four-channel 16-bit signed image min.

- NppStatus nppiMin_32f_C4R (const Npp32f ∗pSrc, int nSrcStep, NppiSize oSizeROI, Npp8u ∗pDeviceBuffer, Npp32f aMin[4])

  Four-channel 32-bit floating point image min.

- NppStatus nppiMin_8u_AC4R (const Npp8u ∗pSrc, int nSrcStep, NppiSize oSizeROI, Npp8u ∗pDeviceBuffer, Npp8u aMin[3])

  Four-channel 8-bit unsigned image min ignoring alpha channel.

- NppStatus nppiMin_16u_AC4R (const Npp16u ∗pSrc, int nSrcStep, NppiSize oSizeROI, Npp8u ∗pDeviceBuffer, Npp16u aMin[3])

  Four-channel 16-bit unsigned image min ignoring alpha channel.

- NppStatus nppiMin_16s_AC4R (const Npp16s ∗pSrc, int nSrcStep, NppiSize oSizeROI, Npp8u ∗pDeviceBuffer, Npp16s aMin[3])

  Four-channel 16-bit signed image min ignoring alpha channel.

- NppStatus nppiMin_32f_AC4R (const Npp32f ∗pSrc, int nSrcStep, NppiSize oSizeROI, Npp8u ∗pDeviceBuffer, Npp32f aMin[3])

  Four-channel 32-bit floating point image min ignoring alpha channel.

MinGetBufferHostSize

Companion primitives for computing the device buffer size (in bytes) required by the min primitives.

- NppStatus nppiMinGetBufferHostSize_8u_C1R (NppiSize oSizeROI, int ∗hpBufferSize)

  Buffer size for nppiMin_8u_C1R.

- NppStatus nppiMinGetBufferHostSize_16u_C1R (NppiSize oSizeROI, int ∗hpBufferSize)

  Buffer size for nppiMin_16u_C1R.

- NppStatus nppiMinGetBufferHostSize_16s_C1R (NppiSize oSizeROI, int ∗hpBufferSize)

  Buffer size for nppiMin_16s_C1R.

- NppStatus nppiMinGetBufferHostSize_32f_C1R (NppiSize oSizeROI, int ∗hpBufferSize)

  Buffer size for nppiMin_32f_C1R.

- NppStatus nppiMinGetBufferHostSize_8u_C3R (NppiSize oSizeROI, int ∗hpBufferSize)

  Buffer size for nppiMin_8u_C3R.

- NppStatus nppiMinGetBufferHostSize_16u_C3R (NppiSize oSizeROI, int ∗hpBufferSize)

  Buffer size for nppiMin_16u_C3R.

- NppStatus nppiMinGetBufferHostSize_16s_C3R (NppiSize oSizeROI, int ∗hpBufferSize)

  Buffer size for nppiMin_16s_C3R.

- NppStatus nppiMinGetBufferHostSize_32f_C3R (NppiSize oSizeROI, int ∗hpBufferSize)

  Buffer size for nppiMin_32f_C3R.

- NppStatus nppiMinGetBufferHostSize_8u_C4R (NppiSize oSizeROI, int ∗hpBufferSize)
  Buffer size for nppiMin_8u_C4R.
- NppStatus nppiMinGetBufferHostSize_16u_C4R (NppiSize oSizeROI, int ∗hpBufferSize)
  Buffer size for nppiMin_16u_C4R.
- NppStatus nppiMinGetBufferHostSize_16s_C4R (NppiSize oSizeROI, int ∗hpBufferSize)
  Buffer size for nppiMin_16s_C4R.
- NppStatus nppiMinGetBufferHostSize_32f_C4R (NppiSize oSizeROI, int ∗hpBufferSize)
  Buffer size for nppiMin_32f_C4R.
- NppStatus nppiMinGetBufferHostSize_8u_AC4R (NppiSize oSizeROI, int ∗hpBufferSize)
  Buffer size for nppiMin_8u_AC4R.
- NppStatus nppiMinGetBufferHostSize_16u_AC4R (NppiSize oSizeROI, int ∗hpBufferSize)
  Buffer size for nppiMin_16u_AC4R.
- NppStatus nppiMinGetBufferHostSize_16s_AC4R (NppiSize oSizeROI, int ∗hpBufferSize)
  Buffer size for nppiMin_16s_AC4R.
- NppStatus nppiMinGetBufferHostSize_32f_AC4R (NppiSize oSizeROI, int ∗hpBufferSize)
  Buffer size for nppiMin_32f_AC4R.

7.93.1 Detailed Description

Primitives for computing the minimal pixel value of an image.

7.93.2 Function Documentation

7.93.2.1 NppStatus nppiMin_16s_AC4R (const Npp16s ∗ *pSrc*, int *nSrcStep*, NppiSize *oSizeROI*, Npp8u ∗ *pDeviceBuffer*, Npp16s *aMin*[3])

Four-channel 16-bit signed image min ignoring alpha channel.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer Use nppiMinGetBufferHostSize_16s_AC4R to determine the minium number of bytes required.

aMin Array that contains the computed minimum results for each channel (alpha channel is not processed).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.93.2.2 NppStatus nppiMin_16s_C1R (const Npp16s ∗ *pSrc*, int *nSrcStep*, NppiSize *oSizeROI*, Npp8u ∗ *pDeviceBuffer*, Npp16s ∗ *pMin*)

One-channel 16-bit signed image min.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer Use nppiMinGetBufferHostSize_16s_C1R to determine the minium number of bytes required.

pMin Pointer to the computed minimum result.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.93.2.3 NppStatus nppiMin_16s_C3R (const Npp16s ∗ *pSrc*, int *nSrcStep*, NppiSize *oSizeROI*, Npp8u ∗ *pDeviceBuffer*, Npp16s *aMin*[3])

Three-channel 16-bit signed image min.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer Use nppiMinGetBufferHostSize_16s_C3R to determine the minium number of bytes required.

aMin Array that contains the computed minimum results for each channel.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.93.2.4 NppStatus nppiMin_16s_C4R (const Npp16s ∗ *pSrc*, int *nSrcStep*, NppiSize *oSizeROI*, Npp8u ∗ *pDeviceBuffer*, Npp16s *aMin*[4])

Four-channel 16-bit signed image min.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer Use nppiMinGetBufferHostSize_16s_C4R to determine the minium number of bytes required.

aMin Array that contains the computed minimum results for each channel.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.93.2.5 NppStatus nppiMin_16u_AC4R (const Npp16u ∗ *pSrc*, int *nSrcStep*, NppiSize *oSizeROI*, Npp8u ∗ *pDeviceBuffer*, Npp16u *aMin*[3])

Four-channel 16-bit unsigned image min ignoring alpha channel.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer Use nppiMinGetBufferHostSize_16u_AC4R to determine the minium number of bytes required.

aMin Array that contains the computed minimum results for each channel (alpha channel is not processed).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.93.2.6 NppStatus nppiMin_16u_C1R (const Npp16u ∗ *pSrc*, int *nSrcStep*, NppiSize *oSizeROI*, Npp8u ∗ *pDeviceBuffer*, Npp16u ∗ *pMin*)

One-channel 16-bit unsigned image min.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer Use nppiMinGetBufferHostSize_16u_C1R to determine the minium number of bytes required.

pMin Pointer to the computed minimum result.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.93.2.7 NppStatus nppiMin_16u_C3R (const Npp16u ∗ *pSrc*, int *nSrcStep*, NppiSize *oSizeROI*, Npp8u ∗ *pDeviceBuffer*, Npp16u *aMin*[3])

Three-channel 16-bit unsigned image min.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer Use nppiMinGetBufferHostSize_16u_C3R to determine the minium number of bytes required.

aMin Array that contains the computed minimum results for each channel.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.93.2.8 NppStatus nppiMin_16u_C4R (const Npp16u ∗ *pSrc*, int *nSrcStep*, NppiSize *oSizeROI*, Npp8u ∗ *pDeviceBuffer*, Npp16u *aMin*[4])

Four-channel 16-bit unsigned image min.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer Use nppiMinGetBufferHostSize_16u_C4R to determine the minium number of bytes required.

aMin Array that contains the computed minimum results for each channel.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.93.2.9 NppStatus nppiMin_32f_AC4R (const Npp32f ∗ *pSrc*, int *nSrcStep*, NppiSize *oSizeROI*, Npp8u ∗ *pDeviceBuffer*, Npp32f *aMin*[3])

Four-channel 32-bit floating point image min ignoring alpha channel.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer Use nppiMinGetBufferHostSize_32f_AC4R to determine the minium number of bytes required.

aMin Array that contains the computed minimum results for each channel (alpha channel is not processed).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.93.2.10 NppStatus nppiMin_32f_C1R (const Npp32f ∗ *pSrc*, int *nSrcStep*, NppiSize *oSizeROI*, Npp8u ∗ *pDeviceBuffer*, Npp32f ∗ *pMin*)

One-channel 32-bit floating point image min.

Parameters:

- ***pSrc*** Source-Image Pointer.
- ***nSrcStep*** Source-Image Line Step.
- ***oSizeROI*** Region-of-Interest (ROI).
- ***pDeviceBuffer*** Pointer to the required device memory allocation, Scratch Buffer and Host Pointer Use nppiMinGetBufferHostSize_32f_C1R to determine the minium number of bytes required.
- ***pMin*** Pointer to the computed minimum result.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.93.2.11 NppStatus nppiMin_32f_C3R (const Npp32f ∗ *pSrc*, int *nSrcStep*, NppiSize *oSizeROI*, Npp8u ∗ *pDeviceBuffer*, Npp32f *aMin*[3])

Three-channel 32-bit floating point image min.

Parameters:

- ***pSrc*** Source-Image Pointer.
- ***nSrcStep*** Source-Image Line Step.
- ***oSizeROI*** Region-of-Interest (ROI).
- ***pDeviceBuffer*** Pointer to the required device memory allocation, Scratch Buffer and Host Pointer Use nppiMinGetBufferHostSize_32f_C3R to determine the minium number of bytes required.
- ***aMin*** Array that contains the computed minimum results for each channel.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.93.2.12 NppStatus nppiMin_32f_C4R (const Npp32f ∗ *pSrc*, int *nSrcStep*, NppiSize *oSizeROI*, Npp8u ∗ *pDeviceBuffer*, Npp32f *aMin*[4])

Four-channel 32-bit floating point image min.

Parameters:

- ***pSrc*** Source-Image Pointer.
- ***nSrcStep*** Source-Image Line Step.
- ***oSizeROI*** Region-of-Interest (ROI).
- ***pDeviceBuffer*** Pointer to the required device memory allocation, Scratch Buffer and Host Pointer Use nppiMinGetBufferHostSize_32f_C4R to determine the minium number of bytes required.
- ***aMin*** Array that contains the computed minimum results for each channel.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.93.2.13 NppStatus nppiMin_8u_AC4R (const Npp8u * *pSrc*, int *nSrcStep*, NppiSize *oSizeROI*, Npp8u * *pDeviceBuffer*, Npp8u *aMin*[3])

Four-channel 8-bit unsigned image min ignoring alpha channel.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer Use nppiMinGetBufferHostSize_8u_AC4R to determine the minium number of bytes required.

aMin Array that contains the computed minimum results for each channel (alpha channel is not processed).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.93.2.14 NppStatus nppiMin_8u_C1R (const Npp8u * *pSrc*, int *nSrcStep*, NppiSize *oSizeROI*, Npp8u * *pDeviceBuffer*, Npp8u * *pMin*)

One-channel 8-bit unsigned image min.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer Use nppiMinGetBufferHostSize_8u_C1R to determine the minium number of bytes required.

pMin Pointer to the computed minimum result.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.93.2.15 NppStatus nppiMin_8u_C3R (const Npp8u * *pSrc*, int *nSrcStep*, NppiSize *oSizeROI*, Npp8u * *pDeviceBuffer*, Npp8u *aMin*[3])

Three-channel 8-bit unsigned image min.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer Use nppiMinGetBufferHostSize_8u_C3R to determine the minium number of bytes required.

aMin Array that contains the computed minimum results for each channel.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.93.2.16 NppStatus nppiMin_8u_C4R (const Npp8u * *pSrc*, int *nSrcStep*, NppiSize *oSizeROI*, Npp8u * *pDeviceBuffer*, Npp8u *aMin*[4])

Four-channel 8-bit unsigned image min.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer Use nppiMinGetBufferHostSize_8u_C4R to determine the minium number of bytes required.

aMin Array that contains the computed minimum results for each channel.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.93.2.17 NppStatus nppiMinGetBufferHostSize_16s_AC4R (NppiSize *oSizeROI*, int * *hpBufferSize*)

Buffer size for nppiMin_16s_AC4R.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.93.2.18 NppStatus nppiMinGetBufferHostSize_16s_C1R (NppiSize *oSizeROI*, int * *hpBufferSize*)

Buffer size for nppiMin_16s_C1R.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.93.2.19 NppStatus nppiMinGetBufferHostSize_16s_C3R (NppiSize *oSizeROI*, int ∗ *hpBufferSize*)

Buffer size for nppiMin_16s_C3R.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.93.2.20 NppStatus nppiMinGetBufferHostSize_16s_C4R (NppiSize *oSizeROI*, int ∗ *hpBufferSize*)

Buffer size for nppiMin_16s_C4R.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.93.2.21 NppStatus nppiMinGetBufferHostSize_16u_AC4R (NppiSize *oSizeROI*, int ∗ *hpBufferSize*)

Buffer size for nppiMin_16u_AC4R.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.93.2.22 NppStatus nppiMinGetBufferHostSize_16u_C1R (NppiSize *oSizeROI*, int ∗ *hpBufferSize*)

Buffer size for nppiMin_16u_C1R.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.93.2.23 NppStatus nppiMinGetBufferHostSize_16u_C3R (NppiSize *oSizeROI*, int * *hpBufferSize*)

Buffer size for nppiMin_16u_C3R.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.93.2.24 NppStatus nppiMinGetBufferHostSize_16u_C4R (NppiSize *oSizeROI*, int * *hpBufferSize*)

Buffer size for nppiMin_16u_C4R.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.93.2.25 NppStatus nppiMinGetBufferHostSize_32f_AC4R (NppiSize *oSizeROI*, int * *hpBufferSize*)

Buffer size for nppiMin_32f_AC4R.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.93.2.26 NppStatus nppiMinGetBufferHostSize_32f_C1R (NppiSize *oSizeROI*, int ∗ *hpBufferSize*)

Buffer size for nppiMin_32f_C1R.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.93.2.27 NppStatus nppiMinGetBufferHostSize_32f_C3R (NppiSize *oSizeROI*, int ∗ *hpBufferSize*)

Buffer size for nppiMin_32f_C3R.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.93.2.28 NppStatus nppiMinGetBufferHostSize_32f_C4R (NppiSize *oSizeROI*, int ∗ *hpBufferSize*)

Buffer size for nppiMin_32f_C4R.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.93.2.29 NppStatus nppiMinGetBufferHostSize_8u_AC4R (NppiSize *oSizeROI*, int ∗ *hpBufferSize*)

Buffer size for nppiMin_8u_AC4R.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.93.2.30 NppStatus nppiMinGetBufferHostSize_8u_C1R (NppiSize *oSizeROI*, int * *hpBufferSize*)

Buffer size for nppiMin_8u_C1R.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.93.2.31 NppStatus nppiMinGetBufferHostSize_8u_C3R (NppiSize *oSizeROI*, int * *hpBufferSize*)

Buffer size for nppiMin_8u_C3R.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.93.2.32 NppStatus nppiMinGetBufferHostSize_8u_C4R (NppiSize *oSizeROI*, int * *hpBufferSize*)

Buffer size for nppiMin_8u_C4R.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.94 MinIndx

Primitives for computing the minimal value and its indices (X and Y coordinates) of an image.

MinIndx

If there are several minima in the selected ROI, the function returns one on the top leftmost position.

The scratch buffer is required by the functions.

- NppStatus nppiMinIndx_8u_C1R (const Npp8u ∗pSrc, int nSrcStep, NppiSize oSizeROI, Npp8u ∗pDeviceBuffer, Npp8u ∗pMin, int ∗pIndexX, int ∗pIndexY)

  One-channel 8-bit unsigned image MinIndx.

- NppStatus nppiMinIndx_16u_C1R (const Npp16u ∗pSrc, int nSrcStep, NppiSize oSizeROI, Npp8u ∗pDeviceBuffer, Npp16u ∗pMin, int ∗pIndexX, int ∗pIndexY)

  One-channel 16-bit unsigned image MinIndx.

- NppStatus nppiMinIndx_16s_C1R (const Npp16s ∗pSrc, int nSrcStep, NppiSize oSizeROI, Npp8u ∗pDeviceBuffer, Npp16s ∗pMin, int ∗pIndexX, int ∗pIndexY)

  One-channel 16-bit signed image MinIndx.

- NppStatus nppiMinIndx_32f_C1R (const Npp32f ∗pSrc, int nSrcStep, NppiSize oSizeROI, Npp8u ∗pDeviceBuffer, Npp32f ∗pMin, int ∗pIndexX, int ∗pIndexY)

  One-channel 32-bit floating point image MinIndx.

- NppStatus nppiMinIndx_8u_C3R (const Npp8u ∗pSrc, int nSrcStep, NppiSize oSizeROI, Npp8u ∗pDeviceBuffer, Npp8u aMin[3], int aIndexX[3], int aIndexY[3])

  Three-channel 8-bit unsigned image MinIndx.

- NppStatus nppiMinIndx_16u_C3R (const Npp16u ∗pSrc, int nSrcStep, NppiSize oSizeROI, Npp8u ∗pDeviceBuffer, Npp16u aMin[3], int aIndexX[3], int aIndexY[3])

  Three-channel 16-bit unsigned image MinIndx.

- NppStatus nppiMinIndx_16s_C3R (const Npp16s ∗pSrc, int nSrcStep, NppiSize oSizeROI, Npp8u ∗pDeviceBuffer, Npp16s aMin[3], int aIndexX[3], int aIndexY[3])

  Three-channel 16-bit signed image MinIndx.

- NppStatus nppiMinIndx_32f_C3R (const Npp32f ∗pSrc, int nSrcStep, NppiSize oSizeROI, Npp8u ∗pDeviceBuffer, Npp32f aMin[3], int aIndexX[3], int aIndexY[3])

  Three-channel 32-bit floating point image MinIndx.

- NppStatus nppiMinIndx_8u_C4R (const Npp8u ∗pSrc, int nSrcStep, NppiSize oSizeROI, Npp8u ∗pDeviceBuffer, Npp8u aMin[4], int aIndexX[4], int aIndexY[4])

  Four-channel 8-bit unsigned image MinIndx.

- NppStatus nppiMinIndx_16u_C4R (const Npp16u ∗pSrc, int nSrcStep, NppiSize oSizeROI, Npp8u ∗pDeviceBuffer, Npp16u aMin[4], int aIndexX[4], int aIndexY[4])

  Four-channel 16-bit unsigned image MinIndx.

- NppStatus nppiMinIndx_16s_C4R (const Npp16s ∗pSrc, int nSrcStep, NppiSize oSizeROI, Npp8u ∗pDeviceBuffer, Npp16s aMin[4], int aIndexX[4], int aIndexY[4])

  Four-channel 16-bit signed image MinIndx.

- NppStatus nppiMinIndx_32f_C4R (const Npp32f ∗pSrc, int nSrcStep, NppiSize oSizeROI, Npp8u ∗pDeviceBuffer, Npp32f aMin[4], int aIndexX[4], int aIndexY[4])

  Four-channel 32-bit floating point image MinIndx.

- NppStatus nppiMinIndx_8u_AC4R (const Npp8u ∗pSrc, int nSrcStep, NppiSize oSizeROI, Npp8u ∗pDeviceBuffer, Npp8u aMin[3], int aIndexX[3], int aIndexY[3])

  Four-channel 8-bit unsigned image MinIndx ignoring alpha channel.

- NppStatus nppiMinIndx_16u_AC4R (const Npp16u ∗pSrc, int nSrcStep, NppiSize oSizeROI, Npp8u ∗pDeviceBuffer, Npp16u aMin[3], int aIndexX[3], int aIndexY[3])

  Four-channel 16-bit unsigned image MinIndx ignoring alpha channel.

- NppStatus nppiMinIndx_16s_AC4R (const Npp16s ∗pSrc, int nSrcStep, NppiSize oSizeROI, Npp8u ∗pDeviceBuffer, Npp16s aMin[3], int aIndexX[3], int aIndexY[3])

  Four-channel 16-bit signed image MinIndx ignoring alpha channel.

- NppStatus nppiMinIndx_32f_AC4R (const Npp32f ∗pSrc, int nSrcStep, NppiSize oSizeROI, Npp8u ∗pDeviceBuffer, Npp32f aMin[3], int aIndexX[3], int aIndexY[3])

  Four-channel 32-bit floating point image MinIndx ignoring alpha channel.

MinIndxGetBufferHostSize

Companion primitives for computing the device buffer size (in bytes) required by the MinIndx primitives.

- NppStatus nppiMinIndxGetBufferHostSize_8u_C1R (NppiSize oSizeROI, int ∗hpBufferSize)

  Computes the dvice scratch buffer size (in bytes) for nppiMinIndx_8u_C1R.

- NppStatus nppiMinIndxGetBufferHostSize_16u_C1R (NppiSize oSizeROI, int ∗hpBufferSize)

  Computes the dvice scratch buffer size (in bytes) for nppiMinIndx_16u_C1R.

- NppStatus nppiMinIndxGetBufferHostSize_16s_C1R (NppiSize oSizeROI, int ∗hpBufferSize)

  Computes the dvice scratch buffer size (in bytes) for nppiMinIndx_16s_C1R.

- NppStatus nppiMinIndxGetBufferHostSize_32f_C1R (NppiSize oSizeROI, int ∗hpBufferSize)

  Computes the dvice scratch buffer size (in bytes) for nppiMinIndx_32f_C1R.

- NppStatus nppiMinIndxGetBufferHostSize_8u_C3R (NppiSize oSizeROI, int ∗hpBufferSize)

  Computes the dvice scratch buffer size (in bytes) for nppiMinIndx_8u_C3R.

- NppStatus nppiMinIndxGetBufferHostSize_16u_C3R (NppiSize oSizeROI, int ∗hpBufferSize)

  Computes the dvice scratch buffer size (in bytes) for nppiMinIndx_16u_C3R.

- NppStatus nppiMinIndxGetBufferHostSize_16s_C3R (NppiSize oSizeROI, int ∗hpBufferSize)

  Computes the dvice scratch buffer size (in bytes) for nppiMinIndx_16s_C3R.

- NppStatus nppiMinIndxGetBufferHostSize_32f_C3R (NppiSize oSizeROI, int ∗hpBufferSize)

  Computes the dvice scratch buffer size (in bytes) for nppiMinIndx_32f_C3R.

- NppStatus nppiMinIndxGetBufferHostSize_8u_C4R (NppiSize oSizeROI, int ∗hpBufferSize)

  Computes the dvice scratch buffer size (in bytes) for nppiMinIndx_8u_C4R.

- NppStatus nppiMinIndxGetBufferHostSize_16u_C4R (NppiSize oSizeROI, int ∗hpBufferSize)

  Computes the dvice scratch buffer size (in bytes) for nppiMinIndx_16u_C4R.

- NppStatus nppiMinIndxGetBufferHostSize_16s_C4R (NppiSize oSizeROI, int ∗hpBufferSize)

  Computes the dvice scratch buffer size (in bytes) for nppiMinIndx_16s_C4R.

- NppStatus nppiMinIndxGetBufferHostSize_32f_C4R (NppiSize oSizeROI, int ∗hpBufferSize)

  Computes the dvice scratch buffer size (in bytes) for nppiMinIndx_32f_C4R.

- NppStatus nppiMinIndxGetBufferHostSize_8u_AC4R (NppiSize oSizeROI, int ∗hpBufferSize)

  Computes the dvice scratch buffer size (in bytes) for nppiMinIndx_8u_AC4R.

- NppStatus nppiMinIndxGetBufferHostSize_16u_AC4R (NppiSize oSizeROI, int ∗hpBufferSize)

  Computes the dvice scratch buffer size (in bytes) for nppiMinIndx_8u_AC4R.

- NppStatus nppiMinIndxGetBufferHostSize_16s_AC4R (NppiSize oSizeROI, int ∗hpBufferSize)

  Computes the dvice scratch buffer size (in bytes) for nppiMinIndx_16u_AC4R.

- NppStatus nppiMinIndxGetBufferHostSize_32f_AC4R (NppiSize oSizeROI, int ∗hpBufferSize)

  Computes the dvice scratch buffer size (in bytes) for nppiMinIndx_32f_AC4R.

7.94.1 Detailed Description

Primitives for computing the minimal value and its indices (X and Y coordinates) of an image.

7.94.2 Function Documentation

7.94.2.1 NppStatus nppiMinIndx_16s_AC4R (const Npp16s ∗ *pSrc*, int *nSrcStep*, NppiSize *oSizeROI*, Npp8u ∗ *pDeviceBuffer*, Npp16s *aMin*[3], int *aIndexX*[3], int *aIndexY*[3])

Four-channel 16-bit signed image MinIndx ignoring alpha channel.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer Use nppiMinIndxGetBufferHostSize_16s_AC4R to determine the minium number of bytes required.

aMin Array that contains the min values.

aIndexX Array that contains the X coordinates of the image min values.

aIndexY Array that contains the Y coordinates of the image min values.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.94.2.2 NppStatus nppiMinIndx_16s_C1R (const Npp16s ∗ *pSrc*, int *nSrcStep*, NppiSize *oSizeROI*, Npp8u ∗ *pDeviceBuffer*, Npp16s ∗ *pMin*, int ∗ *pIndexX*, int ∗ *pIndexY*)

One-channel 16-bit signed image MinIndx.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer Use nppiMinIndxGetBufferHostSize_16s_C1R to determine the minium number of bytes required.

pMin Pointer to the computed min result.

pIndexX Pointer to the X coordinate of the image min value.

pIndexY Pointer to the Y coordinate of the image min value.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.94.2.3 NppStatus nppiMinIndx_16s_C3R (const Npp16s ∗ *pSrc*, int *nSrcStep*, NppiSize *oSizeROI*, Npp8u ∗ *pDeviceBuffer*, Npp16s *aMin*[3], int *aIndexX*[3], int *aIndexY*[3])

Three-channel 16-bit signed image MinIndx.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer Use nppiMinIndxGetBufferHostSize_16s_C3R to determine the minium number of bytes required.

aMin Array that contains the min values.

aIndexX Array that contains the X coordinates of the image min values.

aIndexY Array that contains the Y coordinates of the image min values.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.94.2.4 NppStatus nppiMinIndx_16s_C4R (const Npp16s ∗ *pSrc*, int *nSrcStep*, NppiSize *oSizeROI*, Npp8u ∗ *pDeviceBuffer*, Npp16s *aMin*[4], int *aIndexX*[4], int *aIndexY*[4])

Four-channel 16-bit signed image MinIndx.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer Use nppiMinIndxGetBufferHostSize_16s_C4R to determine the minium number of bytes required.

aMin Array that contains the min values.

aIndexX Array that contains the X coordinates of the image min values.

aIndexY Array that contains the Y coordinates of the image min values.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.94.2.5 NppStatus nppiMinIndx_16u_AC4R (const Npp16u ∗ *pSrc*, int *nSrcStep*, NppiSize *oSizeROI*, Npp8u ∗ *pDeviceBuffer*, Npp16u *aMin*[3], int *aIndexX*[3], int *aIndexY*[3])

Four-channel 16-bit unsigned image MinIndx ignoring alpha channel.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer Use nppiMinIndxGetBufferHostSize_16u_AC4R to determine the minium number of bytes required.

aMin Array that contains the min values.

aIndexX Array that contains the X coordinates of the image min values.

aIndexY Array that contains the Y coordinates of the image min values.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.94.2.6 NppStatus nppiMinIndx_16u_C1R (const Npp16u ∗ *pSrc*, int *nSrcStep*, NppiSize *oSizeROI*, Npp8u ∗ *pDeviceBuffer*, Npp16u ∗ *pMin*, int ∗ *pIndexX*, int ∗ *pIndexY*)

One-channel 16-bit unsigned image MinIndx.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer Use nppiMinIndxGetBufferHostSize_16u_C1R to determine the minium number of bytes required.

pMin Pointer to the computed min result.

pIndexX Pointer to the X coordinate of the image min value.

pIndexY Pointer to the Y coordinate of the image min value.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.94.2.7 NppStatus nppiMinIndx_16u_C3R (const Npp16u ∗ *pSrc*, int *nSrcStep*, NppiSize *oSizeROI*, Npp8u ∗ *pDeviceBuffer*, Npp16u *aMin*[3], int *aIndexX*[3], int *aIndexY*[3])

Three-channel 16-bit unsigned image MinIndx.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer Use nppiMinIndxGetBufferHostSize_16u_C3R to determine the minium number of bytes required.

aMin Array that contains the min values.

aIndexX Array that contains the X coordinates of the image min values.

aIndexY Array that contains the Y coordinates of the image min values.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.94.2.8 NppStatus nppiMinIndx_16u_C4R (const Npp16u ∗ *pSrc*, int *nSrcStep*, NppiSize *oSizeROI*, Npp8u ∗ *pDeviceBuffer*, Npp16u *aMin*[4], int *aIndexX*[4], int *aIndexY*[4])

Four-channel 16-bit unsigned image MinIndx.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer Use nppiMinIndxGetBufferHostSize_16u_C4R to determine the minium number of bytes required.

aMin Array that contains the min values.

aIndexX Array that contains the X coordinates of the image min values.

aIndexY Array that contains the Y coordinates of the image min values.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.94.2.9 NppStatus nppiMinIndx_32f_AC4R (const Npp32f ∗ *pSrc*, int *nSrcStep*, NppiSize *oSizeROI*, Npp8u ∗ *pDeviceBuffer*, Npp32f *aMin*[3], int *aIndexX*[3], int *aIndexY*[3])

Four-channel 32-bit floating point image MinIndx ignoring alpha channel.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer Use nppiMinIndxGetBufferHostSize_32f_AC4R to determine the minium number of bytes required.

aMin Array that contains the min values.

aIndexX Array that contains the X coordinates of the image min values.

aIndexY Array that contains the Y coordinates of the image min values.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.94.2.10 NppStatus nppiMinIndx_32f_C1R (const Npp32f ∗ *pSrc*, int *nSrcStep*, NppiSize *oSizeROI*, Npp8u ∗ *pDeviceBuffer*, Npp32f ∗ *pMin*, int ∗ *pIndexX*, int ∗ *pIndexY*)

One-channel 32-bit floating point image MinIndx.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer Use nppiMinIndxGetBufferHostSize_32f_C1R to determine the minium number of bytes required.

pMin Pointer to the computed min result.

pIndexX Pointer to the X coordinate of the image min value.

pIndexY Pointer to the Y coordinate of the image min value.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.94.2.11 NppStatus nppiMinIndx_32f_C3R (const Npp32f ∗ *pSrc*, int *nSrcStep*, NppiSize *oSizeROI*, Npp8u ∗ *pDeviceBuffer*, Npp32f *aMin*[3], int *aIndexX*[3], int *aIndexY*[3])

Three-channel 32-bit floating point image MinIndx.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer Use nppiMinIndxGetBufferHostSize_32f_C3R to determine the minium number of bytes required.

aMin Array that contains the min values.

aIndexX Array that contains the X coordinates of the image min values.

aIndexY Array that contains the Y coordinates of the image min values.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.94.2.12 NppStatus nppiMinIndx_32f_C4R (const Npp32f ∗ *pSrc*, int *nSrcStep*, NppiSize *oSizeROI*, Npp8u ∗ *pDeviceBuffer*, Npp32f *aMin*[4], int *aIndexX*[4], int *aIndexY*[4])

Four-channel 32-bit floating point image MinIndx.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer Use nppiMinIndxGetBufferHostSize_32f_C4R to determine the minium number of bytes required.

aMin Array that contains the min values.

aIndexX Array that contains the X coordinates of the image min values.

aIndexY Array that contains the Y coordinates of the image min values.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.94.2.13 NppStatus nppiMinIndx_8u_AC4R (const Npp8u ∗ *pSrc*, int *nSrcStep*, NppiSize *oSizeROI*, Npp8u ∗ *pDeviceBuffer*, Npp8u *aMin*[3], int *aIndexX*[3], int *aIndexY*[3])

Four-channel 8-bit unsigned image MinIndx ignoring alpha channel.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer Use nppiMinIndxGetBufferHostSize_8u_AC4R to determine the minium number of bytes required.

aMin Array that contains the min values.

aIndexX Array that contains the X coordinates of the image min values.

aIndexY Array that contains the Y coordinates of the image min values.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.94.2.14 NppStatus nppiMinIndx_8u_C1R (const Npp8u ∗ *pSrc*, int *nSrcStep*, NppiSize *oSizeROI*, Npp8u ∗ *pDeviceBuffer*, Npp8u ∗ *pMin*, int ∗ *pIndexX*, int ∗ *pIndexY*)

One-channel 8-bit unsigned image MinIndx.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer Use nppiMinIndxGetBufferHostSize_8u_C1R to determine the minium number of bytes required.

pMin Pointer to the computed min result.

pIndexX Pointer to the X coordinate of the image min value.

pIndexY Ppointer to the Y coordinate of the image min value.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.94.2.15 NppStatus nppiMinIndx_8u_C3R (const Npp8u ∗ *pSrc*, int *nSrcStep*, NppiSize *oSizeROI*, Npp8u ∗ *pDeviceBuffer*, Npp8u *aMin*[3], int *aIndexX*[3], int *aIndexY*[3])

Three-channel 8-bit unsigned image MinIndx.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer Use nppiMinIndxGetBufferHostSize_8u_C3R to determine the minium number of bytes required.

aMin Array that contains the min values.

aIndexX Array that contains the X coordinates of the image min values.

aIndexY Array that contains the Y coordinates of the image min values.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.94.2.16 NppStatus nppiMinIndx_8u_C4R (const Npp8u ∗ *pSrc*, int *nSrcStep*, NppiSize *oSizeROI*, Npp8u ∗ *pDeviceBuffer*, Npp8u *aMin*[4], int *aIndexX*[4], int *aIndexY*[4])

Four-channel 8-bit unsigned image MinIndx.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer Use nppiMinIndxGetBufferHostSize_8u_C4R to determine the minium number of bytes required.

aMin Array that contains the min values.

aIndexX Array that contains the X coordinates of the image min values.

aIndexY Array that contains the Y coordinates of the image min values.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.94.2.17 NppStatus nppiMinIndxGetBufferHostSize_16s_AC4R (NppiSize *oSizeROI*, int ∗ *hpBufferSize*)

Computes the dvice scratch buffer size (in bytes) for nppiMinIndx_16u_AC4R.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.94.2.18 NppStatus nppiMinIndxGetBufferHostSize_16s_C1R (NppiSize *oSizeROI*, int ∗ *hpBufferSize*)

Computes the dvice scratch buffer size (in bytes) for nppiMinIndx_16s_C1R.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.94.2.19 NppStatus nppiMinIndxGetBufferHostSize_16s_C3R (NppiSize *oSizeROI*, int ∗ *hpBufferSize*)

Computes the dvice scratch buffer size (in bytes) for nppiMinIndx_16s_C3R.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.94.2.20 NppStatus nppiMinIndxGetBufferHostSize_16s_C4R (NppiSize *oSizeROI*, int * *hpBufferSize*)

Computes the dvice scratch buffer size (in bytes) for nppiMinIndx_16s_C4R.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.94.2.21 NppStatus nppiMinIndxGetBufferHostSize_16u_AC4R (NppiSize *oSizeROI*, int * *hpBufferSize*)

Computes the dvice scratch buffer size (in bytes) for nppiMinIndx_8u_AC4R.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.94.2.22 NppStatus nppiMinIndxGetBufferHostSize_16u_C1R (NppiSize *oSizeROI*, int * *hpBufferSize*)

Computes the dvice scratch buffer size (in bytes) for nppiMinIndx_16u_C1R.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.94.2.23 NppStatus nppiMinIndxGetBufferHostSize_16u_C3R (NppiSize *oSizeROI*, int ∗ *hpBufferSize*)

Computes the dvice scratch buffer size (in bytes) for nppiMinIndx_16u_C3R.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.94.2.24 NppStatus nppiMinIndxGetBufferHostSize_16u_C4R (NppiSize *oSizeROI*, int ∗ *hpBufferSize*)

Computes the dvice scratch buffer size (in bytes) for nppiMinIndx_16u_C4R.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.94.2.25 NppStatus nppiMinIndxGetBufferHostSize_32f_AC4R (NppiSize *oSizeROI*, int ∗ *hpBufferSize*)

Computes the dvice scratch buffer size (in bytes) for nppiMinIndx_32f_AC4R.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.94.2.26 NppStatus nppiMinIndxGetBufferHostSize_32f_C1R (NppiSize *oSizeROI*, int ∗ *hpBufferSize*)

Computes the dvice scratch buffer size (in bytes) for nppiMinIndx_32f_C1R.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.94.2.27 NppStatus nppiMinIndxGetBufferHostSize_32f_C3R (NppiSize *oSizeROI*, int ∗ *hpBufferSize*)

Computes the dvice scratch buffer size (in bytes) for nppiMinIndx_32f_C3R.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.94.2.28 NppStatus nppiMinIndxGetBufferHostSize_32f_C4R (NppiSize *oSizeROI*, int ∗ *hpBufferSize*)

Computes the dvice scratch buffer size (in bytes) for nppiMinIndx_32f_C4R.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.94.2.29 NppStatus nppiMinIndxGetBufferHostSize_8u_AC4R (NppiSize *oSizeROI*, int ∗ *hpBufferSize*)

Computes the dvice scratch buffer size (in bytes) for nppiMinIndx_8u_AC4R.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.94.2.30 NppStatus nppiMinIndxGetBufferHostSize_8u_C1R (NppiSize *oSizeROI*, int ∗ *hpBufferSize*)

Computes the dvice scratch buffer size (in bytes) for nppiMinIndx_8u_C1R.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.94.2.31 NppStatus nppiMinIndxGetBufferHostSize_8u_C3R (NppiSize *oSizeROI*, int ∗ *hpBufferSize*)

Computes the dvice scratch buffer size (in bytes) for nppiMinIndx_8u_C3R.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.94.2.32 NppStatus nppiMinIndxGetBufferHostSize_8u_C4R (NppiSize *oSizeROI*, int ∗ *hpBufferSize*)

Computes the dvice scratch buffer size (in bytes) for nppiMinIndx_8u_C4R.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.95 Max

Primitives for computing the maximal pixel value of an image.

Max

The scratch buffer is required by the functions.

- NppStatus nppiMax_8u_C1R (const Npp8u ∗pSrc, int nSrcStep, NppiSize oSizeROI, Npp8u ∗pDeviceBuffer, Npp8u ∗pMax)

  One-channel 8-bit unsigned image Max.

- NppStatus nppiMax_16u_C1R (const Npp16u ∗pSrc, int nSrcStep, NppiSize oSizeROI, Npp8u ∗pDeviceBuffer, Npp16u ∗pMax)

  One-channel 16-bit unsigned image Max.

- NppStatus nppiMax_16s_C1R (const Npp16s ∗pSrc, int nSrcStep, NppiSize oSizeROI, Npp8u ∗pDeviceBuffer, Npp16s ∗pMax)

  One-channel 16-bit signed image Max.

- NppStatus nppiMax_32f_C1R (const Npp32f ∗pSrc, int nSrcStep, NppiSize oSizeROI, Npp8u ∗pDeviceBuffer, Npp32f ∗pMax)

  One-channel 32-bit floating point image Max.

- NppStatus nppiMax_8u_C3R (const Npp8u ∗pSrc, int nSrcStep, NppiSize oSizeROI, Npp8u ∗pDeviceBuffer, Npp8u aMax[3])

  Three-channel 8-bit unsigned image Max.

- NppStatus nppiMax_16u_C3R (const Npp16u ∗pSrc, int nSrcStep, NppiSize oSizeROI, Npp8u ∗pDeviceBuffer, Npp16u aMax[3])

  Three-channel 16-bit unsigned image Max.

- NppStatus nppiMax_16s_C3R (const Npp16s ∗pSrc, int nSrcStep, NppiSize oSizeROI, Npp8u ∗pDeviceBuffer, Npp16s aMax[3])

  Three-channel 16-bit signed image Max.

- NppStatus nppiMax_32f_C3R (const Npp32f ∗pSrc, int nSrcStep, NppiSize oSizeROI, Npp8u ∗pDeviceBuffer, Npp32f aMax[3])

  Three-channel 32-bit floating point image Max.

- NppStatus nppiMax_8u_C4R (const Npp8u ∗pSrc, int nSrcStep, NppiSize oSizeROI, Npp8u ∗pDeviceBuffer, Npp8u aMax[4])

  Four-channel 8-bit unsigned image Max.

- NppStatus nppiMax_16u_C4R (const Npp16u ∗pSrc, int nSrcStep, NppiSize oSizeROI, Npp8u ∗pDeviceBuffer, Npp16u aMax[4])

  Four-channel 16-bit unsigned image Max.

- NppStatus nppiMax_16s_C4R (const Npp16s ∗pSrc, int nSrcStep, NppiSize oSizeROI, Npp8u ∗pDeviceBuffer, Npp16s aMax[4])

Four-channel 16-bit signed image Max.

- NppStatus nppiMax_32f_C4R (const Npp32f ∗pSrc, int nSrcStep, NppiSize oSizeROI, Npp8u ∗pDeviceBuffer, Npp32f aMax[4])

  Four-channel 32-bit floating point image Max.

- NppStatus nppiMax_8u_AC4R (const Npp8u ∗pSrc, int nSrcStep, NppiSize oSizeROI, Npp8u ∗pDeviceBuffer, Npp8u aMax[3])

  Four-channel 8-bit unsigned image Max ignoring alpha channel.

- NppStatus nppiMax_16u_AC4R (const Npp16u ∗pSrc, int nSrcStep, NppiSize oSizeROI, Npp8u ∗pDeviceBuffer, Npp16u aMax[3])

  Four-channel 16-bit unsigned image Max ignoring alpha channel.

- NppStatus nppiMax_16s_AC4R (const Npp16s ∗pSrc, int nSrcStep, NppiSize oSizeROI, Npp8u ∗pDeviceBuffer, Npp16s aMax[3])

  Four-channel 16-bit signed image Max ignoring alpha channel.

- NppStatus nppiMax_32f_AC4R (const Npp32f ∗pSrc, int nSrcStep, NppiSize oSizeROI, Npp8u ∗pDeviceBuffer, Npp32f aMax[3])

  Four-channel 32-bit floating point image Max ignoring alpha channel.

MaxGetBufferHostSize

Companion primitives for computing the device buffer size (in bytes) required by the Max primitives.

- NppStatus nppiMaxGetBufferHostSize_8u_C1R (NppiSize oSizeROI, int ∗hpBufferSize)

  Buffer size for nppiMax_8u_C1R.

- NppStatus nppiMaxGetBufferHostSize_16u_C1R (NppiSize oSizeROI, int ∗hpBufferSize)

  Buffer size for nppiMax_16u_C1R.

- NppStatus nppiMaxGetBufferHostSize_16s_C1R (NppiSize oSizeROI, int ∗hpBufferSize)

  Buffer size for nppiMax_16s_C1R.

- NppStatus nppiMaxGetBufferHostSize_32f_C1R (NppiSize oSizeROI, int ∗hpBufferSize)

  Buffer size for nppiMax_32f_C1R.

- NppStatus nppiMaxGetBufferHostSize_8u_C3R (NppiSize oSizeROI, int ∗hpBufferSize)

  Buffer size for nppiMax_8u_C3R.

- NppStatus nppiMaxGetBufferHostSize_16u_C3R (NppiSize oSizeROI, int ∗hpBufferSize)

  Buffer size for nppiMax_16u_C3R.

- NppStatus nppiMaxGetBufferHostSize_16s_C3R (NppiSize oSizeROI, int ∗hpBufferSize)

  Buffer size for nppiMax_16s_C3R.

- NppStatus nppiMaxGetBufferHostSize_32f_C3R (NppiSize oSizeROI, int ∗hpBufferSize)

  Buffer size for nppiMax_32f_C3R.

- NppStatus nppiMaxGetBufferHostSize_8u_C4R (NppiSize oSizeROI, int ∗hpBufferSize)

  Buffer size for nppiMax_8u_C4R.

- NppStatus nppiMaxGetBufferHostSize_16u_C4R (NppiSize oSizeROI, int ∗hpBufferSize)

  Buffer size for nppiMax_16u_C4R.

- NppStatus nppiMaxGetBufferHostSize_16s_C4R (NppiSize oSizeROI, int ∗hpBufferSize)

  Buffer size for nppiMax_16s_C4R.

- NppStatus nppiMaxGetBufferHostSize_32f_C4R (NppiSize oSizeROI, int ∗hpBufferSize)

  Buffer size for nppiMax_32f_C4R.

- NppStatus nppiMaxGetBufferHostSize_8u_AC4R (NppiSize oSizeROI, int ∗hpBufferSize)

  Buffer size for nppiMax_8u_AC4R.

- NppStatus nppiMaxGetBufferHostSize_16u_AC4R (NppiSize oSizeROI, int ∗hpBufferSize)

  Buffer size for nppiMax_16u_AC4R.

- NppStatus nppiMaxGetBufferHostSize_16s_AC4R (NppiSize oSizeROI, int ∗hpBufferSize)

  Buffer size for nppiMax_16s_AC4R.

- NppStatus nppiMaxGetBufferHostSize_32f_AC4R (NppiSize oSizeROI, int ∗hpBufferSize)

  Buffer size for nppiMax_32f_AC4R.

7.95.1 Detailed Description

Primitives for computing the maximal pixel value of an image.

7.95.2 Function Documentation

7.95.2.1 NppStatus nppiMax_16s_AC4R (const Npp16s ∗ *pSrc*, int *nSrcStep*, NppiSize *oSizeROI*, Npp8u ∗ *pDeviceBuffer*, Npp16s *aMax*[3])

Four-channel 16-bit signed image Max ignoring alpha channel.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer Use nppiMaxGetBufferHostSize_16s_AC4R to determaxe the maxium number of bytes required.

aMax Array that contains the computed maximum results for each channel (alpha channel is not processed).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.95.2.2 NppStatus nppiMax_16s_C1R (const Npp16s $*$ *pSrc*, int *nSrcStep*, NppiSize *oSizeROI*, Npp8u $*$ *pDeviceBuffer*, Npp16s $*$ *pMax*)

One-channel 16-bit signed image Max.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer Use nppiMaxGetBufferHostSize_16s_C1R to determaxe the maxium number of bytes required.

pMax Pointer to the computed maximum result.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.95.2.3 NppStatus nppiMax_16s_C3R (const Npp16s $*$ *pSrc*, int *nSrcStep*, NppiSize *oSizeROI*, Npp8u $*$ *pDeviceBuffer*, Npp16s *aMax*[3])

Three-channel 16-bit signed image Max.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer Use nppiMaxGetBufferHostSize_16s_C3R to determaxe the maxium number of bytes required.

aMax Array that contains the computed maximum results for each channel.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.95.2.4 NppStatus nppiMax_16s_C4R (const Npp16s $*$ *pSrc*, int *nSrcStep*, NppiSize *oSizeROI*, Npp8u $*$ *pDeviceBuffer*, Npp16s *aMax*[4])

Four-channel 16-bit signed image Max.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer Use nppiMaxGetBufferHostSize_16s_C4R to determaxe the maxium number of bytes required.

aMax Array that contains the computed maximum results for each channel.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.95.2.5 NppStatus nppiMax_16u_AC4R (const Npp16u ∗ *pSrc*, int *nSrcStep*, NppiSize *oSizeROI*, Npp8u ∗ *pDeviceBuffer*, Npp16u *aMax*[3])

Four-channel 16-bit unsigned image Max ignoring alpha channel.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer Use nppiMaxGetBufferHostSize_16u_AC4R to determaxe the maxium number of bytes required.

aMax Array that contains the computed maximum results for each channel (alpha channel is not processed).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.95.2.6 NppStatus nppiMax_16u_C1R (const Npp16u ∗ *pSrc*, int *nSrcStep*, NppiSize *oSizeROI*, Npp8u ∗ *pDeviceBuffer*, Npp16u ∗ *pMax*)

One-channel 16-bit unsigned image Max.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer Use nppiMaxGetBufferHostSize_16u_C1R to determaxe the maxium number of bytes required.

pMax Pointer to the computed maximum result.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.95.2.7 NppStatus nppiMax_16u_C3R (const Npp16u ∗ *pSrc*, int *nSrcStep*, NppiSize *oSizeROI*, Npp8u ∗ *pDeviceBuffer*, Npp16u *aMax*[3])

Three-channel 16-bit unsigned image Max.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer Use nppiMaxGetBufferHostSize_16u_C3R to determaxe the maxium number of bytes required.

aMax Array that contains the computed maximum results for each channel.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.95.2.8 NppStatus nppiMax_16u_C4R (const Npp16u ∗ *pSrc*, int *nSrcStep*, NppiSize *oSizeROI*, Npp8u ∗ *pDeviceBuffer*, Npp16u *aMax*[4])

Four-channel 16-bit unsigned image Max.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer Use nppiMaxGetBufferHostSize_16u_C4R to determaxe the maxium number of bytes required.

aMax Array that contains the computed maximum results for each channel.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.95.2.9 NppStatus nppiMax_32f_AC4R (const Npp32f ∗ *pSrc*, int *nSrcStep*, NppiSize *oSizeROI*, Npp8u ∗ *pDeviceBuffer*, Npp32f *aMax*[3])

Four-channel 32-bit floating point image Max ignoring alpha channel.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer Use nppiMaxGetBufferHostSize_32f_AC4R to determaxe the maxium number of bytes required.

aMax Array that contains the computed maximum results for each channel (alpha channel is not processed).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.95.2.10 NppStatus nppiMax_32f_C1R (const Npp32f ∗ *pSrc*, int *nSrcStep*, NppiSize *oSizeROI*, Npp8u ∗ *pDeviceBuffer*, Npp32f ∗ *pMax*)

One-channel 32-bit floating point image Max.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer Use nppiMaxGetBufferHostSize_32f_C1R to determaxe the maxium number of bytes required.

pMax Pointer to the computed maximum result.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.95.2.11 NppStatus nppiMax_32f_C3R (const Npp32f ∗ *pSrc*, int *nSrcStep*, NppiSize *oSizeROI*, Npp8u ∗ *pDeviceBuffer*, Npp32f *aMax*[3])

Three-channel 32-bit floating point image Max.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer Use nppiMaxGetBufferHostSize_32f_C3R to determaxe the maxium number of bytes required.

aMax Array that contains the computed maximum results for each channel.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.95.2.12 NppStatus nppiMax_32f_C4R (const Npp32f ∗ *pSrc*, int *nSrcStep*, NppiSize *oSizeROI*, Npp8u ∗ *pDeviceBuffer*, Npp32f *aMax*[4])

Four-channel 32-bit floating point image Max.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer Use nppiMaxGetBufferHostSize_32f_C4R to determaxe the maxium number of bytes required.

aMax Array that contains the computed maximum results for each channel.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.95.2.13 NppStatus nppiMax_8u_AC4R (const Npp8u ∗ *pSrc*, int *nSrcStep*, NppiSize *oSizeROI*, Npp8u ∗ *pDeviceBuffer*, Npp8u *aMax*[3])

Four-channel 8-bit unsigned image Max ignoring alpha channel.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer Use nppiMaxGetBufferHostSize_8u_AC4R to determaxe the maxium number of bytes required.

aMax Array that contains the computed maximum results for each channel (alpha channel is not processed).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.95.2.14 NppStatus nppiMax_8u_C1R (const Npp8u ∗ *pSrc*, int *nSrcStep*, NppiSize *oSizeROI*, Npp8u ∗ *pDeviceBuffer*, Npp8u ∗ *pMax*)

One-channel 8-bit unsigned image Max.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer Use nppiMaxGetBufferHostSize_8u_C1R to determaxe the maxium number of bytes required.

pMax Pointer to the computed maximum result.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.95.2.15 NppStatus nppiMax_8u_C3R (const Npp8u ∗ *pSrc*, int *nSrcStep*, NppiSize *oSizeROI*, Npp8u ∗ *pDeviceBuffer*, Npp8u *aMax*[3])

Three-channel 8-bit unsigned image Max.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer Use nppiMaxGetBufferHostSize_8u_C3R to determaxe the maxium number of bytes required.

aMax Array that contains the computed maximum results for each channel.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.95.2.16 NppStatus nppiMax_8u_C4R (const Npp8u ∗ *pSrc*, int *nSrcStep*, NppiSize *oSizeROI*, Npp8u ∗ *pDeviceBuffer*, Npp8u *aMax*[4])

Four-channel 8-bit unsigned image Max.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer Use nppiMaxGetBufferHostSize_8u_C4R to determaxe the maxium number of bytes required.

aMax Array that contains the computed maximum results for each channel.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.95.2.17 NppStatus nppiMaxGetBufferHostSize_16s_AC4R (NppiSize *oSizeROI*, int ∗ *hpBufferSize*)

Buffer size for nppiMax_16s_AC4R.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.95.2.18 NppStatus nppiMaxGetBufferHostSize_16s_C1R (NppiSize *oSizeROI*, int ∗ *hpBufferSize*)

Buffer size for nppiMax_16s_C1R.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.95.2.19 NppStatus nppiMaxGetBufferHostSize_16s_C3R (NppiSize *oSizeROI*, int ∗ *hpBufferSize*)

Buffer size for nppiMax_16s_C3R.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.95.2.20 NppStatus nppiMaxGetBufferHostSize_16s_C4R (NppiSize *oSizeROI*, int ∗ *hpBufferSize*)

Buffer size for nppiMax_16s_C4R.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.95.2.21 NppStatus nppiMaxGetBufferHostSize_16u_AC4R (NppiSize *oSizeROI*, int ∗ *hpBufferSize*)

Buffer size for nppiMax_16u_AC4R.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.95.2.22 NppStatus nppiMaxGetBufferHostSize_16u_C1R (NppiSize *oSizeROI*, int ∗ *hpBufferSize*)

Buffer size for nppiMax_16u_C1R.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.95.2.23 NppStatus nppiMaxGetBufferHostSize_16u_C3R (NppiSize *oSizeROI*, int * *hpBufferSize*)

Buffer size for nppiMax_16u_C3R.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.95.2.24 NppStatus nppiMaxGetBufferHostSize_16u_C4R (NppiSize *oSizeROI*, int * *hpBufferSize*)

Buffer size for nppiMax_16u_C4R.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.95.2.25 NppStatus nppiMaxGetBufferHostSize_32f_AC4R (NppiSize *oSizeROI*, int * *hpBufferSize*)

Buffer size for nppiMax_32f_AC4R.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.95.2.26 NppStatus nppiMaxGetBufferHostSize_32f_C1R (NppiSize *oSizeROI*, int * *hpBufferSize*)

Buffer size for nppiMax_32f_C1R.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.95.2.27 NppStatus nppiMaxGetBufferHostSize_32f_C3R (NppiSize *oSizeROI*, int * *hpBufferSize*)

Buffer size for nppiMax_32f_C3R.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.95.2.28 NppStatus nppiMaxGetBufferHostSize_32f_C4R (NppiSize *oSizeROI*, int * *hpBufferSize*)

Buffer size for nppiMax_32f_C4R.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.95.2.29 NppStatus nppiMaxGetBufferHostSize_8u_AC4R (NppiSize *oSizeROI*, int * *hpBufferSize*)

Buffer size for nppiMax_8u_AC4R.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.95.2.30 NppStatus nppiMaxGetBufferHostSize_8u_C1R (NppiSize *oSizeROI*, int * *hpBufferSize*)

Buffer size for nppiMax_8u_C1R.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.95.2.31 NppStatus nppiMaxGetBufferHostSize_8u_C3R (NppiSize *oSizeROI*, int * *hpBufferSize*)

Buffer size for nppiMax_8u_C3R.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.95.2.32 NppStatus nppiMaxGetBufferHostSize_8u_C4R (NppiSize *oSizeROI*, int * *hpBufferSize*)

Buffer size for nppiMax_8u_C4R.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.96 MaxIndx

Primitives for computing the maximal value and its indices (X and Y coordinates) of an image.

MaxIndx

If there are several maxima in the selected region of interest, the function returns one on the top leftmost position.

The scratch buffer is required by the functions.

- NppStatus nppiMaxIndx_8u_C1R (const Npp8u ∗pSrc, int nSrcStep, NppiSize oSizeROI, Npp8u ∗pDeviceBuffer, Npp8u ∗pMax, int ∗pIndexX, int ∗pIndexY)

  One-channel 8-bit unsigned image MaxIndx.

- NppStatus nppiMaxIndx_16u_C1R (const Npp16u ∗pSrc, int nSrcStep, NppiSize oSizeROI, Npp8u ∗pDeviceBuffer, Npp16u ∗pMax, int ∗pIndexX, int ∗pIndexY)

  One-channel 16-bit unsigned image MaxIndx.

- NppStatus nppiMaxIndx_16s_C1R (const Npp16s ∗pSrc, int nSrcStep, NppiSize oSizeROI, Npp8u ∗pDeviceBuffer, Npp16s ∗pMax, int ∗pIndexX, int ∗pIndexY)

  One-channel 16-bit signed image MaxIndx.

- NppStatus nppiMaxIndx_32f_C1R (const Npp32f ∗pSrc, int nSrcStep, NppiSize oSizeROI, Npp8u ∗pDeviceBuffer, Npp32f ∗pMax, int ∗pIndexX, int ∗pIndexY)

  One-channel 32-bit floating point image MaxIndx.

- NppStatus nppiMaxIndx_8u_C3R (const Npp8u ∗pSrc, int nSrcStep, NppiSize oSizeROI, Npp8u ∗pDeviceBuffer, Npp8u aMax[3], int aIndexX[3], int aIndexY[3])

  Three-channel 8-bit unsigned image MaxIndx.

- NppStatus nppiMaxIndx_16u_C3R (const Npp16u ∗pSrc, int nSrcStep, NppiSize oSizeROI, Npp8u ∗pDeviceBuffer, Npp16u aMax[3], int aIndexX[3], int aIndexY[3])

  Three-channel 16-bit unsigned image MaxIndx.

- NppStatus nppiMaxIndx_16s_C3R (const Npp16s ∗pSrc, int nSrcStep, NppiSize oSizeROI, Npp8u ∗pDeviceBuffer, Npp16s aMax[3], int aIndexX[3], int aIndexY[3])

  Three-channel 16-bit signed image MaxIndx.

- NppStatus nppiMaxIndx_32f_C3R (const Npp32f ∗pSrc, int nSrcStep, NppiSize oSizeROI, Npp8u ∗pDeviceBuffer, Npp32f aMax[3], int aIndexX[3], int aIndexY[3])

  Three-channel 32-bit floating point image MaxIndx.

- NppStatus nppiMaxIndx_8u_C4R (const Npp8u ∗pSrc, int nSrcStep, NppiSize oSizeROI, Npp8u ∗pDeviceBuffer, Npp8u aMax[4], int aIndexX[4], int aIndexY[4])

  Four-channel 8-bit unsigned image MaxIndx.

- NppStatus nppiMaxIndx_16u_C4R (const Npp16u ∗pSrc, int nSrcStep, NppiSize oSizeROI, Npp8u ∗pDeviceBuffer, Npp16u aMax[4], int aIndexX[4], int aIndexY[4])

  Four-channel 16-bit unsigned image MaxIndx.

- NppStatus nppiMaxIndx_16s_C4R (const Npp16s ∗pSrc, int nSrcStep, NppiSize oSizeROI, Npp8u ∗pDeviceBuffer, Npp16s aMax[4], int aIndexX[4], int aIndexY[4])

  Four-channel 16-bit signed image MaxIndx.

- NppStatus nppiMaxIndx_32f_C4R (const Npp32f ∗pSrc, int nSrcStep, NppiSize oSizeROI, Npp8u ∗pDeviceBuffer, Npp32f aMax[4], int aIndexX[4], int aIndexY[4])

  Four-channel 32-bit floating point image MaxIndx.

- NppStatus nppiMaxIndx_8u_AC4R (const Npp8u ∗pSrc, int nSrcStep, NppiSize oSizeROI, Npp8u ∗pDeviceBuffer, Npp8u aMax[3], int aIndexX[3], int aIndexY[3])

  Four-channel 8-bit unsigned image MaxIndx ignoring alpha channel.

- NppStatus nppiMaxIndx_16u_AC4R (const Npp16u ∗pSrc, int nSrcStep, NppiSize oSizeROI, Npp8u ∗pDeviceBuffer, Npp16u aMax[3], int aIndexX[3], int aIndexY[3])

  Four-channel 16-bit unsigned image MaxIndx ignoring alpha channel.

- NppStatus nppiMaxIndx_16s_AC4R (const Npp16s ∗pSrc, int nSrcStep, NppiSize oSizeROI, Npp8u ∗pDeviceBuffer, Npp16s aMax[3], int aIndexX[3], int aIndexY[3])

  Four-channel 16-bit signed image MaxIndx ignoring alpha channel.

- NppStatus nppiMaxIndx_32f_AC4R (const Npp32f ∗pSrc, int nSrcStep, NppiSize oSizeROI, Npp8u ∗pDeviceBuffer, Npp32f aMax[3], int aIndexX[3], int aIndexY[3])

  Four-channel 32-bit floating point image MaxIndx ignoring alpha channel.

MaxIndxGetBufferHostSize

Companion primitives for computing the device buffer size (in bytes) required by the MaxIndx primitives.

- NppStatus nppiMaxIndxGetBufferHostSize_8u_C1R (NppiSize oSizeROI, int ∗hpBufferSize)

  Computes the dvice scratch buffer size (in bytes) for nppiMaxIndx_8u_C1R.

- NppStatus nppiMaxIndxGetBufferHostSize_16u_C1R (NppiSize oSizeROI, int ∗hpBufferSize)

  Computes the dvice scratch buffer size (in bytes) for nppiMaxIndx_16u_C1R.

- NppStatus nppiMaxIndxGetBufferHostSize_16s_C1R (NppiSize oSizeROI, int ∗hpBufferSize)

  Computes the dvice scratch buffer size (in bytes) for nppiMaxIndx_16s_C1R.

- NppStatus nppiMaxIndxGetBufferHostSize_32f_C1R (NppiSize oSizeROI, int ∗hpBufferSize)

  Computes the dvice scratch buffer size (in bytes) for nppiMaxIndx_32f_C1R.

- NppStatus nppiMaxIndxGetBufferHostSize_8u_C3R (NppiSize oSizeROI, int ∗hpBufferSize)

  Computes the dvice scratch buffer size (in bytes) for nppiMaxIndx_8u_C3R.

- NppStatus nppiMaxIndxGetBufferHostSize_16u_C3R (NppiSize oSizeROI, int ∗hpBufferSize)

  Computes the dvice scratch buffer size (in bytes) for nppiMaxIndx_16u_C3R.

- NppStatus nppiMaxIndxGetBufferHostSize_16s_C3R (NppiSize oSizeROI, int ∗hpBufferSize)

  Computes the dvice scratch buffer size (in bytes) for nppiMaxIndx_16s_C3R.

- NppStatus nppiMaxIndxGetBufferHostSize_32f_C3R (NppiSize oSizeROI, int ∗hpBufferSize)
  Computes the dvice scratch buffer size (in bytes) for nppiMaxIndx_32f_C3R.
- NppStatus nppiMaxIndxGetBufferHostSize_8u_C4R (NppiSize oSizeROI, int ∗hpBufferSize)
  Computes the dvice scratch buffer size (in bytes) for nppiMaxIndx_8u_C4R.
- NppStatus nppiMaxIndxGetBufferHostSize_16u_C4R (NppiSize oSizeROI, int ∗hpBufferSize)
  Computes the dvice scratch buffer size (in bytes) for nppiMaxIndx_16u_C4R.
- NppStatus nppiMaxIndxGetBufferHostSize_16s_C4R (NppiSize oSizeROI, int ∗hpBufferSize)
  Computes the dvice scratch buffer size (in bytes) for nppiMaxIndx_16s_C4R.
- NppStatus nppiMaxIndxGetBufferHostSize_32f_C4R (NppiSize oSizeROI, int ∗hpBufferSize)
  Computes the dvice scratch buffer size (in bytes) for nppiMaxIndx_32f_C4R.
- NppStatus nppiMaxIndxGetBufferHostSize_8u_AC4R (NppiSize oSizeROI, int ∗hpBufferSize)
  Computes the dvice scratch buffer size (in bytes) for nppiMaxIndx_8u_AC4R.
- NppStatus nppiMaxIndxGetBufferHostSize_16u_AC4R (NppiSize oSizeROI, int ∗hpBufferSize)
  Computes the dvice scratch buffer size (in bytes) for nppiMaxIndx_8u_AC4R.
- NppStatus nppiMaxIndxGetBufferHostSize_16s_AC4R (NppiSize oSizeROI, int ∗hpBufferSize)
  Computes the dvice scratch buffer size (in bytes) for nppiMaxIndx_16u_AC4R.
- NppStatus nppiMaxIndxGetBufferHostSize_32f_AC4R (NppiSize oSizeROI, int ∗hpBufferSize)
  Computes the dvice scratch buffer size (in bytes) for nppiMaxIndx_32f_AC4R.

7.96.1 Detailed Description

Primitives for computing the maximal value and its indices (X and Y coordinates) of an image.

7.96.2 Function Documentation

7.96.2.1 NppStatus nppiMaxIndx_16s_AC4R (const Npp16s ∗ *pSrc*, int *nSrcStep*, NppiSize *oSizeROI*, Npp8u ∗ *pDeviceBuffer*, Npp16s *aMax*[3], int *aIndexX*[3], int *aIndexY*[3])

Four-channel 16-bit signed image MaxIndx ignoring alpha channel.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer Use nppiMaxIndxGetBufferHostSize_16s_AC4R to determaxe the maxium number of bytes required.

aMax Array that contains the max values.

aIndexX Array that contains the X coordinates of the image max values.

aIndexY Array that contains the Y coordinates of the image max values.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.96.2.2 NppStatus nppiMaxIndx_16s_C1R (const Npp16s $*$ *pSrc*, int *nSrcStep*, NppiSize *oSizeROI*, Npp8u $*$ *pDeviceBuffer*, Npp16s $*$ *pMax*, int $*$ *pIndexX*, int $*$ *pIndexY*)

One-channel 16-bit signed image MaxIndx.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer Use nppiMaxIndxGetBufferHostSize_16s_C1R to determaxe the maxium number of bytes required.

pMax Pointer to the computed max result.

pIndexX Pointer to the X coordinate of the image max value.

pIndexY Pointer to the Y coordinate of the image max value.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.96.2.3 NppStatus nppiMaxIndx_16s_C3R (const Npp16s $*$ *pSrc*, int *nSrcStep*, NppiSize *oSizeROI*, Npp8u $*$ *pDeviceBuffer*, Npp16s *aMax*[3], int *aIndexX*[3], int *aIndexY*[3])

Three-channel 16-bit signed image MaxIndx.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer Use nppiMaxIndxGetBufferHostSize_16s_C3R to determaxe the maxium number of bytes required.

aMax Array that contains the max values.

aIndexX Array that contains the X coordinates of the image max values.

aIndexY Array that contains the Y coordinates of the image max values.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.96.2.4 NppStatus nppiMaxIndx_16s_C4R (const Npp16s ∗ *pSrc*, int *nSrcStep*, NppiSize *oSizeROI*, Npp8u ∗ *pDeviceBuffer*, Npp16s *aMax*[4], int *aIndexX*[4], int *aIndexY*[4])

Four-channel 16-bit signed image MaxIndx.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer Use nppiMaxIndxGetBufferHostSize_16s_C4R to determaxe the maxium number of bytes required.

aMax Array that contains the max values.

aIndexX Array that contains the X coordinates of the image max values.

aIndexY Array that contains the Y coordinates of the image max values.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.96.2.5 NppStatus nppiMaxIndx_16u_AC4R (const Npp16u ∗ *pSrc*, int *nSrcStep*, NppiSize *oSizeROI*, Npp8u ∗ *pDeviceBuffer*, Npp16u *aMax*[3], int *aIndexX*[3], int *aIndexY*[3])

Four-channel 16-bit unsigned image MaxIndx ignoring alpha channel.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer Use nppiMaxIndxGetBufferHostSize_16u_AC4R to determaxe the maxium number of bytes required.

aMax Array that contains the max values.

aIndexX Array that contains the X coordinates of the image max values.

aIndexY Array that contains the Y coordinates of the image max values.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.96.2.6 NppStatus nppiMaxIndx_16u_C1R (const Npp16u ∗ *pSrc*, int *nSrcStep*, NppiSize *oSizeROI*, Npp8u ∗ *pDeviceBuffer*, Npp16u ∗ *pMax*, int ∗ *pIndexX*, int ∗ *pIndexY*)

One-channel 16-bit unsigned image MaxIndx.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer Use nppiMaxIndxGetBufferHostSize_16u_C1R to determaxe the maxium number of bytes required.

pMax Pointer to the computed max result.

pIndexX Pointer to the X coordinate of the image max value.

pIndexY Pointer to the Y coordinate of the image max value.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.96.2.7 NppStatus nppiMaxIndx_16u_C3R (const Npp16u ∗ *pSrc*, int *nSrcStep*, NppiSize *oSizeROI*, Npp8u ∗ *pDeviceBuffer*, Npp16u *aMax*[3], int *aIndexX*[3], int *aIndexY*[3])

Three-channel 16-bit unsigned image MaxIndx.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer Use nppiMaxIndxGetBufferHostSize_16u_C3R to determaxe the maxium number of bytes required.

aMax Array that contains the max values.

aIndexX Array that contains the X coordinates of the image max values.

aIndexY Array that contains the Y coordinates of the image max values.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.96.2.8 NppStatus nppiMaxIndx_16u_C4R (const Npp16u ∗ *pSrc*, int *nSrcStep*, NppiSize *oSizeROI*, Npp8u ∗ *pDeviceBuffer*, Npp16u *aMax*[4], int *aIndexX*[4], int *aIndexY*[4])

Four-channel 16-bit unsigned image MaxIndx.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer Use nppiMaxIndxGetBufferHostSize_16u_C4R to determaxe the maxium number of bytes required.

aMax Array that contains the max values.

aIndexX Array that contains the X coordinates of the image max values.

aIndexY Array that contains the Y coordinates of the image max values.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.96.2.9 NppStatus nppiMaxIndx_32f_AC4R (const Npp32f ∗ *pSrc*, int *nSrcStep*, NppiSize *oSizeROI*, Npp8u ∗ *pDeviceBuffer*, Npp32f *aMax*[3], int *aIndexX*[3], int *aIndexY*[3])

Four-channel 32-bit floating point image MaxIndx ignoring alpha channel.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer Use nppiMaxIndxGetBufferHostSize_32f_AC4R to determaxe the maxium number of bytes required.

aMax Array that contains the max values.

aIndexX Array that contains the X coordinates of the image max values.

aIndexY Array that contains the Y coordinates of the image max values.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.96.2.10 NppStatus nppiMaxIndx_32f_C1R (const Npp32f ∗ *pSrc*, int *nSrcStep*, NppiSize *oSizeROI*, Npp8u ∗ *pDeviceBuffer*, Npp32f ∗ *pMax*, int ∗ *pIndexX*, int ∗ *pIndexY*)

One-channel 32-bit floating point image MaxIndx.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer Use nppiMaxIndxGetBufferHostSize_32f_C1R to determaxe the maxium number of bytes required.

pMax Pointer to the computed max result.

pIndexX Pointer to the X coordinate of the image max value.

pIndexY Pointer to the Y coordinate of the image max value.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.96.2.11 NppStatus nppiMaxIndx_32f_C3R (const Npp32f ∗ *pSrc*, int *nSrcStep*, NppiSize *oSizeROI*, Npp8u ∗ *pDeviceBuffer*, Npp32f *aMax*[3], int *aIndexX*[3], int *aIndexY*[3])

Three-channel 32-bit floating point image MaxIndx.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer Use nppiMaxIndxGetBufferHostSize_32f_C3R to determaxe the maxium number of bytes required.

aMax Array that contains the max values.

aIndexX Array that contains the X coordinates of the image max values.

aIndexY Array that contains the Y coordinates of the image max values.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.96.2.12 NppStatus nppiMaxIndx_32f_C4R (const Npp32f * *pSrc*, int *nSrcStep*, NppiSize *oSizeROI*, Npp8u * *pDeviceBuffer*, Npp32f *aMax*[4], int *aIndexX*[4], int *aIndexY*[4])

Four-channel 32-bit floating point image MaxIndx.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer Use nppiMaxIndxGetBufferHostSize_32f_C4R to determaxe the maxium number of bytes required.

aMax Array that contains the max values.

aIndexX Array that contains the X coordinates of the image max values.

aIndexY Array that contains the Y coordinates of the image max values.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.96.2.13 NppStatus nppiMaxIndx_8u_AC4R (const Npp8u * *pSrc*, int *nSrcStep*, NppiSize *oSizeROI*, Npp8u * *pDeviceBuffer*, Npp8u *aMax*[3], int *aIndexX*[3], int *aIndexY*[3])

Four-channel 8-bit unsigned image MaxIndx ignoring alpha channel.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer Use nppiMaxIndxGetBufferHostSize_8u_AC4R to determaxe the maxium number of bytes required.

aMax Array that contains the max values.

aIndexX Array that contains the X coordinates of the image max values.

aIndexY Array that contains the Y coordinates of the image max values.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.96.2.14 NppStatus nppiMaxIndx_8u_C1R (const Npp8u ∗ *pSrc*, int *nSrcStep*, NppiSize *oSizeROI*, Npp8u ∗ *pDeviceBuffer*, Npp8u ∗ *pMax*, int ∗ *pIndexX*, int ∗ *pIndexY*)

One-channel 8-bit unsigned image MaxIndx.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer Use nppiMaxIndxGetBufferHostSize_8u_C1R to determaxe the maxium number of bytes required.

pMax Pointer to the computed max result.

pIndexX Pointer to the X coordinate of the image max value.

pIndexY Ppointer to the Y coordinate of the image max value.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.96.2.15 NppStatus nppiMaxIndx_8u_C3R (const Npp8u ∗ *pSrc*, int *nSrcStep*, NppiSize *oSizeROI*, Npp8u ∗ *pDeviceBuffer*, Npp8u *aMax*[3], int *aIndexX*[3], int *aIndexY*[3])

Three-channel 8-bit unsigned image MaxIndx.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer Use nppiMaxIndxGetBufferHostSize_8u_C3R to determaxe the maxium number of bytes required.

aMax Array that contains the max values.

aIndexX Array that contains the X coordinates of the image max values.

aIndexY Array that contains the Y coordinates of the image max values.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.96.2.16 NppStatus nppiMaxIndx_8u_C4R (const Npp8u ∗ *pSrc*, int *nSrcStep*, NppiSize *oSizeROI*, Npp8u ∗ *pDeviceBuffer*, Npp8u *aMax*[4], int *aIndexX*[4], int *aIndexY*[4])

Four-channel 8-bit unsigned image MaxIndx.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer Use nppiMaxIndxGetBufferHostSize_8u_C4R to determaxe the maxium number of bytes required.

aMax Array that contains the max values.

aIndexX Array that contains the X coordinates of the image max values.

aIndexY Array that contains the Y coordinates of the image max values.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.96.2.17 NppStatus nppiMaxIndxGetBufferHostSize_16s_AC4R (NppiSize *oSizeROI*, int * *hpBufferSize*)

Computes the dvice scratch buffer size (in bytes) for nppiMaxIndx_16u_AC4R.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.96.2.18 NppStatus nppiMaxIndxGetBufferHostSize_16s_C1R (NppiSize *oSizeROI*, int * *hpBufferSize*)

Computes the dvice scratch buffer size (in bytes) for nppiMaxIndx_16s_C1R.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.96.2.19 NppStatus nppiMaxIndxGetBufferHostSize_16s_C3R (NppiSize *oSizeROI*, int * *hpBufferSize*)

Computes the dvice scratch buffer size (in bytes) for nppiMaxIndx_16s_C3R.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.96.2.20 NppStatus nppiMaxIndxGetBufferHostSize_16s_C4R (NppiSize *oSizeROI*, int ∗ *hpBufferSize*)

Computes the dvice scratch buffer size (in bytes) for nppiMaxIndx_16s_C4R.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.96.2.21 NppStatus nppiMaxIndxGetBufferHostSize_16u_AC4R (NppiSize *oSizeROI*, int ∗ *hpBufferSize*)

Computes the dvice scratch buffer size (in bytes) for nppiMaxIndx_8u_AC4R.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.96.2.22 NppStatus nppiMaxIndxGetBufferHostSize_16u_C1R (NppiSize *oSizeROI*, int ∗ *hpBufferSize*)

Computes the dvice scratch buffer size (in bytes) for nppiMaxIndx_16u_C1R.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.96.2.23 NppStatus nppiMaxIndxGetBufferHostSize_16u_C3R (NppiSize *oSizeROI*, int ∗ *hpBufferSize*)

Computes the dvice scratch buffer size (in bytes) for nppiMaxIndx_16u_C3R.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.96.2.24 NppStatus nppiMaxIndxGetBufferHostSize_16u_C4R (NppiSize *oSizeROI*, int ∗ *hpBufferSize*)

Computes the dvice scratch buffer size (in bytes) for nppiMaxIndx_16u_C4R.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.96.2.25 NppStatus nppiMaxIndxGetBufferHostSize_32f_AC4R (NppiSize *oSizeROI*, int ∗ *hpBufferSize*)

Computes the dvice scratch buffer size (in bytes) for nppiMaxIndx_32f_AC4R.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.96.2.26 NppStatus nppiMaxIndxGetBufferHostSize_32f_C1R (NppiSize *oSizeROI*, int ∗ *hpBufferSize*)

Computes the dvice scratch buffer size (in bytes) for nppiMaxIndx_32f_C1R.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.96.2.27 NppStatus nppiMaxIndxGetBufferHostSize_32f_C3R (NppiSize *oSizeROI*, int ∗ *hpBufferSize*)

Computes the dvice scratch buffer size (in bytes) for nppiMaxIndx_32f_C3R.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.96.2.28 NppStatus nppiMaxIndxGetBufferHostSize_32f_C4R (NppiSize *oSizeROI*, int ∗ *hpBufferSize*)

Computes the dvice scratch buffer size (in bytes) for nppiMaxIndx_32f_C4R.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.96.2.29 NppStatus nppiMaxIndxGetBufferHostSize_8u_AC4R (NppiSize *oSizeROI*, int ∗ *hpBufferSize*)

Computes the dvice scratch buffer size (in bytes) for nppiMaxIndx_8u_AC4R.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.96.2.30 NppStatus nppiMaxIndxGetBufferHostSize_8u_C1R (NppiSize *oSizeROI*, int ∗ *hpBufferSize*)

Computes the dvice scratch buffer size (in bytes) for nppiMaxIndx_8u_C1R.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.96.2.31 NppStatus nppiMaxIndxGetBufferHostSize_8u_C3R (NppiSize *oSizeROI*, int ∗ *hpBufferSize*)

Computes the dvice scratch buffer size (in bytes) for nppiMaxIndx_8u_C3R.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.96.2.32 NppStatus nppiMaxIndxGetBufferHostSize_8u_C4R (NppiSize *oSizeROI*, int ∗ *hpBufferSize*)

Computes the dvice scratch buffer size (in bytes) for nppiMaxIndx_8u_C4R.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.97 MinMax

Primitives for computing both the minimal and the maximal values of an image.

MinMax

The functions require the device scratch buffer.

- NppStatus nppiMinMax_8u_C1R (const Npp8u ∗pSrc, int nSrcStep, NppiSize oSizeROI, Npp8u ∗pMin, Npp8u ∗pMax, Npp8u ∗pDeviceBuffer)

  One-channel 8-bit unsigned image MinMax.

- NppStatus nppiMinMax_16u_C1R (const Npp16u ∗pSrc, int nSrcStep, NppiSize oSizeROI, Npp16u ∗pMin, Npp16u ∗pMax, Npp8u ∗pDeviceBuffer)

  One-channel 16-bit unsigned image MinMax.

- NppStatus nppiMinMax_16s_C1R (const Npp16s ∗pSrc, int nSrcStep, NppiSize oSizeROI, Npp16s ∗pMin, Npp16s ∗pMax, Npp8u ∗pDeviceBuffer)

  One-channel 16-bit signed image MinMax.

- NppStatus nppiMinMax_32f_C1R (const Npp32f ∗pSrc, int nSrcStep, NppiSize oSizeROI, Npp32f ∗pMin, Npp32f ∗pMax, Npp8u ∗pDeviceBuffer)

  One-channel 32-bit floating point image MinMax.

- NppStatus nppiMinMax_8u_C3R (const Npp8u ∗pSrc, int nSrcStep, NppiSize oSizeROI, Npp8u aMin[3], Npp8u aMax[3], Npp8u ∗pDeviceBuffer)

  Three-channel 8-bit unsigned image MinMax.

- NppStatus nppiMinMax_16u_C3R (const Npp16u ∗pSrc, int nSrcStep, NppiSize oSizeROI, Npp16u aMin[3], Npp16u aMax[3], Npp8u ∗pDeviceBuffer)

  Three-channel 16-bit unsigned image MinMax.

- NppStatus nppiMinMax_16s_C3R (const Npp16s ∗pSrc, int nSrcStep, NppiSize oSizeROI, Npp16s aMin[3], Npp16s aMax[3], Npp8u ∗pDeviceBuffer)

  Three-channel 16-bit signed image MinMax.

- NppStatus nppiMinMax_32f_C3R (const Npp32f ∗pSrc, int nSrcStep, NppiSize oSizeROI, Npp32f aMin[3], Npp32f aMax[3], Npp8u ∗pDeviceBuffer)

  Three-channel 32-bit floating point image MinMax.

- NppStatus nppiMinMax_8u_AC4R (const Npp8u ∗pSrc, int nSrcStep, NppiSize oSizeROI, Npp8u aMin[3], Npp8u aMax[3], Npp8u ∗pDeviceBuffer)

  Four-channel 8-bit unsigned image MinMax ignoring alpha channel.

- NppStatus nppiMinMax_16u_AC4R (const Npp16u ∗pSrc, int nSrcStep, NppiSize oSizeROI, Npp16u aMin[3], Npp16u aMax[3], Npp8u ∗pDeviceBuffer)

  Four-channel 16-bit unsigned image MinMax ignoring alpha channel.

- NppStatus nppiMinMax_16s_AC4R (const Npp16s ∗pSrc, int nSrcStep, NppiSize oSizeROI, Npp16s aMin[3], Npp16s aMax[3], Npp8u ∗pDeviceBuffer)

Four-channel 16-bit signed image MinMax ignoring alpha channel.

- NppStatus nppiMinMax_32f_AC4R (const Npp32f ∗pSrc, int nSrcStep, NppiSize oSizeROI, Npp32f aMin[3], Npp32f aMax[3], Npp8u ∗pDeviceBuffer)

  Four-channel 32-bit floating point image MinMax ignoring alpha channel.

- NppStatus nppiMinMax_8u_C4R (const Npp8u ∗pSrc, int nSrcStep, NppiSize oSizeROI, Npp8u aMin[4], Npp8u aMax[4], Npp8u ∗pDeviceBuffer)

  Four-channel 8-bit unsigned image MinMax.

- NppStatus nppiMinMax_16u_C4R (const Npp16u ∗pSrc, int nSrcStep, NppiSize oSizeROI, Npp16u aMin[4], Npp16u aMax[4], Npp8u ∗pDeviceBuffer)

  Four-channel 16-bit unsigned image MinMax.

- NppStatus nppiMinMax_16s_C4R (const Npp16s ∗pSrc, int nSrcStep, NppiSize oSizeROI, Npp16s aMin[4], Npp16s aMax[4], Npp8u ∗pDeviceBuffer)

  Four-channel 16-bit signed image MinMax.

- NppStatus nppiMinMax_32f_C4R (const Npp32f ∗pSrc, int nSrcStep, NppiSize oSizeROI, Npp32f aMin[4], Npp32f aMax[4], Npp8u ∗pDeviceBuffer)

  Four-channel 32-bit floating point image MinMax.

MinMaxGetBufferHostSize

Companion primitives for computing the device buffer size (in bytes) required by the MinMax primitives.

- NppStatus nppiMinMaxGetBufferHostSize_8u_C1R (NppiSize oSizeROI, int ∗hpBufferSize)

  Buffer size for nppiMinMax_8u_C1R.

- NppStatus nppiMinMaxGetBufferHostSize_16u_C1R (NppiSize oSizeROI, int ∗hpBufferSize)

  Buffer size for nppiMinMax_16u_C1R.

- NppStatus nppiMinMaxGetBufferHostSize_16s_C1R (NppiSize oSizeROI, int ∗hpBufferSize)

  Buffer size for nppiMinMax_16s_C1R.

- NppStatus nppiMinMaxGetBufferHostSize_32f_C1R (NppiSize oSizeROI, int ∗hpBufferSize)

  Buffer size for nppiMinMax_32f_C1R.

- NppStatus nppiMinMaxGetBufferHostSize_8u_C3R (NppiSize oSizeROI, int ∗hpBufferSize)

  Buffer size for nppiMinMax_8u_C3R.

- NppStatus nppiMinMaxGetBufferHostSize_16u_C3R (NppiSize oSizeROI, int ∗hpBufferSize)

  Buffer size for nppiMinMax_16u_C3R.

- NppStatus nppiMinMaxGetBufferHostSize_16s_C3R (NppiSize oSizeROI, int ∗hpBufferSize)

  Buffer size for nppiMinMax_16s_C3R.

- NppStatus nppiMinMaxGetBufferHostSize_32f_C3R (NppiSize oSizeROI, int ∗hpBufferSize)

  Buffer size for nppiMinMax_32f_C3R.

- NppStatus nppiMinMaxGetBufferHostSize_8u_AC4R (NppiSize oSizeROI, int ∗hpBufferSize)
  Buffer size for nppiMinMax_8u_AC4R.
- NppStatus nppiMinMaxGetBufferHostSize_16u_AC4R (NppiSize oSizeROI, int ∗hpBufferSize)
  Buffer size for nppiMinMax_16u_AC4R.
- NppStatus nppiMinMaxGetBufferHostSize_16s_AC4R (NppiSize oSizeROI, int ∗hpBufferSize)
  Buffer size for nppiMinMax_16s_AC4R.
- NppStatus nppiMinMaxGetBufferHostSize_32f_AC4R (NppiSize oSizeROI, int ∗hpBufferSize)
  Buffer size for nppiMinMax_32f_AC4R.
- NppStatus nppiMinMaxGetBufferHostSize_8u_C4R (NppiSize oSizeROI, int ∗hpBufferSize)
  Buffer size for nppiMinMax_8u_C4R.
- NppStatus nppiMinMaxGetBufferHostSize_16u_C4R (NppiSize oSizeROI, int ∗hpBufferSize)
  Buffer size for nppiMinMax_16u_C4R.
- NppStatus nppiMinMaxGetBufferHostSize_16s_C4R (NppiSize oSizeROI, int ∗hpBufferSize)
  Buffer size for nppiMinMax_16s_C4R.
- NppStatus nppiMinMaxGetBufferHostSize_32f_C4R (NppiSize oSizeROI, int ∗hpBufferSize)
  Buffer size for nppiMinMax_32f_C4R.

7.97.1 Detailed Description

Primitives for computing both the minimal and the maximal values of an image.

7.97.2 Function Documentation

7.97.2.1 NppStatus nppiMinMax_16s_AC4R (const Npp16s ∗ *pSrc*, int *nSrcStep*, NppiSize *oSizeROI*, Npp16s *aMin*[3], Npp16s *aMax*[3], Npp8u ∗ *pDeviceBuffer*)

Four-channel 16-bit signed image MinMax ignoring alpha channel.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSizeROI Region-of-Interest (ROI).

aMin Array that contains the minima.

aMax Array that contains the maxima.

pDeviceBuffer Buffer to a scratch memory. Use nppiMinMaxGetBufferHostSize_16s_AC4R to determine the minium number of bytes required.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.97.2.2 NppStatus nppiMinMax_16s_C1R (const Npp16s $*$ *pSrc*, int *nSrcStep*, NppiSize *oSizeROI*, Npp16s $*$ *pMin*, Npp16s $*$ *pMax*, Npp8u $*$ *pDeviceBuffer*)

One-channel 16-bit signed image MinMax.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pMin Pointer to the computed minimal result.

pMax Pointer to the computed maximal result.

pDeviceBuffer Buffer to a scratch memory. Use nppiMinMaxGetBufferHostSize_16s_C1R to determine the minium number of bytes required.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.97.2.3 NppStatus nppiMinMax_16s_C3R (const Npp16s $*$ *pSrc*, int *nSrcStep*, NppiSize *oSizeROI*, Npp16s *aMin*[3], Npp16s *aMax*[3], Npp8u $*$ *pDeviceBuffer*)

Three-channel 16-bit signed image MinMax.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSizeROI Region-of-Interest (ROI).

aMin Array that contains the minima.

aMax Array that contains the maxima.

pDeviceBuffer Buffer to a scratch memory. Use nppiMinMaxGetBufferHostSize_16s_C3R to determine the minium number of bytes required.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.97.2.4 NppStatus nppiMinMax_16s_C4R (const Npp16s $*$ *pSrc*, int *nSrcStep*, NppiSize *oSizeROI*, Npp16s *aMin*[4], Npp16s *aMax*[4], Npp8u $*$ *pDeviceBuffer*)

Four-channel 16-bit signed image MinMax.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSizeROI Region-of-Interest (ROI).

aMin Array that contains the minima.

aMax Array that contains the maxima.

pDeviceBuffer Buffer to a scratch memory. Use nppiMinMaxGetBufferHostSize_16s_C4R to determine the minium number of bytes required.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.97.2.5 NppStatus nppiMinMax_16u_AC4R (const Npp16u ∗ *pSrc*, int *nSrcStep*, NppiSize *oSizeROI*, Npp16u *aMin*[3], Npp16u *aMax*[3], Npp8u ∗ *pDeviceBuffer*)

Four-channel 16-bit unsigned image MinMax ignoring alpha channel.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSizeROI Region-of-Interest (ROI).

aMin Array that contains the minima.

aMax Array that contains the maxima.

pDeviceBuffer Buffer to a scratch memory. Use nppiMinMaxGetBufferHostSize_16u_AC4R to determine the minium number of bytes required.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.97.2.6 NppStatus nppiMinMax_16u_C1R (const Npp16u ∗ *pSrc*, int *nSrcStep*, NppiSize *oSizeROI*, Npp16u ∗ *pMin*, Npp16u ∗ *pMax*, Npp8u ∗ *pDeviceBuffer*)

One-channel 16-bit unsigned image MinMax.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pMin Pointer to the computed minimal result.

pMax Pointer to the computed maximal result.

pDeviceBuffer Buffer to a scratch memory. Use nppiMinMaxGetBufferHostSize_16u_C1R to determine the minium number of bytes required.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.97.2.7 NppStatus nppiMinMax_16u_C3R (const Npp16u $*$ *pSrc*, int *nSrcStep*, NppiSize *oSizeROI*, Npp16u *aMin*[3], Npp16u *aMax*[3], Npp8u $*$ *pDeviceBuffer*)

Three-channel 16-bit unsigned image MinMax.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSizeROI Region-of-Interest (ROI).

aMin Array that contains the minima.

aMax Array that contains the maxima.

pDeviceBuffer Buffer to a scratch memory. Use nppiMinMaxGetBufferHostSize_16u_C3R to determine the minium number of bytes required.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.97.2.8 NppStatus nppiMinMax_16u_C4R (const Npp16u $*$ *pSrc*, int *nSrcStep*, NppiSize *oSizeROI*, Npp16u *aMin*[4], Npp16u *aMax*[4], Npp8u $*$ *pDeviceBuffer*)

Four-channel 16-bit unsigned image MinMax.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSizeROI Region-of-Interest (ROI).

aMin Array that contains the minima.

aMax Array that contains the maxima.

pDeviceBuffer Buffer to a scratch memory. Use nppiMinMaxGetBufferHostSize_16u_C4R to determine the minium number of bytes required.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.97.2.9 NppStatus nppiMinMax_32f_AC4R (const Npp32f $*$ *pSrc*, int *nSrcStep*, NppiSize *oSizeROI*, Npp32f *aMin*[3], Npp32f *aMax*[3], Npp8u $*$ *pDeviceBuffer*)

Four-channel 32-bit floating point image MinMax ignoring alpha channel.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSizeROI Region-of-Interest (ROI).

aMin Array that contains the minima.

aMax Array that contains the maxima.

pDeviceBuffer Buffer to a scratch memory. Use nppiMinMaxGetBufferHostSize_32f_AC4R to determine the minium number of bytes required.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.97.2.10 NppStatus nppiMinMax_32f_C1R (const Npp32f ∗ *pSrc*, int *nSrcStep*, NppiSize *oSizeROI*, Npp32f ∗ *pMin*, Npp32f ∗ *pMax*, Npp8u ∗ *pDeviceBuffer*)

One-channel 32-bit floating point image MinMax.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pMin Pointer to the computed minimal result.

pMax Pointer to the computed maximal result.

pDeviceBuffer Buffer to a scratch memory. Use nppiMinMaxGetBufferHostSize_32f_C1R to determine the minium number of bytes required.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.97.2.11 NppStatus nppiMinMax_32f_C3R (const Npp32f ∗ *pSrc*, int *nSrcStep*, NppiSize *oSizeROI*, Npp32f *aMin*[3], Npp32f *aMax*[3], Npp8u ∗ *pDeviceBuffer*)

Three-channel 32-bit floating point image MinMax.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSizeROI Region-of-Interest (ROI).

aMin Array that contains the minima.

aMax Array that contains the maxima.

pDeviceBuffer Buffer to a scratch memory. Use nppiMinMaxGetBufferHostSize_32f_C3R to determine the minium number of bytes required.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.97.2.12 NppStatus nppiMinMax_32f_C4R (const Npp32f $*$ *pSrc*, int *nSrcStep*, NppiSize *oSizeROI*, Npp32f *aMin*[4], Npp32f *aMax*[4], Npp8u $*$ *pDeviceBuffer*)

Four-channel 32-bit floating point image MinMax.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSizeROI Region-of-Interest (ROI).

aMin Array that contains the minima.

aMax Array that contains the maxima.

pDeviceBuffer Buffer to a scratch memory. Use nppiMinMaxGetBufferHostSize_32f_C4R to determine the minium number of bytes required.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.97.2.13 NppStatus nppiMinMax_8u_AC4R (const Npp8u $*$ *pSrc*, int *nSrcStep*, NppiSize *oSizeROI*, Npp8u *aMin*[3], Npp8u *aMax*[3], Npp8u $*$ *pDeviceBuffer*)

Four-channel 8-bit unsigned image MinMax ignoring alpha channel.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSizeROI Region-of-Interest (ROI).

aMin Array that contains the minima.

aMax Array that contains the maxima.

pDeviceBuffer Buffer to a scratch memory. Use nppiMinMaxGetBufferHostSize_8u_AC4R to determine the minium number of bytes required.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.97.2.14 NppStatus nppiMinMax_8u_C1R (const Npp8u $*$ *pSrc*, int *nSrcStep*, NppiSize *oSizeROI*, Npp8u $*$ *pMin*, Npp8u $*$ *pMax*, Npp8u $*$ *pDeviceBuffer*)

One-channel 8-bit unsigned image MinMax.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pMin Pointer to the computed minimal result.

pMax Pointer to the computed maximal result.

pDeviceBuffer Buffer to a scratch memory. Use nppiMinMaxGetBufferHostSize_8u_C1R to determine the minium number of bytes required.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.97.2.15 NppStatus nppiMinMax_8u_C3R (const Npp8u ∗ *pSrc*, int *nSrcStep*, NppiSize *oSizeROI*, Npp8u *aMin*[3], Npp8u *aMax*[3], Npp8u ∗ *pDeviceBuffer*)

Three-channel 8-bit unsigned image MinMax.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSizeROI Region-of-Interest (ROI).

aMin Array that contains the minima.

aMax Array that contains the maxima.

pDeviceBuffer Buffer to a scratch memory. Use nppiMinMaxGetBufferHostSize_8u_C3R to determine the minium number of bytes required.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.97.2.16 NppStatus nppiMinMax_8u_C4R (const Npp8u ∗ *pSrc*, int *nSrcStep*, NppiSize *oSizeROI*, Npp8u *aMin*[4], Npp8u *aMax*[4], Npp8u ∗ *pDeviceBuffer*)

Four-channel 8-bit unsigned image MinMax.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSizeROI Region-of-Interest (ROI).

aMin Array that contains the minima.

aMax Array that contains the maxima.

pDeviceBuffer Buffer to a scratch memory. Use nppiMinMaxGetBufferHostSize_8u_C4R to determine the minium number of bytes required.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.97.2.17 NppStatus nppiMinMaxGetBufferHostSize_16s_AC4R (NppiSize *oSizeROI*, int ∗ *hpBufferSize*)

Buffer size for nppiMinMax_16s_AC4R.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.97.2.18 NppStatus nppiMinMaxGetBufferHostSize_16s_C1R (NppiSize *oSizeROI*, int ∗ *hpBufferSize*)

Buffer size for nppiMinMax_16s_C1R.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.97.2.19 NppStatus nppiMinMaxGetBufferHostSize_16s_C3R (NppiSize *oSizeROI*, int ∗ *hpBufferSize*)

Buffer size for nppiMinMax_16s_C3R.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.97.2.20 NppStatus nppiMinMaxGetBufferHostSize_16s_C4R (NppiSize *oSizeROI*, int ∗ *hpBufferSize*)

Buffer size for nppiMinMax_16s_C4R.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.97.2.21 NppStatus nppiMinMaxGetBufferHostSize_16u_AC4R (NppiSize *oSizeROI*, int ∗ *hpBufferSize*)

Buffer size for nppiMinMax_16u_AC4R.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.97.2.22 NppStatus nppiMinMaxGetBufferHostSize_16u_C1R (NppiSize *oSizeROI*, int ∗ *hpBufferSize*)

Buffer size for nppiMinMax_16u_C1R.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.97.2.23 NppStatus nppiMinMaxGetBufferHostSize_16u_C3R (NppiSize *oSizeROI*, int ∗ *hpBufferSize*)

Buffer size for nppiMinMax_16u_C3R.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.97.2.24 NppStatus nppiMinMaxGetBufferHostSize_16u_C4R (NppiSize *oSizeROI*, int ∗ *hpBufferSize*)

Buffer size for nppiMinMax_16u_C4R.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.97.2.25 NppStatus nppiMinMaxGetBufferHostSize_32f_AC4R (NppiSize *oSizeROI*, int ∗ *hpBufferSize*)

Buffer size for nppiMinMax_32f_AC4R.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.97.2.26 NppStatus nppiMinMaxGetBufferHostSize_32f_C1R (NppiSize *oSizeROI*, int ∗ *hpBufferSize*)

Buffer size for nppiMinMax_32f_C1R.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.97.2.27 NppStatus nppiMinMaxGetBufferHostSize_32f_C3R (NppiSize *oSizeROI*, int ∗ *hpBufferSize*)

Buffer size for nppiMinMax_32f_C3R.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.97.2.28 NppStatus nppiMinMaxGetBufferHostSize_32f_C4R (NppiSize *oSizeROI*, int * *hpBufferSize*)

Buffer size for nppiMinMax_32f_C4R.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.97.2.29 NppStatus nppiMinMaxGetBufferHostSize_8u_AC4R (NppiSize *oSizeROI*, int * *hpBufferSize*)

Buffer size for nppiMinMax_8u_AC4R.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.97.2.30 NppStatus nppiMinMaxGetBufferHostSize_8u_C1R (NppiSize *oSizeROI*, int * *hpBufferSize*)

Buffer size for nppiMinMax_8u_C1R.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.97.2.31 NppStatus nppiMinMaxGetBufferHostSize_8u_C3R (NppiSize *oSizeROI*, int ∗ *hpBufferSize*)

Buffer size for nppiMinMax_8u_C3R.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.97.2.32 NppStatus nppiMinMaxGetBufferHostSize_8u_C4R (NppiSize *oSizeROI*, int ∗ *hpBufferSize*)

Buffer size for nppiMinMax_8u_C4R.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.98 MinMaxIndx

Primitives for computing the minimal and the maximal values with their indices (X and Y coordinates) of an image.

MinMaxIndx

If there are several minima and maxima in the selected region of interest, the function returns ones on the top leftmost position.

The scratch buffer is required by the functions.

- NppStatus nppiMinMaxIndx_8u_C1R (const Npp8u ∗pSrc, int nSrcStep, NppiSize oSizeROI, Npp8u ∗pMinValue, Npp8u ∗pMaxValue, NppiPoint ∗pMinIndex, NppiPoint ∗pMaxIndex, Npp8u ∗pDeviceBuffer)

  Computes the minimal and the maximal pixel values with their X and Y coordinates of 1-channel 8-bit unsigned char image.

- NppStatus nppiMinMaxIndx_8s_C1R (const Npp8s ∗pSrc, int nSrcStep, NppiSize oSizeROI, Npp8s ∗pMinValue, Npp8s ∗pMaxValue, NppiPoint ∗pMinIndex, NppiPoint ∗pMaxIndex, Npp8u ∗pDeviceBuffer)

  Computes the minimal and the maximal pixel values with their X and Y coordinates of 1-channel 8-bit signed char image.

- NppStatus nppiMinMaxIndx_16u_C1R (const Npp16u ∗pSrc, int nSrcStep, NppiSize oSizeROI, Npp16u ∗pMinValue, Npp16u ∗pMaxValue, NppiPoint ∗pMinIndex, NppiPoint ∗pMaxIndex, Npp8u ∗pDeviceBuffer)

  Computes the minimal and the maximal pixel values with their X and Y coordinates of 1-channel 16-bit unsigned short image.

- NppStatus nppiMinMaxIndx_32f_C1R (const Npp32f ∗pSrc, int nSrcStep, NppiSize oSizeROI, Npp32f ∗pMinValue, Npp32f ∗pMaxValue, NppiPoint ∗pMinIndex, NppiPoint ∗pMaxIndex, Npp8u ∗pDeviceBuffer)

  Computes the minimal and the maximal pixel values with their X and Y coordinates of 1-channel 32-bit floating point image.

Masked MinMaxIndx

See Masked Operation.

- NppStatus nppiMinMaxIndx_8u_C1MR (const Npp8u ∗pSrc, int nSrcStep, const Npp8u ∗pMask, int nMaskStep, NppiSize oSizeROI, Npp8u ∗pMinValue, Npp8u ∗pMaxValue, NppiPoint ∗pMinIndex, NppiPoint ∗pMaxIndex, Npp8u ∗pDeviceBuffer)

  Masked one-channel 8-bit unsigned image MinMaxIndx.

- NppStatus nppiMinMaxIndx_8s_C1MR (const Npp8s ∗pSrc, int nSrcStep, const Npp8u ∗pMask, int nMaskStep, NppiSize oSizeROI, Npp8s ∗pMinValue, Npp8s ∗pMaxValue, NppiPoint ∗pMinIndex, NppiPoint ∗pMaxIndex, Npp8u ∗pDeviceBuffer)

  Masked one-channel 8-bit signed image MinMaxIndx.

- NppStatus nppiMinMaxIndx_16u_C1MR (const Npp16u ∗pSrc, int nSrcStep, const Npp8u ∗pMask, int nMaskStep, NppiSize oSizeROI, Npp16u ∗pMinValue, Npp16u ∗pMaxValue, NppiPoint ∗pMinIndex, NppiPoint ∗pMaxIndex, Npp8u ∗pDeviceBuffer)

  Masked one-channel 16-bit unsigned image MinMaxIndx.

- NppStatus nppiMinMaxIndx_32f_C1MR (const Npp32f ∗pSrc, int nSrcStep, const Npp8u ∗pMask, int nMaskStep, NppiSize oSizeROI, Npp32f ∗pMinValue, Npp32f ∗pMaxValue, NppiPoint ∗pMinIndex, NppiPoint ∗pMaxIndex, Npp8u ∗pDeviceBuffer)

  Masked one-channel 32-bit floating point image MinMaxIndx.

Channel MinMaxIndx

See Channel-of-Interest API.

- NppStatus nppiMinMaxIndx_8u_C3CR (const Npp8u ∗pSrc, int nSrcStep, NppiSize oSizeROI, int nCOI, Npp8u ∗pMinValue, Npp8u ∗pMaxValue, NppiPoint ∗pMinIndex, NppiPoint ∗pMaxIndex, Npp8u ∗pDeviceBuffer)

  Three-channel 8-bit unsigned image MinMaxIndx affecting only single channel.

- NppStatus nppiMinMaxIndx_8s_C3CR (const Npp8s ∗pSrc, int nSrcStep, NppiSize oSizeROI, int nCOI, Npp8s ∗pMinValue, Npp8s ∗pMaxValue, NppiPoint ∗pMinIndex, NppiPoint ∗pMaxIndex, Npp8u ∗pDeviceBuffer)

  Three-channel 8-bit signed image MinMaxIndx affecting only single channel.

- NppStatus nppiMinMaxIndx_16u_C3CR (const Npp16u ∗pSrc, int nSrcStep, NppiSize oSizeROI, int nCOI, Npp16u ∗pMinValue, Npp16u ∗pMaxValue, NppiPoint ∗pMinIndex, NppiPoint ∗pMaxIndex, Npp8u ∗pDeviceBuffer)

  Three-channel 16-bit unsigned image MinMaxIndx affecting only single channel.

- NppStatus nppiMinMaxIndx_32f_C3CR (const Npp32f ∗pSrc, int nSrcStep, NppiSize oSizeROI, int nCOI, Npp32f ∗pMinValue, Npp32f ∗pMaxValue, NppiPoint ∗pMinIndex, NppiPoint ∗pMaxIndex, Npp8u ∗pDeviceBuffer)

  Three-channel 32-bit floating point image MinMaxIndx affecting only single channel.

Masked Channel MinMaxIndx

See Masked Operation and Channel-of-Interest API.

- NppStatus nppiMinMaxIndx_8u_C3CMR (const Npp8u ∗pSrc, int nSrcStep, const Npp8u ∗pMask, int nMaskStep, NppiSize oSizeROI, int nCOI, Npp8u ∗pMinValue, Npp8u ∗pMaxValue, NppiPoint ∗pMinIndex, NppiPoint ∗pMaxIndex, Npp8u ∗pDeviceBuffer)

  Masked three-channel 8-bit unsigned image MinMaxIndx affecting only single channel.

- NppStatus nppiMinMaxIndx_8s_C3CMR (const Npp8s ∗pSrc, int nSrcStep, const Npp8u ∗pMask, int nMaskStep, NppiSize oSizeROI, int nCOI, Npp8s ∗pMinValue, Npp8s ∗pMaxValue, NppiPoint ∗pMinIndex, NppiPoint ∗pMaxIndex, Npp8u ∗pDeviceBuffer)

  Masked three-channel 8-bit signed image MinMaxIndx affecting only single channel.

- NppStatus nppiMinMaxIndx_16u_C3CMR (const Npp16u ∗pSrc, int nSrcStep, const Npp8u ∗pMask, int nMaskStep, NppiSize oSizeROI, int nCOI, Npp16u ∗pMinValue, Npp16u ∗pMaxValue, NppiPoint ∗pMinIndex, NppiPoint ∗pMaxIndex, Npp8u ∗pDeviceBuffer)

  Masked three-channel 16-bit unsigned image MinMaxIndx affecting only single channel.

- NppStatus nppiMinMaxIndx_32f_C3CMR (const Npp32f ∗pSrc, int nSrcStep, const Npp8u ∗pMask, int nMaskStep, NppiSize oSizeROI, int nCOI, Npp32f ∗pMinValue, Npp32f ∗pMaxValue, NppiPoint ∗pMinIndex, NppiPoint ∗pMaxIndex, Npp8u ∗pDeviceBuffer)

  Masked three-channel 32-bit floating point image MinMaxIndx affecting only single channel.

MinMaxIndxGetBufferHostSize

Companion primitives for computing the device buffer size (in bytes) required by the MinMaxIndx primitives.

- NppStatus nppiMinMaxIndxGetBufferHostSize_8u_C1R (NppiSize oSizeROI, int ∗hpBufferSize)

  Buffer size for nppiMinMaxIndx_8u_C1R.

- NppStatus nppiMinMaxIndxGetBufferHostSize_8s_C1R (NppiSize oSizeROI, int ∗hpBufferSize)

  Buffer size for nppiMinMaxIndx_8s_C1R.

- NppStatus nppiMinMaxIndxGetBufferHostSize_16u_C1R (NppiSize oSizeROI, int ∗hpBufferSize)

  Buffer size for nppiMinMaxIndx_16u_C1R.

- NppStatus nppiMinMaxIndxGetBufferHostSize_32f_C1R (NppiSize oSizeROI, int ∗hpBufferSize)

  Buffer size for nppiMinMaxIndx_32f_C1R.

- NppStatus nppiMinMaxIndxGetBufferHostSize_8u_C1MR (NppiSize oSizeROI, int ∗hpBufferSize)

  Buffer size for nppiMinMaxIndx_8u_C1MR.

- NppStatus nppiMinMaxIndxGetBufferHostSize_8s_C1MR (NppiSize oSizeROI, int ∗hpBufferSize)

  Buffer size for nppiMinMaxIndx_8s_C1MR.

- NppStatus nppiMinMaxIndxGetBufferHostSize_16u_C1MR (NppiSize oSizeROI, int ∗hpBufferSize)

  Buffer size for nppiMinMaxIndx_16u_C1MR.

- NppStatus nppiMinMaxIndxGetBufferHostSize_32f_C1MR (NppiSize oSizeROI, int ∗hpBufferSize)

  Buffer size for nppiMinMaxIndx_32f_C1MR.

- NppStatus nppiMinMaxIndxGetBufferHostSize_8u_C3CR (NppiSize oSizeROI, int ∗hpBufferSize)

  Buffer size for nppiMinMaxIndx_8u_C3CR.

- NppStatus nppiMinMaxIndxGetBufferHostSize_8s_C3CR (NppiSize oSizeROI, int ∗hpBufferSize)

  Buffer size for nppiMinMaxIndx_8s_C3CR.

- NppStatus nppiMinMaxIndxGetBufferHostSize_16u_C3CR (NppiSize oSizeROI, int ∗hpBufferSize)

  Buffer size for nppiMinMaxIndx_16u_C3CR.

- NppStatus nppiMinMaxIndxGetBufferHostSize_32f_C3CR (NppiSize oSizeROI, int ∗hpBufferSize)

  Buffer size for nppiMinMaxIndx_32f_C3CR.

- NppStatus nppiMinMaxIndxGetBufferHostSize_8u_C3CMR (NppiSize oSizeROI, int ∗hpBufferSize)

  Buffer size for nppiMinMaxIndx_8u_C3CMR.

- NppStatus nppiMinMaxIndxGetBufferHostSize_8s_C3CMR (NppiSize oSizeROI, int ∗hpBufferSize)

  Buffer size for nppiMinMaxIndx_8s_C3CMR.

- NppStatus nppiMinMaxIndxGetBufferHostSize_16u_C3CMR (NppiSize oSizeROI, int ∗hpBufferSize)

  Buffer size for nppiMinMaxIndx_16u_C3CMR.

- NppStatus nppiMinMaxIndxGetBufferHostSize_32f_C3CMR (NppiSize oSizeROI, int ∗hpBufferSize)

  Buffer size for nppiMinMaxIndx_32f_C3CMR.

7.98.1 Detailed Description

Primitives for computing the minimal and the maximal values with their indices (X and Y coordinates) of an image.

7.98.2 Function Documentation

7.98.2.1 NppStatus nppiMinMaxIndx_16u_C1MR (const Npp16u ∗ *pSrc*, int *nSrcStep*, const Npp8u ∗ *pMask*, int *nMaskStep*, NppiSize *oSizeROI*, Npp16u ∗ *pMinValue*, Npp16u ∗ *pMaxValue*, NppiPoint ∗ *pMinIndex*, NppiPoint ∗ *pMaxIndex*, Npp8u ∗ *pDeviceBuffer*)

Masked one-channel 16-bit unsigned image MinMaxIndx.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pMask Mask-Image Pointer.

nMaskStep Mask-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pMinValue Pointer to the minimum value.

pMaxValue Pointer to the maximum value.

pMinIndex Pointer to the indicies (X and Y coordinates) of the minimum value.

pMaxIndex Pointer to the indicies (X and Y coordinates) of the maximum value.

pDeviceBuffer Buffer to a scratch memory. Use nppiMinMaxIndxGetBufferHostSize_16u_C1MR to determine the minium number of bytes required.

Returns:

Image Data Related Error Codes, ROI Related Error Codes. If the mask is filled with zeros, then all the returned values are zeros, i.e., pMinIndex = {0, 0}, pMaxIndex = {0, 0}, pMinValue = 0, pMaxValue = 0. If any of pMinValue, pMaxValue, pMinIndex, or pMaxIndex is not needed, zero pointer must be passed correspondingly.

7.98.2.2 NppStatus nppiMinMaxIndx_16u_C1R (const Npp16u ∗ *pSrc*, int *nSrcStep*, NppiSize *oSizeROI*, Npp16u ∗ *pMinValue*, Npp16u ∗ *pMaxValue*, NppiPoint ∗ *pMinIndex*, NppiPoint ∗ *pMaxIndex*, Npp8u ∗ *pDeviceBuffer*)

Computes the minimal and the maximal pixel values with their X and Y coordinates of 1-channel 16-bit unsigned short image.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pMinValue Pointer to the minimum value.

pMaxValue Pointer to the maximum value.

pMinIndex Pointer to the indicies (X and Y coordinates) of the minimum value.

pMaxIndex Pointer to the indicies (X and Y coordinates) of the maximum value.

pDeviceBuffer Buffer to a scratch memory. Use nppiMinMaxIndxGetBufferHostSize_16u_C1R to determine the minium number of bytes required.

Returns:

Image Data Related Error Codes, ROI Related Error Codes. If any of pMinValue, pMaxValue, pMinIndex, or pMaxIndex is not needed, zero pointer must be passed correspondingly.

7.98.2.3 NppStatus nppiMinMaxIndx_16u_C3CMR (const Npp16u ∗ *pSrc*, int *nSrcStep*, const Npp8u ∗ *pMask*, int *nMaskStep*, NppiSize *oSizeROI*, int *nCOI*, Npp16u ∗ *pMinValue*, Npp16u ∗ *pMaxValue*, NppiPoint ∗ *pMinIndex*, NppiPoint ∗ *pMaxIndex*, Npp8u ∗ *pDeviceBuffer*)

Masked three-channel 16-bit unsigned image MinMaxIndx affecting only single channel.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pMask Mask-Image Pointer.

nMaskStep Mask-Image Line Step.

oSizeROI Region-of-Interest (ROI).

nCOI Channel_of_Interest Number.

pMinValue Pointer to the minimum value.

pMaxValue Pointer to the maximum value.

pMinIndex Pointer to the indicies (X and Y coordinates) of the minimum value.

pMaxIndex Pointer to the indicies (X and Y coordinates) of the maximum value.

pDeviceBuffer Buffer to a scratch memory. Use nppiMinMaxIndxGetBufferHostSize_16u_C3CMR to determine the minium number of bytes required.

Returns:

Image Data Related Error Codes, ROI Related Error Codes, or NPP_COI_ERROR if an invalid channel of interest is specified. If the mask is filled with zeros, then all the returned values are zeros, i.e., pMinIndex = {0, 0}, pMaxIndex = {0, 0}, pMinValue = 0, pMaxValue = 0. If any of pMinValue, pMaxValue, pMinIndex, or pMaxIndex is not needed, zero pointer must be passed correspondingly.

7.98.2.4 NppStatus nppiMinMaxIndx_16u_C3CR (const Npp16u ∗ *pSrc*, int *nSrcStep*, NppiSize *oSizeROI*, int *nCOI*, Npp16u ∗ *pMinValue*, Npp16u ∗ *pMaxValue*, NppiPoint ∗ *pMinIndex*, NppiPoint ∗ *pMaxIndex*, Npp8u ∗ *pDeviceBuffer*)

Three-channel 16-bit unsigned image MinMaxIndx affecting only single channel.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSizeROI Region-of-Interest (ROI).

nCOI Channel_of_Interest Number.

pMinValue Pointer to the minimum value.

pMaxValue Pointer to the maximum value.

pMinIndex Pointer to the indicies (X and Y coordinates) of the minimum value.

pMaxIndex Pointer to the indicies (X and Y coordinates) of the maximum value.

pDeviceBuffer Buffer to a scratch memory. Use nppiMinMaxIndxGetBufferHostSize_16u_C3CR to determine the minium number of bytes required.

Returns:

Image Data Related Error Codes, ROI Related Error Codes, or NPP_COI_ERROR if an invalid channel of interest is specified. If any of pMinValue, pMaxValue, pMinIndex, or pMaxIndex is not needed, zero pointer must be passed correspondingly.

7.98.2.5 NppStatus nppiMinMaxIndx_32f_C1MR (const Npp32f ∗ *pSrc*, int *nSrcStep*, const Npp8u ∗ *pMask*, int *nMaskStep*, NppiSize *oSizeROI*, Npp32f ∗ *pMinValue*, Npp32f ∗ *pMaxValue*, NppiPoint ∗ *pMinIndex*, NppiPoint ∗ *pMaxIndex*, Npp8u ∗ *pDeviceBuffer*)

Masked one-channel 32-bit floating point image MinMaxIndx.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pMask Mask-Image Pointer.

nMaskStep Mask-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pMinValue Pointer to the minimum value.

pMaxValue Pointer to the maximum value.

pMinIndex Pointer to the indicies (X and Y coordinates) of the minimum value.

pMaxIndex Pointer to the indicies (X and Y coordinates) of the maximum value.

pDeviceBuffer Buffer to a scratch memory. Use nppiMinMaxIndxGetBufferHostSize_32f_C1MR to determine the minium number of bytes required.

Returns:

Image Data Related Error Codes, ROI Related Error Codes, or NPP_NOT_EVEN_STEP_ERROR if an invalid floating-point image is specified. If the mask is filled with zeros, then all the returned values are zeros, i.e., pMinIndex = {0, 0}, pMaxIndex = {0, 0}, pMinValue = 0, pMaxValue = 0. If any of pMinValue, pMaxValue, pMinIndex, or pMaxIndex is not needed, zero pointer must be passed correspondingly.

7.98.2.6 NppStatus nppiMinMaxIndx_32f_C1R (const Npp32f ∗ *pSrc*, int *nSrcStep*, NppiSize *oSizeROI*, Npp32f ∗ *pMinValue*, Npp32f ∗ *pMaxValue*, NppiPoint ∗ *pMinIndex*, NppiPoint ∗ *pMaxIndex*, Npp8u ∗ *pDeviceBuffer*)

Computes the minimal and the maximal pixel values with their X and Y coordinates of 1-channel 32-bit floating point image.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pMinValue Pointer to the minimum value.

pMaxValue Pointer to the maximum value.

pMinIndex Pointer to the indicies (X and Y coordinates) of the minimum value.

pMaxIndex Pointer to the indicies (X and Y coordinates) of the maximum value.

pDeviceBuffer Buffer to a scratch memory. Use nppiMinMaxIndxGetBufferHostSize_32f_C1R to determine the minium number of bytes required.

Returns:

Image Data Related Error Codes, ROI Related Error Codes, or NPP_NOT_EVEN_STEP_ERROR if an invalid floating-point image is specified. If any of pMinValue, pMaxValue, pMinIndex, or pMaxIndex is not needed, zero pointer must be passed correspondingly.

7.98.2.7 NppStatus nppiMinMaxIndx_32f_C3CMR (const Npp32f $*$ *pSrc*, int *nSrcStep*, const Npp8u $*$ *pMask*, int *nMaskStep*, NppiSize *oSizeROI*, int *nCOI*, Npp32f $*$ *pMinValue*, Npp32f $*$ *pMaxValue*, NppiPoint $*$ *pMinIndex*, NppiPoint $*$ *pMaxIndex*, Npp8u $*$ *pDeviceBuffer*)

Masked three-channel 32-bit floating point image MinMaxIndx affecting only single channel.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pMask Mask-Image Pointer.

nMaskStep Mask-Image Line Step.

oSizeROI Region-of-Interest (ROI).

nCOI Channel_of_Interest Number.

pMinValue Pointer to the minimum value.

pMaxValue Pointer to the maximum value.

pMinIndex Pointer to the indicies (X and Y coordinates) of the minimum value.

pMaxIndex Pointer to the indicies (X and Y coordinates) of the maximum value.

pDeviceBuffer Buffer to a scratch memory. Use nppiMinMaxIndxGetBufferHostSize_32f_C3CMR to determine the minium number of bytes required.

Returns:

Image Data Related Error Codes, ROI Related Error Codes, NPP_NOT_EVEN_STEP_ERROR if an invalid floating-point image is specified, or NPP_COI_ERROR if an invalid channel of interest is specified. If the mask is filled with zeros, then all the returned values are zeros, i.e., pMinIndex = {0, 0}, pMaxIndex = {0, 0}, pMinValue = 0, pMaxValue = 0. If any of pMinValue, pMaxValue, pMinIndex, or pMaxIndex is not needed, zero pointer must be passed correspondingly.

7.98.2.8 NppStatus nppiMinMaxIndx_32f_C3CR (const Npp32f $*$ *pSrc*, int *nSrcStep*, NppiSize *oSizeROI*, int *nCOI*, Npp32f $*$ *pMinValue*, Npp32f $*$ *pMaxValue*, NppiPoint $*$ *pMinIndex*, NppiPoint $*$ *pMaxIndex*, Npp8u $*$ *pDeviceBuffer*)

Three-channel 32-bit floating point image MinMaxIndx affecting only single channel.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSizeROI Region-of-Interest (ROI).

nCOI Channel_of_Interest Number.

pMinValue Pointer to the minimum value.

pMaxValue Pointer to the maximum value.

pMinIndex Pointer to the indicies (X and Y coordinates) of the minimum value.

pMaxIndex Pointer to the indicies (X and Y coordinates) of the maximum value.

pDeviceBuffer Buffer to a scratch memory. Use nppiMinMaxIndxGetBufferHostSize_32f_C3CR to determine the minium number of bytes required.

Returns:

Image Data Related Error Codes, ROI Related Error Codes, NPP_NOT_EVEN_STEP_ERROR if an invalid floating-point image is specified, or NPP_COI_ERROR if an invalid channel of interest is specified. If any of pMinValue, pMaxValue, pMinIndex, or pMaxIndex is not needed, zero pointer must be passed correspondingly.

7.98.2.9 NppStatus nppiMinMaxIndx_8s_C1MR (const Npp8s ∗ *pSrc*, int *nSrcStep*, const Npp8u ∗ *pMask*, int *nMaskStep*, NppiSize *oSizeROI*, Npp8s ∗ *pMinValue*, Npp8s ∗ *pMaxValue*, NppiPoint ∗ *pMinIndex*, NppiPoint ∗ *pMaxIndex*, Npp8u ∗ *pDeviceBuffer*)

Masked one-channel 8-bit signed image MinMaxIndx.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pMask Mask-Image Pointer.

nMaskStep Mask-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pMinValue Pointer to the minimum value.

pMaxValue Pointer to the maximum value.

pMinIndex Pointer to the indicies (X and Y coordinates) of the minimum value.

pMaxIndex Pointer to the indicies (X and Y coordinates) of the maximum value.

pDeviceBuffer Buffer to a scratch memory. Use nppiMinMaxIndxGetBufferHostSize_8s_C1MR to determine the minium number of bytes required.

Returns:

Image Data Related Error Codes, ROI Related Error Codes. If the mask is filled with zeros, then all the returned values are zeros, i.e., pMinIndex = {0, 0}, pMaxIndex = {0, 0}, pMinValue = 0, pMaxValue = 0. If any of pMinValue, pMaxValue, pMinIndex, or pMaxIndex is not needed, zero pointer must be passed correspondingly.

7.98.2.10 NppStatus nppiMinMaxIndx_8s_C1R (const Npp8s ∗ *pSrc*, int *nSrcStep*, NppiSize *oSizeROI*, Npp8s ∗ *pMinValue*, Npp8s ∗ *pMaxValue*, NppiPoint ∗ *pMinIndex*, NppiPoint ∗ *pMaxIndex*, Npp8u ∗ *pDeviceBuffer*)

Computes the minimal and the maximal pixel values with their X and Y coordinates of 1-channel 8-bit signed char image.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pMinValue Pointer to the minimum value.

pMaxValue Pointer to the maximum value.

pMinIndex Pointer to the indicies (X and Y coordinates) of the minimum value.

pMaxIndex Pointer to the indicies (X and Y coordinates) of the maximum value.

pDeviceBuffer Buffer to a scratch memory. Use nppiMinMaxIndxGetBufferHostSize_8s_C1R to determine the minium number of bytes required.

Returns:

Image Data Related Error Codes, ROI Related Error Codes. If any of pMinValue, pMaxValue, pMinIndex, or pMaxIndex is not needed, zero pointer must be passed correspondingly.

7.98.2.11 NppStatus nppiMinMaxIndx_8s_C3CMR (const Npp8s ∗ *pSrc*, int *nSrcStep*, const Npp8u ∗ *pMask*, int *nMaskStep*, NppiSize *oSizeROI*, int *nCOI*, Npp8s ∗ *pMinValue*, Npp8s ∗ *pMaxValue*, NppiPoint ∗ *pMinIndex*, NppiPoint ∗ *pMaxIndex*, Npp8u ∗ *pDeviceBuffer*)

Masked three-channel 8-bit signed image MinMaxIndx affecting only single channel.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pMask Mask-Image Pointer.

nMaskStep Mask-Image Line Step.

oSizeROI Region-of-Interest (ROI).

nCOI Channel_of_Interest Number.

pMinValue Pointer to the minimum value.

pMaxValue Pointer to the maximum value.

pMinIndex Pointer to the indicies (X and Y coordinates) of the minimum value.

pMaxIndex Pointer to the indicies (X and Y coordinates) of the maximum value.

pDeviceBuffer Buffer to a scratch memory. Use nppiMinMaxIndxGetBufferHostSize_8s_C3CMR to determine the minium number of bytes required.

Returns:

Image Data Related Error Codes, ROI Related Error Codes, or NPP_COI_ERROR if an invalid channel of interest is specified. If the mask is filled with zeros, then all the returned values are zeros, i.e., pMinIndex = {0, 0}, pMaxIndex = {0, 0}, pMinValue = 0, pMaxValue = 0. If any of pMinValue, pMaxValue, pMinIndex, or pMaxIndex is not needed, zero pointer must be passed correspondingly.

7.98.2.12 NppStatus nppiMinMaxIndx_8s_C3CR (const Npp8s ∗ *pSrc*, int *nSrcStep*, NppiSize *oSizeROI*, int *nCOI*, Npp8s ∗ *pMinValue*, Npp8s ∗ *pMaxValue*, NppiPoint ∗ *pMinIndex*, NppiPoint ∗ *pMaxIndex*, Npp8u ∗ *pDeviceBuffer*)

Three-channel 8-bit signed image MinMaxIndx affecting only single channel.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSizeROI Region-of-Interest (ROI).

nCOI Channel_of_Interest Number.

pMinValue Pointer to the minimum value.

pMaxValue Pointer to the maximum value.

pMinIndex Pointer to the indicies (X and Y coordinates) of the minimum value.

pMaxIndex Pointer to the indicies (X and Y coordinates) of the maximum value.

pDeviceBuffer Buffer to a scratch memory. Use nppiMinMaxIndxGetBufferHostSize_8s_C3CR to determine the minium number of bytes required.

Returns:

Image Data Related Error Codes, ROI Related Error Codes, or NPP_COI_ERROR if an invalid channel of interest is specified. If any of pMinValue, pMaxValue, pMinIndex, or pMaxIndex is not needed, zero pointer must be passed correspondingly.

7.98.2.13 NppStatus nppiMinMaxIndx_8u_C1MR (const Npp8u $*$ *pSrc*, int *nSrcStep*, const Npp8u $*$ *pMask*, int *nMaskStep*, NppiSize *oSizeROI*, Npp8u $*$ *pMinValue*, Npp8u $*$ *pMaxValue*, NppiPoint $*$ *pMinIndex*, NppiPoint $*$ *pMaxIndex*, Npp8u $*$ *pDeviceBuffer*)

Masked one-channel 8-bit unsigned image MinMaxIndx.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pMask Mask-Image Pointer.

nMaskStep Mask-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pMinValue Pointer to the minimum value.

pMaxValue Pointer to the maximum value.

pMinIndex Pointer to the indicies (X and Y coordinates) of the minimum value.

pMaxIndex Pointer to the indicies (X and Y coordinates) of the maximum value.

pDeviceBuffer Buffer to a scratch memory. Use nppiMinMaxIndxGetBufferHostSize_8u_C1MR to determine the minium number of bytes required.

Returns:

Image Data Related Error Codes, ROI Related Error Codes. If the mask is filled with zeros, then all the returned values are zeros, i.e., pMinIndex = {0, 0}, pMaxIndex = {0, 0}, pMinValue = 0, pMaxValue = 0. If any of pMinValue, pMaxValue, pMinIndex, or pMaxIndex is not needed, zero pointer must be passed correspondingly.

7.98.2.14 NppStatus nppiMinMaxIndx_8u_C1R (const Npp8u $*$ *pSrc*, int *nSrcStep*, NppiSize *oSizeROI*, Npp8u $*$ *pMinValue*, Npp8u $*$ *pMaxValue*, NppiPoint $*$ *pMinIndex*, NppiPoint $*$ *pMaxIndex*, Npp8u $*$ *pDeviceBuffer*)

Computes the minimal and the maximal pixel values with their X and Y coordinates of 1-channel 8-bit unsigned char image.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pMinValue Pointer to the minimum value.

pMaxValue Pointer to the maximum value.

pMinIndex Pointer to the indicies (X and Y coordinates) of the minimum value.

pMaxIndex Pointer to the indicies (X and Y coordinates) of the maximum value.

pDeviceBuffer Buffer to a scratch memory. Use nppiMinMaxIndxGetBufferHostSize_8u_C1R to determine the minium number of bytes required.

Returns:

Image Data Related Error Codes, ROI Related Error Codes. If any of pMinValue, pMaxValue, pMinIndex, or pMaxIndex is not needed, zero pointer must be passed correspondingly.

7.98.2.15 NppStatus nppiMinMaxIndx_8u_C3CMR (const Npp8u $*$ *pSrc*, int *nSrcStep*, const Npp8u $*$ *pMask*, int *nMaskStep*, NppiSize *oSizeROI*, int *nCOI*, Npp8u $*$ *pMinValue*, Npp8u $*$ *pMaxValue*, NppiPoint $*$ *pMinIndex*, NppiPoint $*$ *pMaxIndex*, Npp8u $*$ *pDeviceBuffer*)

Masked three-channel 8-bit unsigned image MinMaxIndx affecting only single channel.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pMask Mask-Image Pointer.

nMaskStep Mask-Image Line Step.

oSizeROI Region-of-Interest (ROI).

nCOI Channel_of_Interest Number.

pMinValue Pointer to the minimum value.

pMaxValue Pointer to the maximum value.

pMinIndex Pointer to the indicies (X and Y coordinates) of the minimum value.

pMaxIndex Pointer to the indicies (X and Y coordinates) of the maximum value.

pDeviceBuffer Buffer to a scratch memory. Use nppiMinMaxIndxGetBufferHostSize_8u_C3CMR to determine the minium number of bytes required.

Returns:

Image Data Related Error Codes, ROI Related Error Codes, or NPP_COI_ERROR if an invalid channel of interest is specified. If the mask is filled with zeros, then all the returned values are zeros, i.e., pMinIndex = {0, 0}, pMaxIndex = {0, 0}, pMinValue = 0, pMaxValue = 0. If any of pMinValue, pMaxValue, pMinIndex, or pMaxIndex is not needed, zero pointer must be passed correspondingly.

7.98.2.16 NppStatus nppiMinMaxIndx_8u_C3CR (const Npp8u ∗ *pSrc*, int *nSrcStep*, NppiSize *oSizeROI*, int *nCOI*, Npp8u ∗ *pMinValue*, Npp8u ∗ *pMaxValue*, NppiPoint ∗ *pMinIndex*, NppiPoint ∗ *pMaxIndex*, Npp8u ∗ *pDeviceBuffer*)

Three-channel 8-bit unsigned image MinMaxIndx affecting only single channel.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSizeROI Region-of-Interest (ROI).

nCOI Channel_of_Interest Number.

pMinValue Pointer to the minimum value.

pMaxValue Pointer to the maximum value.

pMinIndex Pointer to the indicies (X and Y coordinates) of the minimum value.

pMaxIndex Pointer to the indicies (X and Y coordinates) of the maximum value.

pDeviceBuffer Buffer to a scratch memory. Use nppiMinMaxIndxGetBufferHostSize_8u_C3CR to determine the minium number of bytes required.

Returns:

Image Data Related Error Codes, ROI Related Error Codes, or NPP_COI_ERROR if an invalid channel of interest is specified. If any of pMinValue, pMaxValue, pMinIndex, or pMaxIndex is not needed, zero pointer must be passed correspondingly.

7.98.2.17 NppStatus nppiMinMaxIndxGetBufferHostSize_16u_C1MR (NppiSize *oSizeROI*, int ∗ *hpBufferSize*)

Buffer size for nppiMinMaxIndx_16u_C1MR.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.98.2.18 NppStatus nppiMinMaxIndxGetBufferHostSize_16u_C1R (NppiSize *oSizeROI*, int ∗ *hpBufferSize*)

Buffer size for nppiMinMaxIndx_16u_C1R.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.98.2.19 NppStatus nppiMinMaxIndxGetBufferHostSize_16u_C3CMR (NppiSize *oSizeROI*, int ∗ *hpBufferSize*)

Buffer size for nppiMinMaxIndx_16u_C3CMR.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.98.2.20 NppStatus nppiMinMaxIndxGetBufferHostSize_16u_C3CR (NppiSize *oSizeROI*, int ∗ *hpBufferSize*)

Buffer size for nppiMinMaxIndx_16u_C3CR.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.98.2.21 NppStatus nppiMinMaxIndxGetBufferHostSize_32f_C1MR (NppiSize *oSizeROI*, int ∗ *hpBufferSize*)

Buffer size for nppiMinMaxIndx_32f_C1MR.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.98.2.22 NppStatus nppiMinMaxIndxGetBufferHostSize_32f_C1R (NppiSize *oSizeROI*, int ∗ *hpBufferSize*)

Buffer size for nppiMinMaxIndx_32f_C1R.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.98.2.23 NppStatus nppiMinMaxIndxGetBufferHostSize_32f_C3CMR (NppiSize *oSizeROI*, int ∗ *hpBufferSize*)

Buffer size for nppiMinMaxIndx_32f_C3CMR.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.98.2.24 NppStatus nppiMinMaxIndxGetBufferHostSize_32f_C3CR (NppiSize *oSizeROI*, int ∗ *hpBufferSize*)

Buffer size for nppiMinMaxIndx_32f_C3CR.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.98.2.25 NppStatus nppiMinMaxIndxGetBufferHostSize_8s_C1MR (NppiSize *oSizeROI*, int ∗ *hpBufferSize*)

Buffer size for nppiMinMaxIndx_8s_C1MR.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.98.2.26 NppStatus nppiMinMaxIndxGetBufferHostSize_8s_C1R (NppiSize *oSizeROI*, int ∗ *hpBufferSize*)

Buffer size for nppiMinMaxIndx_8s_C1R.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.98.2.27 NppStatus nppiMinMaxIndxGetBufferHostSize_8s_C3CMR (NppiSize *oSizeROI*, int ∗ *hpBufferSize*)

Buffer size for nppiMinMaxIndx_8s_C3CMR.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.98.2.28 NppStatus nppiMinMaxIndxGetBufferHostSize_8s_C3CR (NppiSize *oSizeROI*, int ∗ *hpBufferSize*)

Buffer size for nppiMinMaxIndx_8s_C3CR.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.98.2.29 NppStatus nppiMinMaxIndxGetBufferHostSize_8u_C1MR (NppiSize *oSizeROI*, int ∗ *hpBufferSize*)

Buffer size for nppiMinMaxIndx_8u_C1MR.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.98.2.30 NppStatus nppiMinMaxIndxGetBufferHostSize_8u_C1R (NppiSize *oSizeROI*, int * *hpBufferSize*)

Buffer size for nppiMinMaxIndx_8u_C1R.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.98.2.31 NppStatus nppiMinMaxIndxGetBufferHostSize_8u_C3CMR (NppiSize *oSizeROI*, int * *hpBufferSize*)

Buffer size for nppiMinMaxIndx_8u_C3CMR.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.98.2.32 NppStatus nppiMinMaxIndxGetBufferHostSize_8u_C3CR (NppiSize *oSizeROI*, int * *hpBufferSize*)

Buffer size for nppiMinMaxIndx_8u_C3CR.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.99 Mean

Primitives for computing the arithmetic mean of all the pixel values in an image.

Mean

Given an image $pSrc$ with width W and height H, the arithmetic mean will be computed as

$$Mean = \frac{1}{W \cdot H} \sum_{j=0}^{H-1} \sum_{i=0}^{W-1} pSrc(j, i)$$

The mean functions require additional scratch buffer for computations.

- NppStatus nppiMean_8u_C1R (const Npp8u ∗pSrc, int nSrcStep, NppiSize oSizeROI, Npp8u ∗pDeviceBuffer, Npp64f ∗pMean)

  One-channel 8-bit unsigned image Mean.

- NppStatus nppiMean_16u_C1R (const Npp16u ∗pSrc, int nSrcStep, NppiSize oSizeROI, Npp8u ∗pDeviceBuffer, Npp64f ∗pMean)

  One-channel 16-bit unsigned image Mean.

- NppStatus nppiMean_16s_C1R (const Npp16s ∗pSrc, int nSrcStep, NppiSize oSizeROI, Npp8u ∗pDeviceBuffer, Npp64f ∗pMean)

  One-channel 16-bit signed image Mean.

- NppStatus nppiMean_32f_C1R (const Npp32f ∗pSrc, int nSrcStep, NppiSize oSizeROI, Npp8u ∗pDeviceBuffer, Npp64f ∗pMean)

  One-channel 32-bit floating point image Mean.

- NppStatus nppiMean_8u_C3R (const Npp8u ∗pSrc, int nSrcStep, NppiSize oSizeROI, Npp8u ∗pDeviceBuffer, Npp64f aMean[3])

  Three-channel 8-bit unsigned image Mean.

- NppStatus nppiMean_16u_C3R (const Npp16u ∗pSrc, int nSrcStep, NppiSize oSizeROI, Npp8u ∗pDeviceBuffer, Npp64f aMean[3])

  Three-channel 16-bit unsigned image Mean.

- NppStatus nppiMean_16s_C3R (const Npp16s ∗pSrc, int nSrcStep, NppiSize oSizeROI, Npp8u ∗pDeviceBuffer, Npp64f aMean[3])

  Three-channel 16-bit signed image Mean.

- NppStatus nppiMean_32f_C3R (const Npp32f ∗pSrc, int nSrcStep, NppiSize oSizeROI, Npp8u ∗pDeviceBuffer, Npp64f aMean[3])

  Three-channel 32-bit floating point image Mean.

- NppStatus nppiMean_8u_C4R (const Npp8u ∗pSrc, int nSrcStep, NppiSize oSizeROI, Npp8u ∗pDeviceBuffer, Npp64f aMean[4])

  Four-channel 8-bit unsigned image Mean.

- NppStatus nppiMean_16u_C4R (const Npp16u ∗pSrc, int nSrcStep, NppiSize oSizeROI, Npp8u ∗pDeviceBuffer, Npp64f aMean[4])

  Four-channel 16-bit unsigned image Mean.

- NppStatus nppiMean_16s_C4R (const Npp16s ∗pSrc, int nSrcStep, NppiSize oSizeROI, Npp8u ∗pDeviceBuffer, Npp64f aMean[4])

  Four-channel 16-bit signed image Mean.

- NppStatus nppiMean_32f_C4R (const Npp32f ∗pSrc, int nSrcStep, NppiSize oSizeROI, Npp8u ∗pDeviceBuffer, Npp64f aMean[4])

  Four-channel 32-bit floating point image Mean.

- NppStatus nppiMean_8u_AC4R (const Npp8u ∗pSrc, int nSrcStep, NppiSize oSizeROI, Npp8u ∗pDeviceBuffer, Npp64f aMean[3])

  Four-channel 8-bit unsigned image Mean ignoring alpha channel.

- NppStatus nppiMean_16u_AC4R (const Npp16u ∗pSrc, int nSrcStep, NppiSize oSizeROI, Npp8u ∗pDeviceBuffer, Npp64f aMean[3])

  Four-channel 16-bit unsigned image Mean ignoring alpha channel.

- NppStatus nppiMean_16s_AC4R (const Npp16s ∗pSrc, int nSrcStep, NppiSize oSizeROI, Npp8u ∗pDeviceBuffer, Npp64f aMean[3])

  Four-channel 16-bit signed image Mean ignoring alpha channel.

- NppStatus nppiMean_32f_AC4R (const Npp32f ∗pSrc, int nSrcStep, NppiSize oSizeROI, Npp8u ∗pDeviceBuffer, Npp64f aMean[3])

  Four-channel 32-bit floating point image Mean ignoring alpha channel.

Masked Mean

See Masked Operation.

- NppStatus nppiMean_8u_C1MR (const Npp8u ∗pSrc, int nSrcStep, const Npp8u ∗pMask, int nMaskStep, NppiSize oSizeROI, Npp8u ∗pDeviceBuffer, Npp64f ∗pMean)

  Masked one-channel 8-bit unsigned image Mean.

- NppStatus nppiMean_8s_C1MR (const Npp8s ∗pSrc, int nSrcStep, const Npp8u ∗pMask, int nMaskStep, NppiSize oSizeROI, Npp8u ∗pDeviceBuffer, Npp64f ∗pMean)

  Masked one-channel 8-bit signed image Mean.

- NppStatus nppiMean_16u_C1MR (const Npp16u ∗pSrc, int nSrcStep, const Npp8u ∗pMask, int nMaskStep, NppiSize oSizeROI, Npp8u ∗pDeviceBuffer, Npp64f ∗pMean)

  Masked one-channel 16-bit unsigned image Mean.

- NppStatus nppiMean_32f_C1MR (const Npp32f ∗pSrc, int nSrcStep, const Npp8u ∗pMask, int nMaskStep, NppiSize oSizeROI, Npp8u ∗pDeviceBuffer, Npp64f ∗pMean)

  Masked one-channel 32-bit floating point image Mean.

Masked Channel Mean

See Channel-of-Interest API and Masked Operation.

- NppStatus nppiMean_8u_C3CMR (const Npp8u ∗pSrc, int nSrcStep, const Npp8u ∗pMask, int nMaskStep, NppiSize oSizeROI, int nCOI, Npp8u ∗pDeviceBuffer, Npp64f ∗pMean)

  Masked three-channel 8-bit unsigned image Mean affecting only single channel.

- NppStatus nppiMean_8s_C3CMR (const Npp8s ∗pSrc, int nSrcStep, const Npp8u ∗pMask, int nMaskStep, NppiSize oSizeROI, int nCOI, Npp8u ∗pDeviceBuffer, Npp64f ∗pMean)

  Masked three-channel 8-bit signed image Mean affecting only single channel.

- NppStatus nppiMean_16u_C3CMR (const Npp16u ∗pSrc, int nSrcStep, const Npp8u ∗pMask, int nMaskStep, NppiSize oSizeROI, int nCOI, Npp8u ∗pDeviceBuffer, Npp64f ∗pMean)

  Masked three-channel 16-bit unsigned image Mean affecting only single channel.

- NppStatus nppiMean_32f_C3CMR (const Npp32f ∗pSrc, int nSrcStep, const Npp8u ∗pMask, int nMaskStep, NppiSize oSizeROI, int nCOI, Npp8u ∗pDeviceBuffer, Npp64f ∗pMean)

  Masked three-channel 32-bit floating point image Mean affecting only single channel.

MeanGetBufferHostSize

Companion primitives for computing the device buffer size (in bytes) required by the Mean primitives.

- NppStatus nppiMeanGetBufferHostSize_8u_C1R (NppiSize oSizeROI, int ∗hpBufferSize)

  Buffer size for nppiMean_8u_C1R.

- NppStatus nppiMeanGetBufferHostSize_16u_C1R (NppiSize oSizeROI, int ∗hpBufferSize)

  Buffer size for nppiMean_16u_C1R.

- NppStatus nppiMeanGetBufferHostSize_16s_C1R (NppiSize oSizeROI, int ∗hpBufferSize)

  Buffer size for nppiMean_16s_C1R.

- NppStatus nppiMeanGetBufferHostSize_32f_C1R (NppiSize oSizeROI, int ∗hpBufferSize)

  Buffer size for nppiMean_32f_C1R.

- NppStatus nppiMeanGetBufferHostSize_8u_C3R (NppiSize oSizeROI, int ∗hpBufferSize)

  Buffer size for nppiMean_8u_C3R.

- NppStatus nppiMeanGetBufferHostSize_16u_C3R (NppiSize oSizeROI, int ∗hpBufferSize)

  Buffer size for nppiMean_16u_C3R.

- NppStatus nppiMeanGetBufferHostSize_16s_C3R (NppiSize oSizeROI, int ∗hpBufferSize)

  Buffer size for nppiMean_16s_C3R.

- NppStatus nppiMeanGetBufferHostSize_32f_C3R (NppiSize oSizeROI, int ∗hpBufferSize)

  Buffer size for nppiMean_32f_C3R.

- NppStatus nppiMeanGetBufferHostSize_8u_AC4R (NppiSize oSizeROI, int ∗hpBufferSize)

Buffer size for nppiMean_8u_AC4R.

- NppStatus nppiMeanGetBufferHostSize_16u_AC4R (NppiSize oSizeROI, int ∗hpBufferSize)

  Buffer size for nppiMean_16u_AC4R.

- NppStatus nppiMeanGetBufferHostSize_16s_AC4R (NppiSize oSizeROI, int ∗hpBufferSize)

  Buffer size for nppiMean_16s_AC4R.

- NppStatus nppiMeanGetBufferHostSize_32f_AC4R (NppiSize oSizeROI, int ∗hpBufferSize)

  Buffer size for nppiMean_32f_AC4R.

- NppStatus nppiMeanGetBufferHostSize_8u_C4R (NppiSize oSizeROI, int ∗hpBufferSize)

  Buffer size for nppiMean_8u_C4R.

- NppStatus nppiMeanGetBufferHostSize_16u_C4R (NppiSize oSizeROI, int ∗hpBufferSize)

  Buffer size for nppiMean_16u_C4R.

- NppStatus nppiMeanGetBufferHostSize_16s_C4R (NppiSize oSizeROI, int ∗hpBufferSize)

  Buffer size for nppiMean_16s_C4R.

- NppStatus nppiMeanGetBufferHostSize_32f_C4R (NppiSize oSizeROI, int ∗hpBufferSize)

  Buffer size for nppiMean_32f_C4R.

- NppStatus nppiMeanGetBufferHostSize_8u_C1MR (NppiSize oSizeROI, int ∗hpBufferSize)

  Buffer size for nppiMean_8u_C1MR.

- NppStatus nppiMeanGetBufferHostSize_8s_C1MR (NppiSize oSizeROI, int ∗hpBufferSize)

  Buffer size for nppiMean_8s_C1MR.

- NppStatus nppiMeanGetBufferHostSize_16u_C1MR (NppiSize oSizeROI, int ∗hpBufferSize)

  Buffer size for nppiMean_16u_C1MR.

- NppStatus nppiMeanGetBufferHostSize_32f_C1MR (NppiSize oSizeROI, int ∗hpBufferSize)

  Buffer size for nppiMean_32f_C1MR.

- NppStatus nppiMeanGetBufferHostSize_8u_C3CMR (NppiSize oSizeROI, int ∗hpBufferSize)

  Buffer size for nppiMean_8u_C3CMR.

- NppStatus nppiMeanGetBufferHostSize_8s_C3CMR (NppiSize oSizeROI, int ∗hpBufferSize)

  Buffer size for nppiMean_8s_C3CMR.

- NppStatus nppiMeanGetBufferHostSize_16u_C3CMR (NppiSize oSizeROI, int ∗hpBufferSize)

  Buffer size for nppiMean_16u_C3CMR.

- NppStatus nppiMeanGetBufferHostSize_32f_C3CMR (NppiSize oSizeROI, int ∗hpBufferSize)

  Buffer size for nppiMean_32f_C3CMR.

7.99.1 Detailed Description

Primitives for computing the arithmetic mean of all the pixel values in an image.

7.99.2 Function Documentation

7.99.2.1 NppStatus nppiMean_16s_AC4R (const Npp16s $*$ *pSrc*, int *nSrcStep*, NppiSize *oSizeROI*, Npp8u $*$ *pDeviceBuffer*, Npp64f *aMean*[3])

Four-channel 16-bit signed image Mean ignoring alpha channel.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer Use nppiMeanGetBufferHostSize_16s_AC4R to determine the minium number of bytes required.

aMean Array that contains the computed mean results.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.99.2.2 NppStatus nppiMean_16s_C1R (const Npp16s $*$ *pSrc*, int *nSrcStep*, NppiSize *oSizeROI*, Npp8u $*$ *pDeviceBuffer*, Npp64f $*$ *pMean*)

One-channel 16-bit signed image Mean.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer Use nppiMeanGetBufferHostSize_16s_C1R to determine the minium number of bytes required.

pMean Pointer to the computed mean result.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.99.2.3 NppStatus nppiMean_16s_C3R (const Npp16s $*$ *pSrc*, int *nSrcStep*, NppiSize *oSizeROI*, Npp8u $*$ *pDeviceBuffer*, Npp64f *aMean*[3])

Three-channel 16-bit signed image Mean.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer Use nppiMeanGetBufferHostSize_16s_C3R to determine the minium number of bytes required.

aMean Array that contains the computed mean results.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.99.2.4 NppStatus nppiMean_16s_C4R (const Npp16s ∗ *pSrc*, int *nSrcStep*, NppiSize *oSizeROI*, Npp8u ∗ *pDeviceBuffer*, Npp64f *aMean*[4])

Four-channel 16-bit signed image Mean.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer Use nppiMeanGetBufferHostSize_16s_C4R to determine the minium number of bytes required.

aMean Array that contains the computed mean results.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.99.2.5 NppStatus nppiMean_16u_AC4R (const Npp16u ∗ *pSrc*, int *nSrcStep*, NppiSize *oSizeROI*, Npp8u ∗ *pDeviceBuffer*, Npp64f *aMean*[3])

Four-channel 16-bit unsigned image Mean ignoring alpha channel.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer Use nppiMeanGetBufferHostSize_16u_AC4R to determine the minium number of bytes required.

aMean Array that contains the computed mean results.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.99.2.6 NppStatus nppiMean_16u_C1MR (const Npp16u ∗ *pSrc*, int *nSrcStep*, const Npp8u ∗ *pMask*, int *nMaskStep*, NppiSize *oSizeROI*, Npp8u ∗ *pDeviceBuffer*, Npp64f ∗ *pMean*)

Masked one-channel 16-bit unsigned image Mean.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pMask Mask-Image Pointer.

nMaskStep Mask-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer Use nppiMeanGetBufferHostSize_16u_C1MR to determine the minium number of bytes required.

pMean Pointer to the computed mean result.

Returns:

Image Data Related Error Codes, ROI Related Error Codes.

7.99.2.7 NppStatus nppiMean_16u_C1R (const Npp16u * *pSrc*, int *nSrcStep*, NppiSize *oSizeROI*, Npp8u * *pDeviceBuffer*, Npp64f * *pMean*)

One-channel 16-bit unsigned image Mean.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer Use nppiMeanGetBufferHostSize_16u_C1R to determine the minium number of bytes required.

pMean Pointer to the computed mean result.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.99.2.8 NppStatus nppiMean_16u_C3CMR (const Npp16u * *pSrc*, int *nSrcStep*, const Npp8u * *pMask*, int *nMaskStep*, NppiSize *oSizeROI*, int *nCOI*, Npp8u * *pDeviceBuffer*, Npp64f * *pMean*)

Masked three-channel 16-bit unsigned image Mean affecting only single channel.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pMask Mask-Image Pointer.

nMaskStep Mask-Image Line Step.

oSizeROI Region-of-Interest (ROI).

nCOI Channel_of_Interest Number.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer Use nppiMeanGetBufferHostSize_16u_C3CMR to determine the minium number of bytes required.

pMean Pointer to the computed mean result.

Returns:

Image Data Related Error Codes, ROI Related Error Codes, or NPP_COI_ERROR if an invalid channel of interest is specified.

7.99.2.9 NppStatus nppiMean_16u_C3R (const Npp16u ∗ *pSrc*, int *nSrcStep*, NppiSize *oSizeROI*, Npp8u ∗ *pDeviceBuffer*, Npp64f *aMean*[3])

Three-channel 16-bit unsigned image Mean.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer Use nppiMeanGetBufferHostSize_16u_C3R to determine the minium number of bytes required.

aMean Array that contains the computed mean results.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.99.2.10 NppStatus nppiMean_16u_C4R (const Npp16u ∗ *pSrc*, int *nSrcStep*, NppiSize *oSizeROI*, Npp8u ∗ *pDeviceBuffer*, Npp64f *aMean*[4])

Four-channel 16-bit unsigned image Mean.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer Use nppiMeanGetBufferHostSize_16u_C4R to determine the minium number of bytes required.

aMean Array that contains the computed mean results.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.99.2.11 NppStatus nppiMean_32f_AC4R (const Npp32f ∗ *pSrc*, int *nSrcStep*, NppiSize *oSizeROI*, Npp8u ∗ *pDeviceBuffer*, Npp64f *aMean*[3])

Four-channel 32-bit floating point image Mean ignoring alpha channel.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer Use nppiMeanGetBufferHostSize_32f_AC4R to determine the minium number of bytes required.

aMean Array that contains the computed mean results.

Returns:

Image Data Related Error Codes, ROI Related Error Codes, NPP_NOT_EVEN_STEP_ERROR if an invalid floating-point image is specified.

7.99.2.12 NppStatus nppiMean_32f_C1MR (const Npp32f $*$ *pSrc*, int *nSrcStep*, const Npp8u $*$ *pMask*, int *nMaskStep*, NppiSize *oSizeROI*, Npp8u $*$ *pDeviceBuffer*, Npp64f $*$ *pMean*)

Masked one-channel 32-bit floating point image Mean.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pMask Mask-Image Pointer.

nMaskStep Mask-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer Use nppiMeanGetBufferHostSize_32f_C1MR to determine the minium number of bytes required.

pMean Pointer to the computed mean result.

Returns:

Image Data Related Error Codes, ROI Related Error Codes, NPP_NOT_EVEN_STEP_ERROR if an invalid floating-point image is specified.

7.99.2.13 NppStatus nppiMean_32f_C1R (const Npp32f $*$ *pSrc*, int *nSrcStep*, NppiSize *oSizeROI*, Npp8u $*$ *pDeviceBuffer*, Npp64f $*$ *pMean*)

One-channel 32-bit floating point image Mean.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer Use nppiMeanGetBufferHostSize_32f_C1R to determine the minium number of bytes required.

pMean Pointer to the computed mean result.

Returns:

Image Data Related Error Codes, ROI Related Error Codes, NPP_NOT_EVEN_STEP_ERROR if an invalid floating-point image is specified.

7.99.2.14 NppStatus nppiMean_32f_C3CMR (const Npp32f ∗ *pSrc*, int *nSrcStep*, const Npp8u ∗ *pMask*, int *nMaskStep*, NppiSize *oSizeROI*, int *nCOI*, Npp8u ∗ *pDeviceBuffer*, Npp64f ∗ *pMean*)

Masked three-channel 32-bit floating point image Mean affecting only single channel.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pMask Mask-Image Pointer.

nMaskStep Mask-Image Line Step.

oSizeROI Region-of-Interest (ROI).

nCOI Channel_of_Interest Number.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer Use nppiMeanGetBufferHostSize_32f_C3CMR to determine the minium number of bytes required.

pMean Pointer to the computed mean result.

Returns:

Image Data Related Error Codes, ROI Related Error Codes, NPP_NOT_EVEN_STEP_ERROR if an invalid floating-point image is specified, or NPP_COI_ERROR if an invalid channel of interest is specified.

7.99.2.15 NppStatus nppiMean_32f_C3R (const Npp32f ∗ *pSrc*, int *nSrcStep*, NppiSize *oSizeROI*, Npp8u ∗ *pDeviceBuffer*, Npp64f *aMean*[3])

Three-channel 32-bit floating point image Mean.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer Use nppiMeanGetBufferHostSize_32f_C3R to determine the minium number of bytes required.

aMean Array that contains the computed mean results.

Returns:

Image Data Related Error Codes, ROI Related Error Codes, NPP_NOT_EVEN_STEP_ERROR if an invalid floating-point image is specified.

7.99.2.16 NppStatus nppiMean_32f_C4R (const Npp32f ∗ *pSrc*, int *nSrcStep*, NppiSize *oSizeROI*, Npp8u ∗ *pDeviceBuffer*, Npp64f *aMean*[4])

Four-channel 32-bit floating point image Mean.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer Use nppiMeanGetBufferHostSize_32f_C4R to determine the minium number of bytes required.

aMean Array that contains the computed mean results.

Returns:

Image Data Related Error Codes, ROI Related Error Codes, NPP_NOT_EVEN_STEP_ERROR if an invalid floating-point image is specified.

7.99.2.17 NppStatus nppiMean_8s_C1MR (const Npp8s * *pSrc*, int *nSrcStep*, const Npp8u * *pMask*, int *nMaskStep*, NppiSize *oSizeROI*, Npp8u * *pDeviceBuffer*, Npp64f * *pMean*)

Masked one-channel 8-bit signed image Mean.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pMask Mask-Image Pointer.

nMaskStep Mask-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer Use nppiMeanGetBufferHostSize_8s_C1MR to determine the minium number of bytes required.

pMean Pointer to the computed mean result.

Returns:

Image Data Related Error Codes, ROI Related Error Codes.

7.99.2.18 NppStatus nppiMean_8s_C3CMR (const Npp8s * *pSrc*, int *nSrcStep*, const Npp8u * *pMask*, int *nMaskStep*, NppiSize *oSizeROI*, int *nCOI*, Npp8u * *pDeviceBuffer*, Npp64f * *pMean*)

Masked three-channel 8-bit signed image Mean affecting only single channel.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pMask Mask-Image Pointer.

nMaskStep Mask-Image Line Step.

oSizeROI Region-of-Interest (ROI).

nCOI Channel_of_Interest Number.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer Use nppiMeanGetBufferHostSize_8s_C3CMR to determine the minium number of bytes required.

pMean Pointer to the computed mean result.

Returns:

Image Data Related Error Codes, ROI Related Error Codes, or NPP_COI_ERROR if an invalid channel of interest is specified.

7.99.2.19 NppStatus nppiMean_8u_AC4R (const Npp8u ∗ *pSrc*, int *nSrcStep*, NppiSize *oSizeROI*, Npp8u ∗ *pDeviceBuffer*, Npp64f *aMean*[3])

Four-channel 8-bit unsigned image Mean ignoring alpha channel.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer Use nppiMeanGetBufferHostSize_8u_AC4R to determine the minium number of bytes required.

aMean Array that contains the computed mean results.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.99.2.20 NppStatus nppiMean_8u_C1MR (const Npp8u ∗ *pSrc*, int *nSrcStep*, const Npp8u ∗ *pMask*, int *nMaskStep*, NppiSize *oSizeROI*, Npp8u ∗ *pDeviceBuffer*, Npp64f ∗ *pMean*)

Masked one-channel 8-bit unsigned image Mean.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pMask Mask-Image Pointer.

nMaskStep Mask-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer Use nppiMeanGetBufferHostSize_8u_C1MR to determine the minium number of bytes required.

pMean Pointer to the computed mean result.

Returns:

Image Data Related Error Codes, ROI Related Error Codes.

7.99.2.21 NppStatus nppiMean_8u_C1R (const Npp8u ∗ *pSrc*, int *nSrcStep*, NppiSize *oSizeROI*, Npp8u ∗ *pDeviceBuffer*, Npp64f ∗ *pMean*)

One-channel 8-bit unsigned image Mean.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer Use nppiMeanGetBufferHostSize_8u_C1R to determine the minium number of bytes required.

pMean Pointer to the computed mean result.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.99.2.22 NppStatus nppiMean_8u_C3CMR (const Npp8u ∗ *pSrc*, int *nSrcStep*, const Npp8u ∗ *pMask*, int *nMaskStep*, NppiSize *oSizeROI*, int *nCOI*, Npp8u ∗ *pDeviceBuffer*, Npp64f ∗ *pMean*)

Masked three-channel 8-bit unsigned image Mean affecting only single channel.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pMask Mask-Image Pointer.

nMaskStep Mask-Image Line Step.

oSizeROI Region-of-Interest (ROI).

nCOI Channel_of_Interest Number.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer Use nppiMeanGetBufferHostSize_8u_C3CMR to determine the minium number of bytes required.

pMean Pointer to the computed mean result.

Returns:

Image Data Related Error Codes, ROI Related Error Codes, or NPP_COI_ERROR if an invalid channel of interest is specified.

7.99.2.23 NppStatus nppiMean_8u_C3R (const Npp8u ∗ *pSrc*, int *nSrcStep*, NppiSize *oSizeROI*, Npp8u ∗ *pDeviceBuffer*, Npp64f *aMean*[3])

Three-channel 8-bit unsigned image Mean.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer Use nppiMeanGetBufferHostSize_8u_C3R to determine the minium number of bytes required.

aMean Array that contains the computed mean results.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.99.2.24 NppStatus nppiMean_8u_C4R (const Npp8u ∗ *pSrc*, int *nSrcStep*, NppiSize *oSizeROI*, Npp8u ∗ *pDeviceBuffer*, Npp64f *aMean*[4])

Four-channel 8-bit unsigned image Mean.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer Use nppiMeanGetBufferHostSize_8u_C4R to determine the minium number of bytes required.

aMean Array that contains the computed mean results.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.99.2.25 NppStatus nppiMeanGetBufferHostSize_16s_AC4R (NppiSize *oSizeROI*, int ∗ *hpBufferSize*)

Buffer size for nppiMean_16s_AC4R.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.99.2.26 NppStatus nppiMeanGetBufferHostSize_16s_C1R (NppiSize *oSizeROI*, int ∗ *hpBufferSize*)

Buffer size for nppiMean_16s_C1R.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.99.2.27 NppStatus nppiMeanGetBufferHostSize_16s_C3R (NppiSize *oSizeROI*, int ∗ *hpBufferSize*)

Buffer size for nppiMean_16s_C3R.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.99.2.28 NppStatus nppiMeanGetBufferHostSize_16s_C4R (NppiSize *oSizeROI*, int ∗ *hpBufferSize*)

Buffer size for nppiMean_16s_C4R.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.99.2.29 NppStatus nppiMeanGetBufferHostSize_16u_AC4R (NppiSize *oSizeROI*, int ∗ *hpBufferSize*)

Buffer size for nppiMean_16u_AC4R.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.99.2.30 NppStatus nppiMeanGetBufferHostSize_16u_C1MR (NppiSize *oSizeROI*, int ∗ *hpBufferSize*)

Buffer size for nppiMean_16u_C1MR.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.99.2.31 NppStatus nppiMeanGetBufferHostSize_16u_C1R (NppiSize *oSizeROI*, int ∗ *hpBufferSize*)

Buffer size for nppiMean_16u_C1R.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.99.2.32 NppStatus nppiMeanGetBufferHostSize_16u_C3CMR (NppiSize *oSizeROI*, int ∗ *hpBufferSize*)

Buffer size for nppiMean_16u_C3CMR.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.99.2.33 NppStatus nppiMeanGetBufferHostSize_16u_C3R (NppiSize *oSizeROI*, int ∗ *hpBufferSize*)

Buffer size for nppiMean_16u_C3R.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.99.2.34 NppStatus nppiMeanGetBufferHostSize_16u_C4R (NppiSize *oSizeROI*, int * *hpBufferSize*)

Buffer size for nppiMean_16u_C4R.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.99.2.35 NppStatus nppiMeanGetBufferHostSize_32f_AC4R (NppiSize *oSizeROI*, int * *hpBufferSize*)

Buffer size for nppiMean_32f_AC4R.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.99.2.36 NppStatus nppiMeanGetBufferHostSize_32f_C1MR (NppiSize *oSizeROI*, int * *hpBufferSize*)

Buffer size for nppiMean_32f_C1MR.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.99.2.37 NppStatus nppiMeanGetBufferHostSize_32f_C1R (NppiSize *oSizeROI*, int ∗ *hpBufferSize*)

Buffer size for nppiMean_32f_C1R.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.99.2.38 NppStatus nppiMeanGetBufferHostSize_32f_C3CMR (NppiSize *oSizeROI*, int ∗ *hpBufferSize*)

Buffer size for nppiMean_32f_C3CMR.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.99.2.39 NppStatus nppiMeanGetBufferHostSize_32f_C3R (NppiSize *oSizeROI*, int ∗ *hpBufferSize*)

Buffer size for nppiMean_32f_C3R.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.99.2.40 NppStatus nppiMeanGetBufferHostSize_32f_C4R (NppiSize *oSizeROI*, int ∗ *hpBufferSize*)

Buffer size for nppiMean_32f_C4R.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.99.2.41 NppStatus nppiMeanGetBufferHostSize_8s_C1MR (NppiSize *oSizeROI*, int ∗ *hpBufferSize*)

Buffer size for nppiMean_8s_C1MR.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.99.2.42 NppStatus nppiMeanGetBufferHostSize_8s_C3CMR (NppiSize *oSizeROI*, int ∗ *hpBufferSize*)

Buffer size for nppiMean_8s_C3CMR.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.99.2.43 NppStatus nppiMeanGetBufferHostSize_8u_AC4R (NppiSize *oSizeROI*, int ∗ *hpBufferSize*)

Buffer size for nppiMean_8u_AC4R.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.99.2.44 NppStatus nppiMeanGetBufferHostSize_8u_C1MR (NppiSize *oSizeROI*, int ∗ *hpBufferSize*)

Buffer size for nppiMean_8u_C1MR.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.99.2.45 NppStatus nppiMeanGetBufferHostSize_8u_C1R (NppiSize *oSizeROI*, int ∗ *hpBufferSize*)

Buffer size for nppiMean_8u_C1R.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.99.2.46 NppStatus nppiMeanGetBufferHostSize_8u_C3CMR (NppiSize *oSizeROI*, int ∗ *hpBufferSize*)

Buffer size for nppiMean_8u_C3CMR.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.99.2.47 NppStatus nppiMeanGetBufferHostSize_8u_C3R (NppiSize *oSizeROI*, int ∗ *hpBufferSize*)

Buffer size for nppiMean_8u_C3R.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.99.2.48 NppStatus nppiMeanGetBufferHostSize_8u_C4R (NppiSize *oSizeROI*, int * *hpBufferSize*)

Buffer size for nppiMean_8u_C4R.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.100 Mean_StdDev

Primitives for computing both the arithmetic mean and the standard deviation of an image.

Mean_StdDev

Given an image $pSrc$ with width W and height H, the mean and the standard deviation will be computed as

$$Mean = \frac{1}{W \cdot H} \sum_{j=0}^{H-1} \sum_{i=0}^{W-1} pSrc(j,i)$$

$$StdDev = \sqrt{\frac{1}{W \cdot H} \sum_{j=0}^{H-1} \sum_{i=0}^{W-1} (pSrc(j,i) - Mean)^2}$$

The Mean_StdDev primitives require additional scratch buffer for computations.

- NppStatus nppiMean_StdDev_8u_C1R (const Npp8u ∗pSrc, int nSrcStep, NppiSize oSizeROI, Npp8u ∗pDeviceBuffer, Npp64f ∗pMean, Npp64f ∗pStdDev)

  One-channel 8-bit unsigned image Mean_StdDev.

- NppStatus nppiMean_StdDev_8s_C1R (const Npp8s ∗pSrc, int nSrcStep, NppiSize oSizeROI, Npp8u ∗pDeviceBuffer, Npp64f ∗pMean, Npp64f ∗pStdDev)

  One-channel 8-bit signed image Mean_StdDev.

- NppStatus nppiMean_StdDev_16u_C1R (const Npp16u ∗pSrc, int nSrcStep, NppiSize oSizeROI, Npp8u ∗pDeviceBuffer, Npp64f ∗pMean, Npp64f ∗pStdDev)

  One-channel 16-bit unsigned image Mean_StdDev.

- NppStatus nppiMean_StdDev_32f_C1R (const Npp32f ∗pSrc, int nSrcStep, NppiSize oSizeROI, Npp8u ∗pDeviceBuffer, Npp64f ∗pMean, Npp64f ∗pStdDev)

  One-channel 32-bit floating point image Mean_StdDev.

Masked Mean_StdDev

See Masked Operation.

- NppStatus nppiMean_StdDev_8u_C1MR (const Npp8u ∗pSrc, int nSrcStep, const Npp8u ∗pMask, int nMaskStep, NppiSize oSizeROI, Npp8u ∗pDeviceBuffer, Npp64f ∗pMean, Npp64f ∗pStdDev)

  Masked one-channel 8-bit unsigned image Mean_StdDev.

- NppStatus nppiMean_StdDev_8s_C1MR (const Npp8s ∗pSrc, int nSrcStep, const Npp8u ∗pMask, int nMaskStep, NppiSize oSizeROI, Npp8u ∗pDeviceBuffer, Npp64f ∗pMean, Npp64f ∗pStdDev)

  Masked one-channel 8-bit signed image Mean_StdDev.

- NppStatus nppiMean_StdDev_16u_C1MR (const Npp16u ∗pSrc, int nSrcStep, const Npp8u ∗pMask, int nMaskStep, NppiSize oSizeROI, Npp8u ∗pDeviceBuffer, Npp64f ∗pMean, Npp64f ∗pStdDev)

  Masked one-channel 16-bit unsigned image Mean_StdDev.

- NppStatus nppiMean_StdDev_32f_C1MR (const Npp32f ∗pSrc, int nSrcStep, const Npp8u ∗pMask, int nMaskStep, NppiSize oSizeROI, Npp8u ∗pDeviceBuffer, Npp64f ∗pMean, Npp64f ∗pStdDev)

  Masked one-channel 32-bit floating point image Mean_StdDev.

Channel Mean_StdDev

See Channel-of-Interest API.

- NppStatus nppiMean_StdDev_8u_C3CR (const Npp8u ∗pSrc, int nSrcStep, NppiSize oSizeROI, int nCOI, Npp8u ∗pDeviceBuffer, Npp64f ∗pMean, Npp64f ∗pStdDev)

  Three-channel 8-bit unsigned image Mean_StdDev affecting only single channel.

- NppStatus nppiMean_StdDev_8s_C3CR (const Npp8s ∗pSrc, int nSrcStep, NppiSize oSizeROI, int nCOI, Npp8u ∗pDeviceBuffer, Npp64f ∗pMean, Npp64f ∗pStdDev)

  Three-channel 8-bit signed image Mean_StdDev affecting only single channel.

- NppStatus nppiMean_StdDev_16u_C3CR (const Npp16u ∗pSrc, int nSrcStep, NppiSize oSizeROI, int nCOI, Npp8u ∗pDeviceBuffer, Npp64f ∗pMean, Npp64f ∗pStdDev)

  Three-channel 16-bit unsigned image Mean_StdDev affecting only single channel.

- NppStatus nppiMean_StdDev_32f_C3CR (const Npp32f ∗pSrc, int nSrcStep, NppiSize oSizeROI, int nCOI, Npp8u ∗pDeviceBuffer, Npp64f ∗pMean, Npp64f ∗pStdDev)

  Three-channel 32-bit floating point image Mean_StdDev affecting only single channel.

Masked Channel Mean_StdDev

See Masked Operation and Channel-of-Interest API.

- NppStatus nppiMean_StdDev_8u_C3CMR (const Npp8u ∗pSrc, int nSrcStep, const Npp8u ∗pMask, int nMaskStep, NppiSize oSizeROI, int nCOI, Npp8u ∗pDeviceBuffer, Npp64f ∗pMean, Npp64f ∗pStdDev)

  Masked three-channel 8-bit unsigned image Mean_StdDev.

- NppStatus nppiMean_StdDev_8s_C3CMR (const Npp8s ∗pSrc, int nSrcStep, const Npp8u ∗pMask, int nMaskStep, NppiSize oSizeROI, int nCOI, Npp8u ∗pDeviceBuffer, Npp64f ∗pMean, Npp64f ∗pStdDev)

  Masked three-channel 8-bit signed image Mean_StdDev.

- NppStatus nppiMean_StdDev_16u_C3CMR (const Npp16u ∗pSrc, int nSrcStep, const Npp8u ∗pMask, int nMaskStep, NppiSize oSizeROI, int nCOI, Npp8u ∗pDeviceBuffer, Npp64f ∗pMean, Npp64f ∗pStdDev)

  Masked three-channel 16-bit unsigned image Mean_StdDev.

- NppStatus nppiMean_StdDev_32f_C3CMR (const Npp32f ∗pSrc, int nSrcStep, const Npp8u ∗pMask, int nMaskStep, NppiSize oSizeROI, int nCOI, Npp8u ∗pDeviceBuffer, Npp64f ∗pMean, Npp64f ∗pStdDev)

  Masked three-channel 32-bit floating point image Mean_StdDev.

MeanStdDevGetBufferHostSize

Companion primitives for computing the device buffer size (in bytes) required by the Mean_StdDev primitives.

- NppStatus nppiMeanStdDevGetBufferHostSize_8u_C1R (NppiSize oSizeROI, int ∗hpBufferSize)

  Buffer size for nppiMean_StdDev_8u_C1R.

- NppStatus nppiMeanStdDevGetBufferHostSize_8s_C1R (NppiSize oSizeROI, int ∗hpBufferSize)

  Buffer size for nppiMean_StdDev_8s_C1R.

- NppStatus nppiMeanStdDevGetBufferHostSize_16u_C1R (NppiSize oSizeROI, int ∗hpBufferSize)

  Buffer size for nppiMean_StdDev_16u_C1R.

- NppStatus nppiMeanStdDevGetBufferHostSize_32f_C1R (NppiSize oSizeROI, int ∗hpBufferSize)

  Buffer size for nppiMean_StdDev_32f_C1R.

- NppStatus nppiMeanStdDevGetBufferHostSize_8u_C1MR (NppiSize oSizeROI, int ∗hpBufferSize)

  Buffer size for nppiMean_StdDev_8u_C1MR.

- NppStatus nppiMeanStdDevGetBufferHostSize_8s_C1MR (NppiSize oSizeROI, int ∗hpBufferSize)

  Buffer size for nppiMean_StdDev_8s_C1MR.

- NppStatus nppiMeanStdDevGetBufferHostSize_16u_C1MR (NppiSize oSizeROI, int ∗hpBufferSize)

  Buffer size for nppiMean_StdDev_16u_C1MR.

- NppStatus nppiMeanStdDevGetBufferHostSize_32f_C1MR (NppiSize oSizeROI, int ∗hpBufferSize)

  Buffer size for nppiMean_StdDev_32f_C1MR.

- NppStatus nppiMeanStdDevGetBufferHostSize_8u_C3CR (NppiSize oSizeROI, int ∗hpBufferSize)

  Buffer size for nppiMean_StdDev_8u_C3CR.

- NppStatus nppiMeanStdDevGetBufferHostSize_8s_C3CR (NppiSize oSizeROI, int ∗hpBufferSize)

  Buffer size for nppiMean_StdDev_8s_C3CR.

- NppStatus nppiMeanStdDevGetBufferHostSize_16u_C3CR (NppiSize oSizeROI, int ∗hpBufferSize)

  Buffer size for nppiMean_StdDev_16u_C3CR.

- NppStatus nppiMeanStdDevGetBufferHostSize_32f_C3CR (NppiSize oSizeROI, int ∗hpBufferSize)

  Buffer size for nppiMean_StdDev_32f_C3CR.

- NppStatus nppiMeanStdDevGetBufferHostSize_8u_C3CMR (NppiSize oSizeROI, int ∗hpBufferSize)

  Buffer size for nppiMean_StdDev_8u_C3CMR.

- NppStatus nppiMeanStdDevGetBufferHostSize_8s_C3CMR (NppiSize oSizeROI, int ∗hpBufferSize)

  Buffer size for nppiMean_StdDev_8s_C3CMR.

- NppStatus nppiMeanStdDevGetBufferHostSize_16u_C3CMR (NppiSize oSizeROI, int ∗hpBufferSize)

  Buffer size for nppiMean_StdDev_16u_C3CMR.

- NppStatus nppiMeanStdDevGetBufferHostSize_32f_C3CMR (NppiSize oSizeROI, int ∗hpBufferSize)

  Buffer size for nppiMean_StdDev_32f_C3CMR.

7.100.1 Detailed Description

Primitives for computing both the arithmetic mean and the standard deviation of an image.

7.100.2 Function Documentation

7.100.2.1 NppStatus nppiMean_StdDev_16u_C1MR (const Npp16u ∗ *pSrc*, int *nSrcStep*, const Npp8u ∗ *pMask*, int *nMaskStep*, NppiSize *oSizeROI*, Npp8u ∗ *pDeviceBuffer*, Npp64f ∗ *pMean*, Npp64f ∗ *pStdDev*)

Masked one-channel 16-bit unsigned image Mean_StdDev.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pMask Mask-Image Pointer.

nMaskStep Mask-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer Use nppiMeanStdDevGetBufferHostSize_16u_C1MR to determine the minium number of bytes required.

pMean Pointer to the computed mean.

pStdDev Pointer to the computed standard deviation.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.100.2.2 NppStatus nppiMean_StdDev_16u_C1R (const Npp16u ∗ *pSrc*, int *nSrcStep*, NppiSize *oSizeROI*, Npp8u ∗ *pDeviceBuffer*, Npp64f ∗ *pMean*, Npp64f ∗ *pStdDev*)

One-channel 16-bit unsigned image Mean_StdDev.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer Use nppiMeanStdDevGetBufferHostSize_16u_C1R to determine the minium number of bytes required.

pMean Pointer to the computed mean.

pStdDev Pointer to the computed standard deviation.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.100.2.3 NppStatus nppiMean_StdDev_16u_C3CMR (const Npp16u ∗ *pSrc*, int *nSrcStep*, const Npp8u ∗ *pMask*, int *nMaskStep*, NppiSize *oSizeROI*, int *nCOI*, Npp8u ∗ *pDeviceBuffer*, Npp64f ∗ *pMean*, Npp64f ∗ *pStdDev*)

Masked three-channel 16-bit unsigned image Mean_StdDev.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pMask Mask-Image Pointer.

nMaskStep Mask-Image Line Step.

oSizeROI Region-of-Interest (ROI).

nCOI Channel_of_Interest Number.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer Use nppiMeanStdDevGetBufferHostSize_16u_C3CMR to determine the minium number of bytes required.

pMean Pointer to the computed mean.

pStdDev Pointer to the computed standard deviation.

Returns:

Image Data Related Error Codes, ROI Related Error Codes, or NPP_COI_ERROR if an invalid channel of interest is specified.

7.100.2.4 NppStatus nppiMean_StdDev_16u_C3CR (const Npp16u * *pSrc*, int *nSrcStep*, NppiSize *oSizeROI*, int *nCOI*, Npp8u * *pDeviceBuffer*, Npp64f * *pMean*, Npp64f * *pStdDev*)

Three-channel 16-bit unsigned image Mean_StdDev affecting only single channel.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSizeROI Region-of-Interest (ROI).

nCOI Channel_of_Interest Number.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer Use nppiMeanStdDevGetBufferHostSize_16u_C3CR to determine the minium number of bytes required.

pMean Pointer to the computed mean.

pStdDev Pointer to the computed standard deviation.

Returns:

Image Data Related Error Codes, ROI Related Error Codes, or NPP_COI_ERROR if an invalid channel of interest is specified.

7.100.2.5 NppStatus nppiMean_StdDev_32f_C1MR (const Npp32f * *pSrc*, int *nSrcStep*, const Npp8u * *pMask*, int *nMaskStep*, NppiSize *oSizeROI*, Npp8u * *pDeviceBuffer*, Npp64f * *pMean*, Npp64f * *pStdDev*)

Masked one-channel 32-bit floating point image Mean_StdDev.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pMask Mask-Image Pointer.

nMaskStep Mask-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer Use nppiMeanStdDevGetBufferHostSize_32f_C1MR to determine the minium number of bytes required.

pMean Pointer to the computed mean.

pStdDev Pointer to the computed standard deviation.

Returns:

Image Data Related Error Codes, ROI Related Error Codes, or NPP_NOT_EVEN_STEP_ERROR if an invalid floating-point image is specified.

7.100.2.6 NppStatus nppiMean_StdDev_32f_C1R (const Npp32f ∗ *pSrc*, int *nSrcStep*, NppiSize *oSizeROI*, Npp8u ∗ *pDeviceBuffer*, Npp64f ∗ *pMean*, Npp64f ∗ *pStdDev*)

One-channel 32-bit floating point image Mean_StdDev.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer Use nppiMeanStdDevGetBufferHostSize_32f_C1R to determine the minium number of bytes required.

pMean Pointer to the computed mean.

pStdDev Pointer to the computed standard deviation.

Returns:

Image Data Related Error Codes, ROI Related Error Codes, or NPP_NOT_EVEN_STEP_ERROR if an invalid floating-point image is specified.

7.100.2.7 NppStatus nppiMean_StdDev_32f_C3CMR (const Npp32f ∗ *pSrc*, int *nSrcStep*, const Npp8u ∗ *pMask*, int *nMaskStep*, NppiSize *oSizeROI*, int *nCOI*, Npp8u ∗ *pDeviceBuffer*, Npp64f ∗ *pMean*, Npp64f ∗ *pStdDev*)

Masked three-channel 32-bit floating point image Mean_StdDev.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pMask Mask-Image Pointer.

nMaskStep Mask-Image Line Step.

oSizeROI Region-of-Interest (ROI).

nCOI Channel_of_Interest Number.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer Use nppiMeanStdDevGetBufferHostSize_32f_C3CMR to determine the minium number of bytes required.

pMean Pointer to the computed mean.

pStdDev Pointer to the computed standard deviation.

Returns:

Image Data Related Error Codes, ROI Related Error Codes, NPP_NOT_EVEN_STEP_ERROR if an invalid floating-point image is specified, or NPP_COI_ERROR if an invalid channel of interest is specified.

7.100.2.8 NppStatus nppiMean_StdDev_32f_C3CR (const Npp32f ∗ *pSrc*, int *nSrcStep*, NppiSize *oSizeROI*, int *nCOI*, Npp8u ∗ *pDeviceBuffer*, Npp64f ∗ *pMean*, Npp64f ∗ *pStdDev*)

Three-channel 32-bit floating point image Mean_StdDev affecting only single channel.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSizeROI Region-of-Interest (ROI).

nCOI Channel_of_Interest Number.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer Use nppiMeanStdDevGetBufferHostSize_32f_C3CR to determine the minium number of bytes required.

pMean Pointer to the computed mean.

pStdDev Pointer to the computed standard deviation.

Returns:

Image Data Related Error Codes, ROI Related Error Codes, NPP_NOT_EVEN_STEP_ERROR if an invalid floating-point image is specified, or NPP_COI_ERROR if an invalid channel of interest is specified.

7.100.2.9 NppStatus nppiMean_StdDev_8s_C1MR (const Npp8s ∗ *pSrc*, int *nSrcStep*, const Npp8u ∗ *pMask*, int *nMaskStep*, NppiSize *oSizeROI*, Npp8u ∗ *pDeviceBuffer*, Npp64f ∗ *pMean*, Npp64f ∗ *pStdDev*)

Masked one-channel 8-bit signed image Mean_StdDev.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pMask Mask-Image Pointer.

nMaskStep Mask-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer Use nppiMeanStdDevGetBufferHostSize_8s_C1MR to determine the minium number of bytes required.

pMean Pointer to the computed mean.

pStdDev Pointer to the computed standard deviation.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.100.2.10 NppStatus nppiMean_StdDev_8s_C1R (const Npp8s * *pSrc*, int *nSrcStep*, NppiSize *oSizeROI*, Npp8u * *pDeviceBuffer*, Npp64f * *pMean*, Npp64f * *pStdDev*)

One-channel 8-bit signed image Mean_StdDev.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer Use nppiMeanStdDevGetBufferHostSize_8s_C1R to determine the minium number of bytes required.

pMean Pointer to the computed mean.

pStdDev Pointer to the computed standard deviation.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.100.2.11 NppStatus nppiMean_StdDev_8s_C3CMR (const Npp8s * *pSrc*, int *nSrcStep*, const Npp8u * *pMask*, int *nMaskStep*, NppiSize *oSizeROI*, int *nCOI*, Npp8u * *pDeviceBuffer*, Npp64f * *pMean*, Npp64f * *pStdDev*)

Masked three-channel 8-bit signed image Mean_StdDev.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pMask Mask-Image Pointer.

nMaskStep Mask-Image Line Step.

oSizeROI Region-of-Interest (ROI).

nCOI Channel_of_Interest Number.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer Use nppiMeanStdDevGetBufferHostSize_8s_C3CMR to determine the minium number of bytes required.

pMean Pointer to the computed mean.

pStdDev Pointer to the computed standard deviation.

Returns:

Image Data Related Error Codes, ROI Related Error Codes, or NPP_COI_ERROR if an invalid channel of interest is specified.

7.100.2.12 NppStatus nppiMean_StdDev_8s_C3CR (const Npp8s $*$ *pSrc*, int *nSrcStep*, NppiSize *oSizeROI*, int *nCOI*, Npp8u $*$ *pDeviceBuffer*, Npp64f $*$ *pMean*, Npp64f $*$ *pStdDev*)

Three-channel 8-bit signed image Mean_StdDev affecting only single channel.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSizeROI Region-of-Interest (ROI).

nCOI Channel_of_Interest Number.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer Use nppiMeanStdDevGetBufferHostSize_8s_C3CR to determine the minium number of bytes required.

pMean Pointer to the computed mean.

pStdDev Pointer to the computed standard deviation.

Returns:

Image Data Related Error Codes, ROI Related Error Codes, or NPP_COI_ERROR if an invalid channel of interest is specified.

7.100.2.13 NppStatus nppiMean_StdDev_8u_C1MR (const Npp8u $*$ *pSrc*, int *nSrcStep*, const Npp8u $*$ *pMask*, int *nMaskStep*, NppiSize *oSizeROI*, Npp8u $*$ *pDeviceBuffer*, Npp64f $*$ *pMean*, Npp64f $*$ *pStdDev*)

Masked one-channel 8-bit unsigned image Mean_StdDev.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pMask Mask-Image Pointer.

nMaskStep Mask-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer Use nppiMeanStdDevGetBufferHostSize_8u_C1MR to determine the minium number of bytes required.

pMean Pointer to the computed mean.

pStdDev Pointer to the computed standard deviation.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.100.2.14 NppStatus nppiMean_StdDev_8u_C1R (const Npp8u ∗ *pSrc*, int *nSrcStep*, NppiSize *oSizeROI*, Npp8u ∗ *pDeviceBuffer*, Npp64f ∗ *pMean*, Npp64f ∗ *pStdDev*)

One-channel 8-bit unsigned image Mean_StdDev.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer Use nppiMeanStdDevGetBufferHostSize_8u_C1R to determine the minium number of bytes required.

pMean Pointer to the computed mean.

pStdDev Pointer to the computed standard deviation.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.100.2.15 NppStatus nppiMean_StdDev_8u_C3CMR (const Npp8u ∗ *pSrc*, int *nSrcStep*, const Npp8u ∗ *pMask*, int *nMaskStep*, NppiSize *oSizeROI*, int *nCOI*, Npp8u ∗ *pDeviceBuffer*, Npp64f ∗ *pMean*, Npp64f ∗ *pStdDev*)

Masked three-channel 8-bit unsigned image Mean_StdDev.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pMask Mask-Image Pointer.

nMaskStep Mask-Image Line Step.

oSizeROI Region-of-Interest (ROI).

nCOI Channel_of_Interest Number.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer Use nppiMeanStdDevGetBufferHostSize_8u_C3CMR to determine the minium number of bytes required.

pMean Pointer to the computed mean.

pStdDev Pointer to the computed standard deviation.

Returns:

Image Data Related Error Codes, ROI Related Error Codes, or NPP_COI_ERROR if an invalid channel of interest is specified.

7.100.2.16 NppStatus nppiMean_StdDev_8u_C3CR (const Npp8u ∗ *pSrc*, int *nSrcStep*, NppiSize *oSizeROI*, int *nCOI*, Npp8u ∗ *pDeviceBuffer*, Npp64f ∗ *pMean*, Npp64f ∗ *pStdDev*)

Three-channel 8-bit unsigned image Mean_StdDev affecting only single channel.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSizeROI Region-of-Interest (ROI).

nCOI Channel_of_Interest Number.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer Use nppiMeanStdDevGetBufferHostSize_8u_C3CR to determine the minium number of bytes required.

pMean Pointer to the computed mean.

pStdDev Pointer to the computed standard deviation.

Returns:

Image Data Related Error Codes, ROI Related Error Codes, or NPP_COI_ERROR if an invalid channel of interest is specified.

7.100.2.17 NppStatus nppiMeanStdDevGetBufferHostSize_16u_C1MR (NppiSize *oSizeROI*, int ∗ *hpBufferSize*)

Buffer size for nppiMean_StdDev_16u_C1MR.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.100.2.18 NppStatus nppiMeanStdDevGetBufferHostSize_16u_C1R (NppiSize *oSizeROI*, int ∗ *hpBufferSize*)

Buffer size for nppiMean_StdDev_16u_C1R.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.100.2.19 NppStatus nppiMeanStdDevGetBufferHostSize_16u_C3CMR (NppiSize *oSizeROI*, int ∗ *hpBufferSize*)

Buffer size for nppiMean_StdDev_16u_C3CMR.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.100.2.20 NppStatus nppiMeanStdDevGetBufferHostSize_16u_C3CR (NppiSize *oSizeROI*, int ∗ *hpBufferSize*)

Buffer size for nppiMean_StdDev_16u_C3CR.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.100.2.21 NppStatus nppiMeanStdDevGetBufferHostSize_32f_C1MR (NppiSize *oSizeROI*, int ∗ *hpBufferSize*)

Buffer size for nppiMean_StdDev_32f_C1MR.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.100.2.22 NppStatus nppiMeanStdDevGetBufferHostSize_32f_C1R (NppiSize *oSizeROI*, int ∗ *hpBufferSize*)

Buffer size for nppiMean_StdDev_32f_C1R.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.100.2.23 NppStatus nppiMeanStdDevGetBufferHostSize_32f_C3CMR (NppiSize *oSizeROI*, int ∗ *hpBufferSize*)

Buffer size for nppiMean_StdDev_32f_C3CMR.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.100.2.24 NppStatus nppiMeanStdDevGetBufferHostSize_32f_C3CR (NppiSize *oSizeROI*, int ∗ *hpBufferSize*)

Buffer size for nppiMean_StdDev_32f_C3CR.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.100.2.25 NppStatus nppiMeanStdDevGetBufferHostSize_8s_C1MR (NppiSize *oSizeROI*, int ∗ *hpBufferSize*)

Buffer size for nppiMean_StdDev_8s_C1MR.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.100.2.26 NppStatus nppiMeanStdDevGetBufferHostSize_8s_C1R (NppiSize *oSizeROI*, int ∗ *hpBufferSize*)

Buffer size for nppiMean_StdDev_8s_C1R.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.100.2.27 NppStatus nppiMeanStdDevGetBufferHostSize_8s_C3CMR (NppiSize *oSizeROI*, int ∗ *hpBufferSize*)

Buffer size for nppiMean_StdDev_8s_C3CMR.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.100.2.28 NppStatus nppiMeanStdDevGetBufferHostSize_8s_C3CR (NppiSize *oSizeROI*, int ∗ *hpBufferSize*)

Buffer size for nppiMean_StdDev_8s_C3CR.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.100.2.29 NppStatus nppiMeanStdDevGetBufferHostSize_8u_C1MR (NppiSize *oSizeROI*, int ∗ *hpBufferSize*)

Buffer size for nppiMean_StdDev_8u_C1MR.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.100.2.30 NppStatus nppiMeanStdDevGetBufferHostSize_8u_C1R (NppiSize *oSizeROI*, int * *hpBufferSize*)

Buffer size for nppiMean_StdDev_8u_C1R.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.100.2.31 NppStatus nppiMeanStdDevGetBufferHostSize_8u_C3CMR (NppiSize *oSizeROI*, int * *hpBufferSize*)

Buffer size for nppiMean_StdDev_8u_C3CMR.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.100.2.32 NppStatus nppiMeanStdDevGetBufferHostSize_8u_C3CR (NppiSize *oSizeROI*, int * *hpBufferSize*)

Buffer size for nppiMean_StdDev_8u_C3CR.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.101 Image Norms

Primitives for computing the norms of an image, the norms of difference, and the relative errors of two images.

Modules

- Norm_Inf

  Primitives for computing the infinity norm of an image.

- Norm_L1

  Primitives for computing the L1 norm of an image.

- Norm_L2

  Primitives for computing the L2 norm of an image.

- NormDiff_Inf

  Primitives for computing the infinity norm of difference of pixels between two images.

- NormDiff_L1

  Primitives for computing the L1 norm of difference of pixels between two images.

- NormDiff_L2

  Primitives for computing the L2 norm of difference of pixels between two images.

- NormRel_Inf

  Primitives for computing the relative error of infinity norm between two images.

- NormRel_L1

  Primitives for computing the relative error of L1 norm between two images.

- NormRel_L2

  Primitives for computing the relative error of L2 norm between two images.

7.101.1 Detailed Description

Primitives for computing the norms of an image, the norms of difference, and the relative errors of two images.

Given an image $pSrc$ with width W and height H,

1. The infinity norm (Norm_Inf) is defined as the largest absolute pixel value of the image.
2. The L1 norm (Norm_L1) is defined as the sum of the absolute pixel value of the image, i.e.,

$$Norm\_L1 = \sum_{j=0}^{H-1} \sum_{i=0}^{W-1} |pSrc(j,i)|$$

.

3. The L2 norm (Norm_L2) is defined as the square root of the sum of the squared absolute pixel value of the image, i.e.,

$$Norm\_L2 = \sqrt{\sum_{j=0}^{H-1} \sum_{i=0}^{W-1} |pSrc(j,i)|^2}$$

.

Given two images $pSrc1$ and $pSrc2$ both with width W and height H,

1. The infinity norm of differece (NormDiff_Inf) is defined as the largest absolute difference between pixels of two images.
2. The L1 norm of differece (NormDiff_L1) is defined as the sum of the absolute difference between pixels of two images, i.e.,

$$NormDiff\_L1 = \sum_{j=0}^{H-1} \sum_{i=0}^{W-1} |pSrc1(j,i) - pSrc2(j,i)|$$

.

3. The L2 norm of differece (NormDiff_L2) is defined as the squared root of the sum of the squared absolute difference between pixels of two images, i.e.,

$$NormDiff\_L2 = \sqrt{\sum_{j=0}^{H-1} \sum_{i=0}^{W-1} |pSrc1(j,i) - pSrc2(j,i)|^2}$$

.

Given two images $pSrc1$ and $pSrc2$ both with width W and height H,

1. The relative error for the infinity norm of differece (NormRel_Inf) is defined as NormDiff_Inf divided by the infinity norm of the second image, i.e.,

$$NormRel\_Inf = \frac{NormDiff\_Inf}{Norm\_Inf_{src2}}$$

2. The relative error for the L1 norm of differece (NormRel_L1) is defined as NormDiff_L1 divided by the L1 norm of the second image, i.e.,

$$NormRel\_L1 = \frac{NormDiff\_L1}{Norm\_L1_{src2}}$$

3. The relative error for the L2 norm of differece (NormRel_L2) is defined as NormDiff_L2 divided by the L2 norm of the second image, i.e.,

$$NormRel\_L2 = \frac{NormDiff\_L2}{Norm\_L2_{src2}}$$

The norm functions require the addition device scratch buffer for the computations.

7.102 Norm_Inf

Primitives for computing the infinity norm of an image.

Basic Norm_Inf

- NppStatus nppiNorm_Inf_8u_C1R (const Npp8u ∗pSrc, int nSrcStep, NppiSize oSizeROI, Npp64f ∗pNorm, Npp8u ∗pDeviceBuffer)

    One-channel 8-bit unsigned image Norm_Inf.

- NppStatus nppiNorm_Inf_16u_C1R (const Npp16u ∗pSrc, int nSrcStep, NppiSize oSizeROI, Npp64f ∗pNorm, Npp8u ∗pDeviceBuffer)

    One-channel 16-bit unsigned image Norm_Inf.

- NppStatus nppiNorm_Inf_16s_C1R (const Npp16s ∗pSrc, int nSrcStep, NppiSize oSizeROI, Npp64f ∗pNorm, Npp8u ∗pDeviceBuffer)

    One-channel 16-bit signed image Norm_Inf.

- NppStatus nppiNorm_Inf_32s_C1R (const Npp32s ∗pSrc, int nSrcStep, NppiSize oSizeROI, Npp64f ∗pNorm, Npp8u ∗pDeviceBuffer)

    One-channel 32-bit signed image Norm_Inf.

- NppStatus nppiNorm_Inf_32f_C1R (const Npp32f ∗pSrc, int nSrcStep, NppiSize oSizeROI, Npp64f ∗pNorm, Npp8u ∗pDeviceBuffer)

    One-channel 32-bit floating point image Norm_Inf.

- NppStatus nppiNorm_Inf_8u_C3R (const Npp8u ∗pSrc, int nSrcStep, NppiSize oSizeROI, Npp64f aNorm[3], Npp8u ∗pDeviceBuffer)

    Three-channel 8-bit unsigned image Norm_Inf.

- NppStatus nppiNorm_Inf_16u_C3R (const Npp16u ∗pSrc, int nSrcStep, NppiSize oSizeROI, Npp64f aNorm[3], Npp8u ∗pDeviceBuffer)

    Three-channel 16-bit unsigned image Norm_Inf.

- NppStatus nppiNorm_Inf_16s_C3R (const Npp16s ∗pSrc, int nSrcStep, NppiSize oSizeROI, Npp64f aNorm[3], Npp8u ∗pDeviceBuffer)

    Three-channel 16-bit signed image Norm_Inf.

- NppStatus nppiNorm_Inf_32f_C3R (const Npp32f ∗pSrc, int nSrcStep, NppiSize oSizeROI, Npp64f aNorm[3], Npp8u ∗pDeviceBuffer)

    Three-channel 32-bit floating point image Norm_Inf.

- NppStatus nppiNorm_Inf_8u_AC4R (const Npp8u ∗pSrc, int nSrcStep, NppiSize oSizeROI, Npp64f aNorm[3], Npp8u ∗pDeviceBuffer)

    Four-channel 8-bit unsigned image Norm_Inf ignoring alpha channel.

- NppStatus nppiNorm_Inf_16u_AC4R (const Npp16u ∗pSrc, int nSrcStep, NppiSize oSizeROI, Npp64f aNorm[3], Npp8u ∗pDeviceBuffer)

    Four-channel 16-bit unsigned image Norm_Inf ignoring alpha channel.

- NppStatus nppiNorm_Inf_16s_AC4R (const Npp16s ∗pSrc, int nSrcStep, NppiSize oSizeROI, Npp64f aNorm[3], Npp8u ∗pDeviceBuffer)

  Four-channel 16-bit signed image Norm_Inf ignoring alpha channel.

- NppStatus nppiNorm_Inf_32f_AC4R (const Npp32f ∗pSrc, int nSrcStep, NppiSize oSizeROI, Npp64f aNorm[3], Npp8u ∗pDeviceBuffer)

  Four-channel 32-bit floating point image Norm_Inf ignoring alpha channel.

- NppStatus nppiNorm_Inf_8u_C4R (const Npp8u ∗pSrc, int nSrcStep, NppiSize oSizeROI, Npp64f aNorm[4], Npp8u ∗pDeviceBuffer)

  Four-channel 8-bit unsigned image Norm_Inf.

- NppStatus nppiNorm_Inf_16u_C4R (const Npp16u ∗pSrc, int nSrcStep, NppiSize oSizeROI, Npp64f aNorm[4], Npp8u ∗pDeviceBuffer)

  Four-channel 16-bit unsigned image Norm_Inf.

- NppStatus nppiNorm_Inf_16s_C4R (const Npp16s ∗pSrc, int nSrcStep, NppiSize oSizeROI, Npp64f aNorm[4], Npp8u ∗pDeviceBuffer)

  Four-channel 16-bit signed image Norm_Inf.

- NppStatus nppiNorm_Inf_32f_C4R (const Npp32f ∗pSrc, int nSrcStep, NppiSize oSizeROI, Npp64f aNorm[4], Npp8u ∗pDeviceBuffer)

  Four-channel 32-bit floating point image Norm_Inf.

Masked Norm_Inf

See Masked Operation.

- NppStatus nppiNorm_Inf_8u_C1MR (const Npp8u ∗pSrc, int nSrcStep, const Npp8u ∗pMask, int nMaskStep, NppiSize oSizeROI, Npp64f ∗pNorm, Npp8u ∗pDeviceBuffer)

  Masked one-channel 8-bit unsigned image Norm_Inf.

- NppStatus nppiNorm_Inf_8s_C1MR (const Npp8s ∗pSrc, int nSrcStep, const Npp8u ∗pMask, int nMaskStep, NppiSize oSizeROI, Npp64f ∗pNorm, Npp8u ∗pDeviceBuffer)

  Masked one-channel 8-bit signed image Norm_Inf.

- NppStatus nppiNorm_Inf_16u_C1MR (const Npp16u ∗pSrc, int nSrcStep, const Npp8u ∗pMask, int nMaskStep, NppiSize oSizeROI, Npp64f ∗pNorm, Npp8u ∗pDeviceBuffer)

  Masked one-channel 16-bit unsigned image Norm_Inf.

- NppStatus nppiNorm_Inf_32f_C1MR (const Npp32f ∗pSrc, int nSrcStep, const Npp8u ∗pMask, int nMaskStep, NppiSize oSizeROI, Npp64f ∗pNorm, Npp8u ∗pDeviceBuffer)

  Masked one-channel 32-bit floating point image Norm_Inf.

Masked Channel Norm_Inf

See Channel-of-Interest API and Masked Operation.

- NppStatus nppiNorm_Inf_8u_C3CMR (const Npp8u ∗pSrc, int nSrcStep, const Npp8u ∗pMask, int nMaskStep, NppiSize oSizeROI, int nCOI, Npp64f ∗pNorm, Npp8u ∗pDeviceBuffer)

  Masked three-channel 8-bit unsigned image Norm_Inf affecting only single channel.

- NppStatus nppiNorm_Inf_8s_C3CMR (const Npp8s ∗pSrc, int nSrcStep, const Npp8u ∗pMask, int nMaskStep, NppiSize oSizeROI, int nCOI, Npp64f ∗pNorm, Npp8u ∗pDeviceBuffer)

  Masked three-channel 8-bit signed image Norm_Inf affecting only single channel.

- NppStatus nppiNorm_Inf_16u_C3CMR (const Npp16u ∗pSrc, int nSrcStep, const Npp8u ∗pMask, int nMaskStep, NppiSize oSizeROI, int nCOI, Npp64f ∗pNorm, Npp8u ∗pDeviceBuffer)

  Masked three-channel 16-bit unsigned image Norm_Inf affecting only single channel.

- NppStatus nppiNorm_Inf_32f_C3CMR (const Npp32f ∗pSrc, int nSrcStep, const Npp8u ∗pMask, int nMaskStep, NppiSize oSizeROI, int nCOI, Npp64f ∗pNorm, Npp8u ∗pDeviceBuffer)

  Masked three-channel 32-bit floating point image Norm_Inf affecting only single channel.

NormInfGetBufferHostSize

Companion primitives for computing the device buffer size (in bytes) required by the Norm_Inf primitives.

- NppStatus nppiNormInfGetBufferHostSize_8u_C1R (NppiSize oSizeROI, int ∗hpBufferSize)

  Buffer size for nppiNorm_Inf_8u_C1R.

- NppStatus nppiNormInfGetBufferHostSize_16u_C1R (NppiSize oSizeROI, int ∗hpBufferSize)

  Buffer size for nppiNorm_Inf_16u_C1R.

- NppStatus nppiNormInfGetBufferHostSize_16s_C1R (NppiSize oSizeROI, int ∗hpBufferSize)

  Buffer size for nppiNorm_Inf_16s_C1R.

- NppStatus nppiNormInfGetBufferHostSize_32s_C1R (NppiSize oSizeROI, int ∗hpBufferSize)

  Buffer size for nppiNorm_Inf_32s_C1R.

- NppStatus nppiNormInfGetBufferHostSize_32f_C1R (NppiSize oSizeROI, int ∗hpBufferSize)

  Buffer size for nppiNorm_Inf_32f_C1R.

- NppStatus nppiNormInfGetBufferHostSize_8u_C1MR (NppiSize oSizeROI, int ∗hpBufferSize)

  Buffer size for nppiNorm_Inf_8u_C1MR.

- NppStatus nppiNormInfGetBufferHostSize_8s_C1MR (NppiSize oSizeROI, int ∗hpBufferSize)

  Buffer size for nppiNorm_Inf_8s_C1MR.

- NppStatus nppiNormInfGetBufferHostSize_16u_C1MR (NppiSize oSizeROI, int ∗hpBufferSize)

  Buffer size for nppiNorm_Inf_16u_C1MR.

- NppStatus nppiNormInfGetBufferHostSize_32f_C1MR (NppiSize oSizeROI, int ∗hpBufferSize)

  Buffer size for nppiNorm_Inf_32f_C1MR.

- NppStatus nppiNormInfGetBufferHostSize_8u_C3R (NppiSize oSizeROI, int ∗hpBufferSize)

Buffer size for nppiNorm_Inf_8u_C3R.

- NppStatus nppiNormInfGetBufferHostSize_16u_C3R (NppiSize oSizeROI, int ∗hpBufferSize)

  Buffer size for nppiNorm_Inf_16u_C3R.

- NppStatus nppiNormInfGetBufferHostSize_16s_C3R (NppiSize oSizeROI, int ∗hpBufferSize)

  Buffer size for nppiNorm_Inf_16s_C3R.

- NppStatus nppiNormInfGetBufferHostSize_32f_C3R (NppiSize oSizeROI, int ∗hpBufferSize)

  Buffer size for nppiNorm_Inf_32f_C3R.

- NppStatus nppiNormInfGetBufferHostSize_8u_AC4R (NppiSize oSizeROI, int ∗hpBufferSize)

  Buffer size for nppiNorm_Inf_8u_AC4R.

- NppStatus nppiNormInfGetBufferHostSize_16u_AC4R (NppiSize oSizeROI, int ∗hpBufferSize)

  Buffer size for nppiNorm_Inf_16u_AC4R.

- NppStatus nppiNormInfGetBufferHostSize_16s_AC4R (NppiSize oSizeROI, int ∗hpBufferSize)

  Buffer size for nppiNorm_Inf_16s_AC4R.

- NppStatus nppiNormInfGetBufferHostSize_32f_AC4R (NppiSize oSizeROI, int ∗hpBufferSize)

  Buffer size for nppiNorm_Inf_32f_AC4R.

- NppStatus nppiNormInfGetBufferHostSize_8u_C4R (NppiSize oSizeROI, int ∗hpBufferSize)

  Buffer size for nppiNorm_Inf_8u_C4R.

- NppStatus nppiNormInfGetBufferHostSize_16u_C4R (NppiSize oSizeROI, int ∗hpBufferSize)

  Buffer size for nppiNorm_Inf_16u_C4R.

- NppStatus nppiNormInfGetBufferHostSize_16s_C4R (NppiSize oSizeROI, int ∗hpBufferSize)

  Buffer size for nppiNorm_Inf_16s_C4R.

- NppStatus nppiNormInfGetBufferHostSize_32f_C4R (NppiSize oSizeROI, int ∗hpBufferSize)

  Buffer size for nppiNorm_Inf_32f_C4R.

- NppStatus nppiNormInfGetBufferHostSize_8u_C3CMR (NppiSize oSizeROI, int ∗hpBufferSize)

  Buffer size for nppiNorm_Inf_8u_C3CMR.

- NppStatus nppiNormInfGetBufferHostSize_8s_C3CMR (NppiSize oSizeROI, int ∗hpBufferSize)

  Buffer size for nppiNorm_Inf_8s_C3CMR.

- NppStatus nppiNormInfGetBufferHostSize_16u_C3CMR (NppiSize oSizeROI, int ∗hpBufferSize)

  Buffer size for nppiNorm_Inf_16u_C3CMR.

- NppStatus nppiNormInfGetBufferHostSize_32f_C3CMR (NppiSize oSizeROI, int ∗hpBufferSize)

  Buffer size for nppiNorm_Inf_32f_C3CMR.

7.102.1 Detailed Description

Primitives for computing the infinity norm of an image.

7.102.2 Function Documentation

7.102.2.1 NppStatus nppiNorm_Inf_16s_AC4R (const Npp16s ∗ *pSrc*, int *nSrcStep*, NppiSize *oSizeROI*, Npp64f *aNorm*[3], Npp8u ∗ *pDeviceBuffer*)

Four-channel 16-bit signed image Norm_Inf ignoring alpha channel.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSizeROI Region-of-Interest (ROI).

aNorm Array that contains the norm values of Three-channels.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppiNormInfGetBufferHostSize_16s_AC4R to compute the required size (in bytes).

Returns:

Image Data Related Error Codes, ROI Related Error Codes.

7.102.2.2 NppStatus nppiNorm_Inf_16s_C1R (const Npp16s ∗ *pSrc*, int *nSrcStep*, NppiSize *oSizeROI*, Npp64f ∗ *pNorm*, Npp8u ∗ *pDeviceBuffer*)

One-channel 16-bit signed image Norm_Inf.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pNorm Pointer to the norm value.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppiNormInfGetBufferHostSize_16s_C1R to compute the required size (in bytes).

Returns:

Image Data Related Error Codes, ROI Related Error Codes.

7.102.2.3 NppStatus nppiNorm_Inf_16s_C3R (const Npp16s ∗ *pSrc*, int *nSrcStep*, NppiSize *oSizeROI*, Npp64f *aNorm*[3], Npp8u ∗ *pDeviceBuffer*)

Three-channel 16-bit signed image Norm_Inf.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSizeROI Region-of-Interest (ROI).

aNorm Array that contains the norm values of Three-channels.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppiNormInfGetBufferHostSize_16s_C3R to compute the required size (in bytes).

Returns:

Image Data Related Error Codes, ROI Related Error Codes.

7.102.2.4 NppStatus nppiNorm_Inf_16s_C4R (const Npp16s ∗ *pSrc*, int *nSrcStep*, NppiSize *oSizeROI*, Npp64f *aNorm*[4], Npp8u ∗ *pDeviceBuffer*)

Four-channel 16-bit signed image Norm_Inf.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSizeROI Region-of-Interest (ROI).

aNorm Array that contains the norm values of Four-channels.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppiNormInfGetBufferHostSize_16s_C4R to compute the required size (in bytes).

Returns:

Image Data Related Error Codes, ROI Related Error Codes.

7.102.2.5 NppStatus nppiNorm_Inf_16u_AC4R (const Npp16u ∗ *pSrc*, int *nSrcStep*, NppiSize *oSizeROI*, Npp64f *aNorm*[3], Npp8u ∗ *pDeviceBuffer*)

Four-channel 16-bit unsigned image Norm_Inf ignoring alpha channel.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSizeROI Region-of-Interest (ROI).

aNorm Array that contains the norm values of Three-channels.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppiNormInfGetBufferHostSize_16u_AC4R to compute the required size (in bytes).

Returns:

Image Data Related Error Codes, ROI Related Error Codes.

7.102.2.6 NppStatus nppiNorm_Inf_16u_C1MR (const Npp16u ∗ *pSrc*, int *nSrcStep*, const Npp8u ∗ *pMask*, int *nMaskStep*, NppiSize *oSizeROI*, Npp64f ∗ *pNorm*, Npp8u ∗ *pDeviceBuffer*)

Masked one-channel 16-bit unsigned image Norm_Inf.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pMask Mask-Image Pointer.

nMaskStep Mask-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pNorm Pointer to the norm value.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppiNormInfGetBufferHostSize_16u_C1MR to compute the required size (in bytes).

Returns:

Image Data Related Error Codes, ROI Related Error Codes.

7.102.2.7 NppStatus nppiNorm_Inf_16u_C1R (const Npp16u ∗ *pSrc*, int *nSrcStep*, NppiSize *oSizeROI*, Npp64f ∗ *pNorm*, Npp8u ∗ *pDeviceBuffer*)

One-channel 16-bit unsigned image Norm_Inf.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pNorm Pointer to the norm value.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppiNormInfGetBufferHostSize_16u_C1R to compute the required size (in bytes).

Returns:

Image Data Related Error Codes, ROI Related Error Codes.

7.102.2.8 NppStatus nppiNorm_Inf_16u_C3CMR (const Npp16u ∗ *pSrc*, int *nSrcStep*, const Npp8u ∗ *pMask*, int *nMaskStep*, NppiSize *oSizeROI*, int *nCOI*, Npp64f ∗ *pNorm*, Npp8u ∗ *pDeviceBuffer*)

Masked three-channel 16-bit unsigned image Norm_Inf affecting only single channel.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pMask Mask-Image Pointer.

nMaskStep Mask-Image Line Step.

oSizeROI Region-of-Interest (ROI).

nCOI Channel_of_Interest Number.

pNorm Pointer to the norm value.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppiNormInfGetBufferHostSize_16u_C3CMR to compute the required size (in bytes).

Returns:

Image Data Related Error Codes, ROI Related Error Codes, or NPP_COI_ERROR if an invalid channel of interest is specified.

7.102.2.9 NppStatus nppiNorm_Inf_16u_C3R (const Npp16u $*$ *pSrc*, int *nSrcStep*, NppiSize *oSizeROI*, Npp64f *aNorm*[3], Npp8u $*$ *pDeviceBuffer*)

Three-channel 16-bit unsigned image Norm_Inf.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSizeROI Region-of-Interest (ROI).

aNorm Array that contains the norm values of Three-channels.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppiNormInfGetBufferHostSize_16u_C3R to compute the required size (in bytes).

Returns:

Image Data Related Error Codes, ROI Related Error Codes.

7.102.2.10 NppStatus nppiNorm_Inf_16u_C4R (const Npp16u $*$ *pSrc*, int *nSrcStep*, NppiSize *oSizeROI*, Npp64f *aNorm*[4], Npp8u $*$ *pDeviceBuffer*)

Four-channel 16-bit unsigned image Norm_Inf.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSizeROI Region-of-Interest (ROI).

aNorm Array that contains the norm values of Four-channels.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppiNormInfGetBufferHostSize_16u_C4R to compute the required size (in bytes).

Returns:

Image Data Related Error Codes, ROI Related Error Codes.

7.102.2.11 NppStatus nppiNorm_Inf_32f_AC4R (const Npp32f ∗ *pSrc*, int *nSrcStep*, NppiSize *oSizeROI*, Npp64f *aNorm*[3], Npp8u ∗ *pDeviceBuffer*)

Four-channel 32-bit floating point image Norm_Inf ignoring alpha channel.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSizeROI Region-of-Interest (ROI).

aNorm Array that contains the norm values of Three-channels.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppiNormInfGetBufferHostSize_32f_AC4R to compute the required size (in bytes).

Returns:

Image Data Related Error Codes, ROI Related Error Codes.

7.102.2.12 NppStatus nppiNorm_Inf_32f_C1MR (const Npp32f ∗ *pSrc*, int *nSrcStep*, const Npp8u ∗ *pMask*, int *nMaskStep*, NppiSize *oSizeROI*, Npp64f ∗ *pNorm*, Npp8u ∗ *pDeviceBuffer*)

Masked one-channel 32-bit floating point image Norm_Inf.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pMask Mask-Image Pointer.

nMaskStep Mask-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pNorm Pointer to the norm value.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppiNormInfGetBufferHostSize_32f_C1MR to compute the required size (in bytes).

Returns:

Image Data Related Error Codes, ROI Related Error Codes.

7.102.2.13 NppStatus nppiNorm_Inf_32f_C1R (const Npp32f ∗ *pSrc*, int *nSrcStep*, NppiSize *oSizeROI*, Npp64f ∗ *pNorm*, Npp8u ∗ *pDeviceBuffer*)

One-channel 32-bit floating point image Norm_Inf.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pNorm Pointer to the norm value.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppiNormInfGetBufferHostSize_32f_C1R to compute the required size (in bytes).

Returns:

Image Data Related Error Codes, ROI Related Error Codes.

7.102.2.14 NppStatus nppiNorm_Inf_32f_C3CMR (const Npp32f ∗ *pSrc*, int *nSrcStep*, const Npp8u ∗ *pMask*, int *nMaskStep*, NppiSize *oSizeROI*, int *nCOI*, Npp64f ∗ *pNorm*, Npp8u ∗ *pDeviceBuffer*)

Masked three-channel 32-bit floating point image Norm_Inf affecting only single channel.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pMask Mask-Image Pointer.

nMaskStep Mask-Image Line Step.

oSizeROI Region-of-Interest (ROI).

nCOI Channel_of_Interest Number.

pNorm Pointer to the norm value.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppiNormInfGetBufferHostSize_32f_C3CMR to compute the required size (in bytes).

Returns:

Image Data Related Error Codes, ROI Related Error Codes, NPP_NOT_EVEN_STEP_ERROR if an invalid floating-point image is specified, or NPP_COI_ERROR if an invalid channel of interest is specified.

7.102.2.15 NppStatus nppiNorm_Inf_32f_C3R (const Npp32f ∗ *pSrc*, int *nSrcStep*, NppiSize *oSizeROI*, Npp64f *aNorm*[3], Npp8u ∗ *pDeviceBuffer*)

Three-channel 32-bit floating point image Norm_Inf.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSizeROI Region-of-Interest (ROI).

aNorm Array that contains the norm values of Three-channels.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppiNormInfGetBufferHostSize_32f_C3R to compute the required size (in bytes).

Returns:

Image Data Related Error Codes, ROI Related Error Codes.

7.102.2.16 NppStatus nppiNorm_Inf_32f_C4R (const Npp32f ∗ *pSrc*, int *nSrcStep*, NppiSize *oSizeROI*, Npp64f *aNorm*[4], Npp8u ∗ *pDeviceBuffer*)

Four-channel 32-bit floating point image Norm_Inf.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSizeROI Region-of-Interest (ROI).

aNorm Array that contains the norm values of Four-channels.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppiNormInfGetBufferHostSize_32f_C4R to compute the required size (in bytes).

Returns:

Image Data Related Error Codes, ROI Related Error Codes.

7.102.2.17 NppStatus nppiNorm_Inf_32s_C1R (const Npp32s ∗ *pSrc*, int *nSrcStep*, NppiSize *oSizeROI*, Npp64f ∗ *pNorm*, Npp8u ∗ *pDeviceBuffer*)

One-channel 32-bit signed image Norm_Inf.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pNorm Pointer to the norm value.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppiNormInfGetBufferHostSize_32s_C1R to compute the required size (in bytes).

Returns:

Image Data Related Error Codes, ROI Related Error Codes.

7.102.2.18 NppStatus nppiNorm_Inf_8s_C1MR (const Npp8s ∗ *pSrc*, int *nSrcStep*, const Npp8u ∗ *pMask*, int *nMaskStep*, NppiSize *oSizeROI*, Npp64f ∗ *pNorm*, Npp8u ∗ *pDeviceBuffer*)

Masked one-channel 8-bit signed image Norm_Inf.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pMask Mask-Image Pointer.

nMaskStep Mask-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pNorm Pointer to the norm value.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppiNormInfGetBufferHostSize_8s_C1MR to compute the required size (in bytes).

Returns:

Image Data Related Error Codes, ROI Related Error Codes.

7.102.2.19 NppStatus nppiNorm_Inf_8s_C3CMR (const Npp8s ∗ *pSrc*, int *nSrcStep*, const Npp8u ∗ *pMask*, int *nMaskStep*, NppiSize *oSizeROI*, int *nCOI*, Npp64f ∗ *pNorm*, Npp8u ∗ *pDeviceBuffer*)

Masked three-channel 8-bit signed image Norm_Inf affecting only single channel.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pMask Mask-Image Pointer.

nMaskStep Mask-Image Line Step.

oSizeROI Region-of-Interest (ROI).

nCOI Channel_of_Interest Number.

pNorm Pointer to the norm value.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppiNormInfGetBufferHostSize_8s_C3CMR to compute the required size (in bytes).

Returns:

Image Data Related Error Codes, ROI Related Error Codes, or NPP_COI_ERROR if an invalid channel of interest is specified.

7.102.2.20 NppStatus nppiNorm_Inf_8u_AC4R (const Npp8u ∗ *pSrc*, int *nSrcStep*, NppiSize *oSizeROI*, Npp64f *aNorm*[3], Npp8u ∗ *pDeviceBuffer*)

Four-channel 8-bit unsigned image Norm_Inf ignoring alpha channel.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSizeROI Region-of-Interest (ROI).

aNorm Array that contains the norm values of Three-channels.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppiNormInfGetBufferHostSize_8u_AC4R to compute the required size (in bytes).

Returns:

Image Data Related Error Codes, ROI Related Error Codes.

7.102.2.21 NppStatus nppiNorm_Inf_8u_C1MR (const Npp8u * *pSrc*, int *nSrcStep*, const Npp8u * *pMask*, int *nMaskStep*, NppiSize *oSizeROI*, Npp64f * *pNorm*, Npp8u * *pDeviceBuffer*)

Masked one-channel 8-bit unsigned image Norm_Inf.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pMask Mask-Image Pointer.

nMaskStep Mask-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pNorm Pointer to the norm value.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppiNormInfGetBufferHostSize_8u_C1MR to compute the required size (in bytes).

Returns:

Image Data Related Error Codes, ROI Related Error Codes.

7.102.2.22 NppStatus nppiNorm_Inf_8u_C1R (const Npp8u * *pSrc*, int *nSrcStep*, NppiSize *oSizeROI*, Npp64f * *pNorm*, Npp8u * *pDeviceBuffer*)

One-channel 8-bit unsigned image Norm_Inf.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pNorm Pointer to the norm value.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppiNormInfGetBufferHostSize_8u_C1R to compute the required size (in bytes).

Returns:

Image Data Related Error Codes, ROI Related Error Codes.

7.102.2.23 NppStatus nppiNorm_Inf_8u_C3CMR (const Npp8u * *pSrc*, int *nSrcStep*, const Npp8u * *pMask*, int *nMaskStep*, NppiSize *oSizeROI*, int *nCOI*, Npp64f * *pNorm*, Npp8u * *pDeviceBuffer*)

Masked three-channel 8-bit unsigned image Norm_Inf affecting only single channel.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pMask Mask-Image Pointer.

nMaskStep Mask-Image Line Step.

oSizeROI Region-of-Interest (ROI).

nCOI Channel_of_Interest Number.

pNorm Pointer to the norm value.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppiNormInfGetBufferHostSize_8u_C3CMR to compute the required size (in bytes).

Returns:

Image Data Related Error Codes, ROI Related Error Codes, or NPP_COI_ERROR if an invalid channel of interest is specified.

7.102.2.24 NppStatus nppiNorm_Inf_8u_C3R (const Npp8u ∗ *pSrc*, int *nSrcStep*, NppiSize *oSizeROI*, Npp64f *aNorm*[3], Npp8u ∗ *pDeviceBuffer*)

Three-channel 8-bit unsigned image Norm_Inf.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSizeROI Region-of-Interest (ROI).

aNorm Array that contains the norm values of Three-channels.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppiNormInfGetBufferHostSize_8u_C3R to compute the required size (in bytes).

Returns:

Image Data Related Error Codes, ROI Related Error Codes.

7.102.2.25 NppStatus nppiNorm_Inf_8u_C4R (const Npp8u ∗ *pSrc*, int *nSrcStep*, NppiSize *oSizeROI*, Npp64f *aNorm*[4], Npp8u ∗ *pDeviceBuffer*)

Four-channel 8-bit unsigned image Norm_Inf.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSizeROI Region-of-Interest (ROI).

aNorm Array that contains the norm values of Four-channels.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppiNormInfGetBufferHostSize_8u_C4R to compute the required size (in bytes).

Returns:

Image Data Related Error Codes, ROI Related Error Codes.

7.102.2.26 NppStatus nppiNormInfGetBufferHostSize_16s_AC4R (NppiSize *oSizeROI*, int * *hpBufferSize*)

Buffer size for nppiNorm_Inf_16s_AC4R.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.102.2.27 NppStatus nppiNormInfGetBufferHostSize_16s_C1R (NppiSize *oSizeROI*, int * *hpBufferSize*)

Buffer size for nppiNorm_Inf_16s_C1R.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.102.2.28 NppStatus nppiNormInfGetBufferHostSize_16s_C3R (NppiSize *oSizeROI*, int * *hpBufferSize*)

Buffer size for nppiNorm_Inf_16s_C3R.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.102.2.29 NppStatus nppiNormInfGetBufferHostSize_16s_C4R (NppiSize *oSizeROI*, int * *hpBufferSize*)

Buffer size for nppiNorm_Inf_16s_C4R.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.102.2.30 NppStatus nppiNormInfGetBufferHostSize_16u_AC4R (NppiSize *oSizeROI*, int * *hpBufferSize*)

Buffer size for nppiNorm_Inf_16u_AC4R.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.102.2.31 NppStatus nppiNormInfGetBufferHostSize_16u_C1MR (NppiSize *oSizeROI*, int * *hpBufferSize*)

Buffer size for nppiNorm_Inf_16u_C1MR.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.102.2.32 NppStatus nppiNormInfGetBufferHostSize_16u_C1R (NppiSize *oSizeROI*, int * *hpBufferSize*)

Buffer size for nppiNorm_Inf_16u_C1R.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.102.2.33 NppStatus nppiNormInfGetBufferHostSize_16u_C3CMR (NppiSize *oSizeROI*, int * *hpBufferSize*)

Buffer size for nppiNorm_Inf_16u_C3CMR.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.102.2.34 NppStatus nppiNormInfGetBufferHostSize_16u_C3R (NppiSize *oSizeROI*, int * *hpBufferSize*)

Buffer size for nppiNorm_Inf_16u_C3R.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.102.2.35 NppStatus nppiNormInfGetBufferHostSize_16u_C4R (NppiSize *oSizeROI*, int * *hpBufferSize*)

Buffer size for nppiNorm_Inf_16u_C4R.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.102.2.36 NppStatus nppiNormInfGetBufferHostSize_32f_AC4R (NppiSize *oSizeROI*, int * *hpBufferSize*)

Buffer size for nppiNorm_Inf_32f_AC4R.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.102.2.37 NppStatus nppiNormInfGetBufferHostSize_32f_C1MR (NppiSize *oSizeROI*, int ∗ *hpBufferSize*)

Buffer size for nppiNorm_Inf_32f_C1MR.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.102.2.38 NppStatus nppiNormInfGetBufferHostSize_32f_C1R (NppiSize *oSizeROI*, int ∗ *hpBufferSize*)

Buffer size for nppiNorm_Inf_32f_C1R.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.102.2.39 NppStatus nppiNormInfGetBufferHostSize_32f_C3CMR (NppiSize *oSizeROI*, int ∗ *hpBufferSize*)

Buffer size for nppiNorm_Inf_32f_C3CMR.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.102.2.40 NppStatus nppiNormInfGetBufferHostSize_32f_C3R (NppiSize *oSizeROI*, int * *hpBufferSize*)

Buffer size for nppiNorm_Inf_32f_C3R.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.102.2.41 NppStatus nppiNormInfGetBufferHostSize_32f_C4R (NppiSize *oSizeROI*, int * *hpBufferSize*)

Buffer size for nppiNorm_Inf_32f_C4R.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.102.2.42 NppStatus nppiNormInfGetBufferHostSize_32s_C1R (NppiSize *oSizeROI*, int * *hpBufferSize*)

Buffer size for nppiNorm_Inf_32s_C1R.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.102.2.43 NppStatus nppiNormInfGetBufferHostSize_8s_C1MR (NppiSize *oSizeROI*, int * *hpBufferSize*)

Buffer size for nppiNorm_Inf_8s_C1MR.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.102.2.44 NppStatus nppiNormInfGetBufferHostSize_8s_C3CMR (NppiSize *oSizeROI*, int * *hpBufferSize*)

Buffer size for nppiNorm_Inf_8s_C3CMR.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.102.2.45 NppStatus nppiNormInfGetBufferHostSize_8u_AC4R (NppiSize *oSizeROI*, int * *hpBufferSize*)

Buffer size for nppiNorm_Inf_8u_AC4R.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.102.2.46 NppStatus nppiNormInfGetBufferHostSize_8u_C1MR (NppiSize *oSizeROI*, int * *hpBufferSize*)

Buffer size for nppiNorm_Inf_8u_C1MR.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.102.2.47 NppStatus nppiNormInfGetBufferHostSize_8u_C1R (NppiSize *oSizeROI*, int ∗ *hpBufferSize*)

Buffer size for nppiNorm_Inf_8u_C1R.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.102.2.48 NppStatus nppiNormInfGetBufferHostSize_8u_C3CMR (NppiSize *oSizeROI*, int ∗ *hpBufferSize*)

Buffer size for nppiNorm_Inf_8u_C3CMR.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.102.2.49 NppStatus nppiNormInfGetBufferHostSize_8u_C3R (NppiSize *oSizeROI*, int ∗ *hpBufferSize*)

Buffer size for nppiNorm_Inf_8u_C3R.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.102.2.50 NppStatus nppiNormInfGetBufferHostSize_8u_C4R (NppiSize *oSizeROI*, int ∗ *hpBufferSize*)

Buffer size for nppiNorm_Inf_8u_C4R.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.103 Norm_L1

Primitives for computing the L1 norm of an image.

Basic Norm_L1

- NppStatus nppiNorm_L1_8u_C1R (const Npp8u ∗pSrc, int nSrcStep, NppiSize oSizeROI, Npp64f ∗pNorm, Npp8u ∗pDeviceBuffer)

  One-channel 8-bit unsigned image Norm_L1.

- NppStatus nppiNorm_L1_16u_C1R (const Npp16u ∗pSrc, int nSrcStep, NppiSize oSizeROI, Npp64f ∗pNorm, Npp8u ∗pDeviceBuffer)

  One-channel 16-bit unsigned image Norm_L1.

- NppStatus nppiNorm_L1_16s_C1R (const Npp16s ∗pSrc, int nSrcStep, NppiSize oSizeROI, Npp64f ∗pNorm, Npp8u ∗pDeviceBuffer)

  One-channel 16-bit signed image Norm_L1.

- NppStatus nppiNorm_L1_32f_C1R (const Npp32f ∗pSrc, int nSrcStep, NppiSize oSizeROI, Npp64f ∗pNorm, Npp8u ∗pDeviceBuffer)

  One-channel 32-bit floating point image Norm_L1.

- NppStatus nppiNorm_L1_8u_C3R (const Npp8u ∗pSrc, int nSrcStep, NppiSize oSizeROI, Npp64f aNorm[3], Npp8u ∗pDeviceBuffer)

  Three-channel 8-bit unsigned image Norm_L1.

- NppStatus nppiNorm_L1_16u_C3R (const Npp16u ∗pSrc, int nSrcStep, NppiSize oSizeROI, Npp64f aNorm[3], Npp8u ∗pDeviceBuffer)

  Three-channel 16-bit unsigned image Norm_L1.

- NppStatus nppiNorm_L1_16s_C3R (const Npp16s ∗pSrc, int nSrcStep, NppiSize oSizeROI, Npp64f aNorm[3], Npp8u ∗pDeviceBuffer)

  Three-channel 16-bit signed image Norm_L1.

- NppStatus nppiNorm_L1_32f_C3R (const Npp32f ∗pSrc, int nSrcStep, NppiSize oSizeROI, Npp64f aNorm[3], Npp8u ∗pDeviceBuffer)

  Three-channel 32-bit floating point image Norm_L1.

- NppStatus nppiNorm_L1_8u_AC4R (const Npp8u ∗pSrc, int nSrcStep, NppiSize oSizeROI, Npp64f aNorm[3], Npp8u ∗pDeviceBuffer)

  Four-channel 8-bit unsigned image Norm_L1 ignoring alpha channel.

- NppStatus nppiNorm_L1_16u_AC4R (const Npp16u ∗pSrc, int nSrcStep, NppiSize oSizeROI, Npp64f aNorm[3], Npp8u ∗pDeviceBuffer)

  Four-channel 16-bit unsigned image Norm_L1 ignoring alpha channel.

- NppStatus nppiNorm_L1_16s_AC4R (const Npp16s ∗pSrc, int nSrcStep, NppiSize oSizeROI, Npp64f aNorm[3], Npp8u ∗pDeviceBuffer)

  Four-channel 16-bit signed image Norm_L1 ignoring alpha channel.

- NppStatus nppiNorm_L1_32f_AC4R (const Npp32f ∗pSrc, int nSrcStep, NppiSize oSizeROI, Npp64f aNorm[3], Npp8u ∗pDeviceBuffer)

  Four-channel 32-bit floating point image Norm_L1 ignoring alpha channel.

- NppStatus nppiNorm_L1_8u_C4R (const Npp8u ∗pSrc, int nSrcStep, NppiSize oSizeROI, Npp64f aNorm[4], Npp8u ∗pDeviceBuffer)

  Four-channel 8-bit unsigned image Norm_L1.

- NppStatus nppiNorm_L1_16u_C4R (const Npp16u ∗pSrc, int nSrcStep, NppiSize oSizeROI, Npp64f aNorm[4], Npp8u ∗pDeviceBuffer)

  Four-channel 16-bit unsigned image Norm_L1.

- NppStatus nppiNorm_L1_16s_C4R (const Npp16s ∗pSrc, int nSrcStep, NppiSize oSizeROI, Npp64f aNorm[4], Npp8u ∗pDeviceBuffer)

  Four-channel 16-bit signed image Norm_L1.

- NppStatus nppiNorm_L1_32f_C4R (const Npp32f ∗pSrc, int nSrcStep, NppiSize oSizeROI, Npp64f aNorm[4], Npp8u ∗pDeviceBuffer)

  Four-channel 32-bit floating point image Norm_L1.

Masked Norm_L1

See Masked Operation.

- NppStatus nppiNorm_L1_8u_C1MR (const Npp8u ∗pSrc, int nSrcStep, const Npp8u ∗pMask, int nMaskStep, NppiSize oSizeROI, Npp64f ∗pNorm, Npp8u ∗pDeviceBuffer)

  Masked one-channel 8-bit unsigned image Norm_L1.

- NppStatus nppiNorm_L1_8s_C1MR (const Npp8s ∗pSrc, int nSrcStep, const Npp8u ∗pMask, int nMaskStep, NppiSize oSizeROI, Npp64f ∗pNorm, Npp8u ∗pDeviceBuffer)

  Masked one-channel 8-bit signed image Norm_L1.

- NppStatus nppiNorm_L1_16u_C1MR (const Npp16u ∗pSrc, int nSrcStep, const Npp8u ∗pMask, int nMaskStep, NppiSize oSizeROI, Npp64f ∗pNorm, Npp8u ∗pDeviceBuffer)

  Masked one-channel 16-bit unsigned image Norm_L1.

- NppStatus nppiNorm_L1_32f_C1MR (const Npp32f ∗pSrc, int nSrcStep, const Npp8u ∗pMask, int nMaskStep, NppiSize oSizeROI, Npp64f ∗pNorm, Npp8u ∗pDeviceBuffer)

  Masked one-channel 32-bit floating point image Norm_L1.

Masked Channel Norm_L1

See Channel-of-Interest API and Masked Operation.

- NppStatus nppiNorm_L1_8u_C3CMR (const Npp8u ∗pSrc, int nSrcStep, const Npp8u ∗pMask, int nMaskStep, NppiSize oSizeROI, int nCOI, Npp64f ∗pNorm, Npp8u ∗pDeviceBuffer)

  Masked three-channel 8-bit unsigned image Norm_L1 affecting only single channel.

- NppStatus nppiNorm_L1_8s_C3CMR (const Npp8s ∗pSrc, int nSrcStep, const Npp8u ∗pMask, int nMaskStep, NppiSize oSizeROI, int nCOI, Npp64f ∗pNorm, Npp8u ∗pDeviceBuffer)

  Masked three-channel 8-bit signed image Norm_L1 affecting only single channel.

- NppStatus nppiNorm_L1_16u_C3CMR (const Npp16u ∗pSrc, int nSrcStep, const Npp8u ∗pMask, int nMaskStep, NppiSize oSizeROI, int nCOI, Npp64f ∗pNorm, Npp8u ∗pDeviceBuffer)

  Masked three-channel 16-bit unsigned image Norm_L1 affecting only single channel.

- NppStatus nppiNorm_L1_32f_C3CMR (const Npp32f ∗pSrc, int nSrcStep, const Npp8u ∗pMask, int nMaskStep, NppiSize oSizeROI, int nCOI, Npp64f ∗pNorm, Npp8u ∗pDeviceBuffer)

  Masked three-channel 32-bit floating point image Norm_L1 affecting only single channel.

NormL1GetBufferHostSize

Companion primitives for computing the device buffer size (in bytes) required by the Norm_L1 primitives.

- NppStatus nppiNormL1GetBufferHostSize_8u_C1R (NppiSize oSizeROI, int ∗hpBufferSize)

  Buffer size for nppiNorm_L1_8u_C1R.

- NppStatus nppiNormL1GetBufferHostSize_16u_C1R (NppiSize oSizeROI, int ∗hpBufferSize)

  Buffer size for nppiNorm_L1_16u_C1R.

- NppStatus nppiNormL1GetBufferHostSize_16s_C1R (NppiSize oSizeROI, int ∗hpBufferSize)

  Buffer size for nppiNorm_L1_16s_C1R.

- NppStatus nppiNormL1GetBufferHostSize_32f_C1R (NppiSize oSizeROI, int ∗hpBufferSize)

  Buffer size for nppiNorm_L1_32f_C1R.

- NppStatus nppiNormL1GetBufferHostSize_8u_C1MR (NppiSize oSizeROI, int ∗hpBufferSize)

  Buffer size for nppiNorm_L1_8u_C1MR.

- NppStatus nppiNormL1GetBufferHostSize_8s_C1MR (NppiSize oSizeROI, int ∗hpBufferSize)

  Buffer size for nppiNorm_L1_8s_C1MR.

- NppStatus nppiNormL1GetBufferHostSize_16u_C1MR (NppiSize oSizeROI, int ∗hpBufferSize)

  Buffer size for nppiNorm_L1_16u_C1MR.

- NppStatus nppiNormL1GetBufferHostSize_32f_C1MR (NppiSize oSizeROI, int ∗hpBufferSize)

  Buffer size for nppiNorm_L1_32f_C1MR.

- NppStatus nppiNormL1GetBufferHostSize_8u_C3R (NppiSize oSizeROI, int ∗hpBufferSize)

  Buffer size for nppiNorm_L1_8u_C3R.

- NppStatus nppiNormL1GetBufferHostSize_16u_C3R (NppiSize oSizeROI, int ∗hpBufferSize)

  Buffer size for nppiNorm_L1_16u_C3R.

- NppStatus nppiNormL1GetBufferHostSize_16s_C3R (NppiSize oSizeROI, int ∗hpBufferSize)

  Buffer size for nppiNorm_L1_16s_C3R.

- NppStatus nppiNormL1GetBufferHostSize_32f_C3R (NppiSize oSizeROI, int ∗hpBufferSize)

  Buffer size for nppiNorm_L1_32f_C3R.

- NppStatus nppiNormL1GetBufferHostSize_8u_AC4R (NppiSize oSizeROI, int ∗hpBufferSize)

  Buffer size for nppiNorm_L1_8u_AC4R.

- NppStatus nppiNormL1GetBufferHostSize_16u_AC4R (NppiSize oSizeROI, int ∗hpBufferSize)

  Buffer size for nppiNorm_L1_16u_AC4R.

- NppStatus nppiNormL1GetBufferHostSize_16s_AC4R (NppiSize oSizeROI, int ∗hpBufferSize)

  Buffer size for nppiNorm_L1_16s_AC4R.

- NppStatus nppiNormL1GetBufferHostSize_32f_AC4R (NppiSize oSizeROI, int ∗hpBufferSize)

  Buffer size for nppiNorm_L1_32f_AC4R.

- NppStatus nppiNormL1GetBufferHostSize_8u_C4R (NppiSize oSizeROI, int ∗hpBufferSize)

  Buffer size for nppiNorm_L1_8u_C4R.

- NppStatus nppiNormL1GetBufferHostSize_16u_C4R (NppiSize oSizeROI, int ∗hpBufferSize)

  Buffer size for nppiNorm_L1_16u_C4R.

- NppStatus nppiNormL1GetBufferHostSize_16s_C4R (NppiSize oSizeROI, int ∗hpBufferSize)

  Buffer size for nppiNorm_L1_16s_C4R.

- NppStatus nppiNormL1GetBufferHostSize_32f_C4R (NppiSize oSizeROI, int ∗hpBufferSize)

  Buffer size for nppiNorm_L1_32f_C4R.

- NppStatus nppiNormL1GetBufferHostSize_8u_C3CMR (NppiSize oSizeROI, int ∗hpBufferSize)

  Buffer size for nppiNorm_L1_8u_C3CMR.

- NppStatus nppiNormL1GetBufferHostSize_8s_C3CMR (NppiSize oSizeROI, int ∗hpBufferSize)

  Buffer size for nppiNorm_L1_8s_C3CMR.

- NppStatus nppiNormL1GetBufferHostSize_16u_C3CMR (NppiSize oSizeROI, int ∗hpBufferSize)

  Buffer size for nppiNorm_L1_16u_C3CMR.

- NppStatus nppiNormL1GetBufferHostSize_32f_C3CMR (NppiSize oSizeROI, int ∗hpBufferSize)

  Buffer size for nppiNorm_L1_32f_C3CMR.

7.103.1 Detailed Description

Primitives for computing the L1 norm of an image.

7.103.2 Function Documentation

7.103.2.1 NppStatus nppiNorm_L1_16s_AC4R (const Npp16s ∗ *pSrc*, int *nSrcStep*, NppiSize *oSizeROI*, Npp64f *aNorm*[3], Npp8u ∗ *pDeviceBuffer*)

Four-channel 16-bit signed image Norm_L1 ignoring alpha channel.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSizeROI Region-of-Interest (ROI).

aNorm Array that contains the norm values of Three-channels.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppiNormL1GetBufferHostSize_16s_AC4R to compute the required size (in bytes).

Returns:

Image Data Related Error Codes, ROI Related Error Codes.

7.103.2.2 NppStatus nppiNorm_L1_16s_C1R (const Npp16s ∗ *pSrc*, int *nSrcStep*, NppiSize *oSizeROI*, Npp64f ∗ *pNorm*, Npp8u ∗ *pDeviceBuffer*)

One-channel 16-bit signed image Norm_L1.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pNorm Pointer to the norm value.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppiNormL1GetBufferHostSize_16s_C1R to compute the required size (in bytes).

Returns:

Image Data Related Error Codes, ROI Related Error Codes.

7.103.2.3 NppStatus nppiNorm_L1_16s_C3R (const Npp16s ∗ *pSrc*, int *nSrcStep*, NppiSize *oSizeROI*, Npp64f *aNorm*[3], Npp8u ∗ *pDeviceBuffer*)

Three-channel 16-bit signed image Norm_L1.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSizeROI Region-of-Interest (ROI).

aNorm Array that contains the norm values of Three-channels.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppiNormL1GetBufferHostSize_16s_C3R to compute the required size (in bytes).

Returns:

Image Data Related Error Codes, ROI Related Error Codes.

7.103.2.4 NppStatus nppiNorm_L1_16s_C4R (const Npp16s $*$ *pSrc*, int *nSrcStep*, NppiSize *oSizeROI*, Npp64f *aNorm*[4], Npp8u $*$ *pDeviceBuffer*)

Four-channel 16-bit signed image Norm_L1.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSizeROI Region-of-Interest (ROI).

aNorm Array that contains the norm values of Four-channels.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppiNormL1GetBufferHostSize_16s_C4R to compute the required size (in bytes).

Returns:

Image Data Related Error Codes, ROI Related Error Codes.

7.103.2.5 NppStatus nppiNorm_L1_16u_AC4R (const Npp16u $*$ *pSrc*, int *nSrcStep*, NppiSize *oSizeROI*, Npp64f *aNorm*[3], Npp8u $*$ *pDeviceBuffer*)

Four-channel 16-bit unsigned image Norm_L1 ignoring alpha channel.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSizeROI Region-of-Interest (ROI).

aNorm Array that contains the norm values of Three-channels.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppiNormL1GetBufferHostSize_16u_AC4R to compute the required size (in bytes).

Returns:

Image Data Related Error Codes, ROI Related Error Codes.

7.103.2.6 NppStatus nppiNorm_L1_16u_C1MR (const Npp16u $*$ *pSrc*, int *nSrcStep*, const Npp8u $*$ *pMask*, int *nMaskStep*, NppiSize *oSizeROI*, Npp64f $*$ *pNorm*, Npp8u $*$ *pDeviceBuffer*)

Masked one-channel 16-bit unsigned image Norm_L1.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pMask Mask-Image Pointer.

nMaskStep Mask-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pNorm Pointer to the norm value.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppiNormL1GetBufferHostSize_16u_C1MR to compute the required size (in bytes).

Returns:

Image Data Related Error Codes, ROI Related Error Codes.

7.103.2.7 NppStatus nppiNorm_L1_16u_C1R (const Npp16u ∗ *pSrc*, int *nSrcStep*, NppiSize *oSizeROI*, Npp64f ∗ *pNorm*, Npp8u ∗ *pDeviceBuffer*)

One-channel 16-bit unsigned image Norm_L1.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pNorm Pointer to the norm value.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppiNormL1GetBufferHostSize_16u_C1R to compute the required size (in bytes).

Returns:

Image Data Related Error Codes, ROI Related Error Codes.

7.103.2.8 NppStatus nppiNorm_L1_16u_C3CMR (const Npp16u ∗ *pSrc*, int *nSrcStep*, const Npp8u ∗ *pMask*, int *nMaskStep*, NppiSize *oSizeROI*, int *nCOI*, Npp64f ∗ *pNorm*, Npp8u ∗ *pDeviceBuffer*)

Masked three-channel 16-bit unsigned image Norm_L1 affecting only single channel.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pMask Mask-Image Pointer.

nMaskStep Mask-Image Line Step.

oSizeROI Region-of-Interest (ROI).

nCOI Channel_of_Interest Number.

pNorm Pointer to the norm value.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppiNormL1GetBufferHostSize_16u_C3CMR to compute the required size (in bytes).

Returns:

Image Data Related Error Codes, ROI Related Error Codes, or NPP_COI_ERROR if an invalid channel of interest is specified.

7.103.2.9 NppStatus nppiNorm_L1_16u_C3R (const Npp16u ∗ *pSrc*, int *nSrcStep*, NppiSize *oSizeROI*, Npp64f *aNorm*[3], Npp8u ∗ *pDeviceBuffer*)

Three-channel 16-bit unsigned image Norm_L1.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSizeROI Region-of-Interest (ROI).

aNorm Array that contains the norm values of Three-channels.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppiNormL1GetBufferHostSize_16u_C3R to compute the required size (in bytes).

Returns:

Image Data Related Error Codes, ROI Related Error Codes.

7.103.2.10 NppStatus nppiNorm_L1_16u_C4R (const Npp16u ∗ *pSrc*, int *nSrcStep*, NppiSize *oSizeROI*, Npp64f *aNorm*[4], Npp8u ∗ *pDeviceBuffer*)

Four-channel 16-bit unsigned image Norm_L1.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSizeROI Region-of-Interest (ROI).

aNorm Array that contains the norm values of Four-channels.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppiNormL1GetBufferHostSize_16u_C4R to compute the required size (in bytes).

Returns:

Image Data Related Error Codes, ROI Related Error Codes.

7.103.2.11 NppStatus nppiNorm_L1_32f_AC4R (const Npp32f ∗ *pSrc*, int *nSrcStep*, NppiSize *oSizeROI*, Npp64f *aNorm*[3], Npp8u ∗ *pDeviceBuffer*)

Four-channel 32-bit floating point image Norm_L1 ignoring alpha channel.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSizeROI Region-of-Interest (ROI).

aNorm Array that contains the norm values of Three-channels.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppiNormL1GetBufferHostSize_32f_AC4R to compute the required size (in bytes).

Returns:

Image Data Related Error Codes, ROI Related Error Codes.

7.103.2.12 NppStatus nppiNorm_L1_32f_C1MR (const Npp32f ∗ *pSrc*, int *nSrcStep*, const Npp8u ∗ *pMask*, int *nMaskStep*, NppiSize *oSizeROI*, Npp64f ∗ *pNorm*, Npp8u ∗ *pDeviceBuffer*)

Masked one-channel 32-bit floating point image Norm_L1.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pMask Mask-Image Pointer.

nMaskStep Mask-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pNorm Pointer to the norm value.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppiNormL1GetBufferHostSize_32f_C1MR to compute the required size (in bytes).

Returns:

Image Data Related Error Codes, ROI Related Error Codes.

7.103.2.13 NppStatus nppiNorm_L1_32f_C1R (const Npp32f ∗ *pSrc*, int *nSrcStep*, NppiSize *oSizeROI*, Npp64f ∗ *pNorm*, Npp8u ∗ *pDeviceBuffer*)

One-channel 32-bit floating point image Norm_L1.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pNorm Pointer to the norm value.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppiNormL1GetBufferHostSize_32f_C1R to compute the required size (in bytes).

Returns:

Image Data Related Error Codes, ROI Related Error Codes.

7.103.2.14 NppStatus nppiNorm_L1_32f_C3CMR (const Npp32f * *pSrc*, int *nSrcStep*, const Npp8u * *pMask*, int *nMaskStep*, NppiSize *oSizeROI*, int *nCOI*, Npp64f * *pNorm*, Npp8u * *pDeviceBuffer*)

Masked three-channel 32-bit floating point image Norm_L1 affecting only single channel.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pMask Mask-Image Pointer.

nMaskStep Mask-Image Line Step.

oSizeROI Region-of-Interest (ROI).

nCOI Channel_of_Interest Number.

pNorm Pointer to the norm value.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppiNormL1GetBufferHostSize_32f_C3CMR to compute the required size (in bytes).

Returns:

Image Data Related Error Codes, ROI Related Error Codes, NPP_NOT_EVEN_STEP_ERROR if the step of the source image cannot be divided by 4, or NPP_COI_ERROR if an invalid channel of interest is specified.

7.103.2.15 NppStatus nppiNorm_L1_32f_C3R (const Npp32f * *pSrc*, int *nSrcStep*, NppiSize *oSizeROI*, Npp64f *aNorm*[3], Npp8u * *pDeviceBuffer*)

Three-channel 32-bit floating point image Norm_L1.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSizeROI Region-of-Interest (ROI).

aNorm Array that contains the norm values of Three-channels.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppiNormL1GetBufferHostSize_32f_C3R to compute the required size (in bytes).

Returns:

Image Data Related Error Codes, ROI Related Error Codes.

7.103.2.16 NppStatus nppiNorm_L1_32f_C4R (const Npp32f * *pSrc*, int *nSrcStep*, NppiSize *oSizeROI*, Npp64f *aNorm*[4], Npp8u * *pDeviceBuffer*)

Four-channel 32-bit floating point image Norm_L1.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSizeROI Region-of-Interest (ROI).

aNorm Array that contains the norm values of Four-channels.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppiNormL1GetBufferHostSize_32f_C4R to compute the required size (in bytes).

Returns:

Image Data Related Error Codes, ROI Related Error Codes.

7.103.2.17 NppStatus nppiNorm_L1_8s_C1MR (const Npp8s ∗ *pSrc*, int *nSrcStep*, const Npp8u ∗ *pMask*, int *nMaskStep*, NppiSize *oSizeROI*, Npp64f ∗ *pNorm*, Npp8u ∗ *pDeviceBuffer*)

Masked one-channel 8-bit signed image Norm_L1.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pMask Mask-Image Pointer.

nMaskStep Mask-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pNorm Pointer to the norm value.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppiNormL1GetBufferHostSize_8s_C1MR to compute the required size (in bytes).

Returns:

Image Data Related Error Codes, ROI Related Error Codes.

7.103.2.18 NppStatus nppiNorm_L1_8s_C3CMR (const Npp8s ∗ *pSrc*, int *nSrcStep*, const Npp8u ∗ *pMask*, int *nMaskStep*, NppiSize *oSizeROI*, int *nCOI*, Npp64f ∗ *pNorm*, Npp8u ∗ *pDeviceBuffer*)

Masked three-channel 8-bit signed image Norm_L1 affecting only single channel.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pMask Mask-Image Pointer.

nMaskStep Mask-Image Line Step.

oSizeROI Region-of-Interest (ROI).

nCOI Channel_of_Interest Number.

pNorm Pointer to the norm value.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppiNormL1GetBufferHostSize_8s_C3CMR to compute the required size (in bytes).

Returns:

Image Data Related Error Codes, ROI Related Error Codes, or NPP_COI_ERROR if an invalid channel of interest is specified.

7.103.2.19 NppStatus nppiNorm_L1_8u_AC4R (const Npp8u ∗ *pSrc*, int *nSrcStep*, NppiSize *oSizeROI*, Npp64f *aNorm*[3], Npp8u ∗ *pDeviceBuffer*)

Four-channel 8-bit unsigned image Norm_L1 ignoring alpha channel.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSizeROI Region-of-Interest (ROI).

aNorm Array that contains the norm values of Three-channels.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppiNormL1GetBufferHostSize_8u_AC4R to compute the required size (in bytes).

Returns:

Image Data Related Error Codes, ROI Related Error Codes.

7.103.2.20 NppStatus nppiNorm_L1_8u_C1MR (const Npp8u ∗ *pSrc*, int *nSrcStep*, const Npp8u ∗ *pMask*, int *nMaskStep*, NppiSize *oSizeROI*, Npp64f ∗ *pNorm*, Npp8u ∗ *pDeviceBuffer*)

Masked one-channel 8-bit unsigned image Norm_L1.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pMask Mask-Image Pointer.

nMaskStep Mask-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pNorm Pointer to the norm value.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppiNormL1GetBufferHostSize_8u_C1MR to compute the required size (in bytes).

Returns:

Image Data Related Error Codes, ROI Related Error Codes.

7.103.2.21 NppStatus nppiNorm_L1_8u_C1R (const Npp8u ∗ *pSrc*, int *nSrcStep*, NppiSize *oSizeROI*, Npp64f ∗ *pNorm*, Npp8u ∗ *pDeviceBuffer*)

One-channel 8-bit unsigned image Norm_L1.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pNorm Pointer to the norm value.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppiNormL1GetBufferHostSize_8u_C1R to compute the required size (in bytes).

Returns:

Image Data Related Error Codes, ROI Related Error Codes.

7.103.2.22 NppStatus nppiNorm_L1_8u_C3CMR (const Npp8u ∗ *pSrc*, int *nSrcStep*, const Npp8u ∗ *pMask*, int *nMaskStep*, NppiSize *oSizeROI*, int *nCOI*, Npp64f ∗ *pNorm*, Npp8u ∗ *pDeviceBuffer*)

Masked three-channel 8-bit unsigned image Norm_L1 affecting only single channel.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pMask Mask-Image Pointer.

nMaskStep Mask-Image Line Step.

oSizeROI Region-of-Interest (ROI).

nCOI Channel_of_Interest Number.

pNorm Pointer to the norm value.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppiNormL1GetBufferHostSize_8u_C3CMR to compute the required size (in bytes).

Returns:

Image Data Related Error Codes, ROI Related Error Codes, or NPP_COI_ERROR if an invalid channel of interest is specified.

7.103.2.23 NppStatus nppiNorm_L1_8u_C3R (const Npp8u ∗ *pSrc*, int *nSrcStep*, NppiSize *oSizeROI*, Npp64f *aNorm*[3], Npp8u ∗ *pDeviceBuffer*)

Three-channel 8-bit unsigned image Norm_L1.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSizeROI Region-of-Interest (ROI).

aNorm Array that contains the norm values of Three-channels.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppiNormL1GetBufferHostSize_8u_C3R to compute the required size (in bytes).

Returns:

Image Data Related Error Codes, ROI Related Error Codes.

7.103.2.24 NppStatus nppiNorm_L1_8u_C4R (const Npp8u ∗ *pSrc*, int *nSrcStep*, NppiSize *oSizeROI*, Npp64f *aNorm*[4], Npp8u ∗ *pDeviceBuffer*)

Four-channel 8-bit unsigned image Norm_L1.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSizeROI Region-of-Interest (ROI).

aNorm Array that contains the norm values of Four-channels.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppiNormL1GetBufferHostSize_8u_C4R to compute the required size (in bytes).

Returns:

Image Data Related Error Codes, ROI Related Error Codes.

7.103.2.25 NppStatus nppiNormL1GetBufferHostSize_16s_AC4R (NppiSize *oSizeROI*, int ∗ *hpBufferSize*)

Buffer size for nppiNorm_L1_16s_AC4R.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.103.2.26 NppStatus nppiNormL1GetBufferHostSize_16s_C1R (NppiSize *oSizeROI*, int ∗ *hpBufferSize*)

Buffer size for nppiNorm_L1_16s_C1R.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.103.2.27 NppStatus nppiNormL1GetBufferHostSize_16s_C3R (NppiSize *oSizeROI*, int * *hpBufferSize*)

Buffer size for nppiNorm_L1_16s_C3R.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.103.2.28 NppStatus nppiNormL1GetBufferHostSize_16s_C4R (NppiSize *oSizeROI*, int * *hpBufferSize*)

Buffer size for nppiNorm_L1_16s_C4R.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.103.2.29 NppStatus nppiNormL1GetBufferHostSize_16u_AC4R (NppiSize *oSizeROI*, int * *hpBufferSize*)

Buffer size for nppiNorm_L1_16u_AC4R.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.103.2.30 NppStatus nppiNormL1GetBufferHostSize_16u_C1MR (NppiSize *oSizeROI*, int * *hpBufferSize*)

Buffer size for nppiNorm_L1_16u_C1MR.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.103.2.31 NppStatus nppiNormL1GetBufferHostSize_16u_C1R (NppiSize *oSizeROI*, int * *hpBufferSize*)

Buffer size for nppiNorm_L1_16u_C1R.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.103.2.32 NppStatus nppiNormL1GetBufferHostSize_16u_C3CMR (NppiSize *oSizeROI*, int * *hpBufferSize*)

Buffer size for nppiNorm_L1_16u_C3CMR.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.103.2.33 NppStatus nppiNormL1GetBufferHostSize_16u_C3R (NppiSize *oSizeROI*, int * *hpBufferSize*)

Buffer size for nppiNorm_L1_16u_C3R.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.103.2.34 NppStatus nppiNormL1GetBufferHostSize_16u_C4R (NppiSize *oSizeROI*, int ∗ *hpBufferSize*)

Buffer size for nppiNorm_L1_16u_C4R.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.103.2.35 NppStatus nppiNormL1GetBufferHostSize_32f_AC4R (NppiSize *oSizeROI*, int ∗ *hpBufferSize*)

Buffer size for nppiNorm_L1_32f_AC4R.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.103.2.36 NppStatus nppiNormL1GetBufferHostSize_32f_C1MR (NppiSize *oSizeROI*, int ∗ *hpBufferSize*)

Buffer size for nppiNorm_L1_32f_C1MR.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.103.2.37 NppStatus nppiNormL1GetBufferHostSize_32f_C1R (NppiSize *oSizeROI*, int ∗ *hpBufferSize*)

Buffer size for nppiNorm_L1_32f_C1R.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.103.2.38 NppStatus nppiNormL1GetBufferHostSize_32f_C3CMR (NppiSize *oSizeROI*, int ∗ *hpBufferSize*)

Buffer size for nppiNorm_L1_32f_C3CMR.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.103.2.39 NppStatus nppiNormL1GetBufferHostSize_32f_C3R (NppiSize *oSizeROI*, int ∗ *hpBufferSize*)

Buffer size for nppiNorm_L1_32f_C3R.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.103.2.40 NppStatus nppiNormL1GetBufferHostSize_32f_C4R (NppiSize *oSizeROI*, int ∗ *hpBufferSize*)

Buffer size for nppiNorm_L1_32f_C4R.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.103.2.41 NppStatus nppiNormL1GetBufferHostSize_8s_C1MR (NppiSize *oSizeROI*, int ∗ *hpBufferSize*)

Buffer size for nppiNorm_L1_8s_C1MR.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.103.2.42 NppStatus nppiNormL1GetBufferHostSize_8s_C3CMR (NppiSize *oSizeROI*, int ∗ *hpBufferSize*)

Buffer size for nppiNorm_L1_8s_C3CMR.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.103.2.43 NppStatus nppiNormL1GetBufferHostSize_8u_AC4R (NppiSize *oSizeROI*, int ∗ *hpBufferSize*)

Buffer size for nppiNorm_L1_8u_AC4R.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.103.2.44 NppStatus nppiNormL1GetBufferHostSize_8u_C1MR (NppiSize *oSizeROI*, int ∗ *hpBufferSize*)

Buffer size for nppiNorm_L1_8u_C1MR.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.103.2.45 NppStatus nppiNormL1GetBufferHostSize_8u_C1R (NppiSize *oSizeROI*, int * *hpBufferSize*)

Buffer size for nppiNorm_L1_8u_C1R.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.103.2.46 NppStatus nppiNormL1GetBufferHostSize_8u_C3CMR (NppiSize *oSizeROI*, int * *hpBufferSize*)

Buffer size for nppiNorm_L1_8u_C3CMR.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.103.2.47 NppStatus nppiNormL1GetBufferHostSize_8u_C3R (NppiSize *oSizeROI*, int * *hpBufferSize*)

Buffer size for nppiNorm_L1_8u_C3R.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.103.2.48 NppStatus nppiNormL1GetBufferHostSize_8u_C4R (NppiSize *oSizeROI*, int * *hpBufferSize*)

Buffer size for nppiNorm_L1_8u_C4R.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.104 Norm_L2

Primitives for computing the L2 norm of an image.

Basic Norm_L2

Computes the L2 norm of an image.

- NppStatus nppiNorm_L2_8u_C1R (const Npp8u ∗pSrc, int nSrcStep, NppiSize oSizeROI, Npp64f ∗pNorm, Npp8u ∗pDeviceBuffer)

  One-channel 8-bit unsigned image Norm_L2.

- NppStatus nppiNorm_L2_16u_C1R (const Npp16u ∗pSrc, int nSrcStep, NppiSize oSizeROI, Npp64f ∗pNorm, Npp8u ∗pDeviceBuffer)

  One-channel 16-bit unsigned image Norm_L2.

- NppStatus nppiNorm_L2_16s_C1R (const Npp16s ∗pSrc, int nSrcStep, NppiSize oSizeROI, Npp64f ∗pNorm, Npp8u ∗pDeviceBuffer)

  One-channel 16-bit signed image Norm_L2.

- NppStatus nppiNorm_L2_32f_C1R (const Npp32f ∗pSrc, int nSrcStep, NppiSize oSizeROI, Npp64f ∗pNorm, Npp8u ∗pDeviceBuffer)

  One-channel 32-bit floating point image Norm_L2.

- NppStatus nppiNorm_L2_8u_C3R (const Npp8u ∗pSrc, int nSrcStep, NppiSize oSizeROI, Npp64f aNorm[3], Npp8u ∗pDeviceBuffer)

  Three-channel 8-bit unsigned image Norm_L2.

- NppStatus nppiNorm_L2_16u_C3R (const Npp16u ∗pSrc, int nSrcStep, NppiSize oSizeROI, Npp64f aNorm[3], Npp8u ∗pDeviceBuffer)

  Three-channel 16-bit unsigned image Norm_L2.

- NppStatus nppiNorm_L2_16s_C3R (const Npp16s ∗pSrc, int nSrcStep, NppiSize oSizeROI, Npp64f aNorm[3], Npp8u ∗pDeviceBuffer)

  Three-channel 16-bit signed image Norm_L2.

- NppStatus nppiNorm_L2_32f_C3R (const Npp32f ∗pSrc, int nSrcStep, NppiSize oSizeROI, Npp64f aNorm[3], Npp8u ∗pDeviceBuffer)

  Three-channel 32-bit floating point image Norm_L2.

- NppStatus nppiNorm_L2_8u_AC4R (const Npp8u ∗pSrc, int nSrcStep, NppiSize oSizeROI, Npp64f aNorm[3], Npp8u ∗pDeviceBuffer)

  Four-channel 8-bit unsigned image Norm_L2 ignoring alpha channel.

- NppStatus nppiNorm_L2_16u_AC4R (const Npp16u ∗pSrc, int nSrcStep, NppiSize oSizeROI, Npp64f aNorm[3], Npp8u ∗pDeviceBuffer)

  Four-channel 16-bit unsigned image Norm_L2 ignoring alpha channel.

- NppStatus nppiNorm_L2_16s_AC4R (const Npp16s ∗pSrc, int nSrcStep, NppiSize oSizeROI, Npp64f aNorm[3], Npp8u ∗pDeviceBuffer)

Four-channel 16-bit signed image Norm_L2 ignoring alpha channel.

- NppStatus nppiNorm_L2_32f_AC4R (const Npp32f ∗pSrc, int nSrcStep, NppiSize oSizeROI, Npp64f aNorm[3], Npp8u ∗pDeviceBuffer)

  Four-channel 32-bit floating point image Norm_L2 ignoring alpha channel.

- NppStatus nppiNorm_L2_8u_C4R (const Npp8u ∗pSrc, int nSrcStep, NppiSize oSizeROI, Npp64f aNorm[4], Npp8u ∗pDeviceBuffer)

  Four-channel 8-bit unsigned image Norm_L2.

- NppStatus nppiNorm_L2_16u_C4R (const Npp16u ∗pSrc, int nSrcStep, NppiSize oSizeROI, Npp64f aNorm[4], Npp8u ∗pDeviceBuffer)

  Four-channel 16-bit unsigned image Norm_L2.

- NppStatus nppiNorm_L2_16s_C4R (const Npp16s ∗pSrc, int nSrcStep, NppiSize oSizeROI, Npp64f aNorm[4], Npp8u ∗pDeviceBuffer)

  Four-channel 16-bit signed image Norm_L2.

- NppStatus nppiNorm_L2_32f_C4R (const Npp32f ∗pSrc, int nSrcStep, NppiSize oSizeROI, Npp64f aNorm[4], Npp8u ∗pDeviceBuffer)

  Four-channel 32-bit floating point image Norm_L2.

Masked Norm_L2

See Masked Operation.

- NppStatus nppiNorm_L2_8u_C1MR (const Npp8u ∗pSrc, int nSrcStep, const Npp8u ∗pMask, int nMaskStep, NppiSize oSizeROI, Npp64f ∗pNorm, Npp8u ∗pDeviceBuffer)

  Masked one-channel 8-bit unsigned image Norm_L2.

- NppStatus nppiNorm_L2_8s_C1MR (const Npp8s ∗pSrc, int nSrcStep, const Npp8u ∗pMask, int nMaskStep, NppiSize oSizeROI, Npp64f ∗pNorm, Npp8u ∗pDeviceBuffer)

  Masked one-channel 8-bit signed image Norm_L2.

- NppStatus nppiNorm_L2_16u_C1MR (const Npp16u ∗pSrc, int nSrcStep, const Npp8u ∗pMask, int nMaskStep, NppiSize oSizeROI, Npp64f ∗pNorm, Npp8u ∗pDeviceBuffer)

  Masked one-channel 16-bit unsigned image Norm_L2.

- NppStatus nppiNorm_L2_32f_C1MR (const Npp32f ∗pSrc, int nSrcStep, const Npp8u ∗pMask, int nMaskStep, NppiSize oSizeROI, Npp64f ∗pNorm, Npp8u ∗pDeviceBuffer)

  Masked one-channel 32-bit floating point image Norm_L2.

Masked Channel Norm_L2

See Channel-of-Interest API and Masked Operation.

- NppStatus nppiNorm_L2_8u_C3CMR (const Npp8u ∗pSrc, int nSrcStep, const Npp8u ∗pMask, int nMaskStep, NppiSize oSizeROI, int nCOI, Npp64f ∗pNorm, Npp8u ∗pDeviceBuffer)

Masked three-channel 8-bit unsigned image Norm_L2.

- NppStatus nppiNorm_L2_8s_C3CMR (const Npp8s ∗pSrc, int nSrcStep, const Npp8u ∗pMask, int nMaskStep, NppiSize oSizeROI, int nCOI, Npp64f ∗pNorm, Npp8u ∗pDeviceBuffer)

  Masked three-channel 8-bit signed image Norm_L2.

- NppStatus nppiNorm_L2_16u_C3CMR (const Npp16u ∗pSrc, int nSrcStep, const Npp8u ∗pMask, int nMaskStep, NppiSize oSizeROI, int nCOI, Npp64f ∗pNorm, Npp8u ∗pDeviceBuffer)

  Masked three-channel 16-bit unsigned image Norm_L2.

- NppStatus nppiNorm_L2_32f_C3CMR (const Npp32f ∗pSrc, int nSrcStep, const Npp8u ∗pMask, int nMaskStep, NppiSize oSizeROI, int nCOI, Npp64f ∗pNorm, Npp8u ∗pDeviceBuffer)

  Masked three-channel 32-bit floating point image Norm_L2.

NormL2GetBufferHostSize

Companion primitives for computing the device buffer size (in bytes) required by the Norm_L2 primitives.

- NppStatus nppiNormL2GetBufferHostSize_8u_C1R (NppiSize oSizeROI, int ∗hpBufferSize)

  Buffer size for nppiNorm_L2_8u_C1R.

- NppStatus nppiNormL2GetBufferHostSize_16u_C1R (NppiSize oSizeROI, int ∗hpBufferSize)

  Buffer size for nppiNorm_L2_16u_C1R.

- NppStatus nppiNormL2GetBufferHostSize_16s_C1R (NppiSize oSizeROI, int ∗hpBufferSize)

  Buffer size for nppiNorm_L2_16s_C1R.

- NppStatus nppiNormL2GetBufferHostSize_32f_C1R (NppiSize oSizeROI, int ∗hpBufferSize)

  Buffer size for nppiNorm_L2_32f_C1R.

- NppStatus nppiNormL2GetBufferHostSize_8u_C1MR (NppiSize oSizeROI, int ∗hpBufferSize)

  Buffer size for nppiNorm_L2_8u_C1MR.

- NppStatus nppiNormL2GetBufferHostSize_8s_C1MR (NppiSize oSizeROI, int ∗hpBufferSize)

  Buffer size for nppiNorm_L2_8s_C1MR.

- NppStatus nppiNormL2GetBufferHostSize_16u_C1MR (NppiSize oSizeROI, int ∗hpBufferSize)

  Buffer size for nppiNorm_L2_16u_C1MR.

- NppStatus nppiNormL2GetBufferHostSize_32f_C1MR (NppiSize oSizeROI, int ∗hpBufferSize)

  Buffer size for nppiNorm_L2_32f_C1MR.

- NppStatus nppiNormL2GetBufferHostSize_8u_C3R (NppiSize oSizeROI, int ∗hpBufferSize)

  Buffer size for nppiNorm_L2_8u_C3R.

- NppStatus nppiNormL2GetBufferHostSize_16u_C3R (NppiSize oSizeROI, int ∗hpBufferSize)

  Buffer size for nppiNorm_L2_16u_C3R.

- NppStatus nppiNormL2GetBufferHostSize_16s_C3R (NppiSize oSizeROI, int ∗hpBufferSize)

Buffer size for nppiNorm_L2_16s_C3R.

- NppStatus nppiNormL2GetBufferHostSize_32f_C3R (NppiSize oSizeROI, int ∗hpBufferSize)

  Buffer size for nppiNorm_L2_32f_C3R.

- NppStatus nppiNormL2GetBufferHostSize_8u_AC4R (NppiSize oSizeROI, int ∗hpBufferSize)

  Buffer size for nppiNorm_L2_8u_AC4R.

- NppStatus nppiNormL2GetBufferHostSize_16u_AC4R (NppiSize oSizeROI, int ∗hpBufferSize)

  Buffer size for nppiNorm_L2_16u_AC4R.

- NppStatus nppiNormL2GetBufferHostSize_16s_AC4R (NppiSize oSizeROI, int ∗hpBufferSize)

  Buffer size for nppiNorm_L2_16s_AC4R.

- NppStatus nppiNormL2GetBufferHostSize_32f_AC4R (NppiSize oSizeROI, int ∗hpBufferSize)

  Buffer size for nppiNorm_L2_32f_AC4R.

- NppStatus nppiNormL2GetBufferHostSize_8u_C4R (NppiSize oSizeROI, int ∗hpBufferSize)

  Buffer size for nppiNorm_L2_8u_C4R.

- NppStatus nppiNormL2GetBufferHostSize_16u_C4R (NppiSize oSizeROI, int ∗hpBufferSize)

  Buffer size for nppiNorm_L2_16u_C4R.

- NppStatus nppiNormL2GetBufferHostSize_16s_C4R (NppiSize oSizeROI, int ∗hpBufferSize)

  Buffer size for nppiNorm_L2_16s_C4R.

- NppStatus nppiNormL2GetBufferHostSize_32f_C4R (NppiSize oSizeROI, int ∗hpBufferSize)

  Buffer size for nppiNorm_L2_32f_C4R.

- NppStatus nppiNormL2GetBufferHostSize_8u_C3CMR (NppiSize oSizeROI, int ∗hpBufferSize)

  Buffer size for nppiNorm_L2_8u_C3CMR.

- NppStatus nppiNormL2GetBufferHostSize_8s_C3CMR (NppiSize oSizeROI, int ∗hpBufferSize)

  Buffer size for nppiNorm_L2_8s_C3CMR.

- NppStatus nppiNormL2GetBufferHostSize_16u_C3CMR (NppiSize oSizeROI, int ∗hpBufferSize)

  Buffer size for nppiNorm_L2_16u_C3CMR.

- NppStatus nppiNormL2GetBufferHostSize_32f_C3CMR (NppiSize oSizeROI, int ∗hpBufferSize)

  Buffer size for nppiNorm_L2_32f_C3CMR.

7.104.1 Detailed Description

Primitives for computing the L2 norm of an image.

7.104.2 Function Documentation

7.104.2.1 NppStatus nppiNorm_L2_16s_AC4R (const Npp16s ∗ *pSrc*, int *nSrcStep*, NppiSize *oSizeROI*, Npp64f *aNorm*[3], Npp8u ∗ *pDeviceBuffer*)

Four-channel 16-bit signed image Norm_L2 ignoring alpha channel.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSizeROI Region-of-Interest (ROI).

aNorm Array that contains the norm values of Three-channels.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppiNormL2GetBufferHostSize_16s_AC4R to compute the required size (in bytes).

Returns:

Image Data Related Error Codes, ROI Related Error Codes.

7.104.2.2 NppStatus nppiNorm_L2_16s_C1R (const Npp16s ∗ *pSrc*, int *nSrcStep*, NppiSize *oSizeROI*, Npp64f ∗ *pNorm*, Npp8u ∗ *pDeviceBuffer*)

One-channel 16-bit signed image Norm_L2.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pNorm Pointer to the norm value.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppiNormL2GetBufferHostSize_16s_C1R to compute the required size (in bytes).

Returns:

Image Data Related Error Codes, ROI Related Error Codes.

7.104.2.3 NppStatus nppiNorm_L2_16s_C3R (const Npp16s ∗ *pSrc*, int *nSrcStep*, NppiSize *oSizeROI*, Npp64f *aNorm*[3], Npp8u ∗ *pDeviceBuffer*)

Three-channel 16-bit signed image Norm_L2.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSizeROI Region-of-Interest (ROI).

aNorm Array that contains the norm values of Three-channels.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppiNormL2GetBufferHostSize_16s_C3R to compute the required size (in bytes).

Returns:

Image Data Related Error Codes, ROI Related Error Codes.

7.104.2.4 NppStatus nppiNorm_L2_16s_C4R (const Npp16s ∗ *pSrc*, int *nSrcStep*, NppiSize *oSizeROI*, Npp64f *aNorm*[4], Npp8u ∗ *pDeviceBuffer*)

Four-channel 16-bit signed image Norm_L2.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSizeROI Region-of-Interest (ROI).

aNorm Array that contains the norm values of Four-channels.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppiNormL2GetBufferHostSize_16s_C4R to compute the required size (in bytes).

Returns:

Image Data Related Error Codes, ROI Related Error Codes.

7.104.2.5 NppStatus nppiNorm_L2_16u_AC4R (const Npp16u ∗ *pSrc*, int *nSrcStep*, NppiSize *oSizeROI*, Npp64f *aNorm*[3], Npp8u ∗ *pDeviceBuffer*)

Four-channel 16-bit unsigned image Norm_L2 ignoring alpha channel.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSizeROI Region-of-Interest (ROI).

aNorm Array that contains the norm values of Three-channels.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppiNormL2GetBufferHostSize_16u_AC4R to compute the required size (in bytes).

Returns:

Image Data Related Error Codes, ROI Related Error Codes.

7.104.2.6 NppStatus nppiNorm_L2_16u_C1MR (const Npp16u ∗ *pSrc*, int *nSrcStep*, const Npp8u ∗ *pMask*, int *nMaskStep*, NppiSize *oSizeROI*, Npp64f ∗ *pNorm*, Npp8u ∗ *pDeviceBuffer*)

Masked one-channel 16-bit unsigned image Norm_L2.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pMask Mask-Image Pointer.

nMaskStep Mask-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pNorm Pointer to the norm value.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppiNormL2GetBufferHostSize_16u_C1MR to compute the required size (in bytes).

Returns:

Image Data Related Error Codes, ROI Related Error Codes.

7.104.2.7 NppStatus nppiNorm_L2_16u_C1R (const Npp16u * *pSrc*, int *nSrcStep*, NppiSize *oSizeROI*, Npp64f * *pNorm*, Npp8u * *pDeviceBuffer*)

One-channel 16-bit unsigned image Norm_L2.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pNorm Pointer to the norm value.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppiNormL2GetBufferHostSize_16u_C1R to compute the required size (in bytes).

Returns:

Image Data Related Error Codes, ROI Related Error Codes.

7.104.2.8 NppStatus nppiNorm_L2_16u_C3CMR (const Npp16u * *pSrc*, int *nSrcStep*, const Npp8u * *pMask*, int *nMaskStep*, NppiSize *oSizeROI*, int *nCOI*, Npp64f * *pNorm*, Npp8u * *pDeviceBuffer*)

Masked three-channel 16-bit unsigned image Norm_L2.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pMask Mask-Image Pointer.

nMaskStep Mask-Image Line Step.

oSizeROI Region-of-Interest (ROI).

nCOI Channel_of_Interest Number.

pNorm Pointer to the norm value.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppiNormL2GetBufferHostSize_16u_C3CMR to compute the required size (in bytes).

Returns:

Image Data Related Error Codes, ROI Related Error Codes, or NPP_COI_ERROR if an invalid channel of interest is specified.

7.104.2.9 NppStatus nppiNorm_L2_16u_C3R (const Npp16u ∗ *pSrc*, int *nSrcStep*, NppiSize *oSizeROI*, Npp64f *aNorm*[3], Npp8u ∗ *pDeviceBuffer*)

Three-channel 16-bit unsigned image Norm_L2.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSizeROI Region-of-Interest (ROI).

aNorm Array that contains the norm values of Three-channels.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppiNormL2GetBufferHostSize_16u_C3R to compute the required size (in bytes).

Returns:

Image Data Related Error Codes, ROI Related Error Codes.

7.104.2.10 NppStatus nppiNorm_L2_16u_C4R (const Npp16u ∗ *pSrc*, int *nSrcStep*, NppiSize *oSizeROI*, Npp64f *aNorm*[4], Npp8u ∗ *pDeviceBuffer*)

Four-channel 16-bit unsigned image Norm_L2.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSizeROI Region-of-Interest (ROI).

aNorm Array that contains the norm values of Four-channels.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppiNormL2GetBufferHostSize_16u_C4R to compute the required size (in bytes).

Returns:

Image Data Related Error Codes, ROI Related Error Codes.

7.104.2.11 NppStatus nppiNorm_L2_32f_AC4R (const Npp32f ∗ *pSrc*, int *nSrcStep*, NppiSize *oSizeROI*, Npp64f *aNorm*[3], Npp8u ∗ *pDeviceBuffer*)

Four-channel 32-bit floating point image Norm_L2 ignoring alpha channel.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSizeROI Region-of-Interest (ROI).

aNorm Array that contains the norm values of Three-channels.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppiNormL2GetBufferHostSize_32f_AC4R to compute the required size (in bytes).

Returns:

Image Data Related Error Codes, ROI Related Error Codes.

7.104.2.12 NppStatus nppiNorm_L2_32f_C1MR (const Npp32f ∗ *pSrc*, int *nSrcStep*, const Npp8u ∗ *pMask*, int *nMaskStep*, NppiSize *oSizeROI*, Npp64f ∗ *pNorm*, Npp8u ∗ *pDeviceBuffer*)

Masked one-channel 32-bit floating point image Norm_L2.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pMask Mask-Image Pointer.

nMaskStep Mask-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pNorm Pointer to the norm value.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppiNormL2GetBufferHostSize_32f_C1MR to compute the required size (in bytes).

Returns:

Image Data Related Error Codes, ROI Related Error Codes, or NPP_NOT_EVEN_STEP_ERROR if the step of the source image cannot be divided by 4.

7.104.2.13 NppStatus nppiNorm_L2_32f_C1R (const Npp32f ∗ *pSrc*, int *nSrcStep*, NppiSize *oSizeROI*, Npp64f ∗ *pNorm*, Npp8u ∗ *pDeviceBuffer*)

One-channel 32-bit floating point image Norm_L2.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pNorm Pointer to the norm value.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppiNormL2GetBufferHostSize_32f_C1R to compute the required size (in bytes).

Returns:

Image Data Related Error Codes, ROI Related Error Codes.

7.104.2.14 NppStatus nppiNorm_L2_32f_C3CMR (const Npp32f ∗ *pSrc*, int *nSrcStep*, const Npp8u ∗ *pMask*, int *nMaskStep*, NppiSize *oSizeROI*, int *nCOI*, Npp64f ∗ *pNorm*, Npp8u ∗ *pDeviceBuffer*)

Masked three-channel 32-bit floating point image Norm_L2.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pMask Mask-Image Pointer.

nMaskStep Mask-Image Line Step.

oSizeROI Region-of-Interest (ROI).

nCOI Channel_of_Interest Number.

pNorm Pointer to the norm value.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppiNormL2GetBufferHostSize_32f_C3CMR to compute the required size (in bytes).

Returns:

Image Data Related Error Codes, ROI Related Error Codes, NPP_NOT_EVEN_STEP_ERROR if the step of the source image cannot be divided by 4, or NPP_COI_ERROR if an invalid channel of interest is specified.

7.104.2.15 NppStatus nppiNorm_L2_32f_C3R (const Npp32f ∗ *pSrc*, int *nSrcStep*, NppiSize *oSizeROI*, Npp64f *aNorm*[3], Npp8u ∗ *pDeviceBuffer*)

Three-channel 32-bit floating point image Norm_L2.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSizeROI Region-of-Interest (ROI).

aNorm Array that contains the norm values of Three-channels.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppiNormL2GetBufferHostSize_32f_C3R to compute the required size (in bytes).

Returns:

Image Data Related Error Codes, ROI Related Error Codes.

7.104.2.16 NppStatus nppiNorm_L2_32f_C4R (const Npp32f ∗ *pSrc*, int *nSrcStep*, NppiSize *oSizeROI*, Npp64f *aNorm*[4], Npp8u ∗ *pDeviceBuffer*)

Four-channel 32-bit floating point image Norm_L2.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSizeROI Region-of-Interest (ROI).

aNorm Array that contains the norm values of Four-channels.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppiNormL2GetBufferHostSize_32f_C4R to compute the required size (in bytes).

Returns:

Image Data Related Error Codes, ROI Related Error Codes.

7.104.2.17 NppStatus nppiNorm_L2_8s_C1MR (const Npp8s ∗ *pSrc*, int *nSrcStep*, const Npp8u ∗ *pMask*, int *nMaskStep*, NppiSize *oSizeROI*, Npp64f ∗ *pNorm*, Npp8u ∗ *pDeviceBuffer*)

Masked one-channel 8-bit signed image Norm_L2.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pMask Mask-Image Pointer.

nMaskStep Mask-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pNorm Pointer to the norm value.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppiNormL2GetBufferHostSize_8s_C1MR to compute the required size (in bytes).

Returns:

Image Data Related Error Codes, ROI Related Error Codes.

7.104.2.18 NppStatus nppiNorm_L2_8s_C3CMR (const Npp8s ∗ *pSrc*, int *nSrcStep*, const Npp8u ∗ *pMask*, int *nMaskStep*, NppiSize *oSizeROI*, int *nCOI*, Npp64f ∗ *pNorm*, Npp8u ∗ *pDeviceBuffer*)

Masked three-channel 8-bit signed image Norm_L2.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pMask Mask-Image Pointer.

nMaskStep Mask-Image Line Step.

oSizeROI Region-of-Interest (ROI).

nCOI Channel_of_Interest Number.

pNorm Pointer to the norm value.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppiNormL2GetBufferHostSize_8s_C3CMR to compute the required size (in bytes).

Returns:

Image Data Related Error Codes, ROI Related Error Codes, or NPP_COI_ERROR if an invalid channel of interest is specified.

7.104.2.19 NppStatus nppiNorm_L2_8u_AC4R (const Npp8u ∗ *pSrc*, int *nSrcStep*, NppiSize *oSizeROI*, Npp64f *aNorm*[3], Npp8u ∗ *pDeviceBuffer*)

Four-channel 8-bit unsigned image Norm_L2 ignoring alpha channel.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSizeROI Region-of-Interest (ROI).

aNorm Array that contains the norm values of Three-channels.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppiNormL2GetBufferHostSize_8u_AC4R to compute the required size (in bytes).

Returns:

Image Data Related Error Codes, ROI Related Error Codes.

7.104.2.20 NppStatus nppiNorm_L2_8u_C1MR (const Npp8u ∗ *pSrc*, int *nSrcStep*, const Npp8u ∗ *pMask*, int *nMaskStep*, NppiSize *oSizeROI*, Npp64f ∗ *pNorm*, Npp8u ∗ *pDeviceBuffer*)

Masked one-channel 8-bit unsigned image Norm_L2.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pMask Mask-Image Pointer.

nMaskStep Mask-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pNorm Pointer to the norm value.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppiNormL2GetBufferHostSize_8u_C1MR to compute the required size (in bytes).

Returns:

Image Data Related Error Codes, ROI Related Error Codes.

7.104.2.21 NppStatus nppiNorm_L2_8u_C1R (const Npp8u ∗ *pSrc*, int *nSrcStep*, NppiSize *oSizeROI*, Npp64f ∗ *pNorm*, Npp8u ∗ *pDeviceBuffer*)

One-channel 8-bit unsigned image Norm_L2.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pNorm Pointer to the norm value.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppiNormL2GetBufferHostSize_8u_C1R to compute the required size (in bytes).

Returns:

Image Data Related Error Codes, ROI Related Error Codes.

7.104.2.22 NppStatus nppiNorm_L2_8u_C3CMR (const Npp8u ∗ *pSrc*, int *nSrcStep*, const Npp8u ∗ *pMask*, int *nMaskStep*, NppiSize *oSizeROI*, int *nCOI*, Npp64f ∗ *pNorm*, Npp8u ∗ *pDeviceBuffer*)

Masked three-channel 8-bit unsigned image Norm_L2.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pMask Mask-Image Pointer.

nMaskStep Mask-Image Line Step.

oSizeROI Region-of-Interest (ROI).

nCOI Channel_of_Interest Number.

pNorm Pointer to the norm value.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppiNormL2GetBufferHostSize_8u_C3CMR to compute the required size (in bytes).

Returns:

Image Data Related Error Codes, ROI Related Error Codes, or NPP_COI_ERROR if an invalid channel of interest is specified.

7.104.2.23 NppStatus nppiNorm_L2_8u_C3R (const Npp8u ∗ *pSrc*, int *nSrcStep*, NppiSize *oSizeROI*, Npp64f *aNorm*[3], Npp8u ∗ *pDeviceBuffer*)

Three-channel 8-bit unsigned image Norm_L2.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSizeROI Region-of-Interest (ROI).

aNorm Array that contains the norm values of Three-channels.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppiNormL2GetBufferHostSize_8u_C3R to compute the required size (in bytes).

Returns:

Image Data Related Error Codes, ROI Related Error Codes.

7.104.2.24 NppStatus nppiNorm_L2_8u_C4R (const Npp8u * *pSrc*, int *nSrcStep*, NppiSize *oSizeROI*, Npp64f *aNorm*[4], Npp8u * *pDeviceBuffer*)

Four-channel 8-bit unsigned image Norm_L2.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSizeROI Region-of-Interest (ROI).

aNorm Array that contains the norm values of Four-channels.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppiNormL2GetBufferHostSize_8u_C4R to compute the required size (in bytes).

Returns:

Image Data Related Error Codes, ROI Related Error Codes.

7.104.2.25 NppStatus nppiNormL2GetBufferHostSize_16s_AC4R (NppiSize *oSizeROI*, int * *hpBufferSize*)

Buffer size for nppiNorm_L2_16s_AC4R.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.104.2.26 NppStatus nppiNormL2GetBufferHostSize_16s_C1R (NppiSize *oSizeROI*, int * *hpBufferSize*)

Buffer size for nppiNorm_L2_16s_C1R.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.104.2.27 NppStatus nppiNormL2GetBufferHostSize_16s_C3R (NppiSize *oSizeROI*, int * *hpBufferSize*)

Buffer size for nppiNorm_L2_16s_C3R.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.104.2.28 NppStatus nppiNormL2GetBufferHostSize_16s_C4R (NppiSize *oSizeROI*, int * *hpBufferSize*)

Buffer size for nppiNorm_L2_16s_C4R.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.104.2.29 NppStatus nppiNormL2GetBufferHostSize_16u_AC4R (NppiSize *oSizeROI*, int * *hpBufferSize*)

Buffer size for nppiNorm_L2_16u_AC4R.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.104.2.30 NppStatus nppiNormL2GetBufferHostSize_16u_C1MR (NppiSize *oSizeROI*, int * *hpBufferSize*)

Buffer size for nppiNorm_L2_16u_C1MR.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.104.2.31 NppStatus nppiNormL2GetBufferHostSize_16u_C1R (NppiSize *oSizeROI*, int * *hpBufferSize*)

Buffer size for nppiNorm_L2_16u_C1R.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.104.2.32 NppStatus nppiNormL2GetBufferHostSize_16u_C3CMR (NppiSize *oSizeROI*, int * *hpBufferSize*)

Buffer size for nppiNorm_L2_16u_C3CMR.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.104.2.33 NppStatus nppiNormL2GetBufferHostSize_16u_C3R (NppiSize *oSizeROI*, int * *hpBufferSize*)

Buffer size for nppiNorm_L2_16u_C3R.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.104.2.34 NppStatus nppiNormL2GetBufferHostSize_16u_C4R (NppiSize *oSizeROI*, int ∗ *hpBufferSize*)

Buffer size for nppiNorm_L2_16u_C4R.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.104.2.35 NppStatus nppiNormL2GetBufferHostSize_32f_AC4R (NppiSize *oSizeROI*, int ∗ *hpBufferSize*)

Buffer size for nppiNorm_L2_32f_AC4R.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.104.2.36 NppStatus nppiNormL2GetBufferHostSize_32f_C1MR (NppiSize *oSizeROI*, int ∗ *hpBufferSize*)

Buffer size for nppiNorm_L2_32f_C1MR.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.104.2.37 NppStatus nppiNormL2GetBufferHostSize_32f_C1R (NppiSize *oSizeROI*, int ∗ *hpBufferSize*)

Buffer size for nppiNorm_L2_32f_C1R.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.104.2.38 NppStatus nppiNormL2GetBufferHostSize_32f_C3CMR (NppiSize *oSizeROI*, int ∗ *hpBufferSize*)

Buffer size for nppiNorm_L2_32f_C3CMR.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.104.2.39 NppStatus nppiNormL2GetBufferHostSize_32f_C3R (NppiSize *oSizeROI*, int ∗ *hpBufferSize*)

Buffer size for nppiNorm_L2_32f_C3R.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.104.2.40 NppStatus nppiNormL2GetBufferHostSize_32f_C4R (NppiSize *oSizeROI*, int ∗ *hpBufferSize*)

Buffer size for nppiNorm_L2_32f_C4R.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.104.2.41 NppStatus nppiNormL2GetBufferHostSize_8s_C1MR (NppiSize *oSizeROI*, int ∗ *hpBufferSize*)

Buffer size for nppiNorm_L2_8s_C1MR.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.104.2.42 NppStatus nppiNormL2GetBufferHostSize_8s_C3CMR (NppiSize *oSizeROI*, int ∗ *hpBufferSize*)

Buffer size for nppiNorm_L2_8s_C3CMR.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.104.2.43 NppStatus nppiNormL2GetBufferHostSize_8u_AC4R (NppiSize *oSizeROI*, int ∗ *hpBufferSize*)

Buffer size for nppiNorm_L2_8u_AC4R.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.104.2.44 NppStatus nppiNormL2GetBufferHostSize_8u_C1MR (NppiSize *oSizeROI*, int ∗ *hpBufferSize*)

Buffer size for nppiNorm_L2_8u_C1MR.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.104.2.45 NppStatus nppiNormL2GetBufferHostSize_8u_C1R (NppiSize *oSizeROI*, int ∗ *hpBufferSize*)

Buffer size for nppiNorm_L2_8u_C1R.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.104.2.46 NppStatus nppiNormL2GetBufferHostSize_8u_C3CMR (NppiSize *oSizeROI*, int ∗ *hpBufferSize*)

Buffer size for nppiNorm_L2_8u_C3CMR.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.104.2.47 NppStatus nppiNormL2GetBufferHostSize_8u_C3R (NppiSize *oSizeROI*, int ∗ *hpBufferSize*)

Buffer size for nppiNorm_L2_8u_C3R.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.104.2.48 NppStatus nppiNormL2GetBufferHostSize_8u_C4R (NppiSize *oSizeROI*, int ∗ *hpBufferSize*)

Buffer size for nppiNorm_L2_8u_C4R.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.105 NormDiff_Inf

Primitives for computing the infinity norm of difference of pixels between two images.

Basic NormDiff_Inf

- NppStatus nppiNormDiff_Inf_8u_C1R (const Npp8u ∗pSrc1, int nSrc1Step, const Npp8u ∗pSrc2, int nSrc2Step, NppiSize oSizeROI, Npp64f ∗pNormDiff, Npp8u ∗pDeviceBuffer)

  One-channel 8-bit unsigned image NormDiff_Inf.

- NppStatus nppiNormDiff_Inf_16u_C1R (const Npp16u ∗pSrc1, int nSrc1Step, const Npp16u ∗pSrc2, int nSrc2Step, NppiSize oSizeROI, Npp64f ∗pNormDiff, Npp8u ∗pDeviceBuffer)

  One-channel 16-bit unsigned image NormDiff_Inf.

- NppStatus nppiNormDiff_Inf_16s_C1R (const Npp16s ∗pSrc1, int nSrc1Step, const Npp16s ∗pSrc2, int nSrc2Step, NppiSize oSizeROI, Npp64f ∗pNormDiff, Npp8u ∗pDeviceBuffer)

  One-channel 16-bit signed image NormDiff_Inf.

- NppStatus nppiNormDiff_Inf_32f_C1R (const Npp32f ∗pSrc1, int nSrc1Step, const Npp32f ∗pSrc2, int nSrc2Step, NppiSize oSizeROI, Npp64f ∗pNormDiff, Npp8u ∗pDeviceBuffer)

  One-channel 32-bit floating point image NormDiff_Inf.

- NppStatus nppiNormDiff_Inf_8u_C3R (const Npp8u ∗pSrc1, int nSrc1Step, const Npp8u ∗pSrc2, int nSrc2Step, NppiSize oSizeROI, Npp64f aNormDiff[3], Npp8u ∗pDeviceBuffer)

  Three-channel 8-bit unsigned image NormDiff_Inf.

- NppStatus nppiNormDiff_Inf_16u_C3R (const Npp16u ∗pSrc1, int nSrc1Step, const Npp16u ∗pSrc2, int nSrc2Step, NppiSize oSizeROI, Npp64f aNormDiff[3], Npp8u ∗pDeviceBuffer)

  Three-channel 16-bit unsigned image NormDiff_Inf.

- NppStatus nppiNormDiff_Inf_16s_C3R (const Npp16s ∗pSrc1, int nSrc1Step, const Npp16s ∗pSrc2, int nSrc2Step, NppiSize oSizeROI, Npp64f aNormDiff[3], Npp8u ∗pDeviceBuffer)

  Three-channel 16-bit signed image NormDiff_Inf.

- NppStatus nppiNormDiff_Inf_32f_C3R (const Npp32f ∗pSrc1, int nSrc1Step, const Npp32f ∗pSrc2, int nSrc2Step, NppiSize oSizeROI, Npp64f aNormDiff[3], Npp8u ∗pDeviceBuffer)

  Three-channel 32-bit floating point image NormDiff_Inf.

- NppStatus nppiNormDiff_Inf_8u_AC4R (const Npp8u ∗pSrc1, int nSrc1Step, const Npp8u ∗pSrc2, int nSrc2Step, NppiSize oSizeROI, Npp64f aNormDiff[3], Npp8u ∗pDeviceBuffer)

  Four-channel 8-bit unsigned image NormDiff_Inf ignoring alpha channel.

- NppStatus nppiNormDiff_Inf_16u_AC4R (const Npp16u ∗pSrc1, int nSrc1Step, const Npp16u ∗pSrc2, int nSrc2Step, NppiSize oSizeROI, Npp64f aNormDiff[3], Npp8u ∗pDeviceBuffer)

  Four-channel 16-bit unsigned image NormDiff_Inf ignoring alpha channel.

- NppStatus nppiNormDiff_Inf_16s_AC4R (const Npp16s ∗pSrc1, int nSrc1Step, const Npp16s ∗pSrc2, int nSrc2Step, NppiSize oSizeROI, Npp64f aNormDiff[3], Npp8u ∗pDeviceBuffer)

  Four-channel 16-bit signed image NormDiff_Inf ignoring alpha channel.

- NppStatus nppiNormDiff_Inf_32f_AC4R (const Npp32f ∗pSrc1, int nSrc1Step, const Npp32f ∗pSrc2, int nSrc2Step, NppiSize oSizeROI, Npp64f aNormDiff[3], Npp8u ∗pDeviceBuffer)

  Four-channel 32-bit floating point image NormDiff_Inf ignoring alpha channel.

- NppStatus nppiNormDiff_Inf_8u_C4R (const Npp8u ∗pSrc1, int nSrc1Step, const Npp8u ∗pSrc2, int nSrc2Step, NppiSize oSizeROI, Npp64f aNormDiff[4], Npp8u ∗pDeviceBuffer)

  Four-channel 8-bit unsigned image NormDiff_Inf.

- NppStatus nppiNormDiff_Inf_16u_C4R (const Npp16u ∗pSrc1, int nSrc1Step, const Npp16u ∗pSrc2, int nSrc2Step, NppiSize oSizeROI, Npp64f aNormDiff[4], Npp8u ∗pDeviceBuffer)

  Four-channel 16-bit unsigned image NormDiff_Inf.

- NppStatus nppiNormDiff_Inf_16s_C4R (const Npp16s ∗pSrc1, int nSrc1Step, const Npp16s ∗pSrc2, int nSrc2Step, NppiSize oSizeROI, Npp64f aNormDiff[4], Npp8u ∗pDeviceBuffer)

  Four-channel 16-bit signed image NormDiff_Inf.

- NppStatus nppiNormDiff_Inf_32f_C4R (const Npp32f ∗pSrc1, int nSrc1Step, const Npp32f ∗pSrc2, int nSrc2Step, NppiSize oSizeROI, Npp64f aNormDiff[4], Npp8u ∗pDeviceBuffer)

  Four-channel 32-bit floating point image NormDiff_Inf.

Masked NormDiff_Inf

See Masked Operation.

- NppStatus nppiNormDiff_Inf_8u_C1MR (const Npp8u ∗pSrc1, int nSrc1Step, const Npp8u ∗pSrc2, int nSrc2Step, const Npp8u ∗pMask, int nMaskStep, NppiSize oSizeROI, Npp64f ∗pNormDiff, Npp8u ∗pDeviceBuffer)

  Masked one-channel 8-bit unsigned images NormDiff_Inf.

- NppStatus nppiNormDiff_Inf_8s_C1MR (const Npp8s ∗pSrc1, int nSrc1Step, const Npp8s ∗pSrc2, int nSrc2Step, const Npp8u ∗pMask, int nMaskStep, NppiSize oSizeROI, Npp64f ∗pNormDiff, Npp8u ∗pDeviceBuffer)

  Masked one-channel 8-bit signed images NormDiff_Inf.

- NppStatus nppiNormDiff_Inf_16u_C1MR (const Npp16u ∗pSrc1, int nSrc1Step, const Npp16u ∗pSrc2, int nSrc2Step, const Npp8u ∗pMask, int nMaskStep, NppiSize oSizeROI, Npp64f ∗pNormDiff, Npp8u ∗pDeviceBuffer)

  Masked one-channel 16-bit unsigned images NormDiff_Inf.

- NppStatus nppiNormDiff_Inf_32f_C1MR (const Npp32f ∗pSrc1, int nSrc1Step, const Npp32f ∗pSrc2, int nSrc2Step, const Npp8u ∗pMask, int nMaskStep, NppiSize oSizeROI, Npp64f ∗pNormDiff, Npp8u ∗pDeviceBuffer)

  Masked one-channel 32-bit floating point images NormDiff_Inf.

Masked Channel Mean

See Masked Operation and Channel-of-Interest API.

- NppStatus nppiNormDiff_Inf_8u_C3CMR (const Npp8u ∗pSrc1, int nSrc1Step, const Npp8u ∗pSrc2, int nSrc2Step, const Npp8u ∗pMask, int nMaskStep, NppiSize oSizeROI, int nCOI, Npp64f ∗pNormDiff, Npp8u ∗pDeviceBuffer)

  Masked three-channel 8-bit unsigned image NormDiff_Inf affecting only single channel.

- NppStatus nppiNormDiff_Inf_8s_C3CMR (const Npp8s ∗pSrc1, int nSrc1Step, const Npp8s ∗pSrc2, int nSrc2Step, const Npp8u ∗pMask, int nMaskStep, NppiSize oSizeROI, int nCOI, Npp64f ∗pNormDiff, Npp8u ∗pDeviceBuffer)

  Masked three-channel 8-bit signed image NormDiff_Inf affecting only single channel.

- NppStatus nppiNormDiff_Inf_16u_C3CMR (const Npp16u ∗pSrc1, int nSrc1Step, const Npp16u ∗pSrc2, int nSrc2Step, const Npp8u ∗pMask, int nMaskStep, NppiSize oSizeROI, int nCOI, Npp64f ∗pNormDiff, Npp8u ∗pDeviceBuffer)

  Masked three-channel 16-bit unsigned image NormDiff_Inf affecting only single channel.

- NppStatus nppiNormDiff_Inf_32f_C3CMR (const Npp32f ∗pSrc1, int nSrc1Step, const Npp32f ∗pSrc2, int nSrc2Step, const Npp8u ∗pMask, int nMaskStep, NppiSize oSizeROI, int nCOI, Npp64f ∗pNormDiff, Npp8u ∗pDeviceBuffer)

  Masked three-channel 32-bit floating point image NormDiff_Inf affecting only single channel.

NormDiffInfGetBufferHostSize

Companion primitives for computing the device buffer size (in bytes) required by the NormDiff_Inf primitives.

- NppStatus nppiNormDiffInfGetBufferHostSize_8u_C1R (NppiSize oSizeROI, int ∗hpBufferSize)

  Buffer size for nppiNormDiff_Inf_8u_C1R.

- NppStatus nppiNormDiffInfGetBufferHostSize_16u_C1R (NppiSize oSizeROI, int ∗hpBufferSize)

  Buffer size for nppiNormDiff_Inf_16u_C1R.

- NppStatus nppiNormDiffInfGetBufferHostSize_16s_C1R (NppiSize oSizeROI, int ∗hpBufferSize)

  Buffer size for nppiNormDiff_Inf_16s_C1R.

- NppStatus nppiNormDiffInfGetBufferHostSize_32f_C1R (NppiSize oSizeROI, int ∗hpBufferSize)

  Buffer size for nppiNormDiff_Inf_32f_C1R.

- NppStatus nppiNormDiffInfGetBufferHostSize_8u_C1MR (NppiSize oSizeROI, int ∗hpBufferSize)

  Buffer size for nppiNormDiff_Inf_8u_C1MR.

- NppStatus nppiNormDiffInfGetBufferHostSize_8s_C1MR (NppiSize oSizeROI, int ∗hpBufferSize)

  Buffer size for nppiNormDiff_Inf_8s_C1MR.

- NppStatus nppiNormDiffInfGetBufferHostSize_16u_C1MR (NppiSize oSizeROI, int ∗hpBufferSize)

Buffer size for nppiNormDiff_Inf_16u_C1MR.

- NppStatus nppiNormDiffInfGetBufferHostSize_32f_C1MR (NppiSize oSizeROI, int ∗hpBufferSize)

  Buffer size for nppiNormDiff_Inf_32f_C1MR.

- NppStatus nppiNormDiffInfGetBufferHostSize_8u_C3R (NppiSize oSizeROI, int ∗hpBufferSize)

  Buffer size for nppiNormDiff_Inf_8u_C3R.

- NppStatus nppiNormDiffInfGetBufferHostSize_16u_C3R (NppiSize oSizeROI, int ∗hpBufferSize)

  Buffer size for nppiNormDiff_Inf_16u_C3R.

- NppStatus nppiNormDiffInfGetBufferHostSize_16s_C3R (NppiSize oSizeROI, int ∗hpBufferSize)

  Buffer size for nppiNormDiff_Inf_16s_C3R.

- NppStatus nppiNormDiffInfGetBufferHostSize_32f_C3R (NppiSize oSizeROI, int ∗hpBufferSize)

  Buffer size for nppiNormDiff_Inf_32f_C3R.

- NppStatus nppiNormDiffInfGetBufferHostSize_8u_C4R (NppiSize oSizeROI, int ∗hpBufferSize)

  Buffer size for nppiNormDiff_Inf_8u_C4R.

- NppStatus nppiNormDiffInfGetBufferHostSize_16u_C4R (NppiSize oSizeROI, int ∗hpBufferSize)

  Buffer size for nppiNormDiff_Inf_16u_C4R.

- NppStatus nppiNormDiffInfGetBufferHostSize_16s_C4R (NppiSize oSizeROI, int ∗hpBufferSize)

  Buffer size for nppiNormDiff_Inf_16s_C4R.

- NppStatus nppiNormDiffInfGetBufferHostSize_32f_C4R (NppiSize oSizeROI, int ∗hpBufferSize)

  Buffer size for nppiNormDiff_Inf_32f_C4R.

- NppStatus nppiNormDiffInfGetBufferHostSize_8u_AC4R (NppiSize oSizeROI, int ∗hpBufferSize)

  Buffer size for nppiNormDiff_Inf_8u_AC4R.

- NppStatus nppiNormDiffInfGetBufferHostSize_16u_AC4R (NppiSize oSizeROI, int ∗hpBufferSize)

  Buffer size for nppiNormDiff_Inf_16u_AC4R.

- NppStatus nppiNormDiffInfGetBufferHostSize_16s_AC4R (NppiSize oSizeROI, int ∗hpBufferSize)

  Buffer size for nppiNormDiff_Inf_16s_AC4R.

- NppStatus nppiNormDiffInfGetBufferHostSize_32f_AC4R (NppiSize oSizeROI, int ∗hpBufferSize)

  Buffer size for nppiNormDiff_Inf_32f_AC4R.

- NppStatus nppiNormDiffInfGetBufferHostSize_8u_C3CMR (NppiSize oSizeROI, int ∗hpBufferSize)

  Buffer size for nppiNormDiff_Inf_8u_C3CMR.

- NppStatus nppiNormDiffInfGetBufferHostSize_8s_C3CMR (NppiSize oSizeROI, int ∗hpBufferSize)

  Buffer size for nppiNormDiff_Inf_8s_C3CMR.

- NppStatus nppiNormDiffInfGetBufferHostSize_16u_C3CMR (NppiSize oSizeROI, int ∗hpBufferSize)

  Buffer size for nppiNormDiff_Inf_16u_C3CMR.

- NppStatus nppiNormDiffInfGetBufferHostSize_32f_C3CMR (NppiSize oSizeROI, int ∗hpBufferSize)

  Buffer size for nppiNormDiff_Inf_32f_C3CMR.

7.105.1 Detailed Description

Primitives for computing the infinity norm of difference of pixels between two images.

7.105.2 Function Documentation

7.105.2.1 NppStatus nppiNormDiff_Inf_16s_AC4R (const Npp16s ∗ *pSrc1*, int *nSrc1Step*, const Npp16s ∗ *pSrc2*, int *nSrc2Step*, NppiSize *oSizeROI*, Npp64f *aNormDiff*[3], Npp8u ∗ *pDeviceBuffer*)

Four-channel 16-bit signed image NormDiff_Inf ignoring alpha channel.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

oSizeROI Region-of-Interest (ROI).

aNormDiff Array that contains computed Inf-norm of differences.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppiNormDiffInfGetBufferHostSize_16s_AC4R to compute the required size (in bytes).

Returns:

Image Data Related Error Codes, ROI Related Error Codes.

7.105.2.2 NppStatus nppiNormDiff_Inf_16s_C1R (const Npp16s * *pSrc1*, int *nSrc1Step*, const Npp16s * *pSrc2*, int *nSrc2Step*, NppiSize *oSizeROI*, Npp64f * *pNormDiff*, Npp8u * *pDeviceBuffer*)

One-channel 16-bit signed image NormDiff_Inf.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pNormDiff Pointer to the computed Inf-norm of differences.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppiNormDiffInfGetBufferHostSize_16s_C1R to compute the required size (in bytes).

Returns:

Image Data Related Error Codes, ROI Related Error Codes.

7.105.2.3 NppStatus nppiNormDiff_Inf_16s_C3R (const Npp16s * *pSrc1*, int *nSrc1Step*, const Npp16s * *pSrc2*, int *nSrc2Step*, NppiSize *oSizeROI*, Npp64f *aNormDiff*[3], Npp8u * *pDeviceBuffer*)

Three-channel 16-bit signed image NormDiff_Inf.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

oSizeROI Region-of-Interest (ROI).

aNormDiff Array that contains computed Inf-norm of differences.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppiNormDiffInfGetBufferHostSize_16s_C3R to compute the required size (in bytes).

Returns:

Image Data Related Error Codes, ROI Related Error Codes.

7.105.2.4 NppStatus nppiNormDiff_Inf_16s_C4R (const Npp16s * *pSrc1*, int *nSrc1Step*, const Npp16s * *pSrc2*, int *nSrc2Step*, NppiSize *oSizeROI*, Npp64f *aNormDiff*[4], Npp8u * *pDeviceBuffer*)

Four-channel 16-bit signed image NormDiff_Inf.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

oSizeROI Region-of-Interest (ROI).

aNormDiff Array that contains computed Inf-norm of differences.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppiNormDiffInfGetBufferHostSize_16s_C4R to compute the required size (in bytes).

Returns:

Image Data Related Error Codes, ROI Related Error Codes.

7.105.2.5 NppStatus nppiNormDiff_Inf_16u_AC4R (const Npp16u * *pSrc1*, int *nSrc1Step*, const Npp16u * *pSrc2*, int *nSrc2Step*, NppiSize *oSizeROI*, Npp64f *aNormDiff*[3], Npp8u * *pDeviceBuffer*)

Four-channel 16-bit unsigned image NormDiff_Inf ignoring alpha channel.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

oSizeROI Region-of-Interest (ROI).

aNormDiff Array that contains computed Inf-norm of differences.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppiNormDiffInfGetBufferHostSize_16u_AC4R to compute the required size (in bytes).

Returns:

Image Data Related Error Codes, ROI Related Error Codes.

7.105.2.6 NppStatus nppiNormDiff_Inf_16u_C1MR (const Npp16u * *pSrc1*, int *nSrc1Step*, const Npp16u * *pSrc2*, int *nSrc2Step*, const Npp8u * *pMask*, int *nMaskStep*, NppiSize *oSizeROI*, Npp64f * *pNormDiff*, Npp8u * *pDeviceBuffer*)

Masked one-channel 16-bit unsigned images NormDiff_Inf.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

pMask Mask-Image Pointer.

nMaskStep Mask-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pNormDiff Pointer to the computed Inf-norm of differences.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppiNormDiffInfGetBufferHostSize_16u_C1MR to compute the required size (in bytes).

Returns:

Image Data Related Error Codes, ROI Related Error Codes.

7.105.2.7 NppStatus nppiNormDiff_Inf_16u_C1R (const Npp16u ∗ *pSrc1*, int *nSrc1Step*, const Npp16u ∗ *pSrc2*, int *nSrc2Step*, NppiSize *oSizeROI*, Npp64f ∗ *pNormDiff*, Npp8u ∗ *pDeviceBuffer*)

One-channel 16-bit unsigned image NormDiff_Inf.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pNormDiff Pointer to the computed Inf-norm of differences.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppiNormDiffInfGetBufferHostSize_16u_C1R to compute the required size (in bytes).

Returns:

Image Data Related Error Codes, ROI Related Error Codes.

7.105.2.8 NppStatus nppiNormDiff_Inf_16u_C3CMR (const Npp16u ∗ *pSrc1*, int *nSrc1Step*, const Npp16u ∗ *pSrc2*, int *nSrc2Step*, const Npp8u ∗ *pMask*, int *nMaskStep*, NppiSize *oSizeROI*, int *nCOI*, Npp64f ∗ *pNormDiff*, Npp8u ∗ *pDeviceBuffer*)

Masked three-channel 16-bit unsigned image NormDiff_Inf affecting only single channel.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

pMask Mask-Image Pointer.

nMaskStep Mask-Image Line Step.

oSizeROI Region-of-Interest (ROI).

nCOI Channel_of_Interest Number.

pNormDiff Pointer to the computed Inf-norm of differences.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppiNormDiffInfGetBufferHostSize_16u_C3CMR to compute the required size (in bytes).

Returns:

Image Data Related Error Codes, ROI Related Error Codes, or NPP_COI_ERROR if an invalid channel of interest is specified.

7.105.2.9 NppStatus nppiNormDiff_Inf_16u_C3R (const Npp16u * *pSrc1*, int *nSrc1Step*, const Npp16u * *pSrc2*, int *nSrc2Step*, NppiSize *oSizeROI*, Npp64f *aNormDiff*[3], Npp8u * *pDeviceBuffer*)

Three-channel 16-bit unsigned image NormDiff_Inf.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

oSizeROI Region-of-Interest (ROI).

aNormDiff Array that contains computed Inf-norm of differences.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppiNormDiffInfGetBufferHostSize_16u_C3R to compute the required size (in bytes).

Returns:

Image Data Related Error Codes, ROI Related Error Codes.

7.105.2.10 NppStatus nppiNormDiff_Inf_16u_C4R (const Npp16u * *pSrc1*, int *nSrc1Step*, const Npp16u * *pSrc2*, int *nSrc2Step*, NppiSize *oSizeROI*, Npp64f *aNormDiff*[4], Npp8u * *pDeviceBuffer*)

Four-channel 16-bit unsigned image NormDiff_Inf.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

oSizeROI Region-of-Interest (ROI).

aNormDiff Array that contains computed Inf-norm of differences.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppiNormDiffInfGetBufferHostSize_16u_C4R to compute the required size (in bytes).

Returns:

Image Data Related Error Codes, ROI Related Error Codes.

7.105.2.11 NppStatus nppiNormDiff_Inf_32f_AC4R (const Npp32f $*$ *pSrc1*, int *nSrc1Step*, const Npp32f $*$ *pSrc2*, int *nSrc2Step*, NppiSize *oSizeROI*, Npp64f *aNormDiff*[3], Npp8u $*$ *pDeviceBuffer*)

Four-channel 32-bit floating point image NormDiff_Inf ignoring alpha channel.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

oSizeROI Region-of-Interest (ROI).

aNormDiff Array that contains computed Inf-norm of differences.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppiNormDiffInfGetBufferHostSize_32f_AC4R to compute the required size (in bytes).

Returns:

Image Data Related Error Codes, ROI Related Error Codes, or NPP_NOT_EVEN_STEP_ERROR if an invalid floating-point image is specified.

7.105.2.12 NppStatus nppiNormDiff_Inf_32f_C1MR (const Npp32f $*$ *pSrc1*, int *nSrc1Step*, const Npp32f $*$ *pSrc2*, int *nSrc2Step*, const Npp8u $*$ *pMask*, int *nMaskStep*, NppiSize *oSizeROI*, Npp64f $*$ *pNormDiff*, Npp8u $*$ *pDeviceBuffer*)

Masked one-channel 32-bit floating point images NormDiff_Inf.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

pMask Mask-Image Pointer.

nMaskStep Mask-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pNormDiff Pointer to the computed Inf-norm of differences.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppiNormDiffInfGetBufferHostSize_32f_C1MR to compute the required size (in bytes).

Returns:

Image Data Related Error Codes, ROI Related Error Codes, or NPP_NOT_EVEN_STEP_ERROR if an invalid floating-point image is specified.

7.105.2.13 NppStatus nppiNormDiff_Inf_32f_C1R (const Npp32f ∗ *pSrc1*, int *nSrc1Step*, const Npp32f ∗ *pSrc2*, int *nSrc2Step*, NppiSize *oSizeROI*, Npp64f ∗ *pNormDiff*, Npp8u ∗ *pDeviceBuffer*)

One-channel 32-bit floating point image NormDiff_Inf.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pNormDiff Pointer to the computed Inf-norm of differences.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppiNormDiffInfGetBufferHostSize_32f_C1R to compute the required size (in bytes).

Returns:

Image Data Related Error Codes, ROI Related Error Codes, or NPP_NOT_EVEN_STEP_ERROR if an invalid floating-point image is specified.

7.105.2.14 NppStatus nppiNormDiff_Inf_32f_C3CMR (const Npp32f ∗ *pSrc1*, int *nSrc1Step*, const Npp32f ∗ *pSrc2*, int *nSrc2Step*, const Npp8u ∗ *pMask*, int *nMaskStep*, NppiSize *oSizeROI*, int *nCOI*, Npp64f ∗ *pNormDiff*, Npp8u ∗ *pDeviceBuffer*)

Masked three-channel 32-bit floating point image NormDiff_Inf affecting only single channel.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

pMask Mask-Image Pointer.

nMaskStep Mask-Image Line Step.

oSizeROI Region-of-Interest (ROI).

nCOI Channel_of_Interest Number.

pNormDiff Pointer to the computed Inf-norm of differences.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppiNormDiffInfGetBufferHostSize_32f_C3CMR to compute the required size (in bytes).

Returns:

Image Data Related Error Codes, ROI Related Error Codes, or NPP_COI_ERROR if an invalid channel of interest is specified, or NPP_NOT_EVEN_STEP_ERROR if an invalid floating-point image is specified.

7.105.2.15 NppStatus nppiNormDiff_Inf_32f_C3R (const Npp32f ∗ *pSrc1*, int *nSrc1Step*, const Npp32f ∗ *pSrc2*, int *nSrc2Step*, NppiSize *oSizeROI*, Npp64f *aNormDiff*[3], Npp8u ∗ *pDeviceBuffer*)

Three-channel 32-bit floating point image NormDiff_Inf.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

oSizeROI Region-of-Interest (ROI).

aNormDiff Array that contains computed Inf-norm of differences.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppiNormDiffInfGetBufferHostSize_32f_C3R to compute the required size (in bytes).

Returns:

Image Data Related Error Codes, ROI Related Error Codes, or NPP_NOT_EVEN_STEP_ERROR if an invalid floating-point image is specified.

7.105.2.16 NppStatus nppiNormDiff_Inf_32f_C4R (const Npp32f ∗ *pSrc1*, int *nSrc1Step*, const Npp32f ∗ *pSrc2*, int *nSrc2Step*, NppiSize *oSizeROI*, Npp64f *aNormDiff*[4], Npp8u ∗ *pDeviceBuffer*)

Four-channel 32-bit floating point image NormDiff_Inf.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

oSizeROI Region-of-Interest (ROI).

aNormDiff Array that contains computed Inf-norm of differences.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppiNormDiffInfGetBufferHostSize_32f_C4R to compute the required size (in bytes).

Returns:

Image Data Related Error Codes, ROI Related Error Codes, or NPP_NOT_EVEN_STEP_ERROR if an invalid floating-point image is specified.

7.105.2.17 NppStatus nppiNormDiff_Inf_8s_C1MR (const Npp8s ∗ *pSrc1*, int *nSrc1Step*, const Npp8s ∗ *pSrc2*, int *nSrc2Step*, const Npp8u ∗ *pMask*, int *nMaskStep*, NppiSize *oSizeROI*, Npp64f ∗ *pNormDiff*, Npp8u ∗ *pDeviceBuffer*)

Masked one-channel 8-bit signed images NormDiff_Inf.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

pMask Mask-Image Pointer.

nMaskStep Mask-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pNormDiff Pointer to the computed Inf-norm of differences.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppiNormDiffInfGetBufferHostSize_8s_C1MR to compute the required size (in bytes).

Returns:

Image Data Related Error Codes, ROI Related Error Codes.

7.105.2.18 NppStatus nppiNormDiff_Inf_8s_C3CMR (const Npp8s ∗ *pSrc1*, int *nSrc1Step*, const Npp8s ∗ *pSrc2*, int *nSrc2Step*, const Npp8u ∗ *pMask*, int *nMaskStep*, NppiSize *oSizeROI*, int *nCOI*, Npp64f ∗ *pNormDiff*, Npp8u ∗ *pDeviceBuffer*)

Masked three-channel 8-bit signed image NormDiff_Inf affecting only single channel.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

pMask Mask-Image Pointer.

nMaskStep Mask-Image Line Step.

oSizeROI Region-of-Interest (ROI).

nCOI Channel_of_Interest Number.

pNormDiff Pointer to the computed Inf-norm of differences.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppiNormDiffInfGetBufferHostSize_8s_C3CMR to compute the required size (in bytes).

Returns:

Image Data Related Error Codes, ROI Related Error Codes, or NPP_COI_ERROR if an invalid channel of interest is specified.

7.105.2.19 NppStatus nppiNormDiff_Inf_8u_AC4R (const Npp8u ∗ *pSrc1*, int *nSrc1Step*, const Npp8u ∗ *pSrc2*, int *nSrc2Step*, NppiSize *oSizeROI*, Npp64f *aNormDiff*[3], Npp8u ∗ *pDeviceBuffer*)

Four-channel 8-bit unsigned image NormDiff_Inf ignoring alpha channel.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

oSizeROI Region-of-Interest (ROI).

aNormDiff Array that contains computed Inf-norm of differences.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppiNormDiffInfGetBufferHostSize_8u_AC4R to compute the required size (in bytes).

Returns:

Image Data Related Error Codes, ROI Related Error Codes.

7.105.2.20 NppStatus nppiNormDiff_Inf_8u_C1MR (const Npp8u ∗ *pSrc1*, int *nSrc1Step*, const Npp8u ∗ *pSrc2*, int *nSrc2Step*, const Npp8u ∗ *pMask*, int *nMaskStep*, NppiSize *oSizeROI*, Npp64f ∗ *pNormDiff*, Npp8u ∗ *pDeviceBuffer*)

Masked one-channel 8-bit unsigned images NormDiff_Inf.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

pMask Mask-Image Pointer.

nMaskStep Mask-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pNormDiff Pointer to the computed Inf-norm of differences.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppiNormDiffInfGetBufferHostSize_8u_C1MR to compute the required size (in bytes).

Returns:

Image Data Related Error Codes, ROI Related Error Codes.

7.105.2.21 NppStatus nppiNormDiff_Inf_8u_C1R (const Npp8u ∗ *pSrc1*, int *nSrc1Step*, const Npp8u ∗ *pSrc2*, int *nSrc2Step*, NppiSize *oSizeROI*, Npp64f ∗ *pNormDiff*, Npp8u ∗ *pDeviceBuffer*)

One-channel 8-bit unsigned image NormDiff_Inf.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pNormDiff Pointer to the computed Inf-norm of differences.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppiNormDiffInfGetBufferHostSize_8u_C1R to compute the required size (in bytes).

Returns:

Image Data Related Error Codes, ROI Related Error Codes.

7.105.2.22 NppStatus nppiNormDiff_Inf_8u_C3CMR (const Npp8u ∗ *pSrc1*, int *nSrc1Step*, const Npp8u ∗ *pSrc2*, int *nSrc2Step*, const Npp8u ∗ *pMask*, int *nMaskStep*, NppiSize *oSizeROI*, int *nCOI*, Npp64f ∗ *pNormDiff*, Npp8u ∗ *pDeviceBuffer*)

Masked three-channel 8-bit unsigned image NormDiff_Inf affecting only single channel.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

pMask Mask-Image Pointer.

nMaskStep Mask-Image Line Step.

oSizeROI Region-of-Interest (ROI).

nCOI Channel_of_Interest Number.

pNormDiff Pointer to the computed Inf-norm of differences.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppiNormDiffInfGetBufferHostSize_8u_C3CMR to compute the required size (in bytes).

Returns:

Image Data Related Error Codes, ROI Related Error Codes, or NPP_COI_ERROR if an invalid channel of interest is specified.

7.105.2.23 NppStatus nppiNormDiff_Inf_8u_C3R (const Npp8u ∗ *pSrc1*, int *nSrc1Step*, const Npp8u ∗ *pSrc2*, int *nSrc2Step*, NppiSize *oSizeROI*, Npp64f *aNormDiff*[3], Npp8u ∗ *pDeviceBuffer*)

Three-channel 8-bit unsigned image NormDiff_Inf.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

oSizeROI Region-of-Interest (ROI).

aNormDiff Array that contains computed Inf-norm of differences.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppiNormDiffInfGetBufferHostSize_8u_C3R to compute the required size (in bytes).

Returns:

Image Data Related Error Codes, ROI Related Error Codes.

7.105.2.24 NppStatus nppiNormDiff_Inf_8u_C4R (const Npp8u ∗ *pSrc1*, int *nSrc1Step*, const Npp8u ∗ *pSrc2*, int *nSrc2Step*, NppiSize *oSizeROI*, Npp64f *aNormDiff*[4], Npp8u ∗ *pDeviceBuffer*)

Four-channel 8-bit unsigned image NormDiff_Inf.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

oSizeROI Region-of-Interest (ROI).

aNormDiff Array that contains computed Inf-norm of differences.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppiNormDiffInfGetBufferHostSize_8u_C4R to compute the required size (in bytes).

Returns:

Image Data Related Error Codes, ROI Related Error Codes.

7.105.2.25 NppStatus nppiNormDiffInfGetBufferHostSize_16s_AC4R (NppiSize *oSizeROI*, int ∗ *hpBufferSize*)

Buffer size for nppiNormDiff_Inf_16s_AC4R.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.105.2.26 NppStatus nppiNormDiffInfGetBufferHostSize_16s_C1R (NppiSize *oSizeROI*, int ∗ *hpBufferSize*)

Buffer size for nppiNormDiff_Inf_16s_C1R.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.105.2.27 NppStatus nppiNormDiffInfGetBufferHostSize_16s_C3R (NppiSize *oSizeROI*, int ∗ *hpBufferSize*)

Buffer size for nppiNormDiff_Inf_16s_C3R.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.105.2.28 NppStatus nppiNormDiffInfGetBufferHostSize_16s_C4R (NppiSize *oSizeROI*, int ∗ *hpBufferSize*)

Buffer size for nppiNormDiff_Inf_16s_C4R.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.105.2.29 NppStatus nppiNormDiffInfGetBufferHostSize_16u_AC4R (NppiSize *oSizeROI*, int ∗ *hpBufferSize*)

Buffer size for nppiNormDiff_Inf_16u_AC4R.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.105.2.30 NppStatus nppiNormDiffInfGetBufferHostSize_16u_C1MR (NppiSize *oSizeROI*, int ∗ *hpBufferSize*)

Buffer size for nppiNormDiff_Inf_16u_C1MR.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.105.2.31 NppStatus nppiNormDiffInfGetBufferHostSize_16u_C1R (NppiSize *oSizeROI*, int ∗ *hpBufferSize*)

Buffer size for nppiNormDiff_Inf_16u_C1R.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.105.2.32 NppStatus nppiNormDiffInfGetBufferHostSize_16u_C3CMR (NppiSize *oSizeROI*, int ∗ *hpBufferSize*)

Buffer size for nppiNormDiff_Inf_16u_C3CMR.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.105.2.33 NppStatus nppiNormDiffInfGetBufferHostSize_16u_C3R (NppiSize *oSizeROI*, int * *hpBufferSize*)

Buffer size for nppiNormDiff_Inf_16u_C3R.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.105.2.34 NppStatus nppiNormDiffInfGetBufferHostSize_16u_C4R (NppiSize *oSizeROI*, int * *hpBufferSize*)

Buffer size for nppiNormDiff_Inf_16u_C4R.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.105.2.35 NppStatus nppiNormDiffInfGetBufferHostSize_32f_AC4R (NppiSize *oSizeROI*, int * *hpBufferSize*)

Buffer size for nppiNormDiff_Inf_32f_AC4R.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.105.2.36 NppStatus nppiNormDiffInfGetBufferHostSize_32f_C1MR (NppiSize *oSizeROI*, int * *hpBufferSize*)

Buffer size for nppiNormDiff_Inf_32f_C1MR.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.105.2.37 NppStatus nppiNormDiffInfGetBufferHostSize_32f_C1R (NppiSize *oSizeROI*, int ∗ *hpBufferSize*)

Buffer size for nppiNormDiff_Inf_32f_C1R.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.105.2.38 NppStatus nppiNormDiffInfGetBufferHostSize_32f_C3CMR (NppiSize *oSizeROI*, int ∗ *hpBufferSize*)

Buffer size for nppiNormDiff_Inf_32f_C3CMR.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.105.2.39 NppStatus nppiNormDiffInfGetBufferHostSize_32f_C3R (NppiSize *oSizeROI*, int ∗ *hpBufferSize*)

Buffer size for nppiNormDiff_Inf_32f_C3R.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.105.2.40 NppStatus nppiNormDiffInfGetBufferHostSize_32f_C4R (NppiSize *oSizeROI*, int ∗ *hpBufferSize*)

Buffer size for nppiNormDiff_Inf_32f_C4R.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.105.2.41 NppStatus nppiNormDiffInfGetBufferHostSize_8s_C1MR (NppiSize *oSizeROI*, int ∗ *hpBufferSize*)

Buffer size for nppiNormDiff_Inf_8s_C1MR.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.105.2.42 NppStatus nppiNormDiffInfGetBufferHostSize_8s_C3CMR (NppiSize *oSizeROI*, int ∗ *hpBufferSize*)

Buffer size for nppiNormDiff_Inf_8s_C3CMR.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.105.2.43 NppStatus nppiNormDiffInfGetBufferHostSize_8u_AC4R (NppiSize *oSizeROI*, int ∗ *hpBufferSize*)

Buffer size for nppiNormDiff_Inf_8u_AC4R.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.105.2.44 NppStatus nppiNormDiffInfGetBufferHostSize_8u_C1MR (NppiSize *oSizeROI*, int * *hpBufferSize*)

Buffer size for nppiNormDiff_Inf_8u_C1MR.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.105.2.45 NppStatus nppiNormDiffInfGetBufferHostSize_8u_C1R (NppiSize *oSizeROI*, int * *hpBufferSize*)

Buffer size for nppiNormDiff_Inf_8u_C1R.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.105.2.46 NppStatus nppiNormDiffInfGetBufferHostSize_8u_C3CMR (NppiSize *oSizeROI*, int * *hpBufferSize*)

Buffer size for nppiNormDiff_Inf_8u_C3CMR.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.105.2.47 NppStatus nppiNormDiffInfGetBufferHostSize_8u_C3R (NppiSize *oSizeROI*, int ∗ *hpBufferSize*)

Buffer size for nppiNormDiff_Inf_8u_C3R.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.105.2.48 NppStatus nppiNormDiffInfGetBufferHostSize_8u_C4R (NppiSize *oSizeROI*, int ∗ *hpBufferSize*)

Buffer size for nppiNormDiff_Inf_8u_C4R.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.106 NormDiff_L1

Primitives for computing the L1 norm of difference of pixels between two images.

Basic NormDiff_L1

- NppStatus nppiNormDiff_L1_8u_C1R (const Npp8u ∗pSrc1, int nSrc1Step, const Npp8u ∗pSrc2, int nSrc2Step, NppiSize oSizeROI, Npp64f ∗pNormDiff, Npp8u ∗pDeviceBuffer)

  One-channel 8-bit unsigned image NormDiff_L1.

- NppStatus nppiNormDiff_L1_16u_C1R (const Npp16u ∗pSrc1, int nSrc1Step, const Npp16u ∗pSrc2, int nSrc2Step, NppiSize oSizeROI, Npp64f ∗pNormDiff, Npp8u ∗pDeviceBuffer)

  One-channel 16-bit unsigned image NormDiff_L1.

- NppStatus nppiNormDiff_L1_16s_C1R (const Npp16s ∗pSrc1, int nSrc1Step, const Npp16s ∗pSrc2, int nSrc2Step, NppiSize oSizeROI, Npp64f ∗pNormDiff, Npp8u ∗pDeviceBuffer)

  One-channel 16-bit signed image NormDiff_L1.

- NppStatus nppiNormDiff_L1_32f_C1R (const Npp32f ∗pSrc1, int nSrc1Step, const Npp32f ∗pSrc2, int nSrc2Step, NppiSize oSizeROI, Npp64f ∗pNormDiff, Npp8u ∗pDeviceBuffer)

  One-channel 32-bit floating point image NormDiff_L1.

- NppStatus nppiNormDiff_L1_8u_C3R (const Npp8u ∗pSrc1, int nSrc1Step, const Npp8u ∗pSrc2, int nSrc2Step, NppiSize oSizeROI, Npp64f aNormDiff[3], Npp8u ∗pDeviceBuffer)

  Three-channel 8-bit unsigned image NormDiff_L1.

- NppStatus nppiNormDiff_L1_16u_C3R (const Npp16u ∗pSrc1, int nSrc1Step, const Npp16u ∗pSrc2, int nSrc2Step, NppiSize oSizeROI, Npp64f aNormDiff[3], Npp8u ∗pDeviceBuffer)

  Three-channel 16-bit unsigned image NormDiff_L1.

- NppStatus nppiNormDiff_L1_16s_C3R (const Npp16s ∗pSrc1, int nSrc1Step, const Npp16s ∗pSrc2, int nSrc2Step, NppiSize oSizeROI, Npp64f aNormDiff[3], Npp8u ∗pDeviceBuffer)

  Three-channel 16-bit signed image NormDiff_L1.

- NppStatus nppiNormDiff_L1_32f_C3R (const Npp32f ∗pSrc1, int nSrc1Step, const Npp32f ∗pSrc2, int nSrc2Step, NppiSize oSizeROI, Npp64f aNormDiff[3], Npp8u ∗pDeviceBuffer)

  Three-channel 32-bit floating point image NormDiff_L1.

- NppStatus nppiNormDiff_L1_8u_AC4R (const Npp8u ∗pSrc1, int nSrc1Step, const Npp8u ∗pSrc2, int nSrc2Step, NppiSize oSizeROI, Npp64f aNormDiff[3], Npp8u ∗pDeviceBuffer)

  Four-channel 8-bit unsigned image NormDiff_L1 ignoring alpha channel.

- NppStatus nppiNormDiff_L1_16u_AC4R (const Npp16u ∗pSrc1, int nSrc1Step, const Npp16u ∗pSrc2, int nSrc2Step, NppiSize oSizeROI, Npp64f aNormDiff[3], Npp8u ∗pDeviceBuffer)

  Four-channel 16-bit unsigned image NormDiff_L1 ignoring alpha channel.

- NppStatus nppiNormDiff_L1_16s_AC4R (const Npp16s ∗pSrc1, int nSrc1Step, const Npp16s ∗pSrc2, int nSrc2Step, NppiSize oSizeROI, Npp64f aNormDiff[3], Npp8u ∗pDeviceBuffer)

  Four-channel 16-bit signed image NormDiff_L1 ignoring alpha channel.

- NppStatus nppiNormDiff_L1_32f_AC4R (const Npp32f ∗pSrc1, int nSrc1Step, const Npp32f ∗pSrc2, int nSrc2Step, NppiSize oSizeROI, Npp64f aNormDiff[3], Npp8u ∗pDeviceBuffer)

  Four-channel 32-bit floating point image NormDiff_L1 ignoring alpha channel.

- NppStatus nppiNormDiff_L1_8u_C4R (const Npp8u ∗pSrc1, int nSrc1Step, const Npp8u ∗pSrc2, int nSrc2Step, NppiSize oSizeROI, Npp64f aNormDiff[4], Npp8u ∗pDeviceBuffer)

  Four-channel 8-bit unsigned image NormDiff_L1.

- NppStatus nppiNormDiff_L1_16u_C4R (const Npp16u ∗pSrc1, int nSrc1Step, const Npp16u ∗pSrc2, int nSrc2Step, NppiSize oSizeROI, Npp64f aNormDiff[4], Npp8u ∗pDeviceBuffer)

  Four-channel 16-bit unsigned image NormDiff_L1.

- NppStatus nppiNormDiff_L1_16s_C4R (const Npp16s ∗pSrc1, int nSrc1Step, const Npp16s ∗pSrc2, int nSrc2Step, NppiSize oSizeROI, Npp64f aNormDiff[4], Npp8u ∗pDeviceBuffer)

  Four-channel 16-bit signed image NormDiff_L1.

- NppStatus nppiNormDiff_L1_32f_C4R (const Npp32f ∗pSrc1, int nSrc1Step, const Npp32f ∗pSrc2, int nSrc2Step, NppiSize oSizeROI, Npp64f aNormDiff[4], Npp8u ∗pDeviceBuffer)

  Four-channel 32-bit floating point image NormDiff_L1.

Masked NormDiff_L1

See Masked Operation.

- NppStatus nppiNormDiff_L1_8u_C1MR (const Npp8u ∗pSrc1, int nSrc1Step, const Npp8u ∗pSrc2, int nSrc2Step, const Npp8u ∗pMask, int nMaskStep, NppiSize oSizeROI, Npp64f ∗pNormDiff, Npp8u ∗pDeviceBuffer)

  Masked one-channel 8-bit unsigned image NormDiff_L1.

- NppStatus nppiNormDiff_L1_8s_C1MR (const Npp8s ∗pSrc1, int nSrc1Step, const Npp8s ∗pSrc2, int nSrc2Step, const Npp8u ∗pMask, int nMaskStep, NppiSize oSizeROI, Npp64f ∗pNormDiff, Npp8u ∗pDeviceBuffer)

  Masked one-channel 8-bit signed image NormDiff_L1.

- NppStatus nppiNormDiff_L1_16u_C1MR (const Npp16u ∗pSrc1, int nSrc1Step, const Npp16u ∗pSrc2, int nSrc2Step, const Npp8u ∗pMask, int nMaskStep, NppiSize oSizeROI, Npp64f ∗pNormDiff, Npp8u ∗pDeviceBuffer)

  Masked one-channel 16-bit unsigned image NormDiff_L1.

- NppStatus nppiNormDiff_L1_32f_C1MR (const Npp32f ∗pSrc1, int nSrc1Step, const Npp32f ∗pSrc2, int nSrc2Step, const Npp8u ∗pMask, int nMaskStep, NppiSize oSizeROI, Npp64f ∗pNormDiff, Npp8u ∗pDeviceBuffer)

  Masked one-channel 32-bit floating point image NormDiff_L1.

Masked Channel NormDiff_L1

See Masked Operation and Channel-of-Interest API.

- NppStatus nppiNormDiff_L1_8u_C3CMR (const Npp8u ∗pSrc1, int nSrc1Step, const Npp8u ∗pSrc2, int nSrc2Step, const Npp8u ∗pMask, int nMaskStep, NppiSize oSizeROI, int nCOI, Npp64f ∗pNormDiff, Npp8u ∗pDeviceBuffer)

  Masked three-channel 8-bit unsigned image NormDiff_L1 affecting only single channel.

- NppStatus nppiNormDiff_L1_8s_C3CMR (const Npp8s ∗pSrc1, int nSrc1Step, const Npp8s ∗pSrc2, int nSrc2Step, const Npp8u ∗pMask, int nMaskStep, NppiSize oSizeROI, int nCOI, Npp64f ∗pNormDiff, Npp8u ∗pDeviceBuffer)

  Masked three-channel 8-bit signed image NormDiff_L1 affecting only single channel.

- NppStatus nppiNormDiff_L1_16u_C3CMR (const Npp16u ∗pSrc1, int nSrc1Step, const Npp16u ∗pSrc2, int nSrc2Step, const Npp8u ∗pMask, int nMaskStep, NppiSize oSizeROI, int nCOI, Npp64f ∗pNormDiff, Npp8u ∗pDeviceBuffer)

  Masked three-channel 16-bit unsigned image NormDiff_L1 affecting only single channel.

- NppStatus nppiNormDiff_L1_32f_C3CMR (const Npp32f ∗pSrc1, int nSrc1Step, const Npp32f ∗pSrc2, int nSrc2Step, const Npp8u ∗pMask, int nMaskStep, NppiSize oSizeROI, int nCOI, Npp64f ∗pNormDiff, Npp8u ∗pDeviceBuffer)

  Masked three-channel 32-bit floating point image NormDiff_L1 affecting only single channel.

NormDiffL1GetBufferHostSize

Companion primitives for computing the device buffer size (in bytes) required by the NormDiff_L1 primitives.

- NppStatus nppiNormDiffL1GetBufferHostSize_8u_C1R (NppiSize oSizeROI, int ∗hpBufferSize)

  Computes the device scratch buffer size (in bytes) for nppiNormDiff_L1_8u_C1R.

- NppStatus nppiNormDiffL1GetBufferHostSize_16u_C1R (NppiSize oSizeROI, int ∗hpBufferSize)

  Computes the device scratch buffer size (in bytes) for nppiNormDiff_L1_16u_C1R.

- NppStatus nppiNormDiffL1GetBufferHostSize_16s_C1R (NppiSize oSizeROI, int ∗hpBufferSize)

  Computes the device scratch buffer size (in bytes) for nppiNormDiff_L1_16s_C1R.

- NppStatus nppiNormDiffL1GetBufferHostSize_32f_C1R (NppiSize oSizeROI, int ∗hpBufferSize)

  Computes the device scratch buffer size (in bytes) for nppiNormDiff_L1_32f_C1R.

- NppStatus nppiNormDiffL1GetBufferHostSize_8u_C1MR (NppiSize oSizeROI, int ∗hpBufferSize)

  Computes the device scratch buffer size (in bytes) for nppiNormDiff_L1_8u_C1MR.

- NppStatus nppiNormDiffL1GetBufferHostSize_8s_C1MR (NppiSize oSizeROI, int ∗hpBufferSize)

  Computes the device scratch buffer size (in bytes) for nppiNormDiff_L1_8s_C1MR.

- NppStatus nppiNormDiffL1GetBufferHostSize_16u_C1MR (NppiSize oSizeROI, int ∗hpBufferSize)

Computes the device scratch buffer size (in bytes) for nppiNormDiff_L1_16u_C1MR.

- NppStatus nppiNormDiffL1GetBufferHostSize_32f_C1MR (NppiSize oSizeROI, int ∗hpBufferSize)

  Computes the device scratch buffer size (in bytes) for nppiNormDiff_L1_32f_C1MR.

- NppStatus nppiNormDiffL1GetBufferHostSize_8u_C3R (NppiSize oSizeROI, int ∗hpBufferSize)

  Computes the device scratch buffer size (in bytes) for nppiNormDiff_L1_8u_C3R.

- NppStatus nppiNormDiffL1GetBufferHostSize_16u_C3R (NppiSize oSizeROI, int ∗hpBufferSize)

  Computes the device scratch buffer size (in bytes) for nppiNormDiff_L1_16u_C3R.

- NppStatus nppiNormDiffL1GetBufferHostSize_16s_C3R (NppiSize oSizeROI, int ∗hpBufferSize)

  Computes the device scratch buffer size (in bytes) for nppiNormDiff_L1_16s_C3R.

- NppStatus nppiNormDiffL1GetBufferHostSize_32f_C3R (NppiSize oSizeROI, int ∗hpBufferSize)

  Computes the device scratch buffer size (in bytes) for nppiNormDiff_L1_32f_C3R.

- NppStatus nppiNormDiffL1GetBufferHostSize_8u_C4R (NppiSize oSizeROI, int ∗hpBufferSize)

  Computes the device scratch buffer size (in bytes) for nppiNormDiff_L1_8u_C4R.

- NppStatus nppiNormDiffL1GetBufferHostSize_16u_C4R (NppiSize oSizeROI, int ∗hpBufferSize)

  Computes the device scratch buffer size (in bytes) for nppiNormDiff_L1_16u_C4R.

- NppStatus nppiNormDiffL1GetBufferHostSize_16s_C4R (NppiSize oSizeROI, int ∗hpBufferSize)

  Computes the device scratch buffer size (in bytes) for nppiNormDiff_L1_16s_C4R.

- NppStatus nppiNormDiffL1GetBufferHostSize_32f_C4R (NppiSize oSizeROI, int ∗hpBufferSize)

  Computes the device scratch buffer size (in bytes) for nppiNormDiff_L1_32f_C4R.

- NppStatus nppiNormDiffL1GetBufferHostSize_8u_AC4R (NppiSize oSizeROI, int ∗hpBufferSize)

  Computes the device scratch buffer size (in bytes) for nppiNormDiff_L1_8u_AC4R.

- NppStatus nppiNormDiffL1GetBufferHostSize_16u_AC4R (NppiSize oSizeROI, int ∗hpBufferSize)

  Computes the device scratch buffer size (in bytes) for nppiNormDiff_L1_16u_AC4R.

- NppStatus nppiNormDiffL1GetBufferHostSize_16s_AC4R (NppiSize oSizeROI, int ∗hpBufferSize)

  Computes the device scratch buffer size (in bytes) for nppiNormDiff_L1_16s_AC4R.

- NppStatus nppiNormDiffL1GetBufferHostSize_32f_AC4R (NppiSize oSizeROI, int ∗hpBufferSize)

  Computes the device scratch buffer size (in bytes) for nppiNormDiff_L1_32f_AC4R.

- NppStatus nppiNormDiffL1GetBufferHostSize_8u_C3CMR (NppiSize oSizeROI, int ∗hpBufferSize)

  Computes the device scratch buffer size (in bytes) for nppiNormDiff_L1_8u_C3CMR.

- NppStatus nppiNormDiffL1GetBufferHostSize_8s_C3CMR (NppiSize oSizeROI, int ∗hpBufferSize)

  Computes the device scratch buffer size (in bytes) for nppiNormDiff_L1_8s_C3CMR.

- NppStatus nppiNormDiffL1GetBufferHostSize_16u_C3CMR (NppiSize oSizeROI, int ∗hpBufferSize)

  Computes the device scratch buffer size (in bytes) for nppiNormDiff_L1_16u_C3CMR.

- NppStatus nppiNormDiffL1GetBufferHostSize_32f_C3CMR (NppiSize oSizeROI, int ∗hpBufferSize)

  Computes the device scratch buffer size (in bytes) for nppiNormDiff_L1_32f_C3CMR.

7.106.1 Detailed Description

Primitives for computing the L1 norm of difference of pixels between two images.

7.106.2 Function Documentation

7.106.2.1 NppStatus nppiNormDiff_L1_16s_AC4R (const Npp16s ∗ *pSrc1*, int *nSrc1Step*, const Npp16s ∗ *pSrc2*, int *nSrc2Step*, NppiSize *oSizeROI*, Npp64f *aNormDiff*[3], Npp8u ∗ *pDeviceBuffer*)

Four-channel 16-bit signed image NormDiff_L1 ignoring alpha channel.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

oSizeROI Region-of-Interest (ROI).

aNormDiff Array that contains computed Inf-norm of differences.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppiNormDiffL1GetBufferHostSize_16s_AC4R to compute the required size (in bytes).

Returns:

Image Data Related Error Codes, ROI Related Error Codes.

7.106.2.2 NppStatus nppiNormDiff_L1_16s_C1R (const Npp16s ∗ *pSrc1*, int *nSrc1Step*, const Npp16s ∗ *pSrc2*, int *nSrc2Step*, NppiSize *oSizeROI*, Npp64f ∗ *pNormDiff*, Npp8u ∗ *pDeviceBuffer*)

One-channel 16-bit signed image NormDiff_L1.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pNormDiff Pointer to the computed Inf-norm of differences.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppiNormDiffL1GetBufferHostSize_16s_C1R to compute the required size (in bytes).

Returns:

Image Data Related Error Codes, ROI Related Error Codes.

7.106.2.3 NppStatus nppiNormDiff_L1_16s_C3R (const Npp16s ∗ *pSrc1*, int *nSrc1Step*, const Npp16s ∗ *pSrc2*, int *nSrc2Step*, NppiSize *oSizeROI*, Npp64f *aNormDiff*[3], Npp8u ∗ *pDeviceBuffer*)

Three-channel 16-bit signed image NormDiff_L1.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

oSizeROI Region-of-Interest (ROI).

aNormDiff Array that contains computed Inf-norm of differences.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppiNormDiffL1GetBufferHostSize_16s_C3R to compute the required size (in bytes).

Returns:

Image Data Related Error Codes, ROI Related Error Codes.

7.106.2.4 NppStatus nppiNormDiff_L1_16s_C4R (const Npp16s ∗ *pSrc1*, int *nSrc1Step*, const Npp16s ∗ *pSrc2*, int *nSrc2Step*, NppiSize *oSizeROI*, Npp64f *aNormDiff*[4], Npp8u ∗ *pDeviceBuffer*)

Four-channel 16-bit signed image NormDiff_L1.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

oSizeROI Region-of-Interest (ROI).

aNormDiff Array that contains computed Inf-norm of differences.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppiNormDiffL1GetBufferHostSize_16s_C4R to compute the required size (in bytes).

Returns:

Image Data Related Error Codes, ROI Related Error Codes.

7.106.2.5 NppStatus nppiNormDiff_L1_16u_AC4R (const Npp16u * *pSrc1*, int *nSrc1Step*, const Npp16u * *pSrc2*, int *nSrc2Step*, NppiSize *oSizeROI*, Npp64f *aNormDiff*[3], Npp8u * *pDeviceBuffer*)

Four-channel 16-bit unsigned image NormDiff_L1 ignoring alpha channel.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

oSizeROI Region-of-Interest (ROI).

aNormDiff Array that contains computed Inf-norm of differences.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppiNormDiffL1GetBufferHostSize_16u_AC4R to compute the required size (in bytes).

Returns:

Image Data Related Error Codes, ROI Related Error Codes.

7.106.2.6 NppStatus nppiNormDiff_L1_16u_C1MR (const Npp16u * *pSrc1*, int *nSrc1Step*, const Npp16u * *pSrc2*, int *nSrc2Step*, const Npp8u * *pMask*, int *nMaskStep*, NppiSize *oSizeROI*, Npp64f * *pNormDiff*, Npp8u * *pDeviceBuffer*)

Masked one-channel 16-bit unsigned image NormDiff_L1.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

pMask Mask-Image Pointer.

nMaskStep Mask-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pNormDiff Pointer to the computed Inf-norm of differences.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppiNormDiffL1GetBufferHostSize_16u_C1MR to compute the required size (in bytes).

Returns:

Image Data Related Error Codes, ROI Related Error Codes.

7.106.2.7 NppStatus nppiNormDiff_L1_16u_C1R (const Npp16u ∗ *pSrc1*, int *nSrc1Step*, const Npp16u ∗ *pSrc2*, int *nSrc2Step*, NppiSize *oSizeROI*, Npp64f ∗ *pNormDiff*, Npp8u ∗ *pDeviceBuffer*)

One-channel 16-bit unsigned image NormDiff_L1.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pNormDiff Pointer to the computed Inf-norm of differences.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppiNormDiffL1GetBufferHostSize_16u_C1R to compute the required size (in bytes).

Returns:

Image Data Related Error Codes, ROI Related Error Codes.

7.106.2.8 NppStatus nppiNormDiff_L1_16u_C3CMR (const Npp16u ∗ *pSrc1*, int *nSrc1Step*, const Npp16u ∗ *pSrc2*, int *nSrc2Step*, const Npp8u ∗ *pMask*, int *nMaskStep*, NppiSize *oSizeROI*, int *nCOI*, Npp64f ∗ *pNormDiff*, Npp8u ∗ *pDeviceBuffer*)

Masked three-channel 16-bit unsigned image NormDiff_L1 affecting only single channel.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

pMask Mask-Image Pointer.

nMaskStep Mask-Image Line Step.

oSizeROI Region-of-Interest (ROI).

nCOI Channel_of_Interest Number.

pNormDiff Pointer to the computed Inf-norm of differences.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppiNormDiffL1GetBufferHostSize_16u_C3CMR to compute the required size (in bytes).

Returns:

Image Data Related Error Codes, ROI Related Error Codes, or NPP_COI_ERROR if an invalid channel of interest is specified.

7.106.2.9 NppStatus nppiNormDiff_L1_16u_C3R (const Npp16u $*$ *pSrc1*, int *nSrc1Step*, const Npp16u $*$ *pSrc2*, int *nSrc2Step*, NppiSize *oSizeROI*, Npp64f *aNormDiff*[3], Npp8u $*$ *pDeviceBuffer*)

Three-channel 16-bit unsigned image NormDiff_L1.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

oSizeROI Region-of-Interest (ROI).

aNormDiff Array that contains computed Inf-norm of differences.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppiNormDiffL1GetBufferHostSize_16u_C3R to compute the required size (in bytes).

Returns:

Image Data Related Error Codes, ROI Related Error Codes.

7.106.2.10 NppStatus nppiNormDiff_L1_16u_C4R (const Npp16u $*$ *pSrc1*, int *nSrc1Step*, const Npp16u $*$ *pSrc2*, int *nSrc2Step*, NppiSize *oSizeROI*, Npp64f *aNormDiff*[4], Npp8u $*$ *pDeviceBuffer*)

Four-channel 16-bit unsigned image NormDiff_L1.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

oSizeROI Region-of-Interest (ROI).

aNormDiff Array that contains computed Inf-norm of differences.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppiNormDiffL1GetBufferHostSize_16u_C4R to compute the required size (in bytes).

Returns:

Image Data Related Error Codes, ROI Related Error Codes.

7.106.2.11 NppStatus nppiNormDiff_L1_32f_AC4R (const Npp32f $*$ *pSrc1*, int *nSrc1Step*, const Npp32f $*$ *pSrc2*, int *nSrc2Step*, NppiSize *oSizeROI*, Npp64f *aNormDiff*[3], Npp8u $*$ *pDeviceBuffer*)

Four-channel 32-bit floating point image NormDiff_L1 ignoring alpha channel.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

oSizeROI Region-of-Interest (ROI).

aNormDiff Array that contains computed Inf-norm of differences.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppiNormDiffL1GetBufferHostSize_32f_AC4R to compute the required size (in bytes).

Returns:

Image Data Related Error Codes, ROI Related Error Codes, or NPP_NOT_EVEN_STEP_ERROR if an invalid floating-point image is specified.

7.106.2.12 NppStatus nppiNormDiff_L1_32f_C1MR (const Npp32f ∗ *pSrc1*, int *nSrc1Step*, const Npp32f ∗ *pSrc2*, int *nSrc2Step*, const Npp8u ∗ *pMask*, int *nMaskStep*, NppiSize *oSizeROI*, Npp64f ∗ *pNormDiff*, Npp8u ∗ *pDeviceBuffer*)

Masked one-channel 32-bit floating point image NormDiff_L1.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

pMask Mask-Image Pointer.

nMaskStep Mask-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pNormDiff Pointer to the computed Inf-norm of differences.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppiNormDiffL1GetBufferHostSize_32f_C1MR to compute the required size (in bytes).

Returns:

Image Data Related Error Codes, ROI Related Error Codes, or NPP_NOT_EVEN_STEP_ERROR if an invalid floating-point image is specified.

7.106.2.13 NppStatus nppiNormDiff_L1_32f_C1R (const Npp32f ∗ *pSrc1*, int *nSrc1Step*, const Npp32f ∗ *pSrc2*, int *nSrc2Step*, NppiSize *oSizeROI*, Npp64f ∗ *pNormDiff*, Npp8u ∗ *pDeviceBuffer*)

One-channel 32-bit floating point image NormDiff_L1.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pNormDiff Pointer to the computed Inf-norm of differences.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppiNormDiffL1GetBufferHostSize_32f_C1R to compute the required size (in bytes).

Returns:

Image Data Related Error Codes, ROI Related Error Codes, or NPP_NOT_EVEN_STEP_ERROR if an invalid floating-point image is specified.

7.106.2.14 NppStatus nppiNormDiff_L1_32f_C3CMR (const Npp32f ∗ *pSrc1*, int *nSrc1Step*, const Npp32f ∗ *pSrc2*, int *nSrc2Step*, const Npp8u ∗ *pMask*, int *nMaskStep*, NppiSize *oSizeROI*, int *nCOI*, Npp64f ∗ *pNormDiff*, Npp8u ∗ *pDeviceBuffer*)

Masked three-channel 32-bit floating point image NormDiff_L1 affecting only single channel.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

pMask Mask-Image Pointer.

nMaskStep Mask-Image Line Step.

oSizeROI Region-of-Interest (ROI).

nCOI Channel_of_Interest Number.

pNormDiff Pointer to the computed Inf-norm of differences.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppiNormDiffL1GetBufferHostSize_32f_C3CMR to compute the required size (in bytes).

Returns:

Image Data Related Error Codes, ROI Related Error Codes, or NPP_COI_ERROR if an invalid channel of interest is specified, or NPP_NOT_EVEN_STEP_ERROR if an invalid floating-point image is specified.

7.106.2.15 NppStatus nppiNormDiff_L1_32f_C3R (const Npp32f ∗ *pSrc1*, int *nSrc1Step*, const Npp32f ∗ *pSrc2*, int *nSrc2Step*, NppiSize *oSizeROI*, Npp64f *aNormDiff*[3], Npp8u ∗ *pDeviceBuffer*)

Three-channel 32-bit floating point image NormDiff_L1.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

oSizeROI Region-of-Interest (ROI).

aNormDiff Array that contains computed Inf-norm of differences.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppiNormDiffL1GetBufferHostSize_32f_C3R to compute the required size (in bytes).

Returns:

Image Data Related Error Codes, ROI Related Error Codes, or NPP_NOT_EVEN_STEP_ERROR if an invalid floating-point image is specified.

7.106.2.16 NppStatus nppiNormDiff_L1_32f_C4R (const Npp32f ∗ *pSrc1*, int *nSrc1Step*, const Npp32f ∗ *pSrc2*, int *nSrc2Step*, NppiSize *oSizeROI*, Npp64f *aNormDiff*[4], Npp8u ∗ *pDeviceBuffer*)

Four-channel 32-bit floating point image NormDiff_L1.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

oSizeROI Region-of-Interest (ROI).

aNormDiff Array that contains computed Inf-norm of differences.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppiNormDiffL1GetBufferHostSize_32f_C4R to compute the required size (in bytes).

Returns:

Image Data Related Error Codes, ROI Related Error Codes, or NPP_NOT_EVEN_STEP_ERROR if an invalid floating-point image is specified.

7.106.2.17 NppStatus nppiNormDiff_L1_8s_C1MR (const Npp8s ∗ *pSrc1*, int *nSrc1Step*, const Npp8s ∗ *pSrc2*, int *nSrc2Step*, const Npp8u ∗ *pMask*, int *nMaskStep*, NppiSize *oSizeROI*, Npp64f ∗ *pNormDiff*, Npp8u ∗ *pDeviceBuffer*)

Masked one-channel 8-bit signed image NormDiff_L1.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

pMask Mask-Image Pointer.

nMaskStep Mask-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pNormDiff Pointer to the computed Inf-norm of differences.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppiNormDiffL1GetBufferHostSize_8s_C1MR to compute the required size (in bytes).

Returns:

Image Data Related Error Codes, ROI Related Error Codes.

7.106.2.18 NppStatus nppiNormDiff_L1_8s_C3CMR (const Npp8s * *pSrc1*, int *nSrc1Step*, const Npp8s * *pSrc2*, int *nSrc2Step*, const Npp8u * *pMask*, int *nMaskStep*, NppiSize *oSizeROI*, int *nCOI*, Npp64f * *pNormDiff*, Npp8u * *pDeviceBuffer*)

Masked three-channel 8-bit signed image NormDiff_L1 affecting only single channel.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

pMask Mask-Image Pointer.

nMaskStep Mask-Image Line Step.

oSizeROI Region-of-Interest (ROI).

nCOI Channel_of_Interest Number.

pNormDiff Pointer to the computed Inf-norm of differences.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppiNormDiffL1GetBufferHostSize_8s_C3CMR to compute the required size (in bytes).

Returns:

Image Data Related Error Codes, ROI Related Error Codes, or NPP_COI_ERROR if an invalid channel of interest is specified.

7.106.2.19 NppStatus nppiNormDiff_L1_8u_AC4R (const Npp8u * *pSrc1*, int *nSrc1Step*, const Npp8u * *pSrc2*, int *nSrc2Step*, NppiSize *oSizeROI*, Npp64f *aNormDiff*[3], Npp8u * *pDeviceBuffer*)

Four-channel 8-bit unsigned image NormDiff_L1 ignoring alpha channel.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

oSizeROI Region-of-Interest (ROI).

aNormDiff Array that contains computed Inf-norm of differences.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppiNormDiffL1GetBufferHostSize_8u_AC4R to compute the required size (in bytes).

Returns:

Image Data Related Error Codes, ROI Related Error Codes.

7.106.2.20 NppStatus nppiNormDiff_L1_8u_C1MR (const Npp8u ∗ *pSrc1*, int *nSrc1Step*, const Npp8u ∗ *pSrc2*, int *nSrc2Step*, const Npp8u ∗ *pMask*, int *nMaskStep*, NppiSize *oSizeROI*, Npp64f ∗ *pNormDiff*, Npp8u ∗ *pDeviceBuffer*)

Masked one-channel 8-bit unsigned image NormDiff_L1.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

pMask Mask-Image Pointer.

nMaskStep Mask-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pNormDiff Pointer to the computed Inf-norm of differences.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppiNormDiffL1GetBufferHostSize_8u_C1MR to compute the required size (in bytes).

Returns:

Image Data Related Error Codes, ROI Related Error Codes.

7.106.2.21 NppStatus nppiNormDiff_L1_8u_C1R (const Npp8u ∗ *pSrc1*, int *nSrc1Step*, const Npp8u ∗ *pSrc2*, int *nSrc2Step*, NppiSize *oSizeROI*, Npp64f ∗ *pNormDiff*, Npp8u ∗ *pDeviceBuffer*)

One-channel 8-bit unsigned image NormDiff_L1.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pNormDiff Pointer to the computed Inf-norm of differences.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppiNormDiffL1GetBufferHostSize_8u_C1R to compute the required size (in bytes).

Returns:

Image Data Related Error Codes, ROI Related Error Codes.

7.106.2.22 NppStatus nppiNormDiff_L1_8u_C3CMR (const Npp8u * *pSrc1*, int *nSrc1Step*, const Npp8u * *pSrc2*, int *nSrc2Step*, const Npp8u * *pMask*, int *nMaskStep*, NppiSize *oSizeROI*, int *nCOI*, Npp64f * *pNormDiff*, Npp8u * *pDeviceBuffer*)

Masked three-channel 8-bit unsigned image NormDiff_L1 affecting only single channel.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

pMask Mask-Image Pointer.

nMaskStep Mask-Image Line Step.

oSizeROI Region-of-Interest (ROI).

nCOI Channel_of_Interest Number.

pNormDiff Pointer to the computed Inf-norm of differences.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppiNormDiffL1GetBufferHostSize_8u_C3CMR to compute the required size (in bytes).

Returns:

Image Data Related Error Codes, ROI Related Error Codes, or NPP_COI_ERROR if an invalid channel of interest is specified.

7.106.2.23 NppStatus nppiNormDiff_L1_8u_C3R (const Npp8u * *pSrc1*, int *nSrc1Step*, const Npp8u * *pSrc2*, int *nSrc2Step*, NppiSize *oSizeROI*, Npp64f *aNormDiff*[3], Npp8u * *pDeviceBuffer*)

Three-channel 8-bit unsigned image NormDiff_L1.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

oSizeROI Region-of-Interest (ROI).

aNormDiff Array that contains computed Inf-norm of differences.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppiNormDiffL1GetBufferHostSize_8u_C3R to compute the required size (in bytes).

Returns:

Image Data Related Error Codes, ROI Related Error Codes.

7.106.2.24 NppStatus nppiNormDiff_L1_8u_C4R (const Npp8u ∗ *pSrc1*, int *nSrc1Step*, const Npp8u ∗ *pSrc2*, int *nSrc2Step*, NppiSize *oSizeROI*, Npp64f *aNormDiff*[4], Npp8u ∗ *pDeviceBuffer*)

Four-channel 8-bit unsigned image NormDiff_L1.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

oSizeROI Region-of-Interest (ROI).

aNormDiff Array that contains computed Inf-norm of differences.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppiNormDiffL1GetBufferHostSize_8u_C4R to compute the required size (in bytes).

Returns:

Image Data Related Error Codes, ROI Related Error Codes.

7.106.2.25 NppStatus nppiNormDiffL1GetBufferHostSize_16s_AC4R (NppiSize *oSizeROI*, int ∗ *hpBufferSize*)

Computes the device scratch buffer size (in bytes) for nppiNormDiff_L1_16s_AC4R.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.106.2.26 NppStatus nppiNormDiffL1GetBufferHostSize_16s_C1R (NppiSize *oSizeROI*, int ∗ *hpBufferSize*)

Computes the device scratch buffer size (in bytes) for nppiNormDiff_L1_16s_C1R.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.106.2.27 NppStatus nppiNormDiffL1GetBufferHostSize_16s_C3R (NppiSize *oSizeROI*, int ∗ *hpBufferSize*)

Computes the device scratch buffer size (in bytes) for nppiNormDiff_L1_16s_C3R.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.106.2.28 NppStatus nppiNormDiffL1GetBufferHostSize_16s_C4R (NppiSize *oSizeROI*, int ∗ *hpBufferSize*)

Computes the device scratch buffer size (in bytes) for nppiNormDiff_L1_16s_C4R.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.106.2.29 NppStatus nppiNormDiffL1GetBufferHostSize_16u_AC4R (NppiSize *oSizeROI*, int ∗ *hpBufferSize*)

Computes the device scratch buffer size (in bytes) for nppiNormDiff_L1_16u_AC4R.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.106.2.30 NppStatus nppiNormDiffL1GetBufferHostSize_16u_C1MR (NppiSize *oSizeROI*, int ∗ *hpBufferSize*)

Computes the device scratch buffer size (in bytes) for nppiNormDiff_L1_16u_C1MR.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.106.2.31 NppStatus nppiNormDiffL1GetBufferHostSize_16u_C1R (NppiSize *oSizeROI*, int * *hpBufferSize*)

Computes the device scratch buffer size (in bytes) for nppiNormDiff_L1_16u_C1R.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.106.2.32 NppStatus nppiNormDiffL1GetBufferHostSize_16u_C3CMR (NppiSize *oSizeROI*, int * *hpBufferSize*)

Computes the device scratch buffer size (in bytes) for nppiNormDiff_L1_16u_C3CMR.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.106.2.33 NppStatus nppiNormDiffL1GetBufferHostSize_16u_C3R (NppiSize *oSizeROI*, int * *hpBufferSize*)

Computes the device scratch buffer size (in bytes) for nppiNormDiff_L1_16u_C3R.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.106.2.34 NppStatus nppiNormDiffL1GetBufferHostSize_16u_C4R (NppiSize *oSizeROI*, int * *hpBufferSize*)

Computes the device scratch buffer size (in bytes) for nppiNormDiff_L1_16u_C4R.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.106.2.35 NppStatus nppiNormDiffL1GetBufferHostSize_32f_AC4R (NppiSize *oSizeROI*, int * *hpBufferSize*)

Computes the device scratch buffer size (in bytes) for nppiNormDiff_L1_32f_AC4R.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.106.2.36 NppStatus nppiNormDiffL1GetBufferHostSize_32f_C1MR (NppiSize *oSizeROI*, int * *hpBufferSize*)

Computes the device scratch buffer size (in bytes) for nppiNormDiff_L1_32f_C1MR.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.106.2.37 NppStatus nppiNormDiffL1GetBufferHostSize_32f_C1R (NppiSize *oSizeROI*, int * *hpBufferSize*)

Computes the device scratch buffer size (in bytes) for nppiNormDiff_L1_32f_C1R.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.106.2.38 NppStatus nppiNormDiffL1GetBufferHostSize_32f_C3CMR (NppiSize *oSizeROI*, int * *hpBufferSize*)

Computes the device scratch buffer size (in bytes) for nppiNormDiff_L1_32f_C3CMR.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.106.2.39 NppStatus nppiNormDiffL1GetBufferHostSize_32f_C3R (NppiSize *oSizeROI*, int * *hpBufferSize*)

Computes the device scratch buffer size (in bytes) for nppiNormDiff_L1_32f_C3R.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.106.2.40 NppStatus nppiNormDiffL1GetBufferHostSize_32f_C4R (NppiSize *oSizeROI*, int * *hpBufferSize*)

Computes the device scratch buffer size (in bytes) for nppiNormDiff_L1_32f_C4R.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.106.2.41 NppStatus nppiNormDiffL1GetBufferHostSize_8s_C1MR (NppiSize *oSizeROI*, int * *hpBufferSize*)

Computes the device scratch buffer size (in bytes) for nppiNormDiff_L1_8s_C1MR.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.106.2.42 NppStatus nppiNormDiffL1GetBufferHostSize_8s_C3CMR (NppiSize *oSizeROI*, int * *hpBufferSize*)

Computes the device scratch buffer size (in bytes) for nppiNormDiff_L1_8s_C3CMR.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.106.2.43 NppStatus nppiNormDiffL1GetBufferHostSize_8u_AC4R (NppiSize *oSizeROI*, int * *hpBufferSize*)

Computes the device scratch buffer size (in bytes) for nppiNormDiff_L1_8u_AC4R.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.106.2.44 NppStatus nppiNormDiffL1GetBufferHostSize_8u_C1MR (NppiSize *oSizeROI*, int * *hpBufferSize*)

Computes the device scratch buffer size (in bytes) for nppiNormDiff_L1_8u_C1MR.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.106.2.45 NppStatus nppiNormDiffL1GetBufferHostSize_8u_C1R (NppiSize *oSizeROI*, int ∗ *hpBufferSize*)

Computes the device scratch buffer size (in bytes) for nppiNormDiff_L1_8u_C1R.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.106.2.46 NppStatus nppiNormDiffL1GetBufferHostSize_8u_C3CMR (NppiSize *oSizeROI*, int ∗ *hpBufferSize*)

Computes the device scratch buffer size (in bytes) for nppiNormDiff_L1_8u_C3CMR.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.106.2.47 NppStatus nppiNormDiffL1GetBufferHostSize_8u_C3R (NppiSize *oSizeROI*, int ∗ *hpBufferSize*)

Computes the device scratch buffer size (in bytes) for nppiNormDiff_L1_8u_C3R.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.106.2.48 NppStatus nppiNormDiffL1GetBufferHostSize_8u_C4R (NppiSize *oSizeROI*, int * *hpBufferSize*)

Computes the device scratch buffer size (in bytes) for nppiNormDiff_L1_8u_C4R.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.107 NormDiff_L2

Primitives for computing the L2 norm of difference of pixels between two images.

Basic NormDiff_L2

- NppStatus nppiNormDiff_L2_8u_C1R (const Npp8u ∗pSrc1, int nSrc1Step, const Npp8u ∗pSrc2, int nSrc2Step, NppiSize oSizeROI, Npp64f ∗pNormDiff, Npp8u ∗pDeviceBuffer)

  One-channel 8-bit unsigned image NormDiff_L2.

- NppStatus nppiNormDiff_L2_16u_C1R (const Npp16u ∗pSrc1, int nSrc1Step, const Npp16u ∗pSrc2, int nSrc2Step, NppiSize oSizeROI, Npp64f ∗pNormDiff, Npp8u ∗pDeviceBuffer)

  One-channel 16-bit unsigned image NormDiff_L2.

- NppStatus nppiNormDiff_L2_16s_C1R (const Npp16s ∗pSrc1, int nSrc1Step, const Npp16s ∗pSrc2, int nSrc2Step, NppiSize oSizeROI, Npp64f ∗pNormDiff, Npp8u ∗pDeviceBuffer)

  One-channel 16-bit signed image NormDiff_L2.

- NppStatus nppiNormDiff_L2_32f_C1R (const Npp32f ∗pSrc1, int nSrc1Step, const Npp32f ∗pSrc2, int nSrc2Step, NppiSize oSizeROI, Npp64f ∗pNormDiff, Npp8u ∗pDeviceBuffer)

  One-channel 32-bit floating point image NormDiff_L2.

- NppStatus nppiNormDiff_L2_8u_C3R (const Npp8u ∗pSrc1, int nSrc1Step, const Npp8u ∗pSrc2, int nSrc2Step, NppiSize oSizeROI, Npp64f aNormDiff[3], Npp8u ∗pDeviceBuffer)

  Three-channel 8-bit unsigned image NormDiff_L2.

- NppStatus nppiNormDiff_L2_16u_C3R (const Npp16u ∗pSrc1, int nSrc1Step, const Npp16u ∗pSrc2, int nSrc2Step, NppiSize oSizeROI, Npp64f aNormDiff[3], Npp8u ∗pDeviceBuffer)

  Three-channel 16-bit unsigned image NormDiff_L2.

- NppStatus nppiNormDiff_L2_16s_C3R (const Npp16s ∗pSrc1, int nSrc1Step, const Npp16s ∗pSrc2, int nSrc2Step, NppiSize oSizeROI, Npp64f aNormDiff[3], Npp8u ∗pDeviceBuffer)

  Three-channel 16-bit signed image NormDiff_L2.

- NppStatus nppiNormDiff_L2_32f_C3R (const Npp32f ∗pSrc1, int nSrc1Step, const Npp32f ∗pSrc2, int nSrc2Step, NppiSize oSizeROI, Npp64f aNormDiff[3], Npp8u ∗pDeviceBuffer)

  Three-channel 32-bit floating point image NormDiff_L2.

- NppStatus nppiNormDiff_L2_8u_AC4R (const Npp8u ∗pSrc1, int nSrc1Step, const Npp8u ∗pSrc2, int nSrc2Step, NppiSize oSizeROI, Npp64f aNormDiff[3], Npp8u ∗pDeviceBuffer)

  Four-channel 8-bit unsigned image NormDiff_L2 ignoring alpha channel.

- NppStatus nppiNormDiff_L2_16u_AC4R (const Npp16u ∗pSrc1, int nSrc1Step, const Npp16u ∗pSrc2, int nSrc2Step, NppiSize oSizeROI, Npp64f aNormDiff[3], Npp8u ∗pDeviceBuffer)

  Four-channel 16-bit unsigned image NormDiff_L2 ignoring alpha channel.

- NppStatus nppiNormDiff_L2_16s_AC4R (const Npp16s ∗pSrc1, int nSrc1Step, const Npp16s ∗pSrc2, int nSrc2Step, NppiSize oSizeROI, Npp64f aNormDiff[3], Npp8u ∗pDeviceBuffer)

  Four-channel 16-bit signed image NormDiff_L2 ignoring alpha channel.

- NppStatus nppiNormDiff_L2_32f_AC4R (const Npp32f ∗pSrc1, int nSrc1Step, const Npp32f ∗pSrc2, int nSrc2Step, NppiSize oSizeROI, Npp64f aNormDiff[3], Npp8u ∗pDeviceBuffer)

  Four-channel 32-bit floating point image NormDiff_L2 ignoring alpha channel.

- NppStatus nppiNormDiff_L2_8u_C4R (const Npp8u ∗pSrc1, int nSrc1Step, const Npp8u ∗pSrc2, int nSrc2Step, NppiSize oSizeROI, Npp64f aNormDiff[4], Npp8u ∗pDeviceBuffer)

  Four-channel 8-bit unsigned image NormDiff_L2.

- NppStatus nppiNormDiff_L2_16u_C4R (const Npp16u ∗pSrc1, int nSrc1Step, const Npp16u ∗pSrc2, int nSrc2Step, NppiSize oSizeROI, Npp64f aNormDiff[4], Npp8u ∗pDeviceBuffer)

  Four-channel 16-bit unsigned image NormDiff_L2.

- NppStatus nppiNormDiff_L2_16s_C4R (const Npp16s ∗pSrc1, int nSrc1Step, const Npp16s ∗pSrc2, int nSrc2Step, NppiSize oSizeROI, Npp64f aNormDiff[4], Npp8u ∗pDeviceBuffer)

  Four-channel 16-bit signed image NormDiff_L2.

- NppStatus nppiNormDiff_L2_32f_C4R (const Npp32f ∗pSrc1, int nSrc1Step, const Npp32f ∗pSrc2, int nSrc2Step, NppiSize oSizeROI, Npp64f aNormDiff[4], Npp8u ∗pDeviceBuffer)

  Four-channel 32-bit floating point image NormDiff_L2.

Masked NormDiff_L2

See Masked Operation.

- NppStatus nppiNormDiff_L2_8u_C1MR (const Npp8u ∗pSrc1, int nSrc1Step, const Npp8u ∗pSrc2, int nSrc2Step, const Npp8u ∗pMask, int nMaskStep, NppiSize oSizeROI, Npp64f ∗pNormDiff, Npp8u ∗pDeviceBuffer)

  Masked one-channel 8-bit unsigned image NormDiff_L2.

- NppStatus nppiNormDiff_L2_8s_C1MR (const Npp8s ∗pSrc1, int nSrc1Step, const Npp8s ∗pSrc2, int nSrc2Step, const Npp8u ∗pMask, int nMaskStep, NppiSize oSizeROI, Npp64f ∗pNormDiff, Npp8u ∗pDeviceBuffer)

  Masked one-channel 8-bit signed image NormDiff_L2.

- NppStatus nppiNormDiff_L2_16u_C1MR (const Npp16u ∗pSrc1, int nSrc1Step, const Npp16u ∗pSrc2, int nSrc2Step, const Npp8u ∗pMask, int nMaskStep, NppiSize oSizeROI, Npp64f ∗pNormDiff, Npp8u ∗pDeviceBuffer)

  Masked one-channel 16-bit unsigned image NormDiff_L2.

- NppStatus nppiNormDiff_L2_32f_C1MR (const Npp32f ∗pSrc1, int nSrc1Step, const Npp32f ∗pSrc2, int nSrc2Step, const Npp8u ∗pMask, int nMaskStep, NppiSize oSizeROI, Npp64f ∗pNormDiff, Npp8u ∗pDeviceBuffer)

  Masked one-channel 32-bit floating point image NormDiff_L2.

Masked Channel NormDiff_L2

See Masked Operation and Channel-of-Interest API.

- NppStatus nppiNormDiff_L2_8u_C3CMR (const Npp8u ∗pSrc1, int nSrc1Step, const Npp8u ∗pSrc2, int nSrc2Step, const Npp8u ∗pMask, int nMaskStep, NppiSize oSizeROI, int nCOI, Npp64f ∗pNormDiff, Npp8u ∗pDeviceBuffer)

  Masked three-channel 8-bit unsigned image NormDiff_L2 affecting only single channel.

- NppStatus nppiNormDiff_L2_8s_C3CMR (const Npp8s ∗pSrc1, int nSrc1Step, const Npp8s ∗pSrc2, int nSrc2Step, const Npp8u ∗pMask, int nMaskStep, NppiSize oSizeROI, int nCOI, Npp64f ∗pNormDiff, Npp8u ∗pDeviceBuffer)

  Masked three-channel 8-bit signed image NormDiff_L2 affecting only single channel.

- NppStatus nppiNormDiff_L2_16u_C3CMR (const Npp16u ∗pSrc1, int nSrc1Step, const Npp16u ∗pSrc2, int nSrc2Step, const Npp8u ∗pMask, int nMaskStep, NppiSize oSizeROI, int nCOI, Npp64f ∗pNormDiff, Npp8u ∗pDeviceBuffer)

  Masked three-channel 16-bit unsigned image NormDiff_L2 affecting only single channel.

- NppStatus nppiNormDiff_L2_32f_C3CMR (const Npp32f ∗pSrc1, int nSrc1Step, const Npp32f ∗pSrc2, int nSrc2Step, const Npp8u ∗pMask, int nMaskStep, NppiSize oSizeROI, int nCOI, Npp64f ∗pNormDiff, Npp8u ∗pDeviceBuffer)

  Masked three-channel 32-bit floating point image NormDiff_L2 affecting only single channel.

NormDiffL2GetBufferHostSize

Companion primitives for computing the device buffer size (in bytes) required by the NormDiff_L2 primitives.

- NppStatus nppiNormDiffL2GetBufferHostSize_8u_C1R (NppiSize oSizeROI, int ∗hpBufferSize)

  Computes the device scratch buffer size (in bytes) for nppiNormDiff_L2_8u_C1R.

- NppStatus nppiNormDiffL2GetBufferHostSize_16u_C1R (NppiSize oSizeROI, int ∗hpBufferSize)

  Computes the device scratch buffer size (in bytes) for nppiNormDiff_L2_16u_C1R.

- NppStatus nppiNormDiffL2GetBufferHostSize_16s_C1R (NppiSize oSizeROI, int ∗hpBufferSize)

  Computes the device scratch buffer size (in bytes) for nppiNormDiff_L2_16s_C1R.

- NppStatus nppiNormDiffL2GetBufferHostSize_32f_C1R (NppiSize oSizeROI, int ∗hpBufferSize)

  Computes the device scratch buffer size (in bytes) for nppiNormDiff_L2_32f_C1R.

- NppStatus nppiNormDiffL2GetBufferHostSize_8u_C1MR (NppiSize oSizeROI, int ∗hpBufferSize)

  Computes the device scratch buffer size (in bytes) for nppiNormDiff_L2_8u_C1MR.

- NppStatus nppiNormDiffL2GetBufferHostSize_8s_C1MR (NppiSize oSizeROI, int ∗hpBufferSize)

  Computes the device scratch buffer size (in bytes) for nppiNormDiff_L2_8s_C1MR.

- NppStatus nppiNormDiffL2GetBufferHostSize_16u_C1MR (NppiSize oSizeROI, int ∗hpBufferSize)

Computes the device scratch buffer size (in bytes) for nppiNormDiff_L2_16u_C1MR.

- NppStatus nppiNormDiffL2GetBufferHostSize_32f_C1MR (NppiSize oSizeROI, int ∗hpBufferSize)

  Computes the device scratch buffer size (in bytes) for nppiNormDiff_L2_32f_C1MR.

- NppStatus nppiNormDiffL2GetBufferHostSize_8u_C3R (NppiSize oSizeROI, int ∗hpBufferSize)

  Computes the device scratch buffer size (in bytes) for nppiNormDiff_L2_8u_C3R.

- NppStatus nppiNormDiffL2GetBufferHostSize_16u_C3R (NppiSize oSizeROI, int ∗hpBufferSize)

  Computes the device scratch buffer size (in bytes) for nppiNormDiff_L2_16u_C3R.

- NppStatus nppiNormDiffL2GetBufferHostSize_16s_C3R (NppiSize oSizeROI, int ∗hpBufferSize)

  Computes the device scratch buffer size (in bytes) for nppiNormDiff_L2_16s_C3R.

- NppStatus nppiNormDiffL2GetBufferHostSize_32f_C3R (NppiSize oSizeROI, int ∗hpBufferSize)

  Computes the device scratch buffer size (in bytes) for nppiNormDiff_L2_32f_C3R.

- NppStatus nppiNormDiffL2GetBufferHostSize_8u_C4R (NppiSize oSizeROI, int ∗hpBufferSize)

  Computes the device scratch buffer size (in bytes) for nppiNormDiff_L2_8u_C4R.

- NppStatus nppiNormDiffL2GetBufferHostSize_16u_C4R (NppiSize oSizeROI, int ∗hpBufferSize)

  Computes the device scratch buffer size (in bytes) for nppiNormDiff_L2_16u_C4R.

- NppStatus nppiNormDiffL2GetBufferHostSize_16s_C4R (NppiSize oSizeROI, int ∗hpBufferSize)

  Computes the device scratch buffer size (in bytes) for nppiNormDiff_L2_16s_C4R.

- NppStatus nppiNormDiffL2GetBufferHostSize_32f_C4R (NppiSize oSizeROI, int ∗hpBufferSize)

  Computes the device scratch buffer size (in bytes) for nppiNormDiff_L2_32f_C4R.

- NppStatus nppiNormDiffL2GetBufferHostSize_8u_AC4R (NppiSize oSizeROI, int ∗hpBufferSize)

  Computes the device scratch buffer size (in bytes) for nppiNormDiff_L2_8u_AC4R.

- NppStatus nppiNormDiffL2GetBufferHostSize_16u_AC4R (NppiSize oSizeROI, int ∗hpBufferSize)

  Computes the device scratch buffer size (in bytes) for nppiNormDiff_L2_16u_AC4R.

- NppStatus nppiNormDiffL2GetBufferHostSize_16s_AC4R (NppiSize oSizeROI, int ∗hpBufferSize)

  Computes the device scratch buffer size (in bytes) for nppiNormDiff_L2_16s_AC4R.

- NppStatus nppiNormDiffL2GetBufferHostSize_32f_AC4R (NppiSize oSizeROI, int ∗hpBufferSize)

  Computes the device scratch buffer size (in bytes) for nppiNormDiff_L2_32f_AC4R.

- NppStatus nppiNormDiffL2GetBufferHostSize_8u_C3CMR (NppiSize oSizeROI, int ∗hpBufferSize)

  Computes the device scratch buffer size (in bytes) for nppiNormDiff_L2_8u_C3CMR.

- NppStatus nppiNormDiffL2GetBufferHostSize_8s_C3CMR (NppiSize oSizeROI, int ∗hpBufferSize)

  Computes the device scratch buffer size (in bytes) for nppiNormDiff_L2_8s_C3CMR.

- NppStatus nppiNormDiffL2GetBufferHostSize_16u_C3CMR (NppiSize oSizeROI, int ∗hpBufferSize)

  Computes the device scratch buffer size (in bytes) for nppiNormDiff_L2_16u_C3CMR.

- NppStatus nppiNormDiffL2GetBufferHostSize_32f_C3CMR (NppiSize oSizeROI, int ∗hpBufferSize)

  Computes the device scratch buffer size (in bytes) for nppiNormDiff_L2_32f_C3CMR.

7.107.1 Detailed Description

Primitives for computing the L2 norm of difference of pixels between two images.

7.107.2 Function Documentation

7.107.2.1 NppStatus nppiNormDiff_L2_16s_AC4R (const Npp16s ∗ *pSrc1*, int *nSrc1Step*, const Npp16s ∗ *pSrc2*, int *nSrc2Step*, NppiSize *oSizeROI*, Npp64f *aNormDiff*[3], Npp8u ∗ *pDeviceBuffer*)

Four-channel 16-bit signed image NormDiff_L2 ignoring alpha channel.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

oSizeROI Region-of-Interest (ROI).

aNormDiff Array that contains computed Inf-norm of differences.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppiNormDiffL2GetBufferHostSize_16s_AC4R to compute the required size (in bytes).

Returns:

Image Data Related Error Codes, ROI Related Error Codes.

7.107.2.2 NppStatus nppiNormDiff_L2_16s_C1R (const Npp16s ∗ *pSrc1*, int *nSrc1Step*, const Npp16s ∗ *pSrc2*, int *nSrc2Step*, NppiSize *oSizeROI*, Npp64f ∗ *pNormDiff*, Npp8u ∗ *pDeviceBuffer*)

One-channel 16-bit signed image NormDiff_L2.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pNormDiff Pointer to the computed Inf-norm of differences.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppiNormDiffL2GetBufferHostSize_16s_C1R to compute the required size (in bytes).

Returns:

Image Data Related Error Codes, ROI Related Error Codes.

7.107.2.3 NppStatus nppiNormDiff_L2_16s_C3R (const Npp16s ∗ *pSrc1*, int *nSrc1Step*, const Npp16s ∗ *pSrc2*, int *nSrc2Step*, NppiSize *oSizeROI*, Npp64f *aNormDiff*[3], Npp8u ∗ *pDeviceBuffer*)

Three-channel 16-bit signed image NormDiff_L2.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

oSizeROI Region-of-Interest (ROI).

aNormDiff Array that contains computed Inf-norm of differences.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppiNormDiffL2GetBufferHostSize_16s_C3R to compute the required size (in bytes).

Returns:

Image Data Related Error Codes, ROI Related Error Codes.

7.107.2.4 NppStatus nppiNormDiff_L2_16s_C4R (const Npp16s ∗ *pSrc1*, int *nSrc1Step*, const Npp16s ∗ *pSrc2*, int *nSrc2Step*, NppiSize *oSizeROI*, Npp64f *aNormDiff*[4], Npp8u ∗ *pDeviceBuffer*)

Four-channel 16-bit signed image NormDiff_L2.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

oSizeROI Region-of-Interest (ROI).

aNormDiff Array that contains computed Inf-norm of differences.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppiNormDiffL2GetBufferHostSize_16s_C4R to compute the required size (in bytes).

Returns:

Image Data Related Error Codes, ROI Related Error Codes.

7.107.2.5 NppStatus nppiNormDiff_L2_16u_AC4R (const Npp16u ∗ *pSrc1*, int *nSrc1Step*, const Npp16u ∗ *pSrc2*, int *nSrc2Step*, NppiSize *oSizeROI*, Npp64f *aNormDiff*[3], Npp8u ∗ *pDeviceBuffer*)

Four-channel 16-bit unsigned image NormDiff_L2 ignoring alpha channel.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

oSizeROI Region-of-Interest (ROI).

aNormDiff Array that contains computed Inf-norm of differences.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppiNormDiffL2GetBufferHostSize_16u_AC4R to compute the required size (in bytes).

Returns:

Image Data Related Error Codes, ROI Related Error Codes.

7.107.2.6 NppStatus nppiNormDiff_L2_16u_C1MR (const Npp16u ∗ *pSrc1*, int *nSrc1Step*, const Npp16u ∗ *pSrc2*, int *nSrc2Step*, const Npp8u ∗ *pMask*, int *nMaskStep*, NppiSize *oSizeROI*, Npp64f ∗ *pNormDiff*, Npp8u ∗ *pDeviceBuffer*)

Masked one-channel 16-bit unsigned image NormDiff_L2.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

pMask Mask-Image Pointer.

nMaskStep Mask-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pNormDiff Pointer to the computed Inf-norm of differences.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppiNormDiffL2GetBufferHostSize_16u_C1MR to compute the required size (in bytes).

Returns:

Image Data Related Error Codes, ROI Related Error Codes.

7.107.2.7 NppStatus nppiNormDiff_L2_16u_C1R (const Npp16u ∗ *pSrc1*, int *nSrc1Step*, const Npp16u ∗ *pSrc2*, int *nSrc2Step*, NppiSize *oSizeROI*, Npp64f ∗ *pNormDiff*, Npp8u ∗ *pDeviceBuffer*)

One-channel 16-bit unsigned image NormDiff_L2.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pNormDiff Pointer to the computed Inf-norm of differences.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppiNormDiffL2GetBufferHostSize_16u_C1R to compute the required size (in bytes).

Returns:

Image Data Related Error Codes, ROI Related Error Codes.

7.107.2.8 NppStatus nppiNormDiff_L2_16u_C3CMR (const Npp16u ∗ *pSrc1*, int *nSrc1Step*, const Npp16u ∗ *pSrc2*, int *nSrc2Step*, const Npp8u ∗ *pMask*, int *nMaskStep*, NppiSize *oSizeROI*, int *nCOI*, Npp64f ∗ *pNormDiff*, Npp8u ∗ *pDeviceBuffer*)

Masked three-channel 16-bit unsigned image NormDiff_L2 affecting only single channel.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

pMask Mask-Image Pointer.

nMaskStep Mask-Image Line Step.

oSizeROI Region-of-Interest (ROI).

nCOI Channel_of_Interest Number.

pNormDiff Pointer to the computed Inf-norm of differences.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppiNormDiffL2GetBufferHostSize_16u_C3CMR to compute the required size (in bytes).

Returns:

Image Data Related Error Codes, ROI Related Error Codes, or NPP_COI_ERROR if an invalid channel of interest is specified.

7.107.2.9 NppStatus nppiNormDiff_L2_16u_C3R (const Npp16u ∗ *pSrc1*, int *nSrc1Step*, const Npp16u ∗ *pSrc2*, int *nSrc2Step*, NppiSize *oSizeROI*, Npp64f *aNormDiff*[3], Npp8u ∗ *pDeviceBuffer*)

Three-channel 16-bit unsigned image NormDiff_L2.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

oSizeROI Region-of-Interest (ROI).

aNormDiff Array that contains computed Inf-norm of differences.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppiNormDiffL2GetBufferHostSize_16u_C3R to compute the required size (in bytes).

Returns:

Image Data Related Error Codes, ROI Related Error Codes.

7.107.2.10 NppStatus nppiNormDiff_L2_16u_C4R (const Npp16u ∗ *pSrc1*, int *nSrc1Step*, const Npp16u ∗ *pSrc2*, int *nSrc2Step*, NppiSize *oSizeROI*, Npp64f *aNormDiff*[4], Npp8u ∗ *pDeviceBuffer*)

Four-channel 16-bit unsigned image NormDiff_L2.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

oSizeROI Region-of-Interest (ROI).

aNormDiff Array that contains computed Inf-norm of differences.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppiNormDiffL2GetBufferHostSize_16u_C4R to compute the required size (in bytes).

Returns:

Image Data Related Error Codes, ROI Related Error Codes.

7.107.2.11 NppStatus nppiNormDiff_L2_32f_AC4R (const Npp32f ∗ *pSrc1*, int *nSrc1Step*, const Npp32f ∗ *pSrc2*, int *nSrc2Step*, NppiSize *oSizeROI*, Npp64f *aNormDiff*[3], Npp8u ∗ *pDeviceBuffer*)

Four-channel 32-bit floating point image NormDiff_L2 ignoring alpha channel.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

oSizeROI Region-of-Interest (ROI).

aNormDiff Array that contains computed Inf-norm of differences.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppiNormDiffL2GetBufferHostSize_32f_AC4R to compute the required size (in bytes).

Returns:

Image Data Related Error Codes, ROI Related Error Codes, or NPP_NOT_EVEN_STEP_ERROR if an invalid floating-point image is specified.

7.107.2.12 NppStatus nppiNormDiff_L2_32f_C1MR (const Npp32f ∗ *pSrc1*, int *nSrc1Step*, const Npp32f ∗ *pSrc2*, int *nSrc2Step*, const Npp8u ∗ *pMask*, int *nMaskStep*, NppiSize *oSizeROI*, Npp64f ∗ *pNormDiff*, Npp8u ∗ *pDeviceBuffer*)

Masked one-channel 32-bit floating point image NormDiff_L2.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

pMask Mask-Image Pointer.

nMaskStep Mask-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pNormDiff Pointer to the computed Inf-norm of differences.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppiNormDiffL2GetBufferHostSize_32f_C1MR to compute the required size (in bytes).

Returns:

Image Data Related Error Codes, ROI Related Error Codes, or NPP_NOT_EVEN_STEP_ERROR if an invalid floating-point image is specified.

7.107.2.13 NppStatus nppiNormDiff_L2_32f_C1R (const Npp32f ∗ *pSrc1*, int *nSrc1Step*, const Npp32f ∗ *pSrc2*, int *nSrc2Step*, NppiSize *oSizeROI*, Npp64f ∗ *pNormDiff*, Npp8u ∗ *pDeviceBuffer*)

One-channel 32-bit floating point image NormDiff_L2.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pNormDiff Pointer to the computed Inf-norm of differences.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppiNormDiffL2GetBufferHostSize_32f_C1R to compute the required size (in bytes).

Returns:

Image Data Related Error Codes, ROI Related Error Codes, or NPP_NOT_EVEN_STEP_ERROR if an invalid floating-point image is specified.

7.107.2.14 NppStatus nppiNormDiff_L2_32f_C3CMR (const Npp32f ∗ *pSrc1*, int *nSrc1Step*, const Npp32f ∗ *pSrc2*, int *nSrc2Step*, const Npp8u ∗ *pMask*, int *nMaskStep*, NppiSize *oSizeROI*, int *nCOI*, Npp64f ∗ *pNormDiff*, Npp8u ∗ *pDeviceBuffer*)

Masked three-channel 32-bit floating point image NormDiff_L2 affecting only single channel.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

pMask Mask-Image Pointer.

nMaskStep Mask-Image Line Step.

oSizeROI Region-of-Interest (ROI).

nCOI Channel_of_Interest Number.

pNormDiff Pointer to the computed Inf-norm of differences.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppiNormDiffL2GetBufferHostSize_32f_C3CMR to compute the required size (in bytes).

Returns:

Image Data Related Error Codes, ROI Related Error Codes, or NPP_COI_ERROR if an invalid channel of interest is specified, or NPP_NOT_EVEN_STEP_ERROR if an invalid floating-point image is specified.

7.107.2.15 NppStatus nppiNormDiff_L2_32f_C3R (const Npp32f ∗ *pSrc1*, int *nSrc1Step*, const Npp32f ∗ *pSrc2*, int *nSrc2Step*, NppiSize *oSizeROI*, Npp64f *aNormDiff*[3], Npp8u ∗ *pDeviceBuffer*)

Three-channel 32-bit floating point image NormDiff_L2.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

oSizeROI Region-of-Interest (ROI).

aNormDiff Array that contains computed Inf-norm of differences.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppiNormDiffL2GetBufferHostSize_32f_C3R to compute the required size (in bytes).

Returns:

Image Data Related Error Codes, ROI Related Error Codes, or NPP_NOT_EVEN_STEP_ERROR if an invalid floating-point image is specified.

7.107.2.16 NppStatus nppiNormDiff_L2_32f_C4R (const Npp32f ∗ *pSrc1*, int *nSrc1Step*, const Npp32f ∗ *pSrc2*, int *nSrc2Step*, NppiSize *oSizeROI*, Npp64f *aNormDiff*[4], Npp8u ∗ *pDeviceBuffer*)

Four-channel 32-bit floating point image NormDiff_L2.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

oSizeROI Region-of-Interest (ROI).

aNormDiff Array that contains computed Inf-norm of differences.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppiNormDiffL2GetBufferHostSize_32f_C4R to compute the required size (in bytes).

Returns:

Image Data Related Error Codes, ROI Related Error Codes, or NPP_NOT_EVEN_STEP_ERROR if an invalid floating-point image is specified.

7.107.2.17 NppStatus nppiNormDiff_L2_8s_C1MR (const Npp8s ∗ *pSrc1*, int *nSrc1Step*, const Npp8s ∗ *pSrc2*, int *nSrc2Step*, const Npp8u ∗ *pMask*, int *nMaskStep*, NppiSize *oSizeROI*, Npp64f ∗ *pNormDiff*, Npp8u ∗ *pDeviceBuffer*)

Masked one-channel 8-bit signed image NormDiff_L2.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

pMask Mask-Image Pointer.

nMaskStep Mask-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pNormDiff Pointer to the computed Inf-norm of differences.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppiNormDiffL2GetBufferHostSize_8s_C1MR to compute the required size (in bytes).

Returns:

Image Data Related Error Codes, ROI Related Error Codes.

7.107.2.18 NppStatus nppiNormDiff_L2_8s_C3CMR (const Npp8s * *pSrc1*, int *nSrc1Step*, const Npp8s * *pSrc2*, int *nSrc2Step*, const Npp8u * *pMask*, int *nMaskStep*, NppiSize *oSizeROI*, int *nCOI*, Npp64f * *pNormDiff*, Npp8u * *pDeviceBuffer*)

Masked three-channel 8-bit signed image NormDiff_L2 affecting only single channel.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

pMask Mask-Image Pointer.

nMaskStep Mask-Image Line Step.

oSizeROI Region-of-Interest (ROI).

nCOI Channel_of_Interest Number.

pNormDiff Pointer to the computed Inf-norm of differences.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppiNormDiffL2GetBufferHostSize_8s_C3CMR to compute the required size (in bytes).

Returns:

Image Data Related Error Codes, ROI Related Error Codes, or NPP_COI_ERROR if an invalid channel of interest is specified.

7.107.2.19 NppStatus nppiNormDiff_L2_8u_AC4R (const Npp8u * *pSrc1*, int *nSrc1Step*, const Npp8u * *pSrc2*, int *nSrc2Step*, NppiSize *oSizeROI*, Npp64f *aNormDiff*[3], Npp8u * *pDeviceBuffer*)

Four-channel 8-bit unsigned image NormDiff_L2 ignoring alpha channel.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

oSizeROI Region-of-Interest (ROI).

aNormDiff Array that contains computed Inf-norm of differences.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppiNormDiffL2GetBufferHostSize_8u_AC4R to compute the required size (in bytes).

Returns:

Image Data Related Error Codes, ROI Related Error Codes.

7.107.2.20 NppStatus nppiNormDiff_L2_8u_C1MR (const Npp8u $*$ *pSrc1*, int *nSrc1Step*, const Npp8u $*$ *pSrc2*, int *nSrc2Step*, const Npp8u $*$ *pMask*, int *nMaskStep*, NppiSize *oSizeROI*, Npp64f $*$ *pNormDiff*, Npp8u $*$ *pDeviceBuffer*)

Masked one-channel 8-bit unsigned image NormDiff_L2.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

pMask Mask-Image Pointer.

nMaskStep Mask-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pNormDiff Pointer to the computed Inf-norm of differences.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppiNormDiffL2GetBufferHostSize_8u_C1MR to compute the required size (in bytes).

Returns:

Image Data Related Error Codes, ROI Related Error Codes.

7.107.2.21 NppStatus nppiNormDiff_L2_8u_C1R (const Npp8u $*$ *pSrc1*, int *nSrc1Step*, const Npp8u $*$ *pSrc2*, int *nSrc2Step*, NppiSize *oSizeROI*, Npp64f $*$ *pNormDiff*, Npp8u $*$ *pDeviceBuffer*)

One-channel 8-bit unsigned image NormDiff_L2.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pNormDiff Pointer to the computed Inf-norm of differences.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppiNormDiffL2GetBufferHostSize_8u_C1R to compute the required size (in bytes).

Returns:

Image Data Related Error Codes, ROI Related Error Codes.

7.107.2.22 NppStatus nppiNormDiff_L2_8u_C3CMR (const Npp8u * *pSrc1*, int *nSrc1Step*, const Npp8u * *pSrc2*, int *nSrc2Step*, const Npp8u * *pMask*, int *nMaskStep*, NppiSize *oSizeROI*, int *nCOI*, Npp64f * *pNormDiff*, Npp8u * *pDeviceBuffer*)

Masked three-channel 8-bit unsigned image NormDiff_L2 affecting only single channel.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

pMask Mask-Image Pointer.

nMaskStep Mask-Image Line Step.

oSizeROI Region-of-Interest (ROI).

nCOI Channel_of_Interest Number.

pNormDiff Pointer to the computed Inf-norm of differences.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppiNormDiffL2GetBufferHostSize_8u_C3CMR to compute the required size (in bytes).

Returns:

Image Data Related Error Codes, ROI Related Error Codes, or NPP_COI_ERROR if an invalid channel of interest is specified.

7.107.2.23 NppStatus nppiNormDiff_L2_8u_C3R (const Npp8u * *pSrc1*, int *nSrc1Step*, const Npp8u * *pSrc2*, int *nSrc2Step*, NppiSize *oSizeROI*, Npp64f *aNormDiff*[3], Npp8u * *pDeviceBuffer*)

Three-channel 8-bit unsigned image NormDiff_L2.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

oSizeROI Region-of-Interest (ROI).

aNormDiff Array that contains computed Inf-norm of differences.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppiNormDiffL2GetBufferHostSize_8u_C3R to compute the required size (in bytes).

Returns:

Image Data Related Error Codes, ROI Related Error Codes.

7.107.2.24 NppStatus nppiNormDiff_L2_8u_C4R (const Npp8u * *pSrc1*, int *nSrc1Step*, const Npp8u * *pSrc2*, int *nSrc2Step*, NppiSize *oSizeROI*, Npp64f *aNormDiff*[4], Npp8u * *pDeviceBuffer*)

Four-channel 8-bit unsigned image NormDiff_L2.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

oSizeROI Region-of-Interest (ROI).

aNormDiff Array that contains computed Inf-norm of differences.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppiNormDiffL2GetBufferHostSize_8u_C4R to compute the required size (in bytes).

Returns:

Image Data Related Error Codes, ROI Related Error Codes.

7.107.2.25 NppStatus nppiNormDiffL2GetBufferHostSize_16s_AC4R (NppiSize *oSizeROI*, int * *hpBufferSize*)

Computes the device scratch buffer size (in bytes) for nppiNormDiff_L2_16s_AC4R.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.107.2.26 NppStatus nppiNormDiffL2GetBufferHostSize_16s_C1R (NppiSize *oSizeROI*, int * *hpBufferSize*)

Computes the device scratch buffer size (in bytes) for nppiNormDiff_L2_16s_C1R.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.107.2.27 NppStatus nppiNormDiffL2GetBufferHostSize_16s_C3R (NppiSize *oSizeROI*, int ∗ *hpBufferSize*)

Computes the device scratch buffer size (in bytes) for nppiNormDiff_L2_16s_C3R.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.107.2.28 NppStatus nppiNormDiffL2GetBufferHostSize_16s_C4R (NppiSize *oSizeROI*, int ∗ *hpBufferSize*)

Computes the device scratch buffer size (in bytes) for nppiNormDiff_L2_16s_C4R.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.107.2.29 NppStatus nppiNormDiffL2GetBufferHostSize_16u_AC4R (NppiSize *oSizeROI*, int ∗ *hpBufferSize*)

Computes the device scratch buffer size (in bytes) for nppiNormDiff_L2_16u_AC4R.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.107.2.30 NppStatus nppiNormDiffL2GetBufferHostSize_16u_C1MR (NppiSize *oSizeROI*, int ∗ *hpBufferSize*)

Computes the device scratch buffer size (in bytes) for nppiNormDiff_L2_16u_C1MR.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.107.2.31 NppStatus nppiNormDiffL2GetBufferHostSize_16u_C1R (NppiSize *oSizeROI*, int ∗ *hpBufferSize*)

Computes the device scratch buffer size (in bytes) for nppiNormDiff_L2_16u_C1R.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.107.2.32 NppStatus nppiNormDiffL2GetBufferHostSize_16u_C3CMR (NppiSize *oSizeROI*, int ∗ *hpBufferSize*)

Computes the device scratch buffer size (in bytes) for nppiNormDiff_L2_16u_C3CMR.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.107.2.33 NppStatus nppiNormDiffL2GetBufferHostSize_16u_C3R (NppiSize *oSizeROI*, int ∗ *hpBufferSize*)

Computes the device scratch buffer size (in bytes) for nppiNormDiff_L2_16u_C3R.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.107.2.34 NppStatus nppiNormDiffL2GetBufferHostSize_16u_C4R (NppiSize *oSizeROI*, int ∗ *hpBufferSize*)

Computes the device scratch buffer size (in bytes) for nppiNormDiff_L2_16u_C4R.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.107.2.35 NppStatus nppiNormDiffL2GetBufferHostSize_32f_AC4R (NppiSize *oSizeROI*, int ∗ *hpBufferSize*)

Computes the device scratch buffer size (in bytes) for nppiNormDiff_L2_32f_AC4R.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.107.2.36 NppStatus nppiNormDiffL2GetBufferHostSize_32f_C1MR (NppiSize *oSizeROI*, int ∗ *hpBufferSize*)

Computes the device scratch buffer size (in bytes) for nppiNormDiff_L2_32f_C1MR.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.107.2.37 NppStatus nppiNormDiffL2GetBufferHostSize_32f_C1R (NppiSize *oSizeROI*, int ∗ *hpBufferSize*)

Computes the device scratch buffer size (in bytes) for nppiNormDiff_L2_32f_C1R.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.107.2.38 NppStatus nppiNormDiffL2GetBufferHostSize_32f_C3CMR (NppiSize *oSizeROI*, int * *hpBufferSize*)

Computes the device scratch buffer size (in bytes) for nppiNormDiff_L2_32f_C3CMR.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.107.2.39 NppStatus nppiNormDiffL2GetBufferHostSize_32f_C3R (NppiSize *oSizeROI*, int * *hpBufferSize*)

Computes the device scratch buffer size (in bytes) for nppiNormDiff_L2_32f_C3R.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.107.2.40 NppStatus nppiNormDiffL2GetBufferHostSize_32f_C4R (NppiSize *oSizeROI*, int * *hpBufferSize*)

Computes the device scratch buffer size (in bytes) for nppiNormDiff_L2_32f_C4R.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.107.2.41 NppStatus nppiNormDiffL2GetBufferHostSize_8s_C1MR (NppiSize *oSizeROI*, int ∗ *hpBufferSize*)

Computes the device scratch buffer size (in bytes) for nppiNormDiff_L2_8s_C1MR.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.107.2.42 NppStatus nppiNormDiffL2GetBufferHostSize_8s_C3CMR (NppiSize *oSizeROI*, int ∗ *hpBufferSize*)

Computes the device scratch buffer size (in bytes) for nppiNormDiff_L2_8s_C3CMR.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.107.2.43 NppStatus nppiNormDiffL2GetBufferHostSize_8u_AC4R (NppiSize *oSizeROI*, int ∗ *hpBufferSize*)

Computes the device scratch buffer size (in bytes) for nppiNormDiff_L2_8u_AC4R.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.107.2.44 NppStatus nppiNormDiffL2GetBufferHostSize_8u_C1MR (NppiSize *oSizeROI*, int ∗ *hpBufferSize*)

Computes the device scratch buffer size (in bytes) for nppiNormDiff_L2_8u_C1MR.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.107.2.45 NppStatus nppiNormDiffL2GetBufferHostSize_8u_C1R (NppiSize *oSizeROI*, int * *hpBufferSize*)

Computes the device scratch buffer size (in bytes) for nppiNormDiff_L2_8u_C1R.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.107.2.46 NppStatus nppiNormDiffL2GetBufferHostSize_8u_C3CMR (NppiSize *oSizeROI*, int * *hpBufferSize*)

Computes the device scratch buffer size (in bytes) for nppiNormDiff_L2_8u_C3CMR.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.107.2.47 NppStatus nppiNormDiffL2GetBufferHostSize_8u_C3R (NppiSize *oSizeROI*, int * *hpBufferSize*)

Computes the device scratch buffer size (in bytes) for nppiNormDiff_L2_8u_C3R.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.107.2.48 NppStatus nppiNormDiffL2GetBufferHostSize_8u_C4R (NppiSize *oSizeROI*, int * *hpBufferSize*)

Computes the device scratch buffer size (in bytes) for nppiNormDiff_L2_8u_C4R.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.108 NormRel_Inf

Primitives for computing the relative error of infinity norm between two images.

Basic NormRel_Inf

- NppStatus nppiNormRel_Inf_8u_C1R (const Npp8u ∗pSrc1, int nSrc1Step, const Npp8u ∗pSrc2, int nSrc2Step, NppiSize oSizeROI, Npp64f ∗pNormRel, Npp8u ∗pDeviceBuffer)

  One-channel 8-bit unsigned image NormRel_Inf.

- NppStatus nppiNormRel_Inf_16u_C1R (const Npp16u ∗pSrc1, int nSrc1Step, const Npp16u ∗pSrc2, int nSrc2Step, NppiSize oSizeROI, Npp64f ∗pNormRel, Npp8u ∗pDeviceBuffer)

  One-channel 16-bit unsigned image NormRel_Inf.

- NppStatus nppiNormRel_Inf_16s_C1R (const Npp16s ∗pSrc1, int nSrc1Step, const Npp16s ∗pSrc2, int nSrc2Step, NppiSize oSizeROI, Npp64f ∗pNormRel, Npp8u ∗pDeviceBuffer)

  One-channel 16-bit signed image NormRel_Inf.

- NppStatus nppiNormRel_Inf_32f_C1R (const Npp32f ∗pSrc1, int nSrc1Step, const Npp32f ∗pSrc2, int nSrc2Step, NppiSize oSizeROI, Npp64f ∗pNormRel, Npp8u ∗pDeviceBuffer)

  One-channel 32-bit floating point image NormRel_Inf.

- NppStatus nppiNormRel_Inf_8u_C3R (const Npp8u ∗pSrc1, int nSrc1Step, const Npp8u ∗pSrc2, int nSrc2Step, NppiSize oSizeROI, Npp64f aNormRel[3], Npp8u ∗pDeviceBuffer)

  Three-channel 8-bit unsigned image NormRel_Inf.

- NppStatus nppiNormRel_Inf_16u_C3R (const Npp16u ∗pSrc1, int nSrc1Step, const Npp16u ∗pSrc2, int nSrc2Step, NppiSize oSizeROI, Npp64f aNormRel[3], Npp8u ∗pDeviceBuffer)

  Three-channel 16-bit unsigned image NormRel_Inf.

- NppStatus nppiNormRel_Inf_16s_C3R (const Npp16s ∗pSrc1, int nSrc1Step, const Npp16s ∗pSrc2, int nSrc2Step, NppiSize oSizeROI, Npp64f aNormRel[3], Npp8u ∗pDeviceBuffer)

  Three-channel 16-bit signed image NormRel_Inf.

- NppStatus nppiNormRel_Inf_32f_C3R (const Npp32f ∗pSrc1, int nSrc1Step, const Npp32f ∗pSrc2, int nSrc2Step, NppiSize oSizeROI, Npp64f aNormRel[3], Npp8u ∗pDeviceBuffer)

  Three-channel 32-bit floating point image NormRel_Inf.

- NppStatus nppiNormRel_Inf_8u_AC4R (const Npp8u ∗pSrc1, int nSrc1Step, const Npp8u ∗pSrc2, int nSrc2Step, NppiSize oSizeROI, Npp64f aNormRel[3], Npp8u ∗pDeviceBuffer)

  Four-channel 8-bit unsigned image NormRel_Inf ignoring alpha channel.

- NppStatus nppiNormRel_Inf_16u_AC4R (const Npp16u ∗pSrc1, int nSrc1Step, const Npp16u ∗pSrc2, int nSrc2Step, NppiSize oSizeROI, Npp64f aNormRel[3], Npp8u ∗pDeviceBuffer)

  Four-channel 16-bit unsigned image NormRel_Inf ignoring alpha channel.

- NppStatus nppiNormRel_Inf_16s_AC4R (const Npp16s ∗pSrc1, int nSrc1Step, const Npp16s ∗pSrc2, int nSrc2Step, NppiSize oSizeROI, Npp64f aNormRel[3], Npp8u ∗pDeviceBuffer)

  Four-channel 16-bit signed image NormRel_Inf ignoring alpha channel.

- NppStatus nppiNormRel_Inf_32f_AC4R (const Npp32f ∗pSrc1, int nSrc1Step, const Npp32f ∗pSrc2, int nSrc2Step, NppiSize oSizeROI, Npp64f aNormRel[3], Npp8u ∗pDeviceBuffer)

  Four-channel 32-bit floating point image NormRel_Inf ignoring alpha channel.

- NppStatus nppiNormRel_Inf_8u_C4R (const Npp8u ∗pSrc1, int nSrc1Step, const Npp8u ∗pSrc2, int nSrc2Step, NppiSize oSizeROI, Npp64f aNormRel[4], Npp8u ∗pDeviceBuffer)

  Four-channel 8-bit unsigned image NormRel_Inf.

- NppStatus nppiNormRel_Inf_16u_C4R (const Npp16u ∗pSrc1, int nSrc1Step, const Npp16u ∗pSrc2, int nSrc2Step, NppiSize oSizeROI, Npp64f aNormRel[4], Npp8u ∗pDeviceBuffer)

  Four-channel 16-bit unsigned image NormRel_Inf.

- NppStatus nppiNormRel_Inf_16s_C4R (const Npp16s ∗pSrc1, int nSrc1Step, const Npp16s ∗pSrc2, int nSrc2Step, NppiSize oSizeROI, Npp64f aNormRel[4], Npp8u ∗pDeviceBuffer)

  Four-channel 16-bit signed image NormRel_Inf.

- NppStatus nppiNormRel_Inf_32f_C4R (const Npp32f ∗pSrc1, int nSrc1Step, const Npp32f ∗pSrc2, int nSrc2Step, NppiSize oSizeROI, Npp64f aNormRel[4], Npp8u ∗pDeviceBuffer)

  Four-channel 32-bit floating point image NormRel_Inf.

Masked NormRel_Inf

See Masked Operation.

- NppStatus nppiNormRel_Inf_8u_C1MR (const Npp8u ∗pSrc1, int nSrc1Step, const Npp8u ∗pSrc2, int nSrc2Step, const Npp8u ∗pMask, int nMaskStep, NppiSize oSizeROI, Npp64f ∗pNormRel, Npp8u ∗pDeviceBuffer)

  Masked one-channel 8-bit unsigned image NormRel_Inf.

- NppStatus nppiNormRel_Inf_8s_C1MR (const Npp8s ∗pSrc1, int nSrc1Step, const Npp8s ∗pSrc2, int nSrc2Step, const Npp8u ∗pMask, int nMaskStep, NppiSize oSizeROI, Npp64f ∗pNormRel, Npp8u ∗pDeviceBuffer)

  Masked one-channel 8-bit signed image NormRel_Inf.

- NppStatus nppiNormRel_Inf_16u_C1MR (const Npp16u ∗pSrc1, int nSrc1Step, const Npp16u ∗pSrc2, int nSrc2Step, const Npp8u ∗pMask, int nMaskStep, NppiSize oSizeROI, Npp64f ∗pNormRel, Npp8u ∗pDeviceBuffer)

  Masked one-channel 16-bit unsigned image NormRel_Inf.

- NppStatus nppiNormRel_Inf_32f_C1MR (const Npp32f ∗pSrc1, int nSrc1Step, const Npp32f ∗pSrc2, int nSrc2Step, const Npp8u ∗pMask, int nMaskStep, NppiSize oSizeROI, Npp64f ∗pNormRel, Npp8u ∗pDeviceBuffer)

  Masked one-channel 32-bit floating point image NormRel_Inf.

Masked Channel NormRel_Inf

See Masked Operation and Channel-of-Interest API.

- NppStatus nppiNormRel_Inf_8u_C3CMR (const Npp8u ∗pSrc1, int nSrc1Step, const Npp8u ∗pSrc2, int nSrc2Step, const Npp8u ∗pMask, int nMaskStep, NppiSize oSizeROI, int nCOI, Npp64f ∗pNormRel, Npp8u ∗pDeviceBuffer)

  Masked three-channel 8-bit unsigned image NormRel_Inf affecting only signle channel.

- NppStatus nppiNormRel_Inf_8s_C3CMR (const Npp8s ∗pSrc1, int nSrc1Step, const Npp8s ∗pSrc2, int nSrc2Step, const Npp8u ∗pMask, int nMaskStep, NppiSize oSizeROI, int nCOI, Npp64f ∗pNormRel, Npp8u ∗pDeviceBuffer)

  Masked three-channel 8-bit signed image NormRel_Inf affecting only signle channel.

- NppStatus nppiNormRel_Inf_16u_C3CMR (const Npp16u ∗pSrc1, int nSrc1Step, const Npp16u ∗pSrc2, int nSrc2Step, const Npp8u ∗pMask, int nMaskStep, NppiSize oSizeROI, int nCOI, Npp64f ∗pNormRel, Npp8u ∗pDeviceBuffer)

  Masked three-channel 16-bit unsigned image NormRel_Inf affecting only signle channel.

- NppStatus nppiNormRel_Inf_32f_C3CMR (const Npp32f ∗pSrc1, int nSrc1Step, const Npp32f ∗pSrc2, int nSrc2Step, const Npp8u ∗pMask, int nMaskStep, NppiSize oSizeROI, int nCOI, Npp64f ∗pNormRel, Npp8u ∗pDeviceBuffer)

  Masked three-channel 32-bit floating point image NormRel_Inf affecting only signle channel.

NormRelInfGetBufferHostSize

Companion primitives for computing the device buffer size (in bytes) required by the NormRel_Inf primitives.

- NppStatus nppiNormRelInfGetBufferHostSize_8u_C1R (NppiSize oSizeROI, int ∗hpBufferSize)

  Computes the device scratch buffer size (in bytes) for nppiNormRel_Inf_8u_C1R.

- NppStatus nppiNormRelInfGetBufferHostSize_16u_C1R (NppiSize oSizeROI, int ∗hpBufferSize)

  Computes the device scratch buffer size (in bytes) for nppiNormRel_Inf_16u_C1R.

- NppStatus nppiNormRelInfGetBufferHostSize_16s_C1R (NppiSize oSizeROI, int ∗hpBufferSize)

  Computes the device scratch buffer size (in bytes) for nppiNormRel_Inf_16s_C1R.

- NppStatus nppiNormRelInfGetBufferHostSize_32s_C1R (NppiSize oSizeROI, int ∗hpBufferSize)

  Computes the device scratch buffer size (in bytes) for nppiNormRel_Inf_32s_C1R.

- NppStatus nppiNormRelInfGetBufferHostSize_32f_C1R (NppiSize oSizeROI, int ∗hpBufferSize)

  Computes the device scratch buffer size (in bytes) for nppiNormRel_Inf_32f_C1R.

- NppStatus nppiNormRelInfGetBufferHostSize_8u_C1MR (NppiSize oSizeROI, int ∗hpBufferSize)

  Computes the device scratch buffer size (in bytes) for nppiNormRel_Inf_8u_C1MR.

- NppStatus nppiNormRelInfGetBufferHostSize_8s_C1MR (NppiSize oSizeROI, int ∗hpBufferSize)

  Computes the device scratch buffer size (in bytes) for nppiNormRel_Inf_8s_C1MR.

- NppStatus nppiNormRelInfGetBufferHostSize_16u_C1MR (NppiSize oSizeROI, int ∗hpBufferSize)

Computes the device scratch buffer size (in bytes) for nppiNormRel_Inf_16u_C1MR.

- NppStatus nppiNormRelInfGetBufferHostSize_32f_C1MR (NppiSize oSizeROI, int ∗hpBufferSize)

  Computes the device scratch buffer size (in bytes) for nppiNormRel_Inf_32f_C1MR.

- NppStatus nppiNormRelInfGetBufferHostSize_8u_C3R (NppiSize oSizeROI, int ∗hpBufferSize)

  Computes the device scratch buffer size (in bytes) for nppiNormRel_Inf_8u_C3R.

- NppStatus nppiNormRelInfGetBufferHostSize_16u_C3R (NppiSize oSizeROI, int ∗hpBufferSize)

  Computes the device scratch buffer size (in bytes) for nppiNormRel_Inf_16u_C3R.

- NppStatus nppiNormRelInfGetBufferHostSize_16s_C3R (NppiSize oSizeROI, int ∗hpBufferSize)

  Computes the device scratch buffer size (in bytes) for nppiNormRel_Inf_16s_C3R.

- NppStatus nppiNormRelInfGetBufferHostSize_32f_C3R (NppiSize oSizeROI, int ∗hpBufferSize)

  Computes the device scratch buffer size (in bytes) for nppiNormRel_Inf_32f_C3R.

- NppStatus nppiNormRelInfGetBufferHostSize_8u_C4R (NppiSize oSizeROI, int ∗hpBufferSize)

  Computes the device scratch buffer size (in bytes) for nppiNormRel_Inf_8u_C4R.

- NppStatus nppiNormRelInfGetBufferHostSize_16u_C4R (NppiSize oSizeROI, int ∗hpBufferSize)

  Computes the device scratch buffer size (in bytes) for nppiNormRel_Inf_16u_C4R.

- NppStatus nppiNormRelInfGetBufferHostSize_16s_C4R (NppiSize oSizeROI, int ∗hpBufferSize)

  Computes the device scratch buffer size (in bytes) for nppiNormRel_Inf_16s_C4R.

- NppStatus nppiNormRelInfGetBufferHostSize_32f_C4R (NppiSize oSizeROI, int ∗hpBufferSize)

  Computes the device scratch buffer size (in bytes) for nppiNormRel_Inf_32f_C4R.

- NppStatus nppiNormRelInfGetBufferHostSize_8u_AC4R (NppiSize oSizeROI, int ∗hpBufferSize)

  Computes the device scratch buffer size (in bytes) for nppiNormRel_Inf_8u_AC4R.

- NppStatus nppiNormRelInfGetBufferHostSize_16u_AC4R (NppiSize oSizeROI, int ∗hpBufferSize)

  Computes the device scratch buffer size (in bytes) for nppiNormRel_Inf_16u_AC4R.

- NppStatus nppiNormRelInfGetBufferHostSize_16s_AC4R (NppiSize oSizeROI, int ∗hpBufferSize)

  Computes the device scratch buffer size (in bytes) for nppiNormRel_Inf_16s_AC4R.

- NppStatus nppiNormRelInfGetBufferHostSize_32f_AC4R (NppiSize oSizeROI, int ∗hpBufferSize)

  Computes the device scratch buffer size (in bytes) for nppiNormRel_Inf_32f_AC4R.

- NppStatus nppiNormRelInfGetBufferHostSize_8u_C3CMR (NppiSize oSizeROI, int ∗hpBufferSize)

  Computes the device scratch buffer size (in bytes) for nppiNormRel_Inf_8u_C3CMR.

- NppStatus nppiNormRelInfGetBufferHostSize_8s_C3CMR (NppiSize oSizeROI, int ∗hpBufferSize)

  Computes the device scratch buffer size (in bytes) for nppiNormRel_Inf_8s_C3CMR.

- NppStatus nppiNormRelInfGetBufferHostSize_16u_C3CMR (NppiSize oSizeROI, int ∗hpBufferSize)

  Computes the device scratch buffer size (in bytes) for nppiNormRel_Inf_16u_C3CMR.

- NppStatus nppiNormRelInfGetBufferHostSize_32f_C3CMR (NppiSize oSizeROI, int ∗hpBufferSize)

  Computes the device scratch buffer size (in bytes) for nppiNormRel_Inf_32f_C3CMR.

7.108.1 Detailed Description

Primitives for computing the relative error of infinity norm between two images.

7.108.2 Function Documentation

7.108.2.1 NppStatus nppiNormRel_Inf_16s_AC4R (const Npp16s ∗ *pSrc1*, int *nSrc1Step*, const Npp16s ∗ *pSrc2*, int *nSrc2Step*, NppiSize *oSizeROI*, Npp64f *aNormRel*[3], Npp8u ∗ *pDeviceBuffer*)

Four-channel 16-bit signed image NormRel_Inf ignoring alpha channel.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

oSizeROI Region-of-Interest (ROI).

aNormRel Array that contains the computed relative error for the infinity norm of two images.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppiNormRelInfGetBufferHostSize_16s_AC4R to compute the required size (in bytes).

Returns:

Image Data Related Error Codes, ROI Related Error Codes, or NPP_DIVISOR_ERROR if the infinity norm of the second image is zero.

7.108.2.2 NppStatus nppiNormRel_Inf_16s_C1R (const Npp16s ∗ *pSrc1*, int *nSrc1Step*, const Npp16s ∗ *pSrc2*, int *nSrc2Step*, NppiSize *oSizeROI*, Npp64f ∗ *pNormRel*, Npp8u ∗ *pDeviceBuffer*)

One-channel 16-bit signed image NormRel_Inf.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pNormRel Pointer to the computed relative error for the infinity norm of two images.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppiNormRelInfGetBufferHostSize_16s_C1R to compute the required size (in bytes).

Returns:

Image Data Related Error Codes, ROI Related Error Codes, or NPP_DIVISOR_ERROR if the infinity norm of the second image is zero.

7.108.2.3 NppStatus nppiNormRel_Inf_16s_C3R (const Npp16s ∗ *pSrc1*, int *nSrc1Step*, const Npp16s ∗ *pSrc2*, int *nSrc2Step*, NppiSize *oSizeROI*, Npp64f *aNormRel*[3], Npp8u ∗ *pDeviceBuffer*)

Three-channel 16-bit signed image NormRel_Inf.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

oSizeROI Region-of-Interest (ROI).

aNormRel Array that contains the computed relative error for the infinity norm of two images.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppiNormRelInfGetBufferHostSize_16s_C3R to compute the required size (in bytes).

Returns:

Image Data Related Error Codes, ROI Related Error Codes, or NPP_DIVISOR_ERROR if the infinity norm of the second image is zero.

7.108.2.4 NppStatus nppiNormRel_Inf_16s_C4R (const Npp16s ∗ *pSrc1*, int *nSrc1Step*, const Npp16s ∗ *pSrc2*, int *nSrc2Step*, NppiSize *oSizeROI*, Npp64f *aNormRel*[4], Npp8u ∗ *pDeviceBuffer*)

Four-channel 16-bit signed image NormRel_Inf.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

oSizeROI Region-of-Interest (ROI).

aNormRel Array that contains the computed relative error for the infinity norm of two images.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppiNormRelInfGetBufferHostSize_16s_C4R to compute the required size (in bytes).

Returns:

Image Data Related Error Codes, ROI Related Error Codes, or NPP_DIVISOR_ERROR if the infinity norm of the second image is zero.

7.108.2.5 NppStatus nppiNormRel_Inf_16u_AC4R (const Npp16u $*$ *pSrc1*, int *nSrc1Step*, const Npp16u $*$ *pSrc2*, int *nSrc2Step*, NppiSize *oSizeROI*, Npp64f *aNormRel*[3], Npp8u $*$ *pDeviceBuffer*)

Four-channel 16-bit unsigned image NormRel_Inf ignoring alpha channel.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

oSizeROI Region-of-Interest (ROI).

aNormRel Array that contains the computed relative error for the infinity norm of two images.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppiNormRelInfGetBufferHostSize_16u_AC4R to compute the required size (in bytes).

Returns:

Image Data Related Error Codes, ROI Related Error Codes, or NPP_DIVISOR_ERROR if the infinity norm of the second image is zero.

7.108.2.6 NppStatus nppiNormRel_Inf_16u_C1MR (const Npp16u $*$ *pSrc1*, int *nSrc1Step*, const Npp16u $*$ *pSrc2*, int *nSrc2Step*, const Npp8u $*$ *pMask*, int *nMaskStep*, NppiSize *oSizeROI*, Npp64f $*$ *pNormRel*, Npp8u $*$ *pDeviceBuffer*)

Masked one-channel 16-bit unsigned image NormRel_Inf.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

pMask Mask-Image Pointer.

nMaskStep Mask-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pNormRel Pointer to the computed relative error for the infinity norm of two images.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppiNormRelInfGetBufferHostSize_16u_C1MR to compute the required size (in bytes).

Returns:

Image Data Related Error Codes, ROI Related Error Codes, or NPP_DIVISOR_ERROR if the infinity norm of the second image is zero.

7.108.2.7 NppStatus nppiNormRel_Inf_16u_C1R (const Npp16u ∗ *pSrc1*, int *nSrc1Step*, const Npp16u ∗ *pSrc2*, int *nSrc2Step*, NppiSize *oSizeROI*, Npp64f ∗ *pNormRel*, Npp8u ∗ *pDeviceBuffer*)

One-channel 16-bit unsigned image NormRel_Inf.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pNormRel Pointer to the computed relative error for the infinity norm of two images.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppiNormRelInfGetBufferHostSize_16u_C1R to compute the required size (in bytes).

Returns:

Image Data Related Error Codes, ROI Related Error Codes, or NPP_DIVISOR_ERROR if the infinity norm of the second image is zero.

7.108.2.8 NppStatus nppiNormRel_Inf_16u_C3CMR (const Npp16u ∗ *pSrc1*, int *nSrc1Step*, const Npp16u ∗ *pSrc2*, int *nSrc2Step*, const Npp8u ∗ *pMask*, int *nMaskStep*, NppiSize *oSizeROI*, int *nCOI*, Npp64f ∗ *pNormRel*, Npp8u ∗ *pDeviceBuffer*)

Masked three-channel 16-bit unsigned image NormRel_Inf affecting only signle channel.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

pMask Mask-Image Pointer.

nMaskStep Mask-Image Line Step.

oSizeROI Region-of-Interest (ROI).

nCOI Channel_of_Interest Number.

pNormRel Pointer to the computed relative error for the infinity norm of two images.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppiNormRelInfGetBufferHostSize_16u_C3CMR to compute the required size (in bytes).

Returns:

Image Data Related Error Codes, ROI Related Error Codes, NPP_COI_ERROR if an invalid channel of interest is specified, or NPP_DIVISOR_ERROR if the infinity norm of the second image is zero.

7.108.2.9 NppStatus nppiNormRel_Inf_16u_C3R (const Npp16u ∗ *pSrc1*, int *nSrc1Step*, const Npp16u ∗ *pSrc2*, int *nSrc2Step*, NppiSize *oSizeROI*, Npp64f *aNormRel*[3], Npp8u ∗ *pDeviceBuffer*)

Three-channel 16-bit unsigned image NormRel_Inf.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

oSizeROI Region-of-Interest (ROI).

aNormRel Array that contains the computed relative error for the infinity norm of two images.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppiNormRelInfGetBufferHostSize_16u_C3R to compute the required size (in bytes).

Returns:

Image Data Related Error Codes, ROI Related Error Codes, or NPP_DIVISOR_ERROR if the infinity norm of the second image is zero.

7.108.2.10 NppStatus nppiNormRel_Inf_16u_C4R (const Npp16u ∗ *pSrc1*, int *nSrc1Step*, const Npp16u ∗ *pSrc2*, int *nSrc2Step*, NppiSize *oSizeROI*, Npp64f *aNormRel*[4], Npp8u ∗ *pDeviceBuffer*)

Four-channel 16-bit unsigned image NormRel_Inf.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

oSizeROI Region-of-Interest (ROI).

aNormRel Array that contains the computed relative error for the infinity norm of two images.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppiNormRelInfGetBufferHostSize_16u_C4R to compute the required size (in bytes).

Returns:

Image Data Related Error Codes, ROI Related Error Codes, or NPP_DIVISOR_ERROR if the infinity norm of the second image is zero.

7.108.2.11 NppStatus nppiNormRel_Inf_32f_AC4R (const Npp32f ∗ *pSrc1*, int *nSrc1Step*, const Npp32f ∗ *pSrc2*, int *nSrc2Step*, NppiSize *oSizeROI*, Npp64f *aNormRel*[3], Npp8u ∗ *pDeviceBuffer*)

Four-channel 32-bit floating point image NormRel_Inf ignoring alpha channel.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

oSizeROI Region-of-Interest (ROI).

aNormRel Array that contains the computed relative error for the infinity norm of two images.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppiNormRelInfGetBufferHostSize_32f_AC4R to compute the required size (in bytes).

Returns:

Image Data Related Error Codes, ROI Related Error Codes, NPP_NOT_EVEN_STEP_ERROR if an invalid floating-point image is specified, or NPP_DIVISOR_ERROR if the infinity norm of the second image is zero.

7.108.2.12 NppStatus nppiNormRel_Inf_32f_C1MR (const Npp32f ∗ *pSrc1*, int *nSrc1Step*, const Npp32f ∗ *pSrc2*, int *nSrc2Step*, const Npp8u ∗ *pMask*, int *nMaskStep*, NppiSize *oSizeROI*, Npp64f ∗ *pNormRel*, Npp8u ∗ *pDeviceBuffer*)

Masked one-channel 32-bit floating point image NormRel_Inf.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

pMask Mask-Image Pointer.

nMaskStep Mask-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pNormRel Pointer to the computed relative error for the infinity norm of two images.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppiNormRelInfGetBufferHostSize_32f_C1MR to compute the required size (in bytes).

Returns:

Image Data Related Error Codes, ROI Related Error Codes, NPP_NOT_EVEN_STEP_ERROR if an invalid floating-point image is specified, or NPP_DIVISOR_ERROR if the infinity norm of the second image is zero.

7.108.2.13 NppStatus nppiNormRel_Inf_32f_C1R (const Npp32f ∗ *pSrc1*, int *nSrc1Step*, const Npp32f ∗ *pSrc2*, int *nSrc2Step*, NppiSize *oSizeROI*, Npp64f ∗ *pNormRel*, Npp8u ∗ *pDeviceBuffer*)

One-channel 32-bit floating point image NormRel_Inf.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pNormRel Pointer to the computed relative error for the infinity norm of two images.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppiNormRelInfGetBufferHostSize_32f_C1R to compute the required size (in bytes).

Returns:

Image Data Related Error Codes, ROI Related Error Codes, NPP_NOT_EVEN_STEP_ERROR if an invalid floating-point image is specified, or NPP_DIVISOR_ERROR if the infinity norm of the second image is zero.

7.108.2.14 NppStatus nppiNormRel_Inf_32f_C3CMR (const Npp32f ∗ *pSrc1*, int *nSrc1Step*, const Npp32f ∗ *pSrc2*, int *nSrc2Step*, const Npp8u ∗ *pMask*, int *nMaskStep*, NppiSize *oSizeROI*, int *nCOI*, Npp64f ∗ *pNormRel*, Npp8u ∗ *pDeviceBuffer*)

Masked three-channel 32-bit floating point image NormRel_Inf affecting only signle channel.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

pMask Mask-Image Pointer.

nMaskStep Mask-Image Line Step.

oSizeROI Region-of-Interest (ROI).

nCOI Channel_of_Interest Number.

pNormRel Pointer to the computed relative error for the infinity norm of two images.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppiNormRelInfGetBufferHostSize_32f_C3CMR to compute the required size (in bytes).

Returns:

Image Data Related Error Codes, ROI Related Error Codes, NPP_COI_ERROR if an invalid channel of interest is specified, or NPP_NOT_EVEN_STEP_ERROR if an invalid floating-point image is specified, or NPP_DIVISOR_ERROR if the infinity norm of the second image is zero.

7.108.2.15 NppStatus nppiNormRel_Inf_32f_C3R (const Npp32f ∗ *pSrc1*, int *nSrc1Step*, const Npp32f ∗ *pSrc2*, int *nSrc2Step*, NppiSize *oSizeROI*, Npp64f *aNormRel*[3], Npp8u ∗ *pDeviceBuffer*)

Three-channel 32-bit floating point image NormRel_Inf.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

oSizeROI Region-of-Interest (ROI).

aNormRel Array that contains the computed relative error for the infinity norm of two images.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppiNormRelInfGetBufferHostSize_32f_C3R to compute the required size (in bytes).

Returns:

Image Data Related Error Codes, ROI Related Error Codes, or NPP_NOT_EVEN_STEP_ERROR if an invalid floating-point image is specified, or NPP_DIVISOR_ERROR if the infinity norm of the second image is zero.

7.108.2.16 NppStatus nppiNormRel_Inf_32f_C4R (const Npp32f ∗ *pSrc1*, int *nSrc1Step*, const Npp32f ∗ *pSrc2*, int *nSrc2Step*, NppiSize *oSizeROI*, Npp64f *aNormRel*[4], Npp8u ∗ *pDeviceBuffer*)

Four-channel 32-bit floating point image NormRel_Inf.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

oSizeROI Region-of-Interest (ROI).

aNormRel Array that contains the computed relative error for the infinity norm of two images.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppiNormRelInfGetBufferHostSize_32f_C4R to compute the required size (in bytes).

Returns:

Image Data Related Error Codes, ROI Related Error Codes, NPP_NOT_EVEN_STEP_ERROR if an invalid floating-point image is specified, or NPP_DIVISOR_ERROR if the infinity norm of the second image is zero.

7.108.2.17 NppStatus nppiNormRel_Inf_8s_C1MR (const Npp8s ∗ *pSrc1*, int *nSrc1Step*, const Npp8s ∗ *pSrc2*, int *nSrc2Step*, const Npp8u ∗ *pMask*, int *nMaskStep*, NppiSize *oSizeROI*, Npp64f ∗ *pNormRel*, Npp8u ∗ *pDeviceBuffer*)

Masked one-channel 8-bit signed image NormRel_Inf.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

pMask Mask-Image Pointer.

nMaskStep Mask-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pNormRel Pointer to the computed relative error for the infinity norm of two images.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppiNormRelInfGetBufferHostSize_8s_C1MR to compute the required size (in bytes).

Returns:

Image Data Related Error Codes, ROI Related Error Codes, or NPP_DIVISOR_ERROR if the infinity norm of the second image is zero.

7.108.2.18 NppStatus nppiNormRel_Inf_8s_C3CMR (const Npp8s ∗ *pSrc1*, int *nSrc1Step*, const Npp8s ∗ *pSrc2*, int *nSrc2Step*, const Npp8u ∗ *pMask*, int *nMaskStep*, NppiSize *oSizeROI*, int *nCOI*, Npp64f ∗ *pNormRel*, Npp8u ∗ *pDeviceBuffer*)

Masked three-channel 8-bit signed image NormRel_Inf affecting only signle channel.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

pMask Mask-Image Pointer.

nMaskStep Mask-Image Line Step.

oSizeROI Region-of-Interest (ROI).

nCOI Channel_of_Interest Number.

pNormRel Pointer to the computed relative error for the infinity norm of two images.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppiNormRelInfGetBufferHostSize_8s_C3CMR to compute the required size (in bytes).

Returns:

Image Data Related Error Codes, ROI Related Error Codes, NPP_COI_ERROR if an invalid channel of interest is specified, or NPP_DIVISOR_ERROR if the infinity norm of the second image is zero.

7.108.2.19 NppStatus nppiNormRel_Inf_8u_AC4R (const Npp8u ∗ *pSrc1*, int *nSrc1Step*, const Npp8u ∗ *pSrc2*, int *nSrc2Step*, NppiSize *oSizeROI*, Npp64f *aNormRel*[3], Npp8u ∗ *pDeviceBuffer*)

Four-channel 8-bit unsigned image NormRel_Inf ignoring alpha channel.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

oSizeROI Region-of-Interest (ROI).

aNormRel Array that contains the computed relative error for the infinity norm of two images.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppiNormRelInfGetBufferHostSize_8u_AC4R to compute the required size (in bytes).

Returns:

Image Data Related Error Codes, ROI Related Error Codes, or NPP_DIVISOR_ERROR if the infinity norm of the second image is zero.

7.108.2.20 NppStatus nppiNormRel_Inf_8u_C1MR (const Npp8u ∗ *pSrc1*, int *nSrc1Step*, const Npp8u ∗ *pSrc2*, int *nSrc2Step*, const Npp8u ∗ *pMask*, int *nMaskStep*, NppiSize *oSizeROI*, Npp64f ∗ *pNormRel*, Npp8u ∗ *pDeviceBuffer*)

Masked one-channel 8-bit unsigned image NormRel_Inf.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

pMask Mask-Image Pointer.

nMaskStep Mask-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pNormRel Pointer to the computed relative error for the infinity norm of two images.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppiNormRelInfGetBufferHostSize_8u_C1MR to compute the required size (in bytes).

Returns:

Image Data Related Error Codes, ROI Related Error Codes, or NPP_DIVISOR_ERROR if the infinity norm of the second image is zero.

7.108.2.21 NppStatus nppiNormRel_Inf_8u_C1R (const Npp8u * *pSrc1*, int *nSrc1Step*, const Npp8u * *pSrc2*, int *nSrc2Step*, NppiSize *oSizeROI*, Npp64f * *pNormRel*, Npp8u * *pDeviceBuffer*)

One-channel 8-bit unsigned image NormRel_Inf.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pNormRel Pointer to the computed relative error for the infinity norm of two images.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppiNormRelInfGetBufferHostSize_8u_C1R to compute the required size (in bytes).

Returns:

Image Data Related Error Codes, ROI Related Error Codes, or NPP_DIVISOR_ERROR if the infinity norm of the second image is zero.

7.108.2.22 NppStatus nppiNormRel_Inf_8u_C3CMR (const Npp8u * *pSrc1*, int *nSrc1Step*, const Npp8u * *pSrc2*, int *nSrc2Step*, const Npp8u * *pMask*, int *nMaskStep*, NppiSize *oSizeROI*, int *nCOI*, Npp64f * *pNormRel*, Npp8u * *pDeviceBuffer*)

Masked three-channel 8-bit unsigned image NormRel_Inf affecting only signle channel.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

pMask Mask-Image Pointer.

nMaskStep Mask-Image Line Step.

oSizeROI Region-of-Interest (ROI).

nCOI Channel_of_Interest Number.

pNormRel Pointer to the computed relative error for the infinity norm of two images.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppiNormRelInfGetBufferHostSize_8u_C3CMR to compute the required size (in bytes).

Returns:

Image Data Related Error Codes, ROI Related Error Codes, NPP_COI_ERROR if an invalid channel of interest is specified, or NPP_DIVISOR_ERROR if the infinity norm of the second image is zero.

7.108.2.23 NppStatus nppiNormRel_Inf_8u_C3R (const Npp8u ∗ *pSrc1*, int *nSrc1Step*, const Npp8u ∗ *pSrc2*, int *nSrc2Step*, NppiSize *oSizeROI*, Npp64f *aNormRel*[3], Npp8u ∗ *pDeviceBuffer*)

Three-channel 8-bit unsigned image NormRel_Inf.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

oSizeROI Region-of-Interest (ROI).

aNormRel Array that contains the computed relative error for the infinity norm of two images.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppiNormRelInfGetBufferHostSize_8u_C3R to compute the required size (in bytes).

Returns:

Image Data Related Error Codes, ROI Related Error Codes, or NPP_DIVISOR_ERROR if the infinity norm of the second image is zero.

7.108.2.24 NppStatus nppiNormRel_Inf_8u_C4R (const Npp8u ∗ *pSrc1*, int *nSrc1Step*, const Npp8u ∗ *pSrc2*, int *nSrc2Step*, NppiSize *oSizeROI*, Npp64f *aNormRel*[4], Npp8u ∗ *pDeviceBuffer*)

Four-channel 8-bit unsigned image NormRel_Inf.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

oSizeROI Region-of-Interest (ROI).

aNormRel Array that contains the computed relative error for the infinity norm of two images.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppiNormRelInfGetBufferHostSize_8u_C4R to compute the required size (in bytes).

Returns:

Image Data Related Error Codes, ROI Related Error Codes, or NPP_DIVISOR_ERROR if the infinity norm of the second image is zero.

7.108.2.25 NppStatus nppiNormRelInfGetBufferHostSize_16s_AC4R (NppiSize *oSizeROI*, int ∗ *hpBufferSize*)

Computes the device scratch buffer size (in bytes) for nppiNormRel_Inf_16s_AC4R.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.108.2.26 NppStatus nppiNormRelInfGetBufferHostSize_16s_C1R (NppiSize *oSizeROI*, int ∗ *hpBufferSize*)

Computes the device scratch buffer size (in bytes) for nppiNormRel_Inf_16s_C1R.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.108.2.27 NppStatus nppiNormRelInfGetBufferHostSize_16s_C3R (NppiSize *oSizeROI*, int ∗ *hpBufferSize*)

Computes the device scratch buffer size (in bytes) for nppiNormRel_Inf_16s_C3R.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.108.2.28 NppStatus nppiNormRelInfGetBufferHostSize_16s_C4R (NppiSize *oSizeROI*, int ∗ *hpBufferSize*)

Computes the device scratch buffer size (in bytes) for nppiNormRel_Inf_16s_C4R.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.108.2.29 NppStatus nppiNormRelInfGetBufferHostSize_16u_AC4R (NppiSize *oSizeROI*, int * *hpBufferSize*)

Computes the device scratch buffer size (in bytes) for nppiNormRel_Inf_16u_AC4R.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.108.2.30 NppStatus nppiNormRelInfGetBufferHostSize_16u_C1MR (NppiSize *oSizeROI*, int * *hpBufferSize*)

Computes the device scratch buffer size (in bytes) for nppiNormRel_Inf_16u_C1MR.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.108.2.31 NppStatus nppiNormRelInfGetBufferHostSize_16u_C1R (NppiSize *oSizeROI*, int * *hpBufferSize*)

Computes the device scratch buffer size (in bytes) for nppiNormRel_Inf_16u_C1R.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.108.2.32 NppStatus nppiNormRelInfGetBufferHostSize_16u_C3CMR (NppiSize *oSizeROI*, int * *hpBufferSize*)

Computes the device scratch buffer size (in bytes) for nppiNormRel_Inf_16u_C3CMR.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.108.2.33 NppStatus nppiNormRelInfGetBufferHostSize_16u_C3R (NppiSize *oSizeROI*, int * *hpBufferSize*)

Computes the device scratch buffer size (in bytes) for nppiNormRel_Inf_16u_C3R.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.108.2.34 NppStatus nppiNormRelInfGetBufferHostSize_16u_C4R (NppiSize *oSizeROI*, int * *hpBufferSize*)

Computes the device scratch buffer size (in bytes) for nppiNormRel_Inf_16u_C4R.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.108.2.35 NppStatus nppiNormRelInfGetBufferHostSize_32f_AC4R (NppiSize *oSizeROI*, int * *hpBufferSize*)

Computes the device scratch buffer size (in bytes) for nppiNormRel_Inf_32f_AC4R.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.108.2.36 NppStatus nppiNormRelInfGetBufferHostSize_32f_C1MR (NppiSize *oSizeROI*, int ∗ *hpBufferSize*)

Computes the device scratch buffer size (in bytes) for nppiNormRel_Inf_32f_C1MR.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.108.2.37 NppStatus nppiNormRelInfGetBufferHostSize_32f_C1R (NppiSize *oSizeROI*, int ∗ *hpBufferSize*)

Computes the device scratch buffer size (in bytes) for nppiNormRel_Inf_32f_C1R.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.108.2.38 NppStatus nppiNormRelInfGetBufferHostSize_32f_C3CMR (NppiSize *oSizeROI*, int ∗ *hpBufferSize*)

Computes the device scratch buffer size (in bytes) for nppiNormRel_Inf_32f_C3CMR.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.108.2.39 NppStatus nppiNormRelInfGetBufferHostSize_32f_C3R (NppiSize *oSizeROI*, int ∗ *hpBufferSize*)

Computes the device scratch buffer size (in bytes) for nppiNormRel_Inf_32f_C3R.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.108.2.40 NppStatus nppiNormRelInfGetBufferHostSize_32f_C4R (NppiSize *oSizeROI*, int ∗ *hpBufferSize*)

Computes the device scratch buffer size (in bytes) for nppiNormRel_Inf_32f_C4R.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.108.2.41 NppStatus nppiNormRelInfGetBufferHostSize_32s_C1R (NppiSize *oSizeROI*, int ∗ *hpBufferSize*)

Computes the device scratch buffer size (in bytes) for nppiNormRel_Inf_32s_C1R.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.108.2.42 NppStatus nppiNormRelInfGetBufferHostSize_8s_C1MR (NppiSize *oSizeROI*, int ∗ *hpBufferSize*)

Computes the device scratch buffer size (in bytes) for nppiNormRel_Inf_8s_C1MR.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.108.2.43 NppStatus nppiNormRelInfGetBufferHostSize_8s_C3CMR (NppiSize *oSizeROI*, int ∗ *hpBufferSize*)

Computes the device scratch buffer size (in bytes) for nppiNormRel_Inf_8s_C3CMR.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.108.2.44 NppStatus nppiNormRelInfGetBufferHostSize_8u_AC4R (NppiSize *oSizeROI*, int ∗ *hpBufferSize*)

Computes the device scratch buffer size (in bytes) for nppiNormRel_Inf_8u_AC4R.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.108.2.45 NppStatus nppiNormRelInfGetBufferHostSize_8u_C1MR (NppiSize *oSizeROI*, int ∗ *hpBufferSize*)

Computes the device scratch buffer size (in bytes) for nppiNormRel_Inf_8u_C1MR.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.108.2.46 NppStatus nppiNormRelInfGetBufferHostSize_8u_C1R (NppiSize *oSizeROI*, int ∗ *hpBufferSize*)

Computes the device scratch buffer size (in bytes) for nppiNormRel_Inf_8u_C1R.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.108.2.47 NppStatus nppiNormRelInfGetBufferHostSize_8u_C3CMR (NppiSize *oSizeROI*, int ∗ *hpBufferSize*)

Computes the device scratch buffer size (in bytes) for nppiNormRel_Inf_8u_C3CMR.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.108.2.48 NppStatus nppiNormRelInfGetBufferHostSize_8u_C3R (NppiSize *oSizeROI*, int ∗ *hpBufferSize*)

Computes the device scratch buffer size (in bytes) for nppiNormRel_Inf_8u_C3R.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.108.2.49 NppStatus nppiNormRelInfGetBufferHostSize_8u_C4R (NppiSize *oSizeROI*, int ∗ *hpBufferSize*)

Computes the device scratch buffer size (in bytes) for nppiNormRel_Inf_8u_C4R.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.109 NormRel_L1

Primitives for computing the relative error of L1 norm between two images.

Basic NormRel_L1

- NppStatus nppiNormRel_L1_8u_C1R (const Npp8u ∗pSrc1, int nSrc1Step, const Npp8u ∗pSrc2, int nSrc2Step, NppiSize oSizeROI, Npp64f ∗pNormRel, Npp8u ∗pDeviceBuffer)

  One-channel 8-bit unsigned image NormRel_L1.

- NppStatus nppiNormRel_L1_16u_C1R (const Npp16u ∗pSrc1, int nSrc1Step, const Npp16u ∗pSrc2, int nSrc2Step, NppiSize oSizeROI, Npp64f ∗pNormRel, Npp8u ∗pDeviceBuffer)

  One-channel 16-bit unsigned image NormRel_L1.

- NppStatus nppiNormRel_L1_16s_C1R (const Npp16s ∗pSrc1, int nSrc1Step, const Npp16s ∗pSrc2, int nSrc2Step, NppiSize oSizeROI, Npp64f ∗pNormRel, Npp8u ∗pDeviceBuffer)

  One-channel 16-bit signed image NormRel_L1.

- NppStatus nppiNormRel_L1_32f_C1R (const Npp32f ∗pSrc1, int nSrc1Step, const Npp32f ∗pSrc2, int nSrc2Step, NppiSize oSizeROI, Npp64f ∗pNormRel, Npp8u ∗pDeviceBuffer)

  One-channel 32-bit floating point image NormRel_L1.

- NppStatus nppiNormRel_L1_8u_C3R (const Npp8u ∗pSrc1, int nSrc1Step, const Npp8u ∗pSrc2, int nSrc2Step, NppiSize oSizeROI, Npp64f aNormRel[3], Npp8u ∗pDeviceBuffer)

  Three-channel 8-bit unsigned image NormRel_L1.

- NppStatus nppiNormRel_L1_16u_C3R (const Npp16u ∗pSrc1, int nSrc1Step, const Npp16u ∗pSrc2, int nSrc2Step, NppiSize oSizeROI, Npp64f aNormRel[3], Npp8u ∗pDeviceBuffer)

  Three-channel 16-bit unsigned image NormRel_L1.

- NppStatus nppiNormRel_L1_16s_C3R (const Npp16s ∗pSrc1, int nSrc1Step, const Npp16s ∗pSrc2, int nSrc2Step, NppiSize oSizeROI, Npp64f aNormRel[3], Npp8u ∗pDeviceBuffer)

  Three-channel 16-bit signed image NormRel_L1.

- NppStatus nppiNormRel_L1_32f_C3R (const Npp32f ∗pSrc1, int nSrc1Step, const Npp32f ∗pSrc2, int nSrc2Step, NppiSize oSizeROI, Npp64f aNormRel[3], Npp8u ∗pDeviceBuffer)

  Three-channel 32-bit floating point image NormRel_L1.

- NppStatus nppiNormRel_L1_8u_AC4R (const Npp8u ∗pSrc1, int nSrc1Step, const Npp8u ∗pSrc2, int nSrc2Step, NppiSize oSizeROI, Npp64f aNormRel[3], Npp8u ∗pDeviceBuffer)

  Four-channel 8-bit signed image NormRel_L1 ignoring alpha channel.

- NppStatus nppiNormRel_L1_16u_AC4R (const Npp16u ∗pSrc1, int nSrc1Step, const Npp16u ∗pSrc2, int nSrc2Step, NppiSize oSizeROI, Npp64f aNormRel[3], Npp8u ∗pDeviceBuffer)

  Four-channel 16-bit unsigned image NormRel_L1 ignoring alpha channel.

- NppStatus nppiNormRel_L1_16s_AC4R (const Npp16s ∗pSrc1, int nSrc1Step, const Npp16s ∗pSrc2, int nSrc2Step, NppiSize oSizeROI, Npp64f aNormRel[3], Npp8u ∗pDeviceBuffer)

  Four-channel 16-bit signed image NormRel_L1 ignoring alpha channel.

- NppStatus nppiNormRel_L1_32f_AC4R (const Npp32f ∗pSrc1, int nSrc1Step, const Npp32f ∗pSrc2, int nSrc2Step, NppiSize oSizeROI, Npp64f aNormRel[3], Npp8u ∗pDeviceBuffer)

  Four-channel 32-bit floating point image NormRel_L1 ignoring alpha channel.

- NppStatus nppiNormRel_L1_8u_C4R (const Npp8u ∗pSrc1, int nSrc1Step, const Npp8u ∗pSrc2, int nSrc2Step, NppiSize oSizeROI, Npp64f aNormRel[4], Npp8u ∗pDeviceBuffer)

  Four-channel 8-bit unsigned image NormRel_L1.

- NppStatus nppiNormRel_L1_16u_C4R (const Npp16u ∗pSrc1, int nSrc1Step, const Npp16u ∗pSrc2, int nSrc2Step, NppiSize oSizeROI, Npp64f aNormRel[4], Npp8u ∗pDeviceBuffer)

  Four-channel 16-bit unsigned image NormRel_L1.

- NppStatus nppiNormRel_L1_16s_C4R (const Npp16s ∗pSrc1, int nSrc1Step, const Npp16s ∗pSrc2, int nSrc2Step, NppiSize oSizeROI, Npp64f aNormRel[4], Npp8u ∗pDeviceBuffer)

  Four-channel 16-bit signed image NormRel_L1.

- NppStatus nppiNormRel_L1_32f_C4R (const Npp32f ∗pSrc1, int nSrc1Step, const Npp32f ∗pSrc2, int nSrc2Step, NppiSize oSizeROI, Npp64f aNormRel[4], Npp8u ∗pDeviceBuffer)

  Four-channel 32-bit floating point image NormRel_L1.

Masked NormRel_L1

See Masked Operation.

- NppStatus nppiNormRel_L1_8u_C1MR (const Npp8u ∗pSrc1, int nSrc1Step, const Npp8u ∗pSrc2, int nSrc2Step, const Npp8u ∗pMask, int nMaskStep, NppiSize oSizeROI, Npp64f ∗pNormRel, Npp8u ∗pDeviceBuffer)

  One-channel 8-bit unsigned image NormRel_L1.

- NppStatus nppiNormRel_L1_8s_C1MR (const Npp8s ∗pSrc1, int nSrc1Step, const Npp8s ∗pSrc2, int nSrc2Step, const Npp8u ∗pMask, int nMaskStep, NppiSize oSizeROI, Npp64f ∗pNormRel, Npp8u ∗pDeviceBuffer)

  One-channel 8-bit signed image NormRel_L1.

- NppStatus nppiNormRel_L1_16u_C1MR (const Npp16u ∗pSrc1, int nSrc1Step, const Npp16u ∗pSrc2, int nSrc2Step, const Npp8u ∗pMask, int nMaskStep, NppiSize oSizeROI, Npp64f ∗pNormRel, Npp8u ∗pDeviceBuffer)

  One-channel 16-bit unsigned image NormRel_L1.

- NppStatus nppiNormRel_L1_32f_C1MR (const Npp32f ∗pSrc1, int nSrc1Step, const Npp32f ∗pSrc2, int nSrc2Step, const Npp8u ∗pMask, int nMaskStep, NppiSize oSizeROI, Npp64f ∗pNormRel, Npp8u ∗pDeviceBuffer)

  One-channel 32-bit floating point image NormRel_L1.

Masked Channel NormRel_L1

See Masked Operation and Channel-of-Interest API.

- NppStatus nppiNormRel_L1_8u_C3CMR (const Npp8u ∗pSrc1, int nSrc1Step, const Npp8u ∗pSrc2, int nSrc2Step, const Npp8u ∗pMask, int nMaskStep, NppiSize oSizeROI, int nCOI, Npp64f ∗pNormRel, Npp8u ∗pDeviceBuffer)

  Masked three-channel 8-bit unsigned image NormRel_L1 affecting only single channel.

- NppStatus nppiNormRel_L1_8s_C3CMR (const Npp8s ∗pSrc1, int nSrc1Step, const Npp8s ∗pSrc2, int nSrc2Step, const Npp8u ∗pMask, int nMaskStep, NppiSize oSizeROI, int nCOI, Npp64f ∗pNormRel, Npp8u ∗pDeviceBuffer)

  Masked three-channel 8-bit signed image NormRel_L1 affecting only single channel.

- NppStatus nppiNormRel_L1_16u_C3CMR (const Npp16u ∗pSrc1, int nSrc1Step, const Npp16u ∗pSrc2, int nSrc2Step, const Npp8u ∗pMask, int nMaskStep, NppiSize oSizeROI, int nCOI, Npp64f ∗pNormRel, Npp8u ∗pDeviceBuffer)

  Masked three-channel 16-bit unsigned image NormRel_L1 affecting only single channel.

- NppStatus nppiNormRel_L1_32f_C3CMR (const Npp32f ∗pSrc1, int nSrc1Step, const Npp32f ∗pSrc2, int nSrc2Step, const Npp8u ∗pMask, int nMaskStep, NppiSize oSizeROI, int nCOI, Npp64f ∗pNormRel, Npp8u ∗pDeviceBuffer)

  Masked three-channel 32-bit floating point image NormRel_L1 affecting only single channel.

NormRelL1GetBufferHostSize

Companion primitives for computing the device buffer size (in bytes) required by the NormRel_L1 primitives.

- NppStatus nppiNormRelL1GetBufferHostSize_8u_C1R (NppiSize oSizeROI, int ∗hpBufferSize)

  Computes the device scratch buffer size (in bytes) for nppiNormRel_L1_8u_C1R.

- NppStatus nppiNormRelL1GetBufferHostSize_16u_C1R (NppiSize oSizeROI, int ∗hpBufferSize)

  Computes the device scratch buffer size (in bytes) for nppiNormRel_L1_16u_C1R.

- NppStatus nppiNormRelL1GetBufferHostSize_16s_C1R (NppiSize oSizeROI, int ∗hpBufferSize)

  Computes the device scratch buffer size (in bytes) for nppiNormRel_L1_16s_C1R.

- NppStatus nppiNormRelL1GetBufferHostSize_32f_C1R (NppiSize oSizeROI, int ∗hpBufferSize)

  Computes the device scratch buffer size (in bytes) for nppiNormRel_L1_32f_C1R.

- NppStatus nppiNormRelL1GetBufferHostSize_8u_C1MR (NppiSize oSizeROI, int ∗hpBufferSize)

  Computes the device scratch buffer size (in bytes) for nppiNormRel_L1_8u_C1MR.

- NppStatus nppiNormRelL1GetBufferHostSize_8s_C1MR (NppiSize oSizeROI, int ∗hpBufferSize)

  Computes the device scratch buffer size (in bytes) for nppiNormRel_L1_8s_C1MR.

- NppStatus nppiNormRelL1GetBufferHostSize_16u_C1MR (NppiSize oSizeROI, int ∗hpBufferSize)

  Computes the device scratch buffer size (in bytes) for nppiNormRel_L1_16u_C1MR.

- NppStatus nppiNormRelL1GetBufferHostSize_32f_C1MR (NppiSize oSizeROI, int ∗hpBufferSize)

  Computes the device scratch buffer size (in bytes) for nppiNormRel_L1_32f_C1MR.

- NppStatus nppiNormRelL1GetBufferHostSize_8u_C3R (NppiSize oSizeROI, int ∗hpBufferSize)

  Computes the device scratch buffer size (in bytes) for nppiNormRel_L1_8u_C3R.

- NppStatus nppiNormRelL1GetBufferHostSize_16u_C3R (NppiSize oSizeROI, int ∗hpBufferSize)

  Computes the device scratch buffer size (in bytes) for nppiNormRel_L1_16u_C3R.

- NppStatus nppiNormRelL1GetBufferHostSize_16s_C3R (NppiSize oSizeROI, int ∗hpBufferSize)

  Computes the device scratch buffer size (in bytes) for nppiNormRel_L1_16s_C3R.

- NppStatus nppiNormRelL1GetBufferHostSize_32f_C3R (NppiSize oSizeROI, int ∗hpBufferSize)

  Computes the device scratch buffer size (in bytes) for nppiNormRel_L1_32f_C3R.

- NppStatus nppiNormRelL1GetBufferHostSize_8u_C4R (NppiSize oSizeROI, int ∗hpBufferSize)

  Computes the device scratch buffer size (in bytes) for nppiNormRel_L1_8u_C4R.

- NppStatus nppiNormRelL1GetBufferHostSize_16u_C4R (NppiSize oSizeROI, int ∗hpBufferSize)

  Computes the device scratch buffer size (in bytes) for nppiNormRel_L1_16u_C4R.

- NppStatus nppiNormRelL1GetBufferHostSize_16s_C4R (NppiSize oSizeROI, int ∗hpBufferSize)

  Computes the device scratch buffer size (in bytes) for nppiNormRel_L1_16s_C4R.

- NppStatus nppiNormRelL1GetBufferHostSize_32f_C4R (NppiSize oSizeROI, int ∗hpBufferSize)

  Computes the device scratch buffer size (in bytes) for nppiNormRel_L1_32f_C4R.

- NppStatus nppiNormRelL1GetBufferHostSize_8u_AC4R (NppiSize oSizeROI, int ∗hpBufferSize)

  Computes the device scratch buffer size (in bytes) for nppiNormRel_L1_8u_AC4R.

- NppStatus nppiNormRelL1GetBufferHostSize_16u_AC4R (NppiSize oSizeROI, int ∗hpBufferSize)

  Computes the device scratch buffer size (in bytes) for nppiNormRel_L1_16u_AC4R.

- NppStatus nppiNormRelL1GetBufferHostSize_16s_AC4R (NppiSize oSizeROI, int ∗hpBufferSize)

  Computes the device scratch buffer size (in bytes) for nppiNormRel_L1_16s_AC4R.

- NppStatus nppiNormRelL1GetBufferHostSize_32f_AC4R (NppiSize oSizeROI, int ∗hpBufferSize)

  Computes the device scratch buffer size (in bytes) for nppiNormRel_L1_32f_AC4R.

- NppStatus nppiNormRelL1GetBufferHostSize_8u_C3CMR (NppiSize oSizeROI, int ∗hpBufferSize)

  Computes the device scratch buffer size (in bytes) for nppiNormRel_L1_8u_C3CMR.

- NppStatus nppiNormRelL1GetBufferHostSize_8s_C3CMR (NppiSize oSizeROI, int ∗hpBufferSize)

Computes the device scratch buffer size (in bytes) for nppiNormRel_L1_8s_C3CMR.

- NppStatus nppiNormRelL1GetBufferHostSize_16u_C3CMR (NppiSize oSizeROI, int ∗hpBufferSize)

  Computes the device scratch buffer size (in bytes) for nppiNormRel_L1_16u_C3CMR.

- NppStatus nppiNormRelL1GetBufferHostSize_32f_C3CMR (NppiSize oSizeROI, int ∗hpBufferSize)

  Computes the device scratch buffer size (in bytes) for nppiNormRel_L1_32f_C3CMR.

7.109.1 Detailed Description

Primitives for computing the relative error of L1 norm between two images.

7.109.2 Function Documentation

7.109.2.1 NppStatus nppiNormRel_L1_16s_AC4R (const Npp16s ∗ *pSrc1*, int *nSrc1Step*, const Npp16s ∗ *pSrc2*, int *nSrc2Step*, NppiSize *oSizeROI*, Npp64f *aNormRel*[3], Npp8u ∗ *pDeviceBuffer*)

Four-channel 16-bit signed image NormRel_L1 ignoring alpha channel.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

oSizeROI Region-of-Interest (ROI).

aNormRel Array that contains the computed relative error for the L1 norm of two images.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppiNormRelL1GetBufferHostSize_16s_AC4R to compute the required size (in bytes).

Returns:

Image Data Related Error Codes, ROI Related Error Codes, or NPP_DIVISOR_ERROR if the L1 norm of the second image is zero.

7.109.2.2 NppStatus nppiNormRel_L1_16s_C1R (const Npp16s ∗ *pSrc1*, int *nSrc1Step*, const Npp16s ∗ *pSrc2*, int *nSrc2Step*, NppiSize *oSizeROI*, Npp64f ∗ *pNormRel*, Npp8u ∗ *pDeviceBuffer*)

One-channel 16-bit signed image NormRel_L1.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pNormRel Pointer to the computed relative error for the L1 norm of two images.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppiNormRelL1GetBufferHostSize_16s_C1R to compute the required size (in bytes).

Returns:

Image Data Related Error Codes, ROI Related Error Codes, or NPP_DIVISOR_ERROR if the L1 norm of the second image is zero.

7.109.2.3 NppStatus nppiNormRel_L1_16s_C3R (const Npp16s ∗ *pSrc1*, int *nSrc1Step*, const Npp16s ∗ *pSrc2*, int *nSrc2Step*, NppiSize *oSizeROI*, Npp64f *aNormRel*[3], Npp8u ∗ *pDeviceBuffer*)

Three-channel 16-bit signed image NormRel_L1.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

oSizeROI Region-of-Interest (ROI).

aNormRel Array that contains the computed relative error for the L1 norm of two images.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppiNormRelL1GetBufferHostSize_16s_C3R to compute the required size (in bytes).

Returns:

Image Data Related Error Codes, ROI Related Error Codes, or NPP_DIVISOR_ERROR if the L1 norm of the second image is zero.

7.109.2.4 NppStatus nppiNormRel_L1_16s_C4R (const Npp16s ∗ *pSrc1*, int *nSrc1Step*, const Npp16s ∗ *pSrc2*, int *nSrc2Step*, NppiSize *oSizeROI*, Npp64f *aNormRel*[4], Npp8u ∗ *pDeviceBuffer*)

Four-channel 16-bit signed image NormRel_L1.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

oSizeROI Region-of-Interest (ROI).

aNormRel Array that contains the computed relative error for the L1 norm of two images.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppiNormRelL1GetBufferHostSize_16s_C4R to compute the required size (in bytes).

Returns:

Image Data Related Error Codes, ROI Related Error Codes, or NPP_DIVISOR_ERROR if the L1 norm of the second image is zero.

7.109.2.5 NppStatus nppiNormRel_L1_16u_AC4R (const Npp16u ∗ *pSrc1*, int *nSrc1Step*, const Npp16u ∗ *pSrc2*, int *nSrc2Step*, NppiSize *oSizeROI*, Npp64f *aNormRel*[3], Npp8u ∗ *pDeviceBuffer*)

Four-channel 16-bit unsigned image NormRel_L1 ignoring alpha channel.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

oSizeROI Region-of-Interest (ROI).

aNormRel Array that contains the computed relative error for the L1 norm of two images.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppiNormRelL1GetBufferHostSize_16u_AC4R to compute the required size (in bytes).

Returns:

Image Data Related Error Codes, ROI Related Error Codes, or NPP_DIVISOR_ERROR if the L1 norm of the second image is zero.

7.109.2.6 NppStatus nppiNormRel_L1_16u_C1MR (const Npp16u ∗ *pSrc1*, int *nSrc1Step*, const Npp16u ∗ *pSrc2*, int *nSrc2Step*, const Npp8u ∗ *pMask*, int *nMaskStep*, NppiSize *oSizeROI*, Npp64f ∗ *pNormRel*, Npp8u ∗ *pDeviceBuffer*)

One-channel 16-bit unsigned image NormRel_L1.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

pMask Mask-Image Pointer.

nMaskStep Mask-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pNormRel Pointer to the computed relative error for the L1 norm of two images.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppiNormRelL1GetBufferHostSize_16u_C1MR to compute the required size (in bytes).

Returns:

Image Data Related Error Codes, ROI Related Error Codes, or NPP_DIVISOR_ERROR if the L1 norm of the second image is zero.

7.109.2.7 NppStatus nppiNormRel_L1_16u_C1R (const Npp16u ∗ *pSrc1*, int *nSrc1Step*, const Npp16u ∗ *pSrc2*, int *nSrc2Step*, NppiSize *oSizeROI*, Npp64f ∗ *pNormRel*, Npp8u ∗ *pDeviceBuffer*)

One-channel 16-bit unsigned image NormRel_L1.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pNormRel Pointer to the computed relative error for the L1 norm of two images.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppiNormRelL1GetBufferHostSize_16u_C1R to compute the required size (in bytes).

Returns:

Image Data Related Error Codes, ROI Related Error Codes, or NPP_DIVISOR_ERROR if the L1 norm of the second image is zero.

7.109.2.8 NppStatus nppiNormRel_L1_16u_C3CMR (const Npp16u ∗ *pSrc1*, int *nSrc1Step*, const Npp16u ∗ *pSrc2*, int *nSrc2Step*, const Npp8u ∗ *pMask*, int *nMaskStep*, NppiSize *oSizeROI*, int *nCOI*, Npp64f ∗ *pNormRel*, Npp8u ∗ *pDeviceBuffer*)

Masked three-channel 16-bit unsigned image NormRel_L1 affecting only single channel.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

pMask Mask-Image Pointer.

nMaskStep Mask-Image Line Step.

oSizeROI Region-of-Interest (ROI).

nCOI Channel_of_Interest Number.

pNormRel Pointer to the computed relative error for the L1 norm of two images.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppiNormRelL1GetBufferHostSize_16u_C3CMR to compute the required size (in bytes).

Returns:

Image Data Related Error Codes, ROI Related Error Codes, or NPP_COI_ERROR if an invalid channel of interest is specified, or NPP_DIVISOR_ERROR if the L1 norm of the second image is zero.

7.109.2.9 NppStatus nppiNormRel_L1_16u_C3R (const Npp16u ∗ *pSrc1*, int *nSrc1Step*, const Npp16u ∗ *pSrc2*, int *nSrc2Step*, NppiSize *oSizeROI*, Npp64f *aNormRel*[3], Npp8u ∗ *pDeviceBuffer*)

Three-channel 16-bit unsigned image NormRel_L1.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

oSizeROI Region-of-Interest (ROI).

aNormRel Array that contains the computed relative error for the L1 norm of two images.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppiNormRelL1GetBufferHostSize_16u_C3R to compute the required size (in bytes).

Returns:

Image Data Related Error Codes, ROI Related Error Codes, or NPP_DIVISOR_ERROR if the L1 norm of the second image is zero.

7.109.2.10 NppStatus nppiNormRel_L1_16u_C4R (const Npp16u ∗ *pSrc1*, int *nSrc1Step*, const Npp16u ∗ *pSrc2*, int *nSrc2Step*, NppiSize *oSizeROI*, Npp64f *aNormRel*[4], Npp8u ∗ *pDeviceBuffer*)

Four-channel 16-bit unsigned image NormRel_L1.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

oSizeROI Region-of-Interest (ROI).

aNormRel Array that contains the computed relative error for the L1 norm of two images.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppiNormRelL1GetBufferHostSize_16u_C4R to compute the required size (in bytes).

Returns:

Image Data Related Error Codes, ROI Related Error Codes, or NPP_DIVISOR_ERROR if the L1 norm of the second image is zero.

7.109.2.11 NppStatus nppiNormRel_L1_32f_AC4R (const Npp32f ∗ *pSrc1*, int *nSrc1Step*, const Npp32f ∗ *pSrc2*, int *nSrc2Step*, NppiSize *oSizeROI*, Npp64f *aNormRel*[3], Npp8u ∗ *pDeviceBuffer*)

Four-channel 32-bit floating point image NormRel_L1 ignoring alpha channel.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

oSizeROI Region-of-Interest (ROI).

aNormRel Array that contains the computed relative error for the L1 norm of two images.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppiNormRelL1GetBufferHostSize_32f_AC4R to compute the required size (in bytes).

Returns:

Image Data Related Error Codes, ROI Related Error Codes, NPP_NOT_EVEN_STEP_ERROR if an invalid floating-point image is specified, or NPP_DIVISOR_ERROR if the L1 norm of the second image is zero.

7.109.2.12 NppStatus nppiNormRel_L1_32f_C1MR (const Npp32f ∗ *pSrc1*, int *nSrc1Step*, const Npp32f ∗ *pSrc2*, int *nSrc2Step*, const Npp8u ∗ *pMask*, int *nMaskStep*, NppiSize *oSizeROI*, Npp64f ∗ *pNormRel*, Npp8u ∗ *pDeviceBuffer*)

One-channel 32-bit floating point image NormRel_L1.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

pMask Mask-Image Pointer.

nMaskStep Mask-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pNormRel Pointer to the computed relative error for the L1 norm of two images.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppiNormRelL1GetBufferHostSize_32f_C1MR to compute the required size (in bytes).

Returns:

Image Data Related Error Codes, ROI Related Error Codes, NPP_NOT_EVEN_STEP_ERROR if an invalid floating-point image is specified, or NPP_DIVISOR_ERROR if the L1 norm of the second image is zero.

7.109.2.13 NppStatus nppiNormRel_L1_32f_C1R (const Npp32f ∗ *pSrc1*, int *nSrc1Step*, const Npp32f ∗ *pSrc2*, int *nSrc2Step*, NppiSize *oSizeROI*, Npp64f ∗ *pNormRel*, Npp8u ∗ *pDeviceBuffer*)

One-channel 32-bit floating point image NormRel_L1.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pNormRel Pointer to the computed relative error for the L1 norm of two images.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppiNormRelL1GetBufferHostSize_32f_C1R to compute the required size (in bytes).

Returns:

Image Data Related Error Codes, ROI Related Error Codes, NPP_NOT_EVEN_STEP_ERROR if an invalid floating-point image is specified, or NPP_DIVISOR_ERROR if the L1 norm of the second image is zero.

7.109.2.14 NppStatus nppiNormRel_L1_32f_C3CMR (const Npp32f ∗ *pSrc1*, int *nSrc1Step*, const Npp32f ∗ *pSrc2*, int *nSrc2Step*, const Npp8u ∗ *pMask*, int *nMaskStep*, NppiSize *oSizeROI*, int *nCOI*, Npp64f ∗ *pNormRel*, Npp8u ∗ *pDeviceBuffer*)

Masked three-channel 32-bit floating point image NormRel_L1 affecting only single channel.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

pMask Mask-Image Pointer.

nMaskStep Mask-Image Line Step.

oSizeROI Region-of-Interest (ROI).

nCOI Channel_of_Interest Number.

pNormRel Pointer to the computed relative error for the L1 norm of two images.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppiNormRelL1GetBufferHostSize_32f_C3CMR to compute the required size (in bytes).

Returns:

Image Data Related Error Codes, ROI Related Error Codes, or NPP_COI_ERROR if an invalid channel of interest is specified, NPP_NOT_EVEN_STEP_ERROR if an invalid floating-point image is specified, or NPP_DIVISOR_ERROR if the L1 norm of the second image is zero.

7.109.2.15 NppStatus nppiNormRel_L1_32f_C3R (const Npp32f ∗ *pSrc1*, int *nSrc1Step*, const Npp32f ∗ *pSrc2*, int *nSrc2Step*, NppiSize *oSizeROI*, Npp64f *aNormRel*[3], Npp8u ∗ *pDeviceBuffer*)

Three-channel 32-bit floating point image NormRel_L1.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

oSizeROI Region-of-Interest (ROI).

aNormRel Array that contains the computed relative error for the L1 norm of two images.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppiNormRelL1GetBufferHostSize_32f_C3R to compute the required size (in bytes).

Returns:

Image Data Related Error Codes, ROI Related Error Codes, NPP_NOT_EVEN_STEP_ERROR if an invalid floating-point image is specified, or NPP_DIVISOR_ERROR if the L1 norm of the second image is zero.

7.109.2.16 NppStatus nppiNormRel_L1_32f_C4R (const Npp32f ∗ *pSrc1*, int *nSrc1Step*, const Npp32f ∗ *pSrc2*, int *nSrc2Step*, NppiSize *oSizeROI*, Npp64f *aNormRel*[4], Npp8u ∗ *pDeviceBuffer*)

Four-channel 32-bit floating point image NormRel_L1.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

oSizeROI Region-of-Interest (ROI).

aNormRel Array that contains the computed relative error for the L1 norm of two images.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppiNormRelL1GetBufferHostSize_32f_C4R to compute the required size (in bytes).

Returns:

Image Data Related Error Codes, ROI Related Error Codes, NPP_NOT_EVEN_STEP_ERROR if an invalid floating-point image is specified, or NPP_DIVISOR_ERROR if the L1 norm of the second image is zero.

7.109.2.17 NppStatus nppiNormRel_L1_8s_C1MR (const Npp8s ∗ *pSrc1*, int *nSrc1Step*, const Npp8s ∗ *pSrc2*, int *nSrc2Step*, const Npp8u ∗ *pMask*, int *nMaskStep*, NppiSize *oSizeROI*, Npp64f ∗ *pNormRel*, Npp8u ∗ *pDeviceBuffer*)

One-channel 8-bit signed image NormRel_L1.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

pMask Mask-Image Pointer.

nMaskStep Mask-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pNormRel Pointer to the computed relative error for the L1 norm of two images.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppiNormRelL1GetBufferHostSize_8s_C1MR to compute the required size (in bytes).

Returns:

Image Data Related Error Codes, ROI Related Error Codes, or NPP_DIVISOR_ERROR if the L1 norm of the second image is zero.

7.109.2.18 NppStatus nppiNormRel_L1_8s_C3CMR (const Npp8s ∗ *pSrc1*, int *nSrc1Step*, const Npp8s ∗ *pSrc2*, int *nSrc2Step*, const Npp8u ∗ *pMask*, int *nMaskStep*, NppiSize *oSizeROI*, int *nCOI*, Npp64f ∗ *pNormRel*, Npp8u ∗ *pDeviceBuffer*)

Masked three-channel 8-bit signed image NormRel_L1 affecting only single channel.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

pMask Mask-Image Pointer.

nMaskStep Mask-Image Line Step.

oSizeROI Region-of-Interest (ROI).

nCOI Channel_of_Interest Number.

pNormRel Pointer to the computed relative error for the L1 norm of two images.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppiNormRelL1GetBufferHostSize_8s_C3CMR to compute the required size (in bytes).

Returns:

Image Data Related Error Codes, ROI Related Error Codes, or NPP_COI_ERROR if an invalid channel of interest is specified, or NPP_DIVISOR_ERROR if the L1 norm of the second image is zero.

7.109.2.19 NppStatus nppiNormRel_L1_8u_AC4R (const Npp8u ∗ *pSrc1*, int *nSrc1Step*, const Npp8u ∗ *pSrc2*, int *nSrc2Step*, NppiSize *oSizeROI*, Npp64f *aNormRel*[3], Npp8u ∗ *pDeviceBuffer*)

Four-channel 8-bit signed image NormRel_L1 ignoring alpha channel.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

oSizeROI Region-of-Interest (ROI).

aNormRel Array that contains the computed relative error for the L1 norm of two images.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppiNormRelL1GetBufferHostSize_8u_AC4R to compute the required size (in bytes).

Returns:

Image Data Related Error Codes, ROI Related Error Codes, or NPP_DIVISOR_ERROR if the L1 norm of the second image is zero.

7.109.2.20 NppStatus nppiNormRel_L1_8u_C1MR (const Npp8u * *pSrc1*, int *nSrc1Step*, const Npp8u * *pSrc2*, int *nSrc2Step*, const Npp8u * *pMask*, int *nMaskStep*, NppiSize *oSizeROI*, Npp64f * *pNormRel*, Npp8u * *pDeviceBuffer*)

One-channel 8-bit unsigned image NormRel_L1.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

pMask Mask-Image Pointer.

nMaskStep Mask-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pNormRel Pointer to the computed relative error for the L1 norm of two images.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppiNormRelL1GetBufferHostSize_8u_C1MR to compute the required size (in bytes).

Returns:

Image Data Related Error Codes, ROI Related Error Codes, or NPP_DIVISOR_ERROR if the L1 norm of the second image is zero.

7.109.2.21 NppStatus nppiNormRel_L1_8u_C1R (const Npp8u * *pSrc1*, int *nSrc1Step*, const Npp8u * *pSrc2*, int *nSrc2Step*, NppiSize *oSizeROI*, Npp64f * *pNormRel*, Npp8u * *pDeviceBuffer*)

One-channel 8-bit unsigned image NormRel_L1.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pNormRel Pointer to the computed relative error for the norm of two images.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppiNormRelL1GetBufferHostSize_8u_C1R to compute the required size (in bytes).

Returns:

Image Data Related Error Codes, ROI Related Error Codes, or NPP_DIVISOR_ERROR if the L1 norm of the second image is zero.

7.109.2.22 NppStatus nppiNormRel_L1_8u_C3CMR (const Npp8u ∗ *pSrc1*, int *nSrc1Step*, const Npp8u ∗ *pSrc2*, int *nSrc2Step*, const Npp8u ∗ *pMask*, int *nMaskStep*, NppiSize *oSizeROI*, int *nCOI*, Npp64f ∗ *pNormRel*, Npp8u ∗ *pDeviceBuffer*)

Masked three-channel 8-bit unsigned image NormRel_L1 affecting only single channel.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

pMask Mask-Image Pointer.

nMaskStep Mask-Image Line Step.

oSizeROI Region-of-Interest (ROI).

nCOI Channel_of_Interest Number.

pNormRel Pointer to the computed relative error for the L1 norm of two images.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppiNormRelL1GetBufferHostSize_8u_C3CMR to compute the required size (in bytes).

Returns:

Image Data Related Error Codes, ROI Related Error Codes, or NPP_COI_ERROR if an invalid channel of interest is specified, or NPP_DIVISOR_ERROR if the L1 norm of the second image is zero.

7.109.2.23 NppStatus nppiNormRel_L1_8u_C3R (const Npp8u ∗ *pSrc1*, int *nSrc1Step*, const Npp8u ∗ *pSrc2*, int *nSrc2Step*, NppiSize *oSizeROI*, Npp64f *aNormRel*[3], Npp8u ∗ *pDeviceBuffer*)

Three-channel 8-bit unsigned image NormRel_L1.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

oSizeROI Region-of-Interest (ROI).

aNormRel Array that contains the computed relative error for the L1 norm of two images.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppiNormRelL1GetBufferHostSize_8u_C3R to compute the required size (in bytes).

Returns:

Image Data Related Error Codes, ROI Related Error Codes, or NPP_DIVISOR_ERROR if the L1 norm of the second image is zero.

7.109.2.24 NppStatus nppiNormRel_L1_8u_C4R (const Npp8u ∗ *pSrc1*, int *nSrc1Step*, const Npp8u ∗ *pSrc2*, int *nSrc2Step*, NppiSize *oSizeROI*, Npp64f *aNormRel*[4], Npp8u ∗ *pDeviceBuffer*)

Four-channel 8-bit unsigned image NormRel_L1.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

oSizeROI Region-of-Interest (ROI).

aNormRel Array that contains the computed relative error for the L1 norm of two images.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppiNormRelL1GetBufferHostSize_8u_C4R to compute the required size (in bytes).

Returns:

Image Data Related Error Codes, ROI Related Error Codes, or NPP_DIVISOR_ERROR if the L1 norm of the second image is zero.

7.109.2.25 NppStatus nppiNormRelL1GetBufferHostSize_16s_AC4R (NppiSize *oSizeROI*, int ∗ *hpBufferSize*)

Computes the device scratch buffer size (in bytes) for nppiNormRel_L1_16s_AC4R.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.109.2.26 NppStatus nppiNormRelL1GetBufferHostSize_16s_C1R (NppiSize *oSizeROI*, int * *hpBufferSize*)

Computes the device scratch buffer size (in bytes) for nppiNormRel_L1_16s_C1R.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.109.2.27 NppStatus nppiNormRelL1GetBufferHostSize_16s_C3R (NppiSize *oSizeROI*, int * *hpBufferSize*)

Computes the device scratch buffer size (in bytes) for nppiNormRel_L1_16s_C3R.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.109.2.28 NppStatus nppiNormRelL1GetBufferHostSize_16s_C4R (NppiSize *oSizeROI*, int * *hpBufferSize*)

Computes the device scratch buffer size (in bytes) for nppiNormRel_L1_16s_C4R.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.109.2.29 NppStatus nppiNormRelL1GetBufferHostSize_16u_AC4R (NppiSize *oSizeROI*, int * *hpBufferSize*)

Computes the device scratch buffer size (in bytes) for nppiNormRel_L1_16u_AC4R.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.109.2.30 NppStatus nppiNormRelL1GetBufferHostSize_16u_C1MR (NppiSize *oSizeROI*, int * *hpBufferSize*)

Computes the device scratch buffer size (in bytes) for nppiNormRel_L1_16u_C1MR.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.109.2.31 NppStatus nppiNormRelL1GetBufferHostSize_16u_C1R (NppiSize *oSizeROI*, int * *hpBufferSize*)

Computes the device scratch buffer size (in bytes) for nppiNormRel_L1_16u_C1R.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.109.2.32 NppStatus nppiNormRelL1GetBufferHostSize_16u_C3CMR (NppiSize *oSizeROI*, int * *hpBufferSize*)

Computes the device scratch buffer size (in bytes) for nppiNormRel_L1_16u_C3CMR.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.109.2.33 NppStatus nppiNormRelL1GetBufferHostSize_16u_C3R (NppiSize *oSizeROI*, int ∗ *hpBufferSize*)

Computes the device scratch buffer size (in bytes) for nppiNormRel_L1_16u_C3R.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.109.2.34 NppStatus nppiNormRelL1GetBufferHostSize_16u_C4R (NppiSize *oSizeROI*, int ∗ *hpBufferSize*)

Computes the device scratch buffer size (in bytes) for nppiNormRel_L1_16u_C4R.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.109.2.35 NppStatus nppiNormRelL1GetBufferHostSize_32f_AC4R (NppiSize *oSizeROI*, int ∗ *hpBufferSize*)

Computes the device scratch buffer size (in bytes) for nppiNormRel_L1_32f_AC4R.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.109.2.36 NppStatus nppiNormRelL1GetBufferHostSize_32f_C1MR (NppiSize *oSizeROI*, int ∗ *hpBufferSize*)

Computes the device scratch buffer size (in bytes) for nppiNormRel_L1_32f_C1MR.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.109.2.37 NppStatus nppiNormRelL1GetBufferHostSize_32f_C1R (NppiSize *oSizeROI*, int ∗ *hpBufferSize*)

Computes the device scratch buffer size (in bytes) for nppiNormRel_L1_32f_C1R.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.109.2.38 NppStatus nppiNormRelL1GetBufferHostSize_32f_C3CMR (NppiSize *oSizeROI*, int ∗ *hpBufferSize*)

Computes the device scratch buffer size (in bytes) for nppiNormRel_L1_32f_C3CMR.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.109.2.39 NppStatus nppiNormRelL1GetBufferHostSize_32f_C3R (NppiSize *oSizeROI*, int ∗ *hpBufferSize*)

Computes the device scratch buffer size (in bytes) for nppiNormRel_L1_32f_C3R.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.109.2.40 NppStatus nppiNormRelL1GetBufferHostSize_32f_C4R (NppiSize *oSizeROI*, int * *hpBufferSize*)

Computes the device scratch buffer size (in bytes) for nppiNormRel_L1_32f_C4R.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.109.2.41 NppStatus nppiNormRelL1GetBufferHostSize_8s_C1MR (NppiSize *oSizeROI*, int * *hpBufferSize*)

Computes the device scratch buffer size (in bytes) for nppiNormRel_L1_8s_C1MR.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.109.2.42 NppStatus nppiNormRelL1GetBufferHostSize_8s_C3CMR (NppiSize *oSizeROI*, int * *hpBufferSize*)

Computes the device scratch buffer size (in bytes) for nppiNormRel_L1_8s_C3CMR.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.109.2.43 NppStatus nppiNormRelL1GetBufferHostSize_8u_AC4R (NppiSize *oSizeROI*, int * *hpBufferSize*)

Computes the device scratch buffer size (in bytes) for nppiNormRel_L1_8u_AC4R.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.109.2.44 NppStatus nppiNormRelL1GetBufferHostSize_8u_C1MR (NppiSize *oSizeROI*, int ∗ *hpBufferSize*)

Computes the device scratch buffer size (in bytes) for nppiNormRel_L1_8u_C1MR.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.109.2.45 NppStatus nppiNormRelL1GetBufferHostSize_8u_C1R (NppiSize *oSizeROI*, int ∗ *hpBufferSize*)

Computes the device scratch buffer size (in bytes) for nppiNormRel_L1_8u_C1R.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.109.2.46 NppStatus nppiNormRelL1GetBufferHostSize_8u_C3CMR (NppiSize *oSizeROI*, int ∗ *hpBufferSize*)

Computes the device scratch buffer size (in bytes) for nppiNormRel_L1_8u_C3CMR.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.109.2.47 NppStatus nppiNormRelL1GetBufferHostSize_8u_C3R (NppiSize *oSizeROI*, int ∗ *hpBufferSize*)

Computes the device scratch buffer size (in bytes) for nppiNormRel_L1_8u_C3R.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.109.2.48 NppStatus nppiNormRelL1GetBufferHostSize_8u_C4R (NppiSize *oSizeROI*, int ∗ *hpBufferSize*)

Computes the device scratch buffer size (in bytes) for nppiNormRel_L1_8u_C4R.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.110 NormRel_L2

Primitives for computing the relative error of L2 norm between two images.

Basic NormRel_L2

- NppStatus nppiNormRel_L2_8u_C1R (const Npp8u ∗pSrc1, int nSrc1Step, const Npp8u ∗pSrc2, int nSrc2Step, NppiSize oSizeROI, Npp64f ∗pNormRel, Npp8u ∗pDeviceBuffer)

  One-channel 8-bit unsigned image NormRel_L2.

- NppStatus nppiNormRel_L2_16u_C1R (const Npp16u ∗pSrc1, int nSrc1Step, const Npp16u ∗pSrc2, int nSrc2Step, NppiSize oSizeROI, Npp64f ∗pNormRel, Npp8u ∗pDeviceBuffer)

  One-channel 16-bit unsigned image NormRel_L2.

- NppStatus nppiNormRel_L2_16s_C1R (const Npp16s ∗pSrc1, int nSrc1Step, const Npp16s ∗pSrc2, int nSrc2Step, NppiSize oSizeROI, Npp64f ∗pNormRel, Npp8u ∗pDeviceBuffer)

  One-channel 16-bit signed image NormRel_L2.

- NppStatus nppiNormRel_L2_32f_C1R (const Npp32f ∗pSrc1, int nSrc1Step, const Npp32f ∗pSrc2, int nSrc2Step, NppiSize oSizeROI, Npp64f ∗pNormRel, Npp8u ∗pDeviceBuffer)

  One-channel 32-bit floating point image NormRel_L2.

- NppStatus nppiNormRel_L2_8u_C3R (const Npp8u ∗pSrc1, int nSrc1Step, const Npp8u ∗pSrc2, int nSrc2Step, NppiSize oSizeROI, Npp64f aNormRel[3], Npp8u ∗pDeviceBuffer)

  Three-channel 8-bit unsigned image NormRel_L2.

- NppStatus nppiNormRel_L2_16u_C3R (const Npp16u ∗pSrc1, int nSrc1Step, const Npp16u ∗pSrc2, int nSrc2Step, NppiSize oSizeROI, Npp64f aNormRel[3], Npp8u ∗pDeviceBuffer)

  Three-channel 16-bit unsigned image NormRel_L2.

- NppStatus nppiNormRel_L2_16s_C3R (const Npp16s ∗pSrc1, int nSrc1Step, const Npp16s ∗pSrc2, int nSrc2Step, NppiSize oSizeROI, Npp64f aNormRel[3], Npp8u ∗pDeviceBuffer)

  Three-channel 16-bit signed image NormRel_L2.

- NppStatus nppiNormRel_L2_32f_C3R (const Npp32f ∗pSrc1, int nSrc1Step, const Npp32f ∗pSrc2, int nSrc2Step, NppiSize oSizeROI, Npp64f aNormRel[3], Npp8u ∗pDeviceBuffer)

  Three-channel 32-bit floating point image NormRel_L2.

- NppStatus nppiNormRel_L2_8u_AC4R (const Npp8u ∗pSrc1, int nSrc1Step, const Npp8u ∗pSrc2, int nSrc2Step, NppiSize oSizeROI, Npp64f aNormRel[3], Npp8u ∗pDeviceBuffer)

  Four-channel 8-bit unsigned image NormRel_L2 ignoring alpha channel.

- NppStatus nppiNormRel_L2_16u_AC4R (const Npp16u ∗pSrc1, int nSrc1Step, const Npp16u ∗pSrc2, int nSrc2Step, NppiSize oSizeROI, Npp64f aNormRel[3], Npp8u ∗pDeviceBuffer)

  Four-channel 16-bit unsigned image NormRel_L2 ignoring alpha channel.

- NppStatus nppiNormRel_L2_16s_AC4R (const Npp16s ∗pSrc1, int nSrc1Step, const Npp16s ∗pSrc2, int nSrc2Step, NppiSize oSizeROI, Npp64f aNormRel[3], Npp8u ∗pDeviceBuffer)

  Four-channel 16-bit signed image NormRel_L2 ignoring alpha channel.

- NppStatus nppiNormRel_L2_32f_AC4R (const Npp32f ∗pSrc1, int nSrc1Step, const Npp32f ∗pSrc2, int nSrc2Step, NppiSize oSizeROI, Npp64f aNormRel[3], Npp8u ∗pDeviceBuffer)

  Four-channel 32-bit floating point image NormRel_L2 ignoring alpha channel.

- NppStatus nppiNormRel_L2_8u_C4R (const Npp8u ∗pSrc1, int nSrc1Step, const Npp8u ∗pSrc2, int nSrc2Step, NppiSize oSizeROI, Npp64f aNormRel[4], Npp8u ∗pDeviceBuffer)

  Four-channel 8-bit unsigned image NormRel_L2.

- NppStatus nppiNormRel_L2_16u_C4R (const Npp16u ∗pSrc1, int nSrc1Step, const Npp16u ∗pSrc2, int nSrc2Step, NppiSize oSizeROI, Npp64f aNormRel[4], Npp8u ∗pDeviceBuffer)

  Four-channel 16-bit unsigned image NormRel_L2.

- NppStatus nppiNormRel_L2_16s_C4R (const Npp16s ∗pSrc1, int nSrc1Step, const Npp16s ∗pSrc2, int nSrc2Step, NppiSize oSizeROI, Npp64f aNormRel[4], Npp8u ∗pDeviceBuffer)

  Four-channel 16-bit signed image NormRel_L2.

- NppStatus nppiNormRel_L2_32f_C4R (const Npp32f ∗pSrc1, int nSrc1Step, const Npp32f ∗pSrc2, int nSrc2Step, NppiSize oSizeROI, Npp64f aNormRel[4], Npp8u ∗pDeviceBuffer)

  Four-channel 32-bit floating point image NormRel_L2.

Masked NormRel_L2

See Masked Operation.

- NppStatus nppiNormRel_L2_8u_C1MR (const Npp8u ∗pSrc1, int nSrc1Step, const Npp8u ∗pSrc2, int nSrc2Step, const Npp8u ∗pMask, int nMaskStep, NppiSize oSizeROI, Npp64f ∗pNormRel, Npp8u ∗pDeviceBuffer)

  Masked one-channel 8-bit unsigned image NormRel_L2.

- NppStatus nppiNormRel_L2_8s_C1MR (const Npp8s ∗pSrc1, int nSrc1Step, const Npp8s ∗pSrc2, int nSrc2Step, const Npp8u ∗pMask, int nMaskStep, NppiSize oSizeROI, Npp64f ∗pNormRel, Npp8u ∗pDeviceBuffer)

  Masked one-channel 8-bit signed image NormRel_L2.

- NppStatus nppiNormRel_L2_16u_C1MR (const Npp16u ∗pSrc1, int nSrc1Step, const Npp16u ∗pSrc2, int nSrc2Step, const Npp8u ∗pMask, int nMaskStep, NppiSize oSizeROI, Npp64f ∗pNormRel, Npp8u ∗pDeviceBuffer)

  Masked one-channel 16-bit unsigned image NormRel_L2.

- NppStatus nppiNormRel_L2_32f_C1MR (const Npp32f ∗pSrc1, int nSrc1Step, const Npp32f ∗pSrc2, int nSrc2Step, const Npp8u ∗pMask, int nMaskStep, NppiSize oSizeROI, Npp64f ∗pNormRel, Npp8u ∗pDeviceBuffer)

  Masked one-channel 32-bit floating point image NormRel_L2.

Masked Channel NormRel_L2

See Masked Operation and Channel-of-Interest API.

- NppStatus nppiNormRel_L2_8u_C3CMR (const Npp8u ∗pSrc1, int nSrc1Step, const Npp8u ∗pSrc2, int nSrc2Step, const Npp8u ∗pMask, int nMaskStep, NppiSize oSizeROI, int nCOI, Npp64f ∗pNormRel, Npp8u ∗pDeviceBuffer)

  Masked three-channel 8-bit unsigned image NormRel_L2 affecting only single channel.

- NppStatus nppiNormRel_L2_8s_C3CMR (const Npp8s ∗pSrc1, int nSrc1Step, const Npp8s ∗pSrc2, int nSrc2Step, const Npp8u ∗pMask, int nMaskStep, NppiSize oSizeROI, int nCOI, Npp64f ∗pNormRel, Npp8u ∗pDeviceBuffer)

  Masked three-channel 8-bit signed image NormRel_L2 affecting only single channel.

- NppStatus nppiNormRel_L2_16u_C3CMR (const Npp16u ∗pSrc1, int nSrc1Step, const Npp16u ∗pSrc2, int nSrc2Step, const Npp8u ∗pMask, int nMaskStep, NppiSize oSizeROI, int nCOI, Npp64f ∗pNormRel, Npp8u ∗pDeviceBuffer)

  Masked three-channel 16-bit unsigned image NormRel_L2 affecting only single channel.

- NppStatus nppiNormRel_L2_32f_C3CMR (const Npp32f ∗pSrc1, int nSrc1Step, const Npp32f ∗pSrc2, int nSrc2Step, const Npp8u ∗pMask, int nMaskStep, NppiSize oSizeROI, int nCOI, Npp64f ∗pNormRel, Npp8u ∗pDeviceBuffer)

  Masked three-channel 32-bit floating point image NormRel_L2 affecting only single channel.

NormRelL2GetBufferHostSize

Companion primitives for computing the device buffer size (in bytes) required by the NormRel_L2 primitives.

- NppStatus nppiNormRelL2GetBufferHostSize_8u_C1R (NppiSize oSizeROI, int ∗hpBufferSize)

  Computes the device scratch buffer size (in bytes) for nppiNormRel_L2_8u_C1R.

- NppStatus nppiNormRelL2GetBufferHostSize_16u_C1R (NppiSize oSizeROI, int ∗hpBufferSize)

  Computes the device scratch buffer size (in bytes) for nppiNormRel_L2_16u_C1R.

- NppStatus nppiNormRelL2GetBufferHostSize_16s_C1R (NppiSize oSizeROI, int ∗hpBufferSize)

  Computes the device scratch buffer size (in bytes) for nppiNormRel_L2_16s_C1R.

- NppStatus nppiNormRelL2GetBufferHostSize_32f_C1R (NppiSize oSizeROI, int ∗hpBufferSize)

  Computes the device scratch buffer size (in bytes) for nppiNormRel_L2_32f_C1R.

- NppStatus nppiNormRelL2GetBufferHostSize_8u_C1MR (NppiSize oSizeROI, int ∗hpBufferSize)

  Computes the device scratch buffer size (in bytes) for nppiNormRel_L2_8u_C1MR.

- NppStatus nppiNormRelL2GetBufferHostSize_8s_C1MR (NppiSize oSizeROI, int ∗hpBufferSize)

  Computes the device scratch buffer size (in bytes) for nppiNormRel_L2_8s_C1MR.

- NppStatus nppiNormRelL2GetBufferHostSize_16u_C1MR (NppiSize oSizeROI, int ∗hpBufferSize)

  Computes the device scratch buffer size (in bytes) for nppiNormRel_L2_16u_C1MR.

- NppStatus nppiNormRelL2GetBufferHostSize_32f_C1MR (NppiSize oSizeROI, int ∗hpBufferSize)

  Computes the device scratch buffer size (in bytes) for nppiNormRel_L2_32f_C1MR.

- NppStatus nppiNormRelL2GetBufferHostSize_8u_C3R (NppiSize oSizeROI, int ∗hpBufferSize)

  Computes the device scratch buffer size (in bytes) for nppiNormRel_L2_8u_C3R.

- NppStatus nppiNormRelL2GetBufferHostSize_16u_C3R (NppiSize oSizeROI, int ∗hpBufferSize)

  Computes the device scratch buffer size (in bytes) for nppiNormRel_L2_16u_C3R.

- NppStatus nppiNormRelL2GetBufferHostSize_16s_C3R (NppiSize oSizeROI, int ∗hpBufferSize)

  Computes the device scratch buffer size (in bytes) for nppiNormRel_L2_16s_C3R.

- NppStatus nppiNormRelL2GetBufferHostSize_32f_C3R (NppiSize oSizeROI, int ∗hpBufferSize)

  Computes the device scratch buffer size (in bytes) for nppiNormRel_L2_32f_C3R.

- NppStatus nppiNormRelL2GetBufferHostSize_8u_C4R (NppiSize oSizeROI, int ∗hpBufferSize)

  Computes the device scratch buffer size (in bytes) for nppiNormRel_L2_8u_C4R.

- NppStatus nppiNormRelL2GetBufferHostSize_16u_C4R (NppiSize oSizeROI, int ∗hpBufferSize)

  Computes the device scratch buffer size (in bytes) for nppiNormRel_L2_16u_C4R.

- NppStatus nppiNormRelL2GetBufferHostSize_16s_C4R (NppiSize oSizeROI, int ∗hpBufferSize)

  Computes the device scratch buffer size (in bytes) for nppiNormRel_L2_16s_C4R.

- NppStatus nppiNormRelL2GetBufferHostSize_32f_C4R (NppiSize oSizeROI, int ∗hpBufferSize)

  Computes the device scratch buffer size (in bytes) for nppiNormRel_L2_32f_C4R.

- NppStatus nppiNormRelL2GetBufferHostSize_8u_AC4R (NppiSize oSizeROI, int ∗hpBufferSize)

  Computes the device scratch buffer size (in bytes) for nppiNormRel_L2_8u_AC4R.

- NppStatus nppiNormRelL2GetBufferHostSize_16u_AC4R (NppiSize oSizeROI, int ∗hpBufferSize)

  Computes the device scratch buffer size (in bytes) for nppiNormRel_L2_16u_AC4R.

- NppStatus nppiNormRelL2GetBufferHostSize_16s_AC4R (NppiSize oSizeROI, int ∗hpBufferSize)

  Computes the device scratch buffer size (in bytes) for nppiNormRel_L2_16s_AC4R.

- NppStatus nppiNormRelL2GetBufferHostSize_32f_AC4R (NppiSize oSizeROI, int ∗hpBufferSize)

  Computes the device scratch buffer size (in bytes) for nppiNormRel_L2_32f_AC4R.

- NppStatus nppiNormRelL2GetBufferHostSize_8u_C3CMR (NppiSize oSizeROI, int ∗hpBufferSize)

  Computes the device scratch buffer size (in bytes) for nppiNormRel_L2_8u_C3CMR.

- NppStatus nppiNormRelL2GetBufferHostSize_8s_C3CMR (NppiSize oSizeROI, int ∗hpBufferSize)

Computes the device scratch buffer size (in bytes) for nppiNormRel_L2_8s_C3CMR.

- NppStatus nppiNormRelL2GetBufferHostSize_16u_C3CMR (NppiSize oSizeROI, int ∗hpBufferSize)

  Computes the device scratch buffer size (in bytes) for nppiNormRel_L2_16u_C3CMR.

- NppStatus nppiNormRelL2GetBufferHostSize_32f_C3CMR (NppiSize oSizeROI, int ∗hpBufferSize)

  Computes the device scratch buffer size (in bytes) for nppiNormRel_L2_32f_C3CMR.

7.110.1 Detailed Description

Primitives for computing the relative error of L2 norm between two images.

7.110.2 Function Documentation

7.110.2.1 NppStatus nppiNormRel_L2_16s_AC4R (const Npp16s ∗ *pSrc1*, int *nSrc1Step*, const Npp16s ∗ *pSrc2*, int *nSrc2Step*, NppiSize *oSizeROI*, Npp64f *aNormRel*[3], Npp8u ∗ *pDeviceBuffer*)

Four-channel 16-bit signed image NormRel_L2 ignoring alpha channel.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

oSizeROI Region-of-Interest (ROI).

aNormRel Array that contains the computed relative error for the L2 norm of two images.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppiNormRelL2GetBufferHostSize_16s_AC4R to compute the required size (in bytes).

Returns:

Image Data Related Error Codes, ROI Related Error Codes, or NPP_DIVISOR_ERROR if the L2 norm of the second image is zero.

7.110.2.2 NppStatus nppiNormRel_L2_16s_C1R (const Npp16s ∗ *pSrc1*, int *nSrc1Step*, const Npp16s ∗ *pSrc2*, int *nSrc2Step*, NppiSize *oSizeROI*, Npp64f ∗ *pNormRel*, Npp8u ∗ *pDeviceBuffer*)

One-channel 16-bit signed image NormRel_L2.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pNormRel Pointer to the computed relative error for the L2 norm of two images.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppiNormRelL2GetBufferHostSize_16s_C1R to compute the required size (in bytes).

Returns:

Image Data Related Error Codes, ROI Related Error Codes, or NPP_DIVISOR_ERROR if the L2 norm of the second image is zero.

7.110.2.3 NppStatus nppiNormRel_L2_16s_C3R (const Npp16s * *pSrc1*, int *nSrc1Step*, const Npp16s * *pSrc2*, int *nSrc2Step*, NppiSize *oSizeROI*, Npp64f *aNormRel*[3], Npp8u * *pDeviceBuffer*)

Three-channel 16-bit signed image NormRel_L2.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

oSizeROI Region-of-Interest (ROI).

aNormRel Array that contains the computed relative error for the L2 norm of two images.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppiNormRelL2GetBufferHostSize_16s_C3R to compute the required size (in bytes).

Returns:

Image Data Related Error Codes, ROI Related Error Codes, or NPP_DIVISOR_ERROR if the L2 norm of the second image is zero.

7.110.2.4 NppStatus nppiNormRel_L2_16s_C4R (const Npp16s * *pSrc1*, int *nSrc1Step*, const Npp16s * *pSrc2*, int *nSrc2Step*, NppiSize *oSizeROI*, Npp64f *aNormRel*[4], Npp8u * *pDeviceBuffer*)

Four-channel 16-bit signed image NormRel_L2.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

oSizeROI Region-of-Interest (ROI).

aNormRel Array that contains the computed relative error for the L2 norm of two images.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppiNormRelL2GetBufferHostSize_16s_C4R to compute the required size (in bytes).

Returns:

Image Data Related Error Codes, ROI Related Error Codes, or NPP_DIVISOR_ERROR if the L2 norm of the second image is zero.

7.110.2.5 NppStatus nppiNormRel_L2_16u_AC4R (const Npp16u ∗ *pSrc1*, int *nSrc1Step*, const Npp16u ∗ *pSrc2*, int *nSrc2Step*, NppiSize *oSizeROI*, Npp64f *aNormRel*[3], Npp8u ∗ *pDeviceBuffer*)

Four-channel 16-bit unsigned image NormRel_L2 ignoring alpha channel.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

oSizeROI Region-of-Interest (ROI).

aNormRel Array that contains the computed relative error for the L2 norm of two images.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppiNormRelL2GetBufferHostSize_16u_AC4R to compute the required size (in bytes).

Returns:

Image Data Related Error Codes, ROI Related Error Codes, or NPP_DIVISOR_ERROR if the L2 norm of the second image is zero.

7.110.2.6 NppStatus nppiNormRel_L2_16u_C1MR (const Npp16u ∗ *pSrc1*, int *nSrc1Step*, const Npp16u ∗ *pSrc2*, int *nSrc2Step*, const Npp8u ∗ *pMask*, int *nMaskStep*, NppiSize *oSizeROI*, Npp64f ∗ *pNormRel*, Npp8u ∗ *pDeviceBuffer*)

Masked one-channel 16-bit unsigned image NormRel_L2.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

pMask Mask-Image Pointer.

nMaskStep Mask-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pNormRel Pointer to the computed relative error for the L2 norm of two images.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppiNormRelL2GetBufferHostSize_16u_C1MR to compute the required size (in bytes).

Returns:

Image Data Related Error Codes, ROI Related Error Codes, or NPP_DIVISOR_ERROR if the L2 norm of the second image is zero.

7.110.2.7 NppStatus nppiNormRel_L2_16u_C1R (const Npp16u ∗ *pSrc1*, int *nSrc1Step*, const Npp16u ∗ *pSrc2*, int *nSrc2Step*, NppiSize *oSizeROI*, Npp64f ∗ *pNormRel*, Npp8u ∗ *pDeviceBuffer*)

One-channel 16-bit unsigned image NormRel_L2.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pNormRel Pointer to the computed relative error for the L2 norm of two images.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppiNormRelL2GetBufferHostSize_16u_C1R to compute the required size (in bytes).

Returns:

Image Data Related Error Codes, ROI Related Error Codes, or NPP_DIVISOR_ERROR if the L2 norm of the second image is zero.

7.110.2.8 NppStatus nppiNormRel_L2_16u_C3CMR (const Npp16u ∗ *pSrc1*, int *nSrc1Step*, const Npp16u ∗ *pSrc2*, int *nSrc2Step*, const Npp8u ∗ *pMask*, int *nMaskStep*, NppiSize *oSizeROI*, int *nCOI*, Npp64f ∗ *pNormRel*, Npp8u ∗ *pDeviceBuffer*)

Masked three-channel 16-bit unsigned image NormRel_L2 affecting only single channel.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

pMask Mask-Image Pointer.

nMaskStep Mask-Image Line Step.

oSizeROI Region-of-Interest (ROI).

nCOI Channel_of_Interest Number.

pNormRel Pointer to the computed relative error for the L2 norm of two images.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppiNormRelL2GetBufferHostSize_16u_C3CMR to compute the required size (in bytes).

Returns:

Image Data Related Error Codes, ROI Related Error Codes, NPP_COI_ERROR if an invalid channel of interest is specified, or NPP_DIVISOR_ERROR if the L2 norm of the second image is zero.

7.110.2.9 NppStatus nppiNormRel_L2_16u_C3R (const Npp16u ∗ *pSrc1*, int *nSrc1Step*, const Npp16u ∗ *pSrc2*, int *nSrc2Step*, NppiSize *oSizeROI*, Npp64f *aNormRel*[3], Npp8u ∗ *pDeviceBuffer*)

Three-channel 16-bit unsigned image NormRel_L2.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

oSizeROI Region-of-Interest (ROI).

aNormRel Array that contains the computed relative error for the L2 norm of two images.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppiNormRelL2GetBufferHostSize_16u_C3R to compute the required size (in bytes).

Returns:

Image Data Related Error Codes, ROI Related Error Codes, or NPP_DIVISOR_ERROR if the L2 norm of the second image is zero.

7.110.2.10 NppStatus nppiNormRel_L2_16u_C4R (const Npp16u ∗ *pSrc1*, int *nSrc1Step*, const Npp16u ∗ *pSrc2*, int *nSrc2Step*, NppiSize *oSizeROI*, Npp64f *aNormRel*[4], Npp8u ∗ *pDeviceBuffer*)

Four-channel 16-bit unsigned image NormRel_L2.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

oSizeROI Region-of-Interest (ROI).

aNormRel Array that contains the computed relative error for the L2 norm of two images.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppiNormRelL2GetBufferHostSize_16u_C4R to compute the required size (in bytes).

Returns:

Image Data Related Error Codes, ROI Related Error Codes, or NPP_DIVISOR_ERROR if the L2 norm of the second image is zero.

7.110.2.11 NppStatus nppiNormRel_L2_32f_AC4R (const Npp32f ∗ *pSrc1*, int *nSrc1Step*, const Npp32f ∗ *pSrc2*, int *nSrc2Step*, NppiSize *oSizeROI*, Npp64f *aNormRel*[3], Npp8u ∗ *pDeviceBuffer*)

Four-channel 32-bit floating point image NormRel_L2 ignoring alpha channel.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

oSizeROI Region-of-Interest (ROI).

aNormRel Array that contains the computed relative error for the L2 norm of two images.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppiNormRelL2GetBufferHostSize_32f_AC4R to compute the required size (in bytes).

Returns:

Image Data Related Error Codes, ROI Related Error Codes, NPP_NOT_EVEN_STEP_ERROR if an invalid floating-point image is specified, or NPP_DIVISOR_ERROR if the L2 norm of the second image is zero.

7.110.2.12 NppStatus nppiNormRel_L2_32f_C1MR (const Npp32f ∗ *pSrc1*, int *nSrc1Step*, const Npp32f ∗ *pSrc2*, int *nSrc2Step*, const Npp8u ∗ *pMask*, int *nMaskStep*, NppiSize *oSizeROI*, Npp64f ∗ *pNormRel*, Npp8u ∗ *pDeviceBuffer*)

Masked one-channel 32-bit floating point image NormRel_L2.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

pMask Mask-Image Pointer.

nMaskStep Mask-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pNormRel Pointer to the computed relative error for the L2 norm of two images.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppiNormRelL2GetBufferHostSize_32f_C1MR to compute the required size (in bytes).

Returns:

Image Data Related Error Codes, ROI Related Error Codes, NPP_NOT_EVEN_STEP_ERROR if an invalid floating-point image is specified, or NPP_DIVISOR_ERROR if the L2 norm of the second image is zero.

7.110.2.13 NppStatus nppiNormRel_L2_32f_C1R (const Npp32f ∗ *pSrc1*, int *nSrc1Step*, const Npp32f ∗ *pSrc2*, int *nSrc2Step*, NppiSize *oSizeROI*, Npp64f ∗ *pNormRel*, Npp8u ∗ *pDeviceBuffer*)

One-channel 32-bit floating point image NormRel_L2.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pNormRel Pointer to the computed relative error for the L2 norm of two images.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppiNormRelL2GetBufferHostSize_32f_C1R to compute the required size (in bytes).

Returns:

Image Data Related Error Codes, ROI Related Error Codes, NPP_NOT_EVEN_STEP_ERROR if an invalid floating-point image is specified, or NPP_DIVISOR_ERROR if the L2 norm of the second image is zero.

7.110.2.14 NppStatus nppiNormRel_L2_32f_C3CMR (const Npp32f * *pSrc1*, int *nSrc1Step*, const Npp32f * *pSrc2*, int *nSrc2Step*, const Npp8u * *pMask*, int *nMaskStep*, NppiSize *oSizeROI*, int *nCOI*, Npp64f * *pNormRel*, Npp8u * *pDeviceBuffer*)

Masked three-channel 32-bit floating point image NormRel_L2 affecting only single channel.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

pMask Mask-Image Pointer.

nMaskStep Mask-Image Line Step.

oSizeROI Region-of-Interest (ROI).

nCOI Channel_of_Interest Number.

pNormRel Pointer to the computed relative error for the L2 norm of two images.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppiNormRelL2GetBufferHostSize_32f_C3CMR to compute the required size (in bytes).

Returns:

Image Data Related Error Codes, ROI Related Error Codes, NPP_COI_ERROR if an invalid channel of interest is specified, or NPP_NOT_EVEN_STEP_ERROR if an invalid floating-point image is specified, or NPP_DIVISOR_ERROR if the L2 norm of the second image is zero.

7.110.2.15 NppStatus nppiNormRel_L2_32f_C3R (const Npp32f * *pSrc1*, int *nSrc1Step*, const Npp32f * *pSrc2*, int *nSrc2Step*, NppiSize *oSizeROI*, Npp64f *aNormRel*[3], Npp8u * *pDeviceBuffer*)

Three-channel 32-bit floating point image NormRel_L2.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

oSizeROI Region-of-Interest (ROI).

aNormRel Array that contains the computed relative error for the L2 norm of two images.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppiNormRelL2GetBufferHostSize_32f_C3R to compute the required size (in bytes).

Returns:

Image Data Related Error Codes, ROI Related Error Codes, NPP_NOT_EVEN_STEP_ERROR if an invalid floating-point image is specified, or NPP_DIVISOR_ERROR if the L2 norm of the second image is zero.

7.110.2.16 NppStatus nppiNormRel_L2_32f_C4R (const Npp32f ∗ *pSrc1*, int *nSrc1Step*, const Npp32f ∗ *pSrc2*, int *nSrc2Step*, NppiSize *oSizeROI*, Npp64f *aNormRel*[4], Npp8u ∗ *pDeviceBuffer*)

Four-channel 32-bit floating point image NormRel_L2.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

oSizeROI Region-of-Interest (ROI).

aNormRel Array that contains the computed relative error for the L2 norm of two images.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppiNormRelL2GetBufferHostSize_32f_C4R to compute the required size (in bytes).

Returns:

Image Data Related Error Codes, ROI Related Error Codes, or NPP_NOT_EVEN_STEP_ERROR if an invalid floating-point image is specified, or NPP_DIVISOR_ERROR if the L2 norm of the second image is zero.

7.110.2.17 NppStatus nppiNormRel_L2_8s_C1MR (const Npp8s ∗ *pSrc1*, int *nSrc1Step*, const Npp8s ∗ *pSrc2*, int *nSrc2Step*, const Npp8u ∗ *pMask*, int *nMaskStep*, NppiSize *oSizeROI*, Npp64f ∗ *pNormRel*, Npp8u ∗ *pDeviceBuffer*)

Masked one-channel 8-bit signed image NormRel_L2.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

pMask Mask-Image Pointer.

nMaskStep Mask-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pNormRel Pointer to the computed relative error for the L2 norm of two images.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppiNormRelL2GetBufferHostSize_8s_C1MR to compute the required size (in bytes).

Returns:

Image Data Related Error Codes, ROI Related Error Codes, or NPP_DIVISOR_ERROR if the L2 norm of the second image is zero.

7.110.2.18 NppStatus nppiNormRel_L2_8s_C3CMR (const Npp8s ∗ *pSrc1*, int *nSrc1Step*, const Npp8s ∗ *pSrc2*, int *nSrc2Step*, const Npp8u ∗ *pMask*, int *nMaskStep*, NppiSize *oSizeROI*, int *nCOI*, Npp64f ∗ *pNormRel*, Npp8u ∗ *pDeviceBuffer*)

Masked three-channel 8-bit signed image NormRel_L2 affecting only single channel.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

pMask Mask-Image Pointer.

nMaskStep Mask-Image Line Step.

oSizeROI Region-of-Interest (ROI).

nCOI Channel_of_Interest Number.

pNormRel Pointer to the computed relative error for the L2 norm of two images.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppiNormRelL2GetBufferHostSize_8s_C3CMR to compute the required size (in bytes).

Returns:

Image Data Related Error Codes, ROI Related Error Codes, or NPP_COI_ERROR if an invalid channel of interest is specified, or NPP_DIVISOR_ERROR if the L2 norm of the second image is zero.

7.110.2.19 NppStatus nppiNormRel_L2_8u_AC4R (const Npp8u ∗ *pSrc1*, int *nSrc1Step*, const Npp8u ∗ *pSrc2*, int *nSrc2Step*, NppiSize *oSizeROI*, Npp64f *aNormRel*[3], Npp8u ∗ *pDeviceBuffer*)

Four-channel 8-bit unsigned image NormRel_L2 ignoring alpha channel.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

oSizeROI Region-of-Interest (ROI).

aNormRel Array that contains the computed relative error for the L2 norm of two images.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppiNormRelL2GetBufferHostSize_8u_AC4R to compute the required size (in bytes).

Returns:

Image Data Related Error Codes, ROI Related Error Codes, or NPP_DIVISOR_ERROR if the L2 norm of the second image is zero.

7.110.2.20 NppStatus nppiNormRel_L2_8u_C1MR (const Npp8u ∗ *pSrc1*, int *nSrc1Step*, const Npp8u ∗ *pSrc2*, int *nSrc2Step*, const Npp8u ∗ *pMask*, int *nMaskStep*, NppiSize *oSizeROI*, Npp64f ∗ *pNormRel*, Npp8u ∗ *pDeviceBuffer*)

Masked one-channel 8-bit unsigned image NormRel_L2.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

pMask Mask-Image Pointer.

nMaskStep Mask-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pNormRel Pointer to the computed relative error for the L2 norm of two images.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppiNormRelL2GetBufferHostSize_8u_C1MR to compute the required size (in bytes).

Returns:

Image Data Related Error Codes, ROI Related Error Codes, or NPP_DIVISOR_ERROR if the L2 norm of the second image is zero.

7.110.2.21 NppStatus nppiNormRel_L2_8u_C1R (const Npp8u ∗ *pSrc1*, int *nSrc1Step*, const Npp8u ∗ *pSrc2*, int *nSrc2Step*, NppiSize *oSizeROI*, Npp64f ∗ *pNormRel*, Npp8u ∗ *pDeviceBuffer*)

One-channel 8-bit unsigned image NormRel_L2.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pNormRel Pointer to the computed relative error for the L2 norm of two images.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppiNormRelL2GetBufferHostSize_8u_C1R to compute the required size (in bytes).

Returns:

Image Data Related Error Codes, ROI Related Error Codes, or NPP_DIVISOR_ERROR if the L2 norm of the second image is zero.

7.110.2.22 NppStatus nppiNormRel_L2_8u_C3CMR (const Npp8u * *pSrc1*, int *nSrc1Step*, const Npp8u * *pSrc2*, int *nSrc2Step*, const Npp8u * *pMask*, int *nMaskStep*, NppiSize *oSizeROI*, int *nCOI*, Npp64f * *pNormRel*, Npp8u * *pDeviceBuffer*)

Masked three-channel 8-bit unsigned image NormRel_L2 affecting only single channel.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

pMask Mask-Image Pointer.

nMaskStep Mask-Image Line Step.

oSizeROI Region-of-Interest (ROI).

nCOI Channel_of_Interest Number.

pNormRel Pointer to the computed relative error for the L2 norm of two images.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppiNormRelL2GetBufferHostSize_8u_C3CMR to compute the required size (in bytes).

Returns:

Image Data Related Error Codes, ROI Related Error Codes, or NPP_COI_ERROR if an invalid channel of interest is specified, or NPP_DIVISOR_ERROR if the L2 norm of the second image is zero.

7.110.2.23 NppStatus nppiNormRel_L2_8u_C3R (const Npp8u * *pSrc1*, int *nSrc1Step*, const Npp8u * *pSrc2*, int *nSrc2Step*, NppiSize *oSizeROI*, Npp64f *aNormRel*[3], Npp8u * *pDeviceBuffer*)

Three-channel 8-bit unsigned image NormRel_L2.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

oSizeROI Region-of-Interest (ROI).

aNormRel Array that contains the computed relative error for the L2 norm of two images.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppiNormRelL2GetBufferHostSize_8u_C3R to compute the required size (in bytes).

Returns:

Image Data Related Error Codes, ROI Related Error Codes, or NPP_DIVISOR_ERROR if the L2 norm of the second image is zero.

7.110.2.24 NppStatus nppiNormRel_L2_8u_C4R (const Npp8u ∗ *pSrc1*, int *nSrc1Step*, const Npp8u ∗ *pSrc2*, int *nSrc2Step*, NppiSize *oSizeROI*, Npp64f *aNormRel*[4], Npp8u ∗ *pDeviceBuffer*)

Four-channel 8-bit unsigned image NormRel_L2.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

oSizeROI Region-of-Interest (ROI).

aNormRel Array that contains the computed relative error for the L2 norm of two images.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppiNormRelL2GetBufferHostSize_8u_C4R to compute the required size (in bytes).

Returns:

Image Data Related Error Codes, ROI Related Error Codes, or NPP_DIVISOR_ERROR if the L2 norm of the second image is zero.

7.110.2.25 NppStatus nppiNormRelL2GetBufferHostSize_16s_AC4R (NppiSize *oSizeROI*, int ∗ *hpBufferSize*)

Computes the device scratch buffer size (in bytes) for nppiNormRel_L2_16s_AC4R.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.110.2.26 NppStatus nppiNormRelL2GetBufferHostSize_16s_C1R (NppiSize *oSizeROI*, int ∗ *hpBufferSize*)

Computes the device scratch buffer size (in bytes) for nppiNormRel_L2_16s_C1R.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.110.2.27 NppStatus nppiNormRelL2GetBufferHostSize_16s_C3R (NppiSize *oSizeROI*, int ∗ *hpBufferSize*)

Computes the device scratch buffer size (in bytes) for nppiNormRel_L2_16s_C3R.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.110.2.28 NppStatus nppiNormRelL2GetBufferHostSize_16s_C4R (NppiSize *oSizeROI*, int ∗ *hpBufferSize*)

Computes the device scratch buffer size (in bytes) for nppiNormRel_L2_16s_C4R.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.110.2.29 NppStatus nppiNormRelL2GetBufferHostSize_16u_AC4R (NppiSize *oSizeROI*, int ∗ *hpBufferSize*)

Computes the device scratch buffer size (in bytes) for nppiNormRel_L2_16u_AC4R.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.110.2.30 NppStatus nppiNormRelL2GetBufferHostSize_16u_C1MR (NppiSize *oSizeROI*, int ∗ *hpBufferSize*)

Computes the device scratch buffer size (in bytes) for nppiNormRel_L2_16u_C1MR.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.110.2.31 NppStatus nppiNormRelL2GetBufferHostSize_16u_C1R (NppiSize *oSizeROI*, int ∗ *hpBufferSize*)

Computes the device scratch buffer size (in bytes) for nppiNormRel_L2_16u_C1R.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.110.2.32 NppStatus nppiNormRelL2GetBufferHostSize_16u_C3CMR (NppiSize *oSizeROI*, int ∗ *hpBufferSize*)

Computes the device scratch buffer size (in bytes) for nppiNormRel_L2_16u_C3CMR.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.110.2.33 NppStatus nppiNormRelL2GetBufferHostSize_16u_C3R (NppiSize *oSizeROI*, int ∗ *hpBufferSize*)

Computes the device scratch buffer size (in bytes) for nppiNormRel_L2_16u_C3R.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.110.2.34 NppStatus nppiNormRelL2GetBufferHostSize_16u_C4R (NppiSize *oSizeROI*, int ∗ *hpBufferSize*)

Computes the device scratch buffer size (in bytes) for nppiNormRel_L2_16u_C4R.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.110.2.35 NppStatus nppiNormRelL2GetBufferHostSize_32f_AC4R (NppiSize *oSizeROI*, int ∗ *hpBufferSize*)

Computes the device scratch buffer size (in bytes) for nppiNormRel_L2_32f_AC4R.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.110.2.36 NppStatus nppiNormRelL2GetBufferHostSize_32f_C1MR (NppiSize *oSizeROI*, int ∗ *hpBufferSize*)

Computes the device scratch buffer size (in bytes) for nppiNormRel_L2_32f_C1MR.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.110.2.37 NppStatus nppiNormRelL2GetBufferHostSize_32f_C1R (NppiSize *oSizeROI*, int ∗ *hpBufferSize*)

Computes the device scratch buffer size (in bytes) for nppiNormRel_L2_32f_C1R.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.110.2.38 NppStatus nppiNormRelL2GetBufferHostSize_32f_C3CMR (NppiSize *oSizeROI*, int ∗ *hpBufferSize*)

Computes the device scratch buffer size (in bytes) for nppiNormRel_L2_32f_C3CMR.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.110.2.39 NppStatus nppiNormRelL2GetBufferHostSize_32f_C3R (NppiSize *oSizeROI*, int ∗ *hpBufferSize*)

Computes the device scratch buffer size (in bytes) for nppiNormRel_L2_32f_C3R.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.110.2.40 NppStatus nppiNormRelL2GetBufferHostSize_32f_C4R (NppiSize *oSizeROI*, int * *hpBufferSize*)

Computes the device scratch buffer size (in bytes) for nppiNormRel_L2_32f_C4R.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.110.2.41 NppStatus nppiNormRelL2GetBufferHostSize_8s_C1MR (NppiSize *oSizeROI*, int * *hpBufferSize*)

Computes the device scratch buffer size (in bytes) for nppiNormRel_L2_8s_C1MR.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.110.2.42 NppStatus nppiNormRelL2GetBufferHostSize_8s_C3CMR (NppiSize *oSizeROI*, int * *hpBufferSize*)

Computes the device scratch buffer size (in bytes) for nppiNormRel_L2_8s_C3CMR.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.110.2.43 NppStatus nppiNormRelL2GetBufferHostSize_8u_AC4R (NppiSize *oSizeROI*, int * *hpBufferSize*)

Computes the device scratch buffer size (in bytes) for nppiNormRel_L2_8u_AC4R.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.110.2.44 NppStatus nppiNormRelL2GetBufferHostSize_8u_C1MR (NppiSize *oSizeROI*, int ∗ *hpBufferSize*)

Computes the device scratch buffer size (in bytes) for nppiNormRel_L2_8u_C1MR.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.110.2.45 NppStatus nppiNormRelL2GetBufferHostSize_8u_C1R (NppiSize *oSizeROI*, int ∗ *hpBufferSize*)

Computes the device scratch buffer size (in bytes) for nppiNormRel_L2_8u_C1R.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.110.2.46 NppStatus nppiNormRelL2GetBufferHostSize_8u_C3CMR (NppiSize *oSizeROI*, int ∗ *hpBufferSize*)

Computes the device scratch buffer size (in bytes) for nppiNormRel_L2_8u_C3CMR.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.110.2.47 NppStatus nppiNormRelL2GetBufferHostSize_8u_C3R (NppiSize *oSizeROI*, int ∗ *hpBufferSize*)

Computes the device scratch buffer size (in bytes) for nppiNormRel_L2_8u_C3R.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.110.2.48 NppStatus nppiNormRelL2GetBufferHostSize_8u_C4R (NppiSize *oSizeROI*, int ∗ *hpBufferSize*)

Computes the device scratch buffer size (in bytes) for nppiNormRel_L2_8u_C4R.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.111 DotProd

Primitives for computing the dot product of two images.

DotProd

Given two images $pSrc1$ and $pSrc2$ both with width W and height H, the dot product will be computed as

$$DotProd = \sum_{j=0}^{H-1} \sum_{i=0}^{W-1} [pSrc1(j,i) \cdot pSrc2(j,i)]$$

The functions require additional scratch buffer for computations.

- NppStatus nppiDotProd_8u64f_C1R (const Npp8u ∗pSrc1, int nSrc1Step, const Npp8u ∗pSrc2, int nSrc2Step, NppiSize oSizeROI, Npp64f ∗pDp, Npp8u ∗pDeviceBuffer)

  One-channel 8-bit unsigned image DotProd.

- NppStatus nppiDotProd_8s64f_C1R (const Npp8s ∗pSrc1, int nSrc1Step, const Npp8s ∗pSrc2, int nSrc2Step, NppiSize oSizeROI, Npp64f ∗pDp, Npp8u ∗pDeviceBuffer)

  One-channel 8-bit signed image DotProd.

- NppStatus nppiDotProd_16u64f_C1R (const Npp16u ∗pSrc1, int nSrc1Step, const Npp16u ∗pSrc2, int nSrc2Step, NppiSize oSizeROI, Npp64f ∗pDp, Npp8u ∗pDeviceBuffer)

  One-channel 16-bit unsigned image DotProd.

- NppStatus nppiDotProd_16s64f_C1R (const Npp16s ∗pSrc1, int nSrc1Step, const Npp16s ∗pSrc2, int nSrc2Step, NppiSize oSizeROI, Npp64f ∗pDp, Npp8u ∗pDeviceBuffer)

  One-channel 16-bit signed image DotProd.

- NppStatus nppiDotProd_32u64f_C1R (const Npp32u ∗pSrc1, int nSrc1Step, const Npp32u ∗pSrc2, int nSrc2Step, NppiSize oSizeROI, Npp64f ∗pDp, Npp8u ∗pDeviceBuffer)

  One-channel 32-bit unsigned image DotProd.

- NppStatus nppiDotProd_32s64f_C1R (const Npp32s ∗pSrc1, int nSrc1Step, const Npp32s ∗pSrc2, int nSrc2Step, NppiSize oSizeROI, Npp64f ∗pDp, Npp8u ∗pDeviceBuffer)

  One-channel 32-bit signed image DotProd.

- NppStatus nppiDotProd_32f64f_C1R (const Npp32f ∗pSrc1, int nSrc1Step, const Npp32f ∗pSrc2, int nSrc2Step, NppiSize oSizeROI, Npp64f ∗pDp, Npp8u ∗pDeviceBuffer)

  One-channel 32-bit floating point image DotProd.

- NppStatus nppiDotProd_8u64f_C3R (const Npp8u ∗pSrc1, int nSrc1Step, const Npp8u ∗pSrc2, int nSrc2Step, NppiSize oSizeROI, Npp64f aDp[3], Npp8u ∗pDeviceBuffer)

  Three-channel 8-bit unsigned image DotProd.

- NppStatus nppiDotProd_8s64f_C3R (const Npp8s ∗pSrc1, int nSrc1Step, const Npp8s ∗pSrc2, int nSrc2Step, NppiSize oSizeROI, Npp64f aDp[3], Npp8u ∗pDeviceBuffer)

  Three-channel 8-bit signed image DotProd.

- NppStatus nppiDotProd_16u64f_C3R (const Npp16u ∗pSrc1, int nSrc1Step, const Npp16u ∗pSrc2, int nSrc2Step, NppiSize oSizeROI, Npp64f aDp[3], Npp8u ∗pDeviceBuffer)

Three-channel 16-bit unsigned image DotProd.

- NppStatus nppiDotProd_16s64f_C3R (const Npp16s ∗pSrc1, int nSrc1Step, const Npp16s ∗pSrc2, int nSrc2Step, NppiSize oSizeROI, Npp64f aDp[3], Npp8u ∗pDeviceBuffer)

  Three-channel 16-bit signed image DotProd.

- NppStatus nppiDotProd_32u64f_C3R (const Npp32u ∗pSrc1, int nSrc1Step, const Npp32u ∗pSrc2, int nSrc2Step, NppiSize oSizeROI, Npp64f aDp[3], Npp8u ∗pDeviceBuffer)

  Three-channel 32-bit unsigned image DotProd.

- NppStatus nppiDotProd_32s64f_C3R (const Npp32s ∗pSrc1, int nSrc1Step, const Npp32s ∗pSrc2, int nSrc2Step, NppiSize oSizeROI, Npp64f aDp[3], Npp8u ∗pDeviceBuffer)

  Three-channel 32-bit signed image DotProd.

- NppStatus nppiDotProd_32f64f_C3R (const Npp32f ∗pSrc1, int nSrc1Step, const Npp32f ∗pSrc2, int nSrc2Step, NppiSize oSizeROI, Npp64f aDp[3], Npp8u ∗pDeviceBuffer)

  Three-channel 32-bit floating point image DotProd.

- NppStatus nppiDotProd_8u64f_C4R (const Npp8u ∗pSrc1, int nSrc1Step, const Npp8u ∗pSrc2, int nSrc2Step, NppiSize oSizeROI, Npp64f aDp[4], Npp8u ∗pDeviceBuffer)

  Four-channel 8-bit unsigned image DotProd.

- NppStatus nppiDotProd_8s64f_C4R (const Npp8s ∗pSrc1, int nSrc1Step, const Npp8s ∗pSrc2, int nSrc2Step, NppiSize oSizeROI, Npp64f aDp[4], Npp8u ∗pDeviceBuffer)

  Four-channel 8-bit signed image DotProd.

- NppStatus nppiDotProd_16u64f_C4R (const Npp16u ∗pSrc1, int nSrc1Step, const Npp16u ∗pSrc2, int nSrc2Step, NppiSize oSizeROI, Npp64f aDp[4], Npp8u ∗pDeviceBuffer)

  Four-channel 16-bit unsigned image DotProd.

- NppStatus nppiDotProd_16s64f_C4R (const Npp16s ∗pSrc1, int nSrc1Step, const Npp16s ∗pSrc2, int nSrc2Step, NppiSize oSizeROI, Npp64f aDp[4], Npp8u ∗pDeviceBuffer)

  Four-channel 16-bit signed image DotProd.

- NppStatus nppiDotProd_32u64f_C4R (const Npp32u ∗pSrc1, int nSrc1Step, const Npp32u ∗pSrc2, int nSrc2Step, NppiSize oSizeROI, Npp64f aDp[4], Npp8u ∗pDeviceBuffer)

  Four-channel 32-bit unsigned image DotProd.

- NppStatus nppiDotProd_32s64f_C4R (const Npp32s ∗pSrc1, int nSrc1Step, const Npp32s ∗pSrc2, int nSrc2Step, NppiSize oSizeROI, Npp64f aDp[4], Npp8u ∗pDeviceBuffer)

  Four-channel 32-bit signed image DotProd.

- NppStatus nppiDotProd_32f64f_C4R (const Npp32f ∗pSrc1, int nSrc1Step, const Npp32f ∗pSrc2, int nSrc2Step, NppiSize oSizeROI, Npp64f aDp[4], Npp8u ∗pDeviceBuffer)

  Four-channel 32-bit floating point image DotProd.

- NppStatus nppiDotProd_8u64f_AC4R (const Npp8u ∗pSrc1, int nSrc1Step, const Npp8u ∗pSrc2, int nSrc2Step, NppiSize oSizeROI, Npp64f aDp[3], Npp8u ∗pDeviceBuffer)

  Four-channel 8-bit unsigned image DotProd ignoring alpha channel.

- NppStatus nppiDotProd_8s64f_AC4R (const Npp8s ∗pSrc1, int nSrc1Step, const Npp8s ∗pSrc2, int nSrc2Step, NppiSize oSizeROI, Npp64f aDp[3], Npp8u ∗pDeviceBuffer)

  Four-channel 8-bit signed image DotProd ignoring alpha channel.

- NppStatus nppiDotProd_16u64f_AC4R (const Npp16u ∗pSrc1, int nSrc1Step, const Npp16u ∗pSrc2, int nSrc2Step, NppiSize oSizeROI, Npp64f aDp[3], Npp8u ∗pDeviceBuffer)

  Four-channel 16-bit unsigned image DotProd ignoring alpha channel.

- NppStatus nppiDotProd_16s64f_AC4R (const Npp16s ∗pSrc1, int nSrc1Step, const Npp16s ∗pSrc2, int nSrc2Step, NppiSize oSizeROI, Npp64f aDp[3], Npp8u ∗pDeviceBuffer)

  Four-channel 16-bit signed image DotProd ignoring alpha channel.

- NppStatus nppiDotProd_32u64f_AC4R (const Npp32u ∗pSrc1, int nSrc1Step, const Npp32u ∗pSrc2, int nSrc2Step, NppiSize oSizeROI, Npp64f aDp[3], Npp8u ∗pDeviceBuffer)

  Four-channel 32-bit unsigned image DotProd ignoring alpha channel.

- NppStatus nppiDotProd_32s64f_AC4R (const Npp32s ∗pSrc1, int nSrc1Step, const Npp32s ∗pSrc2, int nSrc2Step, NppiSize oSizeROI, Npp64f aDp[3], Npp8u ∗pDeviceBuffer)

  Four-channel 32-bit signed image DotProd ignoring alpha channel.

- NppStatus nppiDotProd_32f64f_AC4R (const Npp32f ∗pSrc1, int nSrc1Step, const Npp32f ∗pSrc2, int nSrc2Step, NppiSize oSizeROI, Npp64f aDp[3], Npp8u ∗pDeviceBuffer)

  Four-channel 32-bit floating point image DotProd ignoring alpha channel.

DotProdGetBufferHostSize

Companion primitives for computing the device buffer size (in bytes) required by the Mean_StdDev primitives.

- NppStatus nppiDotProdGetBufferHostSize_8u64f_C1R (NppiSize oSizeROI, int ∗hpBufferSize)

  Device scratch buffer size (in bytes) for nppiDotProd_8u64f_C1R.

- NppStatus nppiDotProdGetBufferHostSize_8s64f_C1R (NppiSize oSizeROI, int ∗hpBufferSize)

  Device scratch buffer size (in bytes) for nppiDotProd_8s64f_C1R.

- NppStatus nppiDotProdGetBufferHostSize_16u64f_C1R (NppiSize oSizeROI, int ∗hpBufferSize)

  Device scratch buffer size (in bytes) for nppiDotProd_16u64f_C1R.

- NppStatus nppiDotProdGetBufferHostSize_16s64f_C1R (NppiSize oSizeROI, int ∗hpBufferSize)

  Device scratch buffer size (in bytes) for nppiDotProd_16s64f_C1R.

- NppStatus nppiDotProdGetBufferHostSize_32u64f_C1R (NppiSize oSizeROI, int ∗hpBufferSize)

  Device scratch buffer size (in bytes) for nppiDotProd_32u64f_C1R.

- NppStatus nppiDotProdGetBufferHostSize_32s64f_C1R (NppiSize oSizeROI, int ∗hpBufferSize)

  Device scratch buffer size (in bytes) for nppiDotProd_32s64f_C1R.

- NppStatus nppiDotProdGetBufferHostSize_32f64f_C1R (NppiSize oSizeROI, int ∗hpBufferSize)

  Device scratch buffer size (in bytes) for nppiDotProd_32f64f_C1R.

- NppStatus nppiDotProdGetBufferHostSize_8u64f_C3R (NppiSize oSizeROI, int ∗hpBufferSize)
  Device scratch buffer size (in bytes) for nppiDotProd_8u64f_C3R.
- NppStatus nppiDotProdGetBufferHostSize_8s64f_C3R (NppiSize oSizeROI, int ∗hpBufferSize)
  Device scratch buffer size (in bytes) for nppiDotProd_8s64f_C3R.
- NppStatus nppiDotProdGetBufferHostSize_16u64f_C3R (NppiSize oSizeROI, int ∗hpBufferSize)
  Device scratch buffer size (in bytes) for nppiDotProd_16u64f_C3R.
- NppStatus nppiDotProdGetBufferHostSize_16s64f_C3R (NppiSize oSizeROI, int ∗hpBufferSize)
  Device scratch buffer size (in bytes) for nppiDotProd_16s64f_C3R.
- NppStatus nppiDotProdGetBufferHostSize_32u64f_C3R (NppiSize oSizeROI, int ∗hpBufferSize)
  Device scratch buffer size (in bytes) for nppiDotProd_32u64f_C3R.
- NppStatus nppiDotProdGetBufferHostSize_32s64f_C3R (NppiSize oSizeROI, int ∗hpBufferSize)
  Device scratch buffer size (in bytes) for nppiDotProd_32s64f_C3R.
- NppStatus nppiDotProdGetBufferHostSize_32f64f_C3R (NppiSize oSizeROI, int ∗hpBufferSize)
  Device scratch buffer size (in bytes) for nppiDotProd_32f64f_C3R.
- NppStatus nppiDotProdGetBufferHostSize_8u64f_C4R (NppiSize oSizeROI, int ∗hpBufferSize)
  Device scratch buffer size (in bytes) for nppiDotProd_8u64f_C4R.
- NppStatus nppiDotProdGetBufferHostSize_8s64f_C4R (NppiSize oSizeROI, int ∗hpBufferSize)
  Device scratch buffer size (in bytes) for nppiDotProd_8s64f_C4R.
- NppStatus nppiDotProdGetBufferHostSize_16u64f_C4R (NppiSize oSizeROI, int ∗hpBufferSize)
  Device scratch buffer size (in bytes) for nppiDotProd_16u64f_C4R.
- NppStatus nppiDotProdGetBufferHostSize_16s64f_C4R (NppiSize oSizeROI, int ∗hpBufferSize)
  Device scratch buffer size (in bytes) for nppiDotProd_16s64f_C4R.
- NppStatus nppiDotProdGetBufferHostSize_32u64f_C4R (NppiSize oSizeROI, int ∗hpBufferSize)
  Device scratch buffer size (in bytes) for nppiDotProd_32u64f_C4R.
- NppStatus nppiDotProdGetBufferHostSize_32s64f_C4R (NppiSize oSizeROI, int ∗hpBufferSize)
  Device scratch buffer size (in bytes) for nppiDotProd_32s64f_C4R.
- NppStatus nppiDotProdGetBufferHostSize_32f64f_C4R (NppiSize oSizeROI, int ∗hpBufferSize)
  Device scratch buffer size (in bytes) for nppiDotProd_32f64f_C4R.
- NppStatus nppiDotProdGetBufferHostSize_8u64f_AC4R (NppiSize oSizeROI, int ∗hpBufferSize)
  Device scratch buffer size (in bytes) for nppiDotProd_8u64f_AC4R.
- NppStatus nppiDotProdGetBufferHostSize_8s64f_AC4R (NppiSize oSizeROI, int ∗hpBufferSize)
  Device scratch buffer size (in bytes) for nppiDotProd_8s64f_AC4R.

- NppStatus nppiDotProdGetBufferHostSize_16u64f_AC4R (NppiSize oSizeROI, int ∗hpBufferSize)

  Device scratch buffer size (in bytes) for nppiDotProd_16u64f_AC4R.

- NppStatus nppiDotProdGetBufferHostSize_16s64f_AC4R (NppiSize oSizeROI, int ∗hpBufferSize)

  Device scratch buffer size (in bytes) for nppiDotProd_16s64f_AC4R.

- NppStatus nppiDotProdGetBufferHostSize_32u64f_AC4R (NppiSize oSizeROI, int ∗hpBufferSize)

  Device scratch buffer size (in bytes) for nppiDotProd_32u64f_AC4R.

- NppStatus nppiDotProdGetBufferHostSize_32s64f_AC4R (NppiSize oSizeROI, int ∗hpBufferSize)

  Device scratch buffer size (in bytes) for nppiDotProd_32s64f_AC4R.

- NppStatus nppiDotProdGetBufferHostSize_32f64f_AC4R (NppiSize oSizeROI, int ∗hpBufferSize)

  Device scratch buffer size (in bytes) for nppiDotProd_32f64f_AC4R.

7.111.1 Detailed Description

Primitives for computing the dot product of two images.

7.111.2 Function Documentation

7.111.2.1 NppStatus nppiDotProd_16s64f_AC4R (const Npp16s ∗ *pSrc1*, int *nSrc1Step*, const Npp16s ∗ *pSrc2*, int *nSrc2Step*, NppiSize *oSizeROI*, Npp64f *aDp*[3], Npp8u ∗ *pDeviceBuffer*)

Four-channel 16-bit signed image DotProd ignoring alpha channel.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

oSizeROI Region-of-Interest (ROI).

aDp Array that contains the computed dot product of the two images.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppiDotProdGetBufferHostSize_16s64f_AC4R to compute the required size (in bytes).

Returns:

Image Data Related Error Codes, ROI Related Error Codes.

7.111.2.2 NppStatus nppiDotProd_16s64f_C1R (const Npp16s ∗ *pSrc1*, int *nSrc1Step*, const Npp16s ∗ *pSrc2*, int *nSrc2Step*, NppiSize *oSizeROI*, Npp64f ∗ *pDp*, Npp8u ∗ *pDeviceBuffer*)

One-channel 16-bit signed image DotProd.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pDp Pointer to the computed dot product of the two images.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppiDotProdGetBufferHostSize_16s64f_C1R to compute the required size (in bytes).

Returns:

Image Data Related Error Codes, ROI Related Error Codes.

7.111.2.3 NppStatus nppiDotProd_16s64f_C3R (const Npp16s ∗ *pSrc1*, int *nSrc1Step*, const Npp16s ∗ *pSrc2*, int *nSrc2Step*, NppiSize *oSizeROI*, Npp64f *aDp*[3], Npp8u ∗ *pDeviceBuffer*)

Three-channel 16-bit signed image DotProd.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

oSizeROI Region-of-Interest (ROI).

aDp Array that contains the computed dot product of the two images.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppiDotProdGetBufferHostSize_16s64f_C3R to compute the required size (in bytes).

Returns:

Image Data Related Error Codes, ROI Related Error Codes.

7.111.2.4 NppStatus nppiDotProd_16s64f_C4R (const Npp16s ∗ *pSrc1*, int *nSrc1Step*, const Npp16s ∗ *pSrc2*, int *nSrc2Step*, NppiSize *oSizeROI*, Npp64f *aDp*[4], Npp8u ∗ *pDeviceBuffer*)

Four-channel 16-bit signed image DotProd.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

oSizeROI Region-of-Interest (ROI).

aDp Array that contains the computed dot product of the two images.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppiDotProdGetBufferHostSize_16s64f_C4R to compute the required size (in bytes).

Returns:

Image Data Related Error Codes, ROI Related Error Codes.

7.111.2.5 NppStatus nppiDotProd_16u64f_AC4R (const Npp16u ∗ *pSrc1*, int *nSrc1Step*, const Npp16u ∗ *pSrc2*, int *nSrc2Step*, NppiSize *oSizeROI*, Npp64f *aDp*[3], Npp8u ∗ *pDeviceBuffer*)

Four-channel 16-bit unsigned image DotProd ignoring alpha channel.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

oSizeROI Region-of-Interest (ROI).

aDp Array that contains the computed Inf-norm of differences.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppiDotProdGetBufferHostSize_16u64f_AC4R to compute the required size (in bytes).

Returns:

Image Data Related Error Codes, ROI Related Error Codes.

7.111.2.6 NppStatus nppiDotProd_16u64f_C1R (const Npp16u ∗ *pSrc1*, int *nSrc1Step*, const Npp16u ∗ *pSrc2*, int *nSrc2Step*, NppiSize *oSizeROI*, Npp64f ∗ *pDp*, Npp8u ∗ *pDeviceBuffer*)

One-channel 16-bit unsigned image DotProd.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pDp Pointer to the computed dot product of the two images.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppiDotProdGetBufferHostSize_16u64f_C1R to compute the required size (in bytes).

Returns:

Image Data Related Error Codes, ROI Related Error Codes.

7.111.2.7 NppStatus nppiDotProd_16u64f_C3R (const Npp16u ∗ *pSrc1*, int *nSrc1Step*, const Npp16u ∗ *pSrc2*, int *nSrc2Step*, NppiSize *oSizeROI*, Npp64f *aDp*[3], Npp8u ∗ *pDeviceBuffer*)

Three-channel 16-bit unsigned image DotProd.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

oSizeROI Region-of-Interest (ROI).

aDp Array that contains the computed Inf-norm of differences.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppiDotProdGetBufferHostSize_16u64f_C3R to compute the required size (in bytes).

Returns:

Image Data Related Error Codes, ROI Related Error Codes.

7.111.2.8 NppStatus nppiDotProd_16u64f_C4R (const Npp16u ∗ *pSrc1*, int *nSrc1Step*, const Npp16u ∗ *pSrc2*, int *nSrc2Step*, NppiSize *oSizeROI*, Npp64f *aDp*[4], Npp8u ∗ *pDeviceBuffer*)

Four-channel 16-bit unsigned image DotProd.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

oSizeROI Region-of-Interest (ROI).

aDp Array that contains the computed Inf-norm of differences.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppiDotProdGetBufferHostSize_16u64f_C4R to compute the required size (in bytes).

Returns:

Image Data Related Error Codes, ROI Related Error Codes.

7.111.2.9 NppStatus nppiDotProd_32f64f_AC4R (const Npp32f ∗ *pSrc1*, int *nSrc1Step*, const Npp32f ∗ *pSrc2*, int *nSrc2Step*, NppiSize *oSizeROI*, Npp64f *aDp*[3], Npp8u ∗ *pDeviceBuffer*)

Four-channel 32-bit floating point image DotProd ignoring alpha channel.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

oSizeROI Region-of-Interest (ROI).

aDp Array that contains the computed dot product of the two images.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppiDotProdGetBufferHostSize_32f64f_AC4R to compute the required size (in bytes).

Returns:

Image Data Related Error Codes, ROI Related Error Codes.

7.111.2.10 NppStatus nppiDotProd_32f64f_C1R (const Npp32f ∗ *pSrc1*, int *nSrc1Step*, const Npp32f ∗ *pSrc2*, int *nSrc2Step*, NppiSize *oSizeROI*, Npp64f ∗ *pDp*, Npp8u ∗ *pDeviceBuffer*)

One-channel 32-bit floating point image DotProd.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pDp Pointer to the computed dot product of the two images.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppiDotProdGetBufferHostSize_32f64f_C1R to compute the required size (in bytes).

Returns:

Image Data Related Error Codes, ROI Related Error Codes.

7.111.2.11 NppStatus nppiDotProd_32f64f_C3R (const Npp32f ∗ *pSrc1*, int *nSrc1Step*, const Npp32f ∗ *pSrc2*, int *nSrc2Step*, NppiSize *oSizeROI*, Npp64f *aDp*[3], Npp8u ∗ *pDeviceBuffer*)

Three-channel 32-bit floating point image DotProd.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

oSizeROI Region-of-Interest (ROI).

aDp Array that contains the computed dot product of the two images.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppiDotProdGetBufferHostSize_32f64f_C3R to compute the required size (in bytes).

Returns:

Image Data Related Error Codes, ROI Related Error Codes.

7.111.2.12 NppStatus nppiDotProd_32f64f_C4R (const Npp32f ∗ *pSrc1*, int *nSrc1Step*, const Npp32f ∗ *pSrc2*, int *nSrc2Step*, NppiSize *oSizeROI*, Npp64f *aDp*[4], Npp8u ∗ *pDeviceBuffer*)

Four-channel 32-bit floating point image DotProd.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

oSizeROI Region-of-Interest (ROI).

aDp Array that contains the computed dot product of the two images.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppiDotProdGetBufferHostSize_32f64f_C4R to compute the required size (in bytes).

Returns:

Image Data Related Error Codes, ROI Related Error Codes.

7.111.2.13 NppStatus nppiDotProd_32s64f_AC4R (const Npp32s ∗ *pSrc1*, int *nSrc1Step*, const Npp32s ∗ *pSrc2*, int *nSrc2Step*, NppiSize *oSizeROI*, Npp64f *aDp*[3], Npp8u ∗ *pDeviceBuffer*)

Four-channel 32-bit signed image DotProd ignoring alpha channel.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

oSizeROI Region-of-Interest (ROI).

aDp Array that contains the computed dot product of the two images.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppiDotProdGetBufferHostSize_32s64f_AC4R to compute the required size (in bytes).

Returns:

Image Data Related Error Codes, ROI Related Error Codes.

7.111.2.14 NppStatus nppiDotProd_32s64f_C1R (const Npp32s ∗ *pSrc1*, int *nSrc1Step*, const Npp32s ∗ *pSrc2*, int *nSrc2Step*, NppiSize *oSizeROI*, Npp64f ∗ *pDp*, Npp8u ∗ *pDeviceBuffer*)

One-channel 32-bit signed image DotProd.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pDp Pointer to the computed dot product of the two images.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppiDotProdGetBufferHostSize_32s64f_C1R to compute the required size (in bytes).

Returns:

Image Data Related Error Codes, ROI Related Error Codes.

7.111.2.15 NppStatus nppiDotProd_32s64f_C3R (const Npp32s ∗ *pSrc1*, int *nSrc1Step*, const Npp32s ∗ *pSrc2*, int *nSrc2Step*, NppiSize *oSizeROI*, Npp64f *aDp*[3], Npp8u ∗ *pDeviceBuffer*)

Three-channel 32-bit signed image DotProd.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

oSizeROI Region-of-Interest (ROI).

aDp Array that contains the computed dot product of the two images.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppiDotProdGetBufferHostSize_32s64f_C3R to compute the required size (in bytes).

Returns:

Image Data Related Error Codes, ROI Related Error Codes.

7.111.2.16 NppStatus nppiDotProd_32s64f_C4R (const Npp32s ∗ *pSrc1*, int *nSrc1Step*, const Npp32s ∗ *pSrc2*, int *nSrc2Step*, NppiSize *oSizeROI*, Npp64f *aDp*[4], Npp8u ∗ *pDeviceBuffer*)

Four-channel 32-bit signed image DotProd.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

oSizeROI Region-of-Interest (ROI).

aDp Array that contains the computed dot product of the two images.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppiDotProdGetBufferHostSize_32s64f_C4R to compute the required size (in bytes).

Returns:

Image Data Related Error Codes, ROI Related Error Codes.

7.111.2.17 NppStatus nppiDotProd_32u64f_AC4R (const Npp32u ∗ *pSrc1*, int *nSrc1Step*, const Npp32u ∗ *pSrc2*, int *nSrc2Step*, NppiSize *oSizeROI*, Npp64f *aDp*[3], Npp8u ∗ *pDeviceBuffer*)

Four-channel 32-bit unsigned image DotProd ignoring alpha channel.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

oSizeROI Region-of-Interest (ROI).

aDp Array that contains the computed dot product of the two images.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppiDotProdGetBufferHostSize_32u64f_AC4R to compute the required size (in bytes).

Returns:

Image Data Related Error Codes, ROI Related Error Codes.

7.111.2.18 NppStatus nppiDotProd_32u64f_C1R (const Npp32u ∗ *pSrc1*, int *nSrc1Step*, const Npp32u ∗ *pSrc2*, int *nSrc2Step*, NppiSize *oSizeROI*, Npp64f ∗ *pDp*, Npp8u ∗ *pDeviceBuffer*)

One-channel 32-bit unsigned image DotProd.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pDp Pointer to the computed dot product of the two images.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppiDotProdGetBufferHostSize_32u64f_C1R to compute the required size (in bytes).

Returns:

Image Data Related Error Codes, ROI Related Error Codes.

7.111.2.19 NppStatus nppiDotProd_32u64f_C3R (const Npp32u ∗ *pSrc1*, int *nSrc1Step*, const Npp32u ∗ *pSrc2*, int *nSrc2Step*, NppiSize *oSizeROI*, Npp64f *aDp*[3], Npp8u ∗ *pDeviceBuffer*)

Three-channel 32-bit unsigned image DotProd.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

oSizeROI Region-of-Interest (ROI).

aDp Array that contains the computed dot product of the two images.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppiDotProdGetBufferHostSize_32u64f_C3R to compute the required size (in bytes).

Returns:

Image Data Related Error Codes, ROI Related Error Codes.

7.111.2.20 NppStatus nppiDotProd_32u64f_C4R (const Npp32u ∗ *pSrc1*, int *nSrc1Step*, const Npp32u ∗ *pSrc2*, int *nSrc2Step*, NppiSize *oSizeROI*, Npp64f *aDp*[4], Npp8u ∗ *pDeviceBuffer*)

Four-channel 32-bit unsigned image DotProd.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

oSizeROI Region-of-Interest (ROI).

aDp Array that contains the computed dot product of the two images.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppiDotProdGetBufferHostSize_32u64f_C4R to compute the required size (in bytes).

Returns:

Image Data Related Error Codes, ROI Related Error Codes.

7.111.2.21 NppStatus nppiDotProd_8s64f_AC4R (const Npp8s ∗ *pSrc1*, int *nSrc1Step*, const Npp8s ∗ *pSrc2*, int *nSrc2Step*, NppiSize *oSizeROI*, Npp64f *aDp*[3], Npp8u ∗ *pDeviceBuffer*)

Four-channel 8-bit signed image DotProd ignoring alpha channel.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

oSizeROI Region-of-Interest (ROI).

aDp Array that contains the computed dot product of the two images.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppiDotProdGetBufferHostSize_8s64f_AC4R to compute the required size (in bytes).

Returns:

Image Data Related Error Codes, ROI Related Error Codes.

7.111.2.22 NppStatus nppiDotProd_8s64f_C1R (const Npp8s ∗ *pSrc1*, int *nSrc1Step*, const Npp8s ∗ *pSrc2*, int *nSrc2Step*, NppiSize *oSizeROI*, Npp64f ∗ *pDp*, Npp8u ∗ *pDeviceBuffer*)

One-channel 8-bit signed image DotProd.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pDp Pointer to the computed dot product of the two images.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppiDotProdGetBufferHostSize_8s64f_C1R to compute the required size (in bytes).

Returns:

Image Data Related Error Codes, ROI Related Error Codes.

7.111.2.23 NppStatus nppiDotProd_8s64f_C3R (const Npp8s ∗ *pSrc1*, int *nSrc1Step*, const Npp8s ∗ *pSrc2*, int *nSrc2Step*, NppiSize *oSizeROI*, Npp64f *aDp*[3], Npp8u ∗ *pDeviceBuffer*)

Three-channel 8-bit signed image DotProd.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

oSizeROI Region-of-Interest (ROI).

aDp Array that contains the computed dot product of the two images.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppiDotProdGetBufferHostSize_8s64f_C3R to compute the required size (in bytes).

Returns:

Image Data Related Error Codes, ROI Related Error Codes.

7.111.2.24 NppStatus nppiDotProd_8s64f_C4R (const Npp8s ∗ *pSrc1*, int *nSrc1Step*, const Npp8s ∗ *pSrc2*, int *nSrc2Step*, NppiSize *oSizeROI*, Npp64f *aDp*[4], Npp8u ∗ *pDeviceBuffer*)

Four-channel 8-bit signed image DotProd.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

oSizeROI Region-of-Interest (ROI).

aDp Array that contains the computed dot product of the two images.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppiDotProdGetBufferHostSize_8s64f_C4R to compute the required size (in bytes).

Returns:

Image Data Related Error Codes, ROI Related Error Codes.

7.111.2.25 NppStatus nppiDotProd_8u64f_AC4R (const Npp8u ∗ *pSrc1*, int *nSrc1Step*, const Npp8u ∗ *pSrc2*, int *nSrc2Step*, NppiSize *oSizeROI*, Npp64f *aDp*[3], Npp8u ∗ *pDeviceBuffer*)

Four-channel 8-bit unsigned image DotProd ignoring alpha channel.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

oSizeROI Region-of-Interest (ROI).

aDp Array that contains the computed dot product of the two images.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppiDotProdGetBufferHostSize_8u64f_AC4R to compute the required size (in bytes).

Returns:

Image Data Related Error Codes, ROI Related Error Codes.

7.111.2.26 NppStatus nppiDotProd_8u64f_C1R (const Npp8u * *pSrc1*, int *nSrc1Step*, const Npp8u * *pSrc2*, int *nSrc2Step*, NppiSize *oSizeROI*, Npp64f * *pDp*, Npp8u * *pDeviceBuffer*)

One-channel 8-bit unsigned image DotProd.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pDp Pointer to the computed dot product of the two images.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppiDotProdGetBufferHostSize_8u64f_C1R to compute the required size (in bytes).

Returns:

Image Data Related Error Codes, ROI Related Error Codes.

7.111.2.27 NppStatus nppiDotProd_8u64f_C3R (const Npp8u * *pSrc1*, int *nSrc1Step*, const Npp8u * *pSrc2*, int *nSrc2Step*, NppiSize *oSizeROI*, Npp64f *aDp*[3], Npp8u * *pDeviceBuffer*)

Three-channel 8-bit unsigned image DotProd.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

oSizeROI Region-of-Interest (ROI).

aDp Array that contains the computed dot product of the two images.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppiDotProdGetBufferHostSize_8u64f_C3R to compute the required size (in bytes).

Returns:

Image Data Related Error Codes, ROI Related Error Codes.

7.111.2.28 NppStatus nppiDotProd_8u64f_C4R (const Npp8u ∗ *pSrc1*, int *nSrc1Step*, const Npp8u ∗ *pSrc2*, int *nSrc2Step*, NppiSize *oSizeROI*, Npp64f *aDp*[4], Npp8u ∗ *pDeviceBuffer*)

Four-channel 8-bit unsigned image DotProd.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

oSizeROI Region-of-Interest (ROI).

aDp Array that contains the computed dot product of the two images.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppiDotProdGetBufferHostSize_8u64f_C4R to compute the required size (in bytes).

Returns:

Image Data Related Error Codes, ROI Related Error Codes.

7.111.2.29 NppStatus nppiDotProdGetBufferHostSize_16s64f_AC4R (NppiSize *oSizeROI*, int ∗ *hpBufferSize*)

Device scratch buffer size (in bytes) for nppiDotProd_16s64f_AC4R.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.111.2.30 NppStatus nppiDotProdGetBufferHostSize_16s64f_C1R (NppiSize *oSizeROI*, int ∗ *hpBufferSize*)

Device scratch buffer size (in bytes) for nppiDotProd_16s64f_C1R.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.111.2.31 NppStatus nppiDotProdGetBufferHostSize_16s64f_C3R (NppiSize *oSizeROI*, int * *hpBufferSize*)

Device scratch buffer size (in bytes) for nppiDotProd_16s64f_C3R.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.111.2.32 NppStatus nppiDotProdGetBufferHostSize_16s64f_C4R (NppiSize *oSizeROI*, int * *hpBufferSize*)

Device scratch buffer size (in bytes) for nppiDotProd_16s64f_C4R.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.111.2.33 NppStatus nppiDotProdGetBufferHostSize_16u64f_AC4R (NppiSize *oSizeROI*, int * *hpBufferSize*)

Device scratch buffer size (in bytes) for nppiDotProd_16u64f_AC4R.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.111.2.34 NppStatus nppiDotProdGetBufferHostSize_16u64f_C1R (NppiSize *oSizeROI*, int ∗ *hpBufferSize*)

Device scratch buffer size (in bytes) for nppiDotProd_16u64f_C1R.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.111.2.35 NppStatus nppiDotProdGetBufferHostSize_16u64f_C3R (NppiSize *oSizeROI*, int ∗ *hpBufferSize*)

Device scratch buffer size (in bytes) for nppiDotProd_16u64f_C3R.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.111.2.36 NppStatus nppiDotProdGetBufferHostSize_16u64f_C4R (NppiSize *oSizeROI*, int ∗ *hpBufferSize*)

Device scratch buffer size (in bytes) for nppiDotProd_16u64f_C4R.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.111.2.37 NppStatus nppiDotProdGetBufferHostSize_32f64f_AC4R (NppiSize *oSizeROI*, int ∗ *hpBufferSize*)

Device scratch buffer size (in bytes) for nppiDotProd_32f64f_AC4R.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.111.2.38 NppStatus nppiDotProdGetBufferHostSize_32f64f_C1R (NppiSize *oSizeROI*, int * *hpBufferSize*)

Device scratch buffer size (in bytes) for nppiDotProd_32f64f_C1R.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.111.2.39 NppStatus nppiDotProdGetBufferHostSize_32f64f_C3R (NppiSize *oSizeROI*, int * *hpBufferSize*)

Device scratch buffer size (in bytes) for nppiDotProd_32f64f_C3R.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.111.2.40 NppStatus nppiDotProdGetBufferHostSize_32f64f_C4R (NppiSize *oSizeROI*, int * *hpBufferSize*)

Device scratch buffer size (in bytes) for nppiDotProd_32f64f_C4R.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.111.2.41 NppStatus nppiDotProdGetBufferHostSize_32s64f_AC4R (NppiSize *oSizeROI*, int * *hpBufferSize*)

Device scratch buffer size (in bytes) for nppiDotProd_32s64f_AC4R.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.111.2.42 NppStatus nppiDotProdGetBufferHostSize_32s64f_C1R (NppiSize *oSizeROI*, int * *hpBufferSize*)

Device scratch buffer size (in bytes) for nppiDotProd_32s64f_C1R.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.111.2.43 NppStatus nppiDotProdGetBufferHostSize_32s64f_C3R (NppiSize *oSizeROI*, int * *hpBufferSize*)

Device scratch buffer size (in bytes) for nppiDotProd_32s64f_C3R.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.111.2.44 NppStatus nppiDotProdGetBufferHostSize_32s64f_C4R (NppiSize *oSizeROI*, int * *hpBufferSize*)

Device scratch buffer size (in bytes) for nppiDotProd_32s64f_C4R.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.111.2.45 NppStatus nppiDotProdGetBufferHostSize_32u64f_AC4R (NppiSize *oSizeROI*, int ∗ *hpBufferSize*)

Device scratch buffer size (in bytes) for nppiDotProd_32u64f_AC4R.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.111.2.46 NppStatus nppiDotProdGetBufferHostSize_32u64f_C1R (NppiSize *oSizeROI*, int ∗ *hpBufferSize*)

Device scratch buffer size (in bytes) for nppiDotProd_32u64f_C1R.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.111.2.47 NppStatus nppiDotProdGetBufferHostSize_32u64f_C3R (NppiSize *oSizeROI*, int ∗ *hpBufferSize*)

Device scratch buffer size (in bytes) for nppiDotProd_32u64f_C3R.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.111.2.48 NppStatus nppiDotProdGetBufferHostSize_32u64f_C4R (NppiSize *oSizeROI*, int ∗ *hpBufferSize*)

Device scratch buffer size (in bytes) for nppiDotProd_32u64f_C4R.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.111.2.49 NppStatus nppiDotProdGetBufferHostSize_8s64f_AC4R (NppiSize *oSizeROI*, int ∗ *hpBufferSize*)

Device scratch buffer size (in bytes) for nppiDotProd_8s64f_AC4R.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.111.2.50 NppStatus nppiDotProdGetBufferHostSize_8s64f_C1R (NppiSize *oSizeROI*, int ∗ *hpBufferSize*)

Device scratch buffer size (in bytes) for nppiDotProd_8s64f_C1R.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.111.2.51 NppStatus nppiDotProdGetBufferHostSize_8s64f_C3R (NppiSize *oSizeROI*, int ∗ *hpBufferSize*)

Device scratch buffer size (in bytes) for nppiDotProd_8s64f_C3R.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.111.2.52 NppStatus nppiDotProdGetBufferHostSize_8s64f_C4R (NppiSize *oSizeROI*, int * *hpBufferSize*)

Device scratch buffer size (in bytes) for nppiDotProd_8s64f_C4R.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.111.2.53 NppStatus nppiDotProdGetBufferHostSize_8u64f_AC4R (NppiSize *oSizeROI*, int * *hpBufferSize*)

Device scratch buffer size (in bytes) for nppiDotProd_8u64f_AC4R.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.111.2.54 NppStatus nppiDotProdGetBufferHostSize_8u64f_C1R (NppiSize *oSizeROI*, int * *hpBufferSize*)

Device scratch buffer size (in bytes) for nppiDotProd_8u64f_C1R.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.111.2.55 NppStatus nppiDotProdGetBufferHostSize_8u64f_C3R (NppiSize *oSizeROI*, int ∗ *hpBufferSize*)

Device scratch buffer size (in bytes) for nppiDotProd_8u64f_C3R.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.111.2.56 NppStatus nppiDotProdGetBufferHostSize_8u64f_C4R (NppiSize *oSizeROI*, int ∗ *hpBufferSize*)

Device scratch buffer size (in bytes) for nppiDotProd_8u64f_C4R.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.112 CountInRange.

Primitives for computing the amount of pixels that fall into the specified intensity range.

CountInRange

The lower bound and the upper bound are inclusive.

The functions require additional scratch buffer for computations.

- NppStatus nppiCountInRange_8u_C1R (const Npp8u ∗pSrc, int nSrcStep, NppiSize oSizeROI, int ∗pCounts, Npp8u nLowerBound, Npp8u nUpperBound, Npp8u ∗pDeviceBuffer)

  One-channel 8-bit unsigned image CountInRange.

- NppStatus nppiCountInRange_32f_C1R (const Npp32f ∗pSrc, int nSrcStep, NppiSize oSizeROI, int ∗pCounts, Npp32f nLowerBound, Npp32f nUpperBound, Npp8u ∗pDeviceBuffer)

  One-channel 32-bit floating point image CountInRange.

- NppStatus nppiCountInRange_8u_C3R (const Npp8u ∗pSrc, int nSrcStep, NppiSize oSizeROI, int aCounts[3], Npp8u aLowerBound[3], Npp8u aUpperBound[3], Npp8u ∗pDeviceBuffer)

  Three-channel 8-bit unsigned image CountInRange.

- NppStatus nppiCountInRange_32f_C3R (const Npp32f ∗pSrc, int nSrcStep, NppiSize oSizeROI, int aCounts[3], Npp32f aLowerBound[3], Npp32f aUpperBound[3], Npp8u ∗pDeviceBuffer)

  Three-channel 32-bit floating point image CountInRange.

- NppStatus nppiCountInRange_8u_AC4R (const Npp8u ∗pSrc, int nSrcStep, NppiSize oSizeROI, int aCounts[3], Npp8u aLowerBound[3], Npp8u aUpperBound[3], Npp8u ∗pDeviceBuffer)

  Four-channel 8-bit unsigned image CountInRange ignoring alpha channel.

- NppStatus nppiCountInRange_32f_AC4R (const Npp32f ∗pSrc, int nSrcStep, NppiSize oSizeROI, int aCounts[3], Npp32f aLowerBound[3], Npp32f aUpperBound[3], Npp8u ∗pDeviceBuffer)

  Four-channel 32-bit floating point image CountInRange ignoring alpha channel.

CountInRangeGetBufferHostSize

Companion primitives for computing the device buffer size (in bytes) required by the CountInRange primitives.

- NppStatus nppiCountInRangeGetBufferHostSize_8u_C1R (NppiSize oSizeROI, int ∗hpBufferSize)

  Device scratch buffer size (in bytes) for nppiCountInRange_8u_C1R.

- NppStatus nppiCountInRangeGetBufferHostSize_32f_C1R (NppiSize oSizeROI, int ∗hpBufferSize)

  Device scratch buffer size (in bytes) for nppiCountInRange_32f_C1R.

- NppStatus nppiCountInRangeGetBufferHostSize_8u_C3R (NppiSize oSizeROI, int ∗hpBufferSize)

Device scratch buffer size (in bytes) for nppiCountInRange_8u_C3R.

- NppStatus nppiCountInRangeGetBufferHostSize_32f_C3R (NppiSize oSizeROI, int ∗hpBufferSize)

  Device scratch buffer size (in bytes) for nppiCountInRange_32f_C3R.

- NppStatus nppiCountInRangeGetBufferHostSize_8u_AC4R (NppiSize oSizeROI, int ∗hpBufferSize)

  Device scratch buffer size (in bytes) for nppiCountInRange_8u_AC4R.

- NppStatus nppiCountInRangeGetBufferHostSize_32f_AC4R (NppiSize oSizeROI, int ∗hpBufferSize)

  Device scratch buffer size (in bytes) for nppiCountInRange_32f_AC4R.

7.112.1 Detailed Description

Primitives for computing the amount of pixels that fall into the specified intensity range.

7.112.2 Function Documentation

7.112.2.1 NppStatus nppiCountInRange_32f_AC4R (const Npp32f ∗ *pSrc*, int *nSrcStep*, NppiSize *oSizeROI*, int *aCounts*[3], Npp32f *aLowerBound*[3], Npp32f *aUpperBound*[3], Npp8u ∗ *pDeviceBuffer*)

Four-channel 32-bit floating point image CountInRange ignoring alpha channel.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSizeROI Region-of-Interest (ROI).

aCounts Array that contains the number of pixels that fall into the specified range for Three-channels.

aLowerBound Fixed size array of the lower bound of the specified range, one per channel.

aUpperBound Fixed size array of the upper bound of the specified range, one per channel.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppiCountInRangeGetBufferHostSize_32f_AC4R to compute the required size (in bytes).

Returns:

Image Data Related Error Codes, ROI Related Error Codes, or NPP_RANGE_ERROR if the lower bound is larger than the upper bound.

7.112.2.2 NppStatus nppiCountInRange_32f_C1R (const Npp32f ∗ *pSrc*, int *nSrcStep*, NppiSize *oSizeROI*, int ∗ *pCounts*, Npp32f *nLowerBound*, Npp32f *nUpperBound*, Npp8u ∗ *pDeviceBuffer*)

One-channel 32-bit floating point image CountInRange.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pCounts Pointer to the number of pixels that fall into the specified range.

nLowerBound Lower bound of the specified range.

nUpperBound Upper bound of the specified range.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppiCountInRangeGetBufferHostSize_32f_C1R to compute the required size (in bytes).

Returns:

Image Data Related Error Codes, ROI Related Error Codes, or NPP_RANGE_ERROR if the lower bound is larger than the upper bound.

7.112.2.3 NppStatus nppiCountInRange_32f_C3R (const Npp32f ∗ *pSrc*, int *nSrcStep*, NppiSize *oSizeROI*, int *aCounts*[3], Npp32f *aLowerBound*[3], Npp32f *aUpperBound*[3], Npp8u ∗ *pDeviceBuffer*)

Three-channel 32-bit floating point image CountInRange.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSizeROI Region-of-Interest (ROI).

aCounts Array that contains the number of pixels that fall into the specified range for Three-channels.

aLowerBound Fixed size array of the lower bound of the specified range, one per channel.

aUpperBound Fixed size array of the upper bound of the specified range, one per channel.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppiCountInRangeGetBufferHostSize_32f_C3R to compute the required size (in bytes).

Returns:

Image Data Related Error Codes, ROI Related Error Codes, or NPP_RANGE_ERROR if the lower bound is larger than the upper bound.

7.112.2.4 NppStatus nppiCountInRange_8u_AC4R (const Npp8u ∗ *pSrc*, int *nSrcStep*, NppiSize *oSizeROI*, int *aCounts*[3], Npp8u *aLowerBound*[3], Npp8u *aUpperBound*[3], Npp8u ∗ *pDeviceBuffer*)

Four-channel 8-bit unsigned image CountInRange ignoring alpha channel.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSizeROI Region-of-Interest (ROI).

aCounts Array that contains the number of pixels that fall into the specified range for Three-channels.

aLowerBound Fixed size array of the lower bound of the specified range, one per channel.

aUpperBound Fixed size array of the upper bound of the specified range, one per channel.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppiCountInRangeGetBufferHostSize_8u_AC4R to compute the required size (in bytes).

Returns:

Image Data Related Error Codes, ROI Related Error Codes, or NPP_RANGE_ERROR if the lower bound is larger than the upper bound.

7.112.2.5 NppStatus nppiCountInRange_8u_C1R (const Npp8u * *pSrc*, int *nSrcStep*, NppiSize *oSizeROI*, int * *pCounts*, Npp8u *nLowerBound*, Npp8u *nUpperBound*, Npp8u * *pDeviceBuffer*)

One-channel 8-bit unsigned image CountInRange.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pCounts Pointer to the number of pixels that fall into the specified range.

nLowerBound Lower bound of the specified range.

nUpperBound Upper bound of the specified range.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppiCountInRangeGetBufferHostSize_8u_C1R to compute the required size (in bytes).

Returns:

Image Data Related Error Codes, ROI Related Error Codes, or NPP_RANGE_ERROR if the lower bound is larger than the upper bound.

7.112.2.6 NppStatus nppiCountInRange_8u_C3R (const Npp8u * *pSrc*, int *nSrcStep*, NppiSize *oSizeROI*, int *aCounts*[3], Npp8u *aLowerBound*[3], Npp8u *aUpperBound*[3], Npp8u * *pDeviceBuffer*)

Three-channel 8-bit unsigned image CountInRange.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSizeROI Region-of-Interest (ROI).

aCounts Array that contains the number of pixels that fall into the specified range for Three-channels.

aLowerBound Fixed size array of the lower bound of the specified range, one per channel.

aUpperBound Fixed size array of the upper bound of the specified range, one per channel.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppiCountInRangeGetBufferHostSize_8u_C3R to compute the required size (in bytes).

Returns:

Image Data Related Error Codes, ROI Related Error Codes, or NPP_RANGE_ERROR if the lower bound is larger than the upper bound.

7.112.2.7 NppStatus nppiCountInRangeGetBufferHostSize_32f_AC4R (NppiSize *oSizeROI*, int ∗ *hpBufferSize*)

Device scratch buffer size (in bytes) for nppiCountInRange_32f_AC4R.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.112.2.8 NppStatus nppiCountInRangeGetBufferHostSize_32f_C1R (NppiSize *oSizeROI*, int ∗ *hpBufferSize*)

Device scratch buffer size (in bytes) for nppiCountInRange_32f_C1R.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.112.2.9 NppStatus nppiCountInRangeGetBufferHostSize_32f_C3R (NppiSize *oSizeROI*, int ∗ *hpBufferSize*)

Device scratch buffer size (in bytes) for nppiCountInRange_32f_C3R.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.112.2.10 NppStatus nppiCountInRangeGetBufferHostSize_8u_AC4R (NppiSize *oSizeROI*, int ∗ *hpBufferSize*)

Device scratch buffer size (in bytes) for nppiCountInRange_8u_AC4R.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.112.2.11 NppStatus nppiCountInRangeGetBufferHostSize_8u_C1R (NppiSize *oSizeROI*, int ∗ *hpBufferSize*)

Device scratch buffer size (in bytes) for nppiCountInRange_8u_C1R.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.112.2.12 NppStatus nppiCountInRangeGetBufferHostSize_8u_C3R (NppiSize *oSizeROI*, int ∗ *hpBufferSize*)

Device scratch buffer size (in bytes) for nppiCountInRange_8u_C3R.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.113 MaxEvery

Primitives for computing the maximal value of the pixel pair from two images.

MaxEvery

The maximum is stored into the second image.

- NppStatus nppiMaxEvery_8u_C1IR (const Npp8u ∗pSrc, int nSrcStep, Npp8u ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI)

  One-channel 8-bit unsigned image MaxEvery.

- NppStatus nppiMaxEvery_16u_C1IR (const Npp16u ∗pSrc, int nSrcStep, Npp16u ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI)

  One-channel 16-bit unsigned image MaxEvery.

- NppStatus nppiMaxEvery_16s_C1IR (const Npp16s ∗pSrc, int nSrcStep, Npp16s ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI)

  One-channel 16-bit signed image MaxEvery.

- NppStatus nppiMaxEvery_32f_C1IR (const Npp32f ∗pSrc, int nSrcStep, Npp32f ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI)

  One-channel 32-bit floating point image MaxEvery.

- NppStatus nppiMaxEvery_8u_C3IR (const Npp8u ∗pSrc, int nSrcStep, Npp8u ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI)

  Three-channel 8-bit unsigned image MaxEvery.

- NppStatus nppiMaxEvery_16u_C3IR (const Npp16u ∗pSrc, int nSrcStep, Npp16u ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI)

  Three-channel 16-bit unsigned image MaxEvery.

- NppStatus nppiMaxEvery_16s_C3IR (const Npp16s ∗pSrc, int nSrcStep, Npp16s ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI)

  Three-channel 16-bit signed image MaxEvery.

- NppStatus nppiMaxEvery_32f_C3IR (const Npp32f ∗pSrc, int nSrcStep, Npp32f ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI)

  Three-channel 32-bit floating point image MaxEvery.

- NppStatus nppiMaxEvery_8u_C4IR (const Npp8u ∗pSrc, int nSrcStep, Npp8u ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI)

  Four-channel 8-bit unsigned image MaxEvery.

- NppStatus nppiMaxEvery_16u_C4IR (const Npp16u ∗pSrc, int nSrcStep, Npp16u ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI)

  Four-channel 16-bit unsigned image MaxEvery.

- NppStatus nppiMaxEvery_16s_C4IR (const Npp16s ∗pSrc, int nSrcStep, Npp16s ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI)

Four-channel 16-bit signed image MaxEvery.

- NppStatus nppiMaxEvery_32f_C4IR (const Npp32f ∗pSrc, int nSrcStep, Npp32f ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI)

  Four-channel 32-bit floating point image MaxEvery.

- NppStatus nppiMaxEvery_8u_AC4IR (const Npp8u ∗pSrc, int nSrcStep, Npp8u ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI)

  Four-channel 8-bit unsigned image MaxEvery ignoring alpha channel.

- NppStatus nppiMaxEvery_16u_AC4IR (const Npp16u ∗pSrc, int nSrcStep, Npp16u ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI)

  Four-channel 16-bit unsigned image MaxEvery ignoring alpha channel.

- NppStatus nppiMaxEvery_16s_AC4IR (const Npp16s ∗pSrc, int nSrcStep, Npp16s ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI)

  Four-channel 16-bit signed image MaxEvery ignoring alpha channel.

- NppStatus nppiMaxEvery_32f_AC4IR (const Npp32f ∗pSrc, int nSrcStep, Npp32f ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI)

  Four-channel 32-bit floating point image MaxEvery ignoring alpha channel.

7.113.1 Detailed Description

Primitives for computing the maximal value of the pixel pair from two images.

7.113.2 Function Documentation

7.113.2.1 NppStatus nppiMaxEvery_16s_AC4IR (const Npp16s ∗ *pSrc*, int *nSrcStep*, Npp16s ∗ *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*)

Four-channel 16-bit signed image MaxEvery ignoring alpha channel.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pSrcDst In-Place Image Pointer.

nSrcDstStep Source-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes.

7.113.2.2 NppStatus nppiMaxEvery_16s_C1IR (const Npp16s ∗ *pSrc*, int *nSrcStep*, Npp16s ∗ *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*)

One-channel 16-bit signed image MaxEvery.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pSrcDst In-Place Image Pointer.

nSrcDstStep Source-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes.

7.113.2.3 NppStatus nppiMaxEvery_16s_C3IR (const Npp16s ∗ *pSrc*, int *nSrcStep*, Npp16s ∗ *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*)

Three-channel 16-bit signed image MaxEvery.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pSrcDst In-Place Image Pointer.

nSrcDstStep Source-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes.

7.113.2.4 NppStatus nppiMaxEvery_16s_C4IR (const Npp16s ∗ *pSrc*, int *nSrcStep*, Npp16s ∗ *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*)

Four-channel 16-bit signed image MaxEvery.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pSrcDst In-Place Image Pointer.

nSrcDstStep Source-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes.

7.113.2.5 NppStatus nppiMaxEvery_16u_AC4IR (const Npp16u ∗ *pSrc*, int *nSrcStep*, Npp16u ∗ *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*)

Four-channel 16-bit unsigned image MaxEvery ignoring alpha channel.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pSrcDst In-Place Image Pointer.

nSrcDstStep Source-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes.

7.113.2.6 NppStatus nppiMaxEvery_16u_C1IR (const Npp16u ∗ *pSrc*, int *nSrcStep*, Npp16u ∗ *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*)

One-channel 16-bit unsigned image MaxEvery.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pSrcDst In-Place Image Pointer.

nSrcDstStep Source-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes.

7.113.2.7 NppStatus nppiMaxEvery_16u_C3IR (const Npp16u ∗ *pSrc*, int *nSrcStep*, Npp16u ∗ *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*)

Three-channel 16-bit unsigned image MaxEvery.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pSrcDst In-Place Image Pointer.

nSrcDstStep Source-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes.

7.113.2.8 NppStatus nppiMaxEvery_16u_C4IR (const Npp16u ∗ *pSrc*, int *nSrcStep*, Npp16u ∗ *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*)

Four-channel 16-bit unsigned image MaxEvery.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pSrcDst In-Place Image Pointer.

nSrcDstStep Source-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes.

7.113.2.9 NppStatus nppiMaxEvery_32f_AC4IR (const Npp32f ∗ *pSrc*, int *nSrcStep*, Npp32f ∗ *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*)

Four-channel 32-bit floating point image MaxEvery ignoring alpha channel.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pSrcDst In-Place Image Pointer.

nSrcDstStep Source-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes.

7.113.2.10 NppStatus nppiMaxEvery_32f_C1IR (const Npp32f ∗ *pSrc*, int *nSrcStep*, Npp32f ∗ *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*)

One-channel 32-bit floating point image MaxEvery.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pSrcDst In-Place Image Pointer.

nSrcDstStep Source-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes.

7.113.2.11 NppStatus nppiMaxEvery_32f_C3IR (const Npp32f * *pSrc*, int *nSrcStep*, Npp32f * *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*)

Three-channel 32-bit floating point image MaxEvery.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pSrcDst In-Place Image Pointer.

nSrcDstStep Source-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes.

7.113.2.12 NppStatus nppiMaxEvery_32f_C4IR (const Npp32f * *pSrc*, int *nSrcStep*, Npp32f * *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*)

Four-channel 32-bit floating point image MaxEvery.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pSrcDst In-Place Image Pointer.

nSrcDstStep Source-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes.

7.113.2.13 NppStatus nppiMaxEvery_8u_AC4IR (const Npp8u * *pSrc*, int *nSrcStep*, Npp8u * *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*)

Four-channel 8-bit unsigned image MaxEvery ignoring alpha channel.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pSrcDst In-Place Image Pointer.

nSrcDstStep Source-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes.

7.113.2.14 NppStatus nppiMaxEvery_8u_C1IR (const Npp8u ∗ *pSrc*, int *nSrcStep*, Npp8u ∗ *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*)

One-channel 8-bit unsigned image MaxEvery.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pSrcDst In-Place Image Pointer.

nSrcDstStep Source-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes.

7.113.2.15 NppStatus nppiMaxEvery_8u_C3IR (const Npp8u ∗ *pSrc*, int *nSrcStep*, Npp8u ∗ *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*)

Three-channel 8-bit unsigned image MaxEvery.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pSrcDst In-Place Image Pointer.

nSrcDstStep Source-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes.

7.113.2.16 NppStatus nppiMaxEvery_8u_C4IR (const Npp8u ∗ *pSrc*, int *nSrcStep*, Npp8u ∗ *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*)

Four-channel 8-bit unsigned image MaxEvery.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pSrcDst In-Place Image Pointer.

nSrcDstStep Source-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes.

7.114 MinEvery

Primitives for computing the minimal value of the pixel pair from two images.

MinEvery

The minimum is stored into the second image.

- NppStatus nppiMinEvery_8u_C1IR (const Npp8u ∗pSrc, int nSrcStep, Npp8u ∗pSrcDst, int nSrcDstep, NppiSize oSizeROI)

  One-channel 8-bit unsigned image MinEvery.

- NppStatus nppiMinEvery_16u_C1IR (const Npp16u ∗pSrc, int nSrcStep, Npp16u ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI)

  One-channel 16-bit unsigned image MinEvery.

- NppStatus nppiMinEvery_16s_C1IR (const Npp16s ∗pSrc, int nSrcStep, Npp16s ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI)

  One-channel 16-bit signed image MinEvery.

- NppStatus nppiMinEvery_32f_C1IR (const Npp32f ∗pSrc, int nSrcStep, Npp32f ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI)

  One-channel 32-bit floating point image MinEvery.

- NppStatus nppiMinEvery_8u_C3IR (const Npp8u ∗pSrc, int nSrcStep, Npp8u ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI)

  Three-channel 8-bit unsigned image MinEvery.

- NppStatus nppiMinEvery_16u_C3IR (const Npp16u ∗pSrc, int nSrcStep, Npp16u ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI)

  Three-channel 16-bit unsigned image MinEvery.

- NppStatus nppiMinEvery_16s_C3IR (const Npp16s ∗pSrc, int nSrcStep, Npp16s ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI)

  Three-channel 16-bit signed image MinEvery.

- NppStatus nppiMinEvery_32f_C3IR (const Npp32f ∗pSrc, int nSrcStep, Npp32f ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI)

  Three-channel 32-bit floating point image MinEvery.

- NppStatus nppiMinEvery_8u_C4IR (const Npp8u ∗pSrc, int nSrcStep, Npp8u ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI)

  Four-channel 8-bit unsigned image MinEvery.

- NppStatus nppiMinEvery_16u_C4IR (const Npp16u ∗pSrc, int nSrcStep, Npp16u ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI)

  Four-channel 16-bit unsigned image MinEvery.

- NppStatus nppiMinEvery_16s_C4IR (const Npp16s ∗pSrc, int nSrcStep, Npp16s ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI)

Four-channel 16-bit signed image MinEvery.

- NppStatus nppiMinEvery_32f_C4IR (const Npp32f ∗pSrc, int nSrcStep, Npp32f ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI)

  Four-channel 32-bit floating point image MinEvery.

- NppStatus nppiMinEvery_8u_AC4IR (const Npp8u ∗pSrc, int nSrcStep, Npp8u ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI)

  Four-channel 8-bit unsigned image MinEvery ignoring alpha channel.

- NppStatus nppiMinEvery_16u_AC4IR (const Npp16u ∗pSrc, int nSrcStep, Npp16u ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI)

  Four-channel 16-bit unsigned image MinEvery ignoring alpha channel.

- NppStatus nppiMinEvery_16s_AC4IR (const Npp16s ∗pSrc, int nSrcStep, Npp16s ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI)

  Four-channel 16-bit signed image MinEvery ignoring alpha channel.

- NppStatus nppiMinEvery_32f_AC4IR (const Npp32f ∗pSrc, int nSrcStep, Npp32f ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI)

  Four-channel 32-bit floating point image MinEvery ignoring alpha channel.

7.114.1 Detailed Description

Primitives for computing the minimal value of the pixel pair from two images.

7.114.2 Function Documentation

7.114.2.1 NppStatus nppiMinEvery_16s_AC4IR (const Npp16s ∗ *pSrc*, int *nSrcStep*, Npp16s ∗ *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*)

Four-channel 16-bit signed image MinEvery ignoring alpha channel.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pSrcDst In-Place Image Pointer.

nSrcDstStep Source-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes.

7.114.2.2 NppStatus nppiMinEvery_16s_C1IR (const Npp16s ∗ *pSrc*, int *nSrcStep*, Npp16s ∗ *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*)

One-channel 16-bit signed image MinEvery.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pSrcDst In-Place Image Pointer.

nSrcDstStep Source-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes.

7.114.2.3 NppStatus nppiMinEvery_16s_C3IR (const Npp16s ∗ *pSrc*, int *nSrcStep*, Npp16s ∗ *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*)

Three-channel 16-bit signed image MinEvery.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pSrcDst In-Place Image Pointer.

nSrcDstStep Source-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes.

7.114.2.4 NppStatus nppiMinEvery_16s_C4IR (const Npp16s ∗ *pSrc*, int *nSrcStep*, Npp16s ∗ *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*)

Four-channel 16-bit signed image MinEvery.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pSrcDst In-Place Image Pointer.

nSrcDstStep Source-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes.

7.114.2.5 NppStatus nppiMinEvery_16u_AC4IR (const Npp16u ∗ *pSrc*, int *nSrcStep*, Npp16u ∗ *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*)

Four-channel 16-bit unsigned image MinEvery ignoring alpha channel.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pSrcDst In-Place Image Pointer.

nSrcDstStep Source-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes.

7.114.2.6 NppStatus nppiMinEvery_16u_C1IR (const Npp16u ∗ *pSrc*, int *nSrcStep*, Npp16u ∗ *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*)

One-channel 16-bit unsigned image MinEvery.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pSrcDst In-Place Image Pointer.

nSrcDstStep Source-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes.

7.114.2.7 NppStatus nppiMinEvery_16u_C3IR (const Npp16u ∗ *pSrc*, int *nSrcStep*, Npp16u ∗ *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*)

Three-channel 16-bit unsigned image MinEvery.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pSrcDst In-Place Image Pointer.

nSrcDstStep Source-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes.

7.114.2.8 NppStatus nppiMinEvery_16u_C4IR (const Npp16u $*$ *pSrc*, int *nSrcStep*, Npp16u $*$ *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*)

Four-channel 16-bit unsigned image MinEvery.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pSrcDst In-Place Image Pointer.

nSrcDstStep Source-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes.

7.114.2.9 NppStatus nppiMinEvery_32f_AC4IR (const Npp32f $*$ *pSrc*, int *nSrcStep*, Npp32f $*$ *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*)

Four-channel 32-bit floating point image MinEvery ignoring alpha channel.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pSrcDst In-Place Image Pointer.

nSrcDstStep Source-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes.

7.114.2.10 NppStatus nppiMinEvery_32f_C1IR (const Npp32f $*$ *pSrc*, int *nSrcStep*, Npp32f $*$ *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*)

One-channel 32-bit floating point image MinEvery.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pSrcDst In-Place Image Pointer.

nSrcDstStep Source-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes.

7.114.2.11 NppStatus nppiMinEvery_32f_C3IR (const Npp32f * *pSrc*, int *nSrcStep*, Npp32f * *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*)

Three-channel 32-bit floating point image MinEvery.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pSrcDst In-Place Image Pointer.

nSrcDstStep Source-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes.

7.114.2.12 NppStatus nppiMinEvery_32f_C4IR (const Npp32f * *pSrc*, int *nSrcStep*, Npp32f * *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*)

Four-channel 32-bit floating point image MinEvery.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pSrcDst In-Place Image Pointer.

nSrcDstStep Source-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes.

7.114.2.13 NppStatus nppiMinEvery_8u_AC4IR (const Npp8u * *pSrc*, int *nSrcStep*, Npp8u * *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*)

Four-channel 8-bit unsigned image MinEvery ignoring alpha channel.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pSrcDst In-Place Image Pointer.

nSrcDstStep Source-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes.

7.114.2.14 NppStatus nppiMinEvery_8u_C1IR (const Npp8u * *pSrc*, int *nSrcStep*, Npp8u * *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*)

One-channel 8-bit unsigned image MinEvery.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pSrcDst In-Place Image Pointer.

nSrcDstStep Source-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes.

7.114.2.15 NppStatus nppiMinEvery_8u_C3IR (const Npp8u * *pSrc*, int *nSrcStep*, Npp8u * *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*)

Three-channel 8-bit unsigned image MinEvery.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pSrcDst In-Place Image Pointer.

nSrcDstStep Source-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes.

7.114.2.16 NppStatus nppiMinEvery_8u_C4IR (const Npp8u * *pSrc*, int *nSrcStep*, Npp8u * *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*)

Four-channel 8-bit unsigned image MinEvery.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pSrcDst In-Place Image Pointer.

nSrcDstStep Source-Image Line Step.

oSizeROI Region-of-Interest (ROI).

Returns:

Image Data Related Error Codes, ROI Related Error Codes.

7.115 Integral

Primitives for computing the integral image of a given image.

Integral

Given an input image $pSrc$ and the specified value $nVal$, the pixel value of the integral image $pDst$ at coordinate (i, j) will be computed as

$$pDst(j,i) = nVal + \sum_{l=0}^{j-1}\sum_{k=0}^{i-1} pSrc(l,k)$$

If the size of the input image is $W \times H$, the size of the integral image will be $(W+1) \times (H+1)$.

- NppStatus nppiIntegral_8u32s_C1R (const Npp8u ∗pSrc, int nSrcStep, Npp32s ∗pDst, int nDstStep, NppiSize oROI, Npp32s nVal)

  One-channel 8-bit unsigned image Integral with 32-bit signed output.

- NppStatus nppiIntegral_8u32f_C1R (const Npp8u ∗pSrc, int nSrcStep, Npp32f ∗pDst, int nDstStep, NppiSize oROI, Npp32f nVal)

  One-channel 8-bit unsigned image Integral with 32-bit floating point output.

7.115.1 Detailed Description

Primitives for computing the integral image of a given image.

7.115.2 Function Documentation

7.115.2.1 NppStatus nppiIntegral_8u32f_C1R (const Npp8u ∗ *pSrc*, int *nSrcStep*, Npp32f ∗ *pDst*, int *nDstStep*, NppiSize *oROI*, Npp32f *nVal*)

One-channel 8-bit unsigned image Integral with 32-bit floating point output.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oROI Region-of-Interest (ROI).

nVal The value to add to pDst image pixels

Returns:

Image Data Related Error Codes, ROI Related Error Codes.

7.115.2.2 NppStatus nppiIntegral_8u32s_C1R (const Npp8u $*$ *pSrc*, int *nSrcStep*, Npp32s $*$ *pDst*, int *nDstStep*, NppiSize *oROI*, Npp32s *nVal*)

One-channel 8-bit unsigned image Integral with 32-bit signed output.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oROI Region-of-Interest (ROI).

nVal The value to add to pDst image pixels

Returns:

Image Data Related Error Codes, ROI Related Error Codes.

7.116 SqrIntegral

Primitives for computing both the integral and the squared integral images of a given image.

SqrIntegral

Given an input image $pSrc$ and the specified value $nVal$, the pixel value of the integral image $pDst$ at coordinate (i, j) will be computed as

$$pDst(j,i) = nVal + \sum_{l=0}^{j-1}\sum_{k=0}^{i-1} pSrc(l,k)$$

Given an input image $pSrc$ and the specified value $nValSqr$, the pixel value of the squared integral image $pSqr$ at coordinate (i, j) will be computed as

$$pSqr(j,i) = nValSqr + \sum_{l=0}^{j-1}\sum_{k=0}^{i-1} pSrc(l,k)^2$$

If the size of the input image is $W \times H$, the size of the squared integral image will be $(W+1) \times (H+1)$.

- NppStatus nppiSqrIntegral_8u32s_C1R (const Npp8u ∗pSrc, int nSrcStep, Npp32s ∗pDst, int nDstStep, Npp32s ∗pSqr, int nSqrStep, NppiSize oSrcROI, Npp32s nVal, Npp32s nValSqr)

  One-channel 8-bit unsigned image SqrIntegral.

- NppStatus nppiSqrIntegral_8u32s64f_C1R (const Npp8u ∗pSrc, int nSrcStep, Npp32s ∗pDst, int nDstStep, Npp64f ∗pSqr, int nSqrStep, NppiSize oSrcROI, Npp32s nVal, Npp64f nValSqr)

  One-channel 8-bit unsigned image SqrIntegral.

- NppStatus nppiSqrIntegral_8u32f64f_C1R (const Npp8u ∗pSrc, int nSrcStep, Npp32f ∗pDst, int nDstStep, Npp64f ∗pSqr, int nSqrStep, NppiSize oSrcROI, Npp32f nVal, Npp64f nValSqr)

  One-channel 8-bit unsigned image SqrIntegral.

7.116.1 Detailed Description

Primitives for computing both the integral and the squared integral images of a given image.

7.116.2 Function Documentation

7.116.2.1 NppStatus nppiSqrIntegral_8u32f64f_C1R (const Npp8u ∗ *pSrc*, int *nSrcStep*, Npp32f ∗ *pDst*, int *nDstStep*, Npp64f ∗ *pSqr*, int *nSqrStep*, NppiSize *oSrcROI*, Npp32f *nVal*, Npp64f *nValSqr*)

One-channel 8-bit unsigned image SqrIntegral.

Destination integral image is 32-bit floating point. Destination square integral image is 64-bit double floating point.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

pSqr Destination-Image Pointer.

nSqrStep Destination-Image Line Step.

oSrcROI Region-of-Interest (ROI).

nVal The value to add to pDst image pixels

nValSqr The value to add to pSqr image pixels

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.116.2.2 NppStatus nppiSqrIntegral_8u32s64f_C1R (const Npp8u ∗ *pSrc*, int *nSrcStep*, Npp32s ∗ *pDst*, int *nDstStep*, Npp64f ∗ *pSqr*, int *nSqrStep*, NppiSize *oSrcROI*, Npp32s *nVal*, Npp64f *nValSqr*)

One-channel 8-bit unsigned image SqrIntegral.

Destination integral image is 32-bit signed int. Destination square integral image is 64-bit double floating point.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

pSqr Destination-Image Pointer.

nSqrStep Destination-Image Line Step.

oSrcROI Region-of-Interest (ROI).

nVal The value to add to pDst image pixels

nValSqr The value to add to pSqr image pixels

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.116.2.3 NppStatus nppiSqrIntegral_8u32s_C1R (const Npp8u ∗ *pSrc*, int *nSrcStep*, Npp32s ∗ *pDst*, int *nDstStep*, Npp32s ∗ *pSqr*, int *nSqrStep*, NppiSize *oSrcROI*, Npp32s *nVal*, Npp32s *nValSqr*)

One-channel 8-bit unsigned image SqrIntegral.

Destination integral image and square integral image are 32-bit signed int.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

pSqr Destination-Image Pointer.

nSqrStep Destination-Image Line Step.

oSrcROI Region-of-Interest (ROI).

nVal The value to add to pDst image pixels

nValSqr The value to add to pSqr image pixels

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.117 RectStdDev

Primitives for computing the standard deviation of the integral images.

RectStdDev

- NppStatus nppiRectStdDev_32f_C1R (const Npp32f ∗pSrc, int nSrcStep, const Npp64f ∗pSqr, int nSqrStep, Npp32f ∗pDst, int nDstStep, NppiSize oSizeROI, NppiRect oRect)

  One-channel 32-bit floating point image RectStdDev.

- NppStatus nppiRectStdDev_32s_C1RSfs (const Npp32s ∗pSrc, int nSrcStep, const Npp32s ∗pSqr, int nSqrStep, Npp32s ∗pDst, int nDstStep, NppiSize oSizeROI, NppiRect oRect, int nScaleFactor)

  One-channel 32-bit signed image RectStdDev, scaled by $2^(- nScaleFactor)$.

- NppStatus nppiRectStdDev_32s32f_C1R (const Npp32s ∗pSrc, int nSrcStep, const Npp64f ∗pSqr, int nSqrStep, Npp32f ∗pDst, int nDstStep, NppiSize oSizeROI, NppiRect oRect)

  One-channel 32-bit signed image RectStdDev.

7.117.1 Detailed Description

Primitives for computing the standard deviation of the integral images.

The function computes the standard deviation of the pixel in the rectangular window with the integral image $pSrc$ and the squared integral image $pSqr$, which can be obtained by calling Integral and SqrIntegral.

The standard deviation of the pixel (j, i) can be computed using the formula:

$$pDst(j, i) = \sqrt{max(0, \frac{\sum(SqrIntegral) \cdot N - (\sum(Integral))^2}{N^2})}$$

where $\sum(SqrIntegral) = pSqr[j + oRect.y + oRect.height, i + oRect.x + oRect.width] - pSqr[j + oRect.y, i + oRect.x + oRect.width] - pSqr[j + oRect.y + oRect.height, i + oRect.x] + pSqr[j + oRect.y, i + oRect.x]$, $\sum(Integral) = pSrc[j + oRect.y + oRect.height, i + oRect.x + oRect.width] - pSrc[j + oRect.y, i + oRect.x + oRect.width] - pSrc[j + oRect.y + oRect.height, i + oRect.x] + pSrc[j + oRect.y, i + oRect.x]$, $N = oRect.width \cdot oRect.height$.

The size of the $pSrc$ and $pSqr$ should be $(oSizeROI.width + oRect.x + oRect.width, oSizeROI.height + oRect.y + oRect.height)$.

7.117.2 Function Documentation

7.117.2.1 NppStatus nppiRectStdDev_32f_C1R (const Npp32f ∗ *pSrc*, int *nSrcStep*, const Npp64f ∗ *pSqr*, int *nSqrStep*, Npp32f ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, NppiRect *oRect*)

One-channel 32-bit floating point image RectStdDev.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pSqr Destination-Image Pointer.

nSqrStep Destination-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

oRect rectangular window

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.117.2.2 NppStatus nppiRectStdDev_32s32f_C1R (const Npp32s ∗ *pSrc*, int *nSrcStep*, const Npp64f ∗ *pSqr*, int *nSqrStep*, Npp32f ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, NppiRect *oRect*)

One-channel 32-bit signed image RectStdDev.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pSqr Destination-Image Pointer.

nSqrStep Destination-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

oRect rectangular window

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.117.2.3 NppStatus nppiRectStdDev_32s_C1RSfs (const Npp32s ∗ *pSrc*, int *nSrcStep*, const Npp32s ∗ *pSqr*, int *nSqrStep*, Npp32s ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, NppiRect *oRect*, int *nScaleFactor*)

One-channel 32-bit signed image RectStdDev, scaled by $2^(-nScaleFactor)$.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pSqr Destination-Image Pointer.

nSqrStep Destination-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

oRect rectangular window

nScaleFactor Integer Result Scaling.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.118 HistogramEven

Primitives for computing the histogram of an image with evenly distributed bins.

HistogramEven

The $nLowerLevel$ (inclusive) and $nUpperLevel$ (exclusive) define the boundaries of the range, which are evenly segmented into $nLevel - 1$ bins.

The computed histogram is stored in $pHist$. The levels are calculated by another primitive nppiEvenLevelsHost_32s and are stored in a host pointer $hpLevels$. The number of levels is also $nLevel - 1$. The histogram $pHist[k]$ is defined as the total number of pixels that fall into the range: $hpLevels[k] <= pSrc(j, i) < hpLevels[k + 1]$. The functions require additional scratch buffer for computations.

- NppStatus nppiEvenLevelsHost_32s (Npp32s ∗hpLevels, int nLevels, Npp32s nLowerLevel, Npp32s nUpperLevel)

  Compute levels with even distribution.

- NppStatus nppiHistogramEven_8u_C1R (const Npp8u ∗pSrc, int nSrcStep, NppiSize oSizeROI, Npp32s ∗pHist, int nLevels, Npp32s nLowerLevel, Npp32s nUpperLevel, Npp8u ∗pBuffer)

  One-channel 8-bit unsigned HistogramEven.

- NppStatus nppiHistogramEven_8u_C3R (const Npp8u ∗pSrc, int nSrcStep, NppiSize oSizeROI, Npp32s ∗pHist[3], int nLevels[3], Npp32s nLowerLevel[3], Npp32s nUpperLevel[3], Npp8u ∗pBuffer)

  Three-channel 8-bit unsigned HistogramEven.

- NppStatus nppiHistogramEven_8u_C4R (const Npp8u ∗pSrc, int nSrcStep, NppiSize oSizeROI, Npp32s ∗pHist[4], int nLevels[4], Npp32s nLowerLevel[4], Npp32s nUpperLevel[4], Npp8u ∗pBuffer)

  Four-channel 8-bit unsigned HistogramEven.

- NppStatus nppiHistogramEven_8u_AC4R (const Npp8u ∗pSrc, int nSrcStep, NppiSize oSizeROI, Npp32s ∗pHist[3], int nLevels[3], Npp32s nLowerLevel[3], Npp32s nUpperLevel[3], Npp8u ∗pBuffer)

  Four-channel 8-bit unsigned HistogramEven ignoring alpha channel.

- NppStatus nppiHistogramEven_16u_C1R (const Npp16u ∗pSrc, int nSrcStep, NppiSize oSizeROI, Npp32s ∗pHist, int nLevels, Npp32s nLowerLevel, Npp32s nUpperLevel, Npp8u ∗pBuffer)

  One-channel 16-bit unsigned HistogramEven.

- NppStatus nppiHistogramEven_16u_C3R (const Npp16u ∗pSrc, int nSrcStep, NppiSize oSizeROI, Npp32s ∗pHist[3], int nLevels[3], Npp32s nLowerLevel[3], Npp32s nUpperLevel[3], Npp8u ∗pBuffer)

  Three-channel 16-bit unsigned HistogramEven.

- NppStatus nppiHistogramEven_16u_C4R (const Npp16u ∗pSrc, int nSrcStep, NppiSize oSizeROI, Npp32s ∗pHist[4], int nLevels[4], Npp32s nLowerLevel[4], Npp32s nUpperLevel[4], Npp8u ∗pBuffer)

  Four-channel 16-bit unsigned HistogramEven.

- NppStatus nppiHistogramEven_16u_AC4R (const Npp16u ∗pSrc, int nSrcStep, NppiSize oSizeROI, Npp32s ∗pHist[3], int nLevels[3], Npp32s nLowerLevel[3], Npp32s nUpperLevel[3], Npp8u ∗pBuffer)

  Four-channel 16-bit unsigned HistogramEven ignoring alpha channel.

- NppStatus nppiHistogramEven_16s_C1R (const Npp16s ∗pSrc, int nSrcStep, NppiSize oSizeROI, Npp32s ∗pHist, int nLevels, Npp32s nLowerLevel, Npp32s nUpperLevel, Npp8u ∗pBuffer)

  One-channel 16-bit signed HistogramEven.

- NppStatus nppiHistogramEven_16s_C3R (const Npp16s ∗pSrc, int nSrcStep, NppiSize oSizeROI, Npp32s ∗pHist[3], int nLevels[3], Npp32s nLowerLevel[3], Npp32s nUpperLevel[3], Npp8u ∗pBuffer)

  Three-channel 16-bit signed HistogramEven.

- NppStatus nppiHistogramEven_16s_C4R (const Npp16s ∗pSrc, int nSrcStep, NppiSize oSizeROI, Npp32s ∗pHist[4], int nLevels[4], Npp32s nLowerLevel[4], Npp32s nUpperLevel[4], Npp8u ∗pBuffer)

  Four-channel 16-bit signed HistogramEven.

- NppStatus nppiHistogramEven_16s_AC4R (const Npp16s ∗pSrc, int nSrcStep, NppiSize oSizeROI, Npp32s ∗pHist[3], int nLevels[3], Npp32s nLowerLevel[3], Npp32s nUpperLevel[3], Npp8u ∗pBuffer)

  Four-channel 16-bit signed HistogramEven ignoring alpha channel.

HistogramEvenGetBufferSize

Companion primitives for computing the device buffer size (in bytes) required by the HistogramEven primitives.

- NppStatus nppiHistogramEvenGetBufferSize_8u_C1R (NppiSize oSizeROI, int nLevels, int ∗hpBufferSize)

  Buffer size for nppiHistogramEven_8u_C1R.

- NppStatus nppiHistogramEvenGetBufferSize_8u_C3R (NppiSize oSizeROI, int nLevels[3], int ∗hpBufferSize)

  Buffer size for nppiHistogramEven_8u_C3R.

- NppStatus nppiHistogramEvenGetBufferSize_8u_C4R (NppiSize oSizeROI, int nLevels[4], int ∗hpBufferSize)

  Buffer size for nppiHistogramEven_8u_C4R.

- NppStatus nppiHistogramEvenGetBufferSize_8u_AC4R (NppiSize oSizeROI, int nLevels[3], int ∗hpBufferSize)

  Buffer size for nppiHistogramEven_8u_AC4R.

- NppStatus nppiHistogramEvenGetBufferSize_16u_C1R (NppiSize oSizeROI, int nLevels, int ∗hpBufferSize)

  Buffer size for nppiHistogramEven_16u_C1R.

- NppStatus nppiHistogramEvenGetBufferSize_16u_C3R (NppiSize oSizeROI, int nLevels[3], int ∗hpBufferSize)

  Buffer size for nppiHistogramEven_16u_C3R.

- NppStatus nppiHistogramEvenGetBufferSize_16u_C4R (NppiSize oSizeROI, int nLevels[4], int ∗hpBufferSize)

  Buffer size for nppiHistogramEven_16u_C4R.

- NppStatus nppiHistogramEvenGetBufferSize_16u_AC4R (NppiSize oSizeROI, int nLevels[3], int ∗hpBufferSize)

  Buffer size for nppiHistogramEven_16u_AC4R.

- NppStatus nppiHistogramEvenGetBufferSize_16s_C1R (NppiSize oSizeROI, int nLevels, int ∗hpBufferSize)

  Buffer size for nppiHistogramEven_16s_C1R.

- NppStatus nppiHistogramEvenGetBufferSize_16s_C3R (NppiSize oSizeROI, int nLevels[3], int ∗hpBufferSize)

  Buffer size for nppiHistogramEven_16s_C3R.

- NppStatus nppiHistogramEvenGetBufferSize_16s_C4R (NppiSize oSizeROI, int nLevels[4], int ∗hpBufferSize)

  Buffer size for nppiHistogramEven_16s_C4R.

- NppStatus nppiHistogramEvenGetBufferSize_16s_AC4R (NppiSize oSizeROI, int nLevels[3], int ∗hpBufferSize)

  Buffer size for nppiHistogramEven_16s_AC4R.

7.118.1 Detailed Description

Primitives for computing the histogram of an image with evenly distributed bins.

7.118.2 Function Documentation

7.118.2.1 NppStatus nppiEvenLevelsHost_32s (Npp32s ∗ *hpLevels*, int *nLevels*, Npp32s *nLowerLevel*, Npp32s *nUpperLevel*)

Compute levels with even distribution.

Parameters:

hpLevels A host pointer to array which receives the levels being computed. The array needs to be of size nLevels.

nLevels The number of levels being computed. nLevels must be at least 2.

nLowerLevel Lower boundary value of the lowest level.

nUpperLevel Upper boundary value of the greatest level.

Returns:

image_data_error_codes, or NPP_HISTO_NUMBER_OF_LEVELS_ERROR if an invalid nLevels is specified.

7.118.2.2 NppStatus nppiHistogramEven_16s_AC4R (const Npp16s * *pSrc*, int *nSrcStep*, NppiSize *oSizeROI*, Npp32s * *pHist*[3], int *nLevels*[3], Npp32s *nLowerLevel*[3], Npp32s *nUpperLevel*[3], Npp8u * *pBuffer*)

Four-channel 16-bit signed HistogramEven ignoring alpha channel.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pHist Array of pointers which are receiving computed histograms per color channel. Array pointed by pHist[i] be of size nLevels[i]-1.

nLevels Array containing number of levels per color channel.

nLowerLevel Array containing lower-level of lowest bin per color channel.

nUpperLevel Array containing upper-level of highest bin per color channel.

pBuffer Pointer to appropriately sized (nppiHistogramEvenGetBufferSize_16s_AC4R) scratch buffer.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.118.2.3 NppStatus nppiHistogramEven_16s_C1R (const Npp16s * *pSrc*, int *nSrcStep*, NppiSize *oSizeROI*, Npp32s * *pHist*, int *nLevels*, Npp32s *nLowerLevel*, Npp32s *nUpperLevel*, Npp8u * *pBuffer*)

One-channel 16-bit signed HistogramEven.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pHist Pointer to array that receives the computed histogram. The array must be of size nLevels-1.

nLevels Number of levels.

nLowerLevel Lower boundary of lowest level bin.

nUpperLevel Upper boundary of highest level bin.

pBuffer Pointer to appropriately sized (nppiHistogramEvenGetBufferSize_16s_C1R) scratch buffer.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.118.2.4 NppStatus nppiHistogramEven_16s_C3R (const Npp16s * *pSrc*, int *nSrcStep*, NppiSize *oSizeROI*, Npp32s * *pHist*[3], int *nLevels*[3], Npp32s *nLowerLevel*[3], Npp32s *nUpperLevel*[3], Npp8u * *pBuffer*)

Three-channel 16-bit signed HistogramEven.

Parameters:

- ***pSrc*** Source-Image Pointer.
- ***nSrcStep*** Source-Image Line Step.
- ***oSizeROI*** Region-of-Interest (ROI).
- ***pHist*** Array of pointers which are receiving computed histograms per color channel. Array pointed by pHist[i] be of size nLevels[i]-1.
- ***nLevels*** Array containing number of levels per color channel.
- ***nLowerLevel*** Array containing lower-level of lowest bin per color channel.
- ***nUpperLevel*** Array containing upper-level of highest bin per color channel.
- ***pBuffer*** Pointer to appropriately sized (nppiHistogramEvenGetBufferSize_16s_C3R) scratch buffer.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.118.2.5 NppStatus nppiHistogramEven_16s_C4R (const Npp16s * *pSrc*, int *nSrcStep*, NppiSize *oSizeROI*, Npp32s * *pHist*[4], int *nLevels*[4], Npp32s *nLowerLevel*[4], Npp32s *nUpperLevel*[4], Npp8u * *pBuffer*)

Four-channel 16-bit signed HistogramEven.

Parameters:

- ***pSrc*** Source-Image Pointer.
- ***nSrcStep*** Source-Image Line Step.
- ***oSizeROI*** Region-of-Interest (ROI).
- ***pHist*** Array of pointers which are receiving computed histograms per color channel. Array pointed by pHist[i] be of size nLevels[i]-1.
- ***nLevels*** Array containing number of levels per color channel.
- ***nLowerLevel*** Array containing lower-level of lowest bin per color channel.
- ***nUpperLevel*** Array containing upper-level of highest bin per color channel.
- ***pBuffer*** Pointer to appropriately sized (nppiHistogramEvenGetBufferSize_16s_C4R) scratch buffer.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.118.2.6 NppStatus nppiHistogramEven_16u_AC4R (const Npp16u * *pSrc*, int *nSrcStep*, NppiSize *oSizeROI*, Npp32s * *pHist*[3], int *nLevels*[3], Npp32s *nLowerLevel*[3], Npp32s *nUpperLevel*[3], Npp8u * *pBuffer*)

Four-channel 16-bit unsigned HistogramEven ignoring alpha channel.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pHist Array of pointers which are receiving computed histograms per color channel. Array pointed by pHist[i] be of size nLevels[i]-1.

nLevels Array containing number of levels per color channel.

nLowerLevel Array containing lower-level of lowest bin per color channel.

nUpperLevel Array containing upper-level of highest bin per color channel.

pBuffer Pointer to appropriately sized (nppiHistogramEvenGetBufferSize_16u_AC4R) scratch buffer.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.118.2.7 NppStatus nppiHistogramEven_16u_C1R (const Npp16u * *pSrc*, int *nSrcStep*, NppiSize *oSizeROI*, Npp32s * *pHist*, int *nLevels*, Npp32s *nLowerLevel*, Npp32s *nUpperLevel*, Npp8u * *pBuffer*)

One-channel 16-bit unsigned HistogramEven.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pHist Pointer to array that receives the computed histogram. The array must be of size nLevels-1.

nLevels Number of levels.

nLowerLevel Lower boundary of lowest level bin.

nUpperLevel Upper boundary of highest level bin.

pBuffer Pointer to appropriately sized (nppiHistogramEvenGetBufferSize_16u_C1R) scratch buffer.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.118.2.8 NppStatus nppiHistogramEven_16u_C3R (const Npp16u * *pSrc*, int *nSrcStep*, NppiSize *oSizeROI*, Npp32s * *pHist*[3], int *nLevels*[3], Npp32s *nLowerLevel*[3], Npp32s *nUpperLevel*[3], Npp8u * *pBuffer*)

Three-channel 16-bit unsigned HistogramEven.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pHist Array of pointers which are receiving computed histograms per color channel. Array pointed by pHist[i] be of size nLevels[i]-1.

nLevels Array containing number of levels per color channel.

nLowerLevel Array containing lower-level of lowest bin per color channel.

nUpperLevel Array containing upper-level of highest bin per color channel.

pBuffer Pointer to appropriately sized (nppiHistogramEvenGetBufferSize_16u_C3R) scratch buffer.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.118.2.9 NppStatus nppiHistogramEven_16u_C4R (const Npp16u * *pSrc*, int *nSrcStep*, NppiSize *oSizeROI*, Npp32s * *pHist*[4], int *nLevels*[4], Npp32s *nLowerLevel*[4], Npp32s *nUpperLevel*[4], Npp8u * *pBuffer*)

Four-channel 16-bit unsigned HistogramEven.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pHist Array of pointers which are receiving computed histograms per color channel. Array pointed by pHist[i] be of size nLevels[i]-1.

nLevels Array containing number of levels per color channel.

nLowerLevel Array containing lower-level of lowest bin per color channel.

nUpperLevel Array containing upper-level of highest bin per color channel.

pBuffer Pointer to appropriately sized (nppiHistogramEvenGetBufferSize_16u_C4R) scratch buffer.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.118.2.10 NppStatus nppiHistogramEven_8u_AC4R (const Npp8u ∗ *pSrc*, int *nSrcStep*, NppiSize *oSizeROI*, Npp32s ∗ *pHist*[3], int *nLevels*[3], Npp32s *nLowerLevel*[3], Npp32s *nUpperLevel*[3], Npp8u ∗ *pBuffer*)

Four-channel 8-bit unsigned HistogramEven ignoring alpha channel.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pHist Array of pointers which are receiving computed histograms per color channel. Array pointed by pHist[i] be of size nLevels[i]-1.

nLevels Array containing number of levels per color channel.

nLowerLevel Array containing lower-level of lowest bin per color channel.

nUpperLevel Array containing upper-level of highest bin per color channel.

pBuffer Pointer to appropriately sized (nppiHistogramEvenGetBufferSize_8u_AC4R) scratch buffer.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.118.2.11 NppStatus nppiHistogramEven_8u_C1R (const Npp8u ∗ *pSrc*, int *nSrcStep*, NppiSize *oSizeROI*, Npp32s ∗ *pHist*, int *nLevels*, Npp32s *nLowerLevel*, Npp32s *nUpperLevel*, Npp8u ∗ *pBuffer*)

One-channel 8-bit unsigned HistogramEven.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pHist Pointer to array that receives the computed histogram. The array must be of size nLevels-1.

nLevels Number of levels.

nLowerLevel Lower boundary of lowest level bin.

nUpperLevel Upper boundary of highest level bin.

pBuffer Pointer to appropriately sized (nppiHistogramEvenGetBufferSize_8u_C1R) scratch buffer.

Returns:

Image Data Related Error Codes, ROI Related Error Codes.

7.118.2.12 NppStatus nppiHistogramEven_8u_C3R (const Npp8u ∗ *pSrc*, int *nSrcStep*, NppiSize *oSizeROI*, Npp32s ∗ *pHist*[3], int *nLevels*[3], Npp32s *nLowerLevel*[3], Npp32s *nUpperLevel*[3], Npp8u ∗ *pBuffer*)

Three-channel 8-bit unsigned HistogramEven.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pHist Array of pointers which are receiving computed histograms per color channel. Array pointed by pHist[i] be of size nLevels[i]-1.

nLevels Array containing number of levels per color channel.

nLowerLevel Array containing lower-level of lowest bin per color channel.

nUpperLevel Array containing upper-level of highest bin per color channel.

pBuffer Pointer to appropriately sized (nppiHistogramEvenGetBufferSize_8u_C3R) scratch buffer.

Returns:

Image Data Related Error Codes, ROI Related Error Codes.

7.118.2.13 NppStatus nppiHistogramEven_8u_C4R (const Npp8u ∗ *pSrc*, int *nSrcStep*, NppiSize *oSizeROI*, Npp32s ∗ *pHist*[4], int *nLevels*[4], Npp32s *nLowerLevel*[4], Npp32s *nUpperLevel*[4], Npp8u ∗ *pBuffer*)

Four-channel 8-bit unsigned HistogramEven.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pHist Array of pointers which are receiving computed histograms per color channel. Array pointed by pHist[i] be of size nLevels[i]-1.

nLevels Array containing number of levels per color channel.

nLowerLevel Array containing lower-level of lowest bin per color channel.

nUpperLevel Array containing upper-level of highest bin per color channel.

pBuffer Pointer to appropriately sized (nppiHistogramEvenGetBufferSize_8u_C4R) scratch buffer.

Returns:

Image Data Related Error Codes, ROI Related Error Codes.

7.118.2.14 NppStatus nppiHistogramEvenGetBufferSize_16s_AC4R (NppiSize *oSizeROI*, int *nLevels*[3], int ∗ *hpBufferSize*)

Buffer size for nppiHistogramEven_16s_AC4R.

Parameters:

oSizeROI Region-of-Interest (ROI).

nLevels Array containing number of levels per color channel.

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes..

7.118.2.15 NppStatus nppiHistogramEvenGetBufferSize_16s_C1R (NppiSize *oSizeROI*, int *nLevels*, int ∗ *hpBufferSize*)

Buffer size for nppiHistogramEven_16s_C1R.

Parameters:

oSizeROI Region-of-Interest (ROI).

nLevels Number of levels in the histogram.

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes..

7.118.2.16 NppStatus nppiHistogramEvenGetBufferSize_16s_C3R (NppiSize *oSizeROI*, int *nLevels*[3], int ∗ *hpBufferSize*)

Buffer size for nppiHistogramEven_16s_C3R.

Parameters:

oSizeROI Region-of-Interest (ROI).

nLevels Array containing number of levels per color channel.

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes..

7.118.2.17 NppStatus nppiHistogramEvenGetBufferSize_16s_C4R (NppiSize *oSizeROI*, int *nLevels*[4], int ∗ *hpBufferSize*)

Buffer size for nppiHistogramEven_16s_C4R.

Parameters:

oSizeROI Region-of-Interest (ROI).

nLevels Array containing number of levels per color channel.

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes..

7.118.2.18 NppStatus nppiHistogramEvenGetBufferSize_16u_AC4R (NppiSize *oSizeROI*, int *nLevels*[3], int * *hpBufferSize*)

Buffer size for nppiHistogramEven_16u_AC4R.

Parameters:

oSizeROI Region-of-Interest (ROI).

nLevels Array containing number of levels per color channel.

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes..

7.118.2.19 NppStatus nppiHistogramEvenGetBufferSize_16u_C1R (NppiSize *oSizeROI*, int *nLevels*, int * *hpBufferSize*)

Buffer size for nppiHistogramEven_16u_C1R.

Parameters:

oSizeROI Region-of-Interest (ROI).

nLevels Number of levels in the histogram.

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes..

7.118.2.20 NppStatus nppiHistogramEvenGetBufferSize_16u_C3R (NppiSize *oSizeROI*, int *nLevels*[3], int * *hpBufferSize*)

Buffer size for nppiHistogramEven_16u_C3R.

Parameters:

oSizeROI Region-of-Interest (ROI).

nLevels Array containing number of levels per color channel.

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes..

7.118.2.21 NppStatus nppiHistogramEvenGetBufferSize_16u_C4R (NppiSize *oSizeROI*, int *nLevels*[4], int ∗ *hpBufferSize*)

Buffer size for nppiHistogramEven_16u_C4R.

Parameters:

oSizeROI Region-of-Interest (ROI).

nLevels Array containing number of levels per color channel.

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes..

7.118.2.22 NppStatus nppiHistogramEvenGetBufferSize_8u_AC4R (NppiSize *oSizeROI*, int *nLevels*[3], int ∗ *hpBufferSize*)

Buffer size for nppiHistogramEven_8u_AC4R.

Parameters:

oSizeROI Region-of-Interest (ROI).

nLevels Array containing number of levels per color channel.

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes..

7.118.2.23 NppStatus nppiHistogramEvenGetBufferSize_8u_C1R (NppiSize *oSizeROI*, int *nLevels*, int ∗ *hpBufferSize*)

Buffer size for nppiHistogramEven_8u_C1R.

Parameters:

oSizeROI Region-of-Interest (ROI).

nLevels Number of levels in the histogram.

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes..

7.118.2.24 NppStatus nppiHistogramEvenGetBufferSize_8u_C3R (NppiSize *oSizeROI*, int *nLevels*[3], int ∗ *hpBufferSize*)

Buffer size for nppiHistogramEven_8u_C3R.

Parameters:

oSizeROI Region-of-Interest (ROI).

nLevels Number of levels in the histogram.

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes..

7.118.2.25 NppStatus nppiHistogramEvenGetBufferSize_8u_C4R (NppiSize *oSizeROI*, int *nLevels*[4], int ∗ *hpBufferSize*)

Buffer size for nppiHistogramEven_8u_C4R.

Parameters:

oSizeROI Region-of-Interest (ROI).

nLevels Array containing number of levels per color channel.

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes..

7.119 HistogramRange

Primitives for computing the histogram of an image within specified ranges.

HistogramEven

The histogram is computed according to the ranges provided in $pLevels$.

The histogram $pHist[k]$ is defined as the total number of pixels that fall into the range: $pLevels[k] <= pSrc(j,i) < pLevels[k+1]$. The number of the histogram bins is $nLevel - 1$. The functions require additional scratch buffer for computations.

- NppStatus nppiHistogramRange_8u_C1R (const Npp8u ∗pSrc, int nSrcStep, NppiSize oSizeROI, Npp32s ∗pHist, const Npp32s ∗pLevels, int nLevels, Npp8u ∗pBuffer)

  One-channel 8-bit unsigned HistogramRange.

- NppStatus nppiHistogramRange_8u_C3R (const Npp8u ∗pSrc, int nSrcStep, NppiSize oSizeROI, Npp32s ∗pHist[3], const Npp32s ∗pLevels[3], int nLevels[3], Npp8u ∗pBuffer)

  Three-channel 8-bit unsigned HistogramRange.

- NppStatus nppiHistogramRange_8u_C4R (const Npp8u ∗pSrc, int nSrcStep, NppiSize oSizeROI, Npp32s ∗pHist[4], const Npp32s ∗pLevels[4], int nLevels[4], Npp8u ∗pBuffer)

  Four-channel 8-bit unsigned HistogramRange.

- NppStatus nppiHistogramRange_8u_AC4R (const Npp8u ∗pSrc, int nSrcStep, NppiSize oSizeROI, Npp32s ∗pHist[3], const Npp32s ∗pLevels[3], int nLevels[3], Npp8u ∗pBuffer)

  Four-channel 8-bit unsigned HistogramRange ignoring alpha channel.

- NppStatus nppiHistogramRange_16u_C1R (const Npp16u ∗pSrc, int nSrcStep, NppiSize oSizeROI, Npp32s ∗pHist, const Npp32s ∗pLevels, int nLevels, Npp8u ∗pBuffer)

  One-channel 16-bit unsigned HistogramRange.

- NppStatus nppiHistogramRange_16u_C3R (const Npp16u ∗pSrc, int nSrcStep, NppiSize oSizeROI, Npp32s ∗pHist[3], const Npp32s ∗pLevels[3], int nLevels[3], Npp8u ∗pBuffer)

  Three-channel 16-bit unsigned HistogramRange.

- NppStatus nppiHistogramRange_16u_C4R (const Npp16u ∗pSrc, int nSrcStep, NppiSize oSizeROI, Npp32s ∗pHist[4], const Npp32s ∗pLevels[4], int nLevels[4], Npp8u ∗pBuffer)

  Four-channel 16-bit unsigned HistogramRange.

- NppStatus nppiHistogramRange_16u_AC4R (const Npp16u ∗pSrc, int nSrcStep, NppiSize oSizeROI, Npp32s ∗pHist[3], const Npp32s ∗pLevels[3], int nLevels[3], Npp8u ∗pBuffer)

  Four-channel 16-bit unsigned HistogramRange ignoring alpha channel.

- NppStatus nppiHistogramRange_16s_C1R (const Npp16s ∗pSrc, int nSrcStep, NppiSize oSizeROI, Npp32s ∗pHist, const Npp32s ∗pLevels, int nLevels, Npp8u ∗pBuffer)

  One-channel 16-bit signed HistogramRange.

- NppStatus nppiHistogramRange_16s_C3R (const Npp16s ∗pSrc, int nSrcStep, NppiSize oSizeROI, Npp32s ∗pHist[3], const Npp32s ∗pLevels[3], int nLevels[3], Npp8u ∗pBuffer)

  Three-channel 16-bit signed HistogramRange.

- NppStatus nppiHistogramRange_16s_C4R (const Npp16s ∗pSrc, int nSrcStep, NppiSize oSizeROI, Npp32s ∗pHist[4], const Npp32s ∗pLevels[4], int nLevels[4], Npp8u ∗pBuffer)

  Four-channel 16-bit signed HistogramRange.

- NppStatus nppiHistogramRange_16s_AC4R (const Npp16s ∗pSrc, int nSrcStep, NppiSize oSizeROI, Npp32s ∗pHist[3], const Npp32s ∗pLevels[3], int nLevels[3], Npp8u ∗pBuffer)

  Four-channel 16-bit signed HistogramRange.

- NppStatus nppiHistogramRange_32f_C1R (const Npp32f ∗pSrc, int nSrcStep, NppiSize oSizeROI, Npp32s ∗pHist, const Npp32f ∗pLevels, int nLevels, Npp8u ∗pBuffer)

  One-channel 32-bit floating point HistogramRange.

- NppStatus nppiHistogramRange_32f_C3R (const Npp32f ∗pSrc, int nSrcStep, NppiSize oSizeROI, Npp32s ∗pHist[3], const Npp32f ∗pLevels[3], int nLevels[3], Npp8u ∗pBuffer)

  Three-channel 32-bit floating point HistogramRange.

- NppStatus nppiHistogramRange_32f_C4R (const Npp32f ∗pSrc, int nSrcStep, NppiSize oSizeROI, Npp32s ∗pHist[4], const Npp32f ∗pLevels[4], int nLevels[4], Npp8u ∗pBuffer)

  Four-channel 32-bit floating point HistogramRange.

- NppStatus nppiHistogramRange_32f_AC4R (const Npp32f ∗pSrc, int nSrcStep, NppiSize oSizeROI, Npp32s ∗pHist[3], const Npp32f ∗pLevels[3], int nLevels[3], Npp8u ∗pBuffer)

  Four-channel 32-bit floating point HistogramRange ignoring alpha channel.

HistogramRangeGetBufferSize

Companion primitives for computing the device buffer size (in bytes) required by the HistogramRange primitives.

- NppStatus nppiHistogramRangeGetBufferSize_8u_C1R (NppiSize oSizeROI, int nLevels, int ∗hpBufferSize)

  Scratch-buffer size for nppiHistogramRange_8u_C1R.

- NppStatus nppiHistogramRangeGetBufferSize_8u_C3R (NppiSize oSizeROI, int nLevels[3], int ∗hpBufferSize)

  Scratch-buffer size for nppiHistogramRange_8u_C3R.

- NppStatus nppiHistogramRangeGetBufferSize_8u_C4R (NppiSize oSizeROI, int nLevels[4], int ∗hpBufferSize)

  Scratch-buffer size for nppiHistogramRange_8u_C4R.

- NppStatus nppiHistogramRangeGetBufferSize_8u_AC4R (NppiSize oSizeROI, int nLevels[3], int ∗hpBufferSize)

  Scratch-buffer size for nppiHistogramRange_8u_AC4R.

- NppStatus nppiHistogramRangeGetBufferSize_16u_C1R (NppiSize oSizeROI, int nLevels, int ∗hpBufferSize)

  Scratch-buffer size for nppiHistogramRange_16u_C1R.

- NppStatus nppiHistogramRangeGetBufferSize_16u_C3R (NppiSize oSizeROI, int nLevels[3], int ∗hpBufferSize)

  Scratch-buffer size for nppiHistogramRange_16u_C3R.

- NppStatus nppiHistogramRangeGetBufferSize_16u_C4R (NppiSize oSizeROI, int nLevels[4], int ∗hpBufferSize)

  Scratch-buffer size for nppiHistogramRange_16u_C4R.

- NppStatus nppiHistogramRangeGetBufferSize_16u_AC4R (NppiSize oSizeROI, int nLevels[3], int ∗hpBufferSize)

  Scratch-buffer size for nppiHistogramRange_16u_AC4R.

- NppStatus nppiHistogramRangeGetBufferSize_16s_C1R (NppiSize oSizeROI, int nLevels, int ∗hpBufferSize)

  Scratch-buffer size for nppiHistogramRange_16s_C1R.

- NppStatus nppiHistogramRangeGetBufferSize_16s_C3R (NppiSize oSizeROI, int nLevels[3], int ∗hpBufferSize)

  Scratch-buffer size for nppiHistogramRange_16s_C3R.

- NppStatus nppiHistogramRangeGetBufferSize_16s_C4R (NppiSize oSizeROI, int nLevels[4], int ∗hpBufferSize)

  Scratch-buffer size for nppiHistogramRange_16s_C4R.

- NppStatus nppiHistogramRangeGetBufferSize_16s_AC4R (NppiSize oSizeROI, int nLevels[3], int ∗hpBufferSize)

  Scratch-buffer size for nppiHistogramRange_16s_AC4R.

- NppStatus nppiHistogramRangeGetBufferSize_32f_C1R (NppiSize oSizeROI, int nLevels, int ∗hpBufferSize)

  Scratch-buffer size for nppiHistogramRange_32f_C1R.

- NppStatus nppiHistogramRangeGetBufferSize_32f_C3R (NppiSize oSizeROI, int nLevels[3], int ∗hpBufferSize)

  Scratch-buffer size for nppiHistogramRange_32f_C3R.

- NppStatus nppiHistogramRangeGetBufferSize_32f_C4R (NppiSize oSizeROI, int nLevels[4], int ∗hpBufferSize)

  Scratch-buffer size for nppiHistogramRange_32f_C4R.

- NppStatus nppiHistogramRangeGetBufferSize_32f_AC4R (NppiSize oSizeROI, int nLevels[3], int ∗hpBufferSize)

  Scratch-buffer size for nppiHistogramRange_32f_AC4R.

7.119.1 Detailed Description

Primitives for computing the histogram of an image within specified ranges.

7.119.2 Function Documentation

7.119.2.1 NppStatus nppiHistogramRange_16s_AC4R (const Npp16s ∗ *pSrc*, int *nSrcStep*, NppiSize *oSizeROI*, Npp32s ∗ *pHist*[3], const Npp32s ∗ *pLevels*[3], int *nLevels*[3], Npp8u ∗ *pBuffer*)

Four-channel 16-bit signed HistogramRange.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pHist Array of pointers which are receiving the computed histograms per color channel. Array pointed by pHist[i] must be of size nLevels[i]-1.

nLevels Array containing number of levels per color channel.

pLevels Array containing pointers to level-arrays per color channel. Array pointed by pLevel[i] must be of size nLevels[i].

pBuffer Pointer to appropriately sized (nppiHistogramRangeGetBufferSize_16s_AC4R) scratch buffer.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.119.2.2 NppStatus nppiHistogramRange_16s_C1R (const Npp16s ∗ *pSrc*, int *nSrcStep*, NppiSize *oSizeROI*, Npp32s ∗ *pHist*, const Npp32s ∗ *pLevels*, int *nLevels*, Npp8u ∗ *pBuffer*)

One-channel 16-bit signed HistogramRange.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pHist Pointer to array that receives the computed histogram. The array must be of size nLevels-1.

pLevels Pointer to array containing the level sizes of the bins. The array must be of size nLevels.

nLevels Number of levels in histogram.

pBuffer Pointer to appropriately sized (nppiHistogramRangeGetBufferSize_16s_C1R) scratch buffer.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.119.2.3 NppStatus nppiHistogramRange_16s_C3R (const Npp16s * *pSrc*, int *nSrcStep*, NppiSize *oSizeROI*, Npp32s * *pHist*[3], const Npp32s * *pLevels*[3], int *nLevels*[3], Npp8u * *pBuffer*)

Three-channel 16-bit signed HistogramRange.

Parameters:

- ***pSrc*** Source-Image Pointer.
- ***nSrcStep*** Source-Image Line Step.
- ***oSizeROI*** Region-of-Interest (ROI).
- ***pHist*** Array of pointers which are receiving the computed histograms per color channel. Array pointed by pHist[i] must be of size nLevels[i]-1.
- ***nLevels*** Array containing number of levels per color channel.
- ***pLevels*** Array containing pointers to level-arrays per color channel. Array pointed by pLevel[i] must be of size nLevels[i].
- ***pBuffer*** Pointer to appropriately sized (nppiHistogramRangeGetBufferSize_16s_C3R) scratch buffer.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.119.2.4 NppStatus nppiHistogramRange_16s_C4R (const Npp16s * *pSrc*, int *nSrcStep*, NppiSize *oSizeROI*, Npp32s * *pHist*[4], const Npp32s * *pLevels*[4], int *nLevels*[4], Npp8u * *pBuffer*)

Four-channel 16-bit signed HistogramRange.

Parameters:

- ***pSrc*** Source-Image Pointer.
- ***nSrcStep*** Source-Image Line Step.
- ***oSizeROI*** Region-of-Interest (ROI).
- ***pHist*** Array of pointers which are receiving the computed histograms per color channel. Array pointed by pHist[i] must be of size nLevels[i]-1.
- ***nLevels*** Array containing number of levels per color channel.
- ***pLevels*** Array containing pointers to level-arrays per color channel. Array pointed by pLevel[i] must be of size nLevels[i].
- ***pBuffer*** Pointer to appropriately sized (nppiHistogramRangeGetBufferSize_16s_C4R) scratch buffer.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.119.2.5 NppStatus nppiHistogramRange_16u_AC4R (const Npp16u * *pSrc*, int *nSrcStep*, NppiSize *oSizeROI*, Npp32s * *pHist*[3], const Npp32s * *pLevels*[3], int *nLevels*[3], Npp8u * *pBuffer*)

Four-channel 16-bit unsigned HistogramRange ignoring alpha channel.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pHist Array of pointers which are receiving the computed histograms per color channel. Array pointed by pHist[i] must be of size nLevels[i]-1.

nLevels Array containing number of levels per color channel.

pLevels Array containing pointers to level-arrays per color channel. Array pointed by pLevel[i] must be of size nLevels[i].

pBuffer Pointer to appropriately sized (nppiHistogramRangeGetBufferSize_16u_AC4R) scratch buffer.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.119.2.6 NppStatus nppiHistogramRange_16u_C1R (const Npp16u ∗ *pSrc*, int *nSrcStep*, NppiSize *oSizeROI*, Npp32s ∗ *pHist*, const Npp32s ∗ *pLevels*, int *nLevels*, Npp8u ∗ *pBuffer*)

One-channel 16-bit unsigned HistogramRange.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pHist Pointer to array that receives the computed histogram. The array must be of size nLevels-1.

pLevels Pointer to array containing the level sizes of the bins. The array must be of size nLevels.

nLevels Number of levels in histogram.

pBuffer Pointer to appropriately sized (nppiHistogramRangeGetBufferSize_16u_C1R) scratch buffer.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.119.2.7 NppStatus nppiHistogramRange_16u_C3R (const Npp16u ∗ *pSrc*, int *nSrcStep*, NppiSize *oSizeROI*, Npp32s ∗ *pHist*[3], const Npp32s ∗ *pLevels*[3], int *nLevels*[3], Npp8u ∗ *pBuffer*)

Three-channel 16-bit unsigned HistogramRange.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pHist Array of pointers which are receiving the computed histograms per color channel. Array pointed by pHist[i] must be of size nLevels[i]-1.

nLevels Array containing number of levels per color channel.

pLevels Array containing pointers to level-arrays per color channel. Array pointed by pLevel[i] must be of size nLevels[i].

pBuffer Pointer to appropriately sized (nppiHistogramRangeGetBufferSize_16u_C3R) scratch buffer.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.119.2.8 NppStatus nppiHistogramRange_16u_C4R (const Npp16u ∗ *pSrc*, int *nSrcStep*, NppiSize *oSizeROI*, Npp32s ∗ *pHist*[4], const Npp32s ∗ *pLevels*[4], int *nLevels*[4], Npp8u ∗ *pBuffer*)

Four-channel 16-bit unsigned HistogramRange.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pHist Array of pointers which are receiving the computed histograms per color channel. Array pointed by pHist[i] must be of size nLevels[i]-1.

nLevels Array containing number of levels per color channel.

pLevels Array containing pointers to level-arrays per color channel. Array pointed by pLevel[i] must be of size nLevels[i].

pBuffer Pointer to appropriately sized (nppiHistogramRangeGetBufferSize_16u_C4R) scratch buffer.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.119.2.9 NppStatus nppiHistogramRange_32f_AC4R (const Npp32f ∗ *pSrc*, int *nSrcStep*, NppiSize *oSizeROI*, Npp32s ∗ *pHist*[3], const Npp32f ∗ *pLevels*[3], int *nLevels*[3], Npp8u ∗ *pBuffer*)

Four-channel 32-bit floating point HistogramRange ignoring alpha channel.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pHist Array of pointers which are receiving the computed histograms per color channel. Array pointed by pHist[i] must be of size nLevels[i]-1.

nLevels Array containing number of levels per color channel.

pLevels Array containing pointers to level-arrays per color channel. Array pointed by pLevel[i] must be of size nLevels[i].

pBuffer Pointer to appropriately sized (nppiHistogramRangeGetBufferSize_32f_AC4R) scratch buffer.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.119.2.10 NppStatus nppiHistogramRange_32f_C1R (const Npp32f ∗ *pSrc*, int *nSrcStep*, NppiSize *oSizeROI*, Npp32s ∗ *pHist*, const Npp32f ∗ *pLevels*, int *nLevels*, Npp8u ∗ *pBuffer*)

One-channel 32-bit floating point HistogramRange.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pHist Pointer to array that receives the computed histogram. The array must be of size nLevels-1.

pLevels Pointer to array containing the level sizes of the bins. The array must be of size nLevels.

nLevels Number of levels in histogram.

pBuffer Pointer to appropriately sized (nppiHistogramRangeGetBufferSize_32f_C1R) scratch buffer.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.119.2.11 NppStatus nppiHistogramRange_32f_C3R (const Npp32f ∗ *pSrc*, int *nSrcStep*, NppiSize *oSizeROI*, Npp32s ∗ *pHist*[3], const Npp32f ∗ *pLevels*[3], int *nLevels*[3], Npp8u ∗ *pBuffer*)

Three-channel 32-bit floating point HistogramRange.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pHist Array of pointers which are receiving the computed histograms per color channel. Array pointed by pHist[i] must be of size nLevels[i]-1.

nLevels Array containing number of levels per color channel.

pLevels Array containing pointers to level-arrays per color channel. Array pointed by pLevel[i] must be of size nLevels[i].

pBuffer Pointer to appropriately sized (nppiHistogramRangeGetBufferSize_32f_C3R) scratch buffer.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.119.2.12 NppStatus nppiHistogramRange_32f_C4R (const Npp32f * *pSrc*, int *nSrcStep*, NppiSize *oSizeROI*, Npp32s * *pHist*[4], const Npp32f * *pLevels*[4], int *nLevels*[4], Npp8u * *pBuffer*)

Four-channel 32-bit floating point HistogramRange.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pHist Array of pointers which are receiving the computed histograms per color channel. Array pointed by pHist[i] must be of size nLevels[i]-1.

nLevels Array containing number of levels per color channel.

pLevels Array containing pointers to level-arrays per color channel. Array pointed by pLevel[i] must be of size nLevels[i].

pBuffer Pointer to appropriately sized (nppiHistogramRangeGetBufferSize_32f_C4R) scratch buffer.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.119.2.13 NppStatus nppiHistogramRange_8u_AC4R (const Npp8u * *pSrc*, int *nSrcStep*, NppiSize *oSizeROI*, Npp32s * *pHist*[3], const Npp32s * *pLevels*[3], int *nLevels*[3], Npp8u * *pBuffer*)

Four-channel 8-bit unsigned HistogramRange ignoring alpha channel.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pHist Array of pointers which are receiving the computed histograms per color channel. Array pointed by pHist[i] must be of size nLevels[i]-1.

nLevels Array containing number of levels per color channel.

pLevels Array containing pointers to level-arrays per color channel. Array pointed by pLevel[i] must be of size nLevels[i].

pBuffer Pointer to appropriately sized (nppiHistogramRangeGetBufferSize_8u_AC4R) scratch buffer.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.119.2.14 NppStatus nppiHistogramRange_8u_C1R (const Npp8u * *pSrc*, int *nSrcStep*, NppiSize *oSizeROI*, Npp32s * *pHist*, const Npp32s * *pLevels*, int *nLevels*, Npp8u * *pBuffer*)

One-channel 8-bit unsigned HistogramRange.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pHist Pointer to array that receives the computed histogram. The array must be of size nLevels-1.

pLevels Pointer to array containing the level sizes of the bins. The array must be of size nLevels.

nLevels Number of levels in histogram.

pBuffer Pointer to appropriately sized (nppiHistogramRangeGetBufferSize_8u_C1R) scratch buffer.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.119.2.15 NppStatus nppiHistogramRange_8u_C3R (const Npp8u * *pSrc*, int *nSrcStep*, NppiSize *oSizeROI*, Npp32s * *pHist*[3], const Npp32s * *pLevels*[3], int *nLevels*[3], Npp8u * *pBuffer*)

Three-channel 8-bit unsigned HistogramRange.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pHist Array of pointers which are receiving the computed histograms per color channel. Array pointed by pHist[i] must be of size nLevels[i]-1.

nLevels Array containing number of levels per color channel.

pLevels Array containing pointers to level-arrays per color channel. Array pointed by pLevel[i] must be of size nLevels[i].

pBuffer Pointer to appropriately sized (nppiHistogramRangeGetBufferSize_8u_C3R) scratch buffer.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.119.2.16 NppStatus nppiHistogramRange_8u_C4R (const Npp8u * *pSrc*, int *nSrcStep*, NppiSize *oSizeROI*, Npp32s * *pHist*[4], const Npp32s * *pLevels*[4], int *nLevels*[4], Npp8u * *pBuffer*)

Four-channel 8-bit unsigned HistogramRange.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pHist Array of pointers which are receiving the computed histograms per color channel. Array pointed by pHist[i] must be of size nLevels[i]-1.

nLevels Array containing number of levels per color channel.

pLevels Array containing pointers to level-arrays per color channel. Array pointed by pLevel[i] must be of size nLevels[i].

pBuffer Pointer to appropriately sized (nppiHistogramRangeGetBufferSize_8u_C4R) scratch buffer.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.119.2.17 NppStatus nppiHistogramRangeGetBufferSize_16s_AC4R (NppiSize *oSizeROI*, int *nLevels*[3], int ∗ *hpBufferSize*)

Scratch-buffer size for nppiHistogramRange_16s_AC4R.

Parameters:

oSizeROI Region-of-Interest (ROI).

nLevels Array containing number of levels per color channel.

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes..

7.119.2.18 NppStatus nppiHistogramRangeGetBufferSize_16s_C1R (NppiSize *oSizeROI*, int *nLevels*, int ∗ *hpBufferSize*)

Scratch-buffer size for nppiHistogramRange_16s_C1R.

Parameters:

oSizeROI Region-of-Interest (ROI).

nLevels Number of levels in the histogram.

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes..

7.119.2.19 NppStatus nppiHistogramRangeGetBufferSize_16s_C3R (NppiSize *oSizeROI*, int *nLevels*[3], int ∗ *hpBufferSize*)

Scratch-buffer size for nppiHistogramRange_16s_C3R.

Parameters:

oSizeROI Region-of-Interest (ROI).

nLevels Array containing number of levels per color channel.

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes..

7.119.2.20 NppStatus nppiHistogramRangeGetBufferSize_16s_C4R (NppiSize *oSizeROI*, int *nLevels*[4], int ∗ *hpBufferSize*)

Scratch-buffer size for nppiHistogramRange_16s_C4R.

Parameters:

oSizeROI Region-of-Interest (ROI).

nLevels Array containing number of levels per color channel.

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes..

7.119.2.21 NppStatus nppiHistogramRangeGetBufferSize_16u_AC4R (NppiSize *oSizeROI*, int *nLevels*[3], int ∗ *hpBufferSize*)

Scratch-buffer size for nppiHistogramRange_16u_AC4R.

Parameters:

oSizeROI Region-of-Interest (ROI).

nLevels Array containing number of levels per color channel.

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes..

7.119.2.22 NppStatus nppiHistogramRangeGetBufferSize_16u_C1R (NppiSize *oSizeROI*, int *nLevels*, int ∗ *hpBufferSize*)

Scratch-buffer size for nppiHistogramRange_16u_C1R.

Parameters:

oSizeROI Region-of-Interest (ROI).

nLevels Number of levels in the histogram.

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes..

7.119.2.23 NppStatus nppiHistogramRangeGetBufferSize_16u_C3R (NppiSize *oSizeROI*, int *nLevels*[3], int ∗ *hpBufferSize*)

Scratch-buffer size for nppiHistogramRange_16u_C3R.

Parameters:

oSizeROI Region-of-Interest (ROI).

nLevels Array containing number of levels per color channel.

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes..

7.119.2.24 NppStatus nppiHistogramRangeGetBufferSize_16u_C4R (NppiSize *oSizeROI*, int *nLevels*[4], int ∗ *hpBufferSize*)

Scratch-buffer size for nppiHistogramRange_16u_C4R.

Parameters:

oSizeROI Region-of-Interest (ROI).

nLevels Array containing number of levels per color channel.

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes..

7.119.2.25 NppStatus nppiHistogramRangeGetBufferSize_32f_AC4R (NppiSize *oSizeROI*, int *nLevels*[3], int ∗ *hpBufferSize*)

Scratch-buffer size for nppiHistogramRange_32f_AC4R.

Parameters:

oSizeROI Region-of-Interest (ROI).

nLevels Array containing number of levels per color channel.

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes..

7.119.2.26 NppStatus nppiHistogramRangeGetBufferSize_32f_C1R (NppiSize *oSizeROI*, int *nLevels*, int ∗ *hpBufferSize*)

Scratch-buffer size for nppiHistogramRange_32f_C1R.

Parameters:

oSizeROI Region-of-Interest (ROI).

nLevels Number of levels in the histogram.

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes..

7.119.2.27 NppStatus nppiHistogramRangeGetBufferSize_32f_C3R (NppiSize *oSizeROI*, int *nLevels*[3], int ∗ *hpBufferSize*)

Scratch-buffer size for nppiHistogramRange_32f_C3R.

Parameters:

oSizeROI Region-of-Interest (ROI).

nLevels Array containing number of levels per color channel.

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes..

7.119.2.28 NppStatus nppiHistogramRangeGetBufferSize_32f_C4R (NppiSize *oSizeROI*, int *nLevels*[4], int ∗ *hpBufferSize*)

Scratch-buffer size for nppiHistogramRange_32f_C4R.

Parameters:

oSizeROI Region-of-Interest (ROI).

nLevels Array containing number of levels per color channel.

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes..

7.119.2.29 NppStatus nppiHistogramRangeGetBufferSize_8u_AC4R (NppiSize *oSizeROI*, int *nLevels*[3], int ∗ *hpBufferSize*)

Scratch-buffer size for nppiHistogramRange_8u_AC4R.

Parameters:

oSizeROI Region-of-Interest (ROI).

nLevels Array containing number of levels per color channel.

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes..

7.119.2.30 NppStatus nppiHistogramRangeGetBufferSize_8u_C1R (NppiSize *oSizeROI*, int *nLevels*, int ∗ *hpBufferSize*)

Scratch-buffer size for nppiHistogramRange_8u_C1R.

Parameters:

oSizeROI Region-of-Interest (ROI).

nLevels Number of levels in the histogram.

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes..

7.119.2.31 NppStatus nppiHistogramRangeGetBufferSize_8u_C3R (NppiSize *oSizeROI*, int *nLevels*[3], int ∗ *hpBufferSize*)

Scratch-buffer size for nppiHistogramRange_8u_C3R.

Parameters:

oSizeROI Region-of-Interest (ROI).

nLevels Array containing number of levels per color channel.

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes..

7.119.2.32 NppStatus nppiHistogramRangeGetBufferSize_8u_C4R (NppiSize *oSizeROI*, int *nLevels*[4], int ∗ *hpBufferSize*)

Scratch-buffer size for nppiHistogramRange_8u_C4R.

Parameters:

oSizeROI Region-of-Interest (ROI).

nLevels Array containing number of levels per color channel.

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes..

7.120 Image Proximity

Primitives for computing the proximity measure between a source image and a template image.

Modules

- SqrDistanceFull_Norm

  Primitives for computing the normalized Euclidean distance between two images with full mode.

- SqrDistanceSame_Norm

  Primitives for computing the normalized Euclidean distance between two images with same mode.

- SqrDistanceValid_Norm

  Primitives for computing the normalized Euclidean distance between two images with valid mode.

- CrossCorrFull_Norm

  Primitives for computing the normalized cross correlation between two images with full mode.

- CrossCorrSame_Norm

  Primitives for computing the normalized cross correlation between two images with same mode.

- CrossCorrValid_Norm

  Primitives for computing the normalized cross correlation between two images with valid mode.

- CrossCorrValid

  Primitives for computing the cross correlation between two images with valid mode.

- CrossCorrFull_NormLevel

  Primitives for computing the normalized cross correlation coefficient between two images with full mode.

- CrossCorrSame_NormLevel

  Primitives for computing the normalized cross correlation coefficient between two images with same mode.

- CrossCorrValid_NormLevel

  Primitives for computing the normalized cross correlation coefficient between two images with valid mode.

7.120.1 Detailed Description

Primitives for computing the proximity measure between a source image and a template image.

7.120.2 General Introduction

There are basically two approaches to compute the proximity measure for template matching, Euclidean distance and the cross correlation.

1. Euclidean distance computes the sum of the squared distance (SSD) between the corresponding pixels of the source image and the template image. The smaller the distance is, the more similar the source image and the template image is around the pixel. The anchor of the template image is used during the computations, which always lies in the gemotric center of the image. Given a source image $pSrc$ ($W_s \times H_s$) and a template image $pTpl$ ($W_t \times H_t$), the Euclidean distance $D_{st}(c, r)$ between two images at pixel in row r and column c is computed as (s stands for source image and t for template image for short):

$$D_{st}(c,r) = \sum_{j=0}^{H_t-1} \sum_{i=0}^{W_t-1} [pTpl(j,i) - pSrc(j+c-\frac{H_t}{2}, i+r-\frac{W_t}{2})]^2$$

2. Cross correlation computes the sum of the product between the corresponding pixels of the source image and the template image. The cross correlation $R_{st}(c, r)$ is calculated as:

$$R_{st}(c,r) = \sum_{j=0}^{H_t-1} \sum_{i=0}^{W_t-1} [pTpl(j,i) \cdot pSrc(j+c-\frac{H_t}{2}, i+r-\frac{W_t}{2})]$$

   The larger the cross correlation value is, the more similar the source image and the template image is around the pixel.

3. The cross correlation $R_{st}(c, r)$ is affected by the brightness of the images which may vary due to the lighting and exposure conditions. Therefore, NPP computes the cross correlation coefficient to circumvent this dependence. This is typically done at every step by subtracting the mean from every pixel value, i.e.,

$$\tilde{R}_{st}(c,r) = \sum_{j=0}^{H_t-1} \sum_{i=0}^{W_t-1} [pTpl(j,i) - Mean_t] \cdot [pSrc(j+c-\frac{H_t}{2}, i+r-\frac{W_t}{2}) - Mean_s]$$

NPP computes the normalized values of Euclidean distance, cross correlation and the cross correlation coefficient.

1. The normalized Euclidean distance $\sigma_{st}(c, r)$ is defined as:

$$\sigma_{st}(c,r) = \frac{D_{st}(c,r)}{\sqrt{R_{ss}(c,r) \cdot R_{tt}(\frac{H_t}{2}, \frac{W_t}{2})}}$$

2. The normalized cross correlation $\rho_{st}(c, r)$ is defined as:

$$\rho_{st}(c,r) = \frac{R_{st}(c,r)}{\sqrt{R_{ss}(c,r) \cdot R_{tt}(\frac{H_t}{2}, \frac{W_t}{2})}}$$

   The $R_{ss}(c, r)$ and $R_{tt}(\frac{H_t}{2}, \frac{W_t}{2}$ denote the auto correlation of the source image and the template image individually. They are defined as:

$$R_{ss}(c,r) = \sum_{j=c-\frac{H_t}{2}}^{c+\frac{H_t}{2}} \sum_{i=r-\frac{W_t}{2}}^{r+\frac{W_t}{2}} pSrc(j,i)$$

$$R_{tt}(\frac{H_t}{2}, \frac{W_t}{2}) = \sum_{j=0}^{H_t-1} \sum_{i=0}^{W_t-1} pTpl(j,i)$$

3. Similarly, the normalized cross correlation coefficient $\gamma_{st}(c, r)$ is calculated as:

$$\gamma_{st}(c, r) = \frac{\tilde{R}_{st}(c, r)}{\sqrt{\tilde{R}_{ss}(c, r) \cdot \tilde{R}_{tt}(\frac{H_t}{2}, \frac{W_t}{2})}}$$

The $\tilde{R}_{ss}(c, r)$ and $\tilde{R}_{tt}(\frac{H_t}{2}, \frac{W_t}{2}$ are defined as:

$$\tilde{R}_{ss}(c, r) = \sum_{j=c-\frac{H_t}{2}}^{c+\frac{H_t}{2}} \sum_{i=r-\frac{W_t}{2}}^{r+\frac{W_t}{2}} [pSrc(j, i) - Mean_s]$$

$$\tilde{R}_{tt}(\frac{H_t}{2}, \frac{W_t}{2}) = \sum_{j=0}^{H_t-1} \sum_{i=0}^{W_t-1} [pTpl(j, i) - Mean_t]$$

7.120.3 Categorizations

The Euclidean distance and the cross correlation are categorized into three types, full, same, and valid.

1. Full mode indicates that the anchor of the template image starts from the outside of the source image, assuming the out-of-boundary pixels are zeor-padded. The size of the destination image is $(W_s + W_t - 1) \times (H_s + H_t - 1)$.
2. Same mode means that the anchor of the template image starts from the top left pixel of the source image. All the out-of-boundary pixels are also zero-padded. The size of the destination image is the same as the source one, i.e., $W_s \times H_s$.
3. Valid mode indicates that there are no out-of-boudnary readings from the source image. The anchor of the template image starts from the inside of the source image. The size of the destination image is $(W_s - W_t + 1) \times (H_s - H_t + 1)$.

7.121 SqrDistanceFull_Norm

Primitives for computing the normalized Euclidean distance between two images with full mode.

SqrDistanceFull_Norm

The functions compute the $\sigma_{st}(c, r)$ in General Introduction with full mode (see Categorizations).

- NppStatus nppiSqrDistanceFull_Norm_8u_C1RSfs (const Npp8u ∗pSrc, int nSrcStep, NppiSize oSrcRoiSize, const Npp8u ∗pTpl, int nTplStep, NppiSize oTplRoiSize, Npp8u ∗pDst, int nDstStep, int nScaleFactor)

  One-channel 8-bit unsigned image SqrDistanceFull_Norm, scaled by $2^(- nScaleFactor)$*.*

- NppStatus nppiSqrDistanceFull_Norm_8u_C3RSfs (const Npp8u ∗pSrc, int nSrcStep, NppiSize oSrcRoiSize, const Npp8u ∗pTpl, int nTplStep, NppiSize oTplRoiSize, Npp8u ∗pDst, int nDstStep, int nScaleFactor)

  Three-channel 8-bit unsigned image SqrDistanceFull_Norm, scaled by $2^(- nScaleFactor)$*.*

- NppStatus nppiSqrDistanceFull_Norm_8u_C4RSfs (const Npp8u ∗pSrc, int nSrcStep, NppiSize oSrcRoiSize, const Npp8u ∗pTpl, int nTplStep, NppiSize oTplRoiSize, Npp8u ∗pDst, int nDstStep, int nScaleFactor)

  Four-channel 8-bit unsigned image SqrDistanceFull_Norm, scaled by $2^(- nScaleFactor)$*.*

- NppStatus nppiSqrDistanceFull_Norm_8u_AC4RSfs (const Npp8u ∗pSrc, int nSrcStep, NppiSize oSrcRoiSize, const Npp8u ∗pTpl, int nTplStep, NppiSize oTplRoiSize, Npp8u ∗pDst, int nDstStep, int nScaleFactor)

  Four-channel 8-bit unsigned image SqrDistanceFull_Norm ignoring alpha channel, scaled by $2^(- nScaleFactor)$*.*

- NppStatus nppiSqrDistanceFull_Norm_32f_C1R (const Npp32f ∗pSrc, int nSrcStep, NppiSize oSrcRoiSize, const Npp32f ∗pTpl, int nTplStep, NppiSize oTplRoiSize, Npp32f ∗pDst, int nDstStep)

  One-channel 32-bit floating point image SqrDistanceFull_Norm.

- NppStatus nppiSqrDistanceFull_Norm_32f_C3R (const Npp32f ∗pSrc, int nSrcStep, NppiSize oSrcRoiSize, const Npp32f ∗pTpl, int nTplStep, NppiSize oTplRoiSize, Npp32f ∗pDst, int nDstStep)

  Three-channel 32-bit floating point image SqrDistanceFull_Norm.

- NppStatus nppiSqrDistanceFull_Norm_32f_C4R (const Npp32f ∗pSrc, int nSrcStep, NppiSize oSrcRoiSize, const Npp32f ∗pTpl, int nTplStep, NppiSize oTplRoiSize, Npp32f ∗pDst, int nDstStep)

  Four-channel 32-bit floating point image SqrDistanceFull_Norm.

- NppStatus nppiSqrDistanceFull_Norm_32f_AC4R (const Npp32f ∗pSrc, int nSrcStep, NppiSize oSrcRoiSize, const Npp32f ∗pTpl, int nTplStep, NppiSize oTplRoiSize, Npp32f ∗pDst, int nDstStep)

  Four-channel 32-bit floating point image SqrDistanceFull_Norm ignoring alpha channel.

- NppStatus nppiSqrDistanceFull_Norm_8u32f_C1R (const Npp8u ∗pSrc, int nSrcStep, NppiSize oSrcRoiSize, const Npp8u ∗pTpl, int nTplStep, NppiSize oTplRoiSize, Npp32f ∗pDst, int nDstStep)

  One-channel 8-bit unsigned image SqrDistanceFull_Norm.

- NppStatus nppiSqrDistanceFull_Norm_8u32f_C3R (const Npp8u ∗pSrc, int nSrcStep, NppiSize oSrcRoiSize, const Npp8u ∗pTpl, int nTplStep, NppiSize oTplRoiSize, Npp32f ∗pDst, int nDstStep)

Three-channel 8-bit unsigned image SqrDistanceFull_Norm.

- NppStatus nppiSqrDistanceFull_Norm_8u32f_C4R (const Npp8u ∗pSrc, int nSrcStep, NppiSize oSrcRoiSize, const Npp8u ∗pTpl, int nTplStep, NppiSize oTplRoiSize, Npp32f ∗pDst, int nDstStep)

  Four-channel 8-bit unsigned image SqrDistanceFull_Norm.

- NppStatus nppiSqrDistanceFull_Norm_8u32f_AC4R (const Npp8u ∗pSrc, int nSrcStep, NppiSize oSrcRoiSize, const Npp8u ∗pTpl, int nTplStep, NppiSize oTplRoiSize, Npp32f ∗pDst, int nDstStep)

  Four-channel 8-bit unsigned image SqrDistanceFull_Norm ignoring alpha channel.

- NppStatus nppiSqrDistanceFull_Norm_8s32f_C1R (const Npp8s ∗pSrc, int nSrcStep, NppiSize oSrcRoiSize, const Npp8s ∗pTpl, int nTplStep, NppiSize oTplRoiSize, Npp32f ∗pDst, int nDstStep)

  One-channel 8-bit signed image SqrDistanceFull_Norm.

- NppStatus nppiSqrDistanceFull_Norm_8s32f_C3R (const Npp8s ∗pSrc, int nSrcStep, NppiSize oSrcRoiSize, const Npp8s ∗pTpl, int nTplStep, NppiSize oTplRoiSize, Npp32f ∗pDst, int nDstStep)

  Three-channel 8-bit signed image SqrDistanceFull_Norm.

- NppStatus nppiSqrDistanceFull_Norm_8s32f_C4R (const Npp8s ∗pSrc, int nSrcStep, NppiSize oSrcRoiSize, const Npp8s ∗pTpl, int nTplStep, NppiSize oTplRoiSize, Npp32f ∗pDst, int nDstStep)

  Four-channel 8-bit signed image SqrDistanceFull_Norm.

- NppStatus nppiSqrDistanceFull_Norm_8s32f_AC4R (const Npp8s ∗pSrc, int nSrcStep, NppiSize oSrcRoiSize, const Npp8s ∗pTpl, int nTplStep, NppiSize oTplRoiSize, Npp32f ∗pDst, int nDstStep)

  Four-channel 8-bit signed image SqrDistanceFull_Norm ignoring alpha channel.

- NppStatus nppiSqrDistanceFull_Norm_16u32f_C1R (const Npp16u ∗pSrc, int nSrcStep, NppiSize oSrcRoiSize, const Npp16u ∗pTpl, int nTplStep, NppiSize oTplRoiSize, Npp32f ∗pDst, int nDstStep)

  One-channel 16-bit unsigned image SqrDistanceFull_Norm.

- NppStatus nppiSqrDistanceFull_Norm_16u32f_C3R (const Npp16u ∗pSrc, int nSrcStep, NppiSize oSrcRoiSize, const Npp16u ∗pTpl, int nTplStep, NppiSize oTplRoiSize, Npp32f ∗pDst, int nDstStep)

  Three-channel 16-bit unsigned image SqrDistanceFull_Norm.

- NppStatus nppiSqrDistanceFull_Norm_16u32f_C4R (const Npp16u ∗pSrc, int nSrcStep, NppiSize oSrcRoiSize, const Npp16u ∗pTpl, int nTplStep, NppiSize oTplRoiSize, Npp32f ∗pDst, int nDstStep)

  Four-channel 16-bit unsigned image SqrDistanceFull_Norm.

- NppStatus nppiSqrDistanceFull_Norm_16u32f_AC4R (const Npp16u ∗pSrc, int nSrcStep, NppiSize oSrcRoiSize, const Npp16u ∗pTpl, int nTplStep, NppiSize oTplRoiSize, Npp32f ∗pDst, int nDstStep)

  Four-channel 16-bit unsigned image SqrDistanceFull_Norm ignoring alpha channel.

7.121.1 Detailed Description

Primitives for computing the normalized Euclidean distance between two images with full mode.

7.121.2 Function Documentation

7.121.2.1 NppStatus nppiSqrDistanceFull_Norm_16u32f_AC4R (const Npp16u ∗ *pSrc*, int *nSrcStep*, NppiSize *oSrcRoiSize*, const Npp16u ∗ *pTpl*, int *nTplStep*, NppiSize *oTplRoiSize*, Npp32f ∗ *pDst*, int *nDstStep*)

Four-channel 16-bit unsigned image SqrDistanceFull_Norm ignoring alpha channel.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSrcRoiSize Region-of-Interest (ROI).

pTpl Pointer to the template image.

nTplStep Number of bytes between successive rows in the template image.

oTplRoiSize Region-of-Interest (ROI).

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.121.2.2 NppStatus nppiSqrDistanceFull_Norm_16u32f_C1R (const Npp16u ∗ *pSrc*, int *nSrcStep*, NppiSize *oSrcRoiSize*, const Npp16u ∗ *pTpl*, int *nTplStep*, NppiSize *oTplRoiSize*, Npp32f ∗ *pDst*, int *nDstStep*)

One-channel 16-bit unsigned image SqrDistanceFull_Norm.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSrcRoiSize Region-of-Interest (ROI).

pTpl Pointer to the template image.

nTplStep Number of bytes between successive rows in the template image.

oTplRoiSize Region-of-Interest (ROI).

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.121.2.3 NppStatus nppiSqrDistanceFull_Norm_16u32f_C3R (const Npp16u ∗ *pSrc*, int *nSrcStep*, NppiSize *oSrcRoiSize*, const Npp16u ∗ *pTpl*, int *nTplStep*, NppiSize *oTplRoiSize*, Npp32f ∗ *pDst*, int *nDstStep*)

Three-channel 16-bit unsigned image SqrDistanceFull_Norm.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSrcRoiSize Region-of-Interest (ROI).

pTpl Pointer to the template image.

nTplStep Number of bytes between successive rows in the template image.

oTplRoiSize Region-of-Interest (ROI).

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.121.2.4 NppStatus nppiSqrDistanceFull_Norm_16u32f_C4R (const Npp16u ∗ *pSrc*, int *nSrcStep*, NppiSize *oSrcRoiSize*, const Npp16u ∗ *pTpl*, int *nTplStep*, NppiSize *oTplRoiSize*, Npp32f ∗ *pDst*, int *nDstStep*)

Four-channel 16-bit unsigned image SqrDistanceFull_Norm.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSrcRoiSize Region-of-Interest (ROI).

pTpl Pointer to the template image.

nTplStep Number of bytes between successive rows in the template image.

oTplRoiSize Region-of-Interest (ROI).

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.121.2.5 NppStatus nppiSqrDistanceFull_Norm_32f_AC4R (const Npp32f ∗ *pSrc*, int *nSrcStep*, NppiSize *oSrcRoiSize*, const Npp32f ∗ *pTpl*, int *nTplStep*, NppiSize *oTplRoiSize*, Npp32f ∗ *pDst*, int *nDstStep*)

Four-channel 32-bit floating point image SqrDistanceFull_Norm ignoring alpha channel.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSrcRoiSize Region-of-Interest (ROI).

pTpl Pointer to the template image.

nTplStep Number of bytes between successive rows in the template image.

oTplRoiSize Region-of-Interest (ROI).

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.121.2.6 NppStatus nppiSqrDistanceFull_Norm_32f_C1R (const Npp32f ∗ *pSrc*, int *nSrcStep*, NppiSize *oSrcRoiSize*, const Npp32f ∗ *pTpl*, int *nTplStep*, NppiSize *oTplRoiSize*, Npp32f ∗ *pDst*, int *nDstStep*)

One-channel 32-bit floating point image SqrDistanceFull_Norm.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSrcRoiSize Region-of-Interest (ROI).

pTpl Pointer to the template image.

nTplStep Number of bytes between successive rows in the template image.

oTplRoiSize Region-of-Interest (ROI).

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.121.2.7 NppStatus nppiSqrDistanceFull_Norm_32f_C3R (const Npp32f ∗ *pSrc*, int *nSrcStep*, NppiSize *oSrcRoiSize*, const Npp32f ∗ *pTpl*, int *nTplStep*, NppiSize *oTplRoiSize*, Npp32f ∗ *pDst*, int *nDstStep*)

Three-channel 32-bit floating point image SqrDistanceFull_Norm.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSrcRoiSize Region-of-Interest (ROI).

pTpl Pointer to the template image.

nTplStep Number of bytes between successive rows in the template image.

oTplRoiSize Region-of-Interest (ROI).

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.121.2.8 NppStatus nppiSqrDistanceFull_Norm_32f_C4R (const Npp32f ∗ *pSrc*, int *nSrcStep*, NppiSize *oSrcRoiSize*, const Npp32f ∗ *pTpl*, int *nTplStep*, NppiSize *oTplRoiSize*, Npp32f ∗ *pDst*, int *nDstStep*)

Four-channel 32-bit floating point image SqrDistanceFull_Norm.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSrcRoiSize Region-of-Interest (ROI).

pTpl Pointer to the template image.

nTplStep Number of bytes between successive rows in the template image.

oTplRoiSize Region-of-Interest (ROI).

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.121.2.9 NppStatus nppiSqrDistanceFull_Norm_8s32f_AC4R (const Npp8s ∗ *pSrc*, int *nSrcStep*, NppiSize *oSrcRoiSize*, const Npp8s ∗ *pTpl*, int *nTplStep*, NppiSize *oTplRoiSize*, Npp32f ∗ *pDst*, int *nDstStep*)

Four-channel 8-bit signed image SqrDistanceFull_Norm ignoring alpha channel.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSrcRoiSize Region-of-Interest (ROI).

pTpl Pointer to the template image.

nTplStep Number of bytes between successive rows in the template image.

oTplRoiSize Region-of-Interest (ROI).

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.121.2.10 NppStatus nppiSqrDistanceFull_Norm_8s32f_C1R (const Npp8s ∗ *pSrc*, int *nSrcStep*, NppiSize *oSrcRoiSize*, const Npp8s ∗ *pTpl*, int *nTplStep*, NppiSize *oTplRoiSize*, Npp32f ∗ *pDst*, int *nDstStep*)

One-channel 8-bit signed image SqrDistanceFull_Norm.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSrcRoiSize Region-of-Interest (ROI).

pTpl Pointer to the template image.

nTplStep Number of bytes between successive rows in the template image.

oTplRoiSize Region-of-Interest (ROI).

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.121.2.11 NppStatus nppiSqrDistanceFull_Norm_8s32f_C3R (const Npp8s ∗ *pSrc*, int *nSrcStep*, NppiSize *oSrcRoiSize*, const Npp8s ∗ *pTpl*, int *nTplStep*, NppiSize *oTplRoiSize*, Npp32f ∗ *pDst*, int *nDstStep*)

Three-channel 8-bit signed image SqrDistanceFull_Norm.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSrcRoiSize Region-of-Interest (ROI).

pTpl Pointer to the template image.

nTplStep Number of bytes between successive rows in the template image.

oTplRoiSize Region-of-Interest (ROI).

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.121.2.12 NppStatus nppiSqrDistanceFull_Norm_8s32f_C4R (const Npp8s ∗ *pSrc*, int *nSrcStep*, NppiSize *oSrcRoiSize*, const Npp8s ∗ *pTpl*, int *nTplStep*, NppiSize *oTplRoiSize*, Npp32f ∗ *pDst*, int *nDstStep*)

Four-channel 8-bit signed image SqrDistanceFull_Norm.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSrcRoiSize Region-of-Interest (ROI).

pTpl Pointer to the template image.

nTplStep Number of bytes between successive rows in the template image.

oTplRoiSize Region-of-Interest (ROI).

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.121.2.13 NppStatus nppiSqrDistanceFull_Norm_8u32f_AC4R (const Npp8u ∗ *pSrc*, int *nSrcStep*, NppiSize *oSrcRoiSize*, const Npp8u ∗ *pTpl*, int *nTplStep*, NppiSize *oTplRoiSize*, Npp32f ∗ *pDst*, int *nDstStep*)

Four-channel 8-bit unsigned image SqrDistanceFull_Norm ignoring alpha channel.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSrcRoiSize Region-of-Interest (ROI).

pTpl Pointer to the template image.

nTplStep Number of bytes between successive rows in the template image.

oTplRoiSize Region-of-Interest (ROI).

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.121.2.14 NppStatus nppiSqrDistanceFull_Norm_8u32f_C1R (const Npp8u ∗ *pSrc*, int *nSrcStep*, NppiSize *oSrcRoiSize*, const Npp8u ∗ *pTpl*, int *nTplStep*, NppiSize *oTplRoiSize*, Npp32f ∗ *pDst*, int *nDstStep*)

One-channel 8-bit unsigned image SqrDistanceFull_Norm.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSrcRoiSize Region-of-Interest (ROI).

pTpl Pointer to the template image.

nTplStep Number of bytes between successive rows in the template image.

oTplRoiSize Region-of-Interest (ROI).

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.121.2.15 NppStatus nppiSqrDistanceFull_Norm_8u32f_C3R (const Npp8u ∗ *pSrc*, int *nSrcStep*, NppiSize *oSrcRoiSize*, const Npp8u ∗ *pTpl*, int *nTplStep*, NppiSize *oTplRoiSize*, Npp32f ∗ *pDst*, int *nDstStep*)

Three-channel 8-bit unsigned image SqrDistanceFull_Norm.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSrcRoiSize Region-of-Interest (ROI).

pTpl Pointer to the template image.

nTplStep Number of bytes between successive rows in the template image.

oTplRoiSize Region-of-Interest (ROI).

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.121.2.16 NppStatus nppiSqrDistanceFull_Norm_8u32f_C4R (const Npp8u ∗ *pSrc*, int *nSrcStep*, NppiSize *oSrcRoiSize*, const Npp8u ∗ *pTpl*, int *nTplStep*, NppiSize *oTplRoiSize*, Npp32f ∗ *pDst*, int *nDstStep*)

Four-channel 8-bit unsigned image SqrDistanceFull_Norm.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSrcRoiSize Region-of-Interest (ROI).

pTpl Pointer to the template image.

nTplStep Number of bytes between successive rows in the template image.

oTplRoiSize Region-of-Interest (ROI).

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.121.2.17 NppStatus nppiSqrDistanceFull_Norm_8u_AC4RSfs (const Npp8u $*$ *pSrc*, int *nSrcStep*, NppiSize *oSrcRoiSize*, const Npp8u $*$ *pTpl*, int *nTplStep*, NppiSize *oTplRoiSize*, Npp8u $*$ *pDst*, int *nDstStep*, int *nScaleFactor*)

Four-channel 8-bit unsigned image SqrDistanceFull_Norm ignoring alpha channel, scaled by $2^(- nScaleFactor)$.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSrcRoiSize Region-of-Interest (ROI).

pTpl Pointer to the template image.

nTplStep Number of bytes between successive rows in the template image.

oTplRoiSize Region-of-Interest (ROI).

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

nScaleFactor Integer Result Scaling.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.121.2.18 NppStatus nppiSqrDistanceFull_Norm_8u_C1RSfs (const Npp8u $*$ *pSrc*, int *nSrcStep*, NppiSize *oSrcRoiSize*, const Npp8u $*$ *pTpl*, int *nTplStep*, NppiSize *oTplRoiSize*, Npp8u $*$ *pDst*, int *nDstStep*, int *nScaleFactor*)

One-channel 8-bit unsigned image SqrDistanceFull_Norm, scaled by $2^(- nScaleFactor)$.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSrcRoiSize Region-of-Interest (ROI).

pTpl Pointer to the template image.

nTplStep Number of bytes between successive rows in the template image.

oTplRoiSize Region-of-Interest (ROI).

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

nScaleFactor Integer Result Scaling.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.121.2.19 NppStatus nppiSqrDistanceFull_Norm_8u_C3RSfs (const Npp8u * *pSrc*, int *nSrcStep*, NppiSize *oSrcRoiSize*, const Npp8u * *pTpl*, int *nTplStep*, NppiSize *oTplRoiSize*, Npp8u * *pDst*, int *nDstStep*, int *nScaleFactor*)

Three-channel 8-bit unsigned image SqrDistanceFull_Norm, scaled by $2^(-nScaleFactor)$.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSrcRoiSize Region-of-Interest (ROI).

pTpl Pointer to the template image.

nTplStep Number of bytes between successive rows in the template image.

oTplRoiSize Region-of-Interest (ROI).

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

nScaleFactor Integer Result Scaling.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.121.2.20 NppStatus nppiSqrDistanceFull_Norm_8u_C4RSfs (const Npp8u * *pSrc*, int *nSrcStep*, NppiSize *oSrcRoiSize*, const Npp8u * *pTpl*, int *nTplStep*, NppiSize *oTplRoiSize*, Npp8u * *pDst*, int *nDstStep*, int *nScaleFactor*)

Four-channel 8-bit unsigned image SqrDistanceFull_Norm, scaled by $2^(-nScaleFactor)$.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSrcRoiSize Region-of-Interest (ROI).

pTpl Pointer to the template image.

nTplStep Number of bytes between successive rows in the template image.

oTplRoiSize Region-of-Interest (ROI).

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

nScaleFactor Integer Result Scaling.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.122 SqrDistanceSame_Norm

Primitives for computing the normalized Euclidean distance between two images with same mode.

SqrDistanceSame_Norm

The functions compute the $\sigma_{st}(c,r)$ in General Introduction with same mode (see Categorizations).

- NppStatus nppiSqrDistanceSame_Norm_8u_C1RSfs (const Npp8u ∗pSrc, int nSrcStep, NppiSize oSrcRoiSize, const Npp8u ∗pTpl, int nTplStep, NppiSize oTplRoiSize, Npp8u ∗pDst, int nDstStep, int nScaleFactor)

  One-channel 8-bit unsigned image SqrDistanceSame_Norm, scaled by $2^(- nScaleFactor)$*.*

- NppStatus nppiSqrDistanceSame_Norm_8u_C3RSfs (const Npp8u ∗pSrc, int nSrcStep, NppiSize oSrcRoiSize, const Npp8u ∗pTpl, int nTplStep, NppiSize oTplRoiSize, Npp8u ∗pDst, int nDstStep, int nScaleFactor)

  Three-channel 8-bit unsigned image SqrDistanceSame_Norm, scaled by $2^(- nScaleFactor)$*.*

- NppStatus nppiSqrDistanceSame_Norm_8u_C4RSfs (const Npp8u ∗pSrc, int nSrcStep, NppiSize oSrcRoiSize, const Npp8u ∗pTpl, int nTplStep, NppiSize oTplRoiSize, Npp8u ∗pDst, int nDstStep, int nScaleFactor)

  Four-channel 8-bit unsigned image SqrDistanceSame_Norm, scaled by $2^(- nScaleFactor)$*.*

- NppStatus nppiSqrDistanceSame_Norm_8u_AC4RSfs (const Npp8u ∗pSrc, int nSrcStep, NppiSize oSrcRoiSize, const Npp8u ∗pTpl, int nTplStep, NppiSize oTplRoiSize, Npp8u ∗pDst, int nDstStep, int nScaleFactor)

  Four-channel 8-bit unsigned image SqrDistanceSame_Norm ignoring alpha channel, scaled by $2^(- nScaleFactor)$*.*

- NppStatus nppiSqrDistanceSame_Norm_32f_C1R (const Npp32f ∗pSrc, int nSrcStep, NppiSize oSrcRoiSize, const Npp32f ∗pTpl, int nTplStep, NppiSize oTplRoiSize, Npp32f ∗pDst, int nDstStep)

  One-channel 32-bit floating point image SqrDistanceSame_Norm.

- NppStatus nppiSqrDistanceSame_Norm_32f_C3R (const Npp32f ∗pSrc, int nSrcStep, NppiSize oSrcRoiSize, const Npp32f ∗pTpl, int nTplStep, NppiSize oTplRoiSize, Npp32f ∗pDst, int nDstStep)

  Three-channel 32-bit floating point image SqrDistanceSame_Norm.

- NppStatus nppiSqrDistanceSame_Norm_32f_C4R (const Npp32f ∗pSrc, int nSrcStep, NppiSize oSrcRoiSize, const Npp32f ∗pTpl, int nTplStep, NppiSize oTplRoiSize, Npp32f ∗pDst, int nDstStep)

  Four-channel 32-bit floating point image SqrDistanceSame_Norm.

- NppStatus nppiSqrDistanceSame_Norm_32f_AC4R (const Npp32f ∗pSrc, int nSrcStep, NppiSize oSrcRoiSize, const Npp32f ∗pTpl, int nTplStep, NppiSize oTplRoiSize, Npp32f ∗pDst, int nDstStep)

  Four-channel 32-bit floating point image SqrDistanceSame_Norm ignoring alpha channel.

- NppStatus nppiSqrDistanceSame_Norm_8u32f_C1R (const Npp8u ∗pSrc, int nSrcStep, NppiSize oSrcRoiSize, const Npp8u ∗pTpl, int nTplStep, NppiSize oTplRoiSize, Npp32f ∗pDst, int nDstStep)

  One-channel 8-bit unsigned image SqrDistanceSame_Norm.

- NppStatus nppiSqrDistanceSame_Norm_8u32f_C3R (const Npp8u ∗pSrc, int nSrcStep, NppiSize oSrcRoiSize, const Npp8u ∗pTpl, int nTplStep, NppiSize oTplRoiSize, Npp32f ∗pDst, int nDstStep)

  Three-channel 8-bit unsigned image SqrDistanceSame_Norm.

- NppStatus nppiSqrDistanceSame_Norm_8u32f_C4R (const Npp8u ∗pSrc, int nSrcStep, NppiSize oSrcRoiSize, const Npp8u ∗pTpl, int nTplStep, NppiSize oTplRoiSize, Npp32f ∗pDst, int nDstStep)

  Four-channel 8-bit unsigned image SqrDistanceSame_Norm.

- NppStatus nppiSqrDistanceSame_Norm_8u32f_AC4R (const Npp8u ∗pSrc, int nSrcStep, NppiSize oSrcRoiSize, const Npp8u ∗pTpl, int nTplStep, NppiSize oTplRoiSize, Npp32f ∗pDst, int nDstStep)

  Four-channel 8-bit unsigned image SqrDistanceSame_Norm ignoring alpha channel.

- NppStatus nppiSqrDistanceSame_Norm_8s32f_C1R (const Npp8s ∗pSrc, int nSrcStep, NppiSize oSrcRoiSize, const Npp8s ∗pTpl, int nTplStep, NppiSize oTplRoiSize, Npp32f ∗pDst, int nDstStep)

  One-channel 8-bit signed image SqrDistanceSame_Norm.

- NppStatus nppiSqrDistanceSame_Norm_8s32f_C3R (const Npp8s ∗pSrc, int nSrcStep, NppiSize oSrcRoiSize, const Npp8s ∗pTpl, int nTplStep, NppiSize oTplRoiSize, Npp32f ∗pDst, int nDstStep)

  Three-channel 8-bit signed image SqrDistanceSame_Norm.

- NppStatus nppiSqrDistanceSame_Norm_8s32f_C4R (const Npp8s ∗pSrc, int nSrcStep, NppiSize oSrcRoiSize, const Npp8s ∗pTpl, int nTplStep, NppiSize oTplRoiSize, Npp32f ∗pDst, int nDstStep)

  Four-channel 8-bit signed image SqrDistanceSame_Norm.

- NppStatus nppiSqrDistanceSame_Norm_8s32f_AC4R (const Npp8s ∗pSrc, int nSrcStep, NppiSize oSrcRoiSize, const Npp8s ∗pTpl, int nTplStep, NppiSize oTplRoiSize, Npp32f ∗pDst, int nDstStep)

  Four-channel 8-bit signed image SqrDistanceSame_Norm ignoring alpha channel.

- NppStatus nppiSqrDistanceSame_Norm_16u32f_C1R (const Npp16u ∗pSrc, int nSrcStep, NppiSize oSrcRoiSize, const Npp16u ∗pTpl, int nTplStep, NppiSize oTplRoiSize, Npp32f ∗pDst, int nDstStep)

  One-channel 16-bit unsigned image SqrDistanceSame_Norm.

- NppStatus nppiSqrDistanceSame_Norm_16u32f_C3R (const Npp16u ∗pSrc, int nSrcStep, NppiSize oSrcRoiSize, const Npp16u ∗pTpl, int nTplStep, NppiSize oTplRoiSize, Npp32f ∗pDst, int nDstStep)

  Three-channel 16-bit unsigned image SqrDistanceSame_Norm.

- NppStatus nppiSqrDistanceSame_Norm_16u32f_C4R (const Npp16u ∗pSrc, int nSrcStep, NppiSize oSrcRoiSize, const Npp16u ∗pTpl, int nTplStep, NppiSize oTplRoiSize, Npp32f ∗pDst, int nDstStep)

  Four-channel 16-bit unsigned image SqrDistanceSame_Norm.

- NppStatus nppiSqrDistanceSame_Norm_16u32f_AC4R (const Npp16u ∗pSrc, int nSrcStep, NppiSize oSrcRoiSize, const Npp16u ∗pTpl, int nTplStep, NppiSize oTplRoiSize, Npp32f ∗pDst, int nDstStep)

  Four-channel 16-bit unsigned image SqrDistanceSame_Norm ignoring alpha channel.

7.122.1 Detailed Description

Primitives for computing the normalized Euclidean distance between two images with same mode.

7.122.2 Function Documentation

7.122.2.1 NppStatus nppiSqrDistanceSame_Norm_16u32f_AC4R (const Npp16u ∗ *pSrc*, int *nSrcStep*, NppiSize *oSrcRoiSize*, const Npp16u ∗ *pTpl*, int *nTplStep*, NppiSize *oTplRoiSize*, Npp32f ∗ *pDst*, int *nDstStep*)

Four-channel 16-bit unsigned image SqrDistanceSame_Norm ignoring alpha channel.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSrcRoiSize Region-of-Interest (ROI).

pTpl Pointer to the template image.

nTplStep Number of bytes between successive rows in the template image.

oTplRoiSize Region-of-Interest (ROI).

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.122.2.2 NppStatus nppiSqrDistanceSame_Norm_16u32f_C1R (const Npp16u ∗ *pSrc*, int *nSrcStep*, NppiSize *oSrcRoiSize*, const Npp16u ∗ *pTpl*, int *nTplStep*, NppiSize *oTplRoiSize*, Npp32f ∗ *pDst*, int *nDstStep*)

One-channel 16-bit unsigned image SqrDistanceSame_Norm.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSrcRoiSize Region-of-Interest (ROI).

pTpl Pointer to the template image.

nTplStep Number of bytes between successive rows in the template image.

oTplRoiSize Region-of-Interest (ROI).

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.122.2.3 NppStatus nppiSqrDistanceSame_Norm_16u32f_C3R (const Npp16u ∗ *pSrc*, int *nSrcStep*, NppiSize *oSrcRoiSize*, const Npp16u ∗ *pTpl*, int *nTplStep*, NppiSize *oTplRoiSize*, Npp32f ∗ *pDst*, int *nDstStep*)

Three-channel 16-bit unsigned image SqrDistanceSame_Norm.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSrcRoiSize Region-of-Interest (ROI).

pTpl Pointer to the template image.

nTplStep Number of bytes between successive rows in the template image.

oTplRoiSize Region-of-Interest (ROI).

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.122.2.4 NppStatus nppiSqrDistanceSame_Norm_16u32f_C4R (const Npp16u ∗ *pSrc*, int *nSrcStep*, NppiSize *oSrcRoiSize*, const Npp16u ∗ *pTpl*, int *nTplStep*, NppiSize *oTplRoiSize*, Npp32f ∗ *pDst*, int *nDstStep*)

Four-channel 16-bit unsigned image SqrDistanceSame_Norm.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSrcRoiSize Region-of-Interest (ROI).

pTpl Pointer to the template image.

nTplStep Number of bytes between successive rows in the template image.

oTplRoiSize Region-of-Interest (ROI).

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.122.2.5 NppStatus nppiSqrDistanceSame_Norm_32f_AC4R (const Npp32f ∗ *pSrc*, int *nSrcStep*, NppiSize *oSrcRoiSize*, const Npp32f ∗ *pTpl*, int *nTplStep*, NppiSize *oTplRoiSize*, Npp32f ∗ *pDst*, int *nDstStep*)

Four-channel 32-bit floating point image SqrDistanceSame_Norm ignoring alpha channel.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSrcRoiSize Region-of-Interest (ROI).

pTpl Pointer to the template image.

nTplStep Number of bytes between successive rows in the template image.

oTplRoiSize Region-of-Interest (ROI).

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.122.2.6 NppStatus nppiSqrDistanceSame_Norm_32f_C1R (const Npp32f ∗ *pSrc*, int *nSrcStep*, NppiSize *oSrcRoiSize*, const Npp32f ∗ *pTpl*, int *nTplStep*, NppiSize *oTplRoiSize*, Npp32f ∗ *pDst*, int *nDstStep*)

One-channel 32-bit floating point image SqrDistanceSame_Norm.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSrcRoiSize Region-of-Interest (ROI).

pTpl Pointer to the template image.

nTplStep Number of bytes between successive rows in the template image.

oTplRoiSize Region-of-Interest (ROI).

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.122.2.7 NppStatus nppiSqrDistanceSame_Norm_32f_C3R (const Npp32f ∗ *pSrc*, int *nSrcStep*, NppiSize *oSrcRoiSize*, const Npp32f ∗ *pTpl*, int *nTplStep*, NppiSize *oTplRoiSize*, Npp32f ∗ *pDst*, int *nDstStep*)

Three-channel 32-bit floating point image SqrDistanceSame_Norm.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSrcRoiSize Region-of-Interest (ROI).

pTpl Pointer to the template image.

nTplStep Number of bytes between successive rows in the template image.

oTplRoiSize Region-of-Interest (ROI).

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.122.2.8 NppStatus nppiSqrDistanceSame_Norm_32f_C4R (const Npp32f ∗ *pSrc*, int *nSrcStep*, NppiSize *oSrcRoiSize*, const Npp32f ∗ *pTpl*, int *nTplStep*, NppiSize *oTplRoiSize*, Npp32f ∗ *pDst*, int *nDstStep*)

Four-channel 32-bit floating point image SqrDistanceSame_Norm.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSrcRoiSize Region-of-Interest (ROI).

pTpl Pointer to the template image.

nTplStep Number of bytes between successive rows in the template image.

oTplRoiSize Region-of-Interest (ROI).

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.122.2.9 NppStatus nppiSqrDistanceSame_Norm_8s32f_AC4R (const Npp8s ∗ *pSrc*, int *nSrcStep*, NppiSize *oSrcRoiSize*, const Npp8s ∗ *pTpl*, int *nTplStep*, NppiSize *oTplRoiSize*, Npp32f ∗ *pDst*, int *nDstStep*)

Four-channel 8-bit signed image SqrDistanceSame_Norm ignoring alpha channel.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSrcRoiSize Region-of-Interest (ROI).

pTpl Pointer to the template image.

nTplStep Number of bytes between successive rows in the template image.

oTplRoiSize Region-of-Interest (ROI).

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.122.2.10 NppStatus nppiSqrDistanceSame_Norm_8s32f_C1R (const Npp8s ∗ *pSrc*, int *nSrcStep*, NppiSize *oSrcRoiSize*, const Npp8s ∗ *pTpl*, int *nTplStep*, NppiSize *oTplRoiSize*, Npp32f ∗ *pDst*, int *nDstStep*)

One-channel 8-bit signed image SqrDistanceSame_Norm.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSrcRoiSize Region-of-Interest (ROI).

pTpl Pointer to the template image.

nTplStep Number of bytes between successive rows in the template image.

oTplRoiSize Region-of-Interest (ROI).

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.122.2.11 NppStatus nppiSqrDistanceSame_Norm_8s32f_C3R (const Npp8s ∗ *pSrc*, int *nSrcStep*, NppiSize *oSrcRoiSize*, const Npp8s ∗ *pTpl*, int *nTplStep*, NppiSize *oTplRoiSize*, Npp32f ∗ *pDst*, int *nDstStep*)

Three-channel 8-bit signed image SqrDistanceSame_Norm.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSrcRoiSize Region-of-Interest (ROI).

pTpl Pointer to the template image.

nTplStep Number of bytes between successive rows in the template image.

oTplRoiSize Region-of-Interest (ROI).

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.122.2.12 NppStatus nppiSqrDistanceSame_Norm_8s32f_C4R (const Npp8s * *pSrc*, int *nSrcStep*, NppiSize *oSrcRoiSize*, const Npp8s * *pTpl*, int *nTplStep*, NppiSize *oTplRoiSize*, Npp32f * *pDst*, int *nDstStep*)

Four-channel 8-bit signed image SqrDistanceSame_Norm.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSrcRoiSize Region-of-Interest (ROI).

pTpl Pointer to the template image.

nTplStep Number of bytes between successive rows in the template image.

oTplRoiSize Region-of-Interest (ROI).

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.122.2.13 NppStatus nppiSqrDistanceSame_Norm_8u32f_AC4R (const Npp8u * *pSrc*, int *nSrcStep*, NppiSize *oSrcRoiSize*, const Npp8u * *pTpl*, int *nTplStep*, NppiSize *oTplRoiSize*, Npp32f * *pDst*, int *nDstStep*)

Four-channel 8-bit unsigned image SqrDistanceSame_Norm ignoring alpha channel.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSrcRoiSize Region-of-Interest (ROI).

pTpl Pointer to the template image.

nTplStep Number of bytes between successive rows in the template image.

oTplRoiSize Region-of-Interest (ROI).

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.122.2.14 NppStatus nppiSqrDistanceSame_Norm_8u32f_C1R (const Npp8u * *pSrc*, int *nSrcStep*, NppiSize *oSrcRoiSize*, const Npp8u * *pTpl*, int *nTplStep*, NppiSize *oTplRoiSize*, Npp32f * *pDst*, int *nDstStep*)

One-channel 8-bit unsigned image SqrDistanceSame_Norm.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSrcRoiSize Region-of-Interest (ROI).

pTpl Pointer to the template image.

nTplStep Number of bytes between successive rows in the template image.

oTplRoiSize Region-of-Interest (ROI).

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.122.2.15 NppStatus nppiSqrDistanceSame_Norm_8u32f_C3R (const Npp8u ∗ *pSrc*, int *nSrcStep*, NppiSize *oSrcRoiSize*, const Npp8u ∗ *pTpl*, int *nTplStep*, NppiSize *oTplRoiSize*, Npp32f ∗ *pDst*, int *nDstStep*)

Three-channel 8-bit unsigned image SqrDistanceSame_Norm.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSrcRoiSize Region-of-Interest (ROI).

pTpl Pointer to the template image.

nTplStep Number of bytes between successive rows in the template image.

oTplRoiSize Region-of-Interest (ROI).

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.122.2.16 NppStatus nppiSqrDistanceSame_Norm_8u32f_C4R (const Npp8u ∗ *pSrc*, int *nSrcStep*, NppiSize *oSrcRoiSize*, const Npp8u ∗ *pTpl*, int *nTplStep*, NppiSize *oTplRoiSize*, Npp32f ∗ *pDst*, int *nDstStep*)

Four-channel 8-bit unsigned image SqrDistanceSame_Norm.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSrcRoiSize Region-of-Interest (ROI).

pTpl Pointer to the template image.

nTplStep Number of bytes between successive rows in the template image.

oTplRoiSize Region-of-Interest (ROI).

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.122.2.17 NppStatus nppiSqrDistanceSame_Norm_8u_AC4RSfs (const Npp8u $*$ *pSrc*, int *nSrcStep*, NppiSize *oSrcRoiSize*, const Npp8u $*$ *pTpl*, int *nTplStep*, NppiSize *oTplRoiSize*, Npp8u $*$ *pDst*, int *nDstStep*, int *nScaleFactor*)

Four-channel 8-bit unsigned image SqrDistanceSame_Norm ignoring alpha channel, scaled by $2^(- nScaleFactor)$.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSrcRoiSize Region-of-Interest (ROI).

pTpl Pointer to the template image.

nTplStep Number of bytes between successive rows in the template image.

oTplRoiSize Region-of-Interest (ROI).

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

nScaleFactor Integer Result Scaling.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.122.2.18 NppStatus nppiSqrDistanceSame_Norm_8u_C1RSfs (const Npp8u $*$ *pSrc*, int *nSrcStep*, NppiSize *oSrcRoiSize*, const Npp8u $*$ *pTpl*, int *nTplStep*, NppiSize *oTplRoiSize*, Npp8u $*$ *pDst*, int *nDstStep*, int *nScaleFactor*)

One-channel 8-bit unsigned image SqrDistanceSame_Norm, scaled by $2^(- nScaleFactor)$.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSrcRoiSize Region-of-Interest (ROI).

pTpl Pointer to the template image.

nTplStep Number of bytes between successive rows in the template image.

oTplRoiSize Region-of-Interest (ROI).

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

nScaleFactor Integer Result Scaling.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.122.2.19 NppStatus nppiSqrDistanceSame_Norm_8u_C3RSfs (const Npp8u ∗ *pSrc*, int *nSrcStep*, NppiSize *oSrcRoiSize*, const Npp8u ∗ *pTpl*, int *nTplStep*, NppiSize *oTplRoiSize*, Npp8u ∗ *pDst*, int *nDstStep*, int *nScaleFactor*)

Three-channel 8-bit unsigned image SqrDistanceSame_Norm, scaled by $2^(- nScaleFactor)$.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSrcRoiSize Region-of-Interest (ROI).

pTpl Pointer to the template image.

nTplStep Number of bytes between successive rows in the template image.

oTplRoiSize Region-of-Interest (ROI).

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

nScaleFactor Integer Result Scaling.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.122.2.20 NppStatus nppiSqrDistanceSame_Norm_8u_C4RSfs (const Npp8u ∗ *pSrc*, int *nSrcStep*, NppiSize *oSrcRoiSize*, const Npp8u ∗ *pTpl*, int *nTplStep*, NppiSize *oTplRoiSize*, Npp8u ∗ *pDst*, int *nDstStep*, int *nScaleFactor*)

Four-channel 8-bit unsigned image SqrDistanceSame_Norm, scaled by $2^(- nScaleFactor)$.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSrcRoiSize Region-of-Interest (ROI).

pTpl Pointer to the template image.

nTplStep Number of bytes between successive rows in the template image.

oTplRoiSize Region-of-Interest (ROI).

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

nScaleFactor Integer Result Scaling.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.123 SqrDistanceValid_Norm

Primitives for computing the normalized Euclidean distance between two images with valid mode.

SqrDistanceValid_Norm

The functions compute the $\sigma_{st}(c, r)$ in General Introduction with valid mode (see Categorizations).

- NppStatus nppiSqrDistanceValid_Norm_8u_C1RSfs (const Npp8u *pSrc, int nSrcStep, NppiSize oSrcRoiSize, const Npp8u *pTpl, int nTplStep, NppiSize oTplRoiSize, Npp8u *pDst, int nDstStep, int nScaleFactor)

  One-channel 8-bit unsigned image SqrDistanceValid_Norm, scaled by $2^(- nScaleFactor)$.

- NppStatus nppiSqrDistanceValid_Norm_8u_C3RSfs (const Npp8u *pSrc, int nSrcStep, NppiSize oSrcRoiSize, const Npp8u *pTpl, int nTplStep, NppiSize oTplRoiSize, Npp8u *pDst, int nDstStep, int nScaleFactor)

  Three-channel 8-bit unsigned image SqrDistanceValid_Norm, scaled by $2^(- nScaleFactor)$.

- NppStatus nppiSqrDistanceValid_Norm_8u_C4RSfs (const Npp8u *pSrc, int nSrcStep, NppiSize oSrcRoiSize, const Npp8u *pTpl, int nTplStep, NppiSize oTplRoiSize, Npp8u *pDst, int nDstStep, int nScaleFactor)

  Four-channel 8-bit unsigned image SqrDistanceValid_Norm, scaled by $2^(- nScaleFactor)$.

- NppStatus nppiSqrDistanceValid_Norm_8u_AC4RSfs (const Npp8u *pSrc, int nSrcStep, NppiSize oSrcRoiSize, const Npp8u *pTpl, int nTplStep, NppiSize oTplRoiSize, Npp8u *pDst, int nDstStep, int nScaleFactor)

  Four-channel 8-bit unsigned image SqrDistanceValid_Norm ignoring alpha channel, scaled by $2^(- nScaleFactor)$.

- NppStatus nppiSqrDistanceValid_Norm_32f_C1R (const Npp32f *pSrc, int nSrcStep, NppiSize oSrcRoiSize, const Npp32f *pTpl, int nTplStep, NppiSize oTplRoiSize, Npp32f *pDst, int nDstStep)

  One-channel 32-bit floating point image SqrDistanceValid_Norm.

- NppStatus nppiSqrDistanceValid_Norm_32f_C3R (const Npp32f *pSrc, int nSrcStep, NppiSize oSrcRoiSize, const Npp32f *pTpl, int nTplStep, NppiSize oTplRoiSize, Npp32f *pDst, int nDstStep)

  Three-channel 32-bit floating point image SqrDistanceValid_Norm.

- NppStatus nppiSqrDistanceValid_Norm_32f_C4R (const Npp32f *pSrc, int nSrcStep, NppiSize oSrcRoiSize, const Npp32f *pTpl, int nTplStep, NppiSize oTplRoiSize, Npp32f *pDst, int nDstStep)

  Four-channel 32-bit floating point image SqrDistanceValid_Norm.

- NppStatus nppiSqrDistanceValid_Norm_32f_AC4R (const Npp32f *pSrc, int nSrcStep, NppiSize oSrcRoiSize, const Npp32f *pTpl, int nTplStep, NppiSize oTplRoiSize, Npp32f *pDst, int nDstStep)

  Four-channel 32-bit floating point image SqrDistanceValid_Norm ignoring alpha channel.

- NppStatus nppiSqrDistanceValid_Norm_8u32f_C1R (const Npp8u *pSrc, int nSrcStep, NppiSize oSrcRoiSize, const Npp8u *pTpl, int nTplStep, NppiSize oTplRoiSize, Npp32f *pDst, int nDstStep)

  One-channel 8-bit unsigned image SqrDistanceValid_Norm.

- NppStatus nppiSqrDistanceValid_Norm_8u32f_C3R (const Npp8u ∗pSrc, int nSrcStep, NppiSize oSrcRoiSize, const Npp8u ∗pTpl, int nTplStep, NppiSize oTplRoiSize, Npp32f ∗pDst, int nDstStep)

  Three-channel 8-bit unsigned image SqrDistanceValid_Norm.

- NppStatus nppiSqrDistanceValid_Norm_8u32f_C4R (const Npp8u ∗pSrc, int nSrcStep, NppiSize oSrcRoiSize, const Npp8u ∗pTpl, int nTplStep, NppiSize oTplRoiSize, Npp32f ∗pDst, int nDstStep)

  Four-channel 8-bit unsigned image SqrDistanceValid_Norm.

- NppStatus nppiSqrDistanceValid_Norm_8u32f_AC4R (const Npp8u ∗pSrc, int nSrcStep, NppiSize oSrcRoiSize, const Npp8u ∗pTpl, int nTplStep, NppiSize oTplRoiSize, Npp32f ∗pDst, int nDstStep)

  Four-channel 8-bit unsigned image SqrDistanceValid_Norm ignoring alpha channel.

- NppStatus nppiSqrDistanceValid_Norm_8s32f_C1R (const Npp8s ∗pSrc, int nSrcStep, NppiSize oSrcRoiSize, const Npp8s ∗pTpl, int nTplStep, NppiSize oTplRoiSize, Npp32f ∗pDst, int nDstStep)

  One-channel 8-bit signed image SqrDistanceValid_Norm.

- NppStatus nppiSqrDistanceValid_Norm_8s32f_C3R (const Npp8s ∗pSrc, int nSrcStep, NppiSize oSrcRoiSize, const Npp8s ∗pTpl, int nTplStep, NppiSize oTplRoiSize, Npp32f ∗pDst, int nDstStep)

  Three-channel 8-bit signed image SqrDistanceValid_Norm.

- NppStatus nppiSqrDistanceValid_Norm_8s32f_C4R (const Npp8s ∗pSrc, int nSrcStep, NppiSize oSrcRoiSize, const Npp8s ∗pTpl, int nTplStep, NppiSize oTplRoiSize, Npp32f ∗pDst, int nDstStep)

  Four-channel 8-bit signed image SqrDistanceValid_Norm.

- NppStatus nppiSqrDistanceValid_Norm_8s32f_AC4R (const Npp8s ∗pSrc, int nSrcStep, NppiSize oSrcRoiSize, const Npp8s ∗pTpl, int nTplStep, NppiSize oTplRoiSize, Npp32f ∗pDst, int nDstStep)

  Four-channel 8-bit signed image SqrDistanceValid_Norm ignoring alpha channel.

- NppStatus nppiSqrDistanceValid_Norm_16u32f_C1R (const Npp16u ∗pSrc, int nSrcStep, NppiSize oSrcRoiSize, const Npp16u ∗pTpl, int nTplStep, NppiSize oTplRoiSize, Npp32f ∗pDst, int nDstStep)

  One-channel 16-bit unsigned image SqrDistanceValid_Norm.

- NppStatus nppiSqrDistanceValid_Norm_16u32f_C3R (const Npp16u ∗pSrc, int nSrcStep, NppiSize oSrcRoiSize, const Npp16u ∗pTpl, int nTplStep, NppiSize oTplRoiSize, Npp32f ∗pDst, int nDstStep)

  Three-channel 16-bit unsigned image SqrDistanceValid_Norm.

- NppStatus nppiSqrDistanceValid_Norm_16u32f_C4R (const Npp16u ∗pSrc, int nSrcStep, NppiSize oSrcRoiSize, const Npp16u ∗pTpl, int nTplStep, NppiSize oTplRoiSize, Npp32f ∗pDst, int nDstStep)

  Four-channel 16-bit unsigned image SqrDistanceValid_Norm.

- NppStatus nppiSqrDistanceValid_Norm_16u32f_AC4R (const Npp16u ∗pSrc, int nSrcStep, NppiSize oSrcRoiSize, const Npp16u ∗pTpl, int nTplStep, NppiSize oTplRoiSize, Npp32f ∗pDst, int nDstStep)

  Four-channel 16-bit unsigned image SqrDistanceValid_Norm ignoring alpha channel.

7.123.1 Detailed Description

Primitives for computing the normalized Euclidean distance between two images with valid mode.

7.123.2 Function Documentation

7.123.2.1 NppStatus nppiSqrDistanceValid_Norm_16u32f_AC4R (const Npp16u ∗ *pSrc*, int *nSrcStep*, NppiSize *oSrcRoiSize*, const Npp16u ∗ *pTpl*, int *nTplStep*, NppiSize *oTplRoiSize*, Npp32f ∗ *pDst*, int *nDstStep*)

Four-channel 16-bit unsigned image SqrDistanceValid_Norm ignoring alpha channel.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSrcRoiSize Region-of-Interest (ROI).

pTpl Pointer to the template image.

nTplStep Number of bytes between successive rows in the template image.

oTplRoiSize Region-of-Interest (ROI).

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.123.2.2 NppStatus nppiSqrDistanceValid_Norm_16u32f_C1R (const Npp16u ∗ *pSrc*, int *nSrcStep*, NppiSize *oSrcRoiSize*, const Npp16u ∗ *pTpl*, int *nTplStep*, NppiSize *oTplRoiSize*, Npp32f ∗ *pDst*, int *nDstStep*)

One-channel 16-bit unsigned image SqrDistanceValid_Norm.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSrcRoiSize Region-of-Interest (ROI).

pTpl Pointer to the template image.

nTplStep Number of bytes between successive rows in the template image.

oTplRoiSize Region-of-Interest (ROI).

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.123.2.3 NppStatus nppiSqrDistanceValid_Norm_16u32f_C3R (const Npp16u ∗ *pSrc*, int *nSrcStep*, NppiSize *oSrcRoiSize*, const Npp16u ∗ *pTpl*, int *nTplStep*, NppiSize *oTplRoiSize*, Npp32f ∗ *pDst*, int *nDstStep*)

Three-channel 16-bit unsigned image SqrDistanceValid_Norm.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSrcRoiSize Region-of-Interest (ROI).

pTpl Pointer to the template image.

nTplStep Number of bytes between successive rows in the template image.

oTplRoiSize Region-of-Interest (ROI).

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.123.2.4 NppStatus nppiSqrDistanceValid_Norm_16u32f_C4R (const Npp16u ∗ *pSrc*, int *nSrcStep*, NppiSize *oSrcRoiSize*, const Npp16u ∗ *pTpl*, int *nTplStep*, NppiSize *oTplRoiSize*, Npp32f ∗ *pDst*, int *nDstStep*)

Four-channel 16-bit unsigned image SqrDistanceValid_Norm.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSrcRoiSize Region-of-Interest (ROI).

pTpl Pointer to the template image.

nTplStep Number of bytes between successive rows in the template image.

oTplRoiSize Region-of-Interest (ROI).

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.123.2.5 NppStatus nppiSqrDistanceValid_Norm_32f_AC4R (const Npp32f ∗ *pSrc*, int *nSrcStep*, NppiSize *oSrcRoiSize*, const Npp32f ∗ *pTpl*, int *nTplStep*, NppiSize *oTplRoiSize*, Npp32f ∗ *pDst*, int *nDstStep*)

Four-channel 32-bit floating point image SqrDistanceValid_Norm ignoring alpha channel.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSrcRoiSize Region-of-Interest (ROI).

pTpl Pointer to the template image.

nTplStep Number of bytes between successive rows in the template image.

oTplRoiSize Region-of-Interest (ROI).

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.123.2.6 NppStatus nppiSqrDistanceValid_Norm_32f_C1R (const Npp32f ∗ *pSrc*, int *nSrcStep*, NppiSize *oSrcRoiSize*, const Npp32f ∗ *pTpl*, int *nTplStep*, NppiSize *oTplRoiSize*, Npp32f ∗ *pDst*, int *nDstStep*)

One-channel 32-bit floating point image SqrDistanceValid_Norm.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSrcRoiSize Region-of-Interest (ROI).

pTpl Pointer to the template image.

nTplStep Number of bytes between successive rows in the template image.

oTplRoiSize Region-of-Interest (ROI).

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.123.2.7 NppStatus nppiSqrDistanceValid_Norm_32f_C3R (const Npp32f ∗ *pSrc*, int *nSrcStep*, NppiSize *oSrcRoiSize*, const Npp32f ∗ *pTpl*, int *nTplStep*, NppiSize *oTplRoiSize*, Npp32f ∗ *pDst*, int *nDstStep*)

Three-channel 32-bit floating point image SqrDistanceValid_Norm.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSrcRoiSize Region-of-Interest (ROI).

pTpl Pointer to the template image.

nTplStep Number of bytes between successive rows in the template image.

oTplRoiSize Region-of-Interest (ROI).

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.123.2.8 NppStatus nppiSqrDistanceValid_Norm_32f_C4R (const Npp32f ∗ *pSrc*, int *nSrcStep*, NppiSize *oSrcRoiSize*, const Npp32f ∗ *pTpl*, int *nTplStep*, NppiSize *oTplRoiSize*, Npp32f ∗ *pDst*, int *nDstStep*)

Four-channel 32-bit floating point image SqrDistanceValid_Norm.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSrcRoiSize Region-of-Interest (ROI).

pTpl Pointer to the template image.

nTplStep Number of bytes between successive rows in the template image.

oTplRoiSize Region-of-Interest (ROI).

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.123.2.9 NppStatus nppiSqrDistanceValid_Norm_8s32f_AC4R (const Npp8s ∗ *pSrc*, int *nSrcStep*, NppiSize *oSrcRoiSize*, const Npp8s ∗ *pTpl*, int *nTplStep*, NppiSize *oTplRoiSize*, Npp32f ∗ *pDst*, int *nDstStep*)

Four-channel 8-bit signed image SqrDistanceValid_Norm ignoring alpha channel.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSrcRoiSize Region-of-Interest (ROI).

pTpl Pointer to the template image.

nTplStep Number of bytes between successive rows in the template image.

oTplRoiSize Region-of-Interest (ROI).

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.123.2.10 NppStatus nppiSqrDistanceValid_Norm_8s32f_C1R (const Npp8s ∗ *pSrc*, int *nSrcStep*, NppiSize *oSrcRoiSize*, const Npp8s ∗ *pTpl*, int *nTplStep*, NppiSize *oTplRoiSize*, Npp32f ∗ *pDst*, int *nDstStep*)

One-channel 8-bit signed image SqrDistanceValid_Norm.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSrcRoiSize Region-of-Interest (ROI).

pTpl Pointer to the template image.

nTplStep Number of bytes between successive rows in the template image.

oTplRoiSize Region-of-Interest (ROI).

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.123.2.11 NppStatus nppiSqrDistanceValid_Norm_8s32f_C3R (const Npp8s ∗ *pSrc*, int *nSrcStep*, NppiSize *oSrcRoiSize*, const Npp8s ∗ *pTpl*, int *nTplStep*, NppiSize *oTplRoiSize*, Npp32f ∗ *pDst*, int *nDstStep*)

Three-channel 8-bit signed image SqrDistanceValid_Norm.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSrcRoiSize Region-of-Interest (ROI).

pTpl Pointer to the template image.

nTplStep Number of bytes between successive rows in the template image.

oTplRoiSize Region-of-Interest (ROI).

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.123.2.12 NppStatus nppiSqrDistanceValid_Norm_8s32f_C4R (const Npp8s ∗ *pSrc*, int *nSrcStep*, NppiSize *oSrcRoiSize*, const Npp8s ∗ *pTpl*, int *nTplStep*, NppiSize *oTplRoiSize*, Npp32f ∗ *pDst*, int *nDstStep*)

Four-channel 8-bit signed image SqrDistanceValid_Norm.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSrcRoiSize Region-of-Interest (ROI).

pTpl Pointer to the template image.

nTplStep Number of bytes between successive rows in the template image.

oTplRoiSize Region-of-Interest (ROI).

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.123.2.13 NppStatus nppiSqrDistanceValid_Norm_8u32f_AC4R (const Npp8u ∗ *pSrc*, int *nSrcStep*, NppiSize *oSrcRoiSize*, const Npp8u ∗ *pTpl*, int *nTplStep*, NppiSize *oTplRoiSize*, Npp32f ∗ *pDst*, int *nDstStep*)

Four-channel 8-bit unsigned image SqrDistanceValid_Norm ignoring alpha channel.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSrcRoiSize Region-of-Interest (ROI).

pTpl Pointer to the template image.

nTplStep Number of bytes between successive rows in the template image.

oTplRoiSize Region-of-Interest (ROI).

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.123.2.14 NppStatus nppiSqrDistanceValid_Norm_8u32f_C1R (const Npp8u ∗ *pSrc*, int *nSrcStep*, NppiSize *oSrcRoiSize*, const Npp8u ∗ *pTpl*, int *nTplStep*, NppiSize *oTplRoiSize*, Npp32f ∗ *pDst*, int *nDstStep*)

One-channel 8-bit unsigned image SqrDistanceValid_Norm.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSrcRoiSize Region-of-Interest (ROI).

pTpl Pointer to the template image.

nTplStep Number of bytes between successive rows in the template image.

oTplRoiSize Region-of-Interest (ROI).

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.123.2.15 NppStatus nppiSqrDistanceValid_Norm_8u32f_C3R (const Npp8u ∗ *pSrc*, int *nSrcStep*, NppiSize *oSrcRoiSize*, const Npp8u ∗ *pTpl*, int *nTplStep*, NppiSize *oTplRoiSize*, Npp32f ∗ *pDst*, int *nDstStep*)

Three-channel 8-bit unsigned image SqrDistanceValid_Norm.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSrcRoiSize Region-of-Interest (ROI).

pTpl Pointer to the template image.

nTplStep Number of bytes between successive rows in the template image.

oTplRoiSize Region-of-Interest (ROI).

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.123.2.16 NppStatus nppiSqrDistanceValid_Norm_8u32f_C4R (const Npp8u ∗ *pSrc*, int *nSrcStep*, NppiSize *oSrcRoiSize*, const Npp8u ∗ *pTpl*, int *nTplStep*, NppiSize *oTplRoiSize*, Npp32f ∗ *pDst*, int *nDstStep*)

Four-channel 8-bit unsigned image SqrDistanceValid_Norm.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSrcRoiSize Region-of-Interest (ROI).

pTpl Pointer to the template image.

nTplStep Number of bytes between successive rows in the template image.

oTplRoiSize Region-of-Interest (ROI).

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.123.2.17 NppStatus nppiSqrDistanceValid_Norm_8u_AC4RSfs (const Npp8u $*$ *pSrc*, int *nSrcStep*, NppiSize *oSrcRoiSize*, const Npp8u $*$ *pTpl*, int *nTplStep*, NppiSize *oTplRoiSize*, Npp8u $*$ *pDst*, int *nDstStep*, int *nScaleFactor*)

Four-channel 8-bit unsigned image SqrDistanceValid_Norm ignoring alpha channel, scaled by $2^(- nScaleFactor)$.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSrcRoiSize Region-of-Interest (ROI).

pTpl Pointer to the template image.

nTplStep Number of bytes between successive rows in the template image.

oTplRoiSize Region-of-Interest (ROI).

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

nScaleFactor Integer Result Scaling.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.123.2.18 NppStatus nppiSqrDistanceValid_Norm_8u_C1RSfs (const Npp8u $*$ *pSrc*, int *nSrcStep*, NppiSize *oSrcRoiSize*, const Npp8u $*$ *pTpl*, int *nTplStep*, NppiSize *oTplRoiSize*, Npp8u $*$ *pDst*, int *nDstStep*, int *nScaleFactor*)

One-channel 8-bit unsigned image SqrDistanceValid_Norm, scaled by $2^(- nScaleFactor)$.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSrcRoiSize Region-of-Interest (ROI).

pTpl Pointer to the template image.

nTplStep Number of bytes between successive rows in the template image.

oTplRoiSize Region-of-Interest (ROI).

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

nScaleFactor Integer Result Scaling.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.123.2.19 NppStatus nppiSqrDistanceValid_Norm_8u_C3RSfs (const Npp8u * *pSrc*, int *nSrcStep*, NppiSize *oSrcRoiSize*, const Npp8u * *pTpl*, int *nTplStep*, NppiSize *oTplRoiSize*, Npp8u * *pDst*, int *nDstStep*, int *nScaleFactor*)

Three-channel 8-bit unsigned image SqrDistanceValid_Norm, scaled by $2^(- nScaleFactor)$.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSrcRoiSize Region-of-Interest (ROI).

pTpl Pointer to the template image.

nTplStep Number of bytes between successive rows in the template image.

oTplRoiSize Region-of-Interest (ROI).

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

nScaleFactor Integer Result Scaling.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.123.2.20 NppStatus nppiSqrDistanceValid_Norm_8u_C4RSfs (const Npp8u * *pSrc*, int *nSrcStep*, NppiSize *oSrcRoiSize*, const Npp8u * *pTpl*, int *nTplStep*, NppiSize *oTplRoiSize*, Npp8u * *pDst*, int *nDstStep*, int *nScaleFactor*)

Four-channel 8-bit unsigned image SqrDistanceValid_Norm, scaled by $2^(- nScaleFactor)$.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSrcRoiSize Region-of-Interest (ROI).

pTpl Pointer to the template image.

nTplStep Number of bytes between successive rows in the template image.

oTplRoiSize Region-of-Interest (ROI).

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

nScaleFactor Integer Result Scaling.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.124 CrossCorrFull_Norm

Primitives for computing the normalized cross correlation between two images with full mode.

CrossCorrFull_Norm

The functions compute the $\rho_{st}(c, r)$ in General Introduction with full mode (see Categorizations).

- NppStatus nppiCrossCorrFull_Norm_8u_C1RSfs (const Npp8u ∗pSrc, int nSrcStep, NppiSize oSrcRoiSize, const Npp8u ∗pTpl, int nTplStep, NppiSize oTplRoiSize, Npp8u ∗pDst, int nDstStep, int nScaleFactor)

  One-channel 8-bit unsigned image CrossCorrFull_Norm, scaled by $2^(- nScaleFactor)$.

- NppStatus nppiCrossCorrFull_Norm_8u_C3RSfs (const Npp8u ∗pSrc, int nSrcStep, NppiSize oSrcRoiSize, const Npp8u ∗pTpl, int nTplStep, NppiSize oTplRoiSize, Npp8u ∗pDst, int nDstStep, int nScaleFactor)

  Three-channel 8-bit unsigned image CrossCorrFull_Norm, scaled by $2^(- nScaleFactor)$.

- NppStatus nppiCrossCorrFull_Norm_8u_C4RSfs (const Npp8u ∗pSrc, int nSrcStep, NppiSize oSrcRoiSize, const Npp8u ∗pTpl, int nTplStep, NppiSize oTplRoiSize, Npp8u ∗pDst, int nDstStep, int nScaleFactor)

  Four-channel 8-bit unsigned image CrossCorrFull_Norm, scaled by $2^(- nScaleFactor)$.

- NppStatus nppiCrossCorrFull_Norm_8u_AC4RSfs (const Npp8u ∗pSrc, int nSrcStep, NppiSize oSrcRoiSize, const Npp8u ∗pTpl, int nTplStep, NppiSize oTplRoiSize, Npp8u ∗pDst, int nDstStep, int nScaleFactor)

  Four-channel 8-bit unsigned image CrossCorrFull_Norm ignoring alpha channel, scaled by $2^(- nScaleFactor)$.

- NppStatus nppiCrossCorrFull_Norm_32f_C1R (const Npp32f ∗pSrc, int nSrcStep, NppiSize oSrcRoiSize, const Npp32f ∗pTpl, int nTplStep, NppiSize oTplRoiSize, Npp32f ∗pDst, int nDstStep)

  One-channel 32-bit floating point image CrossCorrFull_Norm.

- NppStatus nppiCrossCorrFull_Norm_32f_C3R (const Npp32f ∗pSrc, int nSrcStep, NppiSize oSrcRoiSize, const Npp32f ∗pTpl, int nTplStep, NppiSize oTplRoiSize, Npp32f ∗pDst, int nDstStep)

  Three-channel 32-bit floating point image CrossCorrFull_Norm.

- NppStatus nppiCrossCorrFull_Norm_32f_C4R (const Npp32f ∗pSrc, int nSrcStep, NppiSize oSrcRoiSize, const Npp32f ∗pTpl, int nTplStep, NppiSize oTplRoiSize, Npp32f ∗pDst, int nDstStep)

  Four-channel 32-bit floating point image CrossCorrFull_Norm.

- NppStatus nppiCrossCorrFull_Norm_32f_AC4R (const Npp32f ∗pSrc, int nSrcStep, NppiSize oSrcRoiSize, const Npp32f ∗pTpl, int nTplStep, NppiSize oTplRoiSize, Npp32f ∗pDst, int nDstStep)

  Four-channel 32-bit floating point image CrossCorrFull_Norm ignoring alpha channel.

- NppStatus nppiCrossCorrFull_Norm_8u32f_C1R (const Npp8u ∗pSrc, int nSrcStep, NppiSize oSrcRoiSize, const Npp8u ∗pTpl, int nTplStep, NppiSize oTplRoiSize, Npp32f ∗pDst, int nDstStep)

  One-channel 8-bit unsigned image CrossCorrFull_Norm.

- NppStatus nppiCrossCorrFull_Norm_8u32f_C3R (const Npp8u ∗pSrc, int nSrcStep, NppiSize oSrcRoiSize, const Npp8u ∗pTpl, int nTplStep, NppiSize oTplRoiSize, Npp32f ∗pDst, int nDstStep)

Three-channel 8-bit unsigned image CrossCorrFull_Norm.

- NppStatus nppiCrossCorrFull_Norm_8u32f_C4R (const Npp8u ∗pSrc, int nSrcStep, NppiSize oSrcRoiSize, const Npp8u ∗pTpl, int nTplStep, NppiSize oTplRoiSize, Npp32f ∗pDst, int nDstStep)

  Four-channel 8-bit unsigned image CrossCorrFull_Norm.

- NppStatus nppiCrossCorrFull_Norm_8u32f_AC4R (const Npp8u ∗pSrc, int nSrcStep, NppiSize oSrcRoiSize, const Npp8u ∗pTpl, int nTplStep, NppiSize oTplRoiSize, Npp32f ∗pDst, int nDstStep)

  Four-channel 8-bit unsigned image CrossCorrFull_Norm ignoring alpha channel.

- NppStatus nppiCrossCorrFull_Norm_8s32f_C1R (const Npp8s ∗pSrc, int nSrcStep, NppiSize oSrcRoiSize, const Npp8s ∗pTpl, int nTplStep, NppiSize oTplRoiSize, Npp32f ∗pDst, int nDstStep)

  One-channel 8-bit signed image CrossCorrFull_Norm.

- NppStatus nppiCrossCorrFull_Norm_8s32f_C3R (const Npp8s ∗pSrc, int nSrcStep, NppiSize oSrcRoiSize, const Npp8s ∗pTpl, int nTplStep, NppiSize oTplRoiSize, Npp32f ∗pDst, int nDstStep)

  Three-channel 8-bit signed image CrossCorrFull_Norm.

- NppStatus nppiCrossCorrFull_Norm_8s32f_C4R (const Npp8s ∗pSrc, int nSrcStep, NppiSize oSrcRoiSize, const Npp8s ∗pTpl, int nTplStep, NppiSize oTplRoiSize, Npp32f ∗pDst, int nDstStep)

  Four-channel 8-bit signed image CrossCorrFull_Norm.

- NppStatus nppiCrossCorrFull_Norm_8s32f_AC4R (const Npp8s ∗pSrc, int nSrcStep, NppiSize oSrcRoiSize, const Npp8s ∗pTpl, int nTplStep, NppiSize oTplRoiSize, Npp32f ∗pDst, int nDstStep)

  Four-channel 8-bit signed image CrossCorrFull_Norm ignoring alpha channel.

- NppStatus nppiCrossCorrFull_Norm_16u32f_C1R (const Npp16u ∗pSrc, int nSrcStep, NppiSize oSrcRoiSize, const Npp16u ∗pTpl, int nTplStep, NppiSize oTplRoiSize, Npp32f ∗pDst, int nDstStep)

  One-channel 16-bit unsigned image CrossCorrFull_Norm.

- NppStatus nppiCrossCorrFull_Norm_16u32f_C3R (const Npp16u ∗pSrc, int nSrcStep, NppiSize oSrcRoiSize, const Npp16u ∗pTpl, int nTplStep, NppiSize oTplRoiSize, Npp32f ∗pDst, int nDstStep)

  Three-channel 16-bit unsigned image CrossCorrFull_Norm.

- NppStatus nppiCrossCorrFull_Norm_16u32f_C4R (const Npp16u ∗pSrc, int nSrcStep, NppiSize oSrcRoiSize, const Npp16u ∗pTpl, int nTplStep, NppiSize oTplRoiSize, Npp32f ∗pDst, int nDstStep)

  Four-channel 16-bit unsigned image CrossCorrFull_Norm.

- NppStatus nppiCrossCorrFull_Norm_16u32f_AC4R (const Npp16u ∗pSrc, int nSrcStep, NppiSize oSrcRoiSize, const Npp16u ∗pTpl, int nTplStep, NppiSize oTplRoiSize, Npp32f ∗pDst, int nDstStep)

  Four-channel 16-bit unsigned image CrossCorrFull_Norm ignoring alpha channel.

7.124.1 Detailed Description

Primitives for computing the normalized cross correlation between two images with full mode.

7.124.2 Function Documentation

7.124.2.1 NppStatus nppiCrossCorrFull_Norm_16u32f_AC4R (const Npp16u ∗ *pSrc*, int *nSrcStep*, NppiSize *oSrcRoiSize*, const Npp16u ∗ *pTpl*, int *nTplStep*, NppiSize *oTplRoiSize*, Npp32f ∗ *pDst*, int *nDstStep*)

Four-channel 16-bit unsigned image CrossCorrFull_Norm ignoring alpha channel.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSrcRoiSize Region-of-Interest (ROI).

pTpl Pointer to the template image.

nTplStep Number of bytes between successive rows in the template image.

oTplRoiSize Region-of-Interest (ROI).

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.124.2.2 NppStatus nppiCrossCorrFull_Norm_16u32f_C1R (const Npp16u ∗ *pSrc*, int *nSrcStep*, NppiSize *oSrcRoiSize*, const Npp16u ∗ *pTpl*, int *nTplStep*, NppiSize *oTplRoiSize*, Npp32f ∗ *pDst*, int *nDstStep*)

One-channel 16-bit unsigned image CrossCorrFull_Norm.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSrcRoiSize Region-of-Interest (ROI).

pTpl Pointer to the template image.

nTplStep Number of bytes between successive rows in the template image.

oTplRoiSize Region-of-Interest (ROI).

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.124.2.3 NppStatus nppiCrossCorrFull_Norm_16u32f_C3R (const Npp16u ∗ *pSrc*, int *nSrcStep*, NppiSize *oSrcRoiSize*, const Npp16u ∗ *pTpl*, int *nTplStep*, NppiSize *oTplRoiSize*, Npp32f ∗ *pDst*, int *nDstStep*)

Three-channel 16-bit unsigned image CrossCorrFull_Norm.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSrcRoiSize Region-of-Interest (ROI).

pTpl Pointer to the template image.

nTplStep Number of bytes between successive rows in the template image.

oTplRoiSize Region-of-Interest (ROI).

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.124.2.4 NppStatus nppiCrossCorrFull_Norm_16u32f_C4R (const Npp16u ∗ *pSrc*, int *nSrcStep*, NppiSize *oSrcRoiSize*, const Npp16u ∗ *pTpl*, int *nTplStep*, NppiSize *oTplRoiSize*, Npp32f ∗ *pDst*, int *nDstStep*)

Four-channel 16-bit unsigned image CrossCorrFull_Norm.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSrcRoiSize Region-of-Interest (ROI).

pTpl Pointer to the template image.

nTplStep Number of bytes between successive rows in the template image.

oTplRoiSize Region-of-Interest (ROI).

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.124.2.5 NppStatus nppiCrossCorrFull_Norm_32f_AC4R (const Npp32f ∗ *pSrc*, int *nSrcStep*, NppiSize *oSrcRoiSize*, const Npp32f ∗ *pTpl*, int *nTplStep*, NppiSize *oTplRoiSize*, Npp32f ∗ *pDst*, int *nDstStep*)

Four-channel 32-bit floating point image CrossCorrFull_Norm ignoring alpha channel.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSrcRoiSize Region-of-Interest (ROI).

pTpl Pointer to the template image.

nTplStep Number of bytes between successive rows in the template image.

oTplRoiSize Region-of-Interest (ROI).

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.124.2.6 NppStatus nppiCrossCorrFull_Norm_32f_C1R (const Npp32f ∗ *pSrc*, int *nSrcStep*, NppiSize *oSrcRoiSize*, const Npp32f ∗ *pTpl*, int *nTplStep*, NppiSize *oTplRoiSize*, Npp32f ∗ *pDst*, int *nDstStep*)

One-channel 32-bit floating point image CrossCorrFull_Norm.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSrcRoiSize Region-of-Interest (ROI).

pTpl Pointer to the template image.

nTplStep Number of bytes between successive rows in the template image.

oTplRoiSize Region-of-Interest (ROI).

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.124.2.7 NppStatus nppiCrossCorrFull_Norm_32f_C3R (const Npp32f ∗ *pSrc*, int *nSrcStep*, NppiSize *oSrcRoiSize*, const Npp32f ∗ *pTpl*, int *nTplStep*, NppiSize *oTplRoiSize*, Npp32f ∗ *pDst*, int *nDstStep*)

Three-channel 32-bit floating point image CrossCorrFull_Norm.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSrcRoiSize Region-of-Interest (ROI).

pTpl Pointer to the template image.

nTplStep Number of bytes between successive rows in the template image.

oTplRoiSize Region-of-Interest (ROI).

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.124.2.8 NppStatus nppiCrossCorrFull_Norm_32f_C4R (const Npp32f ∗ *pSrc*, int *nSrcStep*, NppiSize *oSrcRoiSize*, const Npp32f ∗ *pTpl*, int *nTplStep*, NppiSize *oTplRoiSize*, Npp32f ∗ *pDst*, int *nDstStep*)

Four-channel 32-bit floating point image CrossCorrFull_Norm.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSrcRoiSize Region-of-Interest (ROI).

pTpl Pointer to the template image.

nTplStep Number of bytes between successive rows in the template image.

oTplRoiSize Region-of-Interest (ROI).

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.124.2.9 NppStatus nppiCrossCorrFull_Norm_8s32f_AC4R (const Npp8s ∗ *pSrc*, int *nSrcStep*, NppiSize *oSrcRoiSize*, const Npp8s ∗ *pTpl*, int *nTplStep*, NppiSize *oTplRoiSize*, Npp32f ∗ *pDst*, int *nDstStep*)

Four-channel 8-bit signed image CrossCorrFull_Norm ignoring alpha channel.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSrcRoiSize Region-of-Interest (ROI).

pTpl Pointer to the template image.

nTplStep Number of bytes between successive rows in the template image.

oTplRoiSize Region-of-Interest (ROI).

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.124.2.10 NppStatus nppiCrossCorrFull_Norm_8s32f_C1R (const Npp8s ∗ *pSrc*, int *nSrcStep*, NppiSize *oSrcRoiSize*, const Npp8s ∗ *pTpl*, int *nTplStep*, NppiSize *oTplRoiSize*, Npp32f ∗ *pDst*, int *nDstStep*)

One-channel 8-bit signed image CrossCorrFull_Norm.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSrcRoiSize Region-of-Interest (ROI).

pTpl Pointer to the template image.

nTplStep Number of bytes between successive rows in the template image.

oTplRoiSize Region-of-Interest (ROI).

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.124.2.11 NppStatus nppiCrossCorrFull_Norm_8s32f_C3R (const Npp8s ∗ *pSrc*, int *nSrcStep*, NppiSize *oSrcRoiSize*, const Npp8s ∗ *pTpl*, int *nTplStep*, NppiSize *oTplRoiSize*, Npp32f ∗ *pDst*, int *nDstStep*)

Three-channel 8-bit signed image CrossCorrFull_Norm.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSrcRoiSize Region-of-Interest (ROI).

pTpl Pointer to the template image.

nTplStep Number of bytes between successive rows in the template image.

oTplRoiSize Region-of-Interest (ROI).

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.124.2.12 NppStatus nppiCrossCorrFull_Norm_8s32f_C4R (const Npp8s ∗ *pSrc*, int *nSrcStep*, NppiSize *oSrcRoiSize*, const Npp8s ∗ *pTpl*, int *nTplStep*, NppiSize *oTplRoiSize*, Npp32f ∗ *pDst*, int *nDstStep*)

Four-channel 8-bit signed image CrossCorrFull_Norm.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSrcRoiSize Region-of-Interest (ROI).

pTpl Pointer to the template image.

nTplStep Number of bytes between successive rows in the template image.

oTplRoiSize Region-of-Interest (ROI).

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.124.2.13 NppStatus nppiCrossCorrFull_Norm_8u32f_AC4R (const Npp8u ∗ *pSrc*, int *nSrcStep*, NppiSize *oSrcRoiSize*, const Npp8u ∗ *pTpl*, int *nTplStep*, NppiSize *oTplRoiSize*, Npp32f ∗ *pDst*, int *nDstStep*)

Four-channel 8-bit unsigned image CrossCorrFull_Norm ignoring alpha channel.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSrcRoiSize Region-of-Interest (ROI).

pTpl Pointer to the template image.

nTplStep Number of bytes between successive rows in the template image.

oTplRoiSize Region-of-Interest (ROI).

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.124.2.14 NppStatus nppiCrossCorrFull_Norm_8u32f_C1R (const Npp8u ∗ *pSrc*, int *nSrcStep*, NppiSize *oSrcRoiSize*, const Npp8u ∗ *pTpl*, int *nTplStep*, NppiSize *oTplRoiSize*, Npp32f ∗ *pDst*, int *nDstStep*)

One-channel 8-bit unsigned image CrossCorrFull_Norm.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSrcRoiSize Region-of-Interest (ROI).

pTpl Pointer to the template image.

nTplStep Number of bytes between successive rows in the template image.

oTplRoiSize Region-of-Interest (ROI).

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.124.2.15 NppStatus nppiCrossCorrFull_Norm_8u32f_C3R (const Npp8u ∗ *pSrc*, int *nSrcStep*, NppiSize *oSrcRoiSize*, const Npp8u ∗ *pTpl*, int *nTplStep*, NppiSize *oTplRoiSize*, Npp32f ∗ *pDst*, int *nDstStep*)

Three-channel 8-bit unsigned image CrossCorrFull_Norm.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSrcRoiSize Region-of-Interest (ROI).

pTpl Pointer to the template image.

nTplStep Number of bytes between successive rows in the template image.

oTplRoiSize Region-of-Interest (ROI).

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.124.2.16 NppStatus nppiCrossCorrFull_Norm_8u32f_C4R (const Npp8u ∗ *pSrc*, int *nSrcStep*, NppiSize *oSrcRoiSize*, const Npp8u ∗ *pTpl*, int *nTplStep*, NppiSize *oTplRoiSize*, Npp32f ∗ *pDst*, int *nDstStep*)

Four-channel 8-bit unsigned image CrossCorrFull_Norm.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSrcRoiSize Region-of-Interest (ROI).

pTpl Pointer to the template image.

nTplStep Number of bytes between successive rows in the template image.

oTplRoiSize Region-of-Interest (ROI).

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.124.2.17 NppStatus nppiCrossCorrFull_Norm_8u_AC4RSfs (const Npp8u * *pSrc*, int *nSrcStep*, NppiSize *oSrcRoiSize*, const Npp8u * *pTpl*, int *nTplStep*, NppiSize *oTplRoiSize*, Npp8u * *pDst*, int *nDstStep*, int *nScaleFactor*)

Four-channel 8-bit unsigned image CrossCorrFull_Norm ignoring alpha channel, scaled by $2^(- nScaleFactor)$.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSrcRoiSize Region-of-Interest (ROI).

pTpl Pointer to the template image.

nTplStep Number of bytes between successive rows in the template image.

oTplRoiSize Region-of-Interest (ROI).

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

nScaleFactor Integer Result Scaling.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.124.2.18 NppStatus nppiCrossCorrFull_Norm_8u_C1RSfs (const Npp8u * *pSrc*, int *nSrcStep*, NppiSize *oSrcRoiSize*, const Npp8u * *pTpl*, int *nTplStep*, NppiSize *oTplRoiSize*, Npp8u * *pDst*, int *nDstStep*, int *nScaleFactor*)

One-channel 8-bit unsigned image CrossCorrFull_Norm, scaled by $2^(- nScaleFactor)$.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSrcRoiSize Region-of-Interest (ROI).

pTpl Pointer to the template image.

nTplStep Number of bytes between successive rows in the template image.

oTplRoiSize Region-of-Interest (ROI).

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

nScaleFactor Integer Result Scaling.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.124.2.19 NppStatus nppiCrossCorrFull_Norm_8u_C3RSfs (const Npp8u $*$ *pSrc*, int *nSrcStep*, NppiSize *oSrcRoiSize*, const Npp8u $*$ *pTpl*, int *nTplStep*, NppiSize *oTplRoiSize*, Npp8u $*$ *pDst*, int *nDstStep*, int *nScaleFactor*)

Three-channel 8-bit unsigned image CrossCorrFull_Norm, scaled by $2^(-nScaleFactor)$.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSrcRoiSize Region-of-Interest (ROI).

pTpl Pointer to the template image.

nTplStep Number of bytes between successive rows in the template image.

oTplRoiSize Region-of-Interest (ROI).

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

nScaleFactor Integer Result Scaling.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.124.2.20 NppStatus nppiCrossCorrFull_Norm_8u_C4RSfs (const Npp8u $*$ *pSrc*, int *nSrcStep*, NppiSize *oSrcRoiSize*, const Npp8u $*$ *pTpl*, int *nTplStep*, NppiSize *oTplRoiSize*, Npp8u $*$ *pDst*, int *nDstStep*, int *nScaleFactor*)

Four-channel 8-bit unsigned image CrossCorrFull_Norm, scaled by $2^(-nScaleFactor)$.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSrcRoiSize Region-of-Interest (ROI).

pTpl Pointer to the template image.

nTplStep Number of bytes between successive rows in the template image.

oTplRoiSize Region-of-Interest (ROI).

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

nScaleFactor Integer Result Scaling.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.125 CrossCorrSame_Norm

Primitives for computing the normalized cross correlation between two images with same mode.

CrossCorrSame_Norm

The functions compute the $\rho_{st}(c, r)$ in General Introduction with same mode (see Categorizations).

- NppStatus nppiCrossCorrSame_Norm_8u_C1RSfs (const Npp8u ∗pSrc, int nSrcStep, NppiSize oSrcRoiSize, const Npp8u ∗pTpl, int nTplStep, NppiSize oTplRoiSize, Npp8u ∗pDst, int nDstStep, int nScaleFactor)

  One-channel 8-bit unsigned image CrossCorrSame_Norm, scaled by $2^(- nScaleFactor)$.

- NppStatus nppiCrossCorrSame_Norm_8u_C3RSfs (const Npp8u ∗pSrc, int nSrcStep, NppiSize oSrcRoiSize, const Npp8u ∗pTpl, int nTplStep, NppiSize oTplRoiSize, Npp8u ∗pDst, int nDstStep, int nScaleFactor)

  Three-channel 8-bit unsigned image CrossCorrSame_Norm, scaled by $2^(- nScaleFactor)$.

- NppStatus nppiCrossCorrSame_Norm_8u_C4RSfs (const Npp8u ∗pSrc, int nSrcStep, NppiSize oSrcRoiSize, const Npp8u ∗pTpl, int nTplStep, NppiSize oTplRoiSize, Npp8u ∗pDst, int nDstStep, int nScaleFactor)

  Four-channel 8-bit unsigned image CrossCorrSame_Norm, scaled by $2^(- nScaleFactor)$.

- NppStatus nppiCrossCorrSame_Norm_8u_AC4RSfs (const Npp8u ∗pSrc, int nSrcStep, NppiSize oSrcRoiSize, const Npp8u ∗pTpl, int nTplStep, NppiSize oTplRoiSize, Npp8u ∗pDst, int nDstStep, int nScaleFactor)

  Four-channel 8-bit unsigned image CrossCorrSame_Norm ignoring alpha channel, scaled by $2^(- nScaleFactor)$.

- NppStatus nppiCrossCorrSame_Norm_32f_C1R (const Npp32f ∗pSrc, int nSrcStep, NppiSize oSrcRoiSize, const Npp32f ∗pTpl, int nTplStep, NppiSize oTplRoiSize, Npp32f ∗pDst, int nDstStep)

  One-channel 32-bit floating point image CrossCorrSame_Norm.

- NppStatus nppiCrossCorrSame_Norm_32f_C3R (const Npp32f ∗pSrc, int nSrcStep, NppiSize oSrcRoiSize, const Npp32f ∗pTpl, int nTplStep, NppiSize oTplRoiSize, Npp32f ∗pDst, int nDstStep)

  Three-channel 32-bit floating point image CrossCorrSame_Norm.

- NppStatus nppiCrossCorrSame_Norm_32f_C4R (const Npp32f ∗pSrc, int nSrcStep, NppiSize oSrcRoiSize, const Npp32f ∗pTpl, int nTplStep, NppiSize oTplRoiSize, Npp32f ∗pDst, int nDstStep)

  Four-channel 32-bit floating point image CrossCorrSame_Norm.

- NppStatus nppiCrossCorrSame_Norm_32f_AC4R (const Npp32f ∗pSrc, int nSrcStep, NppiSize oSrcRoiSize, const Npp32f ∗pTpl, int nTplStep, NppiSize oTplRoiSize, Npp32f ∗pDst, int nDstStep)

  Four-channel 32-bit floating point image CrossCorrSame_Norm ignoring alpha channel.

- NppStatus nppiCrossCorrSame_Norm_8u32f_C1R (const Npp8u ∗pSrc, int nSrcStep, NppiSize oSrcRoiSize, const Npp8u ∗pTpl, int nTplStep, NppiSize oTplRoiSize, Npp32f ∗pDst, int nDstStep)

  One-channel 8-bit unsigned image CrossCorrSame_Norm.

- NppStatus nppiCrossCorrSame_Norm_8u32f_C3R (const Npp8u ∗pSrc, int nSrcStep, NppiSize oSrcRoiSize, const Npp8u ∗pTpl, int nTplStep, NppiSize oTplRoiSize, Npp32f ∗pDst, int nDstStep)

Three-channel 8-bit unsigned image CrossCorrSame_Norm.

- NppStatus nppiCrossCorrSame_Norm_8u32f_C4R (const Npp8u ∗pSrc, int nSrcStep, NppiSize oSrcRoiSize, const Npp8u ∗pTpl, int nTplStep, NppiSize oTplRoiSize, Npp32f ∗pDst, int nDstStep)

  Four-channel 8-bit unsigned image CrossCorrSame_Norm.

- NppStatus nppiCrossCorrSame_Norm_8u32f_AC4R (const Npp8u ∗pSrc, int nSrcStep, NppiSize oSrcRoiSize, const Npp8u ∗pTpl, int nTplStep, NppiSize oTplRoiSize, Npp32f ∗pDst, int nDstStep)

  Four-channel 8-bit unsigned image CrossCorrSame_Norm ignoring alpha channel.

- NppStatus nppiCrossCorrSame_Norm_8s32f_C1R (const Npp8s ∗pSrc, int nSrcStep, NppiSize oSrcRoiSize, const Npp8s ∗pTpl, int nTplStep, NppiSize oTplRoiSize, Npp32f ∗pDst, int nDstStep)

  One-channel 8-bit signed image CrossCorrSame_Norm.

- NppStatus nppiCrossCorrSame_Norm_8s32f_C3R (const Npp8s ∗pSrc, int nSrcStep, NppiSize oSrcRoiSize, const Npp8s ∗pTpl, int nTplStep, NppiSize oTplRoiSize, Npp32f ∗pDst, int nDstStep)

  Three-channel 8-bit signed image CrossCorrSame_Norm.

- NppStatus nppiCrossCorrSame_Norm_8s32f_C4R (const Npp8s ∗pSrc, int nSrcStep, NppiSize oSrcRoiSize, const Npp8s ∗pTpl, int nTplStep, NppiSize oTplRoiSize, Npp32f ∗pDst, int nDstStep)

  Four-channel 8-bit signed image CrossCorrSame_Norm.

- NppStatus nppiCrossCorrSame_Norm_8s32f_AC4R (const Npp8s ∗pSrc, int nSrcStep, NppiSize oSrcRoiSize, const Npp8s ∗pTpl, int nTplStep, NppiSize oTplRoiSize, Npp32f ∗pDst, int nDstStep)

  Four-channel 8-bit signed image CrossCorrSame_Norm ignoring alpha channel.

- NppStatus nppiCrossCorrSame_Norm_16u32f_C1R (const Npp16u ∗pSrc, int nSrcStep, NppiSize oSrcRoiSize, const Npp16u ∗pTpl, int nTplStep, NppiSize oTplRoiSize, Npp32f ∗pDst, int nDstStep)

  One-channel 16-bit unsigned image CrossCorrSame_Norm.

- NppStatus nppiCrossCorrSame_Norm_16u32f_C3R (const Npp16u ∗pSrc, int nSrcStep, NppiSize oSrcRoiSize, const Npp16u ∗pTpl, int nTplStep, NppiSize oTplRoiSize, Npp32f ∗pDst, int nDstStep)

  Three-channel 16-bit unsigned image CrossCorrSame_Norm.

- NppStatus nppiCrossCorrSame_Norm_16u32f_C4R (const Npp16u ∗pSrc, int nSrcStep, NppiSize oSrcRoiSize, const Npp16u ∗pTpl, int nTplStep, NppiSize oTplRoiSize, Npp32f ∗pDst, int nDstStep)

  Four-channel 16-bit unsigned image CrossCorrSame_Norm.

- NppStatus nppiCrossCorrSame_Norm_16u32f_AC4R (const Npp16u ∗pSrc, int nSrcStep, NppiSize oSrcRoiSize, const Npp16u ∗pTpl, int nTplStep, NppiSize oTplRoiSize, Npp32f ∗pDst, int nDstStep)

  Four-channel 16-bit unsigned image CrossCorrSame_Norm ignoring alpha channel.

7.125.1 Detailed Description

Primitives for computing the normalized cross correlation between two images with same mode.

7.125.2 Function Documentation

7.125.2.1 NppStatus nppiCrossCorrSame_Norm_16u32f_AC4R (const Npp16u ∗ *pSrc*, int *nSrcStep*, NppiSize *oSrcRoiSize*, const Npp16u ∗ *pTpl*, int *nTplStep*, NppiSize *oTplRoiSize*, Npp32f ∗ *pDst*, int *nDstStep*)

Four-channel 16-bit unsigned image CrossCorrSame_Norm ignoring alpha channel.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSrcRoiSize Region-of-Interest (ROI).

pTpl Pointer to the template image.

nTplStep Number of bytes between successive rows in the template image.

oTplRoiSize Region-of-Interest (ROI).

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.125.2.2 NppStatus nppiCrossCorrSame_Norm_16u32f_C1R (const Npp16u ∗ *pSrc*, int *nSrcStep*, NppiSize *oSrcRoiSize*, const Npp16u ∗ *pTpl*, int *nTplStep*, NppiSize *oTplRoiSize*, Npp32f ∗ *pDst*, int *nDstStep*)

One-channel 16-bit unsigned image CrossCorrSame_Norm.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSrcRoiSize Region-of-Interest (ROI).

pTpl Pointer to the template image.

nTplStep Number of bytes between successive rows in the template image.

oTplRoiSize Region-of-Interest (ROI).

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.125.2.3 NppStatus nppiCrossCorrSame_Norm_16u32f_C3R (const Npp16u ∗ *pSrc*, int *nSrcStep*, NppiSize *oSrcRoiSize*, const Npp16u ∗ *pTpl*, int *nTplStep*, NppiSize *oTplRoiSize*, Npp32f ∗ *pDst*, int *nDstStep*)

Three-channel 16-bit unsigned image CrossCorrSame_Norm.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSrcRoiSize Region-of-Interest (ROI).

pTpl Pointer to the template image.

nTplStep Number of bytes between successive rows in the template image.

oTplRoiSize Region-of-Interest (ROI).

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.125.2.4 NppStatus nppiCrossCorrSame_Norm_16u32f_C4R (const Npp16u ∗ *pSrc*, int *nSrcStep*, NppiSize *oSrcRoiSize*, const Npp16u ∗ *pTpl*, int *nTplStep*, NppiSize *oTplRoiSize*, Npp32f ∗ *pDst*, int *nDstStep*)

Four-channel 16-bit unsigned image CrossCorrSame_Norm.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSrcRoiSize Region-of-Interest (ROI).

pTpl Pointer to the template image.

nTplStep Number of bytes between successive rows in the template image.

oTplRoiSize Region-of-Interest (ROI).

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.125.2.5 NppStatus nppiCrossCorrSame_Norm_32f_AC4R (const Npp32f ∗ *pSrc*, int *nSrcStep*, NppiSize *oSrcRoiSize*, const Npp32f ∗ *pTpl*, int *nTplStep*, NppiSize *oTplRoiSize*, Npp32f ∗ *pDst*, int *nDstStep*)

Four-channel 32-bit floating point image CrossCorrSame_Norm ignoring alpha channel.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSrcRoiSize Region-of-Interest (ROI).

pTpl Pointer to the template image.

nTplStep Number of bytes between successive rows in the template image.

oTplRoiSize Region-of-Interest (ROI).

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.125.2.6 NppStatus nppiCrossCorrSame_Norm_32f_C1R (const Npp32f ∗ *pSrc*, int *nSrcStep*, NppiSize *oSrcRoiSize*, const Npp32f ∗ *pTpl*, int *nTplStep*, NppiSize *oTplRoiSize*, Npp32f ∗ *pDst*, int *nDstStep*)

One-channel 32-bit floating point image CrossCorrSame_Norm.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSrcRoiSize Region-of-Interest (ROI).

pTpl Pointer to the template image.

nTplStep Number of bytes between successive rows in the template image.

oTplRoiSize Region-of-Interest (ROI).

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.125.2.7 NppStatus nppiCrossCorrSame_Norm_32f_C3R (const Npp32f ∗ *pSrc*, int *nSrcStep*, NppiSize *oSrcRoiSize*, const Npp32f ∗ *pTpl*, int *nTplStep*, NppiSize *oTplRoiSize*, Npp32f ∗ *pDst*, int *nDstStep*)

Three-channel 32-bit floating point image CrossCorrSame_Norm.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSrcRoiSize Region-of-Interest (ROI).

pTpl Pointer to the template image.

nTplStep Number of bytes between successive rows in the template image.

oTplRoiSize Region-of-Interest (ROI).

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.125.2.8 NppStatus nppiCrossCorrSame_Norm_32f_C4R (const Npp32f ∗ *pSrc*, int *nSrcStep*, NppiSize *oSrcRoiSize*, const Npp32f ∗ *pTpl*, int *nTplStep*, NppiSize *oTplRoiSize*, Npp32f ∗ *pDst*, int *nDstStep*)

Four-channel 32-bit floating point image CrossCorrSame_Norm.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSrcRoiSize Region-of-Interest (ROI).

pTpl Pointer to the template image.

nTplStep Number of bytes between successive rows in the template image.

oTplRoiSize Region-of-Interest (ROI).

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.125.2.9 NppStatus nppiCrossCorrSame_Norm_8s32f_AC4R (const Npp8s ∗ *pSrc*, int *nSrcStep*, NppiSize *oSrcRoiSize*, const Npp8s ∗ *pTpl*, int *nTplStep*, NppiSize *oTplRoiSize*, Npp32f ∗ *pDst*, int *nDstStep*)

Four-channel 8-bit signed image CrossCorrSame_Norm ignoring alpha channel.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSrcRoiSize Region-of-Interest (ROI).

pTpl Pointer to the template image.

nTplStep Number of bytes between successive rows in the template image.

oTplRoiSize Region-of-Interest (ROI).

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.125.2.10 NppStatus nppiCrossCorrSame_Norm_8s32f_C1R (const Npp8s ∗ *pSrc*, int *nSrcStep*, NppiSize *oSrcRoiSize*, const Npp8s ∗ *pTpl*, int *nTplStep*, NppiSize *oTplRoiSize*, Npp32f ∗ *pDst*, int *nDstStep*)

One-channel 8-bit signed image CrossCorrSame_Norm.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSrcRoiSize Region-of-Interest (ROI).

pTpl Pointer to the template image.

nTplStep Number of bytes between successive rows in the template image.

oTplRoiSize Region-of-Interest (ROI).

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.125.2.11 NppStatus nppiCrossCorrSame_Norm_8s32f_C3R (const Npp8s ∗ *pSrc*, int *nSrcStep*, NppiSize *oSrcRoiSize*, const Npp8s ∗ *pTpl*, int *nTplStep*, NppiSize *oTplRoiSize*, Npp32f ∗ *pDst*, int *nDstStep*)

Three-channel 8-bit signed image CrossCorrSame_Norm.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSrcRoiSize Region-of-Interest (ROI).

pTpl Pointer to the template image.

nTplStep Number of bytes between successive rows in the template image.

oTplRoiSize Region-of-Interest (ROI).

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.125.2.12 NppStatus nppiCrossCorrSame_Norm_8s32f_C4R (const Npp8s ∗ *pSrc*, int *nSrcStep*, NppiSize *oSrcRoiSize*, const Npp8s ∗ *pTpl*, int *nTplStep*, NppiSize *oTplRoiSize*, Npp32f ∗ *pDst*, int *nDstStep*)

Four-channel 8-bit signed image CrossCorrSame_Norm.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSrcRoiSize Region-of-Interest (ROI).

pTpl Pointer to the template image.

nTplStep Number of bytes between successive rows in the template image.

oTplRoiSize Region-of-Interest (ROI).

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.125.2.13 NppStatus nppiCrossCorrSame_Norm_8u32f_AC4R (const Npp8u ∗ *pSrc*, int *nSrcStep*, NppiSize *oSrcRoiSize*, const Npp8u ∗ *pTpl*, int *nTplStep*, NppiSize *oTplRoiSize*, Npp32f ∗ *pDst*, int *nDstStep*)

Four-channel 8-bit unsigned image CrossCorrSame_Norm ignoring alpha channel.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSrcRoiSize Region-of-Interest (ROI).

pTpl Pointer to the template image.

nTplStep Number of bytes between successive rows in the template image.

oTplRoiSize Region-of-Interest (ROI).

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.125.2.14 NppStatus nppiCrossCorrSame_Norm_8u32f_C1R (const Npp8u ∗ *pSrc*, int *nSrcStep*, NppiSize *oSrcRoiSize*, const Npp8u ∗ *pTpl*, int *nTplStep*, NppiSize *oTplRoiSize*, Npp32f ∗ *pDst*, int *nDstStep*)

One-channel 8-bit unsigned image CrossCorrSame_Norm.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSrcRoiSize Region-of-Interest (ROI).

pTpl Pointer to the template image.

nTplStep Number of bytes between successive rows in the template image.

oTplRoiSize Region-of-Interest (ROI).

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.125.2.15 NppStatus nppiCrossCorrSame_Norm_8u32f_C3R (const Npp8u ∗ *pSrc*, int *nSrcStep*, NppiSize *oSrcRoiSize*, const Npp8u ∗ *pTpl*, int *nTplStep*, NppiSize *oTplRoiSize*, Npp32f ∗ *pDst*, int *nDstStep*)

Three-channel 8-bit unsigned image CrossCorrSame_Norm.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSrcRoiSize Region-of-Interest (ROI).

pTpl Pointer to the template image.

nTplStep Number of bytes between successive rows in the template image.

oTplRoiSize Region-of-Interest (ROI).

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.125.2.16 NppStatus nppiCrossCorrSame_Norm_8u32f_C4R (const Npp8u ∗ *pSrc*, int *nSrcStep*, NppiSize *oSrcRoiSize*, const Npp8u ∗ *pTpl*, int *nTplStep*, NppiSize *oTplRoiSize*, Npp32f ∗ *pDst*, int *nDstStep*)

Four-channel 8-bit unsigned image CrossCorrSame_Norm.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSrcRoiSize Region-of-Interest (ROI).

pTpl Pointer to the template image.

nTplStep Number of bytes between successive rows in the template image.

oTplRoiSize Region-of-Interest (ROI).

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.125.2.17 NppStatus nppiCrossCorrSame_Norm_8u_AC4RSfs (const Npp8u $*$ *pSrc*, int *nSrcStep*, NppiSize *oSrcRoiSize*, const Npp8u $*$ *pTpl*, int *nTplStep*, NppiSize *oTplRoiSize*, Npp8u $*$ *pDst*, int *nDstStep*, int *nScaleFactor*)

Four-channel 8-bit unsigned image CrossCorrSame_Norm ignoring alpha channel, scaled by $2^(- nScaleFactor)$.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSrcRoiSize Region-of-Interest (ROI).

pTpl Pointer to the template image.

nTplStep Number of bytes between successive rows in the template image.

oTplRoiSize Region-of-Interest (ROI).

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

nScaleFactor Integer Result Scaling.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.125.2.18 NppStatus nppiCrossCorrSame_Norm_8u_C1RSfs (const Npp8u $*$ *pSrc*, int *nSrcStep*, NppiSize *oSrcRoiSize*, const Npp8u $*$ *pTpl*, int *nTplStep*, NppiSize *oTplRoiSize*, Npp8u $*$ *pDst*, int *nDstStep*, int *nScaleFactor*)

One-channel 8-bit unsigned image CrossCorrSame_Norm, scaled by $2^(- nScaleFactor)$.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSrcRoiSize Region-of-Interest (ROI).

pTpl Pointer to the template image.

nTplStep Number of bytes between successive rows in the template image.

oTplRoiSize Region-of-Interest (ROI).

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

nScaleFactor Integer Result Scaling.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.125.2.19 NppStatus nppiCrossCorrSame_Norm_8u_C3RSfs (const Npp8u ∗ *pSrc*, int *nSrcStep*, NppiSize *oSrcRoiSize*, const Npp8u ∗ *pTpl*, int *nTplStep*, NppiSize *oTplRoiSize*, Npp8u ∗ *pDst*, int *nDstStep*, int *nScaleFactor*)

Three-channel 8-bit unsigned image CrossCorrSame_Norm, scaled by $2^(-nScaleFactor)$.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSrcRoiSize Region-of-Interest (ROI).

pTpl Pointer to the template image.

nTplStep Number of bytes between successive rows in the template image.

oTplRoiSize Region-of-Interest (ROI).

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

nScaleFactor Integer Result Scaling.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.125.2.20 NppStatus nppiCrossCorrSame_Norm_8u_C4RSfs (const Npp8u ∗ *pSrc*, int *nSrcStep*, NppiSize *oSrcRoiSize*, const Npp8u ∗ *pTpl*, int *nTplStep*, NppiSize *oTplRoiSize*, Npp8u ∗ *pDst*, int *nDstStep*, int *nScaleFactor*)

Four-channel 8-bit unsigned image CrossCorrSame_Norm, scaled by $2^(-nScaleFactor)$.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSrcRoiSize Region-of-Interest (ROI).

pTpl Pointer to the template image.

nTplStep Number of bytes between successive rows in the template image.

oTplRoiSize Region-of-Interest (ROI).

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

nScaleFactor Integer Result Scaling.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.126 CrossCorrValid_Norm

Primitives for computing the normalized cross correlation between two images with valid mode.

CrossCorrValid_Norm

The functions compute the $\rho_{st}(c, r)$ in General Introduction with valid mode (see Categorizations).

- NppStatus nppiCrossCorrValid_Norm_8u_C1RSfs (const Npp8u ∗pSrc, int nSrcStep, NppiSize oSrcRoiSize, const Npp8u ∗pTpl, int nTplStep, NppiSize oTplRoiSize, Npp8u ∗pDst, int nDstStep, int nScaleFactor)

  One-channel 8-bit unsigned image CrossCorrValid_Norm, scaled by $2^(- nScaleFactor)$*.*

- NppStatus nppiCrossCorrValid_Norm_8u_C3RSfs (const Npp8u ∗pSrc, int nSrcStep, NppiSize oSrcRoiSize, const Npp8u ∗pTpl, int nTplStep, NppiSize oTplRoiSize, Npp8u ∗pDst, int nDstStep, int nScaleFactor)

  Three-channel 8-bit unsigned image CrossCorrValid_Norm, scaled by $2^(- nScaleFactor)$*.*

- NppStatus nppiCrossCorrValid_Norm_8u_C4RSfs (const Npp8u ∗pSrc, int nSrcStep, NppiSize oSrcRoiSize, const Npp8u ∗pTpl, int nTplStep, NppiSize oTplRoiSize, Npp8u ∗pDst, int nDstStep, int nScaleFactor)

  Four-channel 8-bit unsigned image CrossCorrValid_Norm, scaled by $2^(- nScaleFactor)$*.*

- NppStatus nppiCrossCorrValid_Norm_8u_AC4RSfs (const Npp8u ∗pSrc, int nSrcStep, NppiSize oSrcRoiSize, const Npp8u ∗pTpl, int nTplStep, NppiSize oTplRoiSize, Npp8u ∗pDst, int nDstStep, int nScaleFactor)

  Four-channel 8-bit unsigned image CrossCorrValid_Norm ignoring alpha channel, scaled by $2^(- nScaleFactor)$*.*

- NppStatus nppiCrossCorrValid_Norm_32f_C1R (const Npp32f ∗pSrc, int nSrcStep, NppiSize oSrcRoiSize, const Npp32f ∗pTpl, int nTplStep, NppiSize oTplRoiSize, Npp32f ∗pDst, int nDstStep)

  One-channel 32-bit floating point image CrossCorrValid_Norm.

- NppStatus nppiCrossCorrValid_Norm_32f_C3R (const Npp32f ∗pSrc, int nSrcStep, NppiSize oSrcRoiSize, const Npp32f ∗pTpl, int nTplStep, NppiSize oTplRoiSize, Npp32f ∗pDst, int nDstStep)

  Three-channel 32-bit floating point image CrossCorrValid_Norm.

- NppStatus nppiCrossCorrValid_Norm_32f_C4R (const Npp32f ∗pSrc, int nSrcStep, NppiSize oSrcRoiSize, const Npp32f ∗pTpl, int nTplStep, NppiSize oTplRoiSize, Npp32f ∗pDst, int nDstStep)

  Four-channel 32-bit floating point image CrossCorrValid_Norm.

- NppStatus nppiCrossCorrValid_Norm_32f_AC4R (const Npp32f ∗pSrc, int nSrcStep, NppiSize oSrcRoiSize, const Npp32f ∗pTpl, int nTplStep, NppiSize oTplRoiSize, Npp32f ∗pDst, int nDstStep)

  Four-channel 32-bit floating point image CrossCorrValid_Norm ignoring alpha channel.

- NppStatus nppiCrossCorrValid_Norm_8u32f_C1R (const Npp8u ∗pSrc, int nSrcStep, NppiSize oSrcRoiSize, const Npp8u ∗pTpl, int nTplStep, NppiSize oTplRoiSize, Npp32f ∗pDst, int nDstStep)

  One-channel 8-bit unsigned image CrossCorrValid_Norm.

- NppStatus nppiCrossCorrValid_Norm_8u32f_C3R (const Npp8u ∗pSrc, int nSrcStep, NppiSize oSrcRoiSize, const Npp8u ∗pTpl, int nTplStep, NppiSize oTplRoiSize, Npp32f ∗pDst, int nDstStep)

Three-channel 8-bit unsigned image CrossCorrValid_Norm.

- NppStatus nppiCrossCorrValid_Norm_8u32f_C4R (const Npp8u ∗pSrc, int nSrcStep, NppiSize oSrcRoiSize, const Npp8u ∗pTpl, int nTplStep, NppiSize oTplRoiSize, Npp32f ∗pDst, int nDstStep)

  Four-channel 8-bit unsigned image CrossCorrValid_Norm.

- NppStatus nppiCrossCorrValid_Norm_8u32f_AC4R (const Npp8u ∗pSrc, int nSrcStep, NppiSize oSrcRoiSize, const Npp8u ∗pTpl, int nTplStep, NppiSize oTplRoiSize, Npp32f ∗pDst, int nDstStep)

  Four-channel 8-bit unsigned image CrossCorrValid_Norm ignoring alpha channel.

- NppStatus nppiCrossCorrValid_Norm_8s32f_C1R (const Npp8s ∗pSrc, int nSrcStep, NppiSize oSrcRoiSize, const Npp8s ∗pTpl, int nTplStep, NppiSize oTplRoiSize, Npp32f ∗pDst, int nDstStep)

  One-channel 8-bit signed image CrossCorrValid_Norm.

- NppStatus nppiCrossCorrValid_Norm_8s32f_C3R (const Npp8s ∗pSrc, int nSrcStep, NppiSize oSrcRoiSize, const Npp8s ∗pTpl, int nTplStep, NppiSize oTplRoiSize, Npp32f ∗pDst, int nDstStep)

  Three-channel 8-bit signed image CrossCorrValid_Norm.

- NppStatus nppiCrossCorrValid_Norm_8s32f_C4R (const Npp8s ∗pSrc, int nSrcStep, NppiSize oSrcRoiSize, const Npp8s ∗pTpl, int nTplStep, NppiSize oTplRoiSize, Npp32f ∗pDst, int nDstStep)

  Four-channel 8-bit signed image CrossCorrValid_Norm.

- NppStatus nppiCrossCorrValid_Norm_8s32f_AC4R (const Npp8s ∗pSrc, int nSrcStep, NppiSize oSrcRoiSize, const Npp8s ∗pTpl, int nTplStep, NppiSize oTplRoiSize, Npp32f ∗pDst, int nDstStep)

  Four-channel 8-bit signed image CrossCorrValid_Norm ignoring alpha channel.

- NppStatus nppiCrossCorrValid_Norm_16u32f_C1R (const Npp16u ∗pSrc, int nSrcStep, NppiSize oSrcRoiSize, const Npp16u ∗pTpl, int nTplStep, NppiSize oTplRoiSize, Npp32f ∗pDst, int nDstStep)

  One-channel 16-bit unsigned image CrossCorrValid_Norm.

- NppStatus nppiCrossCorrValid_Norm_16u32f_C3R (const Npp16u ∗pSrc, int nSrcStep, NppiSize oSrcRoiSize, const Npp16u ∗pTpl, int nTplStep, NppiSize oTplRoiSize, Npp32f ∗pDst, int nDstStep)

  Three-channel 16-bit unsigned image CrossCorrValid_Norm.

- NppStatus nppiCrossCorrValid_Norm_16u32f_C4R (const Npp16u ∗pSrc, int nSrcStep, NppiSize oSrcRoiSize, const Npp16u ∗pTpl, int nTplStep, NppiSize oTplRoiSize, Npp32f ∗pDst, int nDstStep)

  Four-channel 16-bit unsigned image CrossCorrValid_Norm.

- NppStatus nppiCrossCorrValid_Norm_16u32f_AC4R (const Npp16u ∗pSrc, int nSrcStep, NppiSize oSrcRoiSize, const Npp16u ∗pTpl, int nTplStep, NppiSize oTplRoiSize, Npp32f ∗pDst, int nDstStep)

  Four-channel 16-bit unsigned image CrossCorrValid_Norm ignoring alpha channel.

7.126.1 Detailed Description

Primitives for computing the normalized cross correlation between two images with valid mode.

7.126.2 Function Documentation

7.126.2.1 NppStatus nppiCrossCorrValid_Norm_16u32f_AC4R (const Npp16u ∗ *pSrc*, int *nSrcStep*, NppiSize *oSrcRoiSize*, const Npp16u ∗ *pTpl*, int *nTplStep*, NppiSize *oTplRoiSize*, Npp32f ∗ *pDst*, int *nDstStep*)

Four-channel 16-bit unsigned image CrossCorrValid_Norm ignoring alpha channel.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSrcRoiSize Region-of-Interest (ROI).

pTpl Pointer to the template image.

nTplStep Number of bytes between successive rows in the template image.

oTplRoiSize Region-of-Interest (ROI).

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.126.2.2 NppStatus nppiCrossCorrValid_Norm_16u32f_C1R (const Npp16u ∗ *pSrc*, int *nSrcStep*, NppiSize *oSrcRoiSize*, const Npp16u ∗ *pTpl*, int *nTplStep*, NppiSize *oTplRoiSize*, Npp32f ∗ *pDst*, int *nDstStep*)

One-channel 16-bit unsigned image CrossCorrValid_Norm.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSrcRoiSize Region-of-Interest (ROI).

pTpl Pointer to the template image.

nTplStep Number of bytes between successive rows in the template image.

oTplRoiSize Region-of-Interest (ROI).

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.126.2.3 NppStatus nppiCrossCorrValid_Norm_16u32f_C3R (const Npp16u ∗ *pSrc*, int *nSrcStep*, NppiSize *oSrcRoiSize*, const Npp16u ∗ *pTpl*, int *nTplStep*, NppiSize *oTplRoiSize*, Npp32f ∗ *pDst*, int *nDstStep*)

Three-channel 16-bit unsigned image CrossCorrValid_Norm.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSrcRoiSize Region-of-Interest (ROI).

pTpl Pointer to the template image.

nTplStep Number of bytes between successive rows in the template image.

oTplRoiSize Region-of-Interest (ROI).

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.126.2.4 NppStatus nppiCrossCorrValid_Norm_16u32f_C4R (const Npp16u ∗ *pSrc*, int *nSrcStep*, NppiSize *oSrcRoiSize*, const Npp16u ∗ *pTpl*, int *nTplStep*, NppiSize *oTplRoiSize*, Npp32f ∗ *pDst*, int *nDstStep*)

Four-channel 16-bit unsigned image CrossCorrValid_Norm.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSrcRoiSize Region-of-Interest (ROI).

pTpl Pointer to the template image.

nTplStep Number of bytes between successive rows in the template image.

oTplRoiSize Region-of-Interest (ROI).

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.126.2.5 NppStatus nppiCrossCorrValid_Norm_32f_AC4R (const Npp32f ∗ *pSrc*, int *nSrcStep*, NppiSize *oSrcRoiSize*, const Npp32f ∗ *pTpl*, int *nTplStep*, NppiSize *oTplRoiSize*, Npp32f ∗ *pDst*, int *nDstStep*)

Four-channel 32-bit floating point image CrossCorrValid_Norm ignoring alpha channel.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSrcRoiSize Region-of-Interest (ROI).

pTpl Pointer to the template image.

nTplStep Number of bytes between successive rows in the template image.

oTplRoiSize Region-of-Interest (ROI).

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.126.2.6 NppStatus nppiCrossCorrValid_Norm_32f_C1R (const Npp32f * *pSrc*, int *nSrcStep*, NppiSize *oSrcRoiSize*, const Npp32f * *pTpl*, int *nTplStep*, NppiSize *oTplRoiSize*, Npp32f * *pDst*, int *nDstStep*)

One-channel 32-bit floating point image CrossCorrValid_Norm.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSrcRoiSize Region-of-Interest (ROI).

pTpl Pointer to the template image.

nTplStep Number of bytes between successive rows in the template image.

oTplRoiSize Region-of-Interest (ROI).

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.126.2.7 NppStatus nppiCrossCorrValid_Norm_32f_C3R (const Npp32f * *pSrc*, int *nSrcStep*, NppiSize *oSrcRoiSize*, const Npp32f * *pTpl*, int *nTplStep*, NppiSize *oTplRoiSize*, Npp32f * *pDst*, int *nDstStep*)

Three-channel 32-bit floating point image CrossCorrValid_Norm.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSrcRoiSize Region-of-Interest (ROI).

pTpl Pointer to the template image.

nTplStep Number of bytes between successive rows in the template image.

oTplRoiSize Region-of-Interest (ROI).

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.126.2.8 NppStatus nppiCrossCorrValid_Norm_32f_C4R (const Npp32f ∗ *pSrc*, int *nSrcStep*, NppiSize *oSrcRoiSize*, const Npp32f ∗ *pTpl*, int *nTplStep*, NppiSize *oTplRoiSize*, Npp32f ∗ *pDst*, int *nDstStep*)

Four-channel 32-bit floating point image CrossCorrValid_Norm.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSrcRoiSize Region-of-Interest (ROI).

pTpl Pointer to the template image.

nTplStep Number of bytes between successive rows in the template image.

oTplRoiSize Region-of-Interest (ROI).

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.126.2.9 NppStatus nppiCrossCorrValid_Norm_8s32f_AC4R (const Npp8s ∗ *pSrc*, int *nSrcStep*, NppiSize *oSrcRoiSize*, const Npp8s ∗ *pTpl*, int *nTplStep*, NppiSize *oTplRoiSize*, Npp32f ∗ *pDst*, int *nDstStep*)

Four-channel 8-bit signed image CrossCorrValid_Norm ignoring alpha channel.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSrcRoiSize Region-of-Interest (ROI).

pTpl Pointer to the template image.

nTplStep Number of bytes between successive rows in the template image.

oTplRoiSize Region-of-Interest (ROI).

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.126.2.10 NppStatus nppiCrossCorrValid_Norm_8s32f_C1R (const Npp8s * *pSrc*, int *nSrcStep*, NppiSize *oSrcRoiSize*, const Npp8s * *pTpl*, int *nTplStep*, NppiSize *oTplRoiSize*, Npp32f * *pDst*, int *nDstStep*)

One-channel 8-bit signed image CrossCorrValid_Norm.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSrcRoiSize Region-of-Interest (ROI).

pTpl Pointer to the template image.

nTplStep Number of bytes between successive rows in the template image.

oTplRoiSize Region-of-Interest (ROI).

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.126.2.11 NppStatus nppiCrossCorrValid_Norm_8s32f_C3R (const Npp8s * *pSrc*, int *nSrcStep*, NppiSize *oSrcRoiSize*, const Npp8s * *pTpl*, int *nTplStep*, NppiSize *oTplRoiSize*, Npp32f * *pDst*, int *nDstStep*)

Three-channel 8-bit signed image CrossCorrValid_Norm.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSrcRoiSize Region-of-Interest (ROI).

pTpl Pointer to the template image.

nTplStep Number of bytes between successive rows in the template image.

oTplRoiSize Region-of-Interest (ROI).

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.126.2.12 NppStatus nppiCrossCorrValid_Norm_8s32f_C4R (const Npp8s * *pSrc*, int *nSrcStep*, NppiSize *oSrcRoiSize*, const Npp8s * *pTpl*, int *nTplStep*, NppiSize *oTplRoiSize*, Npp32f * *pDst*, int *nDstStep*)

Four-channel 8-bit signed image CrossCorrValid_Norm.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSrcRoiSize Region-of-Interest (ROI).

pTpl Pointer to the template image.

nTplStep Number of bytes between successive rows in the template image.

oTplRoiSize Region-of-Interest (ROI).

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.126.2.13 NppStatus nppiCrossCorrValid_Norm_8u32f_AC4R (const Npp8u ∗ *pSrc*, int *nSrcStep*, NppiSize *oSrcRoiSize*, const Npp8u ∗ *pTpl*, int *nTplStep*, NppiSize *oTplRoiSize*, Npp32f ∗ *pDst*, int *nDstStep*)

Four-channel 8-bit unsigned image CrossCorrValid_Norm ignoring alpha channel.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSrcRoiSize Region-of-Interest (ROI).

pTpl Pointer to the template image.

nTplStep Number of bytes between successive rows in the template image.

oTplRoiSize Region-of-Interest (ROI).

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.126.2.14 NppStatus nppiCrossCorrValid_Norm_8u32f_C1R (const Npp8u ∗ *pSrc*, int *nSrcStep*, NppiSize *oSrcRoiSize*, const Npp8u ∗ *pTpl*, int *nTplStep*, NppiSize *oTplRoiSize*, Npp32f ∗ *pDst*, int *nDstStep*)

One-channel 8-bit unsigned image CrossCorrValid_Norm.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSrcRoiSize Region-of-Interest (ROI).

pTpl Pointer to the template image.

nTplStep Number of bytes between successive rows in the template image.

oTplRoiSize Region-of-Interest (ROI).

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.126.2.15 NppStatus nppiCrossCorrValid_Norm_8u32f_C3R (const Npp8u ∗ *pSrc*, int *nSrcStep*, NppiSize *oSrcRoiSize*, const Npp8u ∗ *pTpl*, int *nTplStep*, NppiSize *oTplRoiSize*, Npp32f ∗ *pDst*, int *nDstStep*)

Three-channel 8-bit unsigned image CrossCorrValid_Norm.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSrcRoiSize Region-of-Interest (ROI).

pTpl Pointer to the template image.

nTplStep Number of bytes between successive rows in the template image.

oTplRoiSize Region-of-Interest (ROI).

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.126.2.16 NppStatus nppiCrossCorrValid_Norm_8u32f_C4R (const Npp8u ∗ *pSrc*, int *nSrcStep*, NppiSize *oSrcRoiSize*, const Npp8u ∗ *pTpl*, int *nTplStep*, NppiSize *oTplRoiSize*, Npp32f ∗ *pDst*, int *nDstStep*)

Four-channel 8-bit unsigned image CrossCorrValid_Norm.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSrcRoiSize Region-of-Interest (ROI).

pTpl Pointer to the template image.

nTplStep Number of bytes between successive rows in the template image.

oTplRoiSize Region-of-Interest (ROI).

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.126.2.17 NppStatus nppiCrossCorrValid_Norm_8u_AC4RSfs (const Npp8u $*$ *pSrc*, int *nSrcStep*, NppiSize *oSrcRoiSize*, const Npp8u $*$ *pTpl*, int *nTplStep*, NppiSize *oTplRoiSize*, Npp8u $*$ *pDst*, int *nDstStep*, int *nScaleFactor*)

Four-channel 8-bit unsigned image CrossCorrValid_Norm ignoring alpha channel, scaled by $2^(- nScaleFactor)$.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSrcRoiSize Region-of-Interest (ROI).

pTpl Pointer to the template image.

nTplStep Number of bytes between successive rows in the template image.

oTplRoiSize Region-of-Interest (ROI).

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

nScaleFactor Integer Result Scaling.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.126.2.18 NppStatus nppiCrossCorrValid_Norm_8u_C1RSfs (const Npp8u $*$ *pSrc*, int *nSrcStep*, NppiSize *oSrcRoiSize*, const Npp8u $*$ *pTpl*, int *nTplStep*, NppiSize *oTplRoiSize*, Npp8u $*$ *pDst*, int *nDstStep*, int *nScaleFactor*)

One-channel 8-bit unsigned image CrossCorrValid_Norm, scaled by $2^(- nScaleFactor)$.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSrcRoiSize Region-of-Interest (ROI).

pTpl Pointer to the template image.

nTplStep Number of bytes between successive rows in the template image.

oTplRoiSize Region-of-Interest (ROI).

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

nScaleFactor Integer Result Scaling.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.126.2.19 NppStatus nppiCrossCorrValid_Norm_8u_C3RSfs (const Npp8u ∗ *pSrc*, int *nSrcStep*, NppiSize *oSrcRoiSize*, const Npp8u ∗ *pTpl*, int *nTplStep*, NppiSize *oTplRoiSize*, Npp8u ∗ *pDst*, int *nDstStep*, int *nScaleFactor*)

Three-channel 8-bit unsigned image CrossCorrValid_Norm, scaled by $2^(- nScaleFactor)$.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSrcRoiSize Region-of-Interest (ROI).

pTpl Pointer to the template image.

nTplStep Number of bytes between successive rows in the template image.

oTplRoiSize Region-of-Interest (ROI).

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

nScaleFactor Integer Result Scaling.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.126.2.20 NppStatus nppiCrossCorrValid_Norm_8u_C4RSfs (const Npp8u ∗ *pSrc*, int *nSrcStep*, NppiSize *oSrcRoiSize*, const Npp8u ∗ *pTpl*, int *nTplStep*, NppiSize *oTplRoiSize*, Npp8u ∗ *pDst*, int *nDstStep*, int *nScaleFactor*)

Four-channel 8-bit unsigned image CrossCorrValid_Norm, scaled by $2^(- nScaleFactor)$.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSrcRoiSize Region-of-Interest (ROI).

pTpl Pointer to the template image.

nTplStep Number of bytes between successive rows in the template image.

oTplRoiSize Region-of-Interest (ROI).

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

nScaleFactor Integer Result Scaling.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.127 CrossCorrValid

Primitives for computing the cross correlation between two images with valid mode.

CrossCorrValid

The functions compute the $R_{st}(c, r)$ in General Introduction with valid mode (see Categorizations).

- NppStatus nppiCrossCorrValid_32f_C1R (const Npp32f ∗pSrc, int nSrcStep, NppiSize oSrcRoiSize, const Npp32f ∗pTpl, int nTplStep, NppiSize oTplRoiSize, Npp32f ∗pDst, int nDstStep)

  One-channel 32-bit floating point images CrossCorrValid.

- NppStatus nppiCrossCorrValid_8u32f_C1R (const Npp8u ∗pSrc, int nSrcStep, NppiSize oSrcRoiSize, const Npp8u ∗pTpl, int nTplStep, NppiSize oTplRoiSize, Npp32f ∗pDst, int nDstStep)

  One-channel 8-bit unsigned images CrossCorrValid.

- NppStatus nppiCrossCorrValid_8s32f_C1R (const Npp8s ∗pSrc, int nSrcStep, NppiSize oSrcRoiSize, const Npp8s ∗pTpl, int nTplStep, NppiSize oTplRoiSize, Npp32f ∗pDst, int nDstStep)

  One-channel 8-bit signed images CrossCorrValid.

- NppStatus nppiCrossCorrValid_16u32f_C1R (const Npp16u ∗pSrc, int nSrcStep, NppiSize oSrcRoiSize, const Npp16u ∗pTpl, int nTplStep, NppiSize oTplRoiSize, Npp32f ∗pDst, int nDstStep)

  One-channel 16-bit unsigned images CrossCorrValid.

7.127.1 Detailed Description

Primitives for computing the cross correlation between two images with valid mode.

7.127.2 Function Documentation

7.127.2.1 NppStatus nppiCrossCorrValid_16u32f_C1R (const Npp16u ∗ *pSrc*, int *nSrcStep*, NppiSize *oSrcRoiSize*, const Npp16u ∗ *pTpl*, int *nTplStep*, NppiSize *oTplRoiSize*, Npp32f ∗ *pDst*, int *nDstStep*)

One-channel 16-bit unsigned images CrossCorrValid.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSrcRoiSize Region-of-Interest (ROI).

pTpl Pointer to the template image.

nTplStep Number of bytes between successive rows in the template image.

oTplRoiSize Region-of-Interest (ROI).

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.127.2.2 NppStatus nppiCrossCorrValid_32f_C1R (const Npp32f ∗ *pSrc*, int *nSrcStep*, NppiSize *oSrcRoiSize*, const Npp32f ∗ *pTpl*, int *nTplStep*, NppiSize *oTplRoiSize*, Npp32f ∗ *pDst*, int *nDstStep*)

One-channel 32-bit floating point images CrossCorrValid.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSrcRoiSize Region-of-Interest (ROI).

pTpl Pointer to the template image.

nTplStep Number of bytes between successive rows in the template image.

oTplRoiSize Region-of-Interest (ROI).

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.127.2.3 NppStatus nppiCrossCorrValid_8s32f_C1R (const Npp8s ∗ *pSrc*, int *nSrcStep*, NppiSize *oSrcRoiSize*, const Npp8s ∗ *pTpl*, int *nTplStep*, NppiSize *oTplRoiSize*, Npp32f ∗ *pDst*, int *nDstStep*)

One-channel 8-bit signed images CrossCorrValid.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSrcRoiSize Region-of-Interest (ROI).

pTpl Pointer to the template image.

nTplStep Number of bytes between successive rows in the template image.

oTplRoiSize Region-of-Interest (ROI).

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.127.2.4 NppStatus nppiCrossCorrValid_8u32f_C1R (const Npp8u ∗ *pSrc*, int *nSrcStep*, NppiSize *oSrcRoiSize*, const Npp8u ∗ *pTpl*, int *nTplStep*, NppiSize *oTplRoiSize*, Npp32f ∗ *pDst*, int *nDstStep*)

One-channel 8-bit unsigned images CrossCorrValid.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSrcRoiSize Region-of-Interest (ROI).

pTpl Pointer to the template image.

nTplStep Number of bytes between successive rows in the template image.

oTplRoiSize Region-of-Interest (ROI).

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.128 CrossCorrFull_NormLevel

Primitives for computing the normalized cross correlation coefficient between two images with full mode.

CrossCorrFull_NormLevel

The functions compute the $\gamma_{st}(c, r)$ in General Introduction with full mode (see Categorizations).

The functions require additional scratch buffer for computations.

- NppStatus nppiCrossCorrFull_NormLevel_8u_C1RSfs (const Npp8u ∗pSrc, int nSrcStep, NppiSize oSrcRoiSize, const Npp8u ∗pTpl, int nTplStep, NppiSize oTplRoiSize, Npp8u ∗pDst, int nDstStep, int nScaleFactor, Npp8u ∗pDeviceBuffer)

  One-channel 8-bit unsigned image CrossCorrFull_NormLevel.

- NppStatus nppiCrossCorrFull_NormLevel_8u_C3RSfs (const Npp8u ∗pSrc, int nSrcStep, NppiSize oSrcRoiSize, const Npp8u ∗pTpl, int nTplStep, NppiSize oTplRoiSize, Npp8u ∗pDst, int nDstStep, int nScaleFactor, Npp8u ∗pDeviceBuffer)

  Three-channel 8-bit unsigned image CrossCorrFull_NormLevel.

- NppStatus nppiCrossCorrFull_NormLevel_8u_C4RSfs (const Npp8u ∗pSrc, int nSrcStep, NppiSize oSrcRoiSize, const Npp8u ∗pTpl, int nTplStep, NppiSize oTplRoiSize, Npp8u ∗pDst, int nDstStep, int nScaleFactor, Npp8u ∗pDeviceBuffer)

  Four-channel 8-bit unsigned image CrossCorrFull_NormLevel.

- NppStatus nppiCrossCorrFull_NormLevel_8u_AC4RSfs (const Npp8u ∗pSrc, int nSrcStep, NppiSize oSrcRoiSize, const Npp8u ∗pTpl, int nTplStep, NppiSize oTplRoiSize, Npp8u ∗pDst, int nDstStep, int nScaleFactor, Npp8u ∗pDeviceBuffer)

  Four-channel 8-bit unsigned image CrossCorrFull_NormLevel ignoring alpha channel.

- NppStatus nppiCrossCorrFull_NormLevel_32f_C1R (const Npp32f ∗pSrc, int nSrcStep, NppiSize oSrcRoiSize, const Npp32f ∗pTpl, int nTplStep, NppiSize oTplRoiSize, Npp32f ∗pDst, int nDstStep, Npp8u ∗pDeviceBuffer)

  One-channel 32-bit floating point image CrossCorrFull_NormLevel.

- NppStatus nppiCrossCorrFull_NormLevel_32f_C3R (const Npp32f ∗pSrc, int nSrcStep, NppiSize oSrcRoiSize, const Npp32f ∗pTpl, int nTplStep, NppiSize oTplRoiSize, Npp32f ∗pDst, int nDstStep, Npp8u ∗pDeviceBuffer)

  Three-channel 32-bit floating point image CrossCorrFull_NormLevel.

- NppStatus nppiCrossCorrFull_NormLevel_32f_C4R (const Npp32f ∗pSrc, int nSrcStep, NppiSize oSrcRoiSize, const Npp32f ∗pTpl, int nTplStep, NppiSize oTplRoiSize, Npp32f ∗pDst, int nDstStep, Npp8u ∗pDeviceBuffer)

  Four-channel 32-bit floating point image CrossCorrFull_NormLevel.

- NppStatus nppiCrossCorrFull_NormLevel_32f_AC4R (const Npp32f ∗pSrc, int nSrcStep, NppiSize oSrcRoiSize, const Npp32f ∗pTpl, int nTplStep, NppiSize oTplRoiSize, Npp32f ∗pDst, int nDstStep, Npp8u ∗pDeviceBuffer)

  Four-channel 32-bit floating point image CrossCorrFull_NormLevel ignoring alpha channel.

- NppStatus nppiCrossCorrFull_NormLevel_8u32f_C1R (const Npp8u ∗pSrc, int nSrcStep, NppiSize oSrcRoiSize, const Npp8u ∗pTpl, int nTplStep, NppiSize oTplRoiSize, Npp32f ∗pDst, int nDstStep, Npp8u ∗pDeviceBuffer)

  One-channel 8-bit unsigned image CrossCorrFull_NormLevel.

- NppStatus nppiCrossCorrFull_NormLevel_8u32f_C3R (const Npp8u ∗pSrc, int nSrcStep, NppiSize oSrcRoiSize, const Npp8u ∗pTpl, int nTplStep, NppiSize oTplRoiSize, Npp32f ∗pDst, int nDstStep, Npp8u ∗pDeviceBuffer)

  Three-channel 8-bit unsigned image CrossCorrFull_NormLevel.

- NppStatus nppiCrossCorrFull_NormLevel_8u32f_C4R (const Npp8u ∗pSrc, int nSrcStep, NppiSize oSrcRoiSize, const Npp8u ∗pTpl, int nTplStep, NppiSize oTplRoiSize, Npp32f ∗pDst, int nDstStep, Npp8u ∗pDeviceBuffer)

  Four-channel 8-bit unsigned image CrossCorrFull_NormLevel.

- NppStatus nppiCrossCorrFull_NormLevel_8u32f_AC4R (const Npp8u ∗pSrc, int nSrcStep, NppiSize oSrcRoiSize, const Npp8u ∗pTpl, int nTplStep, NppiSize oTplRoiSize, Npp32f ∗pDst, int nDstStep, Npp8u ∗pDeviceBuffer)

  Four-channel 8-bit unsigned image CrossCorrFull_NormLevel ignoring alpha channel.

- NppStatus nppiCrossCorrFull_NormLevel_8s32f_C1R (const Npp8s ∗pSrc, int nSrcStep, NppiSize oSrcRoiSize, const Npp8s ∗pTpl, int nTplStep, NppiSize oTplRoiSize, Npp32f ∗pDst, int nDstStep, Npp8u ∗pDeviceBuffer)

  One-channel 8-bit signed image CrossCorrFull_NormLevel.

- NppStatus nppiCrossCorrFull_NormLevel_8s32f_C3R (const Npp8s ∗pSrc, int nSrcStep, NppiSize oSrcRoiSize, const Npp8s ∗pTpl, int nTplStep, NppiSize oTplRoiSize, Npp32f ∗pDst, int nDstStep, Npp8u ∗pDeviceBuffer)

  Three-channel 8-bit signed image CrossCorrFull_NormLevel.

- NppStatus nppiCrossCorrFull_NormLevel_8s32f_C4R (const Npp8s ∗pSrc, int nSrcStep, NppiSize oSrcRoiSize, const Npp8s ∗pTpl, int nTplStep, NppiSize oTplRoiSize, Npp32f ∗pDst, int nDstStep, Npp8u ∗pDeviceBuffer)

  Four-channel 8-bit signed image CrossCorrFull_NormLevel.

- NppStatus nppiCrossCorrFull_NormLevel_8s32f_AC4R (const Npp8s ∗pSrc, int nSrcStep, NppiSize oSrcRoiSize, const Npp8s ∗pTpl, int nTplStep, NppiSize oTplRoiSize, Npp32f ∗pDst, int nDstStep, Npp8u ∗pDeviceBuffer)

  Four-channel 8-bit signed image CrossCorrFull_NormLevel ignoring alpha channel.

- NppStatus nppiCrossCorrFull_NormLevel_16u32f_C1R (const Npp16u ∗pSrc, int nSrcStep, NppiSize oSrcRoiSize, const Npp16u ∗pTpl, int nTplStep, NppiSize oTplRoiSize, Npp32f ∗pDst, int nDstStep, Npp8u ∗pDeviceBuffer)

  One-channel 16-bit unsigned image CrossCorrFull_NormLevel.

- NppStatus nppiCrossCorrFull_NormLevel_16u32f_C3R (const Npp16u ∗pSrc, int nSrcStep, NppiSize oSrcRoiSize, const Npp16u ∗pTpl, int nTplStep, NppiSize oTplRoiSize, Npp32f ∗pDst, int nDstStep, Npp8u ∗pDeviceBuffer)

  Three-channel 16-bit unsigned image CrossCorrFull_NormLevel.

- NppStatus nppiCrossCorrFull_NormLevel_16u32f_C4R (const Npp16u ∗pSrc, int nSrcStep, NppiSize oSrcRoiSize, const Npp16u ∗pTpl, int nTplStep, NppiSize oTplRoiSize, Npp32f ∗pDst, int nDstStep, Npp8u ∗pDeviceBuffer)

  Four-channel 16-bit unsigned image CrossCorrFull_NormLevel.

- NppStatus nppiCrossCorrFull_NormLevel_16u32f_AC4R (const Npp16u ∗pSrc, int nSrcStep, NppiSize oSrcRoiSize, const Npp16u ∗pTpl, int nTplStep, NppiSize oTplRoiSize, Npp32f ∗pDst, int nDstStep, Npp8u ∗pDeviceBuffer)

  Four-channel 16-bit unsigned image CrossCorrFull_NormLevel ignoring alpha channel.

FullNormLevelGetBufferHostSize

Companion primitives for computing the device buffer size (in bytes) required by the CrossCorrFull_-NormLevel primitives.

- NppStatus nppiFullNormLevelGetBufferHostSize_8u_C1RSfs (NppiSize oSizeROI, int ∗hpBufferSize)

  Buffer size (in bytes) for nppiCrossCorrFull_NormLevel_8u_C1RSfs.

- NppStatus nppiFullNormLevelGetBufferHostSize_8u_C3RSfs (NppiSize oSizeROI, int ∗hpBufferSize)

  Buffer size (in bytes) for nppiCrossCorrFull_NormLevel_8u_C3RSfs.

- NppStatus nppiFullNormLevelGetBufferHostSize_8u_C4RSfs (NppiSize oSizeROI, int ∗hpBufferSize)

  Buffer size (in bytes) for nppiCrossCorrFull_NormLevel_8u_C4RSfs.

- NppStatus nppiFullNormLevelGetBufferHostSize_8u_AC4RSfs (NppiSize oSizeROI, int ∗hpBufferSize)

  Buffer size (in bytes) for nppiCrossCorrFull_NormLevel_8u_AC4RSfs.

- NppStatus nppiFullNormLevelGetBufferHostSize_32f_C1R (NppiSize oSizeROI, int ∗hpBufferSize)

  Buffer size (in bytes) for nppiCrossCorrFull_NormLevel_32f_C1R.

- NppStatus nppiFullNormLevelGetBufferHostSize_32f_C3R (NppiSize oSizeROI, int ∗hpBufferSize)

  Buffer size (in bytes) for nppiCrossCorrFull_NormLevel_32f_C3R.

- NppStatus nppiFullNormLevelGetBufferHostSize_32f_C4R (NppiSize oSizeROI, int ∗hpBufferSize)

  Buffer size (in bytes) for nppiCrossCorrFull_NormLevel_32f_C4R.

- NppStatus nppiFullNormLevelGetBufferHostSize_32f_AC4R (NppiSize oSizeROI, int ∗hpBufferSize)

  Buffer size (in bytes) for nppiCrossCorrFull_NormLevel_32f_AC4R.

- NppStatus nppiFullNormLevelGetBufferHostSize_8u32f_C1R (NppiSize oSizeROI, int ∗hpBufferSize)

Buffer size (in bytes) for nppiCrossCorrFull_NormLevel_8u32f_C1R.

- NppStatus nppiFullNormLevelGetBufferHostSize_8u32f_C3R (NppiSize oSizeROI, int ∗hpBufferSize)

  Buffer size (in bytes) for nppiCrossCorrFull_NormLevel_8u32f_C3R.

- NppStatus nppiFullNormLevelGetBufferHostSize_8u32f_C4R (NppiSize oSizeROI, int ∗hpBufferSize)

  Buffer size (in bytes) for nppiCrossCorrFull_NormLevel_8u32f_C4R.

- NppStatus nppiFullNormLevelGetBufferHostSize_8u32f_AC4R (NppiSize oSizeROI, int ∗hpBufferSize)

  Buffer size (in bytes) for nppiCrossCorrFull_NormLevel_8u32f_AC4R.

- NppStatus nppiFullNormLevelGetBufferHostSize_8s32f_C1R (NppiSize oSizeROI, int ∗hpBufferSize)

  Buffer size (in bytes) for nppiCrossCorrFull_NormLevel_8s32f_C1R.

- NppStatus nppiFullNormLevelGetBufferHostSize_8s32f_C3R (NppiSize oSizeROI, int ∗hpBufferSize)

  Buffer size (in bytes) for nppiCrossCorrFull_NormLevel_8s32f_C3R.

- NppStatus nppiFullNormLevelGetBufferHostSize_8s32f_C4R (NppiSize oSizeROI, int ∗hpBufferSize)

  Buffer size (in bytes) for nppiCrossCorrFull_NormLevel_8s32f_C4R.

- NppStatus nppiFullNormLevelGetBufferHostSize_8s32f_AC4R (NppiSize oSizeROI, int ∗hpBufferSize)

  Buffer size (in bytes) for nppiCrossCorrFull_NormLevel_8s32f_AC4R.

- NppStatus nppiFullNormLevelGetBufferHostSize_16u32f_C1R (NppiSize oSizeROI, int ∗hpBufferSize)

  Buffer size (in bytes) for nppiCrossCorrFull_NormLevel_16u32f_C1R.

- NppStatus nppiFullNormLevelGetBufferHostSize_16u32f_C3R (NppiSize oSizeROI, int ∗hpBufferSize)

  Buffer size (in bytes) for nppiCrossCorrFull_NormLevel_16u32f_C3R.

- NppStatus nppiFullNormLevelGetBufferHostSize_16u32f_C4R (NppiSize oSizeROI, int ∗hpBufferSize)

  Buffer size (in bytes) for nppiCrossCorrFull_NormLevel_16u32f_C4R.

- NppStatus nppiFullNormLevelGetBufferHostSize_16u32f_AC4R (NppiSize oSizeROI, int ∗hpBufferSize)

  Buffer size (in bytes) for nppiCrossCorrFull_NormLevel_16u32f_AC4R.

7.128.1 Detailed Description

Primitives for computing the normalized cross correlation coefficient between two images with full mode.

7.128.2 Function Documentation

7.128.2.1 NppStatus nppiCrossCorrFull_NormLevel_16u32f_AC4R (const Npp16u ∗ *pSrc*, int *nSrcStep*, NppiSize *oSrcRoiSize*, const Npp16u ∗ *pTpl*, int *nTplStep*, NppiSize *oTplRoiSize*, Npp32f ∗ *pDst*, int *nDstStep*, Npp8u ∗ *pDeviceBuffer*)

Four-channel 16-bit unsigned image CrossCorrFull_NormLevel ignoring alpha channel.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSrcRoiSize Region-of-Interest (ROI).

pTpl Pointer to the template image.

nTplStep Number of bytes between successive rows in the template image.

oTplRoiSize Region-of-Interest (ROI).

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppiFullNormLevelGetBufferHostSize_16u32f_AC4R to compute the required size (in bytes).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.128.2.2 NppStatus nppiCrossCorrFull_NormLevel_16u32f_C1R (const Npp16u ∗ *pSrc*, int *nSrcStep*, NppiSize *oSrcRoiSize*, const Npp16u ∗ *pTpl*, int *nTplStep*, NppiSize *oTplRoiSize*, Npp32f ∗ *pDst*, int *nDstStep*, Npp8u ∗ *pDeviceBuffer*)

One-channel 16-bit unsigned image CrossCorrFull_NormLevel.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSrcRoiSize Region-of-Interest (ROI).

pTpl Pointer to the template image.

nTplStep Number of bytes between successive rows in the template image.

oTplRoiSize Region-of-Interest (ROI).

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppiFullNormLevelGetBufferHostSize_16u32f_C1R to compute the required size (in bytes).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.128.2.3 NppStatus nppiCrossCorrFull_NormLevel_16u32f_C3R (const Npp16u ∗ *pSrc*, int *nSrcStep*, NppiSize *oSrcRoiSize*, const Npp16u ∗ *pTpl*, int *nTplStep*, NppiSize *oTplRoiSize*, Npp32f ∗ *pDst*, int *nDstStep*, Npp8u ∗ *pDeviceBuffer*)

Three-channel 16-bit unsigned image CrossCorrFull_NormLevel.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSrcRoiSize Region-of-Interest (ROI).

pTpl Pointer to the template image.

nTplStep Number of bytes between successive rows in the template image.

oTplRoiSize Region-of-Interest (ROI).

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppiFullNormLevelGetBufferHostSize_16u32f_C3R to compute the required size (in bytes).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.128.2.4 NppStatus nppiCrossCorrFull_NormLevel_16u32f_C4R (const Npp16u ∗ *pSrc*, int *nSrcStep*, NppiSize *oSrcRoiSize*, const Npp16u ∗ *pTpl*, int *nTplStep*, NppiSize *oTplRoiSize*, Npp32f ∗ *pDst*, int *nDstStep*, Npp8u ∗ *pDeviceBuffer*)

Four-channel 16-bit unsigned image CrossCorrFull_NormLevel.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSrcRoiSize Region-of-Interest (ROI).

pTpl Pointer to the template image.

nTplStep Number of bytes between successive rows in the template image.

oTplRoiSize Region-of-Interest (ROI).

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppiFullNormLevelGetBufferHostSize_16u32f_C4R to compute the required size (in bytes).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.128.2.5 NppStatus nppiCrossCorrFull_NormLevel_32f_AC4R (const Npp32f ∗ *pSrc*, int *nSrcStep*, NppiSize *oSrcRoiSize*, const Npp32f ∗ *pTpl*, int *nTplStep*, NppiSize *oTplRoiSize*, Npp32f ∗ *pDst*, int *nDstStep*, Npp8u ∗ *pDeviceBuffer*)

Four-channel 32-bit floating point image CrossCorrFull_NormLevel ignoring alpha channel.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSrcRoiSize Region-of-Interest (ROI).

pTpl Pointer to the template image.

nTplStep Number of bytes between successive rows in the template image.

oTplRoiSize Region-of-Interest (ROI).

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppiFullNormLevelGetBufferHostSize_32f_AC4R to compute the required size (in bytes).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.128.2.6 NppStatus nppiCrossCorrFull_NormLevel_32f_C1R (const Npp32f ∗ *pSrc*, int *nSrcStep*, NppiSize *oSrcRoiSize*, const Npp32f ∗ *pTpl*, int *nTplStep*, NppiSize *oTplRoiSize*, Npp32f ∗ *pDst*, int *nDstStep*, Npp8u ∗ *pDeviceBuffer*)

One-channel 32-bit floating point image CrossCorrFull_NormLevel.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSrcRoiSize Region-of-Interest (ROI).

pTpl Pointer to the template image.

nTplStep Number of bytes between successive rows in the template image.

oTplRoiSize Region-of-Interest (ROI).

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppiFullNormLevelGetBufferHostSize_32f_C1R to compute the required size (in bytes).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.128.2.7 NppStatus nppiCrossCorrFull_NormLevel_32f_C3R (const Npp32f ∗ *pSrc*, int *nSrcStep*, NppiSize *oSrcRoiSize*, const Npp32f ∗ *pTpl*, int *nTplStep*, NppiSize *oTplRoiSize*, Npp32f ∗ *pDst*, int *nDstStep*, Npp8u ∗ *pDeviceBuffer*)

Three-channel 32-bit floating point image CrossCorrFull_NormLevel.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSrcRoiSize Region-of-Interest (ROI).

pTpl Pointer to the template image.

nTplStep Number of bytes between successive rows in the template image.

oTplRoiSize Region-of-Interest (ROI).

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppiFullNormLevelGetBufferHostSize_32f_C3R to compute the required size (in bytes).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.128.2.8 NppStatus nppiCrossCorrFull_NormLevel_32f_C4R (const Npp32f ∗ *pSrc*, int *nSrcStep*, NppiSize *oSrcRoiSize*, const Npp32f ∗ *pTpl*, int *nTplStep*, NppiSize *oTplRoiSize*, Npp32f ∗ *pDst*, int *nDstStep*, Npp8u ∗ *pDeviceBuffer*)

Four-channel 32-bit floating point image CrossCorrFull_NormLevel.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSrcRoiSize Region-of-Interest (ROI).

pTpl Pointer to the template image.

nTplStep Number of bytes between successive rows in the template image.

oTplRoiSize Region-of-Interest (ROI).

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppiFullNormLevelGetBufferHostSize_32f_C4R to compute the required size (in bytes).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.128.2.9 NppStatus nppiCrossCorrFull_NormLevel_8s32f_AC4R (const Npp8s ∗ *pSrc*, int *nSrcStep*, NppiSize *oSrcRoiSize*, const Npp8s ∗ *pTpl*, int *nTplStep*, NppiSize *oTplRoiSize*, Npp32f ∗ *pDst*, int *nDstStep*, Npp8u ∗ *pDeviceBuffer*)

Four-channel 8-bit signed image CrossCorrFull_NormLevel ignoring alpha channel.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSrcRoiSize Region-of-Interest (ROI).

pTpl Pointer to the template image.

nTplStep Number of bytes between successive rows in the template image.

oTplRoiSize Region-of-Interest (ROI).

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppiFullNormLevelGetBufferHostSize_8s32f_AC4R to compute the required size (in bytes).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.128.2.10 NppStatus nppiCrossCorrFull_NormLevel_8s32f_C1R (const Npp8s ∗ *pSrc*, int *nSrcStep*, NppiSize *oSrcRoiSize*, const Npp8s ∗ *pTpl*, int *nTplStep*, NppiSize *oTplRoiSize*, Npp32f ∗ *pDst*, int *nDstStep*, Npp8u ∗ *pDeviceBuffer*)

One-channel 8-bit signed image CrossCorrFull_NormLevel.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSrcRoiSize Region-of-Interest (ROI).

pTpl Pointer to the template image.

nTplStep Number of bytes between successive rows in the template image.

oTplRoiSize Region-of-Interest (ROI).

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppiFullNormLevelGetBufferHostSize_8s32f_C1R to compute the required size (in bytes).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.128.2.11 NppStatus nppiCrossCorrFull_NormLevel_8s32f_C3R (const Npp8s ∗ *pSrc*, int *nSrcStep*, NppiSize *oSrcRoiSize*, const Npp8s ∗ *pTpl*, int *nTplStep*, NppiSize *oTplRoiSize*, Npp32f ∗ *pDst*, int *nDstStep*, Npp8u ∗ *pDeviceBuffer*)

Three-channel 8-bit signed image CrossCorrFull_NormLevel.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSrcRoiSize Region-of-Interest (ROI).

pTpl Pointer to the template image.

nTplStep Number of bytes between successive rows in the template image.

oTplRoiSize Region-of-Interest (ROI).

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppiFullNormLevelGetBufferHostSize_8s32f_C3R to compute the required size (in bytes).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.128.2.12 NppStatus nppiCrossCorrFull_NormLevel_8s32f_C4R (const Npp8s ∗ *pSrc*, int *nSrcStep*, NppiSize *oSrcRoiSize*, const Npp8s ∗ *pTpl*, int *nTplStep*, NppiSize *oTplRoiSize*, Npp32f ∗ *pDst*, int *nDstStep*, Npp8u ∗ *pDeviceBuffer*)

Four-channel 8-bit signed image CrossCorrFull_NormLevel.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSrcRoiSize Region-of-Interest (ROI).

pTpl Pointer to the template image.

nTplStep Number of bytes between successive rows in the template image.

oTplRoiSize Region-of-Interest (ROI).

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppiFullNormLevelGetBufferHostSize_8s32f_C4R to compute the required size (in bytes).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.128.2.13 NppStatus nppiCrossCorrFull_NormLevel_8u32f_AC4R (const Npp8u ∗ *pSrc*, int *nSrcStep*, NppiSize *oSrcRoiSize*, const Npp8u ∗ *pTpl*, int *nTplStep*, NppiSize *oTplRoiSize*, Npp32f ∗ *pDst*, int *nDstStep*, Npp8u ∗ *pDeviceBuffer*)

Four-channel 8-bit unsigned image CrossCorrFull_NormLevel ignoring alpha channel.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSrcRoiSize Region-of-Interest (ROI).

pTpl Pointer to the template image.

nTplStep Number of bytes between successive rows in the template image.

oTplRoiSize Region-of-Interest (ROI).

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppiFullNormLevelGetBufferHostSize_8u32f_AC4R to compute the required size (in bytes).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.128.2.14 NppStatus nppiCrossCorrFull_NormLevel_8u32f_C1R (const Npp8u ∗ *pSrc*, int *nSrcStep*, NppiSize *oSrcRoiSize*, const Npp8u ∗ *pTpl*, int *nTplStep*, NppiSize *oTplRoiSize*, Npp32f ∗ *pDst*, int *nDstStep*, Npp8u ∗ *pDeviceBuffer*)

One-channel 8-bit unsigned image CrossCorrFull_NormLevel.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSrcRoiSize Region-of-Interest (ROI).

pTpl Pointer to the template image.

nTplStep Number of bytes between successive rows in the template image.

oTplRoiSize Region-of-Interest (ROI).

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppiFullNormLevelGetBufferHostSize_8u32f_C1R to compute the required size (in bytes).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.128.2.15 NppStatus nppiCrossCorrFull_NormLevel_8u32f_C3R (const Npp8u ∗ *pSrc*, int *nSrcStep*, NppiSize *oSrcRoiSize*, const Npp8u ∗ *pTpl*, int *nTplStep*, NppiSize *oTplRoiSize*, Npp32f ∗ *pDst*, int *nDstStep*, Npp8u ∗ *pDeviceBuffer*)

Three-channel 8-bit unsigned image CrossCorrFull_NormLevel.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSrcRoiSize Region-of-Interest (ROI).

pTpl Pointer to the template image.

nTplStep Number of bytes between successive rows in the template image.

oTplRoiSize Region-of-Interest (ROI).

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppiFullNormLevelGetBufferHostSize_8u32f_C3R to compute the required size (in bytes).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.128.2.16 NppStatus nppiCrossCorrFull_NormLevel_8u32f_C4R (const Npp8u ∗ *pSrc*, int *nSrcStep*, NppiSize *oSrcRoiSize*, const Npp8u ∗ *pTpl*, int *nTplStep*, NppiSize *oTplRoiSize*, Npp32f ∗ *pDst*, int *nDstStep*, Npp8u ∗ *pDeviceBuffer*)

Four-channel 8-bit unsigned image CrossCorrFull_NormLevel.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSrcRoiSize Region-of-Interest (ROI).

pTpl Pointer to the template image.

nTplStep Number of bytes between successive rows in the template image.

oTplRoiSize Region-of-Interest (ROI).

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppiFullNormLevelGetBufferHostSize_8u32f_C4R to compute the required size (in bytes).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.128.2.17 NppStatus nppiCrossCorrFull_NormLevel_8u_AC4RSfs (const Npp8u ∗ *pSrc*, int *nSrcStep*, NppiSize *oSrcRoiSize*, const Npp8u ∗ *pTpl*, int *nTplStep*, NppiSize *oTplRoiSize*, Npp8u ∗ *pDst*, int *nDstStep*, int *nScaleFactor*, Npp8u ∗ *pDeviceBuffer*)

Four-channel 8-bit unsigned image CrossCorrFull_NormLevel ignoring alpha channel.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSrcRoiSize Region-of-Interest (ROI).

pTpl Pointer to the template image.

nTplStep Number of bytes between successive rows in the template image.

oTplRoiSize Region-of-Interest (ROI).

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

nScaleFactor Integer Result Scaling.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppiFullNormLevelGetBufferHostSize_8u_AC4RSfs to compute the required size (in bytes).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.128.2.18 NppStatus nppiCrossCorrFull_NormLevel_8u_C1RSfs (const Npp8u ∗ *pSrc*, int *nSrcStep*, NppiSize *oSrcRoiSize*, const Npp8u ∗ *pTpl*, int *nTplStep*, NppiSize *oTplRoiSize*, Npp8u ∗ *pDst*, int *nDstStep*, int *nScaleFactor*, Npp8u ∗ *pDeviceBuffer*)

One-channel 8-bit unsigned image CrossCorrFull_NormLevel.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSrcRoiSize Region-of-Interest (ROI).

pTpl Pointer to the template image.

nTplStep Number of bytes between successive rows in the template image.

oTplRoiSize Region-of-Interest (ROI).

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

nScaleFactor Integer Result Scaling.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppiFullNormLevelGetBufferHostSize_8u_C1RSfs to compute the required size (in bytes).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.128.2.19 NppStatus nppiCrossCorrFull_NormLevel_8u_C3RSfs (const Npp8u ∗ *pSrc*, int *nSrcStep*, NppiSize *oSrcRoiSize*, const Npp8u ∗ *pTpl*, int *nTplStep*, NppiSize *oTplRoiSize*, Npp8u ∗ *pDst*, int *nDstStep*, int *nScaleFactor*, Npp8u ∗ *pDeviceBuffer*)

Three-channel 8-bit unsigned image CrossCorrFull_NormLevel.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSrcRoiSize Region-of-Interest (ROI).

pTpl Pointer to the template image.

nTplStep Number of bytes between successive rows in the template image.

oTplRoiSize Region-of-Interest (ROI).

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

nScaleFactor Integer Result Scaling.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppiFullNormLevelGetBufferHostSize_8u_C3RSfs to compute the required size (in bytes).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.128.2.20 NppStatus nppiCrossCorrFull_NormLevel_8u_C4RSfs (const Npp8u ∗ *pSrc*, int *nSrcStep*, NppiSize *oSrcRoiSize*, const Npp8u ∗ *pTpl*, int *nTplStep*, NppiSize *oTplRoiSize*, Npp8u ∗ *pDst*, int *nDstStep*, int *nScaleFactor*, Npp8u ∗ *pDeviceBuffer*)

Four-channel 8-bit unsigned image CrossCorrFull_NormLevel.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSrcRoiSize Region-of-Interest (ROI).

pTpl Pointer to the template image.

nTplStep Number of bytes between successive rows in the template image.

oTplRoiSize Region-of-Interest (ROI).

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

nScaleFactor Integer Result Scaling.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppiFullNormLevelGetBufferHostSize_8u_C4RSfs to compute the required size (in bytes).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.128.2.21 NppStatus nppiFullNormLevelGetBufferHostSize_16u32f_AC4R (NppiSize *oSizeROI*, int ∗ *hpBufferSize*)

Buffer size (in bytes) for nppiCrossCorrFull_NormLevel_16u32f_AC4R.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.128.2.22 NppStatus nppiFullNormLevelGetBufferHostSize_16u32f_C1R (NppiSize *oSizeROI*, int ∗ *hpBufferSize*)

Buffer size (in bytes) for nppiCrossCorrFull_NormLevel_16u32f_C1R.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.128.2.23 NppStatus nppiFullNormLevelGetBufferHostSize_16u32f_C3R (NppiSize *oSizeROI*, int ∗ *hpBufferSize*)

Buffer size (in bytes) for nppiCrossCorrFull_NormLevel_16u32f_C3R.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.128.2.24 NppStatus nppiFullNormLevelGetBufferHostSize_16u32f_C4R (NppiSize *oSizeROI*, int ∗ *hpBufferSize*)

Buffer size (in bytes) for nppiCrossCorrFull_NormLevel_16u32f_C4R.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.128.2.25 NppStatus nppiFullNormLevelGetBufferHostSize_32f_AC4R (NppiSize *oSizeROI*, int ∗ *hpBufferSize*)

Buffer size (in bytes) for nppiCrossCorrFull_NormLevel_32f_AC4R.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.128.2.26 NppStatus nppiFullNormLevelGetBufferHostSize_32f_C1R (NppiSize *oSizeROI*, int ∗ *hpBufferSize*)

Buffer size (in bytes) for nppiCrossCorrFull_NormLevel_32f_C1R.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.128.2.27 NppStatus nppiFullNormLevelGetBufferHostSize_32f_C3R (NppiSize *oSizeROI*, int ∗ *hpBufferSize*)

Buffer size (in bytes) for nppiCrossCorrFull_NormLevel_32f_C3R.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.128.2.28 NppStatus nppiFullNormLevelGetBufferHostSize_32f_C4R (NppiSize *oSizeROI*, int ∗ *hpBufferSize*)

Buffer size (in bytes) for nppiCrossCorrFull_NormLevel_32f_C4R.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.128.2.29 NppStatus nppiFullNormLevelGetBufferHostSize_8s32f_AC4R (NppiSize *oSizeROI*, int ∗ *hpBufferSize*)

Buffer size (in bytes) for nppiCrossCorrFull_NormLevel_8s32f_AC4R.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.128.2.30 NppStatus nppiFullNormLevelGetBufferHostSize_8s32f_C1R (NppiSize *oSizeROI*, int ∗ *hpBufferSize*)

Buffer size (in bytes) for nppiCrossCorrFull_NormLevel_8s32f_C1R.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.128.2.31 NppStatus nppiFullNormLevelGetBufferHostSize_8s32f_C3R (NppiSize *oSizeROI*, int ∗ *hpBufferSize*)

Buffer size (in bytes) for nppiCrossCorrFull_NormLevel_8s32f_C3R.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.128.2.32 NppStatus nppiFullNormLevelGetBufferHostSize_8s32f_C4R (NppiSize *oSizeROI*, int ∗ *hpBufferSize*)

Buffer size (in bytes) for nppiCrossCorrFull_NormLevel_8s32f_C4R.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.128.2.33 NppStatus nppiFullNormLevelGetBufferHostSize_8u32f_AC4R (NppiSize *oSizeROI*, int ∗ *hpBufferSize*)

Buffer size (in bytes) for nppiCrossCorrFull_NormLevel_8u32f_AC4R.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.128.2.34 NppStatus nppiFullNormLevelGetBufferHostSize_8u32f_C1R (NppiSize *oSizeROI*, int ∗ *hpBufferSize*)

Buffer size (in bytes) for nppiCrossCorrFull_NormLevel_8u32f_C1R.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.128.2.35 NppStatus nppiFullNormLevelGetBufferHostSize_8u32f_C3R (NppiSize *oSizeROI*, int * *hpBufferSize*)

Buffer size (in bytes) for nppiCrossCorrFull_NormLevel_8u32f_C3R.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.128.2.36 NppStatus nppiFullNormLevelGetBufferHostSize_8u32f_C4R (NppiSize *oSizeROI*, int * *hpBufferSize*)

Buffer size (in bytes) for nppiCrossCorrFull_NormLevel_8u32f_C4R.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.128.2.37 NppStatus nppiFullNormLevelGetBufferHostSize_8u_AC4RSfs (NppiSize *oSizeROI*, int * *hpBufferSize*)

Buffer size (in bytes) for nppiCrossCorrFull_NormLevel_8u_AC4RSfs.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.128.2.38 NppStatus nppiFullNormLevelGetBufferHostSize_8u_C1RSfs (NppiSize *oSizeROI*, int * *hpBufferSize*)

Buffer size (in bytes) for nppiCrossCorrFull_NormLevel_8u_C1RSfs.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.128.2.39 NppStatus nppiFullNormLevelGetBufferHostSize_8u_C3RSfs (NppiSize *oSizeROI*, int ∗ *hpBufferSize*)

Buffer size (in bytes) for nppiCrossCorrFull_NormLevel_8u_C3RSfs.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.128.2.40 NppStatus nppiFullNormLevelGetBufferHostSize_8u_C4RSfs (NppiSize *oSizeROI*, int ∗ *hpBufferSize*)

Buffer size (in bytes) for nppiCrossCorrFull_NormLevel_8u_C4RSfs.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.129 CrossCorrSame_NormLevel

Primitives for computing the normalized cross correlation coefficient between two images with same mode.

CrossCorrSame_NormLevel

The functions compute the $\gamma_{st}(c, r)$ in General Introduction with same mode (see Categorizations).

The functions require additional scratch buffer for computations.

- NppStatus nppiCrossCorrSame_NormLevel_8u_C1RSfs (const Npp8u ∗pSrc, int nSrcStep, NppiSize oSrcRoiSize, const Npp8u ∗pTpl, int nTplStep, NppiSize oTplRoiSize, Npp8u ∗pDst, int nDstStep, int nScaleFactor, Npp8u ∗pDeviceBuffer)

  One-channel 8-bit unsigned image CrossCorrSame_NormLevel.

- NppStatus nppiCrossCorrSame_NormLevel_8u_C3RSfs (const Npp8u ∗pSrc, int nSrcStep, NppiSize oSrcRoiSize, const Npp8u ∗pTpl, int nTplStep, NppiSize oTplRoiSize, Npp8u ∗pDst, int nDstStep, int nScaleFactor, Npp8u ∗pDeviceBuffer)

  Three-channel 8-bit unsigned image CrossCorrSame_NormLevel.

- NppStatus nppiCrossCorrSame_NormLevel_8u_C4RSfs (const Npp8u ∗pSrc, int nSrcStep, NppiSize oSrcRoiSize, const Npp8u ∗pTpl, int nTplStep, NppiSize oTplRoiSize, Npp8u ∗pDst, int nDstStep, int nScaleFactor, Npp8u ∗pDeviceBuffer)

  Four-channel 8-bit unsigned image CrossCorrSame_NormLevel.

- NppStatus nppiCrossCorrSame_NormLevel_8u_AC4RSfs (const Npp8u ∗pSrc, int nSrcStep, NppiSize oSrcRoiSize, const Npp8u ∗pTpl, int nTplStep, NppiSize oTplRoiSize, Npp8u ∗pDst, int nDstStep, int nScaleFactor, Npp8u ∗pDeviceBuffer)

  Four-channel 8-bit unsigned image CrossCorrSame_NormLevel ignoring alpha channel.

- NppStatus nppiCrossCorrSame_NormLevel_32f_C1R (const Npp32f ∗pSrc, int nSrcStep, NppiSize oSrcRoiSize, const Npp32f ∗pTpl, int nTplStep, NppiSize oTplRoiSize, Npp32f ∗pDst, int nDstStep, Npp8u ∗pDeviceBuffer)

  One-channel 32-bit floating point image CrossCorrSame_NormLevel.

- NppStatus nppiCrossCorrSame_NormLevel_32f_C3R (const Npp32f ∗pSrc, int nSrcStep, NppiSize oSrcRoiSize, const Npp32f ∗pTpl, int nTplStep, NppiSize oTplRoiSize, Npp32f ∗pDst, int nDstStep, Npp8u ∗pDeviceBuffer)

  Three-channel 32-bit floating point image CrossCorrSame_NormLevel.

- NppStatus nppiCrossCorrSame_NormLevel_32f_C4R (const Npp32f ∗pSrc, int nSrcStep, NppiSize oSrcRoiSize, const Npp32f ∗pTpl, int nTplStep, NppiSize oTplRoiSize, Npp32f ∗pDst, int nDstStep, Npp8u ∗pDeviceBuffer)

  Four-channel 32-bit floating point image CrossCorrSame_NormLevel.

- NppStatus nppiCrossCorrSame_NormLevel_32f_AC4R (const Npp32f ∗pSrc, int nSrcStep, NppiSize oSrcRoiSize, const Npp32f ∗pTpl, int nTplStep, NppiSize oTplRoiSize, Npp32f ∗pDst, int nDstStep, Npp8u ∗pDeviceBuffer)

  Four-channel 32-bit floating point image CrossCorrSame_NormLevel ignoring alpha channel.

- NppStatus nppiCrossCorrSame_NormLevel_8u32f_C1R (const Npp8u ∗pSrc, int nSrcStep, NppiSize oSrcRoiSize, const Npp8u ∗pTpl, int nTplStep, NppiSize oTplRoiSize, Npp32f ∗pDst, int nDstStep, Npp8u ∗pDeviceBuffer)

  One-channel 8-bit unsigned image CrossCorrSame_NormLevel.

- NppStatus nppiCrossCorrSame_NormLevel_8u32f_C3R (const Npp8u ∗pSrc, int nSrcStep, NppiSize oSrcRoiSize, const Npp8u ∗pTpl, int nTplStep, NppiSize oTplRoiSize, Npp32f ∗pDst, int nDstStep, Npp8u ∗pDeviceBuffer)

  Three-channel 8-bit unsigned image CrossCorrSame_NormLevel.

- NppStatus nppiCrossCorrSame_NormLevel_8u32f_C4R (const Npp8u ∗pSrc, int nSrcStep, NppiSize oSrcRoiSize, const Npp8u ∗pTpl, int nTplStep, NppiSize oTplRoiSize, Npp32f ∗pDst, int nDstStep, Npp8u ∗pDeviceBuffer)

  Four-channel 8-bit unsigned image CrossCorrSame_NormLevel.

- NppStatus nppiCrossCorrSame_NormLevel_8u32f_AC4R (const Npp8u ∗pSrc, int nSrcStep, NppiSize oSrcRoiSize, const Npp8u ∗pTpl, int nTplStep, NppiSize oTplRoiSize, Npp32f ∗pDst, int nDstStep, Npp8u ∗pDeviceBuffer)

  Four-channel 8-bit unsigned image CrossCorrSame_NormLevel ignoring alpha channel.

- NppStatus nppiCrossCorrSame_NormLevel_8s32f_C1R (const Npp8s ∗pSrc, int nSrcStep, NppiSize oSrcRoiSize, const Npp8s ∗pTpl, int nTplStep, NppiSize oTplRoiSize, Npp32f ∗pDst, int nDstStep, Npp8u ∗pDeviceBuffer)

  One-channel 8-bit signed image CrossCorrSame_NormLevel.

- NppStatus nppiCrossCorrSame_NormLevel_8s32f_C3R (const Npp8s ∗pSrc, int nSrcStep, NppiSize oSrcRoiSize, const Npp8s ∗pTpl, int nTplStep, NppiSize oTplRoiSize, Npp32f ∗pDst, int nDstStep, Npp8u ∗pDeviceBuffer)

  Three-channel 8-bit signed image CrossCorrSame_NormLevel.

- NppStatus nppiCrossCorrSame_NormLevel_8s32f_C4R (const Npp8s ∗pSrc, int nSrcStep, NppiSize oSrcRoiSize, const Npp8s ∗pTpl, int nTplStep, NppiSize oTplRoiSize, Npp32f ∗pDst, int nDstStep, Npp8u ∗pDeviceBuffer)

  Four-channel 8-bit signed image CrossCorrSame_NormLevel.

- NppStatus nppiCrossCorrSame_NormLevel_8s32f_AC4R (const Npp8s ∗pSrc, int nSrcStep, NppiSize oSrcRoiSize, const Npp8s ∗pTpl, int nTplStep, NppiSize oTplRoiSize, Npp32f ∗pDst, int nDstStep, Npp8u ∗pDeviceBuffer)

  Four-channel 8-bit signed image CrossCorrSame_NormLevel ignoring alpha channel.

- NppStatus nppiCrossCorrSame_NormLevel_16u32f_C1R (const Npp16u ∗pSrc, int nSrcStep, NppiSize oSrcRoiSize, const Npp16u ∗pTpl, int nTplStep, NppiSize oTplRoiSize, Npp32f ∗pDst, int nDstStep, Npp8u ∗pDeviceBuffer)

  One-channel 16-bit unsigned image CrossCorrSame_NormLevel.

- NppStatus nppiCrossCorrSame_NormLevel_16u32f_C3R (const Npp16u ∗pSrc, int nSrcStep, NppiSize oSrcRoiSize, const Npp16u ∗pTpl, int nTplStep, NppiSize oTplRoiSize, Npp32f ∗pDst, int nDstStep, Npp8u ∗pDeviceBuffer)

  Three-channel 16-bit unsigned image CrossCorrSame_NormLevel.

- NppStatus nppiCrossCorrSame_NormLevel_16u32f_C4R (const Npp16u ∗pSrc, int nSrcStep, NppiSize oSrcRoiSize, const Npp16u ∗pTpl, int nTplStep, NppiSize oTplRoiSize, Npp32f ∗pDst, int nDstStep, Npp8u ∗pDeviceBuffer)

  Four-channel 16-bit unsigned image CrossCorrSame_NormLevel.

- NppStatus nppiCrossCorrSame_NormLevel_16u32f_AC4R (const Npp16u ∗pSrc, int nSrcStep, NppiSize oSrcRoiSize, const Npp16u ∗pTpl, int nTplStep, NppiSize oTplRoiSize, Npp32f ∗pDst, int nDstStep, Npp8u ∗pDeviceBuffer)

  Four-channel 16-bit unsigned image CrossCorrSame_NormLevel ignoring alpha channel.

SameNormLevelGetBufferHostSize

Companion primitives for computing the device buffer size (in bytes) required by the CrossCorrSame_NormLevel primitives.

- NppStatus nppiSameNormLevelGetBufferHostSize_8u_C1RSfs (NppiSize oSizeROI, int ∗hpBufferSize)

  Buffer size (in bytes) for nppiCrossCorrSame_NormLevel_8u_C1RSfs.

- NppStatus nppiSameNormLevelGetBufferHostSize_8u_C3RSfs (NppiSize oSizeROI, int ∗hpBufferSize)

  Buffer size (in bytes) for nppiCrossCorrSame_NormLevel_8u_C3RSfs.

- NppStatus nppiSameNormLevelGetBufferHostSize_8u_C4RSfs (NppiSize oSizeROI, int ∗hpBufferSize)

  Buffer size (in bytes) for nppiCrossCorrSame_NormLevel_8u_C4RSfs.

- NppStatus nppiSameNormLevelGetBufferHostSize_8u_AC4RSfs (NppiSize oSizeROI, int ∗hpBufferSize)

  Buffer size (in bytes) for nppiCrossCorrSame_NormLevel_8u_AC4RSfs.

- NppStatus nppiSameNormLevelGetBufferHostSize_32f_C1R (NppiSize oSizeROI, int ∗hpBufferSize)

  Buffer size (in bytes) for nppiCrossCorrSame_NormLevel_32f_C1R.

- NppStatus nppiSameNormLevelGetBufferHostSize_32f_C3R (NppiSize oSizeROI, int ∗hpBufferSize)

  Buffer size (in bytes) for nppiCrossCorrSame_NormLevel_32f_C3R.

- NppStatus nppiSameNormLevelGetBufferHostSize_32f_C4R (NppiSize oSizeROI, int ∗hpBufferSize)

  Buffer size (in bytes) for nppiCrossCorrSame_NormLevel_32f_C4R.

- NppStatus nppiSameNormLevelGetBufferHostSize_32f_AC4R (NppiSize oSizeROI, int ∗hpBufferSize)

  Buffer size (in bytes) for nppiCrossCorrSame_NormLevel_32f_AC4R.

- NppStatus nppiSameNormLevelGetBufferHostSize_8u32f_C1R (NppiSize oSizeROI, int ∗hpBufferSize)

Buffer size (in bytes) for nppiCrossCorrSame_NormLevel_8u32f_C1R.

- NppStatus nppiSameNormLevelGetBufferHostSize_8u32f_C3R (NppiSize oSizeROI, int ∗hpBufferSize)

  Buffer size (in bytes) for nppiCrossCorrSame_NormLevel_8u32f_C3R.

- NppStatus nppiSameNormLevelGetBufferHostSize_8u32f_C4R (NppiSize oSizeROI, int ∗hpBufferSize)

  Buffer size (in bytes) for nppiCrossCorrSame_NormLevel_8u32f_C4R.

- NppStatus nppiSameNormLevelGetBufferHostSize_8u32f_AC4R (NppiSize oSizeROI, int ∗hpBufferSize)

  Buffer size (in bytes) for nppiCrossCorrSame_NormLevel_8u32f_AC4R.

- NppStatus nppiSameNormLevelGetBufferHostSize_8s32f_C1R (NppiSize oSizeROI, int ∗hpBufferSize)

  Buffer size (in bytes) for nppiCrossCorrSame_NormLevel_8s32f_C1R.

- NppStatus nppiSameNormLevelGetBufferHostSize_8s32f_C3R (NppiSize oSizeROI, int ∗hpBufferSize)

  Buffer size (in bytes) for nppiCrossCorrSame_NormLevel_8s32f_C3R.

- NppStatus nppiSameNormLevelGetBufferHostSize_8s32f_C4R (NppiSize oSizeROI, int ∗hpBufferSize)

  Buffer size (in bytes) for nppiCrossCorrSame_NormLevel_8s32f_C4R.

- NppStatus nppiSameNormLevelGetBufferHostSize_8s32f_AC4R (NppiSize oSizeROI, int ∗hpBufferSize)

  Buffer size (in bytes) for nppiCrossCorrSame_NormLevel_8s32f_AC4R.

- NppStatus nppiSameNormLevelGetBufferHostSize_16u32f_C1R (NppiSize oSizeROI, int ∗hpBufferSize)

  Buffer size (in bytes) for nppiCrossCorrSame_NormLevel_16u32f_C1R.

- NppStatus nppiSameNormLevelGetBufferHostSize_16u32f_C3R (NppiSize oSizeROI, int ∗hpBufferSize)

  Buffer size (in bytes) for nppiCrossCorrSame_NormLevel_16u32f_C3R.

- NppStatus nppiSameNormLevelGetBufferHostSize_16u32f_C4R (NppiSize oSizeROI, int ∗hpBufferSize)

  Buffer size (in bytes) for nppiCrossCorrSame_NormLevel_16u32f_C4R.

- NppStatus nppiSameNormLevelGetBufferHostSize_16u32f_AC4R (NppiSize oSizeROI, int ∗hpBufferSize)

  Buffer size (in bytes) for nppiCrossCorrSame_NormLevel_16u32f_AC4R.

7.129.1 Detailed Description

Primitives for computing the normalized cross correlation coefficient between two images with same mode.

7.129.2 Function Documentation

7.129.2.1 NppStatus nppiCrossCorrSame_NormLevel_16u32f_AC4R (const Npp16u ∗ *pSrc*, int *nSrcStep*, NppiSize *oSrcRoiSize*, const Npp16u ∗ *pTpl*, int *nTplStep*, NppiSize *oTplRoiSize*, Npp32f ∗ *pDst*, int *nDstStep*, Npp8u ∗ *pDeviceBuffer*)

Four-channel 16-bit unsigned image CrossCorrSame_NormLevel ignoring alpha channel.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSrcRoiSize Region-of-Interest (ROI).

pTpl Pointer to the template image.

nTplStep Number of bytes between successive rows in the template image.

oTplRoiSize Region-of-Interest (ROI).

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppiSameNormLevelGetBufferHostSize_16u32f_AC4R to compute the required size (in bytes).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.129.2.2 NppStatus nppiCrossCorrSame_NormLevel_16u32f_C1R (const Npp16u ∗ *pSrc*, int *nSrcStep*, NppiSize *oSrcRoiSize*, const Npp16u ∗ *pTpl*, int *nTplStep*, NppiSize *oTplRoiSize*, Npp32f ∗ *pDst*, int *nDstStep*, Npp8u ∗ *pDeviceBuffer*)

One-channel 16-bit unsigned image CrossCorrSame_NormLevel.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSrcRoiSize Region-of-Interest (ROI).

pTpl Pointer to the template image.

nTplStep Number of bytes between successive rows in the template image.

oTplRoiSize Region-of-Interest (ROI).

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppiSameNormLevelGetBufferHostSize_16u32f_C1R to compute the required size (in bytes).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.129.2.3 NppStatus nppiCrossCorrSame_NormLevel_16u32f_C3R (const Npp16u ∗ *pSrc*, int *nSrcStep*, NppiSize *oSrcRoiSize*, const Npp16u ∗ *pTpl*, int *nTplStep*, NppiSize *oTplRoiSize*, Npp32f ∗ *pDst*, int *nDstStep*, Npp8u ∗ *pDeviceBuffer*)

Three-channel 16-bit unsigned image CrossCorrSame_NormLevel.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSrcRoiSize Region-of-Interest (ROI).

pTpl Pointer to the template image.

nTplStep Number of bytes between successive rows in the template image.

oTplRoiSize Region-of-Interest (ROI).

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppiSameNormLevelGetBufferHostSize_16u32f_C3R to compute the required size (in bytes).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.129.2.4 NppStatus nppiCrossCorrSame_NormLevel_16u32f_C4R (const Npp16u ∗ *pSrc*, int *nSrcStep*, NppiSize *oSrcRoiSize*, const Npp16u ∗ *pTpl*, int *nTplStep*, NppiSize *oTplRoiSize*, Npp32f ∗ *pDst*, int *nDstStep*, Npp8u ∗ *pDeviceBuffer*)

Four-channel 16-bit unsigned image CrossCorrSame_NormLevel.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSrcRoiSize Region-of-Interest (ROI).

pTpl Pointer to the template image.

nTplStep Number of bytes between successive rows in the template image.

oTplRoiSize Region-of-Interest (ROI).

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppiSameNormLevelGetBufferHostSize_16u32f_C4R to compute the required size (in bytes).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.129.2.5 NppStatus nppiCrossCorrSame_NormLevel_32f_AC4R (const Npp32f ∗ *pSrc*, int *nSrcStep*, NppiSize *oSrcRoiSize*, const Npp32f ∗ *pTpl*, int *nTplStep*, NppiSize *oTplRoiSize*, Npp32f ∗ *pDst*, int *nDstStep*, Npp8u ∗ *pDeviceBuffer*)

Four-channel 32-bit floating point image CrossCorrSame_NormLevel ignoring alpha channel.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSrcRoiSize Region-of-Interest (ROI).

pTpl Pointer to the template image.

nTplStep Number of bytes between successive rows in the template image.

oTplRoiSize Region-of-Interest (ROI).

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppiSameNormLevelGetBufferHostSize_32f_AC4R to compute the required size (in bytes).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.129.2.6 NppStatus nppiCrossCorrSame_NormLevel_32f_C1R (const Npp32f ∗ *pSrc*, int *nSrcStep*, NppiSize *oSrcRoiSize*, const Npp32f ∗ *pTpl*, int *nTplStep*, NppiSize *oTplRoiSize*, Npp32f ∗ *pDst*, int *nDstStep*, Npp8u ∗ *pDeviceBuffer*)

One-channel 32-bit floating point image CrossCorrSame_NormLevel.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSrcRoiSize Region-of-Interest (ROI).

pTpl Pointer to the template image.

nTplStep Number of bytes between successive rows in the template image.

oTplRoiSize Region-of-Interest (ROI).

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppiSameNormLevelGetBufferHostSize_32f_C1R to compute the required size (in bytes).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.129.2.7 NppStatus nppiCrossCorrSame_NormLevel_32f_C3R (const Npp32f ∗ *pSrc*, int *nSrcStep*, NppiSize *oSrcRoiSize*, const Npp32f ∗ *pTpl*, int *nTplStep*, NppiSize *oTplRoiSize*, Npp32f ∗ *pDst*, int *nDstStep*, Npp8u ∗ *pDeviceBuffer*)

Three-channel 32-bit floating point image CrossCorrSame_NormLevel.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSrcRoiSize Region-of-Interest (ROI).

pTpl Pointer to the template image.

nTplStep Number of bytes between successive rows in the template image.

oTplRoiSize Region-of-Interest (ROI).

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppiSameNormLevelGetBufferHostSize_32f_C3R to compute the required size (in bytes).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.129.2.8 NppStatus nppiCrossCorrSame_NormLevel_32f_C4R (const Npp32f ∗ *pSrc*, int *nSrcStep*, NppiSize *oSrcRoiSize*, const Npp32f ∗ *pTpl*, int *nTplStep*, NppiSize *oTplRoiSize*, Npp32f ∗ *pDst*, int *nDstStep*, Npp8u ∗ *pDeviceBuffer*)

Four-channel 32-bit floating point image CrossCorrSame_NormLevel.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSrcRoiSize Region-of-Interest (ROI).

pTpl Pointer to the template image.

nTplStep Number of bytes between successive rows in the template image.

oTplRoiSize Region-of-Interest (ROI).

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppiSameNormLevelGetBufferHostSize_32f_C4R to compute the required size (in bytes).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.129.2.9 NppStatus nppiCrossCorrSame_NormLevel_8s32f_AC4R (const Npp8s * *pSrc*, int *nSrcStep*, NppiSize *oSrcRoiSize*, const Npp8s * *pTpl*, int *nTplStep*, NppiSize *oTplRoiSize*, Npp32f * *pDst*, int *nDstStep*, Npp8u * *pDeviceBuffer*)

Four-channel 8-bit signed image CrossCorrSame_NormLevel ignoring alpha channel.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSrcRoiSize Region-of-Interest (ROI).

pTpl Pointer to the template image.

nTplStep Number of bytes between successive rows in the template image.

oTplRoiSize Region-of-Interest (ROI).

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppiSameNormLevelGetBufferHostSize_8s32f_AC4R to compute the required size (in bytes).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.129.2.10 NppStatus nppiCrossCorrSame_NormLevel_8s32f_C1R (const Npp8s * *pSrc*, int *nSrcStep*, NppiSize *oSrcRoiSize*, const Npp8s * *pTpl*, int *nTplStep*, NppiSize *oTplRoiSize*, Npp32f * *pDst*, int *nDstStep*, Npp8u * *pDeviceBuffer*)

One-channel 8-bit signed image CrossCorrSame_NormLevel.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSrcRoiSize Region-of-Interest (ROI).

pTpl Pointer to the template image.

nTplStep Number of bytes between successive rows in the template image.

oTplRoiSize Region-of-Interest (ROI).

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppiSameNormLevelGetBufferHostSize_8s32f_C1R to compute the required size (in bytes).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.129.2.11 NppStatus nppiCrossCorrSame_NormLevel_8s32f_C3R (const Npp8s ∗ *pSrc*, int *nSrcStep*, NppiSize *oSrcRoiSize*, const Npp8s ∗ *pTpl*, int *nTplStep*, NppiSize *oTplRoiSize*, Npp32f ∗ *pDst*, int *nDstStep*, Npp8u ∗ *pDeviceBuffer*)

Three-channel 8-bit signed image CrossCorrSame_NormLevel.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSrcRoiSize Region-of-Interest (ROI).

pTpl Pointer to the template image.

nTplStep Number of bytes between successive rows in the template image.

oTplRoiSize Region-of-Interest (ROI).

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppiSameNormLevelGetBufferHostSize_8s32f_C3R to compute the required size (in bytes).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.129.2.12 NppStatus nppiCrossCorrSame_NormLevel_8s32f_C4R (const Npp8s ∗ *pSrc*, int *nSrcStep*, NppiSize *oSrcRoiSize*, const Npp8s ∗ *pTpl*, int *nTplStep*, NppiSize *oTplRoiSize*, Npp32f ∗ *pDst*, int *nDstStep*, Npp8u ∗ *pDeviceBuffer*)

Four-channel 8-bit signed image CrossCorrSame_NormLevel.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSrcRoiSize Region-of-Interest (ROI).

pTpl Pointer to the template image.

nTplStep Number of bytes between successive rows in the template image.

oTplRoiSize Region-of-Interest (ROI).

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppiSameNormLevelGetBufferHostSize_8s32f_C4R to compute the required size (in bytes).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.129.2.13 NppStatus nppiCrossCorrSame_NormLevel_8u32f_AC4R (const Npp8u * *pSrc*, int *nSrcStep*, NppiSize *oSrcRoiSize*, const Npp8u * *pTpl*, int *nTplStep*, NppiSize *oTplRoiSize*, Npp32f * *pDst*, int *nDstStep*, Npp8u * *pDeviceBuffer*)

Four-channel 8-bit unsigned image CrossCorrSame_NormLevel ignoring alpha channel.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSrcRoiSize Region-of-Interest (ROI).

pTpl Pointer to the template image.

nTplStep Number of bytes between successive rows in the template image.

oTplRoiSize Region-of-Interest (ROI).

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppiSameNormLevelGetBufferHostSize_8u32f_AC4R to compute the required size (in bytes).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.129.2.14 NppStatus nppiCrossCorrSame_NormLevel_8u32f_C1R (const Npp8u * *pSrc*, int *nSrcStep*, NppiSize *oSrcRoiSize*, const Npp8u * *pTpl*, int *nTplStep*, NppiSize *oTplRoiSize*, Npp32f * *pDst*, int *nDstStep*, Npp8u * *pDeviceBuffer*)

One-channel 8-bit unsigned image CrossCorrSame_NormLevel.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSrcRoiSize Region-of-Interest (ROI).

pTpl Pointer to the template image.

nTplStep Number of bytes between successive rows in the template image.

oTplRoiSize Region-of-Interest (ROI).

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppiSameNormLevelGetBufferHostSize_8u32f_C1R to compute the required size (in bytes).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.129.2.15 NppStatus nppiCrossCorrSame_NormLevel_8u32f_C3R (const Npp8u * *pSrc*, int *nSrcStep*, NppiSize *oSrcRoiSize*, const Npp8u * *pTpl*, int *nTplStep*, NppiSize *oTplRoiSize*, Npp32f * *pDst*, int *nDstStep*, Npp8u * *pDeviceBuffer*)

Three-channel 8-bit unsigned image CrossCorrSame_NormLevel.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSrcRoiSize Region-of-Interest (ROI).

pTpl Pointer to the template image.

nTplStep Number of bytes between successive rows in the template image.

oTplRoiSize Region-of-Interest (ROI).

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppiSameNormLevelGetBufferHostSize_8u32f_C3R to compute the required size (in bytes).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.129.2.16 NppStatus nppiCrossCorrSame_NormLevel_8u32f_C4R (const Npp8u * *pSrc*, int *nSrcStep*, NppiSize *oSrcRoiSize*, const Npp8u * *pTpl*, int *nTplStep*, NppiSize *oTplRoiSize*, Npp32f * *pDst*, int *nDstStep*, Npp8u * *pDeviceBuffer*)

Four-channel 8-bit unsigned image CrossCorrSame_NormLevel.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSrcRoiSize Region-of-Interest (ROI).

pTpl Pointer to the template image.

nTplStep Number of bytes between successive rows in the template image.

oTplRoiSize Region-of-Interest (ROI).

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppiSameNormLevelGetBufferHostSize_8u32f_C4R to compute the required size (in bytes).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.129.2.17 NppStatus nppiCrossCorrSame_NormLevel_8u_AC4RSfs (const Npp8u ∗ *pSrc*, int *nSrcStep*, NppiSize *oSrcRoiSize*, const Npp8u ∗ *pTpl*, int *nTplStep*, NppiSize *oTplRoiSize*, Npp8u ∗ *pDst*, int *nDstStep*, int *nScaleFactor*, Npp8u ∗ *pDeviceBuffer*)

Four-channel 8-bit unsigned image CrossCorrSame_NormLevel ignoring alpha channel.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSrcRoiSize Region-of-Interest (ROI).

pTpl Pointer to the template image.

nTplStep Number of bytes between successive rows in the template image.

oTplRoiSize Region-of-Interest (ROI).

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

nScaleFactor Integer Result Scaling.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppiSameNormLevelGetBufferHostSize_8u_AC4RSfs to compute the required size (in bytes).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.129.2.18 NppStatus nppiCrossCorrSame_NormLevel_8u_C1RSfs (const Npp8u ∗ *pSrc*, int *nSrcStep*, NppiSize *oSrcRoiSize*, const Npp8u ∗ *pTpl*, int *nTplStep*, NppiSize *oTplRoiSize*, Npp8u ∗ *pDst*, int *nDstStep*, int *nScaleFactor*, Npp8u ∗ *pDeviceBuffer*)

One-channel 8-bit unsigned image CrossCorrSame_NormLevel.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSrcRoiSize Region-of-Interest (ROI).

pTpl Pointer to the template image.

nTplStep Number of bytes between successive rows in the template image.

oTplRoiSize Region-of-Interest (ROI).

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

nScaleFactor Integer Result Scaling.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppiSameNormLevelGetBufferHostSize_8u_C1RSfs to compute the required size (in bytes).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.129.2.19 NppStatus nppiCrossCorrSame_NormLevel_8u_C3RSfs (const Npp8u ∗ *pSrc*, int *nSrcStep*, NppiSize *oSrcRoiSize*, const Npp8u ∗ *pTpl*, int *nTplStep*, NppiSize *oTplRoiSize*, Npp8u ∗ *pDst*, int *nDstStep*, int *nScaleFactor*, Npp8u ∗ *pDeviceBuffer*)

Three-channel 8-bit unsigned image CrossCorrSame_NormLevel.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSrcRoiSize Region-of-Interest (ROI).

pTpl Pointer to the template image.

nTplStep Number of bytes between successive rows in the template image.

oTplRoiSize Region-of-Interest (ROI).

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

nScaleFactor Integer Result Scaling.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppiSameNormLevelGetBufferHostSize_8u_C3RSfs to compute the required size (in bytes).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.129.2.20 NppStatus nppiCrossCorrSame_NormLevel_8u_C4RSfs (const Npp8u ∗ *pSrc*, int *nSrcStep*, NppiSize *oSrcRoiSize*, const Npp8u ∗ *pTpl*, int *nTplStep*, NppiSize *oTplRoiSize*, Npp8u ∗ *pDst*, int *nDstStep*, int *nScaleFactor*, Npp8u ∗ *pDeviceBuffer*)

Four-channel 8-bit unsigned image CrossCorrSame_NormLevel.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSrcRoiSize Region-of-Interest (ROI).

pTpl Pointer to the template image.

nTplStep Number of bytes between successive rows in the template image.

oTplRoiSize Region-of-Interest (ROI).

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

nScaleFactor Integer Result Scaling.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppiSameNormLevelGetBufferHostSize_8u_C4RSfs to compute the required size (in bytes).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.129.2.21 NppStatus nppiSameNormLevelGetBufferHostSize_16u32f_AC4R (NppiSize *oSizeROI*, int ∗ *hpBufferSize*)

Buffer size (in bytes) for nppiCrossCorrSame_NormLevel_16u32f_AC4R.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.129.2.22 NppStatus nppiSameNormLevelGetBufferHostSize_16u32f_C1R (NppiSize *oSizeROI*, int ∗ *hpBufferSize*)

Buffer size (in bytes) for nppiCrossCorrSame_NormLevel_16u32f_C1R.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.129.2.23 NppStatus nppiSameNormLevelGetBufferHostSize_16u32f_C3R (NppiSize *oSizeROI*, int ∗ *hpBufferSize*)

Buffer size (in bytes) for nppiCrossCorrSame_NormLevel_16u32f_C3R.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.129.2.24 NppStatus nppiSameNormLevelGetBufferHostSize_16u32f_C4R (NppiSize *oSizeROI*, int ∗ *hpBufferSize*)

Buffer size (in bytes) for nppiCrossCorrSame_NormLevel_16u32f_C4R.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.129.2.25 NppStatus nppiSameNormLevelGetBufferHostSize_32f_AC4R (NppiSize *oSizeROI*, int ∗ *hpBufferSize*)

Buffer size (in bytes) for nppiCrossCorrSame_NormLevel_32f_AC4R.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.129.2.26 NppStatus nppiSameNormLevelGetBufferHostSize_32f_C1R (NppiSize *oSizeROI*, int ∗ *hpBufferSize*)

Buffer size (in bytes) for nppiCrossCorrSame_NormLevel_32f_C1R.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.129.2.27 NppStatus nppiSameNormLevelGetBufferHostSize_32f_C3R (NppiSize *oSizeROI*, int ∗ *hpBufferSize*)

Buffer size (in bytes) for nppiCrossCorrSame_NormLevel_32f_C3R.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.129.2.28 NppStatus nppiSameNormLevelGetBufferHostSize_32f_C4R (NppiSize *oSizeROI*, int ∗ *hpBufferSize*)

Buffer size (in bytes) for nppiCrossCorrSame_NormLevel_32f_C4R.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.129.2.29 NppStatus nppiSameNormLevelGetBufferHostSize_8s32f_AC4R (NppiSize *oSizeROI*, int ∗ *hpBufferSize*)

Buffer size (in bytes) for nppiCrossCorrSame_NormLevel_8s32f_AC4R.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.129.2.30 NppStatus nppiSameNormLevelGetBufferHostSize_8s32f_C1R (NppiSize *oSizeROI*, int ∗ *hpBufferSize*)

Buffer size (in bytes) for nppiCrossCorrSame_NormLevel_8s32f_C1R.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.129.2.31 NppStatus nppiSameNormLevelGetBufferHostSize_8s32f_C3R (NppiSize *oSizeROI*, int ∗ *hpBufferSize*)

Buffer size (in bytes) for nppiCrossCorrSame_NormLevel_8s32f_C3R.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.129.2.32 NppStatus nppiSameNormLevelGetBufferHostSize_8s32f_C4R (NppiSize *oSizeROI*, int ∗ *hpBufferSize*)

Buffer size (in bytes) for nppiCrossCorrSame_NormLevel_8s32f_C4R.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.129.2.33 NppStatus nppiSameNormLevelGetBufferHostSize_8u32f_AC4R (NppiSize *oSizeROI*, int ∗ *hpBufferSize*)

Buffer size (in bytes) for nppiCrossCorrSame_NormLevel_8u32f_AC4R.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.129.2.34 NppStatus nppiSameNormLevelGetBufferHostSize_8u32f_C1R (NppiSize *oSizeROI*, int ∗ *hpBufferSize*)

Buffer size (in bytes) for nppiCrossCorrSame_NormLevel_8u32f_C1R.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.129.2.35 NppStatus nppiSameNormLevelGetBufferHostSize_8u32f_C3R (NppiSize *oSizeROI*, int ∗ *hpBufferSize*)

Buffer size (in bytes) for nppiCrossCorrSame_NormLevel_8u32f_C3R.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.129.2.36 NppStatus nppiSameNormLevelGetBufferHostSize_8u32f_C4R (NppiSize *oSizeROI*, int ∗ *hpBufferSize*)

Buffer size (in bytes) for nppiCrossCorrSame_NormLevel_8u32f_C4R.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.129.2.37 NppStatus nppiSameNormLevelGetBufferHostSize_8u_AC4RSfs (NppiSize *oSizeROI*, int ∗ *hpBufferSize*)

Buffer size (in bytes) for nppiCrossCorrSame_NormLevel_8u_AC4RSfs.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.129.2.38 NppStatus nppiSameNormLevelGetBufferHostSize_8u_C1RSfs (NppiSize *oSizeROI*, int ∗ *hpBufferSize*)

Buffer size (in bytes) for nppiCrossCorrSame_NormLevel_8u_C1RSfs.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.129.2.39 NppStatus nppiSameNormLevelGetBufferHostSize_8u_C3RSfs (NppiSize *oSizeROI*, int ∗ *hpBufferSize*)

Buffer size (in bytes) for nppiCrossCorrSame_NormLevel_8u_C3RSfs.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.129.2.40 NppStatus nppiSameNormLevelGetBufferHostSize_8u_C4RSfs (NppiSize *oSizeROI*, int ∗ *hpBufferSize*)

Buffer size (in bytes) for nppiCrossCorrSame_NormLevel_8u_C4RSfs.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.130 CrossCorrValid_NormLevel

Primitives for computing the normalized cross correlation coefficient between two images with valid mode.

CrossCorrValid_NormLevel

The functions compute the $\gamma_{st}(c, r)$ in General Introduction with valid mode (see Categorizations).

The functions require additional scratch buffer for computations.

- NppStatus nppiCrossCorrValid_NormLevel_8u_C1RSfs (const Npp8u ∗pSrc, int nSrcStep, NppiSize oSrcRoiSize, const Npp8u ∗pTpl, int nTplStep, NppiSize oTplRoiSize, Npp8u ∗pDst, int nDstStep, int nScaleFactor, Npp8u ∗pDeviceBuffer)

  One-channel 8-bit unsigned image CrossCorrValid_NormLevel.

- NppStatus nppiCrossCorrValid_NormLevel_8u_C3RSfs (const Npp8u ∗pSrc, int nSrcStep, NppiSize oSrcRoiSize, const Npp8u ∗pTpl, int nTplStep, NppiSize oTplRoiSize, Npp8u ∗pDst, int nDstStep, int nScaleFactor, Npp8u ∗pDeviceBuffer)

  Three-channel 8-bit unsigned image CrossCorrValid_NormLevel.

- NppStatus nppiCrossCorrValid_NormLevel_8u_C4RSfs (const Npp8u ∗pSrc, int nSrcStep, NppiSize oSrcRoiSize, const Npp8u ∗pTpl, int nTplStep, NppiSize oTplRoiSize, Npp8u ∗pDst, int nDstStep, int nScaleFactor, Npp8u ∗pDeviceBuffer)

  Four-channel 8-bit unsigned image CrossCorrValid_NormLevel.

- NppStatus nppiCrossCorrValid_NormLevel_8u_AC4RSfs (const Npp8u ∗pSrc, int nSrcStep, NppiSize oSrcRoiSize, const Npp8u ∗pTpl, int nTplStep, NppiSize oTplRoiSize, Npp8u ∗pDst, int nDstStep, int nScaleFactor, Npp8u ∗pDeviceBuffer)

  Four-channel 8-bit unsigned image CrossCorrValid_NormLevel ignoring alpha channel.

- NppStatus nppiCrossCorrValid_NormLevel_32f_C1R (const Npp32f ∗pSrc, int nSrcStep, NppiSize oSrcRoiSize, const Npp32f ∗pTpl, int nTplStep, NppiSize oTplRoiSize, Npp32f ∗pDst, int nDstStep, Npp8u ∗pDeviceBuffer)

  One-channel 32-bit floating point image CrossCorrValid_NormLevel.

- NppStatus nppiCrossCorrValid_NormLevel_32f_C3R (const Npp32f ∗pSrc, int nSrcStep, NppiSize oSrcRoiSize, const Npp32f ∗pTpl, int nTplStep, NppiSize oTplRoiSize, Npp32f ∗pDst, int nDstStep, Npp8u ∗pDeviceBuffer)

  Three-channel 32-bit floating point image CrossCorrValid_NormLevel.

- NppStatus nppiCrossCorrValid_NormLevel_32f_C4R (const Npp32f ∗pSrc, int nSrcStep, NppiSize oSrcRoiSize, const Npp32f ∗pTpl, int nTplStep, NppiSize oTplRoiSize, Npp32f ∗pDst, int nDstStep, Npp8u ∗pDeviceBuffer)

  Four-channel 32-bit floating point image CrossCorrValid_NormLevel.

- NppStatus nppiCrossCorrValid_NormLevel_32f_AC4R (const Npp32f ∗pSrc, int nSrcStep, NppiSize oSrcRoiSize, const Npp32f ∗pTpl, int nTplStep, NppiSize oTplRoiSize, Npp32f ∗pDst, int nDstStep, Npp8u ∗pDeviceBuffer)

  Four-channel 32-bit floating point image CrossCorrValid_NormLevel ignoring alpha channel.

- NppStatus nppiCrossCorrValid_NormLevel_8u32f_C1R (const Npp8u ∗pSrc, int nSrcStep, NppiSize oSrcRoiSize, const Npp8u ∗pTpl, int nTplStep, NppiSize oTplRoiSize, Npp32f ∗pDst, int nDstStep, Npp8u ∗pDeviceBuffer)

  One-channel 8-bit unsigned image CrossCorrValid_NormLevel.

- NppStatus nppiCrossCorrValid_NormLevel_8u32f_C3R (const Npp8u ∗pSrc, int nSrcStep, NppiSize oSrcRoiSize, const Npp8u ∗pTpl, int nTplStep, NppiSize oTplRoiSize, Npp32f ∗pDst, int nDstStep, Npp8u ∗pDeviceBuffer)

  Three-channel 8-bit unsigned image CrossCorrValid_NormLevel.

- NppStatus nppiCrossCorrValid_NormLevel_8u32f_C4R (const Npp8u ∗pSrc, int nSrcStep, NppiSize oSrcRoiSize, const Npp8u ∗pTpl, int nTplStep, NppiSize oTplRoiSize, Npp32f ∗pDst, int nDstStep, Npp8u ∗pDeviceBuffer)

  Four-channel 8-bit unsigned image CrossCorrValid_NormLevel.

- NppStatus nppiCrossCorrValid_NormLevel_8u32f_AC4R (const Npp8u ∗pSrc, int nSrcStep, NppiSize oSrcRoiSize, const Npp8u ∗pTpl, int nTplStep, NppiSize oTplRoiSize, Npp32f ∗pDst, int nDstStep, Npp8u ∗pDeviceBuffer)

  Four-channel 8-bit unsigned image CrossCorrValid_NormLevel ignoring alpha channel.

- NppStatus nppiCrossCorrValid_NormLevel_8s32f_C1R (const Npp8s ∗pSrc, int nSrcStep, NppiSize oSrcRoiSize, const Npp8s ∗pTpl, int nTplStep, NppiSize oTplRoiSize, Npp32f ∗pDst, int nDstStep, Npp8u ∗pDeviceBuffer)

  One-channel 8-bit signed image CrossCorrValid_NormLevel.

- NppStatus nppiCrossCorrValid_NormLevel_8s32f_C3R (const Npp8s ∗pSrc, int nSrcStep, NppiSize oSrcRoiSize, const Npp8s ∗pTpl, int nTplStep, NppiSize oTplRoiSize, Npp32f ∗pDst, int nDstStep, Npp8u ∗pDeviceBuffer)

  Three-channel 8-bit signed image CrossCorrValid_NormLevel.

- NppStatus nppiCrossCorrValid_NormLevel_8s32f_C4R (const Npp8s ∗pSrc, int nSrcStep, NppiSize oSrcRoiSize, const Npp8s ∗pTpl, int nTplStep, NppiSize oTplRoiSize, Npp32f ∗pDst, int nDstStep, Npp8u ∗pDeviceBuffer)

  Four-channel 8-bit signed image CrossCorrValid_NormLevel.

- NppStatus nppiCrossCorrValid_NormLevel_8s32f_AC4R (const Npp8s ∗pSrc, int nSrcStep, NppiSize oSrcRoiSize, const Npp8s ∗pTpl, int nTplStep, NppiSize oTplRoiSize, Npp32f ∗pDst, int nDstStep, Npp8u ∗pDeviceBuffer)

  Four-channel 8-bit signed image CrossCorrValid_NormLevel ignoring alpha channel.

- NppStatus nppiCrossCorrValid_NormLevel_16u32f_C1R (const Npp16u ∗pSrc, int nSrcStep, NppiSize oSrcRoiSize, const Npp16u ∗pTpl, int nTplStep, NppiSize oTplRoiSize, Npp32f ∗pDst, int nDstStep, Npp8u ∗pDeviceBuffer)

  One-channel 16-bit unsigned image CrossCorrValid_NormLevel.

- NppStatus nppiCrossCorrValid_NormLevel_16u32f_C3R (const Npp16u ∗pSrc, int nSrcStep, NppiSize oSrcRoiSize, const Npp16u ∗pTpl, int nTplStep, NppiSize oTplRoiSize, Npp32f ∗pDst, int nDstStep, Npp8u ∗pDeviceBuffer)

  Three-channel 16-bit unsigned image CrossCorrValid_NormLevel.

- NppStatus nppiCrossCorrValid_NormLevel_16u32f_C4R (const Npp16u ∗pSrc, int nSrcStep, NppiSize oSrcRoiSize, const Npp16u ∗pTpl, int nTplStep, NppiSize oTplRoiSize, Npp32f ∗pDst, int nDstStep, Npp8u ∗pDeviceBuffer)

  Four-channel 16-bit unsigned image CrossCorrValid_NormLevel.

- NppStatus nppiCrossCorrValid_NormLevel_16u32f_AC4R (const Npp16u ∗pSrc, int nSrcStep, NppiSize oSrcRoiSize, const Npp16u ∗pTpl, int nTplStep, NppiSize oTplRoiSize, Npp32f ∗pDst, int nDstStep, Npp8u ∗pDeviceBuffer)

  Four-channel 16-bit unsigned image CrossCorrValid_NormLevel ignoring alpha channel.

ValidNormLevelGetBufferHostSize

Companion primitives for computing the device buffer size (in bytes) required by the CrossCorrValid_NormLevel primitives.

- NppStatus nppiValidNormLevelGetBufferHostSize_8u_C1RSfs (NppiSize oSizeROI, int ∗hpBufferSize)

  Buffer size (in bytes) for nppiCrossCorrValid_NormLevel_8u_C1RSfs.

- NppStatus nppiValidNormLevelGetBufferHostSize_8u_C3RSfs (NppiSize oSizeROI, int ∗hpBufferSize)

  Buffer size (in bytes) for nppiCrossCorrValid_NormLevel_8u_C3RSfs.

- NppStatus nppiValidNormLevelGetBufferHostSize_8u_C4RSfs (NppiSize oSizeROI, int ∗hpBufferSize)

  Buffer size (in bytes) for nppiCrossCorrValid_NormLevel_8u_C4RSfs.

- NppStatus nppiValidNormLevelGetBufferHostSize_8u_AC4RSfs (NppiSize oSizeROI, int ∗hpBufferSize)

  Buffer size (in bytes) for nppiCrossCorrValid_NormLevel_8u_AC4RSfs.

- NppStatus nppiValidNormLevelGetBufferHostSize_32f_C1R (NppiSize oSizeROI, int ∗hpBufferSize)

  Buffer size (in bytes) for nppiCrossCorrValid_NormLevel_32f_C1R.

- NppStatus nppiValidNormLevelGetBufferHostSize_32f_C3R (NppiSize oSizeROI, int ∗hpBufferSize)

  Buffer size (in bytes) for nppiCrossCorrValid_NormLevel_32f_C3R.

- NppStatus nppiValidNormLevelGetBufferHostSize_32f_C4R (NppiSize oSizeROI, int ∗hpBufferSize)

  Buffer size (in bytes) for nppiCrossCorrValid_NormLevel_32f_C4R.

- NppStatus nppiValidNormLevelGetBufferHostSize_32f_AC4R (NppiSize oSizeROI, int ∗hpBufferSize)

  Buffer size (in bytes) for nppiCrossCorrValid_NormLevel_32f_AC4R.

- NppStatus nppiValidNormLevelGetBufferHostSize_8u32f_C1R (NppiSize oSizeROI, int ∗hpBufferSize)

Buffer size (in bytes) for nppiCrossCorrValid_NormLevel_8u32f_C1R.

- NppStatus nppiValidNormLevelGetBufferHostSize_8u32f_C3R (NppiSize oSizeROI, int ∗hpBufferSize)

  Buffer size (in bytes) for nppiCrossCorrValid_NormLevel_8u32f_C3R.

- NppStatus nppiValidNormLevelGetBufferHostSize_8u32f_C4R (NppiSize oSizeROI, int ∗hpBufferSize)

  Buffer size (in bytes) for nppiCrossCorrValid_NormLevel_8u32f_C4R.

- NppStatus nppiValidNormLevelGetBufferHostSize_8u32f_AC4R (NppiSize oSizeROI, int ∗hpBufferSize)

  Buffer size (in bytes) for nppiCrossCorrValid_NormLevel_8u32f_AC4R.

- NppStatus nppiValidNormLevelGetBufferHostSize_8s32f_C1R (NppiSize oSizeROI, int ∗hpBufferSize)

  Buffer size (in bytes) for nppiCrossCorrValid_NormLevel_8s32f_C1R.

- NppStatus nppiValidNormLevelGetBufferHostSize_8s32f_C3R (NppiSize oSizeROI, int ∗hpBufferSize)

  Buffer size (in bytes) for nppiCrossCorrValid_NormLevel_8s32f_C3R.

- NppStatus nppiValidNormLevelGetBufferHostSize_8s32f_C4R (NppiSize oSizeROI, int ∗hpBufferSize)

  Buffer size (in bytes) for nppiCrossCorrValid_NormLevel_8s32f_C4R.

- NppStatus nppiValidNormLevelGetBufferHostSize_8s32f_AC4R (NppiSize oSizeROI, int ∗hpBufferSize)

  Buffer size (in bytes) for nppiCrossCorrValid_NormLevel_8s32f_AC4R.

- NppStatus nppiValidNormLevelGetBufferHostSize_16u32f_C1R (NppiSize oSizeROI, int ∗hpBufferSize)

  Buffer size (in bytes) for nppiCrossCorrValid_NormLevel_16u32f_C1R.

- NppStatus nppiValidNormLevelGetBufferHostSize_16u32f_C3R (NppiSize oSizeROI, int ∗hpBufferSize)

  Buffer size (in bytes) for nppiCrossCorrValid_NormLevel_16u32f_C3R.

- NppStatus nppiValidNormLevelGetBufferHostSize_16u32f_C4R (NppiSize oSizeROI, int ∗hpBufferSize)

  Buffer size (in bytes) for nppiCrossCorrValid_NormLevel_16u32f_C4R.

- NppStatus nppiValidNormLevelGetBufferHostSize_16u32f_AC4R (NppiSize oSizeROI, int ∗hpBufferSize)

  Buffer size (in bytes) for nppiCrossCorrValid_NormLevel_16u32f_AC4R.

7.130.1 Detailed Description

Primitives for computing the normalized cross correlation coefficient between two images with valid mode.

7.130.2 Function Documentation

7.130.2.1 NppStatus nppiCrossCorrValid_NormLevel_16u32f_AC4R (const Npp16u ∗ *pSrc*, int *nSrcStep*, NppiSize *oSrcRoiSize*, const Npp16u ∗ *pTpl*, int *nTplStep*, NppiSize *oTplRoiSize*, Npp32f ∗ *pDst*, int *nDstStep*, Npp8u ∗ *pDeviceBuffer*)

Four-channel 16-bit unsigned image CrossCorrValid_NormLevel ignoring alpha channel.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSrcRoiSize Region-of-Interest (ROI).

pTpl Pointer to the template image.

nTplStep Number of bytes between successive rows in the template image.

oTplRoiSize Region-of-Interest (ROI).

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppiValidNormLevelGetBufferHostSize_16u32f_AC4R to compute the required size (in bytes).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.130.2.2 NppStatus nppiCrossCorrValid_NormLevel_16u32f_C1R (const Npp16u ∗ *pSrc*, int *nSrcStep*, NppiSize *oSrcRoiSize*, const Npp16u ∗ *pTpl*, int *nTplStep*, NppiSize *oTplRoiSize*, Npp32f ∗ *pDst*, int *nDstStep*, Npp8u ∗ *pDeviceBuffer*)

One-channel 16-bit unsigned image CrossCorrValid_NormLevel.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSrcRoiSize Region-of-Interest (ROI).

pTpl Pointer to the template image.

nTplStep Number of bytes between successive rows in the template image.

oTplRoiSize Region-of-Interest (ROI).

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppiValidNormLevelGetBufferHostSize_16u32f_C1R to compute the required size (in bytes).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.130.2.3 NppStatus nppiCrossCorrValid_NormLevel_16u32f_C3R (const Npp16u ∗ *pSrc*, int *nSrcStep*, NppiSize *oSrcRoiSize*, const Npp16u ∗ *pTpl*, int *nTplStep*, NppiSize *oTplRoiSize*, Npp32f ∗ *pDst*, int *nDstStep*, Npp8u ∗ *pDeviceBuffer*)

Three-channel 16-bit unsigned image CrossCorrValid_NormLevel.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSrcRoiSize Region-of-Interest (ROI).

pTpl Pointer to the template image.

nTplStep Number of bytes between successive rows in the template image.

oTplRoiSize Region-of-Interest (ROI).

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppiValidNormLevelGetBufferHostSize_16u32f_C3R to compute the required size (in bytes).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.130.2.4 NppStatus nppiCrossCorrValid_NormLevel_16u32f_C4R (const Npp16u ∗ *pSrc*, int *nSrcStep*, NppiSize *oSrcRoiSize*, const Npp16u ∗ *pTpl*, int *nTplStep*, NppiSize *oTplRoiSize*, Npp32f ∗ *pDst*, int *nDstStep*, Npp8u ∗ *pDeviceBuffer*)

Four-channel 16-bit unsigned image CrossCorrValid_NormLevel.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSrcRoiSize Region-of-Interest (ROI).

pTpl Pointer to the template image.

nTplStep Number of bytes between successive rows in the template image.

oTplRoiSize Region-of-Interest (ROI).

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppiValidNormLevelGetBufferHostSize_16u32f_C4R to compute the required size (in bytes).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.130.2.5 NppStatus nppiCrossCorrValid_NormLevel_32f_AC4R (const Npp32f ∗ *pSrc*, int *nSrcStep*, NppiSize *oSrcRoiSize*, const Npp32f ∗ *pTpl*, int *nTplStep*, NppiSize *oTplRoiSize*, Npp32f ∗ *pDst*, int *nDstStep*, Npp8u ∗ *pDeviceBuffer*)

Four-channel 32-bit floating point image CrossCorrValid_NormLevel ignoring alpha channel.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSrcRoiSize Region-of-Interest (ROI).

pTpl Pointer to the template image.

nTplStep Number of bytes between successive rows in the template image.

oTplRoiSize Region-of-Interest (ROI).

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppiValidNormLevelGetBufferHostSize_32f_AC4R to compute the required size (in bytes).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.130.2.6 NppStatus nppiCrossCorrValid_NormLevel_32f_C1R (const Npp32f ∗ *pSrc*, int *nSrcStep*, NppiSize *oSrcRoiSize*, const Npp32f ∗ *pTpl*, int *nTplStep*, NppiSize *oTplRoiSize*, Npp32f ∗ *pDst*, int *nDstStep*, Npp8u ∗ *pDeviceBuffer*)

One-channel 32-bit floating point image CrossCorrValid_NormLevel.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSrcRoiSize Region-of-Interest (ROI).

pTpl Pointer to the template image.

nTplStep Number of bytes between successive rows in the template image.

oTplRoiSize Region-of-Interest (ROI).

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppiValidNormLevelGetBufferHostSize_32f_C1R to compute the required size (in bytes).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.130.2.7 NppStatus nppiCrossCorrValid_NormLevel_32f_C3R (const Npp32f ∗ *pSrc*, int *nSrcStep*, NppiSize *oSrcRoiSize*, const Npp32f ∗ *pTpl*, int *nTplStep*, NppiSize *oTplRoiSize*, Npp32f ∗ *pDst*, int *nDstStep*, Npp8u ∗ *pDeviceBuffer*)

Three-channel 32-bit floating point image CrossCorrValid_NormLevel.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSrcRoiSize Region-of-Interest (ROI).

pTpl Pointer to the template image.

nTplStep Number of bytes between successive rows in the template image.

oTplRoiSize Region-of-Interest (ROI).

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppiValidNormLevelGetBufferHostSize_32f_C3R to compute the required size (in bytes).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.130.2.8 NppStatus nppiCrossCorrValid_NormLevel_32f_C4R (const Npp32f ∗ *pSrc*, int *nSrcStep*, NppiSize *oSrcRoiSize*, const Npp32f ∗ *pTpl*, int *nTplStep*, NppiSize *oTplRoiSize*, Npp32f ∗ *pDst*, int *nDstStep*, Npp8u ∗ *pDeviceBuffer*)

Four-channel 32-bit floating point image CrossCorrValid_NormLevel.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSrcRoiSize Region-of-Interest (ROI).

pTpl Pointer to the template image.

nTplStep Number of bytes between successive rows in the template image.

oTplRoiSize Region-of-Interest (ROI).

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppiValidNormLevelGetBufferHostSize_32f_C4R to compute the required size (in bytes).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.130.2.9 NppStatus nppiCrossCorrValid_NormLevel_8s32f_AC4R (const Npp8s * *pSrc*, int *nSrcStep*, NppiSize *oSrcRoiSize*, const Npp8s * *pTpl*, int *nTplStep*, NppiSize *oTplRoiSize*, Npp32f * *pDst*, int *nDstStep*, Npp8u * *pDeviceBuffer*)

Four-channel 8-bit signed image CrossCorrValid_NormLevel ignoring alpha channel.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSrcRoiSize Region-of-Interest (ROI).

pTpl Pointer to the template image.

nTplStep Number of bytes between successive rows in the template image.

oTplRoiSize Region-of-Interest (ROI).

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppiValidNormLevelGetBufferHostSize_8s32f_AC4R to compute the required size (in bytes).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.130.2.10 NppStatus nppiCrossCorrValid_NormLevel_8s32f_C1R (const Npp8s * *pSrc*, int *nSrcStep*, NppiSize *oSrcRoiSize*, const Npp8s * *pTpl*, int *nTplStep*, NppiSize *oTplRoiSize*, Npp32f * *pDst*, int *nDstStep*, Npp8u * *pDeviceBuffer*)

One-channel 8-bit signed image CrossCorrValid_NormLevel.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSrcRoiSize Region-of-Interest (ROI).

pTpl Pointer to the template image.

nTplStep Number of bytes between successive rows in the template image.

oTplRoiSize Region-of-Interest (ROI).

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppiValidNormLevelGetBufferHostSize_8s32f_C1R to compute the required size (in bytes).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.130.2.11 NppStatus nppiCrossCorrValid_NormLevel_8s32f_C3R (const Npp8s ∗ *pSrc*, int *nSrcStep*, NppiSize *oSrcRoiSize*, const Npp8s ∗ *pTpl*, int *nTplStep*, NppiSize *oTplRoiSize*, Npp32f ∗ *pDst*, int *nDstStep*, Npp8u ∗ *pDeviceBuffer*)

Three-channel 8-bit signed image CrossCorrValid_NormLevel.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSrcRoiSize Region-of-Interest (ROI).

pTpl Pointer to the template image.

nTplStep Number of bytes between successive rows in the template image.

oTplRoiSize Region-of-Interest (ROI).

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppiValidNormLevelGetBufferHostSize_8s32f_C3R to compute the required size (in bytes).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.130.2.12 NppStatus nppiCrossCorrValid_NormLevel_8s32f_C4R (const Npp8s ∗ *pSrc*, int *nSrcStep*, NppiSize *oSrcRoiSize*, const Npp8s ∗ *pTpl*, int *nTplStep*, NppiSize *oTplRoiSize*, Npp32f ∗ *pDst*, int *nDstStep*, Npp8u ∗ *pDeviceBuffer*)

Four-channel 8-bit signed image CrossCorrValid_NormLevel.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSrcRoiSize Region-of-Interest (ROI).

pTpl Pointer to the template image.

nTplStep Number of bytes between successive rows in the template image.

oTplRoiSize Region-of-Interest (ROI).

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppiValidNormLevelGetBufferHostSize_8s32f_C4R to compute the required size (in bytes).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.130.2.13 NppStatus nppiCrossCorrValid_NormLevel_8u32f_AC4R (const Npp8u * *pSrc*, int *nSrcStep*, NppiSize *oSrcRoiSize*, const Npp8u * *pTpl*, int *nTplStep*, NppiSize *oTplRoiSize*, Npp32f * *pDst*, int *nDstStep*, Npp8u * *pDeviceBuffer*)

Four-channel 8-bit unsigned image CrossCorrValid_NormLevel ignoring alpha channel.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSrcRoiSize Region-of-Interest (ROI).

pTpl Pointer to the template image.

nTplStep Number of bytes between successive rows in the template image.

oTplRoiSize Region-of-Interest (ROI).

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppiValidNormLevelGetBufferHostSize_8u32f_AC4R to compute the required size (in bytes).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.130.2.14 NppStatus nppiCrossCorrValid_NormLevel_8u32f_C1R (const Npp8u * *pSrc*, int *nSrcStep*, NppiSize *oSrcRoiSize*, const Npp8u * *pTpl*, int *nTplStep*, NppiSize *oTplRoiSize*, Npp32f * *pDst*, int *nDstStep*, Npp8u * *pDeviceBuffer*)

One-channel 8-bit unsigned image CrossCorrValid_NormLevel.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSrcRoiSize Region-of-Interest (ROI).

pTpl Pointer to the template image.

nTplStep Number of bytes between successive rows in the template image.

oTplRoiSize Region-of-Interest (ROI).

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppiValidNormLevelGetBufferHostSize_8u32f_C1R to compute the required size (in bytes).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.130.2.15 NppStatus nppiCrossCorrValid_NormLevel_8u32f_C3R (const Npp8u ∗ *pSrc*, int *nSrcStep*, NppiSize *oSrcRoiSize*, const Npp8u ∗ *pTpl*, int *nTplStep*, NppiSize *oTplRoiSize*, Npp32f ∗ *pDst*, int *nDstStep*, Npp8u ∗ *pDeviceBuffer*)

Three-channel 8-bit unsigned image CrossCorrValid_NormLevel.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSrcRoiSize Region-of-Interest (ROI).

pTpl Pointer to the template image.

nTplStep Number of bytes between successive rows in the template image.

oTplRoiSize Region-of-Interest (ROI).

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppiValidNormLevelGetBufferHostSize_8u32f_C3R to compute the required size (in bytes).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.130.2.16 NppStatus nppiCrossCorrValid_NormLevel_8u32f_C4R (const Npp8u ∗ *pSrc*, int *nSrcStep*, NppiSize *oSrcRoiSize*, const Npp8u ∗ *pTpl*, int *nTplStep*, NppiSize *oTplRoiSize*, Npp32f ∗ *pDst*, int *nDstStep*, Npp8u ∗ *pDeviceBuffer*)

Four-channel 8-bit unsigned image CrossCorrValid_NormLevel.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSrcRoiSize Region-of-Interest (ROI).

pTpl Pointer to the template image.

nTplStep Number of bytes between successive rows in the template image.

oTplRoiSize Region-of-Interest (ROI).

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppiValidNormLevelGetBufferHostSize_8u32f_C4R to compute the required size (in bytes).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.130.2.17 NppStatus nppiCrossCorrValid_NormLevel_8u_AC4RSfs (const Npp8u ∗ *pSrc*, int *nSrcStep*, NppiSize *oSrcRoiSize*, const Npp8u ∗ *pTpl*, int *nTplStep*, NppiSize *oTplRoiSize*, Npp8u ∗ *pDst*, int *nDstStep*, int *nScaleFactor*, Npp8u ∗ *pDeviceBuffer*)

Four-channel 8-bit unsigned image CrossCorrValid_NormLevel ignoring alpha channel.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSrcRoiSize Region-of-Interest (ROI).

pTpl Pointer to the template image.

nTplStep Number of bytes between successive rows in the template image.

oTplRoiSize Region-of-Interest (ROI).

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

nScaleFactor Integer Result Scaling.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppiValidNormLevelGetBufferHostSize_8u_AC4RSfs to compute the required size (in bytes).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.130.2.18 NppStatus nppiCrossCorrValid_NormLevel_8u_C1RSfs (const Npp8u ∗ *pSrc*, int *nSrcStep*, NppiSize *oSrcRoiSize*, const Npp8u ∗ *pTpl*, int *nTplStep*, NppiSize *oTplRoiSize*, Npp8u ∗ *pDst*, int *nDstStep*, int *nScaleFactor*, Npp8u ∗ *pDeviceBuffer*)

One-channel 8-bit unsigned image CrossCorrValid_NormLevel.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSrcRoiSize Region-of-Interest (ROI).

pTpl Pointer to the template image.

nTplStep Number of bytes between successive rows in the template image.

oTplRoiSize Region-of-Interest (ROI).

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

nScaleFactor Integer Result Scaling.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppiValidNormLevelGetBufferHostSize_8u_C1RSfs to compute the required size (in bytes).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.130.2.19 NppStatus nppiCrossCorrValid_NormLevel_8u_C3RSfs (const Npp8u ∗ *pSrc*, int *nSrcStep*, NppiSize *oSrcRoiSize*, const Npp8u ∗ *pTpl*, int *nTplStep*, NppiSize *oTplRoiSize*, Npp8u ∗ *pDst*, int *nDstStep*, int *nScaleFactor*, Npp8u ∗ *pDeviceBuffer*)

Three-channel 8-bit unsigned image CrossCorrValid_NormLevel.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSrcRoiSize Region-of-Interest (ROI).

pTpl Pointer to the template image.

nTplStep Number of bytes between successive rows in the template image.

oTplRoiSize Region-of-Interest (ROI).

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

nScaleFactor Integer Result Scaling.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppiValidNormLevelGetBufferHostSize_8u_C3RSfs to compute the required size (in bytes).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.130.2.20 NppStatus nppiCrossCorrValid_NormLevel_8u_C4RSfs (const Npp8u ∗ *pSrc*, int *nSrcStep*, NppiSize *oSrcRoiSize*, const Npp8u ∗ *pTpl*, int *nTplStep*, NppiSize *oTplRoiSize*, Npp8u ∗ *pDst*, int *nDstStep*, int *nScaleFactor*, Npp8u ∗ *pDeviceBuffer*)

Four-channel 8-bit unsigned image CrossCorrValid_NormLevel.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

oSrcRoiSize Region-of-Interest (ROI).

pTpl Pointer to the template image.

nTplStep Number of bytes between successive rows in the template image.

oTplRoiSize Region-of-Interest (ROI).

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

nScaleFactor Integer Result Scaling.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppiValidNormLevelGetBufferHostSize_8u_C4RSfs to compute the required size (in bytes).

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.130.2.21 NppStatus nppiValidNormLevelGetBufferHostSize_16u32f_AC4R (NppiSize *oSizeROI*, int ∗ *hpBufferSize*)

Buffer size (in bytes) for nppiCrossCorrValid_NormLevel_16u32f_AC4R.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.130.2.22 NppStatus nppiValidNormLevelGetBufferHostSize_16u32f_C1R (NppiSize *oSizeROI*, int ∗ *hpBufferSize*)

Buffer size (in bytes) for nppiCrossCorrValid_NormLevel_16u32f_C1R.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.130.2.23 NppStatus nppiValidNormLevelGetBufferHostSize_16u32f_C3R (NppiSize *oSizeROI*, int ∗ *hpBufferSize*)

Buffer size (in bytes) for nppiCrossCorrValid_NormLevel_16u32f_C3R.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.130.2.24 NppStatus nppiValidNormLevelGetBufferHostSize_16u32f_C4R (NppiSize *oSizeROI*, int ∗ *hpBufferSize*)

Buffer size (in bytes) for nppiCrossCorrValid_NormLevel_16u32f_C4R.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.130.2.25 NppStatus nppiValidNormLevelGetBufferHostSize_32f_AC4R (NppiSize *oSizeROI*, int ∗ *hpBufferSize*)

Buffer size (in bytes) for nppiCrossCorrValid_NormLevel_32f_AC4R.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.130.2.26 NppStatus nppiValidNormLevelGetBufferHostSize_32f_C1R (NppiSize *oSizeROI*, int ∗ *hpBufferSize*)

Buffer size (in bytes) for nppiCrossCorrValid_NormLevel_32f_C1R.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.130.2.27 NppStatus nppiValidNormLevelGetBufferHostSize_32f_C3R (NppiSize *oSizeROI*, int ∗ *hpBufferSize*)

Buffer size (in bytes) for nppiCrossCorrValid_NormLevel_32f_C3R.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.130.2.28 NppStatus nppiValidNormLevelGetBufferHostSize_32f_C4R (NppiSize *oSizeROI*, int ∗ *hpBufferSize*)

Buffer size (in bytes) for nppiCrossCorrValid_NormLevel_32f_C4R.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.130.2.29 NppStatus nppiValidNormLevelGetBufferHostSize_8s32f_AC4R (NppiSize *oSizeROI*, int ∗ *hpBufferSize*)

Buffer size (in bytes) for nppiCrossCorrValid_NormLevel_8s32f_AC4R.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.130.2.30 NppStatus nppiValidNormLevelGetBufferHostSize_8s32f_C1R (NppiSize *oSizeROI*, int ∗ *hpBufferSize*)

Buffer size (in bytes) for nppiCrossCorrValid_NormLevel_8s32f_C1R.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.130.2.31 NppStatus nppiValidNormLevelGetBufferHostSize_8s32f_C3R (NppiSize *oSizeROI*, int ∗ *hpBufferSize*)

Buffer size (in bytes) for nppiCrossCorrValid_NormLevel_8s32f_C3R.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.130.2.32 NppStatus nppiValidNormLevelGetBufferHostSize_8s32f_C4R (NppiSize *oSizeROI*, int ∗ *hpBufferSize*)

Buffer size (in bytes) for nppiCrossCorrValid_NormLevel_8s32f_C4R.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.130.2.33 NppStatus nppiValidNormLevelGetBufferHostSize_8u32f_AC4R (NppiSize *oSizeROI*, int ∗ *hpBufferSize*)

Buffer size (in bytes) for nppiCrossCorrValid_NormLevel_8u32f_AC4R.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.130.2.34 NppStatus nppiValidNormLevelGetBufferHostSize_8u32f_C1R (NppiSize *oSizeROI*, int ∗ *hpBufferSize*)

Buffer size (in bytes) for nppiCrossCorrValid_NormLevel_8u32f_C1R.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.130.2.35 NppStatus nppiValidNormLevelGetBufferHostSize_8u32f_C3R (NppiSize *oSizeROI*, int ∗ *hpBufferSize*)

Buffer size (in bytes) for nppiCrossCorrValid_NormLevel_8u32f_C3R.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.130.2.36 NppStatus nppiValidNormLevelGetBufferHostSize_8u32f_C4R (NppiSize *oSizeROI*, int ∗ *hpBufferSize*)

Buffer size (in bytes) for nppiCrossCorrValid_NormLevel_8u32f_C4R.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.130.2.37 NppStatus nppiValidNormLevelGetBufferHostSize_8u_AC4RSfs (NppiSize *oSizeROI*, int ∗ *hpBufferSize*)

Buffer size (in bytes) for nppiCrossCorrValid_NormLevel_8u_AC4RSfs.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.130.2.38 NppStatus nppiValidNormLevelGetBufferHostSize_8u_C1RSfs (NppiSize *oSizeROI*, int ∗ *hpBufferSize*)

Buffer size (in bytes) for nppiCrossCorrValid_NormLevel_8u_C1RSfs.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.130.2.39 NppStatus nppiValidNormLevelGetBufferHostSize_8u_C3RSfs (NppiSize *oSizeROI*, int * *hpBufferSize*)

Buffer size (in bytes) for nppiCrossCorrValid_NormLevel_8u_C3RSfs.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.130.2.40 NppStatus nppiValidNormLevelGetBufferHostSize_8u_C4RSfs (NppiSize *oSizeROI*, int * *hpBufferSize*)

Buffer size (in bytes) for nppiCrossCorrValid_NormLevel_8u_C4RSfs.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.131 Image Quality Index

Primitives for computing the image quality index of two images.

QualityIndex

Given two images M and N (both $W \times H$), the mathematical formula to calculate the image quality index Q between them is expressed as:

$$Q = \frac{4\sigma_{MN}\tilde{M}\tilde{N}}{[(\tilde{M}^2) + (\tilde{N}^2)][(\sigma_M)^2 + (\sigma_N)^2]}$$

where

$$\tilde{M} = \frac{1}{W \cdot H}\sum_{j=0}^{H-1}\sum_{i=0}^{W-1} M(j,i)$$

$$\tilde{N} = \frac{1}{W \cdot H}\sum_{j=0}^{H-1}\sum_{i=0}^{W-1} N(j,i)$$

$$\sigma_M = \sqrt{\frac{1}{W \cdot H - 1}\sum_{j=0}^{H-1}\sum_{i=0}^{W-1} [M(j,i) - \tilde{M}]^2}$$

$$\sigma_N = \sqrt{\frac{1}{W \cdot H - 1}\sum_{j=0}^{H-1}\sum_{i=0}^{W-1} [N(j,i) - \tilde{N}]^2}$$

$$\sigma_{MN} = \frac{1}{W \cdot H - 1}\sum_{j=0}^{H-1}\sum_{i=0}^{W-1} [M(j,i) - \tilde{M}][N(j,i) - \tilde{N}]$$

The functions require additional scratch buffer for computations.

- NppStatus nppiQualityIndex_8u32f_C1R (const Npp8u ∗pSrc1, int nSrc1Step, const Npp8u ∗pSrc2, int nSrc2Step, NppiSize oRoiSize, Npp32f ∗pDst, Npp8u ∗pDeviceBuffer)

  One-channel 8-bit unsigned image QualityIndex.

- NppStatus nppiQualityIndex_16u32f_C1R (const Npp16u ∗pSrc1, int nSrc1Step, const Npp16u ∗pSrc2, int nSrc2Step, NppiSize oRoiSize, Npp32f ∗pDst, Npp8u ∗pDeviceBuffer)

  One-channel 16-bit unsigned image QualityIndex.

- NppStatus nppiQualityIndex_32f_C1R (const Npp32f ∗pSrc1, int nSrc1Step, const Npp32f ∗pSrc2, int nSrc2Step, NppiSize oRoiSize, Npp32f ∗pDst, Npp8u ∗pDeviceBuffer)

  One-channel 32-bit floating point image QualityIndex.

- NppStatus nppiQualityIndex_8u32f_C3R (const Npp8u ∗pSrc1, int nSrc1Step, const Npp8u ∗pSrc2, int nSrc2Step, NppiSize oRoiSize, Npp32f ∗pDst, Npp8u ∗pDeviceBuffer)

  Three-channel 8-bit unsigned image QualityIndex.

- NppStatus nppiQualityIndex_16u32f_C3R (const Npp16u ∗pSrc1, int nSrc1Step, const Npp16u ∗pSrc2, int nSrc2Step, NppiSize oRoiSize, Npp32f ∗pDst, Npp8u ∗pDeviceBuffer)

  Three-channel 16-bit unsigned image QualityIndex.

- NppStatus nppiQualityIndex_32f_C3R (const Npp32f ∗pSrc1, int nSrc1Step, const Npp32f ∗pSrc2, int nSrc2Step, NppiSize oRoiSize, Npp32f ∗pDst, Npp8u ∗pDeviceBuffer)

  Three-channel 32-bit floating point image QualityIndex.

- NppStatus nppiQualityIndex_8u32f_AC4R (const Npp8u ∗pSrc1, int nSrc1Step, const Npp8u ∗pSrc2, int nSrc2Step, NppiSize oRoiSize, Npp32f ∗pDst, Npp8u ∗pDeviceBuffer)

  Four-channel 8-bit unsigned image QualityIndex.

- NppStatus nppiQualityIndex_16u32f_AC4R (const Npp16u ∗pSrc1, int nSrc1Step, const Npp16u ∗pSrc2, int nSrc2Step, NppiSize oRoiSize, Npp32f ∗pDst, Npp8u ∗pDeviceBuffer)

  Four-channel 16-bit unsigned image QualityIndex.

- NppStatus nppiQualityIndex_32f_AC4R (const Npp32f ∗pSrc1, int nSrc1Step, const Npp32f ∗pSrc2, int nSrc2Step, NppiSize oRoiSize, Npp32f ∗pDst, Npp8u ∗pDeviceBuffer)

  Four-channel 32-bit floating point image QualityIndex.

QualityIndexGetBufferHostSize

Companion primitives for computing the device buffer size (in bytes) required by the QualityIndex primitives.

- NppStatus nppiQualityIndexGetBufferHostSize_8u32f_C1R (NppiSize oSizeROI, int ∗hpBufferSize)

  Buffer size (in bytes) for nppiQualityIndex_8u32f_C1R.

- NppStatus nppiQualityIndexGetBufferHostSize_16u32f_C1R (NppiSize oSizeROI, int ∗hpBufferSize)

  Buffer size (in bytes) for nppiQualityIndex_16u32f_C1R.

- NppStatus nppiQualityIndexGetBufferHostSize_32f_C1R (NppiSize oSizeROI, int ∗hpBufferSize)

  Buffer size (in bytes) for nppiQualityIndex_32f_C1R.

- NppStatus nppiQualityIndexGetBufferHostSize_8u32f_C3R (NppiSize oSizeROI, int ∗hpBufferSize)

  Buffer size (in bytes) for nppiQualityIndex_8u32f_C3R.

- NppStatus nppiQualityIndexGetBufferHostSize_16u32f_C3R (NppiSize oSizeROI, int ∗hpBufferSize)

  Buffer size (in bytes) for nppiQualityIndex_16u32f_C3R.

- NppStatus nppiQualityIndexGetBufferHostSize_32f_C3R (NppiSize oSizeROI, int ∗hpBufferSize)

  Buffer size (in bytes) for nppiQualityIndex_32f_C3R.

- NppStatus nppiQualityIndexGetBufferHostSize_8u32f_AC4R (NppiSize oSizeROI, int ∗hpBufferSize)

  Buffer size (in bytes) for nppiQualityIndex_8u32f_AC4R.

- NppStatus nppiQualityIndexGetBufferHostSize_16u32f_AC4R (NppiSize oSizeROI, int ∗hpBufferSize)

  Buffer size (in bytes) for nppiQualityIndex_16u32f_AC4R.

- NppStatus nppiQualityIndexGetBufferHostSize_32f_AC4R (NppiSize oSizeROI, int ∗hpBufferSize)

  Buffer size (in bytes) for nppiQualityIndex_32f_AC4R.

7.131.1 Detailed Description

Primitives for computing the image quality index of two images.

7.131.2 Function Documentation

7.131.2.1 NppStatus nppiQualityIndex_16u32f_AC4R (const Npp16u ∗ *pSrc1*, int *nSrc1Step*, const Npp16u ∗ *pSrc2*, int *nSrc2Step*, NppiSize *oRoiSize*, Npp32f ∗ *pDst*, Npp8u ∗ *pDeviceBuffer*)

Four-channel 16-bit unsigned image QualityIndex.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

oRoiSize Region-of-Interest (ROI).

pDst Pointer to the quality index.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppiQualityIndexGetBufferHostSize_16u32f_AC4R to compute the required size (in bytes).

Returns:

Image Data Related Error Codes, ROI Related Error Codes, or NPP_QUALITY_INDEX_ERROR if pixels of either image are constant numberse.

7.131.2.2 NppStatus nppiQualityIndex_16u32f_C1R (const Npp16u ∗ *pSrc1*, int *nSrc1Step*, const Npp16u ∗ *pSrc2*, int *nSrc2Step*, NppiSize *oRoiSize*, Npp32f ∗ *pDst*, Npp8u ∗ *pDeviceBuffer*)

One-channel 16-bit unsigned image QualityIndex.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

oRoiSize Region-of-Interest (ROI).

pDst Pointer to the quality index.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppiQualityIndexGetBufferHostSize_16u32f_C1R to compute the required size (in bytes).

Returns:

Image Data Related Error Codes, ROI Related Error Codes, or NPP_QUALITY_INDEX_ERROR if pixels of either image are constant numberse.

7.131.2.3 NppStatus nppiQualityIndex_16u32f_C3R (const Npp16u ∗ *pSrc1*, int *nSrc1Step*, const Npp16u ∗ *pSrc2*, int *nSrc2Step*, NppiSize *oRoiSize*, Npp32f ∗ *pDst*, Npp8u ∗ *pDeviceBuffer*)

Three-channel 16-bit unsigned image QualityIndex.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

oRoiSize Region-of-Interest (ROI).

pDst Pointer to the quality index.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppiQualityIndexGetBufferHostSize_16u32f_C3R to compute the required size (in bytes).

Returns:

Image Data Related Error Codes, ROI Related Error Codes, or NPP_QUALITY_INDEX_ERROR if pixels of either image are constant numberse.

7.131.2.4 NppStatus nppiQualityIndex_32f_AC4R (const Npp32f ∗ *pSrc1*, int *nSrc1Step*, const Npp32f ∗ *pSrc2*, int *nSrc2Step*, NppiSize *oRoiSize*, Npp32f ∗ *pDst*, Npp8u ∗ *pDeviceBuffer*)

Four-channel 32-bit floating point image QualityIndex.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

oRoiSize Region-of-Interest (ROI).

pDst Pointer to the quality index.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppiQualityIndexGetBufferHostSize_32f_AC4R to compute the required size (in bytes).

Returns:

Image Data Related Error Codes, ROI Related Error Codes, or NPP_QUALITY_INDEX_ERROR if pixels of either image are constant numberse.

7.131.2.5 NppStatus nppiQualityIndex_32f_C1R (const Npp32f * *pSrc1*, int *nSrc1Step*, const Npp32f * *pSrc2*, int *nSrc2Step*, NppiSize *oRoiSize*, Npp32f * *pDst*, Npp8u * *pDeviceBuffer*)

One-channel 32-bit floating point image QualityIndex.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

oRoiSize Region-of-Interest (ROI).

pDst Pointer to the quality index.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppiQualityIndexGetBufferHostSize_32f_C1R to compute the required size (in bytes).

Returns:

Image Data Related Error Codes, ROI Related Error Codes, or NPP_QUALITY_INDEX_ERROR if pixels of either image are constant numberse.

7.131.2.6 NppStatus nppiQualityIndex_32f_C3R (const Npp32f * *pSrc1*, int *nSrc1Step*, const Npp32f * *pSrc2*, int *nSrc2Step*, NppiSize *oRoiSize*, Npp32f * *pDst*, Npp8u * *pDeviceBuffer*)

Three-channel 32-bit floating point image QualityIndex.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

oRoiSize Region-of-Interest (ROI).

pDst Pointer to the quality index.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppiQualityIndexGetBufferHostSize_32f_C3R to compute the required size (in bytes).

Returns:

Image Data Related Error Codes, ROI Related Error Codes, or NPP_QUALITY_INDEX_ERROR if pixels of either image are constant numberse.

7.131.2.7 NppStatus nppiQualityIndex_8u32f_AC4R (const Npp8u ∗ *pSrc1*, int *nSrc1Step*, const Npp8u ∗ *pSrc2*, int *nSrc2Step*, NppiSize *oRoiSize*, Npp32f ∗ *pDst*, Npp8u ∗ *pDeviceBuffer*)

Four-channel 8-bit unsigned image QualityIndex.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

oRoiSize Region-of-Interest (ROI).

pDst Pointer to the quality index.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppiQualityIndexGetBufferHostSize_8u32f_AC4R to compute the required size (in bytes).

Returns:

Image Data Related Error Codes, ROI Related Error Codes, or NPP_QUALITY_INDEX_ERROR if pixels of either image are constant numberse.

7.131.2.8 NppStatus nppiQualityIndex_8u32f_C1R (const Npp8u ∗ *pSrc1*, int *nSrc1Step*, const Npp8u ∗ *pSrc2*, int *nSrc2Step*, NppiSize *oRoiSize*, Npp32f ∗ *pDst*, Npp8u ∗ *pDeviceBuffer*)

One-channel 8-bit unsigned image QualityIndex.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

oRoiSize Region-of-Interest (ROI).

pDst Pointer to the quality index.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppiQualityIndexGetBufferHostSize_8u32f_C1R to compute the required size (in bytes).

Returns:

Image Data Related Error Codes, ROI Related Error Codes, or NPP_QUALITY_INDEX_ERROR if pixels of either image are constant numberse.

7.131.2.9 NppStatus nppiQualityIndex_8u32f_C3R (const Npp8u ∗ *pSrc1*, int *nSrc1Step*, const Npp8u ∗ *pSrc2*, int *nSrc2Step*, NppiSize *oRoiSize*, Npp32f ∗ *pDst*, Npp8u ∗ *pDeviceBuffer*)

Three-channel 8-bit unsigned image QualityIndex.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

oRoiSize Region-of-Interest (ROI).

pDst Pointer to the quality index.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppiQualityIndexGetBufferHostSize_8u32f_C3R to compute the required size (in bytes).

Returns:

Image Data Related Error Codes, ROI Related Error Codes, or NPP_QUALITY_INDEX_ERROR if pixels of either image are constant numberse.

7.131.2.10 NppStatus nppiQualityIndexGetBufferHostSize_16u32f_AC4R (NppiSize *oSizeROI*, int ∗ *hpBufferSize*)

Buffer size (in bytes) for nppiQualityIndex_16u32f_AC4R.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.131.2.11 NppStatus nppiQualityIndexGetBufferHostSize_16u32f_C1R (NppiSize *oSizeROI*, int ∗ *hpBufferSize*)

Buffer size (in bytes) for nppiQualityIndex_16u32f_C1R.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.131.2.12 NppStatus nppiQualityIndexGetBufferHostSize_16u32f_C3R (NppiSize *oSizeROI*, int ∗ *hpBufferSize*)

Buffer size (in bytes) for nppiQualityIndex_16u32f_C3R.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.131.2.13 NppStatus nppiQualityIndexGetBufferHostSize_32f_AC4R (NppiSize *oSizeROI*, int ∗ *hpBufferSize*)

Buffer size (in bytes) for nppiQualityIndex_32f_AC4R.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.131.2.14 NppStatus nppiQualityIndexGetBufferHostSize_32f_C1R (NppiSize *oSizeROI*, int ∗ *hpBufferSize*)

Buffer size (in bytes) for nppiQualityIndex_32f_C1R.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.131.2.15 NppStatus nppiQualityIndexGetBufferHostSize_32f_C3R (NppiSize *oSizeROI*, int ∗ *hpBufferSize*)

Buffer size (in bytes) for nppiQualityIndex_32f_C3R.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.131.2.16 NppStatus nppiQualityIndexGetBufferHostSize_8u32f_AC4R (NppiSize *oSizeROI*, int ∗ *hpBufferSize*)

Buffer size (in bytes) for nppiQualityIndex_8u32f_AC4R.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.131.2.17 NppStatus nppiQualityIndexGetBufferHostSize_8u32f_C1R (NppiSize *oSizeROI*, int ∗ *hpBufferSize*)

Buffer size (in bytes) for nppiQualityIndex_8u32f_C1R.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.131.2.18 NppStatus nppiQualityIndexGetBufferHostSize_8u32f_C3R (NppiSize *oSizeROI*, int ∗ *hpBufferSize*)

Buffer size (in bytes) for nppiQualityIndex_8u32f_C3R.

Parameters:

oSizeROI Region-of-Interest (ROI).

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_NULL_POINTER_ERROR if hpBufferSize is 0 (NULL), ROI Related Error Codes.

7.132 MaximumError

Primitives for computing the maximum error between two images.

Functions

- NppStatus nppiMaximumError_8u_C1R (const Npp8u ∗pSrc1, int nSrc1Step, const Npp8u ∗pSrc2, int nSrc2Step, NppiSize oSizeROI, Npp64f ∗pError, Npp8u ∗pDeviceBuffer)

  One-channel 8-bit unsigned image Maximum_Error.

- NppStatus nppiMaximumError_8s_C1R (const Npp8s ∗pSrc1, int nSrc1Step, const Npp8s ∗pSrc2, int nSrc2Step, NppiSize oSizeROI, Npp64f ∗pError, Npp8u ∗pDeviceBuffer)

  One-channel 8-bit signed image Maximum_Error.

- NppStatus nppiMaximumError_16u_C1R (const Npp16u ∗pSrc1, int nSrc1Step, const Npp16u ∗pSrc2, int nSrc2Step, NppiSize oSizeROI, Npp64f ∗pError, Npp8u ∗pDeviceBuffer)

  One-channel 16-bit unsigned image Maximum_Error.

- NppStatus nppiMaximumError_16s_C1R (const Npp16s ∗pSrc1, int nSrc1Step, const Npp16s ∗pSrc2, int nSrc2Step, NppiSize oSizeROI, Npp64f ∗pError, Npp8u ∗pDeviceBuffer)

  One-channel 16-bit signed image Maximum_Error.

- NppStatus nppiMaximumError_16sc_C1R (const Npp16sc ∗pSrc1, int nSrc1Step, const Npp16sc ∗pSrc2, int nSrc2Step, NppiSize oSizeROI, Npp64f ∗pError, Npp8u ∗pDeviceBuffer)

  One-channel 16-bit signed complex image Maximum_Error.

- NppStatus nppiMaximumError_32u_C1R (const Npp32u ∗pSrc1, int nSrc1Step, const Npp32u ∗pSrc2, int nSrc2Step, NppiSize oSizeROI, Npp64f ∗pError, Npp8u ∗pDeviceBuffer)

  One-channel 32-bit unsigned image Maximum_Error.

- NppStatus nppiMaximumError_32s_C1R (const Npp32s ∗pSrc1, int nSrc1Step, const Npp32s ∗pSrc2, int nSrc2Step, NppiSize oSizeROI, Npp64f ∗pError, Npp8u ∗pDeviceBuffer)

  One-channel 32-bit signed image Maximum_Error.

- NppStatus nppiMaximumError_32sc_C1R (const Npp32sc ∗pSrc1, int nSrc1Step, const Npp32sc ∗pSrc2, int nSrc2Step, NppiSize oSizeROI, Npp64f ∗pError, Npp8u ∗pDeviceBuffer)

  One-channel 32-bit signed complex image Maximum_Error.

- NppStatus nppiMaximumError_32f_C1R (const Npp32f ∗pSrc1, int nSrc1Step, const Npp32f ∗pSrc2, int nSrc2Step, NppiSize oSizeROI, Npp64f ∗pError, Npp8u ∗pDeviceBuffer)

  One-channel 32-bit floating point image Maximum_Error.

- NppStatus nppiMaximumError_32fc_C1R (const Npp32fc ∗pSrc1, int nSrc1Step, const Npp32fc ∗pSrc2, int nSrc2Step, NppiSize oSizeROI, Npp64f ∗pError, Npp8u ∗pDeviceBuffer)

  One-channel 32-bit floating point complex image Maximum_Error.

- NppStatus nppiMaximumError_64f_C1R (const Npp64f ∗pSrc1, int nSrc1Step, const Npp64f ∗pSrc2, int nSrc2Step, NppiSize oSizeROI, Npp64f ∗pError, Npp8u ∗pDeviceBuffer)

  One-channel 64-bit floating point image Maximum_Error.

- NppStatus nppiMaximumError_8u_C2R (const Npp8u ∗pSrc1, int nSrc1Step, const Npp8u ∗pSrc2, int nSrc2Step, NppiSize oSizeROI, Npp64f ∗pError, Npp8u ∗pDeviceBuffer)

  Two-channel 8-bit unsigned image Maximum_Error.

- NppStatus nppiMaximumError_8s_C2R (const Npp8s ∗pSrc1, int nSrc1Step, const Npp8s ∗pSrc2, int nSrc2Step, NppiSize oSizeROI, Npp64f ∗pError, Npp8u ∗pDeviceBuffer)

  Two-channel 8-bit signed image Maximum_Error.

- NppStatus nppiMaximumError_16u_C2R (const Npp16u ∗pSrc1, int nSrc1Step, const Npp16u ∗pSrc2, int nSrc2Step, NppiSize oSizeROI, Npp64f ∗pError, Npp8u ∗pDeviceBuffer)

  Two-channel 16-bit unsigned image Maximum_Error.

- NppStatus nppiMaximumError_16s_C2R (const Npp16s ∗pSrc1, int nSrc1Step, const Npp16s ∗pSrc2, int nSrc2Step, NppiSize oSizeROI, Npp64f ∗pError, Npp8u ∗pDeviceBuffer)

  Two-channel 16-bit signed image Maximum_Error.

- NppStatus nppiMaximumError_16sc_C2R (const Npp16sc ∗pSrc1, int nSrc1Step, const Npp16sc ∗pSrc2, int nSrc2Step, NppiSize oSizeROI, Npp64f ∗pError, Npp8u ∗pDeviceBuffer)

  Two-channel 16-bit signed complex image Maximum_Error.

- NppStatus nppiMaximumError_32u_C2R (const Npp32u ∗pSrc1, int nSrc1Step, const Npp32u ∗pSrc2, int nSrc2Step, NppiSize oSizeROI, Npp64f ∗pError, Npp8u ∗pDeviceBuffer)

  Two-channel 32-bit unsigned image Maximum_Error.

- NppStatus nppiMaximumError_32s_C2R (const Npp32s ∗pSrc1, int nSrc1Step, const Npp32s ∗pSrc2, int nSrc2Step, NppiSize oSizeROI, Npp64f ∗pError, Npp8u ∗pDeviceBuffer)

  Two-channel 32-bit signed image Maximum_Error.

- NppStatus nppiMaximumError_32sc_C2R (const Npp32sc ∗pSrc1, int nSrc1Step, const Npp32sc ∗pSrc2, int nSrc2Step, NppiSize oSizeROI, Npp64f ∗pError, Npp8u ∗pDeviceBuffer)

  Two-channel 32-bit signed complex image Maximum_Error.

- NppStatus nppiMaximumError_32f_C2R (const Npp32f ∗pSrc1, int nSrc1Step, const Npp32f ∗pSrc2, int nSrc2Step, NppiSize oSizeROI, Npp64f ∗pError, Npp8u ∗pDeviceBuffer)

  Two-channel 32-bit floating point image Maximum_Error.

- NppStatus nppiMaximumError_32fc_C2R (const Npp32fc ∗pSrc1, int nSrc1Step, const Npp32fc ∗pSrc2, int nSrc2Step, NppiSize oSizeROI, Npp64f ∗pError, Npp8u ∗pDeviceBuffer)

  Two-channel 32-bit floating point complex image Maximum_Error.

- NppStatus nppiMaximumError_64f_C2R (const Npp64f ∗pSrc1, int nSrc1Step, const Npp64f ∗pSrc2, int nSrc2Step, NppiSize oSizeROI, Npp64f ∗pError, Npp8u ∗pDeviceBuffer)

  Two-channel 64-bit floating point image Maximum_Error.

- NppStatus nppiMaximumError_8u_C3R (const Npp8u ∗pSrc1, int nSrc1Step, const Npp8u ∗pSrc2, int nSrc2Step, NppiSize oSizeROI, Npp64f ∗pError, Npp8u ∗pDeviceBuffer)

  Three-channel 8-bit unsigned image Maximum_Error.

- NppStatus nppiMaximumError_8s_C3R (const Npp8s ∗pSrc1, int nSrc1Step, const Npp8s ∗pSrc2, int nSrc2Step, NppiSize oSizeROI, Npp64f ∗pError, Npp8u ∗pDeviceBuffer)

  Three-channel 8-bit signed image Maximum_Error.

- NppStatus nppiMaximumError_16u_C3R (const Npp16u ∗pSrc1, int nSrc1Step, const Npp16u ∗pSrc2, int nSrc2Step, NppiSize oSizeROI, Npp64f ∗pError, Npp8u ∗pDeviceBuffer)

  Three-channel 16-bit unsigned image Maximum_Error.

- NppStatus nppiMaximumError_16s_C3R (const Npp16s ∗pSrc1, int nSrc1Step, const Npp16s ∗pSrc2, int nSrc2Step, NppiSize oSizeROI, Npp64f ∗pError, Npp8u ∗pDeviceBuffer)

  Three-channel 16-bit signed image Maximum_Error.

- NppStatus nppiMaximumError_16sc_C3R (const Npp16sc ∗pSrc1, int nSrc1Step, const Npp16sc ∗pSrc2, int nSrc2Step, NppiSize oSizeROI, Npp64f ∗pError, Npp8u ∗pDeviceBuffer)

  Three-channel 16-bit signed complex image Maximum_Error.

- NppStatus nppiMaximumError_32u_C3R (const Npp32u ∗pSrc1, int nSrc1Step, const Npp32u ∗pSrc2, int nSrc2Step, NppiSize oSizeROI, Npp64f ∗pError, Npp8u ∗pDeviceBuffer)

  Three-channel 32-bit unsigned image Maximum_Error.

- NppStatus nppiMaximumError_32s_C3R (const Npp32s ∗pSrc1, int nSrc1Step, const Npp32s ∗pSrc2, int nSrc2Step, NppiSize oSizeROI, Npp64f ∗pError, Npp8u ∗pDeviceBuffer)

  Three-channel 32-bit signed image Maximum_Error.

- NppStatus nppiMaximumError_32sc_C3R (const Npp32sc ∗pSrc1, int nSrc1Step, const Npp32sc ∗pSrc2, int nSrc2Step, NppiSize oSizeROI, Npp64f ∗pError, Npp8u ∗pDeviceBuffer)

  Three-channel 32-bit signed complex image Maximum_Error.

- NppStatus nppiMaximumError_32f_C3R (const Npp32f ∗pSrc1, int nSrc1Step, const Npp32f ∗pSrc2, int nSrc2Step, NppiSize oSizeROI, Npp64f ∗pError, Npp8u ∗pDeviceBuffer)

  Three-channel 32-bit floating point image Maximum_Error.

- NppStatus nppiMaximumError_32fc_C3R (const Npp32fc ∗pSrc1, int nSrc1Step, const Npp32fc ∗pSrc2, int nSrc2Step, NppiSize oSizeROI, Npp64f ∗pError, Npp8u ∗pDeviceBuffer)

  Three-channel 32-bit floating point complex image Maximum_Error.

- NppStatus nppiMaximumError_64f_C3R (const Npp64f ∗pSrc1, int nSrc1Step, const Npp64f ∗pSrc2, int nSrc2Step, NppiSize oSizeROI, Npp64f ∗pError, Npp8u ∗pDeviceBuffer)

  Three-channel 64-bit floating point image Maximum_Error.

- NppStatus nppiMaximumError_8u_C4R (const Npp8u ∗pSrc1, int nSrc1Step, const Npp8u ∗pSrc2, int nSrc2Step, NppiSize oSizeROI, Npp64f ∗pError, Npp8u ∗pDeviceBuffer)

  Four-channel 8-bit unsigned image Maximum_Error.

- NppStatus nppiMaximumError_8s_C4R (const Npp8s ∗pSrc1, int nSrc1Step, const Npp8s ∗pSrc2, int nSrc2Step, NppiSize oSizeROI, Npp64f ∗pError, Npp8u ∗pDeviceBuffer)

  Four-channel 8-bit signed image Maximum_Error.

- NppStatus nppiMaximumError_16u_C4R (const Npp16u ∗pSrc1, int nSrc1Step, const Npp16u ∗pSrc2, int nSrc2Step, NppiSize oSizeROI, Npp64f ∗pError, Npp8u ∗pDeviceBuffer)

  Four-channel 16-bit unsigned image Maximum_Error.

- NppStatus nppiMaximumError_16s_C4R (const Npp16s ∗pSrc1, int nSrc1Step, const Npp16s ∗pSrc2, int nSrc2Step, NppiSize oSizeROI, Npp64f ∗pError, Npp8u ∗pDeviceBuffer)

Four-channel 16-bit signed image Maximum_Error.

- NppStatus nppiMaximumError_16sc_C4R (const Npp16sc ∗pSrc1, int nSrc1Step, const Npp16sc ∗pSrc2, int nSrc2Step, NppiSize oSizeROI, Npp64f ∗pError, Npp8u ∗pDeviceBuffer)

  Four-channel 16-bit signed complex image Maximum_Error.

- NppStatus nppiMaximumError_32u_C4R (const Npp32u ∗pSrc1, int nSrc1Step, const Npp32u ∗pSrc2, int nSrc2Step, NppiSize oSizeROI, Npp64f ∗pError, Npp8u ∗pDeviceBuffer)

  Four-channel 32-bit unsigned image Maximum_Error.

- NppStatus nppiMaximumError_32s_C4R (const Npp32s ∗pSrc1, int nSrc1Step, const Npp32s ∗pSrc2, int nSrc2Step, NppiSize oSizeROI, Npp64f ∗pError, Npp8u ∗pDeviceBuffer)

  Four-channel 32-bit signed image Maximum_Error.

- NppStatus nppiMaximumError_32sc_C4R (const Npp32sc ∗pSrc1, int nSrc1Step, const Npp32sc ∗pSrc2, int nSrc2Step, NppiSize oSizeROI, Npp64f ∗pError, Npp8u ∗pDeviceBuffer)

  Four-channel 32-bit signed complex image Maximum_Error.

- NppStatus nppiMaximumError_32f_C4R (const Npp32f ∗pSrc1, int nSrc1Step, const Npp32f ∗pSrc2, int nSrc2Step, NppiSize oSizeROI, Npp64f ∗pError, Npp8u ∗pDeviceBuffer)

  Four-channel 32-bit floating point image Maximum_Error.

- NppStatus nppiMaximumError_32fc_C4R (const Npp32fc ∗pSrc1, int nSrc1Step, const Npp32fc ∗pSrc2, int nSrc2Step, NppiSize oSizeROI, Npp64f ∗pError, Npp8u ∗pDeviceBuffer)

  Four-channel 32-bit floating point complex image Maximum_Error.

- NppStatus nppiMaximumError_64f_C4R (const Npp64f ∗pSrc1, int nSrc1Step, const Npp64f ∗pSrc2, int nSrc2Step, NppiSize oSizeROI, Npp64f ∗pError, Npp8u ∗pDeviceBuffer)

  Four-channel 64-bit floating point image Maximum_Error.

7.132.1 Detailed Description

Primitives for computing the maximum error between two images.

Given two images $pSrc1$ and $pSrc2$ both with width W and height H, the maximum error is defined as the largest absolute difference between pixels of two images. If the image is in complex format, the absolute value of the complex number is provided.

7.132.2 Function Documentation

7.132.2.1 NppStatus nppiMaximumError_16s_C1R (const Npp16s ∗ *pSrc1*, int *nSrc1Step*, const Npp16s ∗ *pSrc2*, int *nSrc2Step*, NppiSize *oSizeROI*, Npp64f ∗ *pError*, Npp8u ∗ *pDeviceBuffer*)

One-channel 16-bit signed image Maximum_Error.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pError Pointer to the computed error.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppiMaximumErrorGetBufferHostSize_16s_C1R to compute the required size (in bytes).

Returns:

Image Data Related Error Codes, ROI Related Error Codes.

7.132.2.2 NppStatus nppiMaximumError_16s_C2R (const Npp16s ∗ *pSrc1*, int *nSrc1Step*, const Npp16s ∗ *pSrc2*, int *nSrc2Step*, NppiSize *oSizeROI*, Npp64f ∗ *pError*, Npp8u ∗ *pDeviceBuffer*)

Two-channel 16-bit signed image Maximum_Error.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pError Pointer to the computed error.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppiMaximumErrorGetBufferHostSize_16s_C2R to compute the required size (in bytes).

Returns:

Image Data Related Error Codes, ROI Related Error Codes.

7.132.2.3 NppStatus nppiMaximumError_16s_C3R (const Npp16s ∗ *pSrc1*, int *nSrc1Step*, const Npp16s ∗ *pSrc2*, int *nSrc2Step*, NppiSize *oSizeROI*, Npp64f ∗ *pError*, Npp8u ∗ *pDeviceBuffer*)

Three-channel 16-bit signed image Maximum_Error.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pError Pointer to the computed error.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppiMaximumErrorGetBufferHostSize_16s_C3R to compute the required size (in bytes).

Returns:

Image Data Related Error Codes, ROI Related Error Codes.

7.132.2.4 NppStatus nppiMaximumError_16s_C4R (const Npp16s ∗ *pSrc1*, int *nSrc1Step*, const Npp16s ∗ *pSrc2*, int *nSrc2Step*, NppiSize *oSizeROI*, Npp64f ∗ *pError*, Npp8u ∗ *pDeviceBuffer*)

Four-channel 16-bit signed image Maximum_Error.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pError Pointer to the computed error.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppiMaximumErrorGetBufferHostSize_16s_C4R to compute the required size (in bytes).

Returns:

Image Data Related Error Codes, ROI Related Error Codes.

7.132.2.5 NppStatus nppiMaximumError_16sc_C1R (const Npp16sc ∗ *pSrc1*, int *nSrc1Step*, const Npp16sc ∗ *pSrc2*, int *nSrc2Step*, NppiSize *oSizeROI*, Npp64f ∗ *pError*, Npp8u ∗ *pDeviceBuffer*)

One-channel 16-bit signed complex image Maximum_Error.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pError Pointer to the computed error (absolute value).

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppiMaximumErrorGetBufferHostSize_16s_C1R to compute the required size (in bytes).

Returns:

Image Data Related Error Codes, ROI Related Error Codes.

7.132.2.6 NppStatus nppiMaximumError_16sc_C2R (const Npp16sc ∗ *pSrc1*, int *nSrc1Step*, const Npp16sc ∗ *pSrc2*, int *nSrc2Step*, NppiSize *oSizeROI*, Npp64f ∗ *pError*, Npp8u ∗ *pDeviceBuffer*)

Two-channel 16-bit signed complex image Maximum_Error.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pError Pointer to the computed error (absolute value).

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppiMaximumErrorGetBufferHostSize_16s_C2R to compute the required size (in bytes).

Returns:

Image Data Related Error Codes, ROI Related Error Codes.

7.132.2.7 NppStatus nppiMaximumError_16sc_C3R (const Npp16sc * *pSrc1*, int *nSrc1Step*, const Npp16sc * *pSrc2*, int *nSrc2Step*, NppiSize *oSizeROI*, Npp64f * *pError*, Npp8u * *pDeviceBuffer*)

Three-channel 16-bit signed complex image Maximum_Error.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pError Pointer to the computed error (absolute value).

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppiMaximumErrorGetBufferHostSize_16s_C3R to compute the required size (in bytes).

Returns:

Image Data Related Error Codes, ROI Related Error Codes.

7.132.2.8 NppStatus nppiMaximumError_16sc_C4R (const Npp16sc * *pSrc1*, int *nSrc1Step*, const Npp16sc * *pSrc2*, int *nSrc2Step*, NppiSize *oSizeROI*, Npp64f * *pError*, Npp8u * *pDeviceBuffer*)

Four-channel 16-bit signed complex image Maximum_Error.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pError Pointer to the computed error (absolute value).

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppiMaximumErrorGetBufferHostSize_16s_C4R to compute the required size (in bytes).

Returns:

Image Data Related Error Codes, ROI Related Error Codes.

7.132.2.9 NppStatus nppiMaximumError_16u_C1R (const Npp16u ∗ *pSrc1*, int *nSrc1Step*, const Npp16u ∗ *pSrc2*, int *nSrc2Step*, NppiSize *oSizeROI*, Npp64f ∗ *pError*, Npp8u ∗ *pDeviceBuffer*)

One-channel 16-bit unsigned image Maximum_Error.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pError Pointer to the computed error.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppiMaximumErrorGetBufferHostSize_16u_C1R to compute the required size (in bytes).

Returns:

Image Data Related Error Codes, ROI Related Error Codes.

7.132.2.10 NppStatus nppiMaximumError_16u_C2R (const Npp16u ∗ *pSrc1*, int *nSrc1Step*, const Npp16u ∗ *pSrc2*, int *nSrc2Step*, NppiSize *oSizeROI*, Npp64f ∗ *pError*, Npp8u ∗ *pDeviceBuffer*)

Two-channel 16-bit unsigned image Maximum_Error.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pError Pointer to the computed error.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppiMaximumErrorGetBufferHostSize_16u_C2R to compute the required size (in bytes).

Returns:

Image Data Related Error Codes, ROI Related Error Codes.

7.132.2.11 NppStatus nppiMaximumError_16u_C3R (const Npp16u ∗ *pSrc1*, int *nSrc1Step*, const Npp16u ∗ *pSrc2*, int *nSrc2Step*, NppiSize *oSizeROI*, Npp64f ∗ *pError*, Npp8u ∗ *pDeviceBuffer*)

Three-channel 16-bit unsigned image Maximum_Error.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pError Pointer to the computed error.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppiMaximumErrorGetBufferHostSize_16u_C3R to compute the required size (in bytes).

Returns:

Image Data Related Error Codes, ROI Related Error Codes.

7.132.2.12 NppStatus nppiMaximumError_16u_C4R (const Npp16u ∗ *pSrc1*, int *nSrc1Step*, const Npp16u ∗ *pSrc2*, int *nSrc2Step*, NppiSize *oSizeROI*, Npp64f ∗ *pError*, Npp8u ∗ *pDeviceBuffer*)

Four-channel 16-bit unsigned image Maximum_Error.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pError Pointer to the computed error.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppiMaximumErrorGetBufferHostSize_16u_C4R to compute the required size (in bytes).

Returns:

Image Data Related Error Codes, ROI Related Error Codes.

7.132.2.13 NppStatus nppiMaximumError_32f_C1R (const Npp32f ∗ *pSrc1*, int *nSrc1Step*, const Npp32f ∗ *pSrc2*, int *nSrc2Step*, NppiSize *oSizeROI*, Npp64f ∗ *pError*, Npp8u ∗ *pDeviceBuffer*)

One-channel 32-bit floating point image Maximum_Error.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pError Pointer to the computed error.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppiMaximumErrorGetBufferHostSize_32f_C1R to compute the required size (in bytes).

Returns:

Image Data Related Error Codes, ROI Related Error Codes, or NPP_NOT_EVEN_STEP_ERROR if an invalid floating-point image is specified.

7.132.2.14 NppStatus nppiMaximumError_32f_C2R (const Npp32f ∗ *pSrc1*, int *nSrc1Step*, const Npp32f ∗ *pSrc2*, int *nSrc2Step*, NppiSize *oSizeROI*, Npp64f ∗ *pError*, Npp8u ∗ *pDeviceBuffer*)

Two-channel 32-bit floating point image Maximum_Error.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pError Pointer to the computed error.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppiMaximumErrorGetBufferHostSize_32f_C2R to compute the required size (in bytes).

Returns:

Image Data Related Error Codes, ROI Related Error Codes, or NPP_NOT_EVEN_STEP_ERROR if an invalid floating-point image is specified.

7.132.2.15 NppStatus nppiMaximumError_32f_C3R (const Npp32f ∗ *pSrc1*, int *nSrc1Step*, const Npp32f ∗ *pSrc2*, int *nSrc2Step*, NppiSize *oSizeROI*, Npp64f ∗ *pError*, Npp8u ∗ *pDeviceBuffer*)

Three-channel 32-bit floating point image Maximum_Error.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pError Pointer to the computed error.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppiMaximumErrorGetBufferHostSize_32f_C3R to compute the required size (in bytes).

Returns:

Image Data Related Error Codes, ROI Related Error Codes, or NPP_NOT_EVEN_STEP_ERROR if an invalid floating-point image is specified.

7.132.2.16 NppStatus nppiMaximumError_32f_C4R (const Npp32f * *pSrc1*, int *nSrc1Step*, const Npp32f * *pSrc2*, int *nSrc2Step*, NppiSize *oSizeROI*, Npp64f * *pError*, Npp8u * *pDeviceBuffer*)

Four-channel 32-bit floating point image Maximum_Error.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pError Pointer to the computed error.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppiMaximumErrorGetBufferHostSize_32f_C4R to compute the required size (in bytes).

Returns:

Image Data Related Error Codes, ROI Related Error Codes, or NPP_NOT_EVEN_STEP_ERROR if an invalid floating-point image is specified.

7.132.2.17 NppStatus nppiMaximumError_32fc_C1R (const Npp32fc * *pSrc1*, int *nSrc1Step*, const Npp32fc * *pSrc2*, int *nSrc2Step*, NppiSize *oSizeROI*, Npp64f * *pError*, Npp8u * *pDeviceBuffer*)

One-channel 32-bit floating point complex image Maximum_Error.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pError Pointer to the computed error (absolute value).

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppiMaximumErrorGetBufferHostSize_32f_C1R to compute the required size (in bytes).

Returns:

Image Data Related Error Codes, ROI Related Error Codes, or NPP_NOT_EVEN_STEP_ERROR if an invalid floating-point image is specified.

7.132.2.18 NppStatus nppiMaximumError_32fc_C2R (const Npp32fc * *pSrc1*, int *nSrc1Step*, const Npp32fc * *pSrc2*, int *nSrc2Step*, NppiSize *oSizeROI*, Npp64f * *pError*, Npp8u * *pDeviceBuffer*)

Two-channel 32-bit floating point complex image Maximum_Error.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pError Pointer to the computed error (absolute value).

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppiMaximumErrorGetBufferHostSize_32f_C2R to compute the required size (in bytes).

Returns:

Image Data Related Error Codes, ROI Related Error Codes, or NPP_NOT_EVEN_STEP_ERROR if an invalid floating-point image is specified.

7.132.2.19 NppStatus nppiMaximumError_32fc_C3R (const Npp32fc * *pSrc1*, int *nSrc1Step*, const Npp32fc * *pSrc2*, int *nSrc2Step*, NppiSize *oSizeROI*, Npp64f * *pError*, Npp8u * *pDeviceBuffer*)

Three-channel 32-bit floating point complex image Maximum_Error.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pError Pointer to the computed error (absolute value).

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppiMaximumErrorGetBufferHostSize_32f_C3R to compute the required size (in bytes).

Returns:

Image Data Related Error Codes, ROI Related Error Codes, or NPP_NOT_EVEN_STEP_ERROR if an invalid floating-point image is specified.

7.132.2.20 NppStatus nppiMaximumError_32fc_C4R (const Npp32fc * *pSrc1*, int *nSrc1Step*, const Npp32fc * *pSrc2*, int *nSrc2Step*, NppiSize *oSizeROI*, Npp64f * *pError*, Npp8u * *pDeviceBuffer*)

Four-channel 32-bit floating point complex image Maximum_Error.

Parameters:

- ***pSrc1*** Source-Image Pointer.
- ***nSrc1Step*** Source-Image Line Step.
- ***pSrc2*** Source-Image Pointer.
- ***nSrc2Step*** Source-Image Line Step.
- ***oSizeROI*** Region-of-Interest (ROI).
- ***pError*** Pointer to the computed error (absolute value).
- ***pDeviceBuffer*** Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppiMaximumErrorGetBufferHostSize_32f_C4R to compute the required size (in bytes).

Returns:

Image Data Related Error Codes, ROI Related Error Codes, or NPP_NOT_EVEN_STEP_ERROR if an invalid floating-point image is specified.

7.132.2.21 NppStatus nppiMaximumError_32s_C1R (const Npp32s * *pSrc1*, int *nSrc1Step*, const Npp32s * *pSrc2*, int *nSrc2Step*, NppiSize *oSizeROI*, Npp64f * *pError*, Npp8u * *pDeviceBuffer*)

One-channel 32-bit signed image Maximum_Error.

Parameters:

- ***pSrc1*** Source-Image Pointer.
- ***nSrc1Step*** Source-Image Line Step.
- ***pSrc2*** Source-Image Pointer.
- ***nSrc2Step*** Source-Image Line Step.
- ***oSizeROI*** Region-of-Interest (ROI).
- ***pError*** Pointer to the computed error.
- ***pDeviceBuffer*** Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppiMaximumErrorGetBufferHostSize_16s_C1R to compute the required size (in bytes).

Returns:

Image Data Related Error Codes, ROI Related Error Codes.

7.132.2.22 NppStatus nppiMaximumError_32s_C2R (const Npp32s * *pSrc1*, int *nSrc1Step*, const Npp32s * *pSrc2*, int *nSrc2Step*, NppiSize *oSizeROI*, Npp64f * *pError*, Npp8u * *pDeviceBuffer*)

Two-channel 32-bit signed image Maximum_Error.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pError Pointer to the computed error.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppiMaximumErrorGetBufferHostSize_16s_C2R to compute the required size (in bytes).

Returns:

Image Data Related Error Codes, ROI Related Error Codes.

7.132.2.23 NppStatus nppiMaximumError_32s_C3R (const Npp32s $*$ *pSrc1*, int *nSrc1Step*, const Npp32s $*$ *pSrc2*, int *nSrc2Step*, NppiSize *oSizeROI*, Npp64f $*$ *pError*, Npp8u $*$ *pDeviceBuffer*)

Three-channel 32-bit signed image Maximum_Error.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pError Pointer to the computed error.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppiMaximumErrorGetBufferHostSize_16s_C3R to compute the required size (in bytes).

Returns:

Image Data Related Error Codes, ROI Related Error Codes.

7.132.2.24 NppStatus nppiMaximumError_32s_C4R (const Npp32s $*$ *pSrc1*, int *nSrc1Step*, const Npp32s $*$ *pSrc2*, int *nSrc2Step*, NppiSize *oSizeROI*, Npp64f $*$ *pError*, Npp8u $*$ *pDeviceBuffer*)

Four-channel 32-bit signed image Maximum_Error.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pError Pointer to the computed error.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppiMaximumErrorGetBufferHostSize_16s_C4R to compute the required size (in bytes).

Returns:

Image Data Related Error Codes, ROI Related Error Codes.

7.132.2.25 NppStatus nppiMaximumError_32sc_C1R (const Npp32sc ∗ *pSrc1*, int *nSrc1Step*, const Npp32sc ∗ *pSrc2*, int *nSrc2Step*, NppiSize *oSizeROI*, Npp64f ∗ *pError*, Npp8u ∗ *pDeviceBuffer*)

One-channel 32-bit signed complex image Maximum_Error.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pError Pointer to the computed error (absolute value).

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppiMaximumErrorGetBufferHostSize_16s_C1R to compute the required size (in bytes).

Returns:

Image Data Related Error Codes, ROI Related Error Codes.

7.132.2.26 NppStatus nppiMaximumError_32sc_C2R (const Npp32sc ∗ *pSrc1*, int *nSrc1Step*, const Npp32sc ∗ *pSrc2*, int *nSrc2Step*, NppiSize *oSizeROI*, Npp64f ∗ *pError*, Npp8u ∗ *pDeviceBuffer*)

Two-channel 32-bit signed complex image Maximum_Error.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pError Pointer to the computed error (absolute value).

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppiMaximumErrorGetBufferHostSize_16s_C2R to compute the required size (in bytes).

Returns:

Image Data Related Error Codes, ROI Related Error Codes.

7.132.2.27 NppStatus nppiMaximumError_32sc_C3R (const Npp32sc ∗ *pSrc1*, int *nSrc1Step*, const Npp32sc ∗ *pSrc2*, int *nSrc2Step*, NppiSize *oSizeROI*, Npp64f ∗ *pError*, Npp8u ∗ *pDeviceBuffer*)

Three-channel 32-bit signed complex image Maximum_Error.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pError Pointer to the computed error (absolute value).

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppiMaximumErrorGetBufferHostSize_16s_C3R to compute the required size (in bytes).

Returns:

Image Data Related Error Codes, ROI Related Error Codes.

7.132.2.28 NppStatus nppiMaximumError_32sc_C4R (const Npp32sc ∗ *pSrc1*, int *nSrc1Step*, const Npp32sc ∗ *pSrc2*, int *nSrc2Step*, NppiSize *oSizeROI*, Npp64f ∗ *pError*, Npp8u ∗ *pDeviceBuffer*)

Four-channel 32-bit signed complex image Maximum_Error.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pError Pointer to the computed error (absolute value).

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppiMaximumErrorGetBufferHostSize_16s_C4R to compute the required size (in bytes).

Returns:

Image Data Related Error Codes, ROI Related Error Codes.

7.132.2.29 NppStatus nppiMaximumError_32u_C1R (const Npp32u ∗ *pSrc1*, int *nSrc1Step*, const Npp32u ∗ *pSrc2*, int *nSrc2Step*, NppiSize *oSizeROI*, Npp64f ∗ *pError*, Npp8u ∗ *pDeviceBuffer*)

One-channel 32-bit unsigned image Maximum_Error.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pError Pointer to the computed error.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppiMaximumErrorGetBufferHostSize_16u_C1R to compute the required size (in bytes).

Returns:

Image Data Related Error Codes, ROI Related Error Codes.

7.132.2.30 NppStatus nppiMaximumError_32u_C2R (const Npp32u * *pSrc1*, int *nSrc1Step*, const Npp32u * *pSrc2*, int *nSrc2Step*, NppiSize *oSizeROI*, Npp64f * *pError*, Npp8u * *pDeviceBuffer*)

Two-channel 32-bit unsigned image Maximum_Error.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pError Pointer to the computed error.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppiMaximumErrorGetBufferHostSize_16u_C2R to compute the required size (in bytes).

Returns:

Image Data Related Error Codes, ROI Related Error Codes.

7.132.2.31 NppStatus nppiMaximumError_32u_C3R (const Npp32u * *pSrc1*, int *nSrc1Step*, const Npp32u * *pSrc2*, int *nSrc2Step*, NppiSize *oSizeROI*, Npp64f * *pError*, Npp8u * *pDeviceBuffer*)

Three-channel 32-bit unsigned image Maximum_Error.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pError Pointer to the computed error.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppiMaximumErrorGetBufferHostSize_16u_C3R to compute the required size (in bytes).

Returns:

Image Data Related Error Codes, ROI Related Error Codes.

7.132.2.32 NppStatus nppiMaximumError_32u_C4R (const Npp32u ∗ *pSrc1*, int *nSrc1Step*, const Npp32u ∗ *pSrc2*, int *nSrc2Step*, NppiSize *oSizeROI*, Npp64f ∗ *pError*, Npp8u ∗ *pDeviceBuffer*)

Four-channel 32-bit unsigned image Maximum_Error.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pError Pointer to the computed error.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppiMaximumErrorGetBufferHostSize_16u_C4R to compute the required size (in bytes).

Returns:

Image Data Related Error Codes, ROI Related Error Codes.

7.132.2.33 NppStatus nppiMaximumError_64f_C1R (const Npp64f ∗ *pSrc1*, int *nSrc1Step*, const Npp64f ∗ *pSrc2*, int *nSrc2Step*, NppiSize *oSizeROI*, Npp64f ∗ *pError*, Npp8u ∗ *pDeviceBuffer*)

One-channel 64-bit floating point image Maximum_Error.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pError Pointer to the computed error.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppiMaximumErrorGetBufferHostSize_32f_C1R to compute the required size (in bytes).

Returns:

Image Data Related Error Codes, ROI Related Error Codes, or NPP_NOT_EVEN_STEP_ERROR if an invalid floating-point image is specified.

7.132.2.34 NppStatus nppiMaximumError_64f_C2R (const Npp64f * *pSrc1*, int *nSrc1Step*, const Npp64f * *pSrc2*, int *nSrc2Step*, NppiSize *oSizeROI*, Npp64f * *pError*, Npp8u * *pDeviceBuffer*)

Two-channel 64-bit floating point image Maximum_Error.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pError Pointer to the computed error.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppiMaximumErrorGetBufferHostSize_32f_C2R to compute the required size (in bytes).

Returns:

Image Data Related Error Codes, ROI Related Error Codes, or NPP_NOT_EVEN_STEP_ERROR if an invalid floating-point image is specified.

7.132.2.35 NppStatus nppiMaximumError_64f_C3R (const Npp64f * *pSrc1*, int *nSrc1Step*, const Npp64f * *pSrc2*, int *nSrc2Step*, NppiSize *oSizeROI*, Npp64f * *pError*, Npp8u * *pDeviceBuffer*)

Three-channel 64-bit floating point image Maximum_Error.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pError Pointer to the computed error.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppiMaximumErrorGetBufferHostSize_32f_C3R to compute the required size (in bytes).

Returns:

Image Data Related Error Codes, ROI Related Error Codes, or NPP_NOT_EVEN_STEP_ERROR if an invalid floating-point image is specified.

7.132.2.36 NppStatus nppiMaximumError_64f_C4R (const Npp64f * *pSrc1*, int *nSrc1Step*, const Npp64f * *pSrc2*, int *nSrc2Step*, NppiSize *oSizeROI*, Npp64f * *pError*, Npp8u * *pDeviceBuffer*)

Four-channel 64-bit floating point image Maximum_Error.

Parameters:

- ***pSrc1*** Source-Image Pointer.
- ***nSrc1Step*** Source-Image Line Step.
- ***pSrc2*** Source-Image Pointer.
- ***nSrc2Step*** Source-Image Line Step.
- ***oSizeROI*** Region-of-Interest (ROI).
- ***pError*** Pointer to the computed error.
- ***pDeviceBuffer*** Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppiMaximumErrorGetBufferHostSize_32f_C4R to compute the required size (in bytes).

Returns:

Image Data Related Error Codes, ROI Related Error Codes, or NPP_NOT_EVEN_STEP_ERROR if an invalid floating-point image is specified.

7.132.2.37 NppStatus nppiMaximumError_8s_C1R (const Npp8s ∗ *pSrc1*, int *nSrc1Step*, const Npp8s ∗ *pSrc2*, int *nSrc2Step*, NppiSize *oSizeROI*, Npp64f ∗ *pError*, Npp8u ∗ *pDeviceBuffer*)

One-channel 8-bit signed image Maximum_Error.

Parameters:

- ***pSrc1*** Source-Image Pointer.
- ***nSrc1Step*** Source-Image Line Step.
- ***pSrc2*** Source-Image Pointer.
- ***nSrc2Step*** Source-Image Line Step.
- ***oSizeROI*** Region-of-Interest (ROI).
- ***pError*** Pointer to the computed error.
- ***pDeviceBuffer*** Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppiMaximumErrorGetBufferHostSize_8u_C1R to compute the required size (in bytes).

Returns:

Image Data Related Error Codes, ROI Related Error Codes.

7.132.2.38 NppStatus nppiMaximumError_8s_C2R (const Npp8s ∗ *pSrc1*, int *nSrc1Step*, const Npp8s ∗ *pSrc2*, int *nSrc2Step*, NppiSize *oSizeROI*, Npp64f ∗ *pError*, Npp8u ∗ *pDeviceBuffer*)

Two-channel 8-bit signed image Maximum_Error.

Parameters:

- ***pSrc1*** Source-Image Pointer.
- ***nSrc1Step*** Source-Image Line Step.
- ***pSrc2*** Source-Image Pointer.

nSrc2Step Source-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pError Pointer to the computed error.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppiMaximumErrorGetBufferHostSize_8u_C2R to compute the required size (in bytes).

Returns:

Image Data Related Error Codes, ROI Related Error Codes.

7.132.2.39 NppStatus nppiMaximumError_8s_C3R (const Npp8s ∗ *pSrc1*, int *nSrc1Step*, const Npp8s ∗ *pSrc2*, int *nSrc2Step*, NppiSize *oSizeROI*, Npp64f ∗ *pError*, Npp8u ∗ *pDeviceBuffer*)

Three-channel 8-bit signed image Maximum_Error.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pError Pointer to the computed error.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppiMaximumErrorGetBufferHostSize_8u_C3R to compute the required size (in bytes).

Returns:

Image Data Related Error Codes, ROI Related Error Codes.

7.132.2.40 NppStatus nppiMaximumError_8s_C4R (const Npp8s ∗ *pSrc1*, int *nSrc1Step*, const Npp8s ∗ *pSrc2*, int *nSrc2Step*, NppiSize *oSizeROI*, Npp64f ∗ *pError*, Npp8u ∗ *pDeviceBuffer*)

Four-channel 8-bit signed image Maximum_Error.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pError Pointer to the computed error.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppiMaximumErrorGetBufferHostSize_8u_C4R to compute the required size (in bytes).

Returns:

Image Data Related Error Codes, ROI Related Error Codes.

7.132.2.41 NppStatus nppiMaximumError_8u_C1R (const Npp8u ∗ *pSrc1*, int *nSrc1Step*, const Npp8u ∗ *pSrc2*, int *nSrc2Step*, NppiSize *oSizeROI*, Npp64f ∗ *pError*, Npp8u ∗ *pDeviceBuffer*)

One-channel 8-bit unsigned image Maximum_Error.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pError Pointer to the computed error.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppiMaximumErrorGetBufferHostSize_8u_C1R to compute the required size (in bytes).

Returns:

Image Data Related Error Codes, ROI Related Error Codes.

7.132.2.42 NppStatus nppiMaximumError_8u_C2R (const Npp8u ∗ *pSrc1*, int *nSrc1Step*, const Npp8u ∗ *pSrc2*, int *nSrc2Step*, NppiSize *oSizeROI*, Npp64f ∗ *pError*, Npp8u ∗ *pDeviceBuffer*)

Two-channel 8-bit unsigned image Maximum_Error.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pError Pointer to the computed error.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppiMaximumErrorGetBufferHostSize_8u_C2R to compute the required size (in bytes).

Returns:

Image Data Related Error Codes, ROI Related Error Codes.

7.132.2.43 NppStatus nppiMaximumError_8u_C3R (const Npp8u ∗ *pSrc1*, int *nSrc1Step*, const Npp8u ∗ *pSrc2*, int *nSrc2Step*, NppiSize *oSizeROI*, Npp64f ∗ *pError*, Npp8u ∗ *pDeviceBuffer*)

Three-channel 8-bit unsigned image Maximum_Error.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pError Pointer to the computed error.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppiMaximumErrorGetBufferHostSize_8u_C3R to compute the required size (in bytes).

Returns:

Image Data Related Error Codes, ROI Related Error Codes.

7.132.2.44 NppStatus nppiMaximumError_8u_C4R (const Npp8u $*$ *pSrc1*, int *nSrc1Step*, const Npp8u $*$ *pSrc2*, int *nSrc2Step*, NppiSize *oSizeROI*, Npp64f $*$ *pError*, Npp8u $*$ *pDeviceBuffer*)

Four-channel 8-bit unsigned image Maximum_Error.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pError Pointer to the computed error.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppiMaximumErrorGetBufferHostSize_8u_C4R to compute the required size (in bytes).

Returns:

Image Data Related Error Codes, ROI Related Error Codes.

7.133 AverageError

Primitives for computing the average error between two images.

Functions

- NppStatus nppiAverageError_8u_C1R (const Npp8u ∗pSrc1, int nSrc1Step, const Npp8u ∗pSrc2, int nSrc2Step, NppiSize oSizeROI, Npp64f ∗pError, Npp8u ∗pDeviceBuffer)

  One-channel 8-bit unsigned image Average_Error.

- NppStatus nppiAverageError_8s_C1R (const Npp8s ∗pSrc1, int nSrc1Step, const Npp8s ∗pSrc2, int nSrc2Step, NppiSize oSizeROI, Npp64f ∗pError, Npp8u ∗pDeviceBuffer)

  One-channel 8-bit signed image Average_Error.

- NppStatus nppiAverageError_16u_C1R (const Npp16u ∗pSrc1, int nSrc1Step, const Npp16u ∗pSrc2, int nSrc2Step, NppiSize oSizeROI, Npp64f ∗pError, Npp8u ∗pDeviceBuffer)

  One-channel 16-bit unsigned image Average_Error.

- NppStatus nppiAverageError_16s_C1R (const Npp16s ∗pSrc1, int nSrc1Step, const Npp16s ∗pSrc2, int nSrc2Step, NppiSize oSizeROI, Npp64f ∗pError, Npp8u ∗pDeviceBuffer)

  One-channel 16-bit signed image Average_Error.

- NppStatus nppiAverageError_16sc_C1R (const Npp16sc ∗pSrc1, int nSrc1Step, const Npp16sc ∗pSrc2, int nSrc2Step, NppiSize oSizeROI, Npp64f ∗pError, Npp8u ∗pDeviceBuffer)

  One-channel 16-bit signed complex image Average_Error.

- NppStatus nppiAverageError_32u_C1R (const Npp32u ∗pSrc1, int nSrc1Step, const Npp32u ∗pSrc2, int nSrc2Step, NppiSize oSizeROI, Npp64f ∗pError, Npp8u ∗pDeviceBuffer)

  One-channel 32-bit unsigned image Average_Error.

- NppStatus nppiAverageError_32s_C1R (const Npp32s ∗pSrc1, int nSrc1Step, const Npp32s ∗pSrc2, int nSrc2Step, NppiSize oSizeROI, Npp64f ∗pError, Npp8u ∗pDeviceBuffer)

  One-channel 32-bit signed image Average_Error.

- NppStatus nppiAverageError_32sc_C1R (const Npp32sc ∗pSrc1, int nSrc1Step, const Npp32sc ∗pSrc2, int nSrc2Step, NppiSize oSizeROI, Npp64f ∗pError, Npp8u ∗pDeviceBuffer)

  One-channel 32-bit signed complex image Average_Error.

- NppStatus nppiAverageError_32f_C1R (const Npp32f ∗pSrc1, int nSrc1Step, const Npp32f ∗pSrc2, int nSrc2Step, NppiSize oSizeROI, Npp64f ∗pError, Npp8u ∗pDeviceBuffer)

  One-channel 32-bit floating point image Average_Error.

- NppStatus nppiAverageError_32fc_C1R (const Npp32fc ∗pSrc1, int nSrc1Step, const Npp32fc ∗pSrc2, int nSrc2Step, NppiSize oSizeROI, Npp64f ∗pError, Npp8u ∗pDeviceBuffer)

  One-channel 32-bit floating point complex image Average_Error.

- NppStatus nppiAverageError_64f_C1R (const Npp64f ∗pSrc1, int nSrc1Step, const Npp64f ∗pSrc2, int nSrc2Step, NppiSize oSizeROI, Npp64f ∗pError, Npp8u ∗pDeviceBuffer)

  One-channel 64-bit floating point image Average_Error.

- NppStatus nppiAverageError_8u_C2R (const Npp8u ∗pSrc1, int nSrc1Step, const Npp8u ∗pSrc2, int nSrc2Step, NppiSize oSizeROI, Npp64f ∗pError, Npp8u ∗pDeviceBuffer)

  Two-channel 8-bit unsigned image Average_Error.

- NppStatus nppiAverageError_8s_C2R (const Npp8s ∗pSrc1, int nSrc1Step, const Npp8s ∗pSrc2, int nSrc2Step, NppiSize oSizeROI, Npp64f ∗pError, Npp8u ∗pDeviceBuffer)

  Two-channel 8-bit signed image Average_Error.

- NppStatus nppiAverageError_16u_C2R (const Npp16u ∗pSrc1, int nSrc1Step, const Npp16u ∗pSrc2, int nSrc2Step, NppiSize oSizeROI, Npp64f ∗pError, Npp8u ∗pDeviceBuffer)

  Two-channel 16-bit unsigned image Average_Error.

- NppStatus nppiAverageError_16s_C2R (const Npp16s ∗pSrc1, int nSrc1Step, const Npp16s ∗pSrc2, int nSrc2Step, NppiSize oSizeROI, Npp64f ∗pError, Npp8u ∗pDeviceBuffer)

  Two-channel 16-bit signed image Average_Error.

- NppStatus nppiAverageError_16sc_C2R (const Npp16sc ∗pSrc1, int nSrc1Step, const Npp16sc ∗pSrc2, int nSrc2Step, NppiSize oSizeROI, Npp64f ∗pError, Npp8u ∗pDeviceBuffer)

  Two-channel 16-bit signed complex image Average_Error.

- NppStatus nppiAverageError_32u_C2R (const Npp32u ∗pSrc1, int nSrc1Step, const Npp32u ∗pSrc2, int nSrc2Step, NppiSize oSizeROI, Npp64f ∗pError, Npp8u ∗pDeviceBuffer)

  Two-channel 32-bit unsigned image Average_Error.

- NppStatus nppiAverageError_32s_C2R (const Npp32s ∗pSrc1, int nSrc1Step, const Npp32s ∗pSrc2, int nSrc2Step, NppiSize oSizeROI, Npp64f ∗pError, Npp8u ∗pDeviceBuffer)

  Two-channel 32-bit signed image Average_Error.

- NppStatus nppiAverageError_32sc_C2R (const Npp32sc ∗pSrc1, int nSrc1Step, const Npp32sc ∗pSrc2, int nSrc2Step, NppiSize oSizeROI, Npp64f ∗pError, Npp8u ∗pDeviceBuffer)

  Two-channel 32-bit signed complex image Average_Error.

- NppStatus nppiAverageError_32f_C2R (const Npp32f ∗pSrc1, int nSrc1Step, const Npp32f ∗pSrc2, int nSrc2Step, NppiSize oSizeROI, Npp64f ∗pError, Npp8u ∗pDeviceBuffer)

  Two-channel 32-bit floating point image Average_Error.

- NppStatus nppiAverageError_32fc_C2R (const Npp32fc ∗pSrc1, int nSrc1Step, const Npp32fc ∗pSrc2, int nSrc2Step, NppiSize oSizeROI, Npp64f ∗pError, Npp8u ∗pDeviceBuffer)

  Two-channel 32-bit floating point complex image Average_Error.

- NppStatus nppiAverageError_64f_C2R (const Npp64f ∗pSrc1, int nSrc1Step, const Npp64f ∗pSrc2, int nSrc2Step, NppiSize oSizeROI, Npp64f ∗pError, Npp8u ∗pDeviceBuffer)

  Two-channel 64-bit floating point image Average_Error.

- NppStatus nppiAverageError_8u_C3R (const Npp8u ∗pSrc1, int nSrc1Step, const Npp8u ∗pSrc2, int nSrc2Step, NppiSize oSizeROI, Npp64f ∗pError, Npp8u ∗pDeviceBuffer)

  Three-channel 8-bit unsigned image Average_Error.

- NppStatus nppiAverageError_8s_C3R (const Npp8s ∗pSrc1, int nSrc1Step, const Npp8s ∗pSrc2, int nSrc2Step, NppiSize oSizeROI, Npp64f ∗pError, Npp8u ∗pDeviceBuffer)

  Three-channel 8-bit signed image Average_Error.

- NppStatus nppiAverageError_16u_C3R (const Npp16u ∗pSrc1, int nSrc1Step, const Npp16u ∗pSrc2, int nSrc2Step, NppiSize oSizeROI, Npp64f ∗pError, Npp8u ∗pDeviceBuffer)

  Three-channel 16-bit unsigned image Average_Error.

- NppStatus nppiAverageError_16s_C3R (const Npp16s ∗pSrc1, int nSrc1Step, const Npp16s ∗pSrc2, int nSrc2Step, NppiSize oSizeROI, Npp64f ∗pError, Npp8u ∗pDeviceBuffer)

  Three-channel 16-bit signed image Average_Error.

- NppStatus nppiAverageError_16sc_C3R (const Npp16sc ∗pSrc1, int nSrc1Step, const Npp16sc ∗pSrc2, int nSrc2Step, NppiSize oSizeROI, Npp64f ∗pError, Npp8u ∗pDeviceBuffer)

  Three-channel 16-bit signed complex image Average_Error.

- NppStatus nppiAverageError_32u_C3R (const Npp32u ∗pSrc1, int nSrc1Step, const Npp32u ∗pSrc2, int nSrc2Step, NppiSize oSizeROI, Npp64f ∗pError, Npp8u ∗pDeviceBuffer)

  Three-channel 32-bit unsigned image Average_Error.

- NppStatus nppiAverageError_32s_C3R (const Npp32s ∗pSrc1, int nSrc1Step, const Npp32s ∗pSrc2, int nSrc2Step, NppiSize oSizeROI, Npp64f ∗pError, Npp8u ∗pDeviceBuffer)

  Three-channel 32-bit signed image Average_Error.

- NppStatus nppiAverageError_32sc_C3R (const Npp32sc ∗pSrc1, int nSrc1Step, const Npp32sc ∗pSrc2, int nSrc2Step, NppiSize oSizeROI, Npp64f ∗pError, Npp8u ∗pDeviceBuffer)

  Three-channel 32-bit signed complex image Average_Error.

- NppStatus nppiAverageError_32f_C3R (const Npp32f ∗pSrc1, int nSrc1Step, const Npp32f ∗pSrc2, int nSrc2Step, NppiSize oSizeROI, Npp64f ∗pError, Npp8u ∗pDeviceBuffer)

  Three-channel 32-bit floating point image Average_Error.

- NppStatus nppiAverageError_32fc_C3R (const Npp32fc ∗pSrc1, int nSrc1Step, const Npp32fc ∗pSrc2, int nSrc2Step, NppiSize oSizeROI, Npp64f ∗pError, Npp8u ∗pDeviceBuffer)

  Three-channel 32-bit floating point complex image Average_Error.

- NppStatus nppiAverageError_64f_C3R (const Npp64f ∗pSrc1, int nSrc1Step, const Npp64f ∗pSrc2, int nSrc2Step, NppiSize oSizeROI, Npp64f ∗pError, Npp8u ∗pDeviceBuffer)

  Three-channel 64-bit floating point image Average_Error.

- NppStatus nppiAverageError_8u_C4R (const Npp8u ∗pSrc1, int nSrc1Step, const Npp8u ∗pSrc2, int nSrc2Step, NppiSize oSizeROI, Npp64f ∗pError, Npp8u ∗pDeviceBuffer)

  Four-channel 8-bit unsigned image Average_Error.

- NppStatus nppiAverageError_8s_C4R (const Npp8s ∗pSrc1, int nSrc1Step, const Npp8s ∗pSrc2, int nSrc2Step, NppiSize oSizeROI, Npp64f ∗pError, Npp8u ∗pDeviceBuffer)

  Four-channel 8-bit signed image Average_Error.

- NppStatus nppiAverageError_16u_C4R (const Npp16u ∗pSrc1, int nSrc1Step, const Npp16u ∗pSrc2, int nSrc2Step, NppiSize oSizeROI, Npp64f ∗pError, Npp8u ∗pDeviceBuffer)

  Four-channel 16-bit unsigned image Average_Error.

- NppStatus nppiAverageError_16s_C4R (const Npp16s ∗pSrc1, int nSrc1Step, const Npp16s ∗pSrc2, int nSrc2Step, NppiSize oSizeROI, Npp64f ∗pError, Npp8u ∗pDeviceBuffer)

Four-channel 16-bit signed image Average_Error.

- NppStatus nppiAverageError_16sc_C4R (const Npp16sc ∗pSrc1, int nSrc1Step, const Npp16sc ∗pSrc2, int nSrc2Step, NppiSize oSizeROI, Npp64f ∗pError, Npp8u ∗pDeviceBuffer)

  Four-channel 16-bit signed complex image Average_Error.

- NppStatus nppiAverageError_32u_C4R (const Npp32u ∗pSrc1, int nSrc1Step, const Npp32u ∗pSrc2, int nSrc2Step, NppiSize oSizeROI, Npp64f ∗pError, Npp8u ∗pDeviceBuffer)

  Four-channel 32-bit unsigned image Average_Error.

- NppStatus nppiAverageError_32s_C4R (const Npp32s ∗pSrc1, int nSrc1Step, const Npp32s ∗pSrc2, int nSrc2Step, NppiSize oSizeROI, Npp64f ∗pError, Npp8u ∗pDeviceBuffer)

  Four-channel 32-bit signed image Average_Error.

- NppStatus nppiAverageError_32sc_C4R (const Npp32sc ∗pSrc1, int nSrc1Step, const Npp32sc ∗pSrc2, int nSrc2Step, NppiSize oSizeROI, Npp64f ∗pError, Npp8u ∗pDeviceBuffer)

  Four-channel 32-bit signed complex image Average_Error.

- NppStatus nppiAverageError_32f_C4R (const Npp32f ∗pSrc1, int nSrc1Step, const Npp32f ∗pSrc2, int nSrc2Step, NppiSize oSizeROI, Npp64f ∗pError, Npp8u ∗pDeviceBuffer)

  Four-channel 32-bit floating point image Average_Error.

- NppStatus nppiAverageError_32fc_C4R (const Npp32fc ∗pSrc1, int nSrc1Step, const Npp32fc ∗pSrc2, int nSrc2Step, NppiSize oSizeROI, Npp64f ∗pError, Npp8u ∗pDeviceBuffer)

  Four-channel 32-bit floating point complex image Average_Error.

- NppStatus nppiAverageError_64f_C4R (const Npp64f ∗pSrc1, int nSrc1Step, const Npp64f ∗pSrc2, int nSrc2Step, NppiSize oSizeROI, Npp64f ∗pError, Npp8u ∗pDeviceBuffer)

  Four-channel 64-bit floating point image Average_Error.

7.133.1 Detailed Description

Primitives for computing the average error between two images.

Given two images $pSrc1$ and $pSrc2$ both with width W and height H, the average error is defined as:

$$AverageError = \frac{1}{W \cdot H \cdot N} \sum_{n=0}^{N-1} \sum_{j=0}^{H-1} \sum_{i=0}^{W-1} |pSrc1(j,i) - pSrc2(j,i)|$$

where N stands for the number of channels. If the image is in complex format, the absolute value is used for computation.

7.133.2 Function Documentation

7.133.2.1 NppStatus nppiAverageError_16s_C1R (const Npp16s ∗ *pSrc1*, int *nSrc1Step*, const Npp16s ∗ *pSrc2*, int *nSrc2Step*, NppiSize *oSizeROI*, Npp64f ∗ *pError*, Npp8u ∗ *pDeviceBuffer*)

One-channel 16-bit signed image Average_Error.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pError Pointer to the computed error.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppiAverageErrorGetBufferHostSize_16s_C1R to compute the required size (in bytes).

Returns:

Image Data Related Error Codes, ROI Related Error Codes.

7.133.2.2 NppStatus nppiAverageError_16s_C2R (const Npp16s ∗ *pSrc1*, int *nSrc1Step*, const Npp16s ∗ *pSrc2*, int *nSrc2Step*, NppiSize *oSizeROI*, Npp64f ∗ *pError*, Npp8u ∗ *pDeviceBuffer*)

Two-channel 16-bit signed image Average_Error.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pError Pointer to the computed error.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppiAverageErrorGetBufferHostSize_16s_C2R to compute the required size (in bytes).

Returns:

Image Data Related Error Codes, ROI Related Error Codes.

7.133.2.3 NppStatus nppiAverageError_16s_C3R (const Npp16s ∗ *pSrc1*, int *nSrc1Step*, const Npp16s ∗ *pSrc2*, int *nSrc2Step*, NppiSize *oSizeROI*, Npp64f ∗ *pError*, Npp8u ∗ *pDeviceBuffer*)

Three-channel 16-bit signed image Average_Error.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pError Pointer to the computed error.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppiAverageErrorGetBufferHostSize_16s_C3R to compute the required size (in bytes).

Returns:

Image Data Related Error Codes, ROI Related Error Codes.

7.133.2.4 NppStatus nppiAverageError_16s_C4R (const Npp16s ∗ *pSrc1*, int *nSrc1Step*, const Npp16s ∗ *pSrc2*, int *nSrc2Step*, NppiSize *oSizeROI*, Npp64f ∗ *pError*, Npp8u ∗ *pDeviceBuffer*)

Four-channel 16-bit signed image Average_Error.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pError Pointer to the computed error.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppiAverageErrorGetBufferHostSize_16s_C4R to compute the required size (in bytes).

Returns:

Image Data Related Error Codes, ROI Related Error Codes.

7.133.2.5 NppStatus nppiAverageError_16sc_C1R (const Npp16sc ∗ *pSrc1*, int *nSrc1Step*, const Npp16sc ∗ *pSrc2*, int *nSrc2Step*, NppiSize *oSizeROI*, Npp64f ∗ *pError*, Npp8u ∗ *pDeviceBuffer*)

One-channel 16-bit signed complex image Average_Error.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pError Pointer to the computed error (absolute value).

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppiAverageErrorGetBufferHostSize_16sc_C1R to compute the required size (in bytes).

Returns:

Image Data Related Error Codes, ROI Related Error Codes.

7.133.2.6 NppStatus nppiAverageError_16sc_C2R (const Npp16sc ∗ *pSrc1*, int *nSrc1Step*, const Npp16sc ∗ *pSrc2*, int *nSrc2Step*, NppiSize *oSizeROI*, Npp64f ∗ *pError*, Npp8u ∗ *pDeviceBuffer*)

Two-channel 16-bit signed complex image Average_Error.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pError Pointer to the computed error (absolute value).

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppiAverageErrorGetBufferHostSize_16s_C2R to compute the required size (in bytes).

Returns:

Image Data Related Error Codes, ROI Related Error Codes.

7.133.2.7 NppStatus nppiAverageError_16sc_C3R (const Npp16sc ∗ *pSrc1*, int *nSrc1Step*, const Npp16sc ∗ *pSrc2*, int *nSrc2Step*, NppiSize *oSizeROI*, Npp64f ∗ *pError*, Npp8u ∗ *pDeviceBuffer*)

Three-channel 16-bit signed complex image Average_Error.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pError Pointer to the computed error (absolute value).

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppiAverageErrorGetBufferHostSize_16s_C3R to compute the required size (in bytes).

Returns:

Image Data Related Error Codes, ROI Related Error Codes.

7.133.2.8 NppStatus nppiAverageError_16sc_C4R (const Npp16sc ∗ *pSrc1*, int *nSrc1Step*, const Npp16sc ∗ *pSrc2*, int *nSrc2Step*, NppiSize *oSizeROI*, Npp64f ∗ *pError*, Npp8u ∗ *pDeviceBuffer*)

Four-channel 16-bit signed complex image Average_Error.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pError Pointer to the computed error (absolute value).

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppiAverageErrorGetBufferHostSize_16s_C4R to compute the required size (in bytes).

Returns:

Image Data Related Error Codes, ROI Related Error Codes.

7.133.2.9 NppStatus nppiAverageError_16u_C1R (const Npp16u * *pSrc1*, int *nSrc1Step*, const Npp16u * *pSrc2*, int *nSrc2Step*, NppiSize *oSizeROI*, Npp64f * *pError*, Npp8u * *pDeviceBuffer*)

One-channel 16-bit unsigned image Average_Error.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pError Pointer to the computed error.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppiAverageErrorGetBufferHostSize_16u_C1R to compute the required size (in bytes).

Returns:

Image Data Related Error Codes, ROI Related Error Codes.

7.133.2.10 NppStatus nppiAverageError_16u_C2R (const Npp16u * *pSrc1*, int *nSrc1Step*, const Npp16u * *pSrc2*, int *nSrc2Step*, NppiSize *oSizeROI*, Npp64f * *pError*, Npp8u * *pDeviceBuffer*)

Two-channel 16-bit unsigned image Average_Error.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pError Pointer to the computed error.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppiAverageErrorGetBufferHostSize_16u_C2R to compute the required size (in bytes).

Returns:

Image Data Related Error Codes, ROI Related Error Codes.

7.133.2.11 NppStatus nppiAverageError_16u_C3R (const Npp16u * *pSrc1*, int *nSrc1Step*, const Npp16u * *pSrc2*, int *nSrc2Step*, NppiSize *oSizeROI*, Npp64f * *pError*, Npp8u * *pDeviceBuffer*)

Three-channel 16-bit unsigned image Average_Error.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pError Pointer to the computed error.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppiAverageErrorGetBufferHostSize_16u_C3R to compute the required size (in bytes).

Returns:

Image Data Related Error Codes, ROI Related Error Codes.

7.133.2.12 NppStatus nppiAverageError_16u_C4R (const Npp16u * *pSrc1*, int *nSrc1Step*, const Npp16u * *pSrc2*, int *nSrc2Step*, NppiSize *oSizeROI*, Npp64f * *pError*, Npp8u * *pDeviceBuffer*)

Four-channel 16-bit unsigned image Average_Error.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pError Pointer to the computed error.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppiAverageErrorGetBufferHostSize_16u_C4R to compute the required size (in bytes).

Returns:

Image Data Related Error Codes, ROI Related Error Codes.

7.133.2.13 NppStatus nppiAverageError_32f_C1R (const Npp32f * *pSrc1*, int *nSrc1Step*, const Npp32f * *pSrc2*, int *nSrc2Step*, NppiSize *oSizeROI*, Npp64f * *pError*, Npp8u * *pDeviceBuffer*)

One-channel 32-bit floating point image Average_Error.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pError Pointer to the computed error.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppiAverageErrorGetBufferHostSize_32f_C1R to compute the required size (in bytes).

Returns:

Image Data Related Error Codes, ROI Related Error Codes, or NPP_NOT_EVEN_STEP_ERROR if an invalid floating-point image is specified.

7.133.2.14 NppStatus nppiAverageError_32f_C2R (const Npp32f * *pSrc1*, int *nSrc1Step*, const Npp32f * *pSrc2*, int *nSrc2Step*, NppiSize *oSizeROI*, Npp64f * *pError*, Npp8u * *pDeviceBuffer*)

Two-channel 32-bit floating point image Average_Error.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pError Pointer to the computed error.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppiAverageErrorGetBufferHostSize_32f_C2R to compute the required size (in bytes).

Returns:

Image Data Related Error Codes, ROI Related Error Codes, or NPP_NOT_EVEN_STEP_ERROR if an invalid floating-point image is specified.

7.133.2.15 NppStatus nppiAverageError_32f_C3R (const Npp32f * *pSrc1*, int *nSrc1Step*, const Npp32f * *pSrc2*, int *nSrc2Step*, NppiSize *oSizeROI*, Npp64f * *pError*, Npp8u * *pDeviceBuffer*)

Three-channel 32-bit floating point image Average_Error.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pError Pointer to the computed error.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppiAverageErrorGetBufferHostSize_32f_C3R to compute the required size (in bytes).

Returns:

Image Data Related Error Codes, ROI Related Error Codes, or NPP_NOT_EVEN_STEP_ERROR if an invalid floating-point image is specified.

7.133.2.16 NppStatus nppiAverageError_32f_C4R (const Npp32f ∗ *pSrc1*, int *nSrc1Step*, const Npp32f ∗ *pSrc2*, int *nSrc2Step*, NppiSize *oSizeROI*, Npp64f ∗ *pError*, Npp8u ∗ *pDeviceBuffer*)

Four-channel 32-bit floating point image Average_Error.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pError Pointer to the computed error.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppiAverageErrorGetBufferHostSize_32f_C4R to compute the required size (in bytes).

Returns:

Image Data Related Error Codes, ROI Related Error Codes, or NPP_NOT_EVEN_STEP_ERROR if an invalid floating-point image is specified.

7.133.2.17 NppStatus nppiAverageError_32fc_C1R (const Npp32fc ∗ *pSrc1*, int *nSrc1Step*, const Npp32fc ∗ *pSrc2*, int *nSrc2Step*, NppiSize *oSizeROI*, Npp64f ∗ *pError*, Npp8u ∗ *pDeviceBuffer*)

One-channel 32-bit floating point complex image Average_Error.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pError Pointer to the computed error (absolute value).

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppiAverageErrorGetBufferHostSize_32f_C1R to compute the required size (in bytes).

Returns:

Image Data Related Error Codes, ROI Related Error Codes, or NPP_NOT_EVEN_STEP_ERROR if an invalid floating-point image is specified.

7.133.2.18 NppStatus nppiAverageError_32fc_C2R (const Npp32fc * *pSrc1*, int *nSrc1Step*, const Npp32fc * *pSrc2*, int *nSrc2Step*, NppiSize *oSizeROI*, Npp64f * *pError*, Npp8u * *pDeviceBuffer*)

Two-channel 32-bit floating point complex image Average_Error.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pError Pointer to the computed error (absolute value).

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppiAverageErrorGetBufferHostSize_32f_C2R to compute the required size (in bytes).

Returns:

Image Data Related Error Codes, ROI Related Error Codes, or NPP_NOT_EVEN_STEP_ERROR if an invalid floating-point image is specified.

7.133.2.19 NppStatus nppiAverageError_32fc_C3R (const Npp32fc * *pSrc1*, int *nSrc1Step*, const Npp32fc * *pSrc2*, int *nSrc2Step*, NppiSize *oSizeROI*, Npp64f * *pError*, Npp8u * *pDeviceBuffer*)

Three-channel 32-bit floating point complex image Average_Error.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pError Pointer to the computed error (absolute value).

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppiAverageErrorGetBufferHostSize_32f_C3R to compute the required size (in bytes).

Returns:

Image Data Related Error Codes, ROI Related Error Codes, or NPP_NOT_EVEN_STEP_ERROR if an invalid floating-point image is specified.

7.133.2.20 NppStatus nppiAverageError_32fc_C4R (const Npp32fc $*$ *pSrc1*, int *nSrc1Step*, const Npp32fc $*$ *pSrc2*, int *nSrc2Step*, NppiSize *oSizeROI*, Npp64f $*$ *pError*, Npp8u $*$ *pDeviceBuffer*)

Four-channel 32-bit floating point complex image Average_Error.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pError Pointer to the computed error (absolute value).

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppiAverageErrorGetBufferHostSize_32f_C4R to compute the required size (in bytes).

Returns:

Image Data Related Error Codes, ROI Related Error Codes, or NPP_NOT_EVEN_STEP_ERROR if an invalid floating-point image is specified.

7.133.2.21 NppStatus nppiAverageError_32s_C1R (const Npp32s $*$ *pSrc1*, int *nSrc1Step*, const Npp32s $*$ *pSrc2*, int *nSrc2Step*, NppiSize *oSizeROI*, Npp64f $*$ *pError*, Npp8u $*$ *pDeviceBuffer*)

One-channel 32-bit signed image Average_Error.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pError Pointer to the computed error.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppiAverageErrorGetBufferHostSize_16s_C1R to compute the required size (in bytes).

Returns:

Image Data Related Error Codes, ROI Related Error Codes.

7.133.2.22 NppStatus nppiAverageError_32s_C2R (const Npp32s ∗ *pSrc1*, int *nSrc1Step*, const Npp32s ∗ *pSrc2*, int *nSrc2Step*, NppiSize *oSizeROI*, Npp64f ∗ *pError*, Npp8u ∗ *pDeviceBuffer*)

Two-channel 32-bit signed image Average_Error.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pError Pointer to the computed error.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppiAverageErrorGetBufferHostSize_16s_C2R to compute the required size (in bytes).

Returns:

Image Data Related Error Codes, ROI Related Error Codes.

7.133.2.23 NppStatus nppiAverageError_32s_C3R (const Npp32s ∗ *pSrc1*, int *nSrc1Step*, const Npp32s ∗ *pSrc2*, int *nSrc2Step*, NppiSize *oSizeROI*, Npp64f ∗ *pError*, Npp8u ∗ *pDeviceBuffer*)

Three-channel 32-bit signed image Average_Error.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pError Pointer to the computed error.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppiAverageErrorGetBufferHostSize_16s_C3R to compute the required size (in bytes).

Returns:

Image Data Related Error Codes, ROI Related Error Codes.

7.133.2.24 NppStatus nppiAverageError_32s_C4R (const Npp32s ∗ *pSrc1*, int *nSrc1Step*, const Npp32s ∗ *pSrc2*, int *nSrc2Step*, NppiSize *oSizeROI*, Npp64f ∗ *pError*, Npp8u ∗ *pDeviceBuffer*)

Four-channel 32-bit signed image Average_Error.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pError Pointer to the computed error.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppiAverageErrorGetBufferHostSize_16s_C4R to compute the required size (in bytes).

Returns:

Image Data Related Error Codes, ROI Related Error Codes.

7.133.2.25 NppStatus nppiAverageError_32sc_C1R (const Npp32sc ∗ *pSrc1*, int *nSrc1Step*, const Npp32sc ∗ *pSrc2*, int *nSrc2Step*, NppiSize *oSizeROI*, Npp64f ∗ *pError*, Npp8u ∗ *pDeviceBuffer*)

One-channel 32-bit signed complex image Average_Error.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pError Pointer to the computed error (absolute value).

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppiAverageErrorGetBufferHostSize_16s_C1R to compute the required size (in bytes).

Returns:

Image Data Related Error Codes, ROI Related Error Codes.

7.133.2.26 NppStatus nppiAverageError_32sc_C2R (const Npp32sc ∗ *pSrc1*, int *nSrc1Step*, const Npp32sc ∗ *pSrc2*, int *nSrc2Step*, NppiSize *oSizeROI*, Npp64f ∗ *pError*, Npp8u ∗ *pDeviceBuffer*)

Two-channel 32-bit signed complex image Average_Error.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pError Pointer to the computed error (absolute value).

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppiAverageErrorGetBufferHostSize_16s_C2R to compute the required size (in bytes).

Returns:

Image Data Related Error Codes, ROI Related Error Codes.

7.133.2.27 NppStatus nppiAverageError_32sc_C3R (const Npp32sc ∗ *pSrc1*, int *nSrc1Step*, const Npp32sc ∗ *pSrc2*, int *nSrc2Step*, NppiSize *oSizeROI*, Npp64f ∗ *pError*, Npp8u ∗ *pDeviceBuffer*)

Three-channel 32-bit signed complex image Average_Error.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pError Pointer to the computed error (absolute value).

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppiAverageErrorGetBufferHostSize_16s_C3R to compute the required size (in bytes).

Returns:

Image Data Related Error Codes, ROI Related Error Codes.

7.133.2.28 NppStatus nppiAverageError_32sc_C4R (const Npp32sc ∗ *pSrc1*, int *nSrc1Step*, const Npp32sc ∗ *pSrc2*, int *nSrc2Step*, NppiSize *oSizeROI*, Npp64f ∗ *pError*, Npp8u ∗ *pDeviceBuffer*)

Four-channel 32-bit signed complex image Average_Error.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pError Pointer to the computed error (absolute value).

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppiAverageErrorGetBufferHostSize_16s_C4R to compute the required size (in bytes).

Returns:

Image Data Related Error Codes, ROI Related Error Codes.

7.133.2.29 NppStatus nppiAverageError_32u_C1R (const Npp32u ∗ *pSrc1*, int *nSrc1Step*, const Npp32u ∗ *pSrc2*, int *nSrc2Step*, NppiSize *oSizeROI*, Npp64f ∗ *pError*, Npp8u ∗ *pDeviceBuffer*)

One-channel 32-bit unsigned image Average_Error.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pError Pointer to the computed error.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppiAverageErrorGetBufferHostSize_16u_C1R to compute the required size (in bytes).

Returns:

Image Data Related Error Codes, ROI Related Error Codes.

7.133.2.30 NppStatus nppiAverageError_32u_C2R (const Npp32u ∗ *pSrc1*, int *nSrc1Step*, const Npp32u ∗ *pSrc2*, int *nSrc2Step*, NppiSize *oSizeROI*, Npp64f ∗ *pError*, Npp8u ∗ *pDeviceBuffer*)

Two-channel 32-bit unsigned image Average_Error.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pError Pointer to the computed error.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppiAverageErrorGetBufferHostSize_16u_C2R to compute the required size (in bytes).

Returns:

Image Data Related Error Codes, ROI Related Error Codes.

7.133.2.31 NppStatus nppiAverageError_32u_C3R (const Npp32u ∗ *pSrc1*, int *nSrc1Step*, const Npp32u ∗ *pSrc2*, int *nSrc2Step*, NppiSize *oSizeROI*, Npp64f ∗ *pError*, Npp8u ∗ *pDeviceBuffer*)

Three-channel 32-bit unsigned image Average_Error.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pError Pointer to the computed error.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppiAverageErrorGetBufferHostSize_16u_C3R to compute the required size (in bytes).

Returns:

Image Data Related Error Codes, ROI Related Error Codes.

7.133.2.32 NppStatus nppiAverageError_32u_C4R (const Npp32u ∗ *pSrc1*, int *nSrc1Step*, const Npp32u ∗ *pSrc2*, int *nSrc2Step*, NppiSize *oSizeROI*, Npp64f ∗ *pError*, Npp8u ∗ *pDeviceBuffer*)

Four-channel 32-bit unsigned image Average_Error.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pError Pointer to the computed error.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppiAverageErrorGetBufferHostSize_16u_C4R to compute the required size (in bytes).

Returns:

Image Data Related Error Codes, ROI Related Error Codes.

7.133.2.33 NppStatus nppiAverageError_64f_C1R (const Npp64f ∗ *pSrc1*, int *nSrc1Step*, const Npp64f ∗ *pSrc2*, int *nSrc2Step*, NppiSize *oSizeROI*, Npp64f ∗ *pError*, Npp8u ∗ *pDeviceBuffer*)

One-channel 64-bit floating point image Average_Error.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pError Pointer to the computed error.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppiAverageErrorGetBufferHostSize_32f_C1R to compute the required size (in bytes).

Returns:

Image Data Related Error Codes, ROI Related Error Codes, or NPP_NOT_EVEN_STEP_ERROR if an invalid floating-point image is specified.

7.133.2.34 NppStatus nppiAverageError_64f_C2R (const Npp64f ∗ *pSrc1*, int *nSrc1Step*, const Npp64f ∗ *pSrc2*, int *nSrc2Step*, NppiSize *oSizeROI*, Npp64f ∗ *pError*, Npp8u ∗ *pDeviceBuffer*)

Two-channel 64-bit floating point image Average_Error.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pError Pointer to the computed error.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppiAverageErrorGetBufferHostSize_32f_C2R to compute the required size (in bytes).

Returns:

Image Data Related Error Codes, ROI Related Error Codes, or NPP_NOT_EVEN_STEP_ERROR if an invalid floating-point image is specified.

7.133.2.35 NppStatus nppiAverageError_64f_C3R (const Npp64f ∗ *pSrc1*, int *nSrc1Step*, const Npp64f ∗ *pSrc2*, int *nSrc2Step*, NppiSize *oSizeROI*, Npp64f ∗ *pError*, Npp8u ∗ *pDeviceBuffer*)

Three-channel 64-bit floating point image Average_Error.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pError Pointer to the computed error.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppiAverageErrorGetBufferHostSize_32f_C3R to compute the required size (in bytes).

Returns:

Image Data Related Error Codes, ROI Related Error Codes, or NPP_NOT_EVEN_STEP_ERROR if an invalid floating-point image is specified.

7.133.2.36 NppStatus nppiAverageError_64f_C4R (const Npp64f ∗ *pSrc1*, int *nSrc1Step*, const Npp64f ∗ *pSrc2*, int *nSrc2Step*, NppiSize *oSizeROI*, Npp64f ∗ *pError*, Npp8u ∗ *pDeviceBuffer*)

Four-channel 64-bit floating point image Average_Error.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pError Pointer to the computed error.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppiAverageErrorGetBufferHostSize_32f_C4R to compute the required size (in bytes).

Returns:

Image Data Related Error Codes, ROI Related Error Codes, or NPP_NOT_EVEN_STEP_ERROR if an invalid floating-point image is specified.

7.133.2.37 NppStatus nppiAverageError_8s_C1R (const Npp8s ∗ *pSrc1*, int *nSrc1Step*, const Npp8s ∗ *pSrc2*, int *nSrc2Step*, NppiSize *oSizeROI*, Npp64f ∗ *pError*, Npp8u ∗ *pDeviceBuffer*)

One-channel 8-bit signed image Average_Error.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pError Pointer to the computed error.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppiAverageErrorGetBufferHostSize_8u_C1R to compute the required size (in bytes).

Returns:

Image Data Related Error Codes, ROI Related Error Codes.

7.133.2.38 NppStatus nppiAverageError_8s_C2R (const Npp8s ∗ *pSrc1*, int *nSrc1Step*, const Npp8s ∗ *pSrc2*, int *nSrc2Step*, NppiSize *oSizeROI*, Npp64f ∗ *pError*, Npp8u ∗ *pDeviceBuffer*)

Two-channel 8-bit signed image Average_Error.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pError Pointer to the computed error.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppiAverageErrorGetBufferHostSize_8u_C2R to compute the required size (in bytes).

Returns:

Image Data Related Error Codes, ROI Related Error Codes.

7.133.2.39 NppStatus nppiAverageError_8s_C3R (const Npp8s ∗ *pSrc1*, int *nSrc1Step*, const Npp8s ∗ *pSrc2*, int *nSrc2Step*, NppiSize *oSizeROI*, Npp64f ∗ *pError*, Npp8u ∗ *pDeviceBuffer*)

Three-channel 8-bit signed image Average_Error.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pError Pointer to the computed error.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppiAverageErrorGetBufferHostSize_8u_C3R to compute the required size (in bytes).

Returns:

Image Data Related Error Codes, ROI Related Error Codes.

7.133.2.40 NppStatus nppiAverageError_8s_C4R (const Npp8s ∗ *pSrc1*, int *nSrc1Step*, const Npp8s ∗ *pSrc2*, int *nSrc2Step*, NppiSize *oSizeROI*, Npp64f ∗ *pError*, Npp8u ∗ *pDeviceBuffer*)

Four-channel 8-bit signed image Average_Error.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pError Pointer to the computed error.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppiAverageErrorGetBufferHostSize_8u_C4R to compute the required size (in bytes).

Returns:

Image Data Related Error Codes, ROI Related Error Codes.

7.133.2.41 NppStatus nppiAverageError_8u_C1R (const Npp8u * *pSrc1*, int *nSrc1Step*, const Npp8u * *pSrc2*, int *nSrc2Step*, NppiSize *oSizeROI*, Npp64f * *pError*, Npp8u * *pDeviceBuffer*)

One-channel 8-bit unsigned image Average_Error.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pError Pointer to the computed error.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppiAverageErrorGetBufferHostSize_8u_C1R to compute the required size (in bytes).

Returns:

Image Data Related Error Codes, ROI Related Error Codes.

7.133.2.42 NppStatus nppiAverageError_8u_C2R (const Npp8u * *pSrc1*, int *nSrc1Step*, const Npp8u * *pSrc2*, int *nSrc2Step*, NppiSize *oSizeROI*, Npp64f * *pError*, Npp8u * *pDeviceBuffer*)

Two-channel 8-bit unsigned image Average_Error.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pError Pointer to the computed error.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppiAverageErrorGetBufferHostSize_8u_C2R to compute the required size (in bytes).

Returns:

Image Data Related Error Codes, ROI Related Error Codes.

7.133.2.43 NppStatus nppiAverageError_8u_C3R (const Npp8u ∗ *pSrc1*, int *nSrc1Step*, const Npp8u ∗ *pSrc2*, int *nSrc2Step*, NppiSize *oSizeROI*, Npp64f ∗ *pError*, Npp8u ∗ *pDeviceBuffer*)

Three-channel 8-bit unsigned image Average_Error.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pError Pointer to the computed error.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppiAverageErrorGetBufferHostSize_8u_C3R to compute the required size (in bytes).

Returns:

Image Data Related Error Codes, ROI Related Error Codes.

7.133.2.44 NppStatus nppiAverageError_8u_C4R (const Npp8u ∗ *pSrc1*, int *nSrc1Step*, const Npp8u ∗ *pSrc2*, int *nSrc2Step*, NppiSize *oSizeROI*, Npp64f ∗ *pError*, Npp8u ∗ *pDeviceBuffer*)

Four-channel 8-bit unsigned image Average_Error.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pError Pointer to the computed error.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppiAverageErrorGetBufferHostSize_8u_C4R to compute the required size (in bytes).

Returns:

Image Data Related Error Codes, ROI Related Error Codes.

7.134 MaximumRelativeError

Primitives for computing the maximum relative error between two images.

Functions

- NppStatus nppiMaximumRelativeError_8u_C1R (const Npp8u ∗pSrc1, int nSrc1Step, const Npp8u ∗pSrc2, int nSrc2Step, NppiSize oSizeROI, Npp64f ∗pError, Npp8u ∗pDeviceBuffer)

  One-channel 8-bit unsigned image MaximumRelative_Error.

- NppStatus nppiMaximumRelativeError_8s_C1R (const Npp8s ∗pSrc1, int nSrc1Step, const Npp8s ∗pSrc2, int nSrc2Step, NppiSize oSizeROI, Npp64f ∗pError, Npp8u ∗pDeviceBuffer)

  One-channel 8-bit signed image MaximumRelative_Error.

- NppStatus nppiMaximumRelativeError_16u_C1R (const Npp16u ∗pSrc1, int nSrc1Step, const Npp16u ∗pSrc2, int nSrc2Step, NppiSize oSizeROI, Npp64f ∗pError, Npp8u ∗pDeviceBuffer)

  One-channel 16-bit unsigned image MaximumRelative_Error.

- NppStatus nppiMaximumRelativeError_16s_C1R (const Npp16s ∗pSrc1, int nSrc1Step, const Npp16s ∗pSrc2, int nSrc2Step, NppiSize oSizeROI, Npp64f ∗pError, Npp8u ∗pDeviceBuffer)

  One-channel 16-bit signed image MaximumRelative_Error.

- NppStatus nppiMaximumRelativeError_16sc_C1R (const Npp16sc ∗pSrc1, int nSrc1Step, const Npp16sc ∗pSrc2, int nSrc2Step, NppiSize oSizeROI, Npp64f ∗pError, Npp8u ∗pDeviceBuffer)

  One-channel 16-bit signed complex image MaximumRelative_Error.

- NppStatus nppiMaximumRelativeError_32u_C1R (const Npp32u ∗pSrc1, int nSrc1Step, const Npp32u ∗pSrc2, int nSrc2Step, NppiSize oSizeROI, Npp64f ∗pError, Npp8u ∗pDeviceBuffer)

  One-channel 32-bit unsigned image MaximumRelative_Error.

- NppStatus nppiMaximumRelativeError_32s_C1R (const Npp32s ∗pSrc1, int nSrc1Step, const Npp32s ∗pSrc2, int nSrc2Step, NppiSize oSizeROI, Npp64f ∗pError, Npp8u ∗pDeviceBuffer)

  One-channel 32-bit signed image MaximumRelative_Error.

- NppStatus nppiMaximumRelativeError_32sc_C1R (const Npp32sc ∗pSrc1, int nSrc1Step, const Npp32sc ∗pSrc2, int nSrc2Step, NppiSize oSizeROI, Npp64f ∗pError, Npp8u ∗pDeviceBuffer)

  One-channel 32-bit signed complex image MaximumRelative_Error.

- NppStatus nppiMaximumRelativeError_32f_C1R (const Npp32f ∗pSrc1, int nSrc1Step, const Npp32f ∗pSrc2, int nSrc2Step, NppiSize oSizeROI, Npp64f ∗pError, Npp8u ∗pDeviceBuffer)

  One-channel 32-bit floating point image MaximumRelative_Error.

- NppStatus nppiMaximumRelativeError_32fc_C1R (const Npp32fc ∗pSrc1, int nSrc1Step, const Npp32fc ∗pSrc2, int nSrc2Step, NppiSize oSizeROI, Npp64f ∗pError, Npp8u ∗pDeviceBuffer)

  One-channel 32-bit floating point complex image MaximumRelative_Error.

- NppStatus nppiMaximumRelativeError_64f_C1R (const Npp64f ∗pSrc1, int nSrc1Step, const Npp64f ∗pSrc2, int nSrc2Step, NppiSize oSizeROI, Npp64f ∗pError, Npp8u ∗pDeviceBuffer)

  One-channel 64-bit floating point image MaximumRelative_Error.

- NppStatus nppiMaximumRelativeError_8u_C2R (const Npp8u ∗pSrc1, int nSrc1Step, const Npp8u ∗pSrc2, int nSrc2Step, NppiSize oSizeROI, Npp64f ∗pError, Npp8u ∗pDeviceBuffer)

  Two-channel 8-bit unsigned image MaximumRelative_Error.

- NppStatus nppiMaximumRelativeError_8s_C2R (const Npp8s ∗pSrc1, int nSrc1Step, const Npp8s ∗pSrc2, int nSrc2Step, NppiSize oSizeROI, Npp64f ∗pError, Npp8u ∗pDeviceBuffer)

  Two-channel 8-bit signed image MaximumRelative_Error.

- NppStatus nppiMaximumRelativeError_16u_C2R (const Npp16u ∗pSrc1, int nSrc1Step, const Npp16u ∗pSrc2, int nSrc2Step, NppiSize oSizeROI, Npp64f ∗pError, Npp8u ∗pDeviceBuffer)

  Two-channel 16-bit unsigned image MaximumRelative_Error.

- NppStatus nppiMaximumRelativeError_16s_C2R (const Npp16s ∗pSrc1, int nSrc1Step, const Npp16s ∗pSrc2, int nSrc2Step, NppiSize oSizeROI, Npp64f ∗pError, Npp8u ∗pDeviceBuffer)

  Two-channel 16-bit signed image MaximumRelative_Error.

- NppStatus nppiMaximumRelativeError_16sc_C2R (const Npp16sc ∗pSrc1, int nSrc1Step, const Npp16sc ∗pSrc2, int nSrc2Step, NppiSize oSizeROI, Npp64f ∗pError, Npp8u ∗pDeviceBuffer)

  Two-channel 16-bit signed complex image MaximumRelative_Error.

- NppStatus nppiMaximumRelativeError_32u_C2R (const Npp32u ∗pSrc1, int nSrc1Step, const Npp32u ∗pSrc2, int nSrc2Step, NppiSize oSizeROI, Npp64f ∗pError, Npp8u ∗pDeviceBuffer)

  Two-channel 32-bit unsigned image MaximumRelative_Error.

- NppStatus nppiMaximumRelativeError_32s_C2R (const Npp32s ∗pSrc1, int nSrc1Step, const Npp32s ∗pSrc2, int nSrc2Step, NppiSize oSizeROI, Npp64f ∗pError, Npp8u ∗pDeviceBuffer)

  Two-channel 32-bit signed image MaximumRelative_Error.

- NppStatus nppiMaximumRelativeError_32sc_C2R (const Npp32sc ∗pSrc1, int nSrc1Step, const Npp32sc ∗pSrc2, int nSrc2Step, NppiSize oSizeROI, Npp64f ∗pError, Npp8u ∗pDeviceBuffer)

  Two-channel 32-bit signed complex image MaximumRelative_Error.

- NppStatus nppiMaximumRelativeError_32f_C2R (const Npp32f ∗pSrc1, int nSrc1Step, const Npp32f ∗pSrc2, int nSrc2Step, NppiSize oSizeROI, Npp64f ∗pError, Npp8u ∗pDeviceBuffer)

  Two-channel 32-bit floating point image MaximumRelative_Error.

- NppStatus nppiMaximumRelativeError_32fc_C2R (const Npp32fc ∗pSrc1, int nSrc1Step, const Npp32fc ∗pSrc2, int nSrc2Step, NppiSize oSizeROI, Npp64f ∗pError, Npp8u ∗pDeviceBuffer)

  Two-channel 32-bit floating point complex image MaximumRelative_Error.

- NppStatus nppiMaximumRelativeError_64f_C2R (const Npp64f ∗pSrc1, int nSrc1Step, const Npp64f ∗pSrc2, int nSrc2Step, NppiSize oSizeROI, Npp64f ∗pError, Npp8u ∗pDeviceBuffer)

  Two-channel 64-bit floating point image MaximumRelative_Error.

- NppStatus nppiMaximumRelativeError_8u_C3R (const Npp8u ∗pSrc1, int nSrc1Step, const Npp8u ∗pSrc2, int nSrc2Step, NppiSize oSizeROI, Npp64f ∗pError, Npp8u ∗pDeviceBuffer)

  Three-channel 8-bit unsigned image MaximumRelative_Error.

- NppStatus nppiMaximumRelativeError_8s_C3R (const Npp8s ∗pSrc1, int nSrc1Step, const Npp8s ∗pSrc2, int nSrc2Step, NppiSize oSizeROI, Npp64f ∗pError, Npp8u ∗pDeviceBuffer)

  Three-channel 8-bit signed image MaximumRelative_Error.

- NppStatus nppiMaximumRelativeError_16u_C3R (const Npp16u ∗pSrc1, int nSrc1Step, const Npp16u ∗pSrc2, int nSrc2Step, NppiSize oSizeROI, Npp64f ∗pError, Npp8u ∗pDeviceBuffer)

  Three-channel 16-bit unsigned image MaximumRelative_Error.

- NppStatus nppiMaximumRelativeError_16s_C3R (const Npp16s ∗pSrc1, int nSrc1Step, const Npp16s ∗pSrc2, int nSrc2Step, NppiSize oSizeROI, Npp64f ∗pError, Npp8u ∗pDeviceBuffer)

  Three-channel 16-bit signed image MaximumRelative_Error.

- NppStatus nppiMaximumRelativeError_16sc_C3R (const Npp16sc ∗pSrc1, int nSrc1Step, const Npp16sc ∗pSrc2, int nSrc2Step, NppiSize oSizeROI, Npp64f ∗pError, Npp8u ∗pDeviceBuffer)

  Three-channel 16-bit signed complex image MaximumRelative_Error.

- NppStatus nppiMaximumRelativeError_32u_C3R (const Npp32u ∗pSrc1, int nSrc1Step, const Npp32u ∗pSrc2, int nSrc2Step, NppiSize oSizeROI, Npp64f ∗pError, Npp8u ∗pDeviceBuffer)

  Three-channel 32-bit unsigned image MaximumRelative_Error.

- NppStatus nppiMaximumRelativeError_32s_C3R (const Npp32s ∗pSrc1, int nSrc1Step, const Npp32s ∗pSrc2, int nSrc2Step, NppiSize oSizeROI, Npp64f ∗pError, Npp8u ∗pDeviceBuffer)

  Three-channel 32-bit signed image MaximumRelative_Error.

- NppStatus nppiMaximumRelativeError_32sc_C3R (const Npp32sc ∗pSrc1, int nSrc1Step, const Npp32sc ∗pSrc2, int nSrc2Step, NppiSize oSizeROI, Npp64f ∗pError, Npp8u ∗pDeviceBuffer)

  Three-channel 32-bit signed complex image MaximumRelative_Error.

- NppStatus nppiMaximumRelativeError_32f_C3R (const Npp32f ∗pSrc1, int nSrc1Step, const Npp32f ∗pSrc2, int nSrc2Step, NppiSize oSizeROI, Npp64f ∗pError, Npp8u ∗pDeviceBuffer)

  Three-channel 32-bit floating point image MaximumRelative_Error.

- NppStatus nppiMaximumRelativeError_32fc_C3R (const Npp32fc ∗pSrc1, int nSrc1Step, const Npp32fc ∗pSrc2, int nSrc2Step, NppiSize oSizeROI, Npp64f ∗pError, Npp8u ∗pDeviceBuffer)

  Three-channel 32-bit floating point complex image MaximumRelative_Error.

- NppStatus nppiMaximumRelativeError_64f_C3R (const Npp64f ∗pSrc1, int nSrc1Step, const Npp64f ∗pSrc2, int nSrc2Step, NppiSize oSizeROI, Npp64f ∗pError, Npp8u ∗pDeviceBuffer)

  Three-channel 64-bit floating point image MaximumRelative_Error.

- NppStatus nppiMaximumRelativeError_8u_C4R (const Npp8u ∗pSrc1, int nSrc1Step, const Npp8u ∗pSrc2, int nSrc2Step, NppiSize oSizeROI, Npp64f ∗pError, Npp8u ∗pDeviceBuffer)

  Four-channel 8-bit unsigned image MaximumRelative_Error.

- NppStatus nppiMaximumRelativeError_8s_C4R (const Npp8s ∗pSrc1, int nSrc1Step, const Npp8s ∗pSrc2, int nSrc2Step, NppiSize oSizeROI, Npp64f ∗pError, Npp8u ∗pDeviceBuffer)

  Four-channel 8-bit signed image MaximumRelative_Error.

- NppStatus nppiMaximumRelativeError_16u_C4R (const Npp16u ∗pSrc1, int nSrc1Step, const Npp16u ∗pSrc2, int nSrc2Step, NppiSize oSizeROI, Npp64f ∗pError, Npp8u ∗pDeviceBuffer)

  Four-channel 16-bit unsigned image MaximumRelative_Error.

- NppStatus nppiMaximumRelativeError_16s_C4R (const Npp16s ∗pSrc1, int nSrc1Step, const Npp16s ∗pSrc2, int nSrc2Step, NppiSize oSizeROI, Npp64f ∗pError, Npp8u ∗pDeviceBuffer)

Four-channel 16-bit signed image MaximumRelative_Error.

- NppStatus nppiMaximumRelativeError_16sc_C4R (const Npp16sc ∗pSrc1, int nSrc1Step, const Npp16sc ∗pSrc2, int nSrc2Step, NppiSize oSizeROI, Npp64f ∗pError, Npp8u ∗pDeviceBuffer)

  Four-channel 16-bit signed complex image MaximumRelative_Error.

- NppStatus nppiMaximumRelativeError_32u_C4R (const Npp32u ∗pSrc1, int nSrc1Step, const Npp32u ∗pSrc2, int nSrc2Step, NppiSize oSizeROI, Npp64f ∗pError, Npp8u ∗pDeviceBuffer)

  Four-channel 32-bit unsigned image MaximumRelative_Error.

- NppStatus nppiMaximumRelativeError_32s_C4R (const Npp32s ∗pSrc1, int nSrc1Step, const Npp32s ∗pSrc2, int nSrc2Step, NppiSize oSizeROI, Npp64f ∗pError, Npp8u ∗pDeviceBuffer)

  Four-channel 32-bit signed image MaximumRelative_Error.

- NppStatus nppiMaximumRelativeError_32sc_C4R (const Npp32sc ∗pSrc1, int nSrc1Step, const Npp32sc ∗pSrc2, int nSrc2Step, NppiSize oSizeROI, Npp64f ∗pError, Npp8u ∗pDeviceBuffer)

  Four-channel 32-bit signed complex image MaximumRelative_Error.

- NppStatus nppiMaximumRelativeError_32f_C4R (const Npp32f ∗pSrc1, int nSrc1Step, const Npp32f ∗pSrc2, int nSrc2Step, NppiSize oSizeROI, Npp64f ∗pError, Npp8u ∗pDeviceBuffer)

  Four-channel 32-bit floating point image MaximumRelative_Error.

- NppStatus nppiMaximumRelativeError_32fc_C4R (const Npp32fc ∗pSrc1, int nSrc1Step, const Npp32fc ∗pSrc2, int nSrc2Step, NppiSize oSizeROI, Npp64f ∗pError, Npp8u ∗pDeviceBuffer)

  Four-channel 32-bit floating point complex image MaximumRelative_Error.

- NppStatus nppiMaximumRelativeError_64f_C4R (const Npp64f ∗pSrc1, int nSrc1Step, const Npp64f ∗pSrc2, int nSrc2Step, NppiSize oSizeROI, Npp64f ∗pError, Npp8u ∗pDeviceBuffer)

  Four-channel 64-bit floating point image MaximumRelative_Error.

7.134.1 Detailed Description

Primitives for computing the maximum relative error between two images.

Given two images $pSrc1$ and $pSrc2$ both with width W and height H, the maximum relative error is defined as:

$$MaximumRelativeError = max\frac{|pSrc1(j,i) - pSrc2(j,i)|}{max(|pSrc1(j,i)|, |pSrc2(j,i)|)}$$

If the image is in complex format, the absolute value is used for computation. For multiple channles, the maximum relative error of all the channles is returned.

7.134.2 Function Documentation

7.134.2.1 NppStatus nppiMaximumRelativeError_16s_C1R (const Npp16s ∗ *pSrc1*, int *nSrc1Step*, const Npp16s ∗ *pSrc2*, int *nSrc2Step*, NppiSize *oSizeROI*, Npp64f ∗ *pError*, Npp8u ∗ *pDeviceBuffer*)

One-channel 16-bit signed image MaximumRelative_Error.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pError Pointer to the computed error.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppiMaximumRelativeErrorGetBufferHostSize_16s_C1R to compute the required size (in bytes).

Returns:

Image Data Related Error Codes, ROI Related Error Codes.

7.134.2.2 NppStatus nppiMaximumRelativeError_16s_C2R (const Npp16s ∗ *pSrc1*, int *nSrc1Step*, const Npp16s ∗ *pSrc2*, int *nSrc2Step*, NppiSize *oSizeROI*, Npp64f ∗ *pError*, Npp8u ∗ *pDeviceBuffer*)

Two-channel 16-bit signed image MaximumRelative_Error.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pError Pointer to the computed error.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppiMaximumRelativeErrorGetBufferHostSize_16s_C2R to compute the required size (in bytes).

Returns:

Image Data Related Error Codes, ROI Related Error Codes.

7.134.2.3 NppStatus nppiMaximumRelativeError_16s_C3R (const Npp16s ∗ *pSrc1*, int *nSrc1Step*, const Npp16s ∗ *pSrc2*, int *nSrc2Step*, NppiSize *oSizeROI*, Npp64f ∗ *pError*, Npp8u ∗ *pDeviceBuffer*)

Three-channel 16-bit signed image MaximumRelative_Error.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pError Pointer to the computed error.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppiMaximumRelativeErrorGetBufferHostSize_16s_C3R to compute the required size (in bytes).

Returns:

Image Data Related Error Codes, ROI Related Error Codes.

7.134.2.4 NppStatus nppiMaximumRelativeError_16s_C4R (const Npp16s ∗ *pSrc1*, int *nSrc1Step*, const Npp16s ∗ *pSrc2*, int *nSrc2Step*, NppiSize *oSizeROI*, Npp64f ∗ *pError*, Npp8u ∗ *pDeviceBuffer*)

Four-channel 16-bit signed image MaximumRelative_Error.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pError Pointer to the computed error.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppiMaximumRelativeErrorGetBufferHostSize_16s_C4R to compute the required size (in bytes).

Returns:

Image Data Related Error Codes, ROI Related Error Codes.

7.134.2.5 NppStatus nppiMaximumRelativeError_16sc_C1R (const Npp16sc ∗ *pSrc1*, int *nSrc1Step*, const Npp16sc ∗ *pSrc2*, int *nSrc2Step*, NppiSize *oSizeROI*, Npp64f ∗ *pError*, Npp8u ∗ *pDeviceBuffer*)

One-channel 16-bit signed complex image MaximumRelative_Error.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pError Pointer to the computed error (absolute value).

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppiMaximumRelativeErrorGetBufferHostSize_16s_C1R to compute the required size (in bytes).

Returns:

Image Data Related Error Codes, ROI Related Error Codes.

7.134.2.6 NppStatus nppiMaximumRelativeError_16sc_C2R (const Npp16sc ∗ *pSrc1*, int *nSrc1Step*, const Npp16sc ∗ *pSrc2*, int *nSrc2Step*, NppiSize *oSizeROI*, Npp64f ∗ *pError*, Npp8u ∗ *pDeviceBuffer*)

Two-channel 16-bit signed complex image MaximumRelative_Error.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pError Pointer to the computed error (absolute value).

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppiMaximumRelativeErrorGetBufferHostSize_16s_C2R to compute the required size (in bytes).

Returns:

Image Data Related Error Codes, ROI Related Error Codes.

7.134.2.7 NppStatus nppiMaximumRelativeError_16sc_C3R (const Npp16sc ∗ *pSrc1*, int *nSrc1Step*, const Npp16sc ∗ *pSrc2*, int *nSrc2Step*, NppiSize *oSizeROI*, Npp64f ∗ *pError*, Npp8u ∗ *pDeviceBuffer*)

Three-channel 16-bit signed complex image MaximumRelative_Error.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pError Pointer to the computed error (absolute value).

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppiMaximumRelativeErrorGetBufferHostSize_16s_C3R to compute the required size (in bytes).

Returns:

Image Data Related Error Codes, ROI Related Error Codes.

7.134.2.8 NppStatus nppiMaximumRelativeError_16sc_C4R (const Npp16sc * *pSrc1*, int *nSrc1Step*, const Npp16sc * *pSrc2*, int *nSrc2Step*, NppiSize *oSizeROI*, Npp64f * *pError*, Npp8u * *pDeviceBuffer*)

Four-channel 16-bit signed complex image MaximumRelative_Error.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pError Pointer to the computed error (absolute value).

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppiMaximumRelativeErrorGetBufferHostSize_16s_C4R to compute the required size (in bytes).

Returns:

Image Data Related Error Codes, ROI Related Error Codes.

7.134.2.9 NppStatus nppiMaximumRelativeError_16u_C1R (const Npp16u * *pSrc1*, int *nSrc1Step*, const Npp16u * *pSrc2*, int *nSrc2Step*, NppiSize *oSizeROI*, Npp64f * *pError*, Npp8u * *pDeviceBuffer*)

One-channel 16-bit unsigned image MaximumRelative_Error.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pError Pointer to the computed error.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppiMaximumRelativeErrorGetBufferHostSize_16u_C1R to compute the required size (in bytes).

Returns:

Image Data Related Error Codes, ROI Related Error Codes.

7.134.2.10 NppStatus nppiMaximumRelativeError_16u_C2R (const Npp16u * *pSrc1*, int *nSrc1Step*, const Npp16u * *pSrc2*, int *nSrc2Step*, NppiSize *oSizeROI*, Npp64f * *pError*, Npp8u * *pDeviceBuffer*)

Two-channel 16-bit unsigned image MaximumRelative_Error.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pError Pointer to the computed error.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppiMaximumRelativeErrorGetBufferHostSize_16u_C2R to compute the required size (in bytes).

Returns:

Image Data Related Error Codes, ROI Related Error Codes.

7.134.2.11 NppStatus nppiMaximumRelativeError_16u_C3R (const Npp16u ∗ *pSrc1*, int *nSrc1Step*, const Npp16u ∗ *pSrc2*, int *nSrc2Step*, NppiSize *oSizeROI*, Npp64f ∗ *pError*, Npp8u ∗ *pDeviceBuffer*)

Three-channel 16-bit unsigned image MaximumRelative_Error.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pError Pointer to the computed error.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppiMaximumRelativeErrorGetBufferHostSize_16u_C3R to compute the required size (in bytes).

Returns:

Image Data Related Error Codes, ROI Related Error Codes.

7.134.2.12 NppStatus nppiMaximumRelativeError_16u_C4R (const Npp16u ∗ *pSrc1*, int *nSrc1Step*, const Npp16u ∗ *pSrc2*, int *nSrc2Step*, NppiSize *oSizeROI*, Npp64f ∗ *pError*, Npp8u ∗ *pDeviceBuffer*)

Four-channel 16-bit unsigned image MaximumRelative_Error.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pError Pointer to the computed error.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppiMaximumRelativeErrorGetBufferHostSize_16u_C4R to compute the required size (in bytes).

Returns:

Image Data Related Error Codes, ROI Related Error Codes.

7.134.2.13 NppStatus nppiMaximumRelativeError_32f_C1R (const Npp32f $*$ *pSrc1*, int *nSrc1Step*, const Npp32f $*$ *pSrc2*, int *nSrc2Step*, NppiSize *oSizeROI*, Npp64f $*$ *pError*, Npp8u $*$ *pDeviceBuffer*)

One-channel 32-bit floating point image MaximumRelative_Error.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pError Pointer to the computed error.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppiMaximumRelativeErrorGetBufferHostSize_32f_C1R to compute the required size (in bytes).

Returns:

Image Data Related Error Codes, ROI Related Error Codes, or NPP_NOT_EVEN_STEP_ERROR if an invalid floating-point image is specified.

7.134.2.14 NppStatus nppiMaximumRelativeError_32f_C2R (const Npp32f $*$ *pSrc1*, int *nSrc1Step*, const Npp32f $*$ *pSrc2*, int *nSrc2Step*, NppiSize *oSizeROI*, Npp64f $*$ *pError*, Npp8u $*$ *pDeviceBuffer*)

Two-channel 32-bit floating point image MaximumRelative_Error.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pError Pointer to the computed error.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppiMaximumRelativeErrorGetBufferHostSize_32f_C2R to compute the required size (in bytes).

Returns:

Image Data Related Error Codes, ROI Related Error Codes, or NPP_NOT_EVEN_STEP_ERROR if an invalid floating-point image is specified.

7.134.2.15 NppStatus nppiMaximumRelativeError_32f_C3R (const Npp32f ∗ *pSrc1*, int *nSrc1Step*, const Npp32f ∗ *pSrc2*, int *nSrc2Step*, NppiSize *oSizeROI*, Npp64f ∗ *pError*, Npp8u ∗ *pDeviceBuffer*)

Three-channel 32-bit floating point image MaximumRelative_Error.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pError Pointer to the computed error.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppiMaximumRelativeErrorGetBufferHostSize_32f_C3R to compute the required size (in bytes).

Returns:

Image Data Related Error Codes, ROI Related Error Codes, or NPP_NOT_EVEN_STEP_ERROR if an invalid floating-point image is specified.

7.134.2.16 NppStatus nppiMaximumRelativeError_32f_C4R (const Npp32f ∗ *pSrc1*, int *nSrc1Step*, const Npp32f ∗ *pSrc2*, int *nSrc2Step*, NppiSize *oSizeROI*, Npp64f ∗ *pError*, Npp8u ∗ *pDeviceBuffer*)

Four-channel 32-bit floating point image MaximumRelative_Error.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pError Pointer to the computed error.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppiMaximumRelativeErrorGetBufferHostSize_32f_C4R to compute the required size (in bytes).

Returns:

Image Data Related Error Codes, ROI Related Error Codes, or NPP_NOT_EVEN_STEP_ERROR if an invalid floating-point image is specified.

7.134.2.17 NppStatus nppiMaximumRelativeError_32fc_C1R (const Npp32fc ∗ *pSrc1*, int *nSrc1Step*, const Npp32fc ∗ *pSrc2*, int *nSrc2Step*, NppiSize *oSizeROI*, Npp64f ∗ *pError*, Npp8u ∗ *pDeviceBuffer*)

One-channel 32-bit floating point complex image MaximumRelative_Error.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pError Pointer to the computed error (absolute value).

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppiMaximumRelativeErrorGetBufferHostSize_32f_C1R to compute the required size (in bytes).

Returns:

Image Data Related Error Codes, ROI Related Error Codes, or NPP_NOT_EVEN_STEP_ERROR if an invalid floating-point image is specified.

7.134.2.18 NppStatus nppiMaximumRelativeError_32fc_C2R (const Npp32fc ∗ *pSrc1*, int *nSrc1Step*, const Npp32fc ∗ *pSrc2*, int *nSrc2Step*, NppiSize *oSizeROI*, Npp64f ∗ *pError*, Npp8u ∗ *pDeviceBuffer*)

Two-channel 32-bit floating point complex image MaximumRelative_Error.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pError Pointer to the computed error (absolute value).

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppiMaximumRelativeErrorGetBufferHostSize_32f_C2R to compute the required size (in bytes).

Returns:

Image Data Related Error Codes, ROI Related Error Codes, or NPP_NOT_EVEN_STEP_ERROR if an invalid floating-point image is specified.

7.134.2.19 NppStatus nppiMaximumRelativeError_32fc_C3R (const Npp32fc ∗ *pSrc1*, int *nSrc1Step*, const Npp32fc ∗ *pSrc2*, int *nSrc2Step*, NppiSize *oSizeROI*, Npp64f ∗ *pError*, Npp8u ∗ *pDeviceBuffer*)

Three-channel 32-bit floating point complex image MaximumRelative_Error.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pError Pointer to the computed error (absolute value).

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppiMaximumRelativeErrorGetBufferHostSize_32f_C3R to compute the required size (in bytes).

Returns:

Image Data Related Error Codes, ROI Related Error Codes, or NPP_NOT_EVEN_STEP_ERROR if an invalid floating-point image is specified.

7.134.2.20 NppStatus nppiMaximumRelativeError_32fc_C4R (const Npp32fc ∗ *pSrc1*, int *nSrc1Step*, const Npp32fc ∗ *pSrc2*, int *nSrc2Step*, NppiSize *oSizeROI*, Npp64f ∗ *pError*, Npp8u ∗ *pDeviceBuffer*)

Four-channel 32-bit floating point complex image MaximumRelative_Error.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pError Pointer to the computed error (absolute value).

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppiMaximumRelativeErrorGetBufferHostSize_32f_C4R to compute the required size (in bytes).

Returns:

Image Data Related Error Codes, ROI Related Error Codes, or NPP_NOT_EVEN_STEP_ERROR if an invalid floating-point image is specified.

7.134.2.21 NppStatus nppiMaximumRelativeError_32s_C1R (const Npp32s ∗ *pSrc1*, int *nSrc1Step*, const Npp32s ∗ *pSrc2*, int *nSrc2Step*, NppiSize *oSizeROI*, Npp64f ∗ *pError*, Npp8u ∗ *pDeviceBuffer*)

One-channel 32-bit signed image MaximumRelative_Error.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pError Pointer to the computed error.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppiMaximumRelativeErrorGetBufferHostSize_16s_C1R to compute the required size (in bytes).

Returns:

Image Data Related Error Codes, ROI Related Error Codes.

7.134.2.22 NppStatus nppiMaximumRelativeError_32s_C2R (const Npp32s ∗ *pSrc1*, int *nSrc1Step*, const Npp32s ∗ *pSrc2*, int *nSrc2Step*, NppiSize *oSizeROI*, Npp64f ∗ *pError*, Npp8u ∗ *pDeviceBuffer*)

Two-channel 32-bit signed image MaximumRelative_Error.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pError Pointer to the computed error.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppiMaximumRelativeErrorGetBufferHostSize_16s_C2R to compute the required size (in bytes).

Returns:

Image Data Related Error Codes, ROI Related Error Codes.

7.134.2.23 NppStatus nppiMaximumRelativeError_32s_C3R (const Npp32s ∗ *pSrc1*, int *nSrc1Step*, const Npp32s ∗ *pSrc2*, int *nSrc2Step*, NppiSize *oSizeROI*, Npp64f ∗ *pError*, Npp8u ∗ *pDeviceBuffer*)

Three-channel 32-bit signed image MaximumRelative_Error.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pError Pointer to the computed error.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppiMaximumRelativeErrorGetBufferHostSize_16s_C3R to compute the required size (in bytes).

Returns:

Image Data Related Error Codes, ROI Related Error Codes.

7.134.2.24 NppStatus nppiMaximumRelativeError_32s_C4R (const Npp32s ∗ *pSrc1*, int *nSrc1Step*, const Npp32s ∗ *pSrc2*, int *nSrc2Step*, NppiSize *oSizeROI*, Npp64f ∗ *pError*, Npp8u ∗ *pDeviceBuffer*)

Four-channel 32-bit signed image MaximumRelative_Error.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pError Pointer to the computed error.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppiMaximumRelativeErrorGetBufferHostSize_16s_C4R to compute the required size (in bytes).

Returns:

Image Data Related Error Codes, ROI Related Error Codes.

7.134.2.25 NppStatus nppiMaximumRelativeError_32sc_C1R (const Npp32sc ∗ *pSrc1*, int *nSrc1Step*, const Npp32sc ∗ *pSrc2*, int *nSrc2Step*, NppiSize *oSizeROI*, Npp64f ∗ *pError*, Npp8u ∗ *pDeviceBuffer*)

One-channel 32-bit signed complex image MaximumRelative_Error.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pError Pointer to the computed error (absolute value).

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppiMaximumRelativeErrorGetBufferHostSize_16s_C1R to compute the required size (in bytes).

Returns:

Image Data Related Error Codes, ROI Related Error Codes.

7.134.2.26 NppStatus nppiMaximumRelativeError_32sc_C2R (const Npp32sc ∗ *pSrc1*, int *nSrc1Step*, const Npp32sc ∗ *pSrc2*, int *nSrc2Step*, NppiSize *oSizeROI*, Npp64f ∗ *pError*, Npp8u ∗ *pDeviceBuffer*)

Two-channel 32-bit signed complex image MaximumRelative_Error.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pError Pointer to the computed error (absolute value).

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppiMaximumRelativeErrorGetBufferHostSize_16s_C2R to compute the required size (in bytes).

Returns:

Image Data Related Error Codes, ROI Related Error Codes.

7.134.2.27 NppStatus nppiMaximumRelativeError_32sc_C3R (const Npp32sc ∗ *pSrc1*, int *nSrc1Step*, const Npp32sc ∗ *pSrc2*, int *nSrc2Step*, NppiSize *oSizeROI*, Npp64f ∗ *pError*, Npp8u ∗ *pDeviceBuffer*)

Three-channel 32-bit signed complex image MaximumRelative_Error.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pError Pointer to the computed error (absolute value).

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppiMaximumRelativeErrorGetBufferHostSize_16s_C3R to compute the required size (in bytes).

Returns:

Image Data Related Error Codes, ROI Related Error Codes.

7.134.2.28 NppStatus nppiMaximumRelativeError_32sc_C4R (const Npp32sc ∗ *pSrc1*, int *nSrc1Step*, const Npp32sc ∗ *pSrc2*, int *nSrc2Step*, NppiSize *oSizeROI*, Npp64f ∗ *pError*, Npp8u ∗ *pDeviceBuffer*)

Four-channel 32-bit signed complex image MaximumRelative_Error.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pError Pointer to the computed error (absolute value).

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppiMaximumRelativeErrorGetBufferHostSize_16s_C4R to compute the required size (in bytes).

Returns:

Image Data Related Error Codes, ROI Related Error Codes.

7.134.2.29 NppStatus nppiMaximumRelativeError_32u_C1R (const Npp32u ∗ *pSrc1*, int *nSrc1Step*, const Npp32u ∗ *pSrc2*, int *nSrc2Step*, NppiSize *oSizeROI*, Npp64f ∗ *pError*, Npp8u ∗ *pDeviceBuffer*)

One-channel 32-bit unsigned image MaximumRelative_Error.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pError Pointer to the computed error.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppiMaximumRelativeErrorGetBufferHostSize_16u_C1R to compute the required size (in bytes).

Returns:

Image Data Related Error Codes, ROI Related Error Codes.

7.134.2.30 NppStatus nppiMaximumRelativeError_32u_C2R (const Npp32u ∗ *pSrc1*, int *nSrc1Step*, const Npp32u ∗ *pSrc2*, int *nSrc2Step*, NppiSize *oSizeROI*, Npp64f ∗ *pError*, Npp8u ∗ *pDeviceBuffer*)

Two-channel 32-bit unsigned image MaximumRelative_Error.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pError Pointer to the computed error.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppiMaximumRelativeErrorGetBufferHostSize_16u_C2R to compute the required size (in bytes).

Returns:

Image Data Related Error Codes, ROI Related Error Codes.

7.134.2.31 NppStatus nppiMaximumRelativeError_32u_C3R (const Npp32u ∗ *pSrc1*, int *nSrc1Step*, const Npp32u ∗ *pSrc2*, int *nSrc2Step*, NppiSize *oSizeROI*, Npp64f ∗ *pError*, Npp8u ∗ *pDeviceBuffer*)

Three-channel 32-bit unsigned image MaximumRelative_Error.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pError Pointer to the computed error.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppiMaximumRelativeErrorGetBufferHostSize_16u_C3R to compute the required size (in bytes).

Returns:

Image Data Related Error Codes, ROI Related Error Codes.

7.134.2.32 NppStatus nppiMaximumRelativeError_32u_C4R (const Npp32u ∗ *pSrc1*, int *nSrc1Step*, const Npp32u ∗ *pSrc2*, int *nSrc2Step*, NppiSize *oSizeROI*, Npp64f ∗ *pError*, Npp8u ∗ *pDeviceBuffer*)

Four-channel 32-bit unsigned image MaximumRelative_Error.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pError Pointer to the computed error.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppiMaximumRelativeErrorGetBufferHostSize_16u_C4R to compute the required size (in bytes).

Returns:

Image Data Related Error Codes, ROI Related Error Codes.

7.134.2.33 NppStatus nppiMaximumRelativeError_64f_C1R (const Npp64f ∗ *pSrc1*, int *nSrc1Step*, const Npp64f ∗ *pSrc2*, int *nSrc2Step*, NppiSize *oSizeROI*, Npp64f ∗ *pError*, Npp8u ∗ *pDeviceBuffer*)

One-channel 64-bit floating point image MaximumRelative_Error.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pError Pointer to the computed error.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppiMaximumRelativeErrorGetBufferHostSize_32f_C1R to compute the required size (in bytes).

Returns:

Image Data Related Error Codes, ROI Related Error Codes, or NPP_NOT_EVEN_STEP_ERROR if an invalid floating-point image is specified.

7.134.2.34 NppStatus nppiMaximumRelativeError_64f_C2R (const Npp64f ∗ *pSrc1*, int *nSrc1Step*, const Npp64f ∗ *pSrc2*, int *nSrc2Step*, NppiSize *oSizeROI*, Npp64f ∗ *pError*, Npp8u ∗ *pDeviceBuffer*)

Two-channel 64-bit floating point image MaximumRelative_Error.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pError Pointer to the computed error.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppiMaximumRelativeErrorGetBufferHostSize_32f_C2R to compute the required size (in bytes).

Returns:

Image Data Related Error Codes, ROI Related Error Codes, or NPP_NOT_EVEN_STEP_ERROR if an invalid floating-point image is specified.

7.134.2.35 NppStatus nppiMaximumRelativeError_64f_C3R (const Npp64f ∗ *pSrc1*, int *nSrc1Step*, const Npp64f ∗ *pSrc2*, int *nSrc2Step*, NppiSize *oSizeROI*, Npp64f ∗ *pError*, Npp8u ∗ *pDeviceBuffer*)

Three-channel 64-bit floating point image MaximumRelative_Error.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pError Pointer to the computed error.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppiMaximumRelativeErrorGetBufferHostSize_32f_C3R to compute the required size (in bytes).

Returns:

Image Data Related Error Codes, ROI Related Error Codes, or NPP_NOT_EVEN_STEP_ERROR if an invalid floating-point image is specified.

7.134.2.36 NppStatus nppiMaximumRelativeError_64f_C4R (const Npp64f ∗ *pSrc1*, int *nSrc1Step*, const Npp64f ∗ *pSrc2*, int *nSrc2Step*, NppiSize *oSizeROI*, Npp64f ∗ *pError*, Npp8u ∗ *pDeviceBuffer*)

Four-channel 64-bit floating point image MaximumRelative_Error.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pError Pointer to the computed error.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppiMaximumRelativeErrorGetBufferHostSize_32f_C4R to compute the required size (in bytes).

Returns:

Image Data Related Error Codes, ROI Related Error Codes, or NPP_NOT_EVEN_STEP_ERROR if an invalid floating-point image is specified.

7.134.2.37 NppStatus nppiMaximumRelativeError_8s_C1R (const Npp8s ∗ *pSrc1*, int *nSrc1Step*, const Npp8s ∗ *pSrc2*, int *nSrc2Step*, NppiSize *oSizeROI*, Npp64f ∗ *pError*, Npp8u ∗ *pDeviceBuffer*)

One-channel 8-bit signed image MaximumRelative_Error.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pError Pointer to the computed error.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppiMaximumRelativeErrorGetBufferHostSize_8u_C1R to compute the required size (in bytes).

Returns:

Image Data Related Error Codes, ROI Related Error Codes.

7.134.2.38 NppStatus nppiMaximumRelativeError_8s_C2R (const Npp8s ∗ *pSrc1*, int *nSrc1Step*, const Npp8s ∗ *pSrc2*, int *nSrc2Step*, NppiSize *oSizeROI*, Npp64f ∗ *pError*, Npp8u ∗ *pDeviceBuffer*)

Two-channel 8-bit signed image MaximumRelative_Error.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pError Pointer to the computed error.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppiMaximumRelativeErrorGetBufferHostSize_8u_C2R to compute the required size (in bytes).

Returns:

Image Data Related Error Codes, ROI Related Error Codes.

7.134.2.39 NppStatus nppiMaximumRelativeError_8s_C3R (const Npp8s ∗ *pSrc1*, int *nSrc1Step*, const Npp8s ∗ *pSrc2*, int *nSrc2Step*, NppiSize *oSizeROI*, Npp64f ∗ *pError*, Npp8u ∗ *pDeviceBuffer*)

Three-channel 8-bit signed image MaximumRelative_Error.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pError Pointer to the computed error.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppiMaximumRelativeErrorGetBufferHostSize_8u_C3R to compute the required size (in bytes).

Returns:

Image Data Related Error Codes, ROI Related Error Codes.

7.134.2.40 NppStatus nppiMaximumRelativeError_8s_C4R (const Npp8s ∗ *pSrc1*, int *nSrc1Step*, const Npp8s ∗ *pSrc2*, int *nSrc2Step*, NppiSize *oSizeROI*, Npp64f ∗ *pError*, Npp8u ∗ *pDeviceBuffer*)

Four-channel 8-bit signed image MaximumRelative_Error.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pError Pointer to the computed error.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppiMaximumRelativeErrorGetBufferHostSize_8u_C4R to compute the required size (in bytes).

Returns:

Image Data Related Error Codes, ROI Related Error Codes.

7.134.2.41 NppStatus nppiMaximumRelativeError_8u_C1R (const Npp8u * *pSrc1*, int *nSrc1Step*, const Npp8u * *pSrc2*, int *nSrc2Step*, NppiSize *oSizeROI*, Npp64f * *pError*, Npp8u * *pDeviceBuffer*)

One-channel 8-bit unsigned image MaximumRelative_Error.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pError Pointer to the computed error.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppiMaximumRelativeErrorGetBufferHostSize_8u_C1R to compute the required size (in bytes).

Returns:

Image Data Related Error Codes, ROI Related Error Codes.

7.134.2.42 NppStatus nppiMaximumRelativeError_8u_C2R (const Npp8u * *pSrc1*, int *nSrc1Step*, const Npp8u * *pSrc2*, int *nSrc2Step*, NppiSize *oSizeROI*, Npp64f * *pError*, Npp8u * *pDeviceBuffer*)

Two-channel 8-bit unsigned image MaximumRelative_Error.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pError Pointer to the computed error.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppiMaximumRelativeErrorGetBufferHostSize_8u_C2R to compute the required size (in bytes).

Returns:

Image Data Related Error Codes, ROI Related Error Codes.

7.134.2.43 NppStatus nppiMaximumRelativeError_8u_C3R (const Npp8u * *pSrc1*, int *nSrc1Step*, const Npp8u * *pSrc2*, int *nSrc2Step*, NppiSize *oSizeROI*, Npp64f * *pError*, Npp8u * *pDeviceBuffer*)

Three-channel 8-bit unsigned image MaximumRelative_Error.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pError Pointer to the computed error.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppiMaximumRelativeErrorGetBufferHostSize_8u_C3R to compute the required size (in bytes).

Returns:

Image Data Related Error Codes, ROI Related Error Codes.

7.134.2.44 NppStatus nppiMaximumRelativeError_8u_C4R (const Npp8u $*$ *pSrc1*, int *nSrc1Step*, const Npp8u $*$ *pSrc2*, int *nSrc2Step*, NppiSize *oSizeROI*, Npp64f $*$ *pError*, Npp8u $*$ *pDeviceBuffer*)

Four-channel 8-bit unsigned image MaximumRelative_Error.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pError Pointer to the computed error.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppiMaximumRelativeErrorGetBufferHostSize_8u_C4R to compute the required size (in bytes).

Returns:

Image Data Related Error Codes, ROI Related Error Codes.

7.135 AverageRelativeError

Primitives for computing the average relative error between two images.

Functions

- NppStatus nppiAverageRelativeError_8u_C1R (const Npp8u ∗pSrc1, int nSrc1Step, const Npp8u ∗pSrc2, int nSrc2Step, NppiSize oSizeROI, Npp64f ∗pError, Npp8u ∗pDeviceBuffer)

    One-channel 8-bit unsigned image MaximumRelative_Error.

- NppStatus nppiAverageRelativeError_8s_C1R (const Npp8s ∗pSrc1, int nSrc1Step, const Npp8s ∗pSrc2, int nSrc2Step, NppiSize oSizeROI, Npp64f ∗pError, Npp8u ∗pDeviceBuffer)

    One-channel 8-bit signed image MaximumRelative_Error.

- NppStatus nppiAverageRelativeError_16u_C1R (const Npp16u ∗pSrc1, int nSrc1Step, const Npp16u ∗pSrc2, int nSrc2Step, NppiSize oSizeROI, Npp64f ∗pError, Npp8u ∗pDeviceBuffer)

    One-channel 16-bit unsigned image MaximumRelative_Error.

- NppStatus nppiAverageRelativeError_16s_C1R (const Npp16s ∗pSrc1, int nSrc1Step, const Npp16s ∗pSrc2, int nSrc2Step, NppiSize oSizeROI, Npp64f ∗pError, Npp8u ∗pDeviceBuffer)

    One-channel 16-bit signed image MaximumRelative_Error.

- NppStatus nppiAverageRelativeError_16sc_C1R (const Npp16sc ∗pSrc1, int nSrc1Step, const Npp16sc ∗pSrc2, int nSrc2Step, NppiSize oSizeROI, Npp64f ∗pError, Npp8u ∗pDeviceBuffer)

    One-channel 16-bit signed complex image MaximumRelative_Error.

- NppStatus nppiAverageRelativeError_32u_C1R (const Npp32u ∗pSrc1, int nSrc1Step, const Npp32u ∗pSrc2, int nSrc2Step, NppiSize oSizeROI, Npp64f ∗pError, Npp8u ∗pDeviceBuffer)

    One-channel 32-bit unsigned image MaximumRelative_Error.

- NppStatus nppiAverageRelativeError_32s_C1R (const Npp32s ∗pSrc1, int nSrc1Step, const Npp32s ∗pSrc2, int nSrc2Step, NppiSize oSizeROI, Npp64f ∗pError, Npp8u ∗pDeviceBuffer)

    One-channel 32-bit signed image MaximumRelative_Error.

- NppStatus nppiAverageRelativeError_32sc_C1R (const Npp32sc ∗pSrc1, int nSrc1Step, const Npp32sc ∗pSrc2, int nSrc2Step, NppiSize oSizeROI, Npp64f ∗pError, Npp8u ∗pDeviceBuffer)

    One-channel 32-bit signed complex image MaximumRelative_Error.

- NppStatus nppiAverageRelativeError_32f_C1R (const Npp32f ∗pSrc1, int nSrc1Step, const Npp32f ∗pSrc2, int nSrc2Step, NppiSize oSizeROI, Npp64f ∗pError, Npp8u ∗pDeviceBuffer)

    One-channel 32-bit floating point image MaximumRelative_Error.

- NppStatus nppiAverageRelativeError_32fc_C1R (const Npp32fc ∗pSrc1, int nSrc1Step, const Npp32fc ∗pSrc2, int nSrc2Step, NppiSize oSizeROI, Npp64f ∗pError, Npp8u ∗pDeviceBuffer)

    One-channel 32-bit floating point complex image MaximumRelative_Error.

- NppStatus nppiAverageRelativeError_64f_C1R (const Npp64f ∗pSrc1, int nSrc1Step, const Npp64f ∗pSrc2, int nSrc2Step, NppiSize oSizeROI, Npp64f ∗pError, Npp8u ∗pDeviceBuffer)

    One-channel 64-bit floating point image MaximumRelative_Error.

- NppStatus nppiAverageRelativeError_8u_C2R (const Npp8u ∗pSrc1, int nSrc1Step, const Npp8u ∗pSrc2, int nSrc2Step, NppiSize oSizeROI, Npp64f ∗pError, Npp8u ∗pDeviceBuffer)

  Two-channel 8-bit unsigned image MaximumRelative_Error.

- NppStatus nppiAverageRelativeError_8s_C2R (const Npp8s ∗pSrc1, int nSrc1Step, const Npp8s ∗pSrc2, int nSrc2Step, NppiSize oSizeROI, Npp64f ∗pError, Npp8u ∗pDeviceBuffer)

  Two-channel 8-bit signed image MaximumRelative_Error.

- NppStatus nppiAverageRelativeError_16u_C2R (const Npp16u ∗pSrc1, int nSrc1Step, const Npp16u ∗pSrc2, int nSrc2Step, NppiSize oSizeROI, Npp64f ∗pError, Npp8u ∗pDeviceBuffer)

  Two-channel 16-bit unsigned image MaximumRelative_Error.

- NppStatus nppiAverageRelativeError_16s_C2R (const Npp16s ∗pSrc1, int nSrc1Step, const Npp16s ∗pSrc2, int nSrc2Step, NppiSize oSizeROI, Npp64f ∗pError, Npp8u ∗pDeviceBuffer)

  Two-channel 16-bit signed image MaximumRelative_Error.

- NppStatus nppiAverageRelativeError_16sc_C2R (const Npp16sc ∗pSrc1, int nSrc1Step, const Npp16sc ∗pSrc2, int nSrc2Step, NppiSize oSizeROI, Npp64f ∗pError, Npp8u ∗pDeviceBuffer)

  Two-channel 16-bit signed complex image MaximumRelative_Error.

- NppStatus nppiAverageRelativeError_32u_C2R (const Npp32u ∗pSrc1, int nSrc1Step, const Npp32u ∗pSrc2, int nSrc2Step, NppiSize oSizeROI, Npp64f ∗pError, Npp8u ∗pDeviceBuffer)

  Two-channel 32-bit unsigned image MaximumRelative_Error.

- NppStatus nppiAverageRelativeError_32s_C2R (const Npp32s ∗pSrc1, int nSrc1Step, const Npp32s ∗pSrc2, int nSrc2Step, NppiSize oSizeROI, Npp64f ∗pError, Npp8u ∗pDeviceBuffer)

  Two-channel 32-bit signed image MaximumRelative_Error.

- NppStatus nppiAverageRelativeError_32sc_C2R (const Npp32sc ∗pSrc1, int nSrc1Step, const Npp32sc ∗pSrc2, int nSrc2Step, NppiSize oSizeROI, Npp64f ∗pError, Npp8u ∗pDeviceBuffer)

  Two-channel 32-bit signed complex image MaximumRelative_Error.

- NppStatus nppiAverageRelativeError_32f_C2R (const Npp32f ∗pSrc1, int nSrc1Step, const Npp32f ∗pSrc2, int nSrc2Step, NppiSize oSizeROI, Npp64f ∗pError, Npp8u ∗pDeviceBuffer)

  Two-channel 32-bit floating point image MaximumRelative_Error.

- NppStatus nppiAverageRelativeError_32fc_C2R (const Npp32fc ∗pSrc1, int nSrc1Step, const Npp32fc ∗pSrc2, int nSrc2Step, NppiSize oSizeROI, Npp64f ∗pError, Npp8u ∗pDeviceBuffer)

  Two-channel 32-bit floating point complex image MaximumRelative_Error.

- NppStatus nppiAverageRelativeError_64f_C2R (const Npp64f ∗pSrc1, int nSrc1Step, const Npp64f ∗pSrc2, int nSrc2Step, NppiSize oSizeROI, Npp64f ∗pError, Npp8u ∗pDeviceBuffer)

  Two-channel 64-bit floating point image MaximumRelative_Error.

- NppStatus nppiAverageRelativeError_8u_C3R (const Npp8u ∗pSrc1, int nSrc1Step, const Npp8u ∗pSrc2, int nSrc2Step, NppiSize oSizeROI, Npp64f ∗pError, Npp8u ∗pDeviceBuffer)

  Three-channel 8-bit unsigned image MaximumRelative_Error.

- NppStatus nppiAverageRelativeError_8s_C3R (const Npp8s ∗pSrc1, int nSrc1Step, const Npp8s ∗pSrc2, int nSrc2Step, NppiSize oSizeROI, Npp64f ∗pError, Npp8u ∗pDeviceBuffer)

  Three-channel 8-bit signed image MaximumRelative_Error.

- NppStatus nppiAverageRelativeError_16u_C3R (const Npp16u ∗pSrc1, int nSrc1Step, const Npp16u ∗pSrc2, int nSrc2Step, NppiSize oSizeROI, Npp64f ∗pError, Npp8u ∗pDeviceBuffer)

  Three-channel 16-bit unsigned image MaximumRelative_Error.

- NppStatus nppiAverageRelativeError_16s_C3R (const Npp16s ∗pSrc1, int nSrc1Step, const Npp16s ∗pSrc2, int nSrc2Step, NppiSize oSizeROI, Npp64f ∗pError, Npp8u ∗pDeviceBuffer)

  Three-channel 16-bit signed image MaximumRelative_Error.

- NppStatus nppiAverageRelativeError_16sc_C3R (const Npp16sc ∗pSrc1, int nSrc1Step, const Npp16sc ∗pSrc2, int nSrc2Step, NppiSize oSizeROI, Npp64f ∗pError, Npp8u ∗pDeviceBuffer)

  Three-channel 16-bit signed complex image MaximumRelative_Error.

- NppStatus nppiAverageRelativeError_32u_C3R (const Npp32u ∗pSrc1, int nSrc1Step, const Npp32u ∗pSrc2, int nSrc2Step, NppiSize oSizeROI, Npp64f ∗pError, Npp8u ∗pDeviceBuffer)

  Three-channel 32-bit unsigned image MaximumRelative_Error.

- NppStatus nppiAverageRelativeError_32s_C3R (const Npp32s ∗pSrc1, int nSrc1Step, const Npp32s ∗pSrc2, int nSrc2Step, NppiSize oSizeROI, Npp64f ∗pError, Npp8u ∗pDeviceBuffer)

  Three-channel 32-bit signed image MaximumRelative_Error.

- NppStatus nppiAverageRelativeError_32sc_C3R (const Npp32sc ∗pSrc1, int nSrc1Step, const Npp32sc ∗pSrc2, int nSrc2Step, NppiSize oSizeROI, Npp64f ∗pError, Npp8u ∗pDeviceBuffer)

  Three-channel 32-bit signed complex image MaximumRelative_Error.

- NppStatus nppiAverageRelativeError_32f_C3R (const Npp32f ∗pSrc1, int nSrc1Step, const Npp32f ∗pSrc2, int nSrc2Step, NppiSize oSizeROI, Npp64f ∗pError, Npp8u ∗pDeviceBuffer)

  Three-channel 32-bit floating point image MaximumRelative_Error.

- NppStatus nppiAverageRelativeError_32fc_C3R (const Npp32fc ∗pSrc1, int nSrc1Step, const Npp32fc ∗pSrc2, int nSrc2Step, NppiSize oSizeROI, Npp64f ∗pError, Npp8u ∗pDeviceBuffer)

  Three-channel 32-bit floating point complex image MaximumRelative_Error.

- NppStatus nppiAverageRelativeError_64f_C3R (const Npp64f ∗pSrc1, int nSrc1Step, const Npp64f ∗pSrc2, int nSrc2Step, NppiSize oSizeROI, Npp64f ∗pError, Npp8u ∗pDeviceBuffer)

  Three-channel 64-bit floating point image MaximumRelative_Error.

- NppStatus nppiAverageRelativeError_8u_C4R (const Npp8u ∗pSrc1, int nSrc1Step, const Npp8u ∗pSrc2, int nSrc2Step, NppiSize oSizeROI, Npp64f ∗pError, Npp8u ∗pDeviceBuffer)

  Four-channel 8-bit unsigned image MaximumRelative_Error.

- NppStatus nppiAverageRelativeError_8s_C4R (const Npp8s ∗pSrc1, int nSrc1Step, const Npp8s ∗pSrc2, int nSrc2Step, NppiSize oSizeROI, Npp64f ∗pError, Npp8u ∗pDeviceBuffer)

  Four-channel 8-bit signed image MaximumRelative_Error.

- NppStatus nppiAverageRelativeError_16u_C4R (const Npp16u ∗pSrc1, int nSrc1Step, const Npp16u ∗pSrc2, int nSrc2Step, NppiSize oSizeROI, Npp64f ∗pError, Npp8u ∗pDeviceBuffer)

  Four-channel 16-bit unsigned image MaximumRelative_Error.

- NppStatus nppiAverageRelativeError_16s_C4R (const Npp16s ∗pSrc1, int nSrc1Step, const Npp16s ∗pSrc2, int nSrc2Step, NppiSize oSizeROI, Npp64f ∗pError, Npp8u ∗pDeviceBuffer)

Four-channel 16-bit signed image MaximumRelative_Error.

- NppStatus nppiAverageRelativeError_16sc_C4R (const Npp16sc ∗pSrc1, int nSrc1Step, const Npp16sc ∗pSrc2, int nSrc2Step, NppiSize oSizeROI, Npp64f ∗pError, Npp8u ∗pDeviceBuffer)

  Four-channel 16-bit signed complex image MaximumRelative_Error.

- NppStatus nppiAverageRelativeError_32u_C4R (const Npp32u ∗pSrc1, int nSrc1Step, const Npp32u ∗pSrc2, int nSrc2Step, NppiSize oSizeROI, Npp64f ∗pError, Npp8u ∗pDeviceBuffer)

  Four-channel 32-bit unsigned image MaximumRelative_Error.

- NppStatus nppiAverageRelativeError_32s_C4R (const Npp32s ∗pSrc1, int nSrc1Step, const Npp32s ∗pSrc2, int nSrc2Step, NppiSize oSizeROI, Npp64f ∗pError, Npp8u ∗pDeviceBuffer)

  Four-channel 32-bit signed image MaximumRelative_Error.

- NppStatus nppiAverageRelativeError_32sc_C4R (const Npp32sc ∗pSrc1, int nSrc1Step, const Npp32sc ∗pSrc2, int nSrc2Step, NppiSize oSizeROI, Npp64f ∗pError, Npp8u ∗pDeviceBuffer)

  Four-channel 32-bit signed complex image MaximumRelative_Error.

- NppStatus nppiAverageRelativeError_32f_C4R (const Npp32f ∗pSrc1, int nSrc1Step, const Npp32f ∗pSrc2, int nSrc2Step, NppiSize oSizeROI, Npp64f ∗pError, Npp8u ∗pDeviceBuffer)

  Four-channel 32-bit floating point image MaximumRelative_Error.

- NppStatus nppiAverageRelativeError_32fc_C4R (const Npp32fc ∗pSrc1, int nSrc1Step, const Npp32fc ∗pSrc2, int nSrc2Step, NppiSize oSizeROI, Npp64f ∗pError, Npp8u ∗pDeviceBuffer)

  Four-channel 32-bit floating point complex image MaximumRelative_Error.

- NppStatus nppiAverageRelativeError_64f_C4R (const Npp64f ∗pSrc1, int nSrc1Step, const Npp64f ∗pSrc2, int nSrc2Step, NppiSize oSizeROI, Npp64f ∗pError, Npp8u ∗pDeviceBuffer)

  Four-channel 64-bit floating point image MaximumRelative_Error.

7.135.1 Detailed Description

Primitives for computing the average relative error between two images.

Given two images $pSrc1$ and $pSrc2$ both with width W and height H, the maximum relative error is defined as:

$$AverageRelativeError = \frac{1}{W \cdot H \cdot N} \sum_{n=0}^{N-1} \sum_{j=0}^{H-1} \sum_{i=0}^{W-1} \frac{|pSrc1(j,i) - pSrc2(j,i)|}{max(|pSrc1(j,i)|, |pSrc2(j,i)|)}$$

where N is the number of channels. If the image is in complex format, the absolute value is used for computation.

7.135.2 Function Documentation

7.135.2.1 NppStatus nppiAverageRelativeError_16s_C1R (const Npp16s ∗ *pSrc1*, int *nSrc1Step*, const Npp16s ∗ *pSrc2*, int *nSrc2Step*, NppiSize *oSizeROI*, Npp64f ∗ *pError*, Npp8u ∗ *pDeviceBuffer*)

One-channel 16-bit signed image MaximumRelative_Error.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pError Pointer to the computed error.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppiAverageRelativeErrorGetBufferHostSize_16s_C1R to compute the required size (in bytes).

Returns:

Image Data Related Error Codes, ROI Related Error Codes.

7.135.2.2 NppStatus nppiAverageRelativeError_16s_C2R (const Npp16s ∗ *pSrc1*, int *nSrc1Step*, const Npp16s ∗ *pSrc2*, int *nSrc2Step*, NppiSize *oSizeROI*, Npp64f ∗ *pError*, Npp8u ∗ *pDeviceBuffer*)

Two-channel 16-bit signed image MaximumRelative_Error.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pError Pointer to the computed error.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppiAverageRelativeErrorGetBufferHostSize_16s_C2R to compute the required size (in bytes).

Returns:

Image Data Related Error Codes, ROI Related Error Codes.

7.135.2.3 NppStatus nppiAverageRelativeError_16s_C3R (const Npp16s ∗ *pSrc1*, int *nSrc1Step*, const Npp16s ∗ *pSrc2*, int *nSrc2Step*, NppiSize *oSizeROI*, Npp64f ∗ *pError*, Npp8u ∗ *pDeviceBuffer*)

Three-channel 16-bit signed image MaximumRelative_Error.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pError Pointer to the computed error.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppiAverageRelativeErrorGetBufferHostSize_16s_C3R to compute the required size (in bytes).

Returns:

Image Data Related Error Codes, ROI Related Error Codes.

7.135.2.4 NppStatus nppiAverageRelativeError_16s_C4R (const Npp16s ∗ *pSrc1*, int *nSrc1Step*, const Npp16s ∗ *pSrc2*, int *nSrc2Step*, NppiSize *oSizeROI*, Npp64f ∗ *pError*, Npp8u ∗ *pDeviceBuffer*)

Four-channel 16-bit signed image MaximumRelative_Error.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pError Pointer to the computed error.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppiAverageRelativeErrorGetBufferHostSize_16s_C4R to compute the required size (in bytes).

Returns:

Image Data Related Error Codes, ROI Related Error Codes.

7.135.2.5 NppStatus nppiAverageRelativeError_16sc_C1R (const Npp16sc ∗ *pSrc1*, int *nSrc1Step*, const Npp16sc ∗ *pSrc2*, int *nSrc2Step*, NppiSize *oSizeROI*, Npp64f ∗ *pError*, Npp8u ∗ *pDeviceBuffer*)

One-channel 16-bit signed complex image MaximumRelative_Error.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pError Pointer to the computed error (absolute value).

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppiAverageRelativeErrorGetBufferHostSize_16s_C1R to compute the required size (in bytes).

Returns:

Image Data Related Error Codes, ROI Related Error Codes.

7.135.2.6 NppStatus nppiAverageRelativeError_16sc_C2R (const Npp16sc * *pSrc1*, int *nSrc1Step*, const Npp16sc * *pSrc2*, int *nSrc2Step*, NppiSize *oSizeROI*, Npp64f * *pError*, Npp8u * *pDeviceBuffer*)

Two-channel 16-bit signed complex image MaximumRelative_Error.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pError Pointer to the computed error (absolute value).

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppiAverageRelativeErrorGetBufferHostSize_16s_C2R to compute the required size (in bytes).

Returns:

Image Data Related Error Codes, ROI Related Error Codes.

7.135.2.7 NppStatus nppiAverageRelativeError_16sc_C3R (const Npp16sc * *pSrc1*, int *nSrc1Step*, const Npp16sc * *pSrc2*, int *nSrc2Step*, NppiSize *oSizeROI*, Npp64f * *pError*, Npp8u * *pDeviceBuffer*)

Three-channel 16-bit signed complex image MaximumRelative_Error.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pError Pointer to the computed error (absolute value).

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppiAverageRelativeErrorGetBufferHostSize_16s_C3R to compute the required size (in bytes).

Returns:

Image Data Related Error Codes, ROI Related Error Codes.

7.135.2.8 NppStatus nppiAverageRelativeError_16sc_C4R (const Npp16sc ∗ *pSrc1*, int *nSrc1Step*, const Npp16sc ∗ *pSrc2*, int *nSrc2Step*, NppiSize *oSizeROI*, Npp64f ∗ *pError*, Npp8u ∗ *pDeviceBuffer*)

Four-channel 16-bit signed complex image MaximumRelative_Error.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pError Pointer to the computed error (absolute value).

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppiAverageRelativeErrorGetBufferHostSize_16s_C4R to compute the required size (in bytes).

Returns:

Image Data Related Error Codes, ROI Related Error Codes.

7.135.2.9 NppStatus nppiAverageRelativeError_16u_C1R (const Npp16u ∗ *pSrc1*, int *nSrc1Step*, const Npp16u ∗ *pSrc2*, int *nSrc2Step*, NppiSize *oSizeROI*, Npp64f ∗ *pError*, Npp8u ∗ *pDeviceBuffer*)

One-channel 16-bit unsigned image MaximumRelative_Error.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pError Pointer to the computed error.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppiAverageRelativeErrorGetBufferHostSize_16u_C1R to compute the required size (in bytes).

Returns:

Image Data Related Error Codes, ROI Related Error Codes.

7.135.2.10 NppStatus nppiAverageRelativeError_16u_C2R (const Npp16u ∗ *pSrc1*, int *nSrc1Step*, const Npp16u ∗ *pSrc2*, int *nSrc2Step*, NppiSize *oSizeROI*, Npp64f ∗ *pError*, Npp8u ∗ *pDeviceBuffer*)

Two-channel 16-bit unsigned image MaximumRelative_Error.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pError Pointer to the computed error.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppiAverageRelativeErrorGetBufferHostSize_16u_C2R to compute the required size (in bytes).

Returns:

Image Data Related Error Codes, ROI Related Error Codes.

7.135.2.11 NppStatus nppiAverageRelativeError_16u_C3R (const Npp16u ∗ *pSrc1*, int *nSrc1Step*, const Npp16u ∗ *pSrc2*, int *nSrc2Step*, NppiSize *oSizeROI*, Npp64f ∗ *pError*, Npp8u ∗ *pDeviceBuffer*)

Three-channel 16-bit unsigned image MaximumRelative_Error.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pError Pointer to the computed error.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppiAverageRelativeErrorGetBufferHostSize_16u_C3R to compute the required size (in bytes).

Returns:

Image Data Related Error Codes, ROI Related Error Codes.

7.135.2.12 NppStatus nppiAverageRelativeError_16u_C4R (const Npp16u ∗ *pSrc1*, int *nSrc1Step*, const Npp16u ∗ *pSrc2*, int *nSrc2Step*, NppiSize *oSizeROI*, Npp64f ∗ *pError*, Npp8u ∗ *pDeviceBuffer*)

Four-channel 16-bit unsigned image MaximumRelative_Error.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pError Pointer to the computed error.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppiAverageRelativeErrorGetBufferHostSize_16u_C4R to compute the required size (in bytes).

Returns:

Image Data Related Error Codes, ROI Related Error Codes.

7.135.2.13 NppStatus nppiAverageRelativeError_32f_C1R (const Npp32f $*$ *pSrc1*, int *nSrc1Step*, const Npp32f $*$ *pSrc2*, int *nSrc2Step*, NppiSize *oSizeROI*, Npp64f $*$ *pError*, Npp8u $*$ *pDeviceBuffer*)

One-channel 32-bit floating point image MaximumRelative_Error.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pError Pointer to the computed error.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppiAverageRelativeErrorGetBufferHostSize_32f_C1R to compute the required size (in bytes).

Returns:

Image Data Related Error Codes, ROI Related Error Codes, or NPP_NOT_EVEN_STEP_ERROR if an invalid floating-point image is specified.

7.135.2.14 NppStatus nppiAverageRelativeError_32f_C2R (const Npp32f $*$ *pSrc1*, int *nSrc1Step*, const Npp32f $*$ *pSrc2*, int *nSrc2Step*, NppiSize *oSizeROI*, Npp64f $*$ *pError*, Npp8u $*$ *pDeviceBuffer*)

Two-channel 32-bit floating point image MaximumRelative_Error.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pError Pointer to the computed error.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppiAverageRelativeErrorGetBufferHostSize_32f_C2R to compute the required size (in bytes).

Returns:

Image Data Related Error Codes, ROI Related Error Codes, or NPP_NOT_EVEN_STEP_ERROR if an invalid floating-point image is specified.

7.135.2.15 NppStatus nppiAverageRelativeError_32f_C3R (const Npp32f * *pSrc1*, int *nSrc1Step*, const Npp32f * *pSrc2*, int *nSrc2Step*, NppiSize *oSizeROI*, Npp64f * *pError*, Npp8u * *pDeviceBuffer*)

Three-channel 32-bit floating point image MaximumRelative_Error.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pError Pointer to the computed error.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppiAverageRelativeErrorGetBufferHostSize_32f_C3R to compute the required size (in bytes).

Returns:

Image Data Related Error Codes, ROI Related Error Codes, or NPP_NOT_EVEN_STEP_ERROR if an invalid floating-point image is specified.

7.135.2.16 NppStatus nppiAverageRelativeError_32f_C4R (const Npp32f * *pSrc1*, int *nSrc1Step*, const Npp32f * *pSrc2*, int *nSrc2Step*, NppiSize *oSizeROI*, Npp64f * *pError*, Npp8u * *pDeviceBuffer*)

Four-channel 32-bit floating point image MaximumRelative_Error.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pError Pointer to the computed error.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppiAverageRelativeErrorGetBufferHostSize_32f_C4R to compute the required size (in bytes).

Returns:

Image Data Related Error Codes, ROI Related Error Codes, or NPP_NOT_EVEN_STEP_ERROR if an invalid floating-point image is specified.

7.135.2.17 NppStatus nppiAverageRelativeError_32fc_C1R (const Npp32fc ∗ *pSrc1*, int *nSrc1Step*, const Npp32fc ∗ *pSrc2*, int *nSrc2Step*, NppiSize *oSizeROI*, Npp64f ∗ *pError*, Npp8u ∗ *pDeviceBuffer*)

One-channel 32-bit floating point complex image MaximumRelative_Error.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pError Pointer to the computed error (absolute value).

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppiAverageRelativeErrorGetBufferHostSize_32f_C1R to compute the required size (in bytes).

Returns:

Image Data Related Error Codes, ROI Related Error Codes, or NPP_NOT_EVEN_STEP_ERROR if an invalid floating-point image is specified.

7.135.2.18 NppStatus nppiAverageRelativeError_32fc_C2R (const Npp32fc ∗ *pSrc1*, int *nSrc1Step*, const Npp32fc ∗ *pSrc2*, int *nSrc2Step*, NppiSize *oSizeROI*, Npp64f ∗ *pError*, Npp8u ∗ *pDeviceBuffer*)

Two-channel 32-bit floating point complex image MaximumRelative_Error.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pError Pointer to the computed error (absolute value).

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppiAverageRelativeErrorGetBufferHostSize_32f_C2R to compute the required size (in bytes).

Returns:

Image Data Related Error Codes, ROI Related Error Codes, or NPP_NOT_EVEN_STEP_ERROR if an invalid floating-point image is specified.

7.135.2.19 NppStatus nppiAverageRelativeError_32fc_C3R (const Npp32fc * *pSrc1*, int *nSrc1Step*, const Npp32fc * *pSrc2*, int *nSrc2Step*, NppiSize *oSizeROI*, Npp64f * *pError*, Npp8u * *pDeviceBuffer*)

Three-channel 32-bit floating point complex image MaximumRelative_Error.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pError Pointer to the computed error (absolute value).

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppiAverageRelativeErrorGetBufferHostSize_32f_C3R to compute the required size (in bytes).

Returns:

Image Data Related Error Codes, ROI Related Error Codes, or NPP_NOT_EVEN_STEP_ERROR if an invalid floating-point image is specified.

7.135.2.20 NppStatus nppiAverageRelativeError_32fc_C4R (const Npp32fc * *pSrc1*, int *nSrc1Step*, const Npp32fc * *pSrc2*, int *nSrc2Step*, NppiSize *oSizeROI*, Npp64f * *pError*, Npp8u * *pDeviceBuffer*)

Four-channel 32-bit floating point complex image MaximumRelative_Error.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pError Pointer to the computed error (absolute value).

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppiAverageRelativeErrorGetBufferHostSize_32f_C4R to compute the required size (in bytes).

Returns:

Image Data Related Error Codes, ROI Related Error Codes, or NPP_NOT_EVEN_STEP_ERROR if an invalid floating-point image is specified.

7.135.2.21 NppStatus nppiAverageRelativeError_32s_C1R (const Npp32s ∗ *pSrc1*, int *nSrc1Step*, const Npp32s ∗ *pSrc2*, int *nSrc2Step*, NppiSize *oSizeROI*, Npp64f ∗ *pError*, Npp8u ∗ *pDeviceBuffer*)

One-channel 32-bit signed image MaximumRelative_Error.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pError Pointer to the computed error.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppiAverageRelativeErrorGetBufferHostSize_16s_C1R to compute the required size (in bytes).

Returns:

Image Data Related Error Codes, ROI Related Error Codes.

7.135.2.22 NppStatus nppiAverageRelativeError_32s_C2R (const Npp32s ∗ *pSrc1*, int *nSrc1Step*, const Npp32s ∗ *pSrc2*, int *nSrc2Step*, NppiSize *oSizeROI*, Npp64f ∗ *pError*, Npp8u ∗ *pDeviceBuffer*)

Two-channel 32-bit signed image MaximumRelative_Error.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pError Pointer to the computed error.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppiAverageRelativeErrorGetBufferHostSize_16s_C2R to compute the required size (in bytes).

Returns:

Image Data Related Error Codes, ROI Related Error Codes.

7.135.2.23 NppStatus nppiAverageRelativeError_32s_C3R (const Npp32s ∗ *pSrc1*, int *nSrc1Step*, const Npp32s ∗ *pSrc2*, int *nSrc2Step*, NppiSize *oSizeROI*, Npp64f ∗ *pError*, Npp8u ∗ *pDeviceBuffer*)

Three-channel 32-bit signed image MaximumRelative_Error.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pError Pointer to the computed error.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppiAverageRelativeErrorGetBufferHostSize_16s_C3R to compute the required size (in bytes).

Returns:

Image Data Related Error Codes, ROI Related Error Codes.

7.135.2.24 NppStatus nppiAverageRelativeError_32s_C4R (const Npp32s ∗ *pSrc1*, int *nSrc1Step*, const Npp32s ∗ *pSrc2*, int *nSrc2Step*, NppiSize *oSizeROI*, Npp64f ∗ *pError*, Npp8u ∗ *pDeviceBuffer*)

Four-channel 32-bit signed image MaximumRelative_Error.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pError Pointer to the computed error.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppiAverageRelativeErrorGetBufferHostSize_16s_C4R to compute the required size (in bytes).

Returns:

Image Data Related Error Codes, ROI Related Error Codes.

7.135.2.25 NppStatus nppiAverageRelativeError_32sc_C1R (const Npp32sc ∗ *pSrc1*, int *nSrc1Step*, const Npp32sc ∗ *pSrc2*, int *nSrc2Step*, NppiSize *oSizeROI*, Npp64f ∗ *pError*, Npp8u ∗ *pDeviceBuffer*)

One-channel 32-bit signed complex image MaximumRelative_Error.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pError Pointer to the computed error (absolute value).

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppiAverageRelativeErrorGetBufferHostSize_16s_C1R to compute the required size (in bytes).

Returns:

Image Data Related Error Codes, ROI Related Error Codes.

7.135.2.26 NppStatus nppiAverageRelativeError_32sc_C2R (const Npp32sc ∗ *pSrc1*, int *nSrc1Step*, const Npp32sc ∗ *pSrc2*, int *nSrc2Step*, NppiSize *oSizeROI*, Npp64f ∗ *pError*, Npp8u ∗ *pDeviceBuffer*)

Two-channel 32-bit signed complex image MaximumRelative_Error.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pError Pointer to the computed error (absolute value).

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppiAverageRelativeErrorGetBufferHostSize_16s_C2R to compute the required size (in bytes).

Returns:

Image Data Related Error Codes, ROI Related Error Codes.

7.135.2.27 NppStatus nppiAverageRelativeError_32sc_C3R (const Npp32sc ∗ *pSrc1*, int *nSrc1Step*, const Npp32sc ∗ *pSrc2*, int *nSrc2Step*, NppiSize *oSizeROI*, Npp64f ∗ *pError*, Npp8u ∗ *pDeviceBuffer*)

Three-channel 32-bit signed complex image MaximumRelative_Error.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pError Pointer to the computed error (absolute value).

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppiAverageRelativeErrorGetBufferHostSize_16s_C3R to compute the required size (in bytes).

Returns:

Image Data Related Error Codes, ROI Related Error Codes.

7.135.2.28 NppStatus nppiAverageRelativeError_32sc_C4R (const Npp32sc ∗ *pSrc1*, int *nSrc1Step*, const Npp32sc ∗ *pSrc2*, int *nSrc2Step*, NppiSize *oSizeROI*, Npp64f ∗ *pError*, Npp8u ∗ *pDeviceBuffer*)

Four-channel 32-bit signed complex image MaximumRelative_Error.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pError Pointer to the computed error (absolute value).

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppiAverageRelativeErrorGetBufferHostSize_16s_C4R to compute the required size (in bytes).

Returns:

Image Data Related Error Codes, ROI Related Error Codes.

7.135.2.29 NppStatus nppiAverageRelativeError_32u_C1R (const Npp32u ∗ *pSrc1*, int *nSrc1Step*, const Npp32u ∗ *pSrc2*, int *nSrc2Step*, NppiSize *oSizeROI*, Npp64f ∗ *pError*, Npp8u ∗ *pDeviceBuffer*)

One-channel 32-bit unsigned image MaximumRelative_Error.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pError Pointer to the computed error.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppiAverageRelativeErrorGetBufferHostSize_16u_C1R to compute the required size (in bytes).

Returns:

Image Data Related Error Codes, ROI Related Error Codes.

7.135.2.30 NppStatus nppiAverageRelativeError_32u_C2R (const Npp32u ∗ *pSrc1*, int *nSrc1Step*, const Npp32u ∗ *pSrc2*, int *nSrc2Step*, NppiSize *oSizeROI*, Npp64f ∗ *pError*, Npp8u ∗ *pDeviceBuffer*)

Two-channel 32-bit unsigned image MaximumRelative_Error.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pError Pointer to the computed error.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppiAverageRelativeErrorGetBufferHostSize_16u_C2R to compute the required size (in bytes).

Returns:

Image Data Related Error Codes, ROI Related Error Codes.

7.135.2.31 NppStatus nppiAverageRelativeError_32u_C3R (const Npp32u ∗ *pSrc1*, int *nSrc1Step*, const Npp32u ∗ *pSrc2*, int *nSrc2Step*, NppiSize *oSizeROI*, Npp64f ∗ *pError*, Npp8u ∗ *pDeviceBuffer*)

Three-channel 32-bit unsigned image MaximumRelative_Error.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pError Pointer to the computed error.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppiAverageRelativeErrorGetBufferHostSize_16u_C3R to compute the required size (in bytes).

Returns:

Image Data Related Error Codes, ROI Related Error Codes.

7.135.2.32 NppStatus nppiAverageRelativeError_32u_C4R (const Npp32u ∗ *pSrc1*, int *nSrc1Step*, const Npp32u ∗ *pSrc2*, int *nSrc2Step*, NppiSize *oSizeROI*, Npp64f ∗ *pError*, Npp8u ∗ *pDeviceBuffer*)

Four-channel 32-bit unsigned image MaximumRelative_Error.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pError Pointer to the computed error.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppiAverageRelativeErrorGetBufferHostSize_16u_C4R to compute the required size (in bytes).

Returns:

Image Data Related Error Codes, ROI Related Error Codes.

7.135.2.33 NppStatus nppiAverageRelativeError_64f_C1R (const Npp64f * *pSrc1*, int *nSrc1Step*, const Npp64f * *pSrc2*, int *nSrc2Step*, NppiSize *oSizeROI*, Npp64f * *pError*, Npp8u * *pDeviceBuffer*)

One-channel 64-bit floating point image MaximumRelative_Error.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pError Pointer to the computed error.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppiAverageRelativeErrorGetBufferHostSize_32f_C1R to compute the required size (in bytes).

Returns:

Image Data Related Error Codes, ROI Related Error Codes, or NPP_NOT_EVEN_STEP_ERROR if an invalid floating-point image is specified.

7.135.2.34 NppStatus nppiAverageRelativeError_64f_C2R (const Npp64f * *pSrc1*, int *nSrc1Step*, const Npp64f * *pSrc2*, int *nSrc2Step*, NppiSize *oSizeROI*, Npp64f * *pError*, Npp8u * *pDeviceBuffer*)

Two-channel 64-bit floating point image MaximumRelative_Error.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pError Pointer to the computed error.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppiAverageRelativeErrorGetBufferHostSize_32f_C2R to compute the required size (in bytes).

Returns:

Image Data Related Error Codes, ROI Related Error Codes, or NPP_NOT_EVEN_STEP_ERROR if an invalid floating-point image is specified.

7.135.2.35 NppStatus nppiAverageRelativeError_64f_C3R (const Npp64f ∗ *pSrc1*, int *nSrc1Step*, const Npp64f ∗ *pSrc2*, int *nSrc2Step*, NppiSize *oSizeROI*, Npp64f ∗ *pError*, Npp8u ∗ *pDeviceBuffer*)

Three-channel 64-bit floating point image MaximumRelative_Error.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pError Pointer to the computed error.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppiAverageRelativeErrorGetBufferHostSize_32f_C3R to compute the required size (in bytes).

Returns:

Image Data Related Error Codes, ROI Related Error Codes, or NPP_NOT_EVEN_STEP_ERROR if an invalid floating-point image is specified.

7.135.2.36 NppStatus nppiAverageRelativeError_64f_C4R (const Npp64f ∗ *pSrc1*, int *nSrc1Step*, const Npp64f ∗ *pSrc2*, int *nSrc2Step*, NppiSize *oSizeROI*, Npp64f ∗ *pError*, Npp8u ∗ *pDeviceBuffer*)

Four-channel 64-bit floating point image MaximumRelative_Error.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pError Pointer to the computed error.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppiAverageRelativeErrorGetBufferHostSize_32f_C4R to compute the required size (in bytes).

Returns:

Image Data Related Error Codes, ROI Related Error Codes, or NPP_NOT_EVEN_STEP_ERROR if an invalid floating-point image is specified.

7.135.2.37 NppStatus nppiAverageRelativeError_8s_C1R (const Npp8s * *pSrc1*, int *nSrc1Step*, const Npp8s * *pSrc2*, int *nSrc2Step*, NppiSize *oSizeROI*, Npp64f * *pError*, Npp8u * *pDeviceBuffer*)

One-channel 8-bit signed image MaximumRelative_Error.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pError Pointer to the computed error.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppiAverageRelativeErrorGetBufferHostSize_8u_C1R to compute the required size (in bytes).

Returns:

Image Data Related Error Codes, ROI Related Error Codes.

7.135.2.38 NppStatus nppiAverageRelativeError_8s_C2R (const Npp8s * *pSrc1*, int *nSrc1Step*, const Npp8s * *pSrc2*, int *nSrc2Step*, NppiSize *oSizeROI*, Npp64f * *pError*, Npp8u * *pDeviceBuffer*)

Two-channel 8-bit signed image MaximumRelative_Error.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pError Pointer to the computed error.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppiAverageRelativeErrorGetBufferHostSize_8u_C2R to compute the required size (in bytes).

Returns:

Image Data Related Error Codes, ROI Related Error Codes.

7.135.2.39 NppStatus nppiAverageRelativeError_8s_C3R (const Npp8s ∗ *pSrc1*, int *nSrc1Step*, const Npp8s ∗ *pSrc2*, int *nSrc2Step*, NppiSize *oSizeROI*, Npp64f ∗ *pError*, Npp8u ∗ *pDeviceBuffer*)

Three-channel 8-bit signed image MaximumRelative_Error.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pError Pointer to the computed error.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppiAverageRelativeErrorGetBufferHostSize_8u_C3R to compute the required size (in bytes).

Returns:

Image Data Related Error Codes, ROI Related Error Codes.

7.135.2.40 NppStatus nppiAverageRelativeError_8s_C4R (const Npp8s ∗ *pSrc1*, int *nSrc1Step*, const Npp8s ∗ *pSrc2*, int *nSrc2Step*, NppiSize *oSizeROI*, Npp64f ∗ *pError*, Npp8u ∗ *pDeviceBuffer*)

Four-channel 8-bit signed image MaximumRelative_Error.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pError Pointer to the computed error.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppiAverageRelativeErrorGetBufferHostSize_8u_C4R to compute the required size (in bytes).

Returns:

Image Data Related Error Codes, ROI Related Error Codes.

7.135.2.41 NppStatus nppiAverageRelativeError_8u_C1R (const Npp8u ∗ *pSrc1*, int *nSrc1Step*, const Npp8u ∗ *pSrc2*, int *nSrc2Step*, NppiSize *oSizeROI*, Npp64f ∗ *pError*, Npp8u ∗ *pDeviceBuffer*)

One-channel 8-bit unsigned image MaximumRelative_Error.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pError Pointer to the computed error.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppiAverageRelativeErrorGetBufferHostSize_8u_C1R to compute the required size (in bytes).

Returns:

Image Data Related Error Codes, ROI Related Error Codes.

7.135.2.42 NppStatus nppiAverageRelativeError_8u_C2R (const Npp8u ∗ *pSrc1*, int *nSrc1Step*, const Npp8u ∗ *pSrc2*, int *nSrc2Step*, NppiSize *oSizeROI*, Npp64f ∗ *pError*, Npp8u ∗ *pDeviceBuffer*)

Two-channel 8-bit unsigned image MaximumRelative_Error.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pError Pointer to the computed error.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppiAverageRelativeErrorGetBufferHostSize_8u_C2R to compute the required size (in bytes).

Returns:

Image Data Related Error Codes, ROI Related Error Codes.

7.135.2.43 NppStatus nppiAverageRelativeError_8u_C3R (const Npp8u ∗ *pSrc1*, int *nSrc1Step*, const Npp8u ∗ *pSrc2*, int *nSrc2Step*, NppiSize *oSizeROI*, Npp64f ∗ *pError*, Npp8u ∗ *pDeviceBuffer*)

Three-channel 8-bit unsigned image MaximumRelative_Error.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pError Pointer to the computed error.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppiAverageRelativeErrorGetBufferHostSize_8u_C3R to compute the required size (in bytes).

Returns:

Image Data Related Error Codes, ROI Related Error Codes.

7.135.2.44 NppStatus nppiAverageRelativeError_8u_C4R (const Npp8u ∗ *pSrc1*, int *nSrc1Step*, const Npp8u ∗ *pSrc2*, int *nSrc2Step*, NppiSize *oSizeROI*, Npp64f ∗ *pError*, Npp8u ∗ *pDeviceBuffer*)

Four-channel 8-bit unsigned image MaximumRelative_Error.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

oSizeROI Region-of-Interest (ROI).

pError Pointer to the computed error.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppiAverageRelativeErrorGetBufferHostSize_8u_C4R to compute the required size (in bytes).

Returns:

Image Data Related Error Codes, ROI Related Error Codes.

7.136 Memory Management

Routines for allocating and deallocating pitched image storage.

Functions

- void nppiFree (void ∗pData)

  Free method for any 2D allocated memory.

Image Memory Allocation

ImageAllocator methods for 2D arrays of data.

The allocators have width and height parameters to specify the size of the image data being allocated. They return a pointer to the newly created memory and return the numbers of bytes between successive lines.

If the memory allocation failed due to lack of free device memory or device memory fragmentation the routine returns 0.

All allocators return memory with line strides that are beneficial for performance. It is not mandatory to use these allocators. Any valid CUDA device-memory pointers can be used by the NPP primitives and there are no restrictions on line strides.

- Npp8u ∗ nppiMalloc_8u_C1 (int nWidthPixels, int nHeightPixels, int ∗pStepBytes)

  8-bit unsigned image memory allocator.
- Npp8u ∗ nppiMalloc_8u_C2 (int nWidthPixels, int nHeightPixels, int ∗pStepBytes)

  2 channel 8-bit unsigned image memory allocator.
- Npp8u ∗ nppiMalloc_8u_C3 (int nWidthPixels, int nHeightPixels, int ∗pStepBytes)

  3 channel 8-bit unsigned image memory allocator.
- Npp8u ∗ nppiMalloc_8u_C4 (int nWidthPixels, int nHeightPixels, int ∗pStepBytes)

  4 channel 8-bit unsigned image memory allocator.
- Npp16u ∗ nppiMalloc_16u_C1 (int nWidthPixels, int nHeightPixels, int ∗pStepBytes)

  16-bit unsigned image memory allocator.
- Npp16u ∗ nppiMalloc_16u_C2 (int nWidthPixels, int nHeightPixels, int ∗pStepBytes)

  2 channel 16-bit unsigned image memory allocator.
- Npp16u ∗ nppiMalloc_16u_C3 (int nWidthPixels, int nHeightPixels, int ∗pStepBytes)

  3 channel 16-bit unsigned image memory allocator.
- Npp16u ∗ nppiMalloc_16u_C4 (int nWidthPixels, int nHeightPixels, int ∗pStepBytes)

  4 channel 16-bit unsigned image memory allocator.
- Npp16s ∗ nppiMalloc_16s_C1 (int nWidthPixels, int nHeightPixels, int ∗pStepBytes)

  16-bit signed image memory allocator.

- Npp16s ∗ nppiMalloc_16s_C2 (int nWidthPixels, int nHeightPixels, int ∗pStepBytes)

  2 channel 16-bit signed image memory allocator.

- Npp16s ∗ nppiMalloc_16s_C4 (int nWidthPixels, int nHeightPixels, int ∗pStepBytes)

  4 channel 16-bit signed image memory allocator.

- Npp16sc ∗ nppiMalloc_16sc_C1 (int nWidthPixels, int nHeightPixels, int ∗pStepBytes)

  1 channel 16-bit signed complex image memory allocator.

- Npp16sc ∗ nppiMalloc_16sc_C2 (int nWidthPixels, int nHeightPixels, int ∗pStepBytes)

  2 channel 16-bit signed complex image memory allocator.

- Npp16sc ∗ nppiMalloc_16sc_C3 (int nWidthPixels, int nHeightPixels, int ∗pStepBytes)

  3 channel 16-bit signed complex image memory allocator.

- Npp16sc ∗ nppiMalloc_16sc_C4 (int nWidthPixels, int nHeightPixels, int ∗pStepBytes)

  4 channel 16-bit signed complex image memory allocator.

- Npp32s ∗ nppiMalloc_32s_C1 (int nWidthPixels, int nHeightPixels, int ∗pStepBytes)

  32-bit signed image memory allocator.

- Npp32s ∗ nppiMalloc_32s_C3 (int nWidthPixels, int nHeightPixels, int ∗pStepBytes)

  3 channel 32-bit signed image memory allocator.

- Npp32s ∗ nppiMalloc_32s_C4 (int nWidthPixels, int nHeightPixels, int ∗pStepBytes)

  4 channel 32-bit signed image memory allocator.

- Npp32sc ∗ nppiMalloc_32sc_C1 (int nWidthPixels, int nHeightPixels, int ∗pStepBytes)

  32-bit integer complex image memory allocator.

- Npp32sc ∗ nppiMalloc_32sc_C2 (int nWidthPixels, int nHeightPixels, int ∗pStepBytes)

  2 channel 32-bit integer complex image memory allocator.

- Npp32sc ∗ nppiMalloc_32sc_C3 (int nWidthPixels, int nHeightPixels, int ∗pStepBytes)

  3 channel 32-bit integer complex image memory allocator.

- Npp32sc ∗ nppiMalloc_32sc_C4 (int nWidthPixels, int nHeightPixels, int ∗pStepBytes)

  4 channel 32-bit integer complex image memory allocator.

- Npp32f ∗ nppiMalloc_32f_C1 (int nWidthPixels, int nHeightPixels, int ∗pStepBytes)

  32-bit floating point image memory allocator.

- Npp32f ∗ nppiMalloc_32f_C2 (int nWidthPixels, int nHeightPixels, int ∗pStepBytes)

  2 channel 32-bit floating point image memory allocator.

- Npp32f ∗ nppiMalloc_32f_C3 (int nWidthPixels, int nHeightPixels, int ∗pStepBytes)

  3 channel 32-bit floating point image memory allocator.

- Npp32f ∗ nppiMalloc_32f_C4 (int nWidthPixels, int nHeightPixels, int ∗pStepBytes)

  4 channel 32-bit floating point image memory allocator.

- Npp32fc ∗ nppiMalloc_32fc_C1 (int nWidthPixels, int nHeightPixels, int ∗pStepBytes)

  32-bit float complex image memory allocator.

- Npp32fc ∗ nppiMalloc_32fc_C2 (int nWidthPixels, int nHeightPixels, int ∗pStepBytes)

  2 channel 32-bit float complex image memory allocator.

- Npp32fc ∗ nppiMalloc_32fc_C3 (int nWidthPixels, int nHeightPixels, int ∗pStepBytes)

  3 channel 32-bit float complex image memory allocator.

- Npp32fc ∗ nppiMalloc_32fc_C4 (int nWidthPixels, int nHeightPixels, int ∗pStepBytes)

  4 channel 32-bit float complex image memory allocator.

7.136.1 Detailed Description

Routines for allocating and deallocating pitched image storage.

These methods are provided for convenience. They allocate memory that may contain additional padding bytes at the end of each line of pixels. Though padding is not necessary for any of the NPP image-processing primitives to work correctly, its absense may cause sever performance degradation compared to properly padded images.

7.136.2 Function Documentation

7.136.2.1 void nppiFree (void ∗ *pData*)

Free method for any 2D allocated memory.

This method should be used to free memory allocated with any of the nppiMalloc_<modifier> methods.

Parameters:

pData A pointer to memory allocated using nppiMalloc_<modifier>.

7.136.2.2 Npp16s∗ nppiMalloc_16s_C1 (int *nWidthPixels*, int *nHeightPixels*, int ∗ *pStepBytes*)

16-bit signed image memory allocator.

Parameters:

nWidthPixels Image width.

nHeightPixels Image height.

pStepBytes Line Step.

Returns:

Pointer to new image data.

7.136.2.3 Npp16s∗ nppiMalloc_16s_C2 (int *nWidthPixels*, int *nHeightPixels*, int ∗ *pStepBytes*)

2 channel 16-bit signed image memory allocator.

Parameters:

nWidthPixels Image width.

nHeightPixels Image height.

pStepBytes Line Step.

Returns:

Pointer to new image data.

7.136.2.4 Npp16s∗ nppiMalloc_16s_C4 (int *nWidthPixels*, int *nHeightPixels*, int ∗ *pStepBytes*)

4 channel 16-bit signed image memory allocator.

Parameters:

nWidthPixels Image width.

nHeightPixels Image height.

pStepBytes Line Step.

Returns:

Pointer to new image data.

7.136.2.5 Npp16sc∗ nppiMalloc_16sc_C1 (int *nWidthPixels*, int *nHeightPixels*, int ∗ *pStepBytes*)

1 channel 16-bit signed complex image memory allocator.

Parameters:

nWidthPixels Image width.

nHeightPixels Image height.

pStepBytes Line Step.

Returns:

Pointer to new image data.

7.136.2.6 Npp16sc∗ nppiMalloc_16sc_C2 (int *nWidthPixels*, int *nHeightPixels*, int ∗ *pStepBytes*)

2 channel 16-bit signed complex image memory allocator.

Parameters:

nWidthPixels Image width.

nHeightPixels Image height.

pStepBytes Line Step.

Returns:

Pointer to new image data.

7.136.2.7 Npp16sc∗ nppiMalloc_16sc_C3 (int *nWidthPixels*, int *nHeightPixels*, int ∗ *pStepBytes*)

3 channel 16-bit signed complex image memory allocator.

Parameters:

nWidthPixels Image width.

nHeightPixels Image height.

pStepBytes Line Step.

Returns:

Pointer to new image data.

7.136.2.8 Npp16sc∗ nppiMalloc_16sc_C4 (int *nWidthPixels*, int *nHeightPixels*, int ∗ *pStepBytes*)

4 channel 16-bit signed complex image memory allocator.

Parameters:

nWidthPixels Image width.

nHeightPixels Image height.

pStepBytes Line Step.

Returns:

Pointer to new image data.

7.136.2.9 Npp16u∗ nppiMalloc_16u_C1 (int *nWidthPixels*, int *nHeightPixels*, int ∗ *pStepBytes*)

16-bit unsigned image memory allocator.

Parameters:

nWidthPixels Image width.

nHeightPixels Image height.

pStepBytes Line Step.

Returns:

Pointer to new image data.

7.136.2.10 Npp16u∗ nppiMalloc_16u_C2 (int *nWidthPixels*, int *nHeightPixels*, int ∗ *pStepBytes*)

2 channel 16-bit unsigned image memory allocator.

Parameters:

nWidthPixels Image width.

nHeightPixels Image height.

pStepBytes Line Step.

Returns:

Pointer to new image data.

7.136.2.11 Npp16u∗ nppiMalloc_16u_C3 (int *nWidthPixels*, int *nHeightPixels*, int ∗ *pStepBytes*)

3 channel 16-bit unsigned image memory allocator.

Parameters:

nWidthPixels Image width.

nHeightPixels Image height.

pStepBytes Line Step.

Returns:

Pointer to new image data.

7.136.2.12 Npp16u∗ nppiMalloc_16u_C4 (int *nWidthPixels*, int *nHeightPixels*, int ∗ *pStepBytes*)

4 channel 16-bit unsigned image memory allocator.

Parameters:

nWidthPixels Image width.

nHeightPixels Image height.

pStepBytes Line Step.

Returns:

Pointer to new image data.

7.136.2.13 Npp32f∗ nppiMalloc_32f_C1 (int *nWidthPixels*, int *nHeightPixels*, int ∗ *pStepBytes*)

32-bit floating point image memory allocator.

Parameters:

nWidthPixels Image width.

nHeightPixels Image height.

pStepBytes Line Step.

Returns:

Pointer to new image data.

7.136.2.14 Npp32f∗ nppiMalloc_32f_C2 (int *nWidthPixels*, int *nHeightPixels*, int ∗ *pStepBytes*)

2 channel 32-bit floating point image memory allocator.

Parameters:

nWidthPixels Image width.

nHeightPixels Image height.

pStepBytes Line Step.

Returns:

Pointer to new image data.

7.136.2.15 Npp32f∗ nppiMalloc_32f_C3 (int *nWidthPixels*, int *nHeightPixels*, int ∗ *pStepBytes*)

3 channel 32-bit floating point image memory allocator.

Parameters:

nWidthPixels Image width.

nHeightPixels Image height.

pStepBytes Line Step.

Returns:

Pointer to new image data.

7.136.2.16 Npp32f∗ nppiMalloc_32f_C4 (int *nWidthPixels*, int *nHeightPixels*, int ∗ *pStepBytes*)

4 channel 32-bit floating point image memory allocator.

Parameters:

nWidthPixels Image width.

nHeightPixels Image height.

pStepBytes Line Step.

Returns:

Pointer to new image data.

7.136.2.17 Npp32fc∗ nppiMalloc_32fc_C1 (int *nWidthPixels*, int *nHeightPixels*, int ∗ *pStepBytes*)

32-bit float complex image memory allocator.

Parameters:

nWidthPixels Image width.

nHeightPixels Image height.

pStepBytes Line Step.

Returns:

Pointer to new image data.

7.136.2.18 Npp32fc∗ nppiMalloc_32fc_C2 (int *nWidthPixels*, int *nHeightPixels*, int ∗ *pStepBytes*)

2 channel 32-bit float complex image memory allocator.

Parameters:

nWidthPixels Image width.

nHeightPixels Image height.

pStepBytes Line Step.

Returns:

Pointer to new image data.

7.136.2.19 Npp32fc∗ nppiMalloc_32fc_C3 (int *nWidthPixels*, int *nHeightPixels*, int ∗ *pStepBytes*)

3 channel 32-bit float complex image memory allocator.

Parameters:

nWidthPixels Image width.

nHeightPixels Image height.

pStepBytes Line Step.

Returns:

Pointer to new image data.

7.136.2.20 Npp32fc∗ nppiMalloc_32fc_C4 (int *nWidthPixels*, int *nHeightPixels*, int ∗ *pStepBytes*)

4 channel 32-bit float complex image memory allocator.

Parameters:

nWidthPixels Image width.

nHeightPixels Image height.

pStepBytes Line Step.

Returns:

Pointer to new image data.

7.136.2.21 Npp32s∗ nppiMalloc_32s_C1 (int *nWidthPixels*, int *nHeightPixels*, int ∗ *pStepBytes*)

32-bit signed image memory allocator.

Parameters:

nWidthPixels Image width.

nHeightPixels Image height.

pStepBytes Line Step.

Returns:

Pointer to new image data.

7.136.2.22 Npp32s∗ nppiMalloc_32s_C3 (int *nWidthPixels*, int *nHeightPixels*, int ∗ *pStepBytes*)

3 channel 32-bit signed image memory allocator.

Parameters:

nWidthPixels Image width.

nHeightPixels Image height.

pStepBytes Line Step.

Returns:

Pointer to new image data.

7.136.2.23 Npp32s∗ nppiMalloc_32s_C4 (int *nWidthPixels*, int *nHeightPixels*, int ∗ *pStepBytes*)

4 channel 32-bit signed image memory allocator.

Parameters:

nWidthPixels Image width.

nHeightPixels Image height.

pStepBytes Line Step.

Returns:

Pointer to new image data.

7.136.2.24 Npp32sc∗ nppiMalloc_32sc_C1 (int *nWidthPixels*, int *nHeightPixels*, int ∗ *pStepBytes*)

32-bit integer complex image memory allocator.

Parameters:

nWidthPixels Image width.

nHeightPixels Image height.

pStepBytes Line Step.

Returns:

Pointer to new image data.

7.136.2.25 Npp32sc∗ nppiMalloc_32sc_C2 (int *nWidthPixels*, int *nHeightPixels*, int ∗ *pStepBytes*)

2 channel 32-bit integer complex image memory allocator.

Parameters:

nWidthPixels Image width.

nHeightPixels Image height.

pStepBytes Line Step.

Returns:

Pointer to new image data.

7.136.2.26 Npp32sc∗ nppiMalloc_32sc_C3 (int *nWidthPixels*, int *nHeightPixels*, int ∗ *pStepBytes*)

3 channel 32-bit integer complex image memory allocator.

Parameters:

nWidthPixels Image width.

nHeightPixels Image height.

pStepBytes Line Step.

Returns:

Pointer to new image data.

7.136.2.27 Npp32sc∗ nppiMalloc_32sc_C4 (int *nWidthPixels*, int *nHeightPixels*, int ∗ *pStepBytes*)

4 channel 32-bit integer complex image memory allocator.

Parameters:

nWidthPixels Image width.

nHeightPixels Image height.

pStepBytes Line Step.

Returns:

Pointer to new image data.

7.136.2.28 Npp8u∗ nppiMalloc_8u_C1 (int *nWidthPixels*, int *nHeightPixels*, int ∗ *pStepBytes*)

8-bit unsigned image memory allocator.

Parameters:

nWidthPixels Image width.

nHeightPixels Image height.

pStepBytes Line Step.

Returns:

Pointer to new image data.

7.136.2.29 Npp8u∗ nppiMalloc_8u_C2 (int *nWidthPixels*, int *nHeightPixels*, int ∗ *pStepBytes*)

2 channel 8-bit unsigned image memory allocator.

Parameters:

nWidthPixels Image width.

nHeightPixels Image height.

pStepBytes Line Step.

Returns:

Pointer to new image data.

7.136.2.30 Npp8u∗ nppiMalloc_8u_C3 (int *nWidthPixels*, int *nHeightPixels*, int ∗ *pStepBytes*)

3 channel 8-bit unsigned image memory allocator.

Parameters:

nWidthPixels Image width.

nHeightPixels Image height.

pStepBytes Line Step.

Returns:

Pointer to new image data.

7.136.2.31 Npp8u∗ nppiMalloc_8u_C4 (int *nWidthPixels*, int *nHeightPixels*, int ∗ *pStepBytes*)

4 channel 8-bit unsigned image memory allocator.

Parameters:

nWidthPixels Image width.

nHeightPixels Image height.

pStepBytes Line Step.

Returns:

Pointer to new image data.

7.137 Threshold and Compare Operations

Methods for pixel-wise threshold and compare operations.

Modules

- Threshold Operations

  Threshold image pixels.

- Compare Operations

  Compare the pixels of two images and create a binary result image.

7.137.1 Detailed Description

Methods for pixel-wise threshold and compare operations.

7.138 Threshold Operations

Threshold image pixels.

Functions

- NppStatus nppiThreshold_8u_C1R (const Npp8u ∗pSrc, int nSrcStep, Npp8u ∗pDst, int nDstStep, NppiSize oSizeROI, const Npp8u nThreshold, NppCmpOp eComparisonOperation)

  1 channel 8-bit unsigned char threshold.

- NppStatus nppiThreshold_8u_C1IR (Npp8u ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI, const Npp8u nThreshold, NppCmpOp eComparisonOperation)

  1 channel 8-bit unsigned char in place threshold.

- NppStatus nppiThreshold_16u_C1R (const Npp16u ∗pSrc, int nSrcStep, Npp16u ∗pDst, int nDstStep, NppiSize oSizeROI, const Npp16u nThreshold, NppCmpOp eComparisonOperation)

  1 channel 16-bit unsigned short threshold.

- NppStatus nppiThreshold_16u_C1IR (Npp16u ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI, const Npp16u nThreshold, NppCmpOp eComparisonOperation)

  1 channel 16-bit unsigned short in place threshold.

- NppStatus nppiThreshold_16s_C1R (const Npp16s ∗pSrc, int nSrcStep, Npp16s ∗pDst, int nDstStep, NppiSize oSizeROI, const Npp16s nThreshold, NppCmpOp eComparisonOperation)

  1 channel 16-bit signed short threshold.

- NppStatus nppiThreshold_16s_C1IR (Npp16s ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI, const Npp16s nThreshold, NppCmpOp eComparisonOperation)

  1 channel 16-bit signed short in place threshold.

- NppStatus nppiThreshold_32f_C1R (const Npp32f ∗pSrc, int nSrcStep, Npp32f ∗pDst, int nDstStep, NppiSize oSizeROI, const Npp32f nThreshold, NppCmpOp eComparisonOperation)

  1 channel 32-bit floating point threshold.

- NppStatus nppiThreshold_32f_C1IR (Npp32f ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI, const Npp32f nThreshold, NppCmpOp eComparisonOperation)

  1 channel 32-bit floating point in place threshold.

- NppStatus nppiThreshold_8u_C3R (const Npp8u ∗pSrc, int nSrcStep, Npp8u ∗pDst, int nDstStep, NppiSize oSizeROI, const Npp8u rThresholds[3], NppCmpOp eComparisonOperation)

  3 channel 8-bit unsigned char threshold.

- NppStatus nppiThreshold_8u_C3IR (Npp8u ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI, const Npp8u rThresholds[3], NppCmpOp eComparisonOperation)

  3 channel 8-bit unsigned char in place threshold.

- NppStatus nppiThreshold_16u_C3R (const Npp16u ∗pSrc, int nSrcStep, Npp16u ∗pDst, int nDstStep, NppiSize oSizeROI, const Npp16u rThresholds[3], NppCmpOp eComparisonOperation)

  3 channel 16-bit unsigned short threshold.

- NppStatus nppiThreshold_16u_C3IR (Npp16u ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI, const Npp16u rThresholds[3], NppCmpOp eComparisonOperation)

  3 channel 16-bit unsigned short in place threshold.

- NppStatus nppiThreshold_16s_C3R (const Npp16s ∗pSrc, int nSrcStep, Npp16s ∗pDst, int nDstStep, NppiSize oSizeROI, const Npp16s rThresholds[3], NppCmpOp eComparisonOperation)

  3 channel 16-bit signed short threshold.

- NppStatus nppiThreshold_16s_C3IR (Npp16s ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI, const Npp16s rThresholds[3], NppCmpOp eComparisonOperation)

  3 channel 16-bit signed short in place threshold.

- NppStatus nppiThreshold_32f_C3R (const Npp32f ∗pSrc, int nSrcStep, Npp32f ∗pDst, int nDstStep, NppiSize oSizeROI, const Npp32f rThresholds[3], NppCmpOp eComparisonOperation)

  3 channel 32-bit floating point threshold.

- NppStatus nppiThreshold_32f_C3IR (Npp32f ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI, const Npp32f rThresholds[3], NppCmpOp eComparisonOperation)

  3 channel 32-bit floating point in place threshold.

- NppStatus nppiThreshold_8u_AC4R (const Npp8u ∗pSrc, int nSrcStep, Npp8u ∗pDst, int nDstStep, NppiSize oSizeROI, const Npp8u rThresholds[3], NppCmpOp eComparisonOperation)

  4 channel 8-bit unsigned char image threshold, not affecting Alpha.

- NppStatus nppiThreshold_8u_AC4IR (Npp8u ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI, const Npp8u rThresholds[3], NppCmpOp eComparisonOperation)

  4 channel 8-bit unsigned char in place image threshold, not affecting Alpha.

- NppStatus nppiThreshold_16u_AC4R (const Npp16u ∗pSrc, int nSrcStep, Npp16u ∗pDst, int nDstStep, NppiSize oSizeROI, const Npp16u rThresholds[3], NppCmpOp eComparisonOperation)

  4 channel 16-bit unsigned short image threshold, not affecting Alpha.

- NppStatus nppiThreshold_16u_AC4IR (Npp16u ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI, const Npp16u rThresholds[3], NppCmpOp eComparisonOperation)

  4 channel 16-bit unsigned short in place image threshold, not affecting Alpha.

- NppStatus nppiThreshold_16s_AC4R (const Npp16s ∗pSrc, int nSrcStep, Npp16s ∗pDst, int nDstStep, NppiSize oSizeROI, const Npp16s rThresholds[3], NppCmpOp eComparisonOperation)

  4 channel 16-bit signed short image threshold, not affecting Alpha.

- NppStatus nppiThreshold_16s_AC4IR (Npp16s ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI, const Npp16s rThresholds[3], NppCmpOp eComparisonOperation)

  4 channel 16-bit signed short in place image threshold, not affecting Alpha.

- NppStatus nppiThreshold_32f_AC4R (const Npp32f ∗pSrc, int nSrcStep, Npp32f ∗pDst, int nDstStep, NppiSize oSizeROI, const Npp32f rThresholds[3], NppCmpOp eComparisonOperation)

  4 channel 32-bit floating point image threshold, not affecting Alpha.

- NppStatus nppiThreshold_32f_AC4IR (Npp32f ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI, const Npp32f rThresholds[3], NppCmpOp eComparisonOperation)

  4 channel 32-bit floating point in place image threshold, not affecting Alpha.

- NppStatus nppiThreshold_GT_8u_C1R (const Npp8u ∗pSrc, int nSrcStep, Npp8u ∗pDst, int nDstStep, NppiSize oSizeROI, const Npp8u nThreshold)

  1 channel 8-bit unsigned char threshold.

- NppStatus nppiThreshold_GT_8u_C1IR (Npp8u ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI, const Npp8u nThreshold)

  1 channel 8-bit unsigned char in place threshold.

- NppStatus nppiThreshold_GT_16u_C1R (const Npp16u ∗pSrc, int nSrcStep, Npp16u ∗pDst, int nDstStep, NppiSize oSizeROI, const Npp16u nThreshold)

  1 channel 16-bit unsigned short threshold.

- NppStatus nppiThreshold_GT_16u_C1IR (Npp16u ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI, const Npp16u nThreshold)

  1 channel 16-bit unsigned short in place threshold.

- NppStatus nppiThreshold_GT_16s_C1R (const Npp16s ∗pSrc, int nSrcStep, Npp16s ∗pDst, int nDstStep, NppiSize oSizeROI, const Npp16s nThreshold)

  1 channel 16-bit signed short threshold.

- NppStatus nppiThreshold_GT_16s_C1IR (Npp16s ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI, const Npp16s nThreshold)

  1 channel 16-bit signed short in place threshold.

- NppStatus nppiThreshold_GT_32f_C1R (const Npp32f ∗pSrc, int nSrcStep, Npp32f ∗pDst, int nDstStep, NppiSize oSizeROI, const Npp32f nThreshold)

  1 channel 32-bit floating point threshold.

- NppStatus nppiThreshold_GT_32f_C1IR (Npp32f ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI, const Npp32f nThreshold)

  1 channel 32-bit floating point in place threshold.

- NppStatus nppiThreshold_GT_8u_C3R (const Npp8u ∗pSrc, int nSrcStep, Npp8u ∗pDst, int nDstStep, NppiSize oSizeROI, const Npp8u rThresholds[3])

  3 channel 8-bit unsigned char threshold.

- NppStatus nppiThreshold_GT_8u_C3IR (Npp8u ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI, const Npp8u rThresholds[3])

  3 channel 8-bit unsigned char in place threshold.

- NppStatus nppiThreshold_GT_16u_C3R (const Npp16u ∗pSrc, int nSrcStep, Npp16u ∗pDst, int nDstStep, NppiSize oSizeROI, const Npp16u rThresholds[3])

  3 channel 16-bit unsigned short threshold.

- NppStatus nppiThreshold_GT_16u_C3IR (Npp16u ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI, const Npp16u rThresholds[3])

  3 channel 16-bit unsigned short in place threshold.

- NppStatus nppiThreshold_GT_16s_C3R (const Npp16s ∗pSrc, int nSrcStep, Npp16s ∗pDst, int nDstStep, NppiSize oSizeROI, const Npp16s rThresholds[3])

3 channel 16-bit signed short threshold.

- NppStatus nppiThreshold_GT_16s_C3IR (Npp16s ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI, const Npp16s rThresholds[3])

  3 channel 16-bit signed short in place threshold.

- NppStatus nppiThreshold_GT_32f_C3R (const Npp32f ∗pSrc, int nSrcStep, Npp32f ∗pDst, int nDstStep, NppiSize oSizeROI, const Npp32f rThresholds[3])

  3 channel 32-bit floating point threshold.

- NppStatus nppiThreshold_GT_32f_C3IR (Npp32f ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI, const Npp32f rThresholds[3])

  3 channel 32-bit floating point in place threshold.

- NppStatus nppiThreshold_GT_8u_AC4R (const Npp8u ∗pSrc, int nSrcStep, Npp8u ∗pDst, int nDstStep, NppiSize oSizeROI, const Npp8u rThresholds[3])

  4 channel 8-bit unsigned char image threshold, not affecting Alpha.

- NppStatus nppiThreshold_GT_8u_AC4IR (Npp8u ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI, const Npp8u rThresholds[3])

  4 channel 8-bit unsigned char in place image threshold, not affecting Alpha.

- NppStatus nppiThreshold_GT_16u_AC4R (const Npp16u ∗pSrc, int nSrcStep, Npp16u ∗pDst, int nDstStep, NppiSize oSizeROI, const Npp16u rThresholds[3])

  4 channel 16-bit unsigned short image threshold, not affecting Alpha.

- NppStatus nppiThreshold_GT_16u_AC4IR (Npp16u ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI, const Npp16u rThresholds[3])

  4 channel 16-bit unsigned short in place image threshold, not affecting Alpha.

- NppStatus nppiThreshold_GT_16s_AC4R (const Npp16s ∗pSrc, int nSrcStep, Npp16s ∗pDst, int nDstStep, NppiSize oSizeROI, const Npp16s rThresholds[3])

  4 channel 16-bit signed short image threshold, not affecting Alpha.

- NppStatus nppiThreshold_GT_16s_AC4IR (Npp16s ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI, const Npp16s rThresholds[3])

  4 channel 16-bit signed short in place image threshold, not affecting Alpha.

- NppStatus nppiThreshold_GT_32f_AC4R (const Npp32f ∗pSrc, int nSrcStep, Npp32f ∗pDst, int nDstStep, NppiSize oSizeROI, const Npp32f rThresholds[3])

  4 channel 32-bit floating point image threshold, not affecting Alpha.

- NppStatus nppiThreshold_GT_32f_AC4IR (Npp32f ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI, const Npp32f rThresholds[3])

  4 channel 32-bit floating point in place image threshold, not affecting Alpha.

- NppStatus nppiThreshold_LT_8u_C1R (const Npp8u ∗pSrc, int nSrcStep, Npp8u ∗pDst, int nDstStep, NppiSize oSizeROI, const Npp8u nThreshold)

  1 channel 8-bit unsigned char threshold.

- NppStatus nppiThreshold_LT_8u_C1IR (Npp8u ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI, const Npp8u nThreshold)

  1 channel 8-bit unsigned char in place threshold.

- NppStatus nppiThreshold_LT_16u_C1R (const Npp16u ∗pSrc, int nSrcStep, Npp16u ∗pDst, int nDstStep, NppiSize oSizeROI, const Npp16u nThreshold)

  1 channel 16-bit unsigned short threshold.

- NppStatus nppiThreshold_LT_16u_C1IR (Npp16u ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI, const Npp16u nThreshold)

  1 channel 16-bit unsigned short in place threshold.

- NppStatus nppiThreshold_LT_16s_C1R (const Npp16s ∗pSrc, int nSrcStep, Npp16s ∗pDst, int nDstStep, NppiSize oSizeROI, const Npp16s nThreshold)

  1 channel 16-bit signed short threshold.

- NppStatus nppiThreshold_LT_16s_C1IR (Npp16s ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI, const Npp16s nThreshold)

  1 channel 16-bit signed short in place threshold.

- NppStatus nppiThreshold_LT_32f_C1R (const Npp32f ∗pSrc, int nSrcStep, Npp32f ∗pDst, int nDstStep, NppiSize oSizeROI, const Npp32f nThreshold)

  1 channel 32-bit floating point threshold.

- NppStatus nppiThreshold_LT_32f_C1IR (Npp32f ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI, const Npp32f nThreshold)

  1 channel 32-bit floating point in place threshold.

- NppStatus nppiThreshold_LT_8u_C3R (const Npp8u ∗pSrc, int nSrcStep, Npp8u ∗pDst, int nDstStep, NppiSize oSizeROI, const Npp8u rThresholds[3])

  3 channel 8-bit unsigned char threshold.

- NppStatus nppiThreshold_LT_8u_C3IR (Npp8u ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI, const Npp8u rThresholds[3])

  3 channel 8-bit unsigned char in place threshold.

- NppStatus nppiThreshold_LT_16u_C3R (const Npp16u ∗pSrc, int nSrcStep, Npp16u ∗pDst, int nDstStep, NppiSize oSizeROI, const Npp16u rThresholds[3])

  3 channel 16-bit unsigned short threshold.

- NppStatus nppiThreshold_LT_16u_C3IR (Npp16u ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI, const Npp16u rThresholds[3])

  3 channel 16-bit unsigned short in place threshold.

- NppStatus nppiThreshold_LT_16s_C3R (const Npp16s ∗pSrc, int nSrcStep, Npp16s ∗pDst, int nDstStep, NppiSize oSizeROI, const Npp16s rThresholds[3])

  3 channel 16-bit signed short threshold.

- NppStatus nppiThreshold_LT_16s_C3IR (Npp16s ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI, const Npp16s rThresholds[3])

  3 channel 16-bit signed short in place threshold.

- NppStatus nppiThreshold_LT_32f_C3R (const Npp32f ∗pSrc, int nSrcStep, Npp32f ∗pDst, int nDstStep, NppiSize oSizeROI, const Npp32f rThresholds[3])

  3 channel 32-bit floating point threshold.

- NppStatus nppiThreshold_LT_32f_C3IR (Npp32f ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI, const Npp32f rThresholds[3])

  3 channel 32-bit floating point in place threshold.

- NppStatus nppiThreshold_LT_8u_AC4R (const Npp8u ∗pSrc, int nSrcStep, Npp8u ∗pDst, int nDstStep, NppiSize oSizeROI, const Npp8u rThresholds[3])

  4 channel 8-bit unsigned char image threshold, not affecting Alpha.

- NppStatus nppiThreshold_LT_8u_AC4IR (Npp8u ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI, const Npp8u rThresholds[3])

  4 channel 8-bit unsigned char in place image threshold, not affecting Alpha.

- NppStatus nppiThreshold_LT_16u_AC4R (const Npp16u ∗pSrc, int nSrcStep, Npp16u ∗pDst, int nDstStep, NppiSize oSizeROI, const Npp16u rThresholds[3])

  4 channel 16-bit unsigned short image threshold, not affecting Alpha.

- NppStatus nppiThreshold_LT_16u_AC4IR (Npp16u ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI, const Npp16u rThresholds[3])

  4 channel 16-bit unsigned short in place image threshold, not affecting Alpha.

- NppStatus nppiThreshold_LT_16s_AC4R (const Npp16s ∗pSrc, int nSrcStep, Npp16s ∗pDst, int nDstStep, NppiSize oSizeROI, const Npp16s rThresholds[3])

  4 channel 16-bit signed short image threshold, not affecting Alpha.

- NppStatus nppiThreshold_LT_16s_AC4IR (Npp16s ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI, const Npp16s rThresholds[3])

  4 channel 16-bit signed short in place image threshold, not affecting Alpha.

- NppStatus nppiThreshold_LT_32f_AC4R (const Npp32f ∗pSrc, int nSrcStep, Npp32f ∗pDst, int nDstStep, NppiSize oSizeROI, const Npp32f rThresholds[3])

  4 channel 32-bit floating point image threshold, not affecting Alpha.

- NppStatus nppiThreshold_LT_32f_AC4IR (Npp32f ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI, const Npp32f rThresholds[3])

  4 channel 32-bit floating point in place image threshold, not affecting Alpha.

- NppStatus nppiThreshold_Val_8u_C1R (const Npp8u ∗pSrc, int nSrcStep, Npp8u ∗pDst, int nDstStep, NppiSize oSizeROI, const Npp8u nThreshold, const Npp8u nValue, NppCmpOp eComparisonOperation)

  1 channel 8-bit unsigned char threshold.

- NppStatus nppiThreshold_Val_8u_C1IR (Npp8u ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI, const Npp8u nThreshold, const Npp8u nValue, NppCmpOp eComparisonOperation)

  1 channel 8-bit unsigned char in place threshold.

- NppStatus nppiThreshold_Val_16u_C1R (const Npp16u ∗pSrc, int nSrcStep, Npp16u ∗pDst, int nDstStep, NppiSize oSizeROI, const Npp16u nThreshold, const Npp16u nValue, NppCmpOp eComparisonOperation)

  1 channel 16-bit unsigned short threshold.

- NppStatus nppiThreshold_Val_16u_C1IR (Npp16u ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI, const Npp16u nThreshold, const Npp16u nValue, NppCmpOp eComparisonOperation)

  1 channel 16-bit unsigned short in place threshold.

- NppStatus nppiThreshold_Val_16s_C1R (const Npp16s ∗pSrc, int nSrcStep, Npp16s ∗pDst, int nDstStep, NppiSize oSizeROI, const Npp16s nThreshold, const Npp16s nValue, NppCmpOp eComparisonOperation)

  1 channel 16-bit signed short threshold.

- NppStatus nppiThreshold_Val_16s_C1IR (Npp16s ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI, const Npp16s nThreshold, const Npp16s nValue, NppCmpOp eComparisonOperation)

  1 channel 16-bit signed short in place threshold.

- NppStatus nppiThreshold_Val_32f_C1R (const Npp32f ∗pSrc, int nSrcStep, Npp32f ∗pDst, int nDstStep, NppiSize oSizeROI, const Npp32f nThreshold, const Npp32f nValue, NppCmpOp eComparisonOperation)

  1 channel 32-bit floating point threshold.

- NppStatus nppiThreshold_Val_32f_C1IR (Npp32f ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI, const Npp32f nThreshold, const Npp32f nValue, NppCmpOp eComparisonOperation)

  1 channel 32-bit floating point in place threshold.

- NppStatus nppiThreshold_Val_8u_C3R (const Npp8u ∗pSrc, int nSrcStep, Npp8u ∗pDst, int nDstStep, NppiSize oSizeROI, const Npp8u rThresholds[3], const Npp8u rValues[3], NppCmpOp eComparisonOperation)

  3 channel 8-bit unsigned char threshold.

- NppStatus nppiThreshold_Val_8u_C3IR (Npp8u ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI, const Npp8u rThresholds[3], const Npp8u rValues[3], NppCmpOp eComparisonOperation)

  3 channel 8-bit unsigned char in place threshold.

- NppStatus nppiThreshold_Val_16u_C3R (const Npp16u ∗pSrc, int nSrcStep, Npp16u ∗pDst, int nDstStep, NppiSize oSizeROI, const Npp16u rThresholds[3], const Npp16u rValues[3], NppCmpOp eComparisonOperation)

  3 channel 16-bit unsigned short threshold.

- NppStatus nppiThreshold_Val_16u_C3IR (Npp16u ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI, const Npp16u rThresholds[3], const Npp16u rValues[3], NppCmpOp eComparisonOperation)

  3 channel 16-bit unsigned short in place threshold.

- NppStatus nppiThreshold_Val_16s_C3R (const Npp16s ∗pSrc, int nSrcStep, Npp16s ∗pDst, int nDstStep, NppiSize oSizeROI, const Npp16s rThresholds[3], const Npp16s rValues[3], NppCmpOp eComparisonOperation)

  3 channel 16-bit signed short threshold.

- NppStatus nppiThreshold_Val_16s_C3IR (Npp16s ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI, const Npp16s rThresholds[3], const Npp16s rValues[3], NppCmpOp eComparisonOperation)

  3 channel 16-bit signed short in place threshold.

- NppStatus nppiThreshold_Val_32f_C3R (const Npp32f ∗pSrc, int nSrcStep, Npp32f ∗pDst, int nDstStep, NppiSize oSizeROI, const Npp32f rThresholds[3], const Npp32f rValues[3], NppCmpOp eComparisonOperation)

  3 channel 32-bit floating point threshold.

- NppStatus nppiThreshold_Val_32f_C3IR (Npp32f ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI, const Npp32f rThresholds[3], const Npp32f rValues[3], NppCmpOp eComparisonOperation)

  3 channel 32-bit floating point in place threshold.

- NppStatus nppiThreshold_Val_8u_AC4R (const Npp8u ∗pSrc, int nSrcStep, Npp8u ∗pDst, int nDstStep, NppiSize oSizeROI, const Npp8u rThresholds[3], const Npp8u rValues[3], NppCmpOp eComparisonOperation)

  4 channel 8-bit unsigned char image threshold, not affecting Alpha.

- NppStatus nppiThreshold_Val_8u_AC4IR (Npp8u ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI, const Npp8u rThresholds[3], const Npp8u rValues[3], NppCmpOp eComparisonOperation)

  4 channel 8-bit unsigned char in place image threshold, not affecting Alpha.

- NppStatus nppiThreshold_Val_16u_AC4R (const Npp16u ∗pSrc, int nSrcStep, Npp16u ∗pDst, int nDstStep, NppiSize oSizeROI, const Npp16u rThresholds[3], const Npp16u rValues[3], NppCmpOp eComparisonOperation)

  4 channel 16-bit unsigned short image threshold, not affecting Alpha.

- NppStatus nppiThreshold_Val_16u_AC4IR (Npp16u ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI, const Npp16u rThresholds[3], const Npp16u rValues[3], NppCmpOp eComparisonOperation)

  4 channel 16-bit unsigned short in place image threshold, not affecting Alpha.

- NppStatus nppiThreshold_Val_16s_AC4R (const Npp16s ∗pSrc, int nSrcStep, Npp16s ∗pDst, int nDstStep, NppiSize oSizeROI, const Npp16s rThresholds[3], const Npp16s rValues[3], NppCmpOp eComparisonOperation)

  4 channel 16-bit signed short image threshold, not affecting Alpha.

- NppStatus nppiThreshold_Val_16s_AC4IR (Npp16s ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI, const Npp16s rThresholds[3], const Npp16s rValues[3], NppCmpOp eComparisonOperation)

  4 channel 16-bit signed short in place image threshold, not affecting Alpha.

- NppStatus nppiThreshold_Val_32f_AC4R (const Npp32f ∗pSrc, int nSrcStep, Npp32f ∗pDst, int nDstStep, NppiSize oSizeROI, const Npp32f rThresholds[3], const Npp32f rValues[3], NppCmpOp eComparisonOperation)

  4 channel 32-bit floating point image threshold, not affecting Alpha.

- NppStatus nppiThreshold_Val_32f_AC4IR (Npp32f ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI, const Npp32f rThresholds[3], const Npp32f rValues[3], NppCmpOp eComparisonOperation)

  4 channel 32-bit floating point in place image threshold, not affecting Alpha.

- NppStatus nppiThreshold_GTVal_8u_C1R (const Npp8u ∗pSrc, int nSrcStep, Npp8u ∗pDst, int nDstStep, NppiSize oSizeROI, const Npp8u nThreshold, const Npp8u nValue)

  1 channel 8-bit unsigned char threshold.

- NppStatus nppiThreshold_GTVal_8u_C1IR (Npp8u ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI, const Npp8u nThreshold, const Npp8u nValue)

  1 channel 8-bit unsigned char in place threshold.

- NppStatus nppiThreshold_GTVal_16u_C1R (const Npp16u ∗pSrc, int nSrcStep, Npp16u ∗pDst, int nDstStep, NppiSize oSizeROI, const Npp16u nThreshold, const Npp16u nValue)

  1 channel 16-bit unsigned short threshold.

- NppStatus nppiThreshold_GTVal_16u_C1IR (Npp16u ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI, const Npp16u nThreshold, const Npp16u nValue)

  1 channel 16-bit unsigned short in place threshold.

- NppStatus nppiThreshold_GTVal_16s_C1R (const Npp16s ∗pSrc, int nSrcStep, Npp16s ∗pDst, int nDstStep, NppiSize oSizeROI, const Npp16s nThreshold, const Npp16s nValue)

  1 channel 16-bit signed short threshold.

- NppStatus nppiThreshold_GTVal_16s_C1IR (Npp16s ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI, const Npp16s nThreshold, const Npp16s nValue)

  1 channel 16-bit signed short in place threshold.

- NppStatus nppiThreshold_GTVal_32f_C1R (const Npp32f ∗pSrc, int nSrcStep, Npp32f ∗pDst, int nDstStep, NppiSize oSizeROI, const Npp32f nThreshold, const Npp32f nValue)

  1 channel 32-bit floating point threshold.

- NppStatus nppiThreshold_GTVal_32f_C1IR (Npp32f ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI, const Npp32f nThreshold, const Npp32f nValue)

  1 channel 32-bit floating point in place threshold.

- NppStatus nppiThreshold_GTVal_8u_C3R (const Npp8u ∗pSrc, int nSrcStep, Npp8u ∗pDst, int nDstStep, NppiSize oSizeROI, const Npp8u rThresholds[3], const Npp8u rValues[3])

  3 channel 8-bit unsigned char threshold.

- NppStatus nppiThreshold_GTVal_8u_C3IR (Npp8u ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI, const Npp8u rThresholds[3], const Npp8u rValues[3])

  3 channel 8-bit unsigned char in place threshold.

- NppStatus nppiThreshold_GTVal_16u_C3R (const Npp16u ∗pSrc, int nSrcStep, Npp16u ∗pDst, int nDstStep, NppiSize oSizeROI, const Npp16u rThresholds[3], const Npp16u rValues[3])

  3 channel 16-bit unsigned short threshold.

- NppStatus nppiThreshold_GTVal_16u_C3IR (Npp16u ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI, const Npp16u rThresholds[3], const Npp16u rValues[3])

  3 channel 16-bit unsigned short in place threshold.

- NppStatus nppiThreshold_GTVal_16s_C3R (const Npp16s ∗pSrc, int nSrcStep, Npp16s ∗pDst, int nDstStep, NppiSize oSizeROI, const Npp16s rThresholds[3], const Npp16s rValues[3])

  3 channel 16-bit signed short threshold.

- NppStatus nppiThreshold_GTVal_16s_C3IR (Npp16s ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI, const Npp16s rThresholds[3], const Npp16s rValues[3])

  3 channel 16-bit signed short in place threshold.

- NppStatus nppiThreshold_GTVal_32f_C3R (const Npp32f ∗pSrc, int nSrcStep, Npp32f ∗pDst, int nDstStep, NppiSize oSizeROI, const Npp32f rThresholds[3], const Npp32f rValues[3])

  3 channel 32-bit floating point threshold.

- NppStatus nppiThreshold_GTVal_32f_C3IR (Npp32f ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI, const Npp32f rThresholds[3], const Npp32f rValues[3])

  3 channel 32-bit floating point in place threshold.

- NppStatus nppiThreshold_GTVal_8u_AC4R (const Npp8u ∗pSrc, int nSrcStep, Npp8u ∗pDst, int nDstStep, NppiSize oSizeROI, const Npp8u rThresholds[3], const Npp8u rValues[3])

  4 channel 8-bit unsigned char image threshold, not affecting Alpha.

- NppStatus nppiThreshold_GTVal_8u_AC4IR (Npp8u ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI, const Npp8u rThresholds[3], const Npp8u rValues[3])

  4 channel 8-bit unsigned char in place image threshold, not affecting Alpha.

- NppStatus nppiThreshold_GTVal_16u_AC4R (const Npp16u ∗pSrc, int nSrcStep, Npp16u ∗pDst, int nDstStep, NppiSize oSizeROI, const Npp16u rThresholds[3], const Npp16u rValues[3])

  4 channel 16-bit unsigned short image threshold, not affecting Alpha.

- NppStatus nppiThreshold_GTVal_16u_AC4IR (Npp16u ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI, const Npp16u rThresholds[3], const Npp16u rValues[3])

  4 channel 16-bit unsigned short in place image threshold, not affecting Alpha.

- NppStatus nppiThreshold_GTVal_16s_AC4R (const Npp16s ∗pSrc, int nSrcStep, Npp16s ∗pDst, int nDstStep, NppiSize oSizeROI, const Npp16s rThresholds[3], const Npp16s rValues[3])

  4 channel 16-bit signed short image threshold, not affecting Alpha.

- NppStatus nppiThreshold_GTVal_16s_AC4IR (Npp16s ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI, const Npp16s rThresholds[3], const Npp16s rValues[3])

  4 channel 16-bit signed short in place image threshold, not affecting Alpha.

- NppStatus nppiThreshold_GTVal_32f_AC4R (const Npp32f ∗pSrc, int nSrcStep, Npp32f ∗pDst, int nDstStep, NppiSize oSizeROI, const Npp32f rThresholds[3], const Npp32f rValues[3])

  4 channel 32-bit floating point image threshold, not affecting Alpha.

- NppStatus nppiThreshold_GTVal_32f_AC4IR (Npp32f ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI, const Npp32f rThresholds[3], const Npp32f rValues[3])

  4 channel 32-bit floating point in place image threshold, not affecting Alpha.

- NppStatus nppiThreshold_LTVal_8u_C1R (const Npp8u ∗pSrc, int nSrcStep, Npp8u ∗pDst, int nDstStep, NppiSize oSizeROI, const Npp8u nThreshold, const Npp8u nValue)

  1 channel 8-bit unsigned char threshold.

- NppStatus nppiThreshold_LTVal_8u_C1IR (Npp8u ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI, const Npp8u nThreshold, const Npp8u nValue)

1 channel 8-bit unsigned char in place threshold.

- NppStatus nppiThreshold_LTVal_16u_C1R (const Npp16u ∗pSrc, int nSrcStep, Npp16u ∗pDst, int nDstStep, NppiSize oSizeROI, const Npp16u nThreshold, const Npp16u nValue)

  1 channel 16-bit unsigned short threshold.

- NppStatus nppiThreshold_LTVal_16u_C1IR (Npp16u ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI, const Npp16u nThreshold, const Npp16u nValue)

  1 channel 16-bit unsigned short in place threshold.

- NppStatus nppiThreshold_LTVal_16s_C1R (const Npp16s ∗pSrc, int nSrcStep, Npp16s ∗pDst, int nDstStep, NppiSize oSizeROI, const Npp16s nThreshold, const Npp16s nValue)

  1 channel 16-bit signed short threshold.

- NppStatus nppiThreshold_LTVal_16s_C1IR (Npp16s ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI, const Npp16s nThreshold, const Npp16s nValue)

  1 channel 16-bit signed short in place threshold.

- NppStatus nppiThreshold_LTVal_32f_C1R (const Npp32f ∗pSrc, int nSrcStep, Npp32f ∗pDst, int nDstStep, NppiSize oSizeROI, const Npp32f nThreshold, const Npp32f nValue)

  1 channel 32-bit floating point threshold.

- NppStatus nppiThreshold_LTVal_32f_C1IR (Npp32f ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI, const Npp32f nThreshold, const Npp32f nValue)

  1 channel 32-bit floating point in place threshold.

- NppStatus nppiThreshold_LTVal_8u_C3R (const Npp8u ∗pSrc, int nSrcStep, Npp8u ∗pDst, int nDstStep, NppiSize oSizeROI, const Npp8u rThresholds[3], const Npp8u rValues[3])

  3 channel 8-bit unsigned char threshold.

- NppStatus nppiThreshold_LTVal_8u_C3IR (Npp8u ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI, const Npp8u rThresholds[3], const Npp8u rValues[3])

  3 channel 8-bit unsigned char in place threshold.

- NppStatus nppiThreshold_LTVal_16u_C3R (const Npp16u ∗pSrc, int nSrcStep, Npp16u ∗pDst, int nDstStep, NppiSize oSizeROI, const Npp16u rThresholds[3], const Npp16u rValues[3])

  3 channel 16-bit unsigned short threshold.

- NppStatus nppiThreshold_LTVal_16u_C3IR (Npp16u ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI, const Npp16u rThresholds[3], const Npp16u rValues[3])

  3 channel 16-bit unsigned short in place threshold.

- NppStatus nppiThreshold_LTVal_16s_C3R (const Npp16s ∗pSrc, int nSrcStep, Npp16s ∗pDst, int nDstStep, NppiSize oSizeROI, const Npp16s rThresholds[3], const Npp16s rValues[3])

  3 channel 16-bit signed short threshold.

- NppStatus nppiThreshold_LTVal_16s_C3IR (Npp16s ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI, const Npp16s rThresholds[3], const Npp16s rValues[3])

  3 channel 16-bit signed short in place threshold.

- NppStatus nppiThreshold_LTVal_32f_C3R (const Npp32f ∗pSrc, int nSrcStep, Npp32f ∗pDst, int nDstStep, NppiSize oSizeROI, const Npp32f rThresholds[3], const Npp32f rValues[3])

  3 channel 32-bit floating point threshold.

- NppStatus nppiThreshold_LTVal_32f_C3IR (Npp32f ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI, const Npp32f rThresholds[3], const Npp32f rValues[3])

  3 channel 32-bit floating point in place threshold.

- NppStatus nppiThreshold_LTVal_8u_AC4R (const Npp8u ∗pSrc, int nSrcStep, Npp8u ∗pDst, int nDstStep, NppiSize oSizeROI, const Npp8u rThresholds[3], const Npp8u rValues[3])

  4 channel 8-bit unsigned char image threshold, not affecting Alpha.

- NppStatus nppiThreshold_LTVal_8u_AC4IR (Npp8u ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI, const Npp8u rThresholds[3], const Npp8u rValues[3])

  4 channel 8-bit unsigned char in place image threshold, not affecting Alpha.

- NppStatus nppiThreshold_LTVal_16u_AC4R (const Npp16u ∗pSrc, int nSrcStep, Npp16u ∗pDst, int nDstStep, NppiSize oSizeROI, const Npp16u rThresholds[3], const Npp16u rValues[3])

  4 channel 16-bit unsigned short image threshold, not affecting Alpha.

- NppStatus nppiThreshold_LTVal_16u_AC4IR (Npp16u ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI, const Npp16u rThresholds[3], const Npp16u rValues[3])

  4 channel 16-bit unsigned short in place image threshold, not affecting Alpha.

- NppStatus nppiThreshold_LTVal_16s_AC4R (const Npp16s ∗pSrc, int nSrcStep, Npp16s ∗pDst, int nDstStep, NppiSize oSizeROI, const Npp16s rThresholds[3], const Npp16s rValues[3])

  4 channel 16-bit signed short image threshold, not affecting Alpha.

- NppStatus nppiThreshold_LTVal_16s_AC4IR (Npp16s ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI, const Npp16s rThresholds[3], const Npp16s rValues[3])

  4 channel 16-bit signed short in place image threshold, not affecting Alpha.

- NppStatus nppiThreshold_LTVal_32f_AC4R (const Npp32f ∗pSrc, int nSrcStep, Npp32f ∗pDst, int nDstStep, NppiSize oSizeROI, const Npp32f rThresholds[3], const Npp32f rValues[3])

  4 channel 32-bit floating point image threshold, not affecting Alpha.

- NppStatus nppiThreshold_LTVal_32f_AC4IR (Npp32f ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI, const Npp32f rThresholds[3], const Npp32f rValues[3])

  4 channel 32-bit floating point in place image threshold, not affecting Alpha.

- NppStatus nppiThreshold_LTValGTVal_8u_C1R (const Npp8u ∗pSrc, int nSrcStep, Npp8u ∗pDst, int nDstStep, NppiSize oSizeROI, const Npp8u nThresholdLT, const Npp8u nValueLT, const Npp8u nThresholdGT, const Npp8u nValueGT)

  1 channel 8-bit unsigned char threshold.

- NppStatus nppiThreshold_LTValGTVal_8u_C1IR (Npp8u ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI, const Npp8u nThresholdLT, const Npp8u nValueLT, const Npp8u nThresholdGT, const Npp8u nValueGT)

  1 channel 8-bit unsigned char in place threshold.

- NppStatus nppiThreshold_LTValGTVal_16u_C1R (const Npp16u ∗pSrc, int nSrcStep, Npp16u ∗pDst, int nDstStep, NppiSize oSizeROI, const Npp16u nThresholdLT, const Npp16u nValueLT, const Npp16u nThresholdGT, const Npp16u nValueGT)

  1 channel 16-bit unsigned short threshold.

- NppStatus nppiThreshold_LTValGTVal_16u_C1IR (Npp16u ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI, const Npp16u nThresholdLT, const Npp16u nValueLT, const Npp16u nThresholdGT, const Npp16u nValueGT)

  1 channel 16-bit unsigned short in place threshold.

- NppStatus nppiThreshold_LTValGTVal_16s_C1R (const Npp16s ∗pSrc, int nSrcStep, Npp16s ∗pDst, int nDstStep, NppiSize oSizeROI, const Npp16s nThresholdLT, const Npp16s nValueLT, const Npp16s nThresholdGT, const Npp16s nValueGT)

  1 channel 16-bit signed short threshold.

- NppStatus nppiThreshold_LTValGTVal_16s_C1IR (Npp16s ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI, const Npp16s nThresholdLT, const Npp16s nValueLT, const Npp16s nThresholdGT, const Npp16s nValueGT)

  1 channel 16-bit signed short in place threshold.

- NppStatus nppiThreshold_LTValGTVal_32f_C1R (const Npp32f ∗pSrc, int nSrcStep, Npp32f ∗pDst, int nDstStep, NppiSize oSizeROI, const Npp32f nThresholdLT, const Npp32f nValueLT, const Npp32f nThresholdGT, const Npp32f nValueGT)

  1 channel 32-bit floating point threshold.

- NppStatus nppiThreshold_LTValGTVal_32f_C1IR (Npp32f ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI, const Npp32f nThresholdLT, const Npp32f nValueLT, const Npp32f nThresholdGT, const Npp32f nValueGT)

  1 channel 32-bit floating point in place threshold.

- NppStatus nppiThreshold_LTValGTVal_8u_C3R (const Npp8u ∗pSrc, int nSrcStep, Npp8u ∗pDst, int nDstStep, NppiSize oSizeROI, const Npp8u rThresholdsLT[3], const Npp8u rValuesLT[3], const Npp8u rThresholdsGT[3], const Npp8u rValuesGT[3])

  3 channel 8-bit unsigned char threshold.

- NppStatus nppiThreshold_LTValGTVal_8u_C3IR (Npp8u ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI, const Npp8u rThresholdsLT[3], const Npp8u rValuesLT[3], const Npp8u rThresholdsGT[3], const Npp8u rValuesGT[3])

  3 channel 8-bit unsigned char in place threshold.

- NppStatus nppiThreshold_LTValGTVal_16u_C3R (const Npp16u ∗pSrc, int nSrcStep, Npp16u ∗pDst, int nDstStep, NppiSize oSizeROI, const Npp16u rThresholdsLT[3], const Npp16u rValuesLT[3], const Npp16u rThresholdsGT[3], const Npp16u rValuesGT[3])

  3 channel 16-bit unsigned short threshold.

- NppStatus nppiThreshold_LTValGTVal_16u_C3IR (Npp16u ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI, const Npp16u rThresholdsLT[3], const Npp16u rValuesLT[3], const Npp16u rThresholdsGT[3], const Npp16u rValuesGT[3])

  3 channel 16-bit unsigned short in place threshold.

- NppStatus nppiThreshold_LTValGTVal_16s_C3R (const Npp16s ∗pSrc, int nSrcStep, Npp16s ∗pDst, int nDstStep, NppiSize oSizeROI, const Npp16s rThresholdsLT[3], const Npp16s rValuesLT[3], const Npp16s rThresholdsGT[3], const Npp16s rValuesGT[3])

  3 channel 16-bit signed short threshold.

- NppStatus nppiThreshold_LTValGTVal_16s_C3IR (Npp16s ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI, const Npp16s rThresholdsLT[3], const Npp16s rValuesLT[3], const Npp16s rThresholdsGT[3], const Npp16s rValuesGT[3])

  3 channel 16-bit signed short in place threshold.

- NppStatus nppiThreshold_LTValGTVal_32f_C3R (const Npp32f ∗pSrc, int nSrcStep, Npp32f ∗pDst, int nDstStep, NppiSize oSizeROI, const Npp32f rThresholdsLT[3], const Npp32f rValuesLT[3], const Npp32f rThresholdsGT[3], const Npp32f rValuesGT[3])

  3 channel 32-bit floating point threshold.

- NppStatus nppiThreshold_LTValGTVal_32f_C3IR (Npp32f ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI, const Npp32f rThresholdsLT[3], const Npp32f rValuesLT[3], const Npp32f rThresholdsGT[3], const Npp32f rValuesGT[3])

  3 channel 32-bit floating point in place threshold.

- NppStatus nppiThreshold_LTValGTVal_8u_AC4R (const Npp8u ∗pSrc, int nSrcStep, Npp8u ∗pDst, int nDstStep, NppiSize oSizeROI, const Npp8u rThresholdsLT[3], const Npp8u rValuesLT[3], const Npp8u rThresholdsGT[3], const Npp8u rValuesGT[3])

  4 channel 8-bit unsigned char image threshold, not affecting Alpha.

- NppStatus nppiThreshold_LTValGTVal_8u_AC4IR (Npp8u ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI, const Npp8u rThresholdsLT[3], const Npp8u rValuesLT[3], const Npp8u rThresholdsGT[3], const Npp8u rValuesGT[3])

  4 channel 8-bit unsigned char in place image threshold, not affecting Alpha.

- NppStatus nppiThreshold_LTValGTVal_16u_AC4R (const Npp16u ∗pSrc, int nSrcStep, Npp16u ∗pDst, int nDstStep, NppiSize oSizeROI, const Npp16u rThresholdsLT[3], const Npp16u rValuesLT[3], const Npp16u rThresholdsGT[3], const Npp16u rValuesGT[3])

  4 channel 16-bit unsigned short image threshold, not affecting Alpha.

- NppStatus nppiThreshold_LTValGTVal_16u_AC4IR (Npp16u ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI, const Npp16u rThresholdsLT[3], const Npp16u rValuesLT[3], const Npp16u rThresholdsGT[3], const Npp16u rValuesGT[3])

  4 channel 16-bit unsigned short in place image threshold, not affecting Alpha.

- NppStatus nppiThreshold_LTValGTVal_16s_AC4R (const Npp16s ∗pSrc, int nSrcStep, Npp16s ∗pDst, int nDstStep, NppiSize oSizeROI, const Npp16s rThresholdsLT[3], const Npp16s rValuesLT[3], const Npp16s rThresholdsGT[3], const Npp16s rValuesGT[3])

  4 channel 16-bit signed short image threshold, not affecting Alpha.

- NppStatus nppiThreshold_LTValGTVal_16s_AC4IR (Npp16s ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI, const Npp16s rThresholdsLT[3], const Npp16s rValuesLT[3], const Npp16s rThresholdsGT[3], const Npp16s rValuesGT[3])

  4 channel 16-bit signed short in place image threshold, not affecting Alpha.

- NppStatus nppiThreshold_LTValGTVal_32f_AC4R (const Npp32f ∗pSrc, int nSrcStep, Npp32f ∗pDst, int nDstStep, NppiSize oSizeROI, const Npp32f rThresholdsLT[3], const Npp32f rValuesLT[3], const Npp32f rThresholdsGT[3], const Npp32f rValuesGT[3])

  4 channel 32-bit floating point image threshold, not affecting Alpha.

- NppStatus nppiThreshold_LTValGTVal_32f_AC4IR (Npp32f ∗pSrcDst, int nSrcDstStep, NppiSize oSizeROI, const Npp32f rThresholdsLT[3], const Npp32f rValuesLT[3], const Npp32f rThresholdsGT[3], const Npp32f rValuesGT[3])

  4 channel 32-bit floating point in place image threshold, not affecting Alpha.

7.138.1 Detailed Description

Threshold image pixels.

7.138.2 Function Documentation

7.138.2.1 NppStatus nppiThreshold_16s_AC4IR (Npp16s ∗ *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*, const Npp16s *rThresholds*[3], NppCmpOp *eComparisonOperation*)

4 channel 16-bit signed short in place image threshold, not affecting Alpha.

If for a comparison operations OP the predicate (sourcePixel.channel OP nThreshold) is true, the channel value is set to nThreshold, otherwise it is set to sourcePixel.

Parameters:

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oSizeROI Region-of-Interest (ROI).

rThresholds The threshold values, one per color channel.

eComparisonOperation The type of comparison operation to be used. The only valid values are: NPP_CMP_LESS and NPP_CMP_GREATER.

Returns:

Image Data Related Error Codes, ROI Related Error Codes, or NPP_NOT_SUPPORTED_MODE_ERROR if an invalid comparison operation type is specified.

7.138.2.2 NppStatus nppiThreshold_16s_AC4R (const Npp16s ∗ *pSrc*, int *nSrcStep*, Npp16s ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, const Npp16s *rThresholds*[3], NppCmpOp *eComparisonOperation*)

4 channel 16-bit signed short image threshold, not affecting Alpha.

If for a comparison operations OP the predicate (sourcePixel.channel OP nThreshold) is true, the channel value is set to nThreshold, otherwise it is set to sourcePixel.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

rThresholds The threshold values, one per color channel.

eComparisonOperation The type of comparison operation to be used. The only valid values are: NPP_CMP_LESS and NPP_CMP_GREATER.

Returns:

Image Data Related Error Codes, ROI Related Error Codes, or NPP_NOT_SUPPORTED_MODE_ERROR if an invalid comparison operation type is specified.

7.138.2.3 NppStatus nppiThreshold_16s_C1IR (Npp16s ∗ *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*, const Npp16s *nThreshold*, NppCmpOp *eComparisonOperation*)

1 channel 16-bit signed short in place threshold.

If for a comparison operations OP the predicate (sourcePixel OP nThreshold) is true, the pixel is set to nThreshold, otherwise it is set to sourcePixel.

Parameters:

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oSizeROI Region-of-Interest (ROI).

nThreshold The threshold value.

eComparisonOperation The type of comparison operation to be used. The only valid values are: NPP_CMP_LESS and NPP_CMP_GREATER.

Returns:

Image Data Related Error Codes, ROI Related Error Codes, or NPP_NOT_SUPPORTED_MODE_ERROR if an invalid comparison operation type is specified.

7.138.2.4 NppStatus nppiThreshold_16s_C1R (const Npp16s ∗ *pSrc*, int *nSrcStep*, Npp16s ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, const Npp16s *nThreshold*, NppCmpOp *eComparisonOperation*)

1 channel 16-bit signed short threshold.

If for a comparison operations OP the predicate (sourcePixel OP nThreshold) is true, the pixel is set to nThreshold, otherwise it is set to sourcePixel.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

nThreshold The threshold value.

eComparisonOperation The type of comparison operation to be used. The only valid values are: NPP_CMP_LESS and NPP_CMP_GREATER.

Returns:

Image Data Related Error Codes, ROI Related Error Codes, or NPP_NOT_SUPPORTED_MODE_ERROR if an invalid comparison operation type is specified.

7.138.2.5 NppStatus nppiThreshold_16s_C3IR (Npp16s ∗ *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*, const Npp16s *rThresholds*[3], NppCmpOp *eComparisonOperation*)

3 channel 16-bit signed short in place threshold.

If for a comparison operations OP the predicate (sourcePixel OP nThreshold) is true, the pixel is set to nThreshold, otherwise it is set to sourcePixel.

Parameters:

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oSizeROI Region-of-Interest (ROI).

rThresholds The threshold values, one per color channel.

eComparisonOperation The type of comparison operation to be used. The only valid values are: NPP_CMP_LESS and NPP_CMP_GREATER.

Returns:

Image Data Related Error Codes, ROI Related Error Codes, or NPP_NOT_SUPPORTED_MODE_ERROR if an invalid comparison operation type is specified.

7.138.2.6 NppStatus nppiThreshold_16s_C3R (const Npp16s ∗ *pSrc*, int *nSrcStep*, Npp16s ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, const Npp16s *rThresholds*[3], NppCmpOp *eComparisonOperation*)

3 channel 16-bit signed short threshold.

If for a comparison operations OP the predicate (sourcePixel OP nThreshold) is true, the pixel is set to nThreshold, otherwise it is set to sourcePixel.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

rThresholds The threshold values, one per color channel.

eComparisonOperation The type of comparison operation to be used. The only valid values are: NPP_CMP_LESS and NPP_CMP_GREATER.

Returns:

Image Data Related Error Codes, ROI Related Error Codes, or NPP_NOT_SUPPORTED_MODE_-ERROR if an invalid comparison operation type is specified.

7.138.2.7 NppStatus nppiThreshold_16u_AC4IR (Npp16u ∗ *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*, const Npp16u *rThresholds*[3], NppCmpOp *eComparisonOperation*)

4 channel 16-bit unsigned short in place image threshold, not affecting Alpha.

If for a comparison operations OP the predicate (sourcePixel.channel OP nThreshold) is true, the channel value is set to nThreshold, otherwise it is set to sourcePixel.

Parameters:

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oSizeROI Region-of-Interest (ROI).

rThresholds The threshold values, one per color channel.

eComparisonOperation The type of comparison operation to be used. The only valid values are: NPP_CMP_LESS and NPP_CMP_GREATER.

Returns:

Image Data Related Error Codes, ROI Related Error Codes, or NPP_NOT_SUPPORTED_MODE_-ERROR if an invalid comparison operation type is specified.

7.138.2.8 NppStatus nppiThreshold_16u_AC4R (const Npp16u ∗ *pSrc*, int *nSrcStep*, Npp16u ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, const Npp16u *rThresholds*[3], NppCmpOp *eComparisonOperation*)

4 channel 16-bit unsigned short image threshold, not affecting Alpha.

If for a comparison operations OP the predicate (sourcePixel.channel OP nThreshold) is true, the channel value is set to nThreshold, otherwise it is set to sourcePixel.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

rThresholds The threshold values, one per color channel.

eComparisonOperation The type of comparison operation to be used. The only valid values are: NPP_CMP_LESS and NPP_CMP_GREATER.

Returns:

Image Data Related Error Codes, ROI Related Error Codes, or NPP_NOT_SUPPORTED_MODE_-ERROR if an invalid comparison operation type is specified.

7.138.2.9 NppStatus nppiThreshold_16u_C1IR (Npp16u ∗ *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*, const Npp16u *nThreshold*, NppCmpOp *eComparisonOperation*)

1 channel 16-bit unsigned short in place threshold.

If for a comparison operations OP the predicate (sourcePixel OP nThreshold) is true, the pixel is set to nThreshold, otherwise it is set to sourcePixel.

Parameters:

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oSizeROI Region-of-Interest (ROI).

nThreshold The threshold value.

eComparisonOperation The type of comparison operation to be used. The only valid values are: NPP_CMP_LESS and NPP_CMP_GREATER.

Returns:

Image Data Related Error Codes, ROI Related Error Codes, or NPP_NOT_SUPPORTED_MODE_ERROR if an invalid comparison operation type is specified.

7.138.2.10 NppStatus nppiThreshold_16u_C1R (const Npp16u ∗ *pSrc*, int *nSrcStep*, Npp16u ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, const Npp16u *nThreshold*, NppCmpOp *eComparisonOperation*)

1 channel 16-bit unsigned short threshold.

If for a comparison operations OP the predicate (sourcePixel OP nThreshold) is true, the pixel is set to nThreshold, otherwise it is set to sourcePixel.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

nThreshold The threshold value.

eComparisonOperation The type of comparison operation to be used. The only valid values are: NPP_CMP_LESS and NPP_CMP_GREATER.

Returns:

Image Data Related Error Codes, ROI Related Error Codes, or NPP_NOT_SUPPORTED_MODE_ERROR if an invalid comparison operation type is specified.

7.138.2.11 NppStatus nppiThreshold_16u_C3IR (Npp16u ∗ *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*, const Npp16u *rThresholds*[3], NppCmpOp *eComparisonOperation*)

3 channel 16-bit unsigned short in place threshold.

If for a comparison operations OP the predicate (sourcePixel OP nThreshold) is true, the pixel is set to nThreshold, otherwise it is set to sourcePixel.

Parameters:

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oSizeROI Region-of-Interest (ROI).

rThresholds The threshold values, one per color channel.

eComparisonOperation The type of comparison operation to be used. The only valid values are: NPP_CMP_LESS and NPP_CMP_GREATER.

Returns:

Image Data Related Error Codes, ROI Related Error Codes, or NPP_NOT_SUPPORTED_MODE_-ERROR if an invalid comparison operation type is specified.

7.138.2.12 NppStatus nppiThreshold_16u_C3R (const Npp16u * *pSrc*, int *nSrcStep*, Npp16u * *pDst*, int *nDstStep*, NppiSize *oSizeROI*, const Npp16u *rThresholds*[3], NppCmpOp *eComparisonOperation*)

3 channel 16-bit unsigned short threshold.

If for a comparison operations OP the predicate (sourcePixel OP nThreshold) is true, the pixel is set to nThreshold, otherwise it is set to sourcePixel.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

rThresholds The threshold values, one per color channel.

eComparisonOperation The type of comparison operation to be used. The only valid values are: NPP_CMP_LESS and NPP_CMP_GREATER.

Returns:

Image Data Related Error Codes, ROI Related Error Codes, or NPP_NOT_SUPPORTED_MODE_-ERROR if an invalid comparison operation type is specified.

7.138.2.13 NppStatus nppiThreshold_32f_AC4IR (Npp32f * *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*, const Npp32f *rThresholds*[3], NppCmpOp *eComparisonOperation*)

4 channel 32-bit floating point in place image threshold, not affecting Alpha.

If for a comparison operations OP the predicate (sourcePixel.channel OP nThreshold) is true, the channel value is set to nThreshold, otherwise it is set to sourcePixel.

Parameters:

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oSizeROI Region-of-Interest (ROI).

rThresholds The threshold values, one per color channel.

eComparisonOperation The type of comparison operation to be used. The only valid values are: NPP_CMP_LESS and NPP_CMP_GREATER.

Returns:

Image Data Related Error Codes, ROI Related Error Codes, or NPP_NOT_SUPPORTED_MODE_-ERROR if an invalid comparison operation type is specified.

7.138.2.14 NppStatus nppiThreshold_32f_AC4R (const Npp32f ∗ *pSrc*, int *nSrcStep*, Npp32f ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, const Npp32f *rThresholds*[3], NppCmpOp *eComparisonOperation*)

4 channel 32-bit floating point image threshold, not affecting Alpha.

If for a comparison operations OP the predicate (sourcePixel.channel OP nThreshold) is true, the channel value is set to nThreshold, otherwise it is set to sourcePixel.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

rThresholds The threshold values, one per color channel.

eComparisonOperation The type of comparison operation to be used. The only valid values are: NPP_CMP_LESS and NPP_CMP_GREATER.

Returns:

Image Data Related Error Codes, ROI Related Error Codes, or NPP_NOT_SUPPORTED_MODE_-ERROR if an invalid comparison operation type is specified.

7.138.2.15 NppStatus nppiThreshold_32f_C1IR (Npp32f ∗ *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*, const Npp32f *nThreshold*, NppCmpOp *eComparisonOperation*)

1 channel 32-bit floating point in place threshold.

If for a comparison operations OP the predicate (sourcePixel OP nThreshold) is true, the pixel is set to nThreshold, otherwise it is set to sourcePixel.

Parameters:

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oSizeROI Region-of-Interest (ROI).

nThreshold The threshold value.

eComparisonOperation The type of comparison operation to be used. The only valid values are: NPP_CMP_LESS and NPP_CMP_GREATER.

Returns:

Image Data Related Error Codes, ROI Related Error Codes, or NPP_NOT_SUPPORTED_MODE_ERROR if an invalid comparison operation type is specified.

7.138.2.16 NppStatus nppiThreshold_32f_C1R (const Npp32f ∗ *pSrc*, int *nSrcStep*, Npp32f ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, const Npp32f *nThreshold*, NppCmpOp *eComparisonOperation*)

1 channel 32-bit floating point threshold.

If for a comparison operations OP the predicate (sourcePixel OP nThreshold) is true, the pixel is set to nThreshold, otherwise it is set to sourcePixel.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

nThreshold The threshold value.

eComparisonOperation The type of comparison operation to be used. The only valid values are: NPP_CMP_LESS and NPP_CMP_GREATER.

Returns:

Image Data Related Error Codes, ROI Related Error Codes, or NPP_NOT_SUPPORTED_MODE_ERROR if an invalid comparison operation type is specified.

7.138.2.17 NppStatus nppiThreshold_32f_C3IR (Npp32f ∗ *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*, const Npp32f *rThresholds*[3], NppCmpOp *eComparisonOperation*)

3 channel 32-bit floating point in place threshold.

If for a comparison operations OP the predicate (sourcePixel OP nThreshold) is true, the pixel is set to nThreshold, otherwise it is set to sourcePixel.

Parameters:

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oSizeROI Region-of-Interest (ROI).

rThresholds The threshold values, one per color channel.

eComparisonOperation The type of comparison operation to be used. The only valid values are: NPP_CMP_LESS and NPP_CMP_GREATER.

Returns:

Image Data Related Error Codes, ROI Related Error Codes, or NPP_NOT_SUPPORTED_MODE_ERROR if an invalid comparison operation type is specified.

7.138.2.18 NppStatus nppiThreshold_32f_C3R (const Npp32f * *pSrc*, int *nSrcStep*, Npp32f * *pDst*, int *nDstStep*, NppiSize *oSizeROI*, const Npp32f *rThresholds*[3], NppCmpOp *eComparisonOperation*)

3 channel 32-bit floating point threshold.

If for a comparison operations OP the predicate (sourcePixel OP nThreshold) is true, the pixel is set to nThreshold, otherwise it is set to sourcePixel.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

rThresholds The threshold values, one per color channel.

eComparisonOperation The type of comparison operation to be used. The only valid values are: NPP_CMP_LESS and NPP_CMP_GREATER.

Returns:

Image Data Related Error Codes, ROI Related Error Codes, or NPP_NOT_SUPPORTED_MODE_-ERROR if an invalid comparison operation type is specified.

7.138.2.19 NppStatus nppiThreshold_8u_AC4IR (Npp8u * *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*, const Npp8u *rThresholds*[3], NppCmpOp *eComparisonOperation*)

4 channel 8-bit unsigned char in place image threshold, not affecting Alpha.

If for a comparison operations OP the predicate (sourcePixel.channel OP nThreshold) is true, the channel value is set to nThreshold, otherwise it is set to sourcePixel.

Parameters:

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oSizeROI Region-of-Interest (ROI).

rThresholds The threshold values, one per color channel.

eComparisonOperation The type of comparison operation to be used. The only valid values are: NPP_CMP_LESS and NPP_CMP_GREATER.

Returns:

Image Data Related Error Codes, ROI Related Error Codes, or NPP_NOT_SUPPORTED_MODE_-ERROR if an invalid comparison operation type is specified.

7.138.2.20 NppStatus nppiThreshold_8u_AC4R (const Npp8u ∗ *pSrc*, int *nSrcStep*, Npp8u ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, const Npp8u *rThresholds*[3], NppCmpOp *eComparisonOperation*)

4 channel 8-bit unsigned char image threshold, not affecting Alpha.

If for a comparison operations OP the predicate (sourcePixel.channel OP nThreshold) is true, the channel value is set to nThreshold, otherwise it is set to sourcePixel.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

rThresholds The threshold values, one per color channel.

eComparisonOperation The type of comparison operation to be used. The only valid values are: NPP_CMP_LESS and NPP_CMP_GREATER.

Returns:

Image Data Related Error Codes, ROI Related Error Codes, or NPP_NOT_SUPPORTED_MODE_-ERROR if an invalid comparison operation type is specified.

7.138.2.21 NppStatus nppiThreshold_8u_C1IR (Npp8u ∗ *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*, const Npp8u *nThreshold*, NppCmpOp *eComparisonOperation*)

1 channel 8-bit unsigned char in place threshold.

If for a comparison operations OP the predicate (sourcePixel OP nThreshold) is true, the pixel is set to nThreshold, otherwise it is set to sourcePixel.

Parameters:

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oSizeROI Region-of-Interest (ROI).

nThreshold The threshold value.

eComparisonOperation The type of comparison operation to be used. The only valid values are: NPP_CMP_LESS and NPP_CMP_GREATER.

Returns:

Image Data Related Error Codes, ROI Related Error Codes, or NPP_NOT_SUPPORTED_MODE_-ERROR if an invalid comparison operation type is specified.

7.138.2.22 NppStatus nppiThreshold_8u_C1R (const Npp8u ∗ *pSrc*, int *nSrcStep*, Npp8u ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, const Npp8u *nThreshold*, NppCmpOp *eComparisonOperation*)

1 channel 8-bit unsigned char threshold.

If for a comparison operations OP the predicate (sourcePixel OP nThreshold) is true, the pixel is set to nThreshold, otherwise it is set to sourcePixel.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

nThreshold The threshold value.

eComparisonOperation The type of comparison operation to be used. The only valid values are: NPP_CMP_LESS and NPP_CMP_GREATER.

Returns:

Image Data Related Error Codes, ROI Related Error Codes, or NPP_NOT_SUPPORTED_MODE_-ERROR if an invalid comparison operation type is specified.

7.138.2.23 NppStatus nppiThreshold_8u_C3IR (Npp8u ∗ *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*, const Npp8u *rThresholds*[3], NppCmpOp *eComparisonOperation*)

3 channel 8-bit unsigned char in place threshold.

If for a comparison operations OP the predicate (sourcePixel OP nThreshold) is true, the pixel is set to nThreshold, otherwise it is set to sourcePixel.

Parameters:

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oSizeROI Region-of-Interest (ROI).

rThresholds The threshold values, one per color channel.

eComparisonOperation The type of comparison operation to be used. The only valid values are: NPP_CMP_LESS and NPP_CMP_GREATER.

Returns:

Image Data Related Error Codes, ROI Related Error Codes, or NPP_NOT_SUPPORTED_MODE_-ERROR if an invalid comparison operation type is specified.

7.138.2.24 NppStatus nppiThreshold_8u_C3R (const Npp8u * *pSrc*, int *nSrcStep*, Npp8u * *pDst*, int *nDstStep*, NppiSize *oSizeROI*, const Npp8u *rThresholds*[3], NppCmpOp *eComparisonOperation*)

3 channel 8-bit unsigned char threshold.

If for a comparison operations OP the predicate (sourcePixel OP nThreshold) is true, the pixel is set to nThreshold, otherwise it is set to sourcePixel.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

rThresholds The threshold values, one per color channel.

eComparisonOperation The type of comparison operation to be used. The only valid values are: NPP_CMP_LESS and NPP_CMP_GREATER.

Returns:

Image Data Related Error Codes, ROI Related Error Codes, or NPP_NOT_SUPPORTED_MODE_-ERROR if an invalid comparison operation type is specified.

7.138.2.25 NppStatus nppiThreshold_GT_16s_AC4IR (Npp16s * *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*, const Npp16s *rThresholds*[3])

4 channel 16-bit signed short in place image threshold, not affecting Alpha.

If for a comparison operations sourcePixel is greater than nThreshold is true, the pixel is set value is set to nThreshold, otherwise it is set to sourcePixel.

Parameters:

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oSizeROI Region-of-Interest (ROI).

rThresholds The threshold values, one per color channel.

Returns:

Image Data Related Error Codes, ROI Related Error Codes.

7.138.2.26 NppStatus nppiThreshold_GT_16s_AC4R (const Npp16s * *pSrc*, int *nSrcStep*, Npp16s * *pDst*, int *nDstStep*, NppiSize *oSizeROI*, const Npp16s *rThresholds*[3])

4 channel 16-bit signed short image threshold, not affecting Alpha.

If for a comparison operations sourcePixel is greater than nThreshold is true, the pixel is set value is set to nThreshold, otherwise it is set to sourcePixel.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

rThresholds The threshold values, one per color channel.

Returns:

Image Data Related Error Codes, ROI Related Error Codes.

7.138.2.27 NppStatus nppiThreshold_GT_16s_C1IR (Npp16s ∗ *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*, const Npp16s *nThreshold*)

1 channel 16-bit signed short in place threshold.

If for a comparison operations sourcePixel is greater than nThreshold is true, the pixel is set to nThreshold, otherwise it is set to sourcePixel.

Parameters:

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oSizeROI Region-of-Interest (ROI).

nThreshold The threshold value.

Returns:

Image Data Related Error Codes, ROI Related Error Codes.

7.138.2.28 NppStatus nppiThreshold_GT_16s_C1R (const Npp16s ∗ *pSrc*, int *nSrcStep*, Npp16s ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, const Npp16s *nThreshold*)

1 channel 16-bit signed short threshold.

If for a comparison operations sourcePixel is greater than nThreshold is true, the pixel is set to nThreshold, otherwise it is set to sourcePixel.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

nThreshold The threshold value.

Returns:

Image Data Related Error Codes, ROI Related Error Codes.

7.138.2.29 NppStatus nppiThreshold_GT_16s_C3IR (Npp16s ∗ *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*, const Npp16s *rThresholds*[3])

3 channel 16-bit signed short in place threshold.

If for a comparison operations sourcePixel is greater than nThreshold is true, the pixel is set to nThreshold, otherwise it is set to sourcePixel.

Parameters:

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oSizeROI Region-of-Interest (ROI).

rThresholds The threshold values, one per color channel.

Returns:

Image Data Related Error Codes, ROI Related Error Codes.

7.138.2.30 NppStatus nppiThreshold_GT_16s_C3R (const Npp16s ∗ *pSrc*, int *nSrcStep*, Npp16s ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, const Npp16s *rThresholds*[3])

3 channel 16-bit signed short threshold.

If for a comparison operations sourcePixel is greater than nThreshold is true, the pixel is set to nThreshold, otherwise it is set to sourcePixel.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

rThresholds The threshold values, one per color channel.

Returns:

Image Data Related Error Codes, ROI Related Error Codes.

7.138.2.31 NppStatus nppiThreshold_GT_16u_AC4IR (Npp16u ∗ *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*, const Npp16u *rThresholds*[3])

4 channel 16-bit unsigned short in place image threshold, not affecting Alpha.

If for a comparison operations sourcePixel is greater than nThreshold is true, the pixel is set value is set to nThreshold, otherwise it is set to sourcePixel.

Parameters:

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oSizeROI Region-of-Interest (ROI).

rThresholds The threshold values, one per color channel.

Returns:

Image Data Related Error Codes, ROI Related Error Codes.

7.138.2.32 NppStatus nppiThreshold_GT_16u_AC4R (const Npp16u ∗ *pSrc*, int *nSrcStep*, Npp16u ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, const Npp16u *rThresholds*[3])

4 channel 16-bit unsigned short image threshold, not affecting Alpha.

If for a comparison operations sourcePixel is greater than nThreshold is true, the pixel is set value is set to nThreshold, otherwise it is set to sourcePixel.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

rThresholds The threshold values, one per color channel.

Returns:

Image Data Related Error Codes, ROI Related Error Codes.

7.138.2.33 NppStatus nppiThreshold_GT_16u_C1IR (Npp16u ∗ *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*, const Npp16u *nThreshold*)

1 channel 16-bit unsigned short in place threshold.

If for a comparison operations sourcePixel is greater than nThreshold is true, the pixel is set to nThreshold, otherwise it is set to sourcePixel.

Parameters:

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oSizeROI Region-of-Interest (ROI).

nThreshold The threshold value.

Returns:

Image Data Related Error Codes, ROI Related Error Codes.

7.138.2.34 NppStatus nppiThreshold_GT_16u_C1R (const Npp16u ∗ *pSrc*, int *nSrcStep*, Npp16u ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, const Npp16u *nThreshold*)

1 channel 16-bit unsigned short threshold.

If for a comparison operations sourcePixel is greater than nThreshold is true, the pixel is set to nThreshold, otherwise it is set to sourcePixel.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

nThreshold The threshold value.

Returns:

Image Data Related Error Codes, ROI Related Error Codes.

7.138.2.35 NppStatus nppiThreshold_GT_16u_C3IR (Npp16u ∗ *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*, const Npp16u *rThresholds*[3])

3 channel 16-bit unsigned short in place threshold.

If for a comparison operations sourcePixel is greater than nThreshold is true, the pixel is set to nThreshold, otherwise it is set to sourcePixel.

Parameters:

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oSizeROI Region-of-Interest (ROI).

rThresholds The threshold values, one per color channel.

Returns:

Image Data Related Error Codes, ROI Related Error Codes.

7.138.2.36 NppStatus nppiThreshold_GT_16u_C3R (const Npp16u ∗ *pSrc*, int *nSrcStep*, Npp16u ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, const Npp16u *rThresholds*[3])

3 channel 16-bit unsigned short threshold.

If for a comparison operations sourcePixel is greater than nThreshold is true, the pixel is set to nThreshold, otherwise it is set to sourcePixel.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

rThresholds The threshold values, one per color channel.

Returns:

Image Data Related Error Codes, ROI Related Error Codes.

7.138.2.37 NppStatus nppiThreshold_GT_32f_AC4IR (Npp32f ∗ *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*, const Npp32f *rThresholds*[3])

4 channel 32-bit floating point in place image threshold, not affecting Alpha.

If for a comparison operations sourcePixel is greater than nThreshold is true, the pixel is set value is set to nThreshold, otherwise it is set to sourcePixel.

Parameters:

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oSizeROI Region-of-Interest (ROI).

rThresholds The threshold values, one per color channel.

Returns:

Image Data Related Error Codes, ROI Related Error Codes.

7.138.2.38 NppStatus nppiThreshold_GT_32f_AC4R (const Npp32f ∗ *pSrc*, int *nSrcStep*, Npp32f ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, const Npp32f *rThresholds*[3])

4 channel 32-bit floating point image threshold, not affecting Alpha.

If for a comparison operations sourcePixel is greater than nThreshold is true, the pixel is set value is set to nThreshold, otherwise it is set to sourcePixel.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

rThresholds The threshold values, one per color channel.

Returns:

Image Data Related Error Codes, ROI Related Error Codes.

7.138.2.39 NppStatus nppiThreshold_GT_32f_C1IR (Npp32f ∗ *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*, const Npp32f *nThreshold*)

1 channel 32-bit floating point in place threshold.

If for a comparison operations sourcePixel is greater than nThreshold is true, the pixel is set to nThreshold, otherwise it is set to sourcePixel.

Parameters:

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oSizeROI Region-of-Interest (ROI).

nThreshold The threshold value.

Returns:

Image Data Related Error Codes, ROI Related Error Codes.

7.138.2.40 NppStatus nppiThreshold_GT_32f_C1R (const Npp32f ∗ *pSrc*, int *nSrcStep*, Npp32f ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, const Npp32f *nThreshold*)

1 channel 32-bit floating point threshold.

If for a comparison operations sourcePixel is greater than nThreshold is true, the pixel is set to nThreshold, otherwise it is set to sourcePixel.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

nThreshold The threshold value.

Returns:

Image Data Related Error Codes, ROI Related Error Codes.

7.138.2.41 NppStatus nppiThreshold_GT_32f_C3IR (Npp32f ∗ *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*, const Npp32f *rThresholds*[3])

3 channel 32-bit floating point in place threshold.

If for a comparison operations sourcePixel is greater than nThreshold is true, the pixel is set to nThreshold, otherwise it is set to sourcePixel.

Parameters:

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oSizeROI Region-of-Interest (ROI).

rThresholds The threshold values, one per color channel.

Returns:

Image Data Related Error Codes, ROI Related Error Codes.

7.138.2.42 NppStatus nppiThreshold_GT_32f_C3R (const Npp32f * *pSrc*, int *nSrcStep*, Npp32f * *pDst*, int *nDstStep*, NppiSize *oSizeROI*, const Npp32f *rThresholds*[3])

3 channel 32-bit floating point threshold.

If for a comparison operations sourcePixel is greater than nThreshold is true, the pixel is set to nThreshold, otherwise it is set to sourcePixel.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

rThresholds The threshold values, one per color channel.

Returns:

Image Data Related Error Codes, ROI Related Error Codes.

7.138.2.43 NppStatus nppiThreshold_GT_8u_AC4IR (Npp8u * *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*, const Npp8u *rThresholds*[3])

4 channel 8-bit unsigned char in place image threshold, not affecting Alpha.

If for a comparison operations sourcePixel is greater than nThreshold is true, the pixel is set value is set to nThreshold, otherwise it is set to sourcePixel.

Parameters:

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oSizeROI Region-of-Interest (ROI).

rThresholds The threshold values, one per color channel.

Returns:

Image Data Related Error Codes, ROI Related Error Codes.

7.138.2.44 NppStatus nppiThreshold_GT_8u_AC4R (const Npp8u ∗ *pSrc*, int *nSrcStep*, Npp8u ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, const Npp8u *rThresholds*[3])

4 channel 8-bit unsigned char image threshold, not affecting Alpha.

If for a comparison operations sourcePixel is greater than nThreshold is true, the pixel is set value is set to nThreshold, otherwise it is set to sourcePixel.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

rThresholds The threshold values, one per color channel.

Returns:

Image Data Related Error Codes, ROI Related Error Codes.

7.138.2.45 NppStatus nppiThreshold_GT_8u_C1IR (Npp8u ∗ *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*, const Npp8u *nThreshold*)

1 channel 8-bit unsigned char in place threshold.

If for a comparison operations sourcePixel is greater than nThreshold is true, the pixel is set to nThreshold, otherwise it is set to sourcePixel.

Parameters:

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oSizeROI Region-of-Interest (ROI).

nThreshold The threshold value.

Returns:

Image Data Related Error Codes, ROI Related Error Codes.

7.138.2.46 NppStatus nppiThreshold_GT_8u_C1R (const Npp8u ∗ *pSrc*, int *nSrcStep*, Npp8u ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, const Npp8u *nThreshold*)

1 channel 8-bit unsigned char threshold.

If for a comparison operations sourcePixel is greater than nThreshold is true, the pixel is set to nThreshold, otherwise it is set to sourcePixel.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

nThreshold The threshold value.

Returns:

Image Data Related Error Codes, ROI Related Error Codes.

7.138.2.47 NppStatus nppiThreshold_GT_8u_C3IR (Npp8u ∗ *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*, const Npp8u *rThresholds*[3])

3 channel 8-bit unsigned char in place threshold.

If for a comparison operations sourcePixel is greater than nThreshold is true, the pixel is set to nThreshold, otherwise it is set to sourcePixel.

Parameters:

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oSizeROI Region-of-Interest (ROI).

rThresholds The threshold values, one per color channel.

Returns:

Image Data Related Error Codes, ROI Related Error Codes.

7.138.2.48 NppStatus nppiThreshold_GT_8u_C3R (const Npp8u ∗ *pSrc*, int *nSrcStep*, Npp8u ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, const Npp8u *rThresholds*[3])

3 channel 8-bit unsigned char threshold.

If for a comparison operations sourcePixel is greater than nThreshold is true, the pixel is set to nThreshold, otherwise it is set to sourcePixel.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

rThresholds The threshold values, one per color channel.

Returns:

Image Data Related Error Codes, ROI Related Error Codes.

7.138.2.49 NppStatus nppiThreshold_GTVal_16s_AC4IR (Npp16s ∗ *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*, const Npp16s *rThresholds*[3], const Npp16s *rValues*[3])

4 channel 16-bit signed short in place image threshold, not affecting Alpha.

If for a comparison operations sourcePixel is greater than rThreshold is true, the pixel is set value is set to rValue, otherwise it is set to sourcePixel.

Parameters:

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oSizeROI Region-of-Interest (ROI).

rThresholds The threshold values, one per color channel.

rValues The threshold replacement values, one per color channel.

Returns:

Image Data Related Error Codes, ROI Related Error Codes.

7.138.2.50 NppStatus nppiThreshold_GTVal_16s_AC4R (const Npp16s ∗ *pSrc*, int *nSrcStep*, Npp16s ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, const Npp16s *rThresholds*[3], const Npp16s *rValues*[3])

4 channel 16-bit signed short image threshold, not affecting Alpha.

If for a comparison operations sourcePixel is greater than rThreshold is true, the pixel is set value is set to rValue, otherwise it is set to sourcePixel.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

rThresholds The threshold values, one per color channel.

rValues The threshold replacement values, one per color channel.

Returns:

Image Data Related Error Codes, ROI Related Error Codes.

7.138.2.51 NppStatus nppiThreshold_GTVal_16s_C1IR (Npp16s ∗ *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*, const Npp16s *nThreshold*, const Npp16s *nValue*)

1 channel 16-bit signed short in place threshold.

If for a comparison operations sourcePixel is greater than nThreshold is true, the pixel is set to nValue, otherwise it is set to sourcePixel.

Parameters:

pSrcDst In-Place Image Pointer.
nSrcDstStep In-Place-Image Line Step.
oSizeROI Region-of-Interest (ROI).
nThreshold The threshold value.
nValue The threshold replacement value.

Returns:

Image Data Related Error Codes, ROI Related Error Codes.

7.138.2.52 NppStatus nppiThreshold_GTVal_16s_C1R (const Npp16s ∗ *pSrc*, int *nSrcStep*, Npp16s ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, const Npp16s *nThreshold*, const Npp16s *nValue*)

1 channel 16-bit signed short threshold.

If for a comparison operations sourcePixel is greater than nThreshold is true, the pixel is set to nValue, otherwise it is set to sourcePixel.

Parameters:

pSrc Source-Image Pointer.
nSrcStep Source-Image Line Step.
pDst Destination-Image Pointer.
nDstStep Destination-Image Line Step.
oSizeROI Region-of-Interest (ROI).
nThreshold The threshold value.
nValue The threshold replacement value.

Returns:

Image Data Related Error Codes, ROI Related Error Codes.

7.138.2.53 NppStatus nppiThreshold_GTVal_16s_C3IR (Npp16s ∗ *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*, const Npp16s *rThresholds*[3], const Npp16s *rValues*[3])

3 channel 16-bit signed short in place threshold.

If for a comparison operations sourcePixel is greater than rThreshold is true, the pixel is set to rValue, otherwise it is set to sourcePixel.

Parameters:

pSrcDst In-Place Image Pointer.
nSrcDstStep In-Place-Image Line Step.
oSizeROI Region-of-Interest (ROI).
rThresholds The threshold values, one per color channel.
rValues The threshold replacement values, one per color channel.

Returns:

Image Data Related Error Codes, ROI Related Error Codes.

7.138.2.54 NppStatus nppiThreshold_GTVal_16s_C3R (const Npp16s ∗ *pSrc*, int *nSrcStep*, Npp16s ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, const Npp16s *rThresholds*[3], const Npp16s *rValues*[3])

3 channel 16-bit signed short threshold.

If for a comparison operations sourcePixel is greater than rThreshold is true, the pixel is set to rValue, otherwise it is set to sourcePixel.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

rThresholds The threshold values, one per color channel.

rValues The threshold replacement values, one per color channel.

Returns:

Image Data Related Error Codes, ROI Related Error Codes.

7.138.2.55 NppStatus nppiThreshold_GTVal_16u_AC4IR (Npp16u ∗ *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*, const Npp16u *rThresholds*[3], const Npp16u *rValues*[3])

4 channel 16-bit unsigned short in place image threshold, not affecting Alpha.

If for a comparison operations sourcePixel is greater than rThreshold is true, the pixel is set value is set to rValue, otherwise it is set to sourcePixel.

Parameters:

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oSizeROI Region-of-Interest (ROI).

rThresholds The threshold values, one per color channel.

rValues The threshold replacement values, one per color channel.

Returns:

Image Data Related Error Codes, ROI Related Error Codes.

7.138.2.56 NppStatus nppiThreshold_GTVal_16u_AC4R (const Npp16u ∗ *pSrc*, int *nSrcStep*, Npp16u ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, const Npp16u *rThresholds*[3], const Npp16u *rValues*[3])

4 channel 16-bit unsigned short image threshold, not affecting Alpha.

If for a comparison operations sourcePixel is greater than rThreshold is true, the pixel is set value is set to rValue, otherwise it is set to sourcePixel.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

rThresholds The threshold values, one per color channel.

rValues The threshold replacement values, one per color channel.

Returns:

Image Data Related Error Codes, ROI Related Error Codes.

7.138.2.57 NppStatus nppiThreshold_GTVal_16u_C1IR (Npp16u ∗ *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*, const Npp16u *nThreshold*, const Npp16u *nValue*)

1 channel 16-bit unsigned short in place threshold.

If for a comparison operations sourcePixel is greater than nThreshold is true, the pixel is set to nValue, otherwise it is set to sourcePixel.

Parameters:

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oSizeROI Region-of-Interest (ROI).

nThreshold The threshold value.

nValue The threshold replacement value.

Returns:

Image Data Related Error Codes, ROI Related Error Codes.

7.138.2.58 NppStatus nppiThreshold_GTVal_16u_C1R (const Npp16u ∗ *pSrc*, int *nSrcStep*, Npp16u ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, const Npp16u *nThreshold*, const Npp16u *nValue*)

1 channel 16-bit unsigned short threshold.

If for a comparison operations sourcePixel is greater than nThreshold is true, the pixel is set to nValue, otherwise it is set to sourcePixel.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

nThreshold The threshold value.

nValue The threshold replacement value.

Returns:

Image Data Related Error Codes, ROI Related Error Codes.

7.138.2.59 NppStatus nppiThreshold_GTVal_16u_C3IR (Npp16u ∗ *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*, const Npp16u *rThresholds*[3], const Npp16u *rValues*[3])

3 channel 16-bit unsigned short in place threshold.

If for a comparison operations sourcePixel is greater than rThreshold is true, the pixel is set to rValue, otherwise it is set to sourcePixel.

Parameters:

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oSizeROI Region-of-Interest (ROI).

rThresholds The threshold values, one per color channel.

rValues The threshold replacement values, one per color channel.

Returns:

Image Data Related Error Codes, ROI Related Error Codes.

7.138.2.60 NppStatus nppiThreshold_GTVal_16u_C3R (const Npp16u ∗ *pSrc*, int *nSrcStep*, Npp16u ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, const Npp16u *rThresholds*[3], const Npp16u *rValues*[3])

3 channel 16-bit unsigned short threshold.

If for a comparison operations sourcePixel is greater than rThreshold is true, the pixel is set to rValue, otherwise it is set to sourcePixel.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

rThresholds The threshold values, one per color channel.

rValues The threshold replacement values, one per color channel.

Returns:

Image Data Related Error Codes, ROI Related Error Codes.

7.138.2.61 NppStatus nppiThreshold_GTVal_32f_AC4IR (Npp32f ∗ *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*, const Npp32f *rThresholds*[3], const Npp32f *rValues*[3])

4 channel 32-bit floating point in place image threshold, not affecting Alpha.

If for a comparison operations sourcePixel is greater than rThreshold is true, the pixel is set value is set to rValue, otherwise it is set to sourcePixel.

Parameters:

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oSizeROI Region-of-Interest (ROI).

rThresholds The threshold values, one per color channel.

rValues The threshold replacement values, one per color channel.

Returns:

Image Data Related Error Codes, ROI Related Error Codes.

7.138.2.62 NppStatus nppiThreshold_GTVal_32f_AC4R (const Npp32f ∗ *pSrc*, int *nSrcStep*, Npp32f ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, const Npp32f *rThresholds*[3], const Npp32f *rValues*[3])

4 channel 32-bit floating point image threshold, not affecting Alpha.

If for a comparison operations sourcePixel is greater than rThreshold is true, the pixel is set value is set to rValue, otherwise it is set to sourcePixel.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

rThresholds The threshold values, one per color channel.

rValues The threshold replacement values, one per color channel.

Returns:

Image Data Related Error Codes, ROI Related Error Codes.

7.138.2.63 NppStatus nppiThreshold_GTVal_32f_C1IR (Npp32f ∗ *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*, const Npp32f *nThreshold*, const Npp32f *nValue*)

1 channel 32-bit floating point in place threshold.

If for a comparison operations sourcePixel is greater than nThreshold is true, the pixel is set to nValue, otherwise it is set to sourcePixel.

Parameters:

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oSizeROI Region-of-Interest (ROI).

nThreshold The threshold value.

nValue The threshold replacement values.

Returns:

Image Data Related Error Codes, ROI Related Error Codes.

7.138.2.64 NppStatus nppiThreshold_GTVal_32f_C1R (const Npp32f ∗ *pSrc*, int *nSrcStep*, Npp32f ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, const Npp32f *nThreshold*, const Npp32f *nValue*)

1 channel 32-bit floating point threshold.

If for a comparison operations sourcePixel is greater than nThreshold is true, the pixel is set to nValue, otherwise it is set to sourcePixel.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

nThreshold The threshold value.

nValue The threshold replacement value.

Returns:

Image Data Related Error Codes, ROI Related Error Codes.

7.138.2.65 NppStatus nppiThreshold_GTVal_32f_C3IR (Npp32f ∗ *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*, const Npp32f *rThresholds*[3], const Npp32f *rValues*[3])

3 channel 32-bit floating point in place threshold.

If for a comparison operations sourcePixel is greater than rThreshold is true, the pixel is set to rValue, otherwise it is set to sourcePixel.

Parameters:

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oSizeROI Region-of-Interest (ROI).

rThresholds The threshold values, one per color channel.

rValues The threshold replacement values, one per color channel.

Returns:

Image Data Related Error Codes, ROI Related Error Codes.

7.138.2.66 NppStatus nppiThreshold_GTVal_32f_C3R (const Npp32f $*$ *pSrc*, int *nSrcStep*, Npp32f $*$ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, const Npp32f *rThresholds*[3], const Npp32f *rValues*[3])

3 channel 32-bit floating point threshold.

If for a comparison operations sourcePixel is greater than rThreshold is true, the pixel is set to rValue, otherwise it is set to sourcePixel.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

rThresholds The threshold values, one per color channel.

rValues The threshold replacement values, one per color channel.

Returns:

Image Data Related Error Codes, ROI Related Error Codes.

7.138.2.67 NppStatus nppiThreshold_GTVal_8u_AC4IR (Npp8u $*$ *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*, const Npp8u *rThresholds*[3], const Npp8u *rValues*[3])

4 channel 8-bit unsigned char in place image threshold, not affecting Alpha.

If for a comparison operations sourcePixel is greater than rThreshold is true, the pixel is set value is set to rValue, otherwise it is set to sourcePixel.

Parameters:

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oSizeROI Region-of-Interest (ROI).

rThresholds The threshold values, one per color channel.

rValues The threshold replacement values, one per color channel.

Returns:

Image Data Related Error Codes, ROI Related Error Codes.

7.138.2.68 NppStatus nppiThreshold_GTVal_8u_AC4R (const Npp8u $*$ *pSrc*, int *nSrcStep*, Npp8u $*$ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, const Npp8u *rThresholds*[3], const Npp8u *rValues*[3])

4 channel 8-bit unsigned char image threshold, not affecting Alpha.

If for a comparison operations sourcePixel is greater than rThreshold is true, the pixel is set value is set to rValue, otherwise it is set to sourcePixel.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

rThresholds The threshold values, one per color channel.

rValues The threshold replacement values, one per color channel.

Returns:

Image Data Related Error Codes, ROI Related Error Codes.

7.138.2.69 NppStatus nppiThreshold_GTVal_8u_C1IR (Npp8u * *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*, const Npp8u *nThreshold*, const Npp8u *nValue*)

1 channel 8-bit unsigned char in place threshold.

If for a comparison operations sourcePixel is greater than nThreshold is true, the pixel is set to nValue, otherwise it is set to sourcePixel.

Parameters:

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oSizeROI Region-of-Interest (ROI).

nThreshold The threshold value.

nValue The threshold replacement value.

Returns:

Image Data Related Error Codes, ROI Related Error Codes.

7.138.2.70 NppStatus nppiThreshold_GTVal_8u_C1R (const Npp8u * *pSrc*, int *nSrcStep*, Npp8u * *pDst*, int *nDstStep*, NppiSize *oSizeROI*, const Npp8u *nThreshold*, const Npp8u *nValue*)

1 channel 8-bit unsigned char threshold.

If for a comparison operations sourcePixel is greater than nThreshold is true, the pixel is set to nValue, otherwise it is set to sourcePixel.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

nThreshold The threshold value.

nValue The threshold replacement value.

Returns:

Image Data Related Error Codes, ROI Related Error Codes.

7.138.2.71 NppStatus nppiThreshold_GTVal_8u_C3IR (Npp8u ∗ *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*, const Npp8u *rThresholds*[3], const Npp8u *rValues*[3])

3 channel 8-bit unsigned char in place threshold.

If for a comparison operations sourcePixel is greater than rThreshold is true, the pixel is set to rValue, otherwise it is set to sourcePixel.

Parameters:

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oSizeROI Region-of-Interest (ROI).

rThresholds The threshold values, one per color channel.

rValues The threshold replacement values, one per color channel.

Returns:

Image Data Related Error Codes, ROI Related Error Codes.

7.138.2.72 NppStatus nppiThreshold_GTVal_8u_C3R (const Npp8u ∗ *pSrc*, int *nSrcStep*, Npp8u ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, const Npp8u *rThresholds*[3], const Npp8u *rValues*[3])

3 channel 8-bit unsigned char threshold.

If for a comparison operations sourcePixel is greater than rThreshold is true, the pixel is set to rValue, otherwise it is set to sourcePixel.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

rThresholds The threshold values, one per color channel.

rValues The threshold replacement values, one per color channel.

Returns:

Image Data Related Error Codes, ROI Related Error Codes.

7.138.2.73 NppStatus nppiThreshold_LT_16s_AC4IR (Npp16s ∗ *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*, const Npp16s *rThresholds*[3])

4 channel 16-bit signed short in place image threshold, not affecting Alpha.

If for a comparison operations sourcePixel is less than nThreshold is true, the pixel is set value is set to nThreshold, otherwise it is set to sourcePixel.

Parameters:

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oSizeROI Region-of-Interest (ROI).

rThresholds The threshold values, one per color channel.

Returns:

Image Data Related Error Codes, ROI Related Error Codes.

7.138.2.74 NppStatus nppiThreshold_LT_16s_AC4R (const Npp16s ∗ *pSrc*, int *nSrcStep*, Npp16s ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, const Npp16s *rThresholds*[3])

4 channel 16-bit signed short image threshold, not affecting Alpha.

If for a comparison operations sourcePixel is less than nThreshold is true, the pixel is set value is set to nThreshold, otherwise it is set to sourcePixel.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

rThresholds The threshold values, one per color channel.

Returns:

Image Data Related Error Codes, ROI Related Error Codes.

7.138.2.75 NppStatus nppiThreshold_LT_16s_C1IR (Npp16s ∗ *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*, const Npp16s *nThreshold*)

1 channel 16-bit signed short in place threshold.

If for a comparison operations sourcePixel is less than nThreshold is true, the pixel is set to nThreshold, otherwise it is set to sourcePixel.

Parameters:

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oSizeROI Region-of-Interest (ROI).

nThreshold The threshold value.

Returns:

Image Data Related Error Codes, ROI Related Error Codes.

7.138.2.76 NppStatus nppiThreshold_LT_16s_C1R (const Npp16s ∗ *pSrc*, int *nSrcStep*, Npp16s ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, const Npp16s *nThreshold*)

1 channel 16-bit signed short threshold.

If for a comparison operations sourcePixel is less than nThreshold is true, the pixel is set to nThreshold, otherwise it is set to sourcePixel.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

nThreshold The threshold value.

Returns:

Image Data Related Error Codes, ROI Related Error Codes.

7.138.2.77 NppStatus nppiThreshold_LT_16s_C3IR (Npp16s ∗ *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*, const Npp16s *rThresholds*[3])

3 channel 16-bit signed short in place threshold.

If for a comparison operations sourcePixel is less than nThreshold is true, the pixel is set to nThreshold, otherwise it is set to sourcePixel.

Parameters:

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oSizeROI Region-of-Interest (ROI).

rThresholds The threshold values, one per color channel.

Returns:

Image Data Related Error Codes, ROI Related Error Codes.

7.138.2.78 NppStatus nppiThreshold_LT_16s_C3R (const Npp16s ∗ *pSrc*, int *nSrcStep*, Npp16s ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, const Npp16s *rThresholds*[3])

3 channel 16-bit signed short threshold.

If for a comparison operations sourcePixel is less than nThreshold is true, the pixel is set to nThreshold, otherwise it is set to sourcePixel.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

rThresholds The threshold values, one per color channel.

Returns:

Image Data Related Error Codes, ROI Related Error Codes.

7.138.2.79 NppStatus nppiThreshold_LT_16u_AC4IR (Npp16u ∗ *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*, const Npp16u *rThresholds*[3])

4 channel 16-bit unsigned short in place image threshold, not affecting Alpha.

If for a comparison operations sourcePixel is less than nThreshold is true, the pixel is set value is set to nThreshold, otherwise it is set to sourcePixel.

Parameters:

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oSizeROI Region-of-Interest (ROI).

rThresholds The threshold values, one per color channel.

Returns:

Image Data Related Error Codes, ROI Related Error Codes.

7.138.2.80 NppStatus nppiThreshold_LT_16u_AC4R (const Npp16u ∗ *pSrc*, int *nSrcStep*, Npp16u ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, const Npp16u *rThresholds*[3])

4 channel 16-bit unsigned short image threshold, not affecting Alpha.

If for a comparison operations sourcePixel is less than nThreshold is true, the pixel is set value is set to nThreshold, otherwise it is set to sourcePixel.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

rThresholds The threshold values, one per color channel.

Returns:

Image Data Related Error Codes, ROI Related Error Codes.

7.138.2.81 NppStatus nppiThreshold_LT_16u_C1IR (Npp16u $*$ *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*, const Npp16u *nThreshold*)

1 channel 16-bit unsigned short in place threshold.

If for a comparison operations sourcePixel is less than nThreshold is true, the pixel is set to nThreshold, otherwise it is set to sourcePixel.

Parameters:

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oSizeROI Region-of-Interest (ROI).

nThreshold The threshold value.

Returns:

Image Data Related Error Codes, ROI Related Error Codes.

7.138.2.82 NppStatus nppiThreshold_LT_16u_C1R (const Npp16u $*$ *pSrc*, int *nSrcStep*, Npp16u $*$ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, const Npp16u *nThreshold*)

1 channel 16-bit unsigned short threshold.

If for a comparison operations sourcePixel is less than nThreshold is true, the pixel is set to nThreshold, otherwise it is set to sourcePixel.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

nThreshold The threshold value.

Returns:

Image Data Related Error Codes, ROI Related Error Codes.

7.138.2.83 NppStatus nppiThreshold_LT_16u_C3IR (Npp16u ∗ *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*, const Npp16u *rThresholds*[3])

3 channel 16-bit unsigned short in place threshold.

If for a comparison operations sourcePixel is less than nThreshold is true, the pixel is set to nThreshold, otherwise it is set to sourcePixel.

Parameters:

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oSizeROI Region-of-Interest (ROI).

rThresholds The threshold values, one per color channel.

Returns:

Image Data Related Error Codes, ROI Related Error Codes.

7.138.2.84 NppStatus nppiThreshold_LT_16u_C3R (const Npp16u ∗ *pSrc*, int *nSrcStep*, Npp16u ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, const Npp16u *rThresholds*[3])

3 channel 16-bit unsigned short threshold.

If for a comparison operations sourcePixel is less than nThreshold is true, the pixel is set to nThreshold, otherwise it is set to sourcePixel.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

rThresholds The threshold values, one per color channel.

Returns:

Image Data Related Error Codes, ROI Related Error Codes.

7.138.2.85 NppStatus nppiThreshold_LT_32f_AC4IR (Npp32f ∗ *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*, const Npp32f *rThresholds*[3])

4 channel 32-bit floating point in place image threshold, not affecting Alpha.

If for a comparison operations sourcePixel is less than nThreshold is true, the pixel is set value is set to nThreshold, otherwise it is set to sourcePixel.

Parameters:

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oSizeROI Region-of-Interest (ROI).

rThresholds The threshold values, one per color channel.

Returns:

Image Data Related Error Codes, ROI Related Error Codes.

7.138.2.86 NppStatus nppiThreshold_LT_32f_AC4R (const Npp32f ∗ *pSrc*, int *nSrcStep*, Npp32f ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, const Npp32f *rThresholds*[3])

4 channel 32-bit floating point image threshold, not affecting Alpha.

If for a comparison operations sourcePixel is less than nThreshold is true, the pixel is set value is set to nThreshold, otherwise it is set to sourcePixel.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

rThresholds The threshold values, one per color channel.

Returns:

Image Data Related Error Codes, ROI Related Error Codes.

7.138.2.87 NppStatus nppiThreshold_LT_32f_C1IR (Npp32f ∗ *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*, const Npp32f *nThreshold*)

1 channel 32-bit floating point in place threshold.

If for a comparison operations sourcePixel is less than nThreshold is true, the pixel is set to nThreshold, otherwise it is set to sourcePixel.

Parameters:

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oSizeROI Region-of-Interest (ROI).

nThreshold The threshold value.

Returns:

Image Data Related Error Codes, ROI Related Error Codes.

7.138.2.88 NppStatus nppiThreshold_LT_32f_C1R (const Npp32f ∗ *pSrc*, int *nSrcStep*, Npp32f ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, const Npp32f *nThreshold*)

1 channel 32-bit floating point threshold.

If for a comparison operations sourcePixel is less than nThreshold is true, the pixel is set to nThreshold, otherwise it is set to sourcePixel.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

nThreshold The threshold value.

Returns:

Image Data Related Error Codes, ROI Related Error Codes.

7.138.2.89 NppStatus nppiThreshold_LT_32f_C3IR (Npp32f ∗ *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*, const Npp32f *rThresholds*[3])

3 channel 32-bit floating point in place threshold.

If for a comparison operations sourcePixel is less than nThreshold is true, the pixel is set to nThreshold, otherwise it is set to sourcePixel.

Parameters:

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oSizeROI Region-of-Interest (ROI).

rThresholds The threshold values, one per color channel.

Returns:

Image Data Related Error Codes, ROI Related Error Codes.

7.138.2.90 NppStatus nppiThreshold_LT_32f_C3R (const Npp32f ∗ *pSrc*, int *nSrcStep*, Npp32f ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, const Npp32f *rThresholds*[3])

3 channel 32-bit floating point threshold.

If for a comparison operations sourcePixel is less than nThreshold is true, the pixel is set to nThreshold, otherwise it is set to sourcePixel.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

rThresholds The threshold values, one per color channel.

Returns:

Image Data Related Error Codes, ROI Related Error Codes.

7.138.2.91 NppStatus nppiThreshold_LT_8u_AC4IR (Npp8u ∗ *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*, const Npp8u *rThresholds*[3])

4 channel 8-bit unsigned char in place image threshold, not affecting Alpha.

If for a comparison operations sourcePixel is less than nThreshold is true, the pixel is set value is set to nThreshold, otherwise it is set to sourcePixel.

Parameters:

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oSizeROI Region-of-Interest (ROI).

rThresholds The threshold values, one per color channel.

Returns:

Image Data Related Error Codes, ROI Related Error Codes.

7.138.2.92 NppStatus nppiThreshold_LT_8u_AC4R (const Npp8u ∗ *pSrc*, int *nSrcStep*, Npp8u ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, const Npp8u *rThresholds*[3])

4 channel 8-bit unsigned char image threshold, not affecting Alpha.

If for a comparison operations sourcePixel is less than nThreshold is true, the pixel is set value is set to nThreshold, otherwise it is set to sourcePixel.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

rThresholds The threshold values, one per color channel.

Returns:

Image Data Related Error Codes, ROI Related Error Codes.

7.138.2.93 NppStatus nppiThreshold_LT_8u_C1IR (Npp8u * *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*, const Npp8u *nThreshold*)

1 channel 8-bit unsigned char in place threshold.

If for a comparison operations sourcePixel is less than nThreshold is true, the pixel is set to nThreshold, otherwise it is set to sourcePixel.

Parameters:

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oSizeROI Region-of-Interest (ROI).

nThreshold The threshold value.

Returns:

Image Data Related Error Codes, ROI Related Error Codes.

7.138.2.94 NppStatus nppiThreshold_LT_8u_C1R (const Npp8u * *pSrc*, int *nSrcStep*, Npp8u * *pDst*, int *nDstStep*, NppiSize *oSizeROI*, const Npp8u *nThreshold*)

1 channel 8-bit unsigned char threshold.

If for a comparison operations sourcePixel is less than nThreshold is true, the pixel is set to nThreshold, otherwise it is set to sourcePixel.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

nThreshold The threshold value.

Returns:

Image Data Related Error Codes, ROI Related Error Codes.

7.138.2.95 NppStatus nppiThreshold_LT_8u_C3IR (Npp8u * *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*, const Npp8u *rThresholds*[3])

3 channel 8-bit unsigned char in place threshold.

If for a comparison operations sourcePixel is less than nThreshold is true, the pixel is set to nThreshold, otherwise it is set to sourcePixel.

Parameters:

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oSizeROI Region-of-Interest (ROI).

rThresholds The threshold values, one per color channel.

Returns:

Image Data Related Error Codes, ROI Related Error Codes.

7.138.2.96 NppStatus nppiThreshold_LT_8u_C3R (const Npp8u * *pSrc*, int *nSrcStep*, Npp8u * *pDst*, int *nDstStep*, NppiSize *oSizeROI*, const Npp8u *rThresholds*[3])

3 channel 8-bit unsigned char threshold.

If for a comparison operations sourcePixel is less than nThreshold is true, the pixel is set to nThreshold, otherwise it is set to sourcePixel.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

rThresholds The threshold values, one per color channel.

Returns:

Image Data Related Error Codes, ROI Related Error Codes.

7.138.2.97 NppStatus nppiThreshold_LTVal_16s_AC4IR (Npp16s * *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*, const Npp16s *rThresholds*[3], const Npp16s *rValues*[3])

4 channel 16-bit signed short in place image threshold, not affecting Alpha.

If for a comparison operations sourcePixel is less than rThreshold is true, the pixel is set value is set to rValue, otherwise it is set to sourcePixel.

Parameters:

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oSizeROI Region-of-Interest (ROI).

rThresholds The threshold values, one per color channel.

rValues The threshold replacement values, one per color channel.

Returns:

Image Data Related Error Codes, ROI Related Error Codes.

7.138.2.98 NppStatus nppiThreshold_LTVal_16s_AC4R (const Npp16s ∗ *pSrc*, int *nSrcStep*, Npp16s ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, const Npp16s *rThresholds*[3], const Npp16s *rValues*[3])

4 channel 16-bit signed short image threshold, not affecting Alpha.

If for a comparison operations sourcePixel is less than rThreshold is true, the pixel is set value is set to rValue, otherwise it is set to sourcePixel.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

rThresholds The threshold values, one per color channel.

rValues The threshold replacement values, one per color channel.

Returns:

Image Data Related Error Codes, ROI Related Error Codes.

7.138.2.99 NppStatus nppiThreshold_LTVal_16s_C1IR (Npp16s ∗ *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*, const Npp16s *nThreshold*, const Npp16s *nValue*)

1 channel 16-bit signed short in place threshold.

If for a comparison operations sourcePixel is less than nThreshold is true, the pixel is set to nValue, otherwise it is set to sourcePixel.

Parameters:

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oSizeROI Region-of-Interest (ROI).

nThreshold The threshold value.

nValue The threshold replacement value.

Returns:

Image Data Related Error Codes, ROI Related Error Codes.

7.138.2.100 NppStatus nppiThreshold_LTVal_16s_C1R (const Npp16s ∗ *pSrc*, int *nSrcStep*, Npp16s ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, const Npp16s *nThreshold*, const Npp16s *nValue*)

1 channel 16-bit signed short threshold.

If for a comparison operations sourcePixel is less than nThreshold is true, the pixel is set to nValue, otherwise it is set to sourcePixel.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

nThreshold The threshold value.

nValue The threshold replacement value.

Returns:

Image Data Related Error Codes, ROI Related Error Codes.

7.138.2.101 NppStatus nppiThreshold_LTVal_16s_C3IR (Npp16s ∗ *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*, const Npp16s *rThresholds*[3], const Npp16s *rValues*[3])

3 channel 16-bit signed short in place threshold.

If for a comparison operations sourcePixel is less than rThreshold is true, the pixel is set to rValue, otherwise it is set to sourcePixel.

Parameters:

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oSizeROI Region-of-Interest (ROI).

rThresholds The threshold values, one per color channel.

rValues The threshold replacement values, one per color channel.

Returns:

Image Data Related Error Codes, ROI Related Error Codes.

7.138.2.102 NppStatus nppiThreshold_LTVal_16s_C3R (const Npp16s ∗ *pSrc*, int *nSrcStep*, Npp16s ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, const Npp16s *rThresholds*[3], const Npp16s *rValues*[3])

3 channel 16-bit signed short threshold.

If for a comparison operations sourcePixel is less than rThreshold is true, the pixel is set to rValue, otherwise it is set to sourcePixel.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

rThresholds The threshold values, one per color channel.

rValues The threshold replacement values, one per color channel.

Returns:

Image Data Related Error Codes, ROI Related Error Codes.

7.138.2.103 NppStatus nppiThreshold_LTVal_16u_AC4IR (Npp16u * *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*, const Npp16u *rThresholds*[3], const Npp16u *rValues*[3])

4 channel 16-bit unsigned short in place image threshold, not affecting Alpha.

If for a comparison operations sourcePixel is less than rThreshold is true, the pixel is set value is set to rValue, otherwise it is set to sourcePixel.

Parameters:

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oSizeROI Region-of-Interest (ROI).

rThresholds The threshold values, one per color channel.

rValues The threshold replacement values, one per color channel.

Returns:

Image Data Related Error Codes, ROI Related Error Codes.

7.138.2.104 NppStatus nppiThreshold_LTVal_16u_AC4R (const Npp16u * *pSrc*, int *nSrcStep*, Npp16u * *pDst*, int *nDstStep*, NppiSize *oSizeROI*, const Npp16u *rThresholds*[3], const Npp16u *rValues*[3])

4 channel 16-bit unsigned short image threshold, not affecting Alpha.

If for a comparison operations sourcePixel is less than rThreshold is true, the pixel is set value is set to rValue, otherwise it is set to sourcePixel.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

rThresholds The threshold values, one per color channel.

rValues The threshold replacement values, one per color channel.

Returns:

Image Data Related Error Codes, ROI Related Error Codes.

7.138.2.105 NppStatus nppiThreshold_LTVal_16u_C1IR (Npp16u ∗ *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*, const Npp16u *nThreshold*, const Npp16u *nValue*)

1 channel 16-bit unsigned short in place threshold.

If for a comparison operations sourcePixel is less than nThreshold is true, the pixel is set to nValue, otherwise it is set to sourcePixel.

Parameters:

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oSizeROI Region-of-Interest (ROI).

nThreshold The threshold value.

nValue The threshold replacement value.

Returns:

Image Data Related Error Codes, ROI Related Error Codes.

7.138.2.106 NppStatus nppiThreshold_LTVal_16u_C1R (const Npp16u ∗ *pSrc*, int *nSrcStep*, Npp16u ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, const Npp16u *nThreshold*, const Npp16u *nValue*)

1 channel 16-bit unsigned short threshold.

If for a comparison operations sourcePixel is less than nThreshold is true, the pixel is set to nValue, otherwise it is set to sourcePixel.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

nThreshold The threshold value.

nValue The threshold replacement value.

Returns:

Image Data Related Error Codes, ROI Related Error Codes.

7.138.2.107 NppStatus nppiThreshold_LTVal_16u_C3IR (Npp16u ∗ *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*, const Npp16u *rThresholds*[3], const Npp16u *rValues*[3])

3 channel 16-bit unsigned short in place threshold.

If for a comparison operations sourcePixel is less than rThreshold is true, the pixel is set to rValue, otherwise it is set to sourcePixel.

Parameters:

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oSizeROI Region-of-Interest (ROI).

rThresholds The threshold values, one per color channel.

rValues The threshold replacement values, one per color channel.

Returns:

Image Data Related Error Codes, ROI Related Error Codes.

7.138.2.108 NppStatus nppiThreshold_LTVal_16u_C3R (const Npp16u ∗ *pSrc*, int *nSrcStep*, Npp16u ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, const Npp16u *rThresholds*[3], const Npp16u *rValues*[3])

3 channel 16-bit unsigned short threshold.

If for a comparison operations sourcePixel is less than rThreshold is true, the pixel is set to rValue, otherwise it is set to sourcePixel.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

rThresholds The threshold values, one per color channel.

rValues The threshold replacement values, one per color channel.

Returns:

Image Data Related Error Codes, ROI Related Error Codes.

7.138.2.109 NppStatus nppiThreshold_LTVal_32f_AC4IR (Npp32f ∗ *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*, const Npp32f *rThresholds*[3], const Npp32f *rValues*[3])

4 channel 32-bit floating point in place image threshold, not affecting Alpha.

If for a comparison operations sourcePixel is less than rThreshold is true, the pixel is set value is set to rValue, otherwise it is set to sourcePixel.

Parameters:

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oSizeROI Region-of-Interest (ROI).

rThresholds The threshold values, one per color channel.

rValues The threshold replacement values, one per color channel.

Returns:

Image Data Related Error Codes, ROI Related Error Codes.

7.138.2.110 NppStatus nppiThreshold_LTVal_32f_AC4R (const Npp32f ∗ *pSrc*, int *nSrcStep*, Npp32f ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, const Npp32f *rThresholds*[3], const Npp32f *rValues*[3])

4 channel 32-bit floating point image threshold, not affecting Alpha.

If for a comparison operations sourcePixel is less than rThreshold is true, the pixel is set value is set to rValue, otherwise it is set to sourcePixel.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

rThresholds The threshold values, one per color channel.

rValues The threshold replacement values, one per color channel.

Returns:

Image Data Related Error Codes, ROI Related Error Codes.

7.138.2.111 NppStatus nppiThreshold_LTVal_32f_C1IR (Npp32f ∗ *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*, const Npp32f *nThreshold*, const Npp32f *nValue*)

1 channel 32-bit floating point in place threshold.

If for a comparison operations sourcePixel is less than nThreshold is true, the pixel is set to nValue, otherwise it is set to sourcePixel.

Parameters:

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oSizeROI Region-of-Interest (ROI).

nThreshold The threshold value.

nValue The threshold replacement value.

Returns:

Image Data Related Error Codes, ROI Related Error Codes.

7.138.2.112 NppStatus nppiThreshold_LTVal_32f_C1R (const Npp32f ∗ *pSrc*, int *nSrcStep*, Npp32f ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, const Npp32f *nThreshold*, const Npp32f *nValue*)

1 channel 32-bit floating point threshold.

If for a comparison operations sourcePixel is less than nThreshold is true, the pixel is set to nValue, otherwise it is set to sourcePixel.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

nThreshold The threshold value.

nValue The threshold replacement value.

Returns:

Image Data Related Error Codes, ROI Related Error Codes.

7.138.2.113 NppStatus nppiThreshold_LTVal_32f_C3IR (Npp32f ∗ *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*, const Npp32f *rThresholds*[3], const Npp32f *rValues*[3])

3 channel 32-bit floating point in place threshold.

If for a comparison operations sourcePixel is less than rThreshold is true, the pixel is set to rValue, otherwise it is set to sourcePixel.

Parameters:

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oSizeROI Region-of-Interest (ROI).

rThresholds The threshold values, one per color channel.

rValues The threshold replacement values, one per color channel.

Returns:

Image Data Related Error Codes, ROI Related Error Codes.

7.138.2.114 NppStatus nppiThreshold_LTVal_32f_C3R (const Npp32f ∗ *pSrc*, int *nSrcStep*, Npp32f ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, const Npp32f *rThresholds*[3], const Npp32f *rValues*[3])

3 channel 32-bit floating point threshold.

If for a comparison operations sourcePixel is less than rThreshold is true, the pixel is set to rValue, otherwise it is set to sourcePixel.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

rThresholds The threshold values, one per color channel.

rValues The threshold replacement values, one per color channel.

Returns:

Image Data Related Error Codes, ROI Related Error Codes.

7.138.2.115 NppStatus nppiThreshold_LTVal_8u_AC4IR (Npp8u ∗ *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*, const Npp8u *rThresholds*[3], const Npp8u *rValues*[3])

4 channel 8-bit unsigned char in place image threshold, not affecting Alpha.

If for a comparison operations sourcePixel is less than rThreshold is true, the pixel is set value is set to rValue, otherwise it is set to sourcePixel.

Parameters:

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oSizeROI Region-of-Interest (ROI).

rThresholds The threshold values, one per color channel.

rValues The threshold replacement values, one per color channel.

Returns:

Image Data Related Error Codes, ROI Related Error Codes.

7.138.2.116 NppStatus nppiThreshold_LTVal_8u_AC4R (const Npp8u ∗ *pSrc*, int *nSrcStep*, Npp8u ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, const Npp8u *rThresholds*[3], const Npp8u *rValues*[3])

4 channel 8-bit unsigned char image threshold, not affecting Alpha.

If for a comparison operations sourcePixel is less than rThreshold is true, the pixel is set value is set to rValue, otherwise it is set to sourcePixel.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

rThresholds The threshold values, one per color channel.

rValues The threshold replacement values, one per color channel.

Returns:

Image Data Related Error Codes, ROI Related Error Codes.

7.138.2.117 NppStatus nppiThreshold_LTVal_8u_C1IR (Npp8u ∗ *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*, const Npp8u *nThreshold*, const Npp8u *nValue*)

1 channel 8-bit unsigned char in place threshold.

If for a comparison operations sourcePixel is less than nThreshold is true, the pixel is set to nValue, otherwise it is set to sourcePixel.

Parameters:

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oSizeROI Region-of-Interest (ROI).

nThreshold The threshold value.

nValue The threshold replacement value.

Returns:

Image Data Related Error Codes, ROI Related Error Codes.

7.138.2.118 NppStatus nppiThreshold_LTVal_8u_C1R (const Npp8u ∗ *pSrc*, int *nSrcStep*, Npp8u ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, const Npp8u *nThreshold*, const Npp8u *nValue*)

1 channel 8-bit unsigned char threshold.

If for a comparison operations sourcePixel is less than nThreshold is true, the pixel is set to nValue, otherwise it is set to sourcePixel.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

nThreshold The threshold value.

nValue The threshold replacement value.

Returns:

Image Data Related Error Codes, ROI Related Error Codes.

7.138.2.119 NppStatus nppiThreshold_LTVal_8u_C3IR (Npp8u ∗ *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*, const Npp8u *rThresholds*[3], const Npp8u *rValues*[3])

3 channel 8-bit unsigned char in place threshold.

If for a comparison operations sourcePixel is less than rThreshold is true, the pixel is set to rValue, otherwise it is set to sourcePixel.

Parameters:

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oSizeROI Region-of-Interest (ROI).

rThresholds The threshold values, one per color channel.

rValues The threshold replacement values, one per color channel.

Returns:

Image Data Related Error Codes, ROI Related Error Codes.

7.138.2.120 NppStatus nppiThreshold_LTVal_8u_C3R (const Npp8u ∗ *pSrc*, int *nSrcStep*, Npp8u ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, const Npp8u *rThresholds*[3], const Npp8u *rValues*[3])

3 channel 8-bit unsigned char threshold.

If for a comparison operations sourcePixel is less than rThreshold is true, the pixel is set to rValue, otherwise it is set to sourcePixel.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

rThresholds The threshold values, one per color channel.

rValues The threshold replacement values, one per color channel.

Returns:

Image Data Related Error Codes, ROI Related Error Codes.

7.138.2.121 NppStatus nppiThreshold_LTValGTVal_16s_AC4IR (Npp16s ∗ *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*, const Npp16s *rThresholdsLT*[3], const Npp16s *rValuesLT*[3], const Npp16s *rThresholdsGT*[3], const Npp16s *rValuesGT*[3])

4 channel 16-bit signed short in place image threshold, not affecting Alpha.

If for a comparison operations sourcePixel is less than rThresholdLT is true, the pixel is set value is set to rValueLT, else if sourcePixel is greater than rThresholdGT the pixel is set to rValueGT, otherwise it is set to sourcePixel.

Parameters:

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oSizeROI Region-of-Interest (ROI).

rThresholdsLT The thresholdLT values, one per color channel.

rValuesLT The thresholdLT replacement values, one per color channel.

rThresholdsGT The thresholdGT values, one per channel.

rValuesGT The thresholdGT replacement values, one per color channel.

Returns:

Image Data Related Error Codes, ROI Related Error Codes.

7.138.2.122 NppStatus nppiThreshold_LTValGTVal_16s_AC4R (const Npp16s ∗ *pSrc*, int *nSrcStep*, Npp16s ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, const Npp16s *rThresholdsLT*[3], const Npp16s *rValuesLT*[3], const Npp16s *rThresholdsGT*[3], const Npp16s *rValuesGT*[3])

4 channel 16-bit signed short image threshold, not affecting Alpha.

If for a comparison operations sourcePixel is less than rThresholdLT is true, the pixel is set value is set to rValueLT, else if sourcePixel is greater than rThresholdGT the pixel is set to rValueGT, otherwise it is set to sourcePixel.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

rThresholdsLT The thresholdLT values, one per color channel.

rValuesLT The thresholdLT replacement values, one per color channel.

rThresholdsGT The thresholdGT values, one per channel.

rValuesGT The thresholdGT replacement values, one per color channel.

Returns:

Image Data Related Error Codes, ROI Related Error Codes.

7.138.2.123 NppStatus nppiThreshold_LTValGTVal_16s_C1IR (Npp16s ∗ *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*, const Npp16s *nThresholdLT*, const Npp16s *nValueLT*, const Npp16s *nThresholdGT*, const Npp16s *nValueGT*)

1 channel 16-bit signed short in place threshold.

If for a comparison operations sourcePixel is less than nThresholdLT is true, the pixel is set to nValueLT, else if sourcePixel is greater than nThresholdGT the pixel is set to nValueGT, otherwise it is set to sourcePixel.

Parameters:

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oSizeROI Region-of-Interest (ROI).

nThresholdLT The thresholdLT value.

nValueLT The thresholdLT replacement value.

nThresholdGT The thresholdGT value.

nValueGT The thresholdGT replacement value.

Returns:

Image Data Related Error Codes, ROI Related Error Codes.

7.138.2.124 NppStatus nppiThreshold_LTValGTVal_16s_C1R (const Npp16s ∗ *pSrc*, int *nSrcStep*, Npp16s ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, const Npp16s *nThresholdLT*, const Npp16s *nValueLT*, const Npp16s *nThresholdGT*, const Npp16s *nValueGT*)

1 channel 16-bit signed short threshold.

If for a comparison operations sourcePixel is less than nThresholdLT is true, the pixel is set to nValueLT, else if sourcePixel is greater than nThresholdGT the pixel is set to nValueGT, otherwise it is set to sourcePixel.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

nThresholdLT The thresholdLT value.

nValueLT The thresholdLT replacement value.

nThresholdGT The thresholdGT value.

nValueGT The thresholdGT replacement value.

Returns:

Image Data Related Error Codes, ROI Related Error Codes.

7.138.2.125 NppStatus nppiThreshold_LTValGTVal_16s_C3IR (Npp16s ∗ *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*, const Npp16s *rThresholdsLT*[3], const Npp16s *rValuesLT*[3], const Npp16s *rThresholdsGT*[3], const Npp16s *rValuesGT*[3])

3 channel 16-bit signed short in place threshold.

If for a comparison operations sourcePixel is less than rThresholdLT is true, the pixel is set to rValueLT, else if sourcePixel is greater than rThresholdGT the pixel is set to rValueGT, otherwise it is set to sourcePixel.

Parameters:

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oSizeROI Region-of-Interest (ROI).

rThresholdsLT The thresholdLT values, one per color channel.

rValuesLT The thresholdLT replacement values, one per color channel.

rThresholdsGT The thresholdGT values, one per channel.

rValuesGT The thresholdGT replacement values, one per color channel.

Returns:

Image Data Related Error Codes, ROI Related Error Codes.

7.138.2.126 NppStatus nppiThreshold_LTValGTVal_16s_C3R (const Npp16s ∗ *pSrc*, int *nSrcStep*, Npp16s ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, const Npp16s *rThresholdsLT*[3], const Npp16s *rValuesLT*[3], const Npp16s *rThresholdsGT*[3], const Npp16s *rValuesGT*[3])

3 channel 16-bit signed short threshold.

If for a comparison operations sourcePixel is less than rThresholdLT is true, the pixel is set to rValueLT, else if sourcePixel is greater than rThresholdGT the pixel is set to rValueGT, otherwise it is set to sourcePixel.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

rThresholdsLT The thresholdLT values, one per color channel.

rValuesLT The thresholdLT replacement values, one per color channel.

rThresholdsGT The thresholdGT values, one per channel.

rValuesGT The thresholdGT replacement values, one per color channel.

Returns:

Image Data Related Error Codes, ROI Related Error Codes.

7.138.2.127 NppStatus nppiThreshold_LTValGTVal_16u_AC4IR (Npp16u ∗ *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*, const Npp16u *rThresholdsLT*[3], const Npp16u *rValuesLT*[3], const Npp16u *rThresholdsGT*[3], const Npp16u *rValuesGT*[3])

4 channel 16-bit unsigned short in place image threshold, not affecting Alpha.

If for a comparison operations sourcePixel is less than rThresholdLT is true, the pixel is set value is set to rValueLT, else if sourcePixel is greater than rThresholdGT the pixel is set to rValueGT, otherwise it is set to sourcePixel.

Parameters:

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oSizeROI Region-of-Interest (ROI).

rThresholdsLT The thresholdLT values, one per color channel.

rValuesLT The thresholdLT replacement values, one per color channel.

rThresholdsGT The thresholdGT values, one per channel.

rValuesGT The thresholdGT replacement values, one per color channel.

Returns:

Image Data Related Error Codes, ROI Related Error Codes.

7.138.2.128 NppStatus nppiThreshold_LTValGTVal_16u_AC4R (const Npp16u ∗ *pSrc*, int *nSrcStep*, Npp16u ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, const Npp16u *rThresholdsLT*[3], const Npp16u *rValuesLT*[3], const Npp16u *rThresholdsGT*[3], const Npp16u *rValuesGT*[3])

4 channel 16-bit unsigned short image threshold, not affecting Alpha.

If for a comparison operations sourcePixel is less than rThresholdLT is true, the pixel is set value is set to rValueLT, else if sourcePixel is greater than rThresholdGT the pixel is set to rValueGT, otherwise it is set to sourcePixel.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

rThresholdsLT The thresholdLT values, one per color channel.

rValuesLT The thresholdLT replacement values, one per color channel.

rThresholdsGT The thresholdGT values, one per channel.

rValuesGT The thresholdGT replacement values, one per color channel.

Returns:

Image Data Related Error Codes, ROI Related Error Codes.

7.138.2.129 NppStatus nppiThreshold_LTValGTVal_16u_C1IR (Npp16u ∗ *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*, const Npp16u *nThresholdLT*, const Npp16u *nValueLT*, const Npp16u *nThresholdGT*, const Npp16u *nValueGT*)

1 channel 16-bit unsigned short in place threshold.

If for a comparison operations sourcePixel is less than nThresholdLT is true, the pixel is set to nValueLT, else if sourcePixel is greater than nThresholdGT the pixel is set to nValueGT, otherwise it is set to sourcePixel.

Parameters:

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oSizeROI Region-of-Interest (ROI).

nThresholdLT The thresholdLT value.

nValueLT The thresholdLT replacement value.

nThresholdGT The thresholdGT value.

nValueGT The thresholdGT replacement value.

Returns:

Image Data Related Error Codes, ROI Related Error Codes.

7.138.2.130 NppStatus nppiThreshold_LTValGTVal_16u_C1R (const Npp16u ∗ *pSrc*, int *nSrcStep*, Npp16u ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, const Npp16u *nThresholdLT*, const Npp16u *nValueLT*, const Npp16u *nThresholdGT*, const Npp16u *nValueGT*)

1 channel 16-bit unsigned short threshold.

If for a comparison operations sourcePixel is less than nThresholdLT is true, the pixel is set to nValueLT, else if sourcePixel is greater than nThresholdGT the pixel is set to nValueGT, otherwise it is set to sourcePixel.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

nThresholdLT The thresholdLT value.

nValueLT The thresholdLT replacement value.

nThresholdGT The thresholdGT value.

nValueGT The thresholdGT replacement value.

Returns:

Image Data Related Error Codes, ROI Related Error Codes.

7.138.2.131 NppStatus nppiThreshold_LTValGTVal_16u_C3IR (Npp16u ∗ *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*, const Npp16u *rThresholdsLT*[3], const Npp16u *rValuesLT*[3], const Npp16u *rThresholdsGT*[3], const Npp16u *rValuesGT*[3])

3 channel 16-bit unsigned short in place threshold.

If for a comparison operations sourcePixel is less than rThresholdLT is true, the pixel is set to rValueLT, else if sourcePixel is greater than rThresholdGT the pixel is set to rValueGT, otherwise it is set to sourcePixel.

Parameters:

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oSizeROI Region-of-Interest (ROI).

rThresholdsLT The thresholdLT values, one per color channel.

rValuesLT The thresholdLT replacement values, one per color channel.

rThresholdsGT The thresholdGT values, one per channel.

rValuesGT The thresholdGT replacement values, one per color channel.

Returns:

Image Data Related Error Codes, ROI Related Error Codes.

7.138.2.132 NppStatus nppiThreshold_LTValGTVal_16u_C3R (const Npp16u * *pSrc*, int *nSrcStep*, Npp16u * *pDst*, int *nDstStep*, NppiSize *oSizeROI*, const Npp16u *rThresholdsLT*[3], const Npp16u *rValuesLT*[3], const Npp16u *rThresholdsGT*[3], const Npp16u *rValuesGT*[3])

3 channel 16-bit unsigned short threshold.

If for a comparison operations sourcePixel is less than rThresholdLT is true, the pixel is set to rValueLT, else if sourcePixel is greater than rThresholdGT the pixel is set to rValueGT, otherwise it is set to sourcePixel.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

rThresholdsLT The thresholdLT values, one per color channel.

rValuesLT The thresholdLT replacement values, one per color channel.

rThresholdsGT The thresholdGT values, one per channel.

rValuesGT The thresholdGT replacement values, one per color channel.

Returns:

Image Data Related Error Codes, ROI Related Error Codes.

7.138.2.133 NppStatus nppiThreshold_LTValGTVal_32f_AC4IR (Npp32f * *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*, const Npp32f *rThresholdsLT*[3], const Npp32f *rValuesLT*[3], const Npp32f *rThresholdsGT*[3], const Npp32f *rValuesGT*[3])

4 channel 32-bit floating point in place image threshold, not affecting Alpha.

If for a comparison operations sourcePixel is less than rThresholdLT is true, the pixel is set value is set to rValueLT, else if sourcePixel is greater than rThresholdGT the pixel is set to rValueGT, otherwise it is set to sourcePixel.

Parameters:

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oSizeROI Region-of-Interest (ROI).

rThresholdsLT The thresholdLT values, one per color channel.

rValuesLT The thresholdLT replacement values, one per color channel.

rThresholdsGT The thresholdGT values, one per channel.

rValuesGT The thresholdGT replacement values, one per color channel.

Returns:

Image Data Related Error Codes, ROI Related Error Codes.

7.138.2.134 NppStatus nppiThreshold_LTValGTVal_32f_AC4R (const Npp32f ∗ *pSrc*, int *nSrcStep*, Npp32f ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, const Npp32f *rThresholdsLT*[3], const Npp32f *rValuesLT*[3], const Npp32f *rThresholdsGT*[3], const Npp32f *rValuesGT*[3])

4 channel 32-bit floating point image threshold, not affecting Alpha.

If for a comparison operations sourcePixel is less than rThresholdLT is true, the pixel is set value is set to rValueLT, else if sourcePixel is greater than rThresholdGT the pixel is set to rValueGT, otherwise it is set to sourcePixel.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

rThresholdsLT The thresholdLT values, one per color channel.

rValuesLT The thresholdLT replacement values, one per color channel.

rThresholdsGT The thresholdGT values, one per channel.

rValuesGT The thresholdGT replacement values, one per color channel.

Returns:

Image Data Related Error Codes, ROI Related Error Codes.

7.138.2.135 NppStatus nppiThreshold_LTValGTVal_32f_C1IR (Npp32f ∗ *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*, const Npp32f *nThresholdLT*, const Npp32f *nValueLT*, const Npp32f *nThresholdGT*, const Npp32f *nValueGT*)

1 channel 32-bit floating point in place threshold.

If for a comparison operations sourcePixel is less than nThresholdLT is true, the pixel is set to nValueLT, else if sourcePixel is greater than nThresholdGT the pixel is set to nValueGT, otherwise it is set to sourcePixel.

Parameters:

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oSizeROI Region-of-Interest (ROI).

nThresholdLT The thresholdLT value.

nValueLT The thresholdLT replacement value.

nThresholdGT The thresholdGT value.

nValueGT The thresholdGT replacement value.

Returns:

Image Data Related Error Codes, ROI Related Error Codes.

7.138.2.136 NppStatus nppiThreshold_LTValGTVal_32f_C1R (const Npp32f ∗ *pSrc*, int *nSrcStep*, Npp32f ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, const Npp32f *nThresholdLT*, const Npp32f *nValueLT*, const Npp32f *nThresholdGT*, const Npp32f *nValueGT*)

1 channel 32-bit floating point threshold.

If for a comparison operations sourcePixel is less than nThresholdLT is true, the pixel is set to nValueLT, else if sourcePixel is greater than nThresholdGT the pixel is set to nValueGT, otherwise it is set to sourcePixel.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

nThresholdLT The thresholdLT value.

nValueLT The thresholdLT replacement value.

nThresholdGT The thresholdGT value.

nValueGT The thresholdGT replacement value.

Returns:

Image Data Related Error Codes, ROI Related Error Codes.

7.138.2.137 NppStatus nppiThreshold_LTValGTVal_32f_C3IR (Npp32f ∗ *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*, const Npp32f *rThresholdsLT*[3], const Npp32f *rValuesLT*[3], const Npp32f *rThresholdsGT*[3], const Npp32f *rValuesGT*[3])

3 channel 32-bit floating point in place threshold.

If for a comparison operations sourcePixel is less than rThresholdLT is true, the pixel is set to rValueLT, else if sourcePixel is greater than rThresholdGT the pixel is set to rValueGT, otherwise it is set to sourcePixel.

Parameters:

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oSizeROI Region-of-Interest (ROI).

rThresholdsLT The thresholdLT values, one per color channel.

rValuesLT The thresholdLT replacement values, one per color channel.

rThresholdsGT The thresholdGT values, one per channel.

rValuesGT The thresholdGT replacement values, one per color channel.

Returns:

Image Data Related Error Codes, ROI Related Error Codes.

7.138.2.138 NppStatus nppiThreshold_LTValGTVal_32f_C3R (const Npp32f ∗ *pSrc*, int *nSrcStep*, Npp32f ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, const Npp32f *rThresholdsLT*[3], const Npp32f *rValuesLT*[3], const Npp32f *rThresholdsGT*[3], const Npp32f *rValuesGT*[3])

3 channel 32-bit floating point threshold.

If for a comparison operations sourcePixel is less than rThresholdLT is true, the pixel is set to rValueLT, else if sourcePixel is greater than rThresholdGT the pixel is set to rValueGT, otherwise it is set to sourcePixel.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

rThresholdsLT The thresholdLT values, one per color channel.

rValuesLT The thresholdLT replacement values, one per color channel.

rThresholdsGT The thresholdGT values, one per channel.

rValuesGT The thresholdGT replacement values, one per color channel.

Returns:

Image Data Related Error Codes, ROI Related Error Codes.

7.138.2.139 NppStatus nppiThreshold_LTValGTVal_8u_AC4IR (Npp8u ∗ *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*, const Npp8u *rThresholdsLT*[3], const Npp8u *rValuesLT*[3], const Npp8u *rThresholdsGT*[3], const Npp8u *rValuesGT*[3])

4 channel 8-bit unsigned char in place image threshold, not affecting Alpha.

If for a comparison operations sourcePixel is less than rThresholdLT is true, the pixel is set value is set to rValueLT, else if sourcePixel is greater than rThresholdGT the pixel is set to rValueGT, otherwise it is set to sourcePixel.

Parameters:

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oSizeROI Region-of-Interest (ROI).

rThresholdsLT The thresholdLT values, one per color channel.

rValuesLT The thresholdLT replacement values, one per color channel.

rThresholdsGT The thresholdGT values, one per channel.

rValuesGT The thresholdGT replacement values, one per color channel.

Returns:

Image Data Related Error Codes, ROI Related Error Codes.

7.138.2.140 NppStatus nppiThreshold_LTValGTVal_8u_AC4R (const Npp8u ∗ *pSrc*, int *nSrcStep*, Npp8u ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, const Npp8u *rThresholdsLT*[3], const Npp8u *rValuesLT*[3], const Npp8u *rThresholdsGT*[3], const Npp8u *rValuesGT*[3])

4 channel 8-bit unsigned char image threshold, not affecting Alpha.

If for a comparison operations sourcePixel is less than rThresholdLT is true, the pixel is set value is set to rValueLT, else if sourcePixel is greater than rThresholdGT the pixel is set to rValueGT, otherwise it is set to sourcePixel.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

rThresholdsLT The thresholdLT values, one per color channel.

rValuesLT The thresholdLT replacement values, one per color channel.

rThresholdsGT The thresholdGT values, one per channel.

rValuesGT The thresholdGT replacement values, one per color channel.

Returns:

Image Data Related Error Codes, ROI Related Error Codes.

7.138.2.141 NppStatus nppiThreshold_LTValGTVal_8u_C1IR (Npp8u ∗ *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*, const Npp8u *nThresholdLT*, const Npp8u *nValueLT*, const Npp8u *nThresholdGT*, const Npp8u *nValueGT*)

1 channel 8-bit unsigned char in place threshold.

If for a comparison operations sourcePixel is less than nThresholdLT is true, the pixel is set to nValueLT, else if sourcePixel is greater than nThresholdGT the pixel is set to nValueGT, otherwise it is set to sourcePixel.

Parameters:

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oSizeROI Region-of-Interest (ROI).

nThresholdLT The thresholdLT value.

nValueLT The thresholdLT replacement value.

nThresholdGT The thresholdGT value.

nValueGT The thresholdGT replacement value.

Returns:

Image Data Related Error Codes, ROI Related Error Codes.

7.138.2.142 NppStatus nppiThreshold_LTValGTVal_8u_C1R (const Npp8u ∗ *pSrc*, int *nSrcStep*, Npp8u ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, const Npp8u *nThresholdLT*, const Npp8u *nValueLT*, const Npp8u *nThresholdGT*, const Npp8u *nValueGT*)

1 channel 8-bit unsigned char threshold.

If for a comparison operations sourcePixel is less than nThresholdLT is true, the pixel is set to nValueLT, else if sourcePixel is greater than nThresholdGT the pixel is set to nValueGT, otherwise it is set to sourcePixel.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

nThresholdLT The thresholdLT value.

nValueLT The thresholdLT replacement value.

nThresholdGT The thresholdGT value.

nValueGT The thresholdGT replacement value.

Returns:

Image Data Related Error Codes, ROI Related Error Codes.

7.138.2.143 NppStatus nppiThreshold_LTValGTVal_8u_C3IR (Npp8u ∗ *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*, const Npp8u *rThresholdsLT*[3], const Npp8u *rValuesLT*[3], const Npp8u *rThresholdsGT*[3], const Npp8u *rValuesGT*[3])

3 channel 8-bit unsigned char in place threshold.

If for a comparison operations sourcePixel is less than rThresholdLT is true, the pixel is set to rValueLT, else if sourcePixel is greater than rThresholdGT the pixel is set to rValueGT, otherwise it is set to sourcePixel.

Parameters:

pSrcDst Destination-Image Pointer.

nSrcDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

rThresholdsLT The thresholdLT values, one per color channel.

rValuesLT The thresholdLT replacement values, one per color channel.

rThresholdsGT The thresholdGT values, one per channel.

rValuesGT The thresholdGT replacement values, one per color channel.

Returns:

Image Data Related Error Codes, ROI Related Error Codes.

7.138.2.144 NppStatus nppiThreshold_LTValGTVal_8u_C3R (const Npp8u ∗ *pSrc*, int *nSrcStep*, Npp8u ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, const Npp8u *rThresholdsLT*[3], const Npp8u *rValuesLT*[3], const Npp8u *rThresholdsGT*[3], const Npp8u *rValuesGT*[3])

3 channel 8-bit unsigned char threshold.

If for a comparison operations sourcePixel is less than rThresholdLT is true, the pixel is set to rValueLT, else if sourcePixel is greater than rThresholdGT the pixel is set to rValueGT, otherwise it is set to sourcePixel.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

rThresholdsLT The thresholdLT values, one per color channel.

rValuesLT The thresholdLT replacement values, one per color channel.

rThresholdsGT The thresholdGT values, one per channel.

rValuesGT The thresholdGT replacement values, one per color channel.

Returns:

Image Data Related Error Codes, ROI Related Error Codes.

7.138.2.145 NppStatus nppiThreshold_Val_16s_AC4IR (Npp16s ∗ *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*, const Npp16s *rThresholds*[3], const Npp16s *rValues*[3], NppCmpOp *eComparisonOperation*)

4 channel 16-bit signed short in place image threshold, not affecting Alpha.

If for a comparison operations OP the predicate (sourcePixel.channel OP nThreshold) is true, the channel value is set to nValue, otherwise it is set to sourcePixel.

Parameters:

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oSizeROI Region-of-Interest (ROI).

rThresholds The threshold values, one per color channel.

rValues The threshold replacement values, one per color channel.

eComparisonOperation The type of comparison operation to be used. The only valid values are: NPP_CMP_LESS and NPP_CMP_GREATER.

Returns:

Image Data Related Error Codes, ROI Related Error Codes, or NPP_NOT_SUPPORTED_MODE_-ERROR if an invalid comparison operation type is specified.

7.138.2.146 NppStatus nppiThreshold_Val_16s_AC4R (const Npp16s ∗ *pSrc*, int *nSrcStep*, Npp16s ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, const Npp16s *rThresholds*[3], const Npp16s *rValues*[3], NppCmpOp *eComparisonOperation*)

4 channel 16-bit signed short image threshold, not affecting Alpha.

If for a comparison operations OP the predicate (sourcePixel.channel OP nThreshold) is true, the channel value is set to nValue, otherwise it is set to sourcePixel.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

rThresholds The threshold values, one per color channel.

rValues The threshold replacement values, one per color channel.

eComparisonOperation The type of comparison operation to be used. The only valid values are: NPP_CMP_LESS and NPP_CMP_GREATER.

Returns:

Image Data Related Error Codes, ROI Related Error Codes, or NPP_NOT_SUPPORTED_MODE_-ERROR if an invalid comparison operation type is specified.

7.138.2.147 NppStatus nppiThreshold_Val_16s_C1IR (Npp16s ∗ *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*, const Npp16s *nThreshold*, const Npp16s *nValue*, NppCmpOp *eComparisonOperation*)

1 channel 16-bit signed short in place threshold.

If for a comparison operations OP the predicate (sourcePixel OP nThreshold) is true, the pixel is set to nValue, otherwise it is set to sourcePixel.

Parameters:

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oSizeROI Region-of-Interest (ROI).

nThreshold The threshold value.

nValue The threshold replacement value.

eComparisonOperation The type of comparison operation to be used. The only valid values are: NPP_CMP_LESS and NPP_CMP_GREATER.

Returns:

Image Data Related Error Codes, ROI Related Error Codes, or NPP_NOT_SUPPORTED_MODE_ERROR if an invalid comparison operation type is specified.

7.138.2.148 NppStatus nppiThreshold_Val_16s_C1R (const Npp16s ∗ *pSrc*, int *nSrcStep*, Npp16s ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, const Npp16s *nThreshold*, const Npp16s *nValue*, NppCmpOp *eComparisonOperation*)

1 channel 16-bit signed short threshold.

If for a comparison operations OP the predicate (sourcePixel OP nThreshold) is true, the pixel is set to nValue, otherwise it is set to sourcePixel.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

nThreshold The threshold value.

nValue The threshold replacement value.

eComparisonOperation The type of comparison operation to be used. The only valid values are: NPP_CMP_LESS and NPP_CMP_GREATER.

Returns:

Image Data Related Error Codes, ROI Related Error Codes, or NPP_NOT_SUPPORTED_MODE_ERROR if an invalid comparison operation type is specified.

7.138.2.149 NppStatus nppiThreshold_Val_16s_C3IR (Npp16s ∗ *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*, const Npp16s *rThresholds*[3], const Npp16s *rValues*[3], NppCmpOp *eComparisonOperation*)

3 channel 16-bit signed short in place threshold.

If for a comparison operations OP the predicate (sourcePixel OP nThreshold) is true, the pixel is set to nValue, otherwise it is set to sourcePixel.

Parameters:

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oSizeROI Region-of-Interest (ROI).

rThresholds The threshold values, one per color channel.

rValues The threshold replacement values, one per color channel.

eComparisonOperation The type of comparison operation to be used. The only valid values are: NPP_CMP_LESS and NPP_CMP_GREATER.

Returns:

Image Data Related Error Codes, ROI Related Error Codes, or NPP_NOT_SUPPORTED_MODE_-ERROR if an invalid comparison operation type is specified.

7.138.2.150 NppStatus nppiThreshold_Val_16s_C3R (const Npp16s ∗ *pSrc*, int *nSrcStep*, Npp16s ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, const Npp16s *rThresholds*[3], const Npp16s *rValues*[3], NppCmpOp *eComparisonOperation*)

3 channel 16-bit signed short threshold.

If for a comparison operations OP the predicate (sourcePixel OP nThreshold) is true, the pixel is set to nValue, otherwise it is set to sourcePixel.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

rThresholds The threshold values, one per color channel.

rValues The threshold replacement values, one per color channel.

eComparisonOperation The type of comparison operation to be used. The only valid values are: NPP_CMP_LESS and NPP_CMP_GREATER.

Returns:

Image Data Related Error Codes, ROI Related Error Codes, or NPP_NOT_SUPPORTED_MODE_-ERROR if an invalid comparison operation type is specified.

7.138.2.151 NppStatus nppiThreshold_Val_16u_AC4IR (Npp16u ∗ *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*, const Npp16u *rThresholds*[3], const Npp16u *rValues*[3], NppCmpOp *eComparisonOperation*)

4 channel 16-bit unsigned short in place image threshold, not affecting Alpha.

If for a comparison operations OP the predicate (sourcePixel.channel OP nThreshold) is true, the channel value is set to nValue, otherwise it is set to sourcePixel.

Parameters:

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oSizeROI Region-of-Interest (ROI).

rThresholds The threshold values, one per color channel.

rValues The threshold replacement values, one per color channel.

eComparisonOperation The type of comparison operation to be used. The only valid values are: NPP_CMP_LESS and NPP_CMP_GREATER.

Returns:

Image Data Related Error Codes, ROI Related Error Codes, or NPP_NOT_SUPPORTED_MODE_ERROR if an invalid comparison operation type is specified.

7.138.2.152 NppStatus nppiThreshold_Val_16u_AC4R (const Npp16u * *pSrc*, int *nSrcStep*, Npp16u * *pDst*, int *nDstStep*, NppiSize *oSizeROI*, const Npp16u *rThresholds*[3], const Npp16u *rValues*[3], NppCmpOp *eComparisonOperation*)

4 channel 16-bit unsigned short image threshold, not affecting Alpha.

If for a comparison operations OP the predicate (sourcePixel.channel OP nThreshold) is true, the channel value is set to nValue, otherwise it is set to sourcePixel.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

rThresholds The threshold values, one per color channel.

rValues The threshold replacement values, one per color channel.

eComparisonOperation The type of comparison operation to be used. The only valid values are: NPP_CMP_LESS and NPP_CMP_GREATER.

Returns:

Image Data Related Error Codes, ROI Related Error Codes, or NPP_NOT_SUPPORTED_MODE_ERROR if an invalid comparison operation type is specified.

7.138.2.153 NppStatus nppiThreshold_Val_16u_C1IR (Npp16u * *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*, const Npp16u *nThreshold*, const Npp16u *nValue*, NppCmpOp *eComparisonOperation*)

1 channel 16-bit unsigned short in place threshold.

If for a comparison operations OP the predicate (sourcePixel OP nThreshold) is true, the pixel is set to nValue, otherwise it is set to sourcePixel.

Parameters:

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oSizeROI Region-of-Interest (ROI).

nThreshold The threshold value.

nValue The threshold replacement value.

eComparisonOperation The type of comparison operation to be used. The only valid values are: NPP_CMP_LESS and NPP_CMP_GREATER.

Returns:

Image Data Related Error Codes, ROI Related Error Codes, or NPP_NOT_SUPPORTED_MODE_-ERROR if an invalid comparison operation type is specified.

7.138.2.154 NppStatus nppiThreshold_Val_16u_C1R (const Npp16u ∗ *pSrc*, int *nSrcStep*, Npp16u ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, const Npp16u *nThreshold*, const Npp16u *nValue*, NppCmpOp *eComparisonOperation*)

1 channel 16-bit unsigned short threshold.

If for a comparison operations OP the predicate (sourcePixel OP nThreshold) is true, the pixel is set to nValue, otherwise it is set to sourcePixel.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

nThreshold The threshold value.

nValue The threshold replacement value.

eComparisonOperation The type of comparison operation to be used. The only valid values are: NPP_CMP_LESS and NPP_CMP_GREATER.

Returns:

Image Data Related Error Codes, ROI Related Error Codes, or NPP_NOT_SUPPORTED_MODE_-ERROR if an invalid comparison operation type is specified.

7.138.2.155 NppStatus nppiThreshold_Val_16u_C3IR (Npp16u ∗ *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*, const Npp16u *rThresholds*[3], const Npp16u *rValues*[3], NppCmpOp *eComparisonOperation*)

3 channel 16-bit unsigned short in place threshold.

If for a comparison operations OP the predicate (sourcePixel OP nThreshold) is true, the pixel is set to nValue, otherwise it is set to sourcePixel.

Parameters:

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oSizeROI Region-of-Interest (ROI).

rThresholds The threshold values, one per color channel.

rValues The threshold replacement values, one per color channel.

eComparisonOperation The type of comparison operation to be used. The only valid values are: NPP_CMP_LESS and NPP_CMP_GREATER.

Returns:

Image Data Related Error Codes, ROI Related Error Codes, or NPP_NOT_SUPPORTED_MODE_ERROR if an invalid comparison operation type is specified.

7.138.2.156 NppStatus nppiThreshold_Val_16u_C3R (const Npp16u ∗ *pSrc*, int *nSrcStep*, Npp16u ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, const Npp16u *rThresholds*[3], const Npp16u *rValues*[3], NppCmpOp *eComparisonOperation*)

3 channel 16-bit unsigned short threshold.

If for a comparison operations OP the predicate (sourcePixel OP nThreshold) is true, the pixel is set to nValue, otherwise it is set to sourcePixel.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

rThresholds The threshold values, one per color channel.

rValues The threshold replacement values, one per color channel.

eComparisonOperation The type of comparison operation to be used. The only valid values are: NPP_CMP_LESS and NPP_CMP_GREATER.

Returns:

Image Data Related Error Codes, ROI Related Error Codes, or NPP_NOT_SUPPORTED_MODE_ERROR if an invalid comparison operation type is specified.

7.138.2.157 NppStatus nppiThreshold_Val_32f_AC4IR (Npp32f ∗ *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*, const Npp32f *rThresholds*[3], const Npp32f *rValues*[3], NppCmpOp *eComparisonOperation*)

4 channel 32-bit floating point in place image threshold, not affecting Alpha.

If for a comparison operations OP the predicate (sourcePixel.channel OP nThreshold) is true, the channel value is set to nValue, otherwise it is set to sourcePixel.

Parameters:

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oSizeROI Region-of-Interest (ROI).

rThresholds The threshold values, one per color channel.

rValues The threshold replacement values, one per color channel.

eComparisonOperation The type of comparison operation to be used. The only valid values are: NPP_CMP_LESS and NPP_CMP_GREATER.

Returns:

Image Data Related Error Codes, ROI Related Error Codes, or NPP_NOT_SUPPORTED_MODE_ERROR if an invalid comparison operation type is specified.

7.138.2.158 NppStatus nppiThreshold_Val_32f_AC4R (const Npp32f ∗ *pSrc*, int *nSrcStep*, Npp32f ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, const Npp32f *rThresholds*[3], const Npp32f *rValues*[3], NppCmpOp *eComparisonOperation*)

4 channel 32-bit floating point image threshold, not affecting Alpha.

If for a comparison operations OP the predicate (sourcePixel.channel OP nThreshold) is true, the channel value is set to nValue, otherwise it is set to sourcePixel.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

rThresholds The threshold values, one per color channel.

rValues The threshold replacement values, one per color channel.

eComparisonOperation The type of comparison operation to be used. The only valid values are: NPP_CMP_LESS and NPP_CMP_GREATER.

Returns:

Image Data Related Error Codes, ROI Related Error Codes, or NPP_NOT_SUPPORTED_MODE_ERROR if an invalid comparison operation type is specified.

7.138.2.159 NppStatus nppiThreshold_Val_32f_C1IR (Npp32f ∗ *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*, const Npp32f *nThreshold*, const Npp32f *nValue*, NppCmpOp *eComparisonOperation*)

1 channel 32-bit floating point in place threshold.

If for a comparison operations OP the predicate (sourcePixel OP nThreshold) is true, the pixel is set to nValue, otherwise it is set to sourcePixel.

Parameters:

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oSizeROI Region-of-Interest (ROI).

nThreshold The threshold value.

nValue The threshold replacement value.

eComparisonOperation The type of comparison operation to be used. The only valid values are: NPP_CMP_LESS and NPP_CMP_GREATER.

Returns:

Image Data Related Error Codes, ROI Related Error Codes, or NPP_NOT_SUPPORTED_MODE_ERROR if an invalid comparison operation type is specified.

7.138.2.160 NppStatus nppiThreshold_Val_32f_C1R (const Npp32f * *pSrc*, int *nSrcStep*, Npp32f * *pDst*, int *nDstStep*, NppiSize *oSizeROI*, const Npp32f *nThreshold*, const Npp32f *nValue*, NppCmpOp *eComparisonOperation*)

1 channel 32-bit floating point threshold.

If for a comparison operations OP the predicate (sourcePixel OP nThreshold) is true, the pixel is set to nValue, otherwise it is set to sourcePixel.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

nThreshold The threshold value.

nValue The threshold replacement value.

eComparisonOperation The type of comparison operation to be used. The only valid values are: NPP_CMP_LESS and NPP_CMP_GREATER.

Returns:

Image Data Related Error Codes, ROI Related Error Codes, or NPP_NOT_SUPPORTED_MODE_ERROR if an invalid comparison operation type is specified.

7.138.2.161 NppStatus nppiThreshold_Val_32f_C3IR (Npp32f * *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*, const Npp32f *rThresholds*[3], const Npp32f *rValues*[3], NppCmpOp *eComparisonOperation*)

3 channel 32-bit floating point in place threshold.

If for a comparison operations OP the predicate (sourcePixel OP nThreshold) is true, the pixel is set to nValue, otherwise it is set to sourcePixel.

Parameters:

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oSizeROI Region-of-Interest (ROI).

rThresholds The threshold values, one per color channel.

rValues The threshold replacement values, one per color channel.

eComparisonOperation The type of comparison operation to be used. The only valid values are: NPP_CMP_LESS and NPP_CMP_GREATER.

Returns:

Image Data Related Error Codes, ROI Related Error Codes, or NPP_NOT_SUPPORTED_MODE_-ERROR if an invalid comparison operation type is specified.

7.138.2.162 NppStatus nppiThreshold_Val_32f_C3R (const Npp32f ∗ *pSrc*, int *nSrcStep*, Npp32f ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, const Npp32f *rThresholds*[3], const Npp32f *rValues*[3], NppCmpOp *eComparisonOperation*)

3 channel 32-bit floating point threshold.

If for a comparison operations OP the predicate (sourcePixel OP nThreshold) is true, the pixel is set to nValue, otherwise it is set to sourcePixel.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

rThresholds The threshold values, one per color channel.

rValues The threshold replacement values, one per color channel.

eComparisonOperation The type of comparison operation to be used. The only valid values are: NPP_CMP_LESS and NPP_CMP_GREATER.

Returns:

Image Data Related Error Codes, ROI Related Error Codes, or NPP_NOT_SUPPORTED_MODE_-ERROR if an invalid comparison operation type is specified.

7.138.2.163 NppStatus nppiThreshold_Val_8u_AC4IR (Npp8u ∗ *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*, const Npp8u *rThresholds*[3], const Npp8u *rValues*[3], NppCmpOp *eComparisonOperation*)

4 channel 8-bit unsigned char in place image threshold, not affecting Alpha.

If for a comparison operations OP the predicate (sourcePixel.channel OP nThreshold) is true, the channel value is set to nValue, otherwise it is set to sourcePixel.

Parameters:

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oSizeROI Region-of-Interest (ROI).

rThresholds The threshold values, one per color channel.

rValues The threshold replacement values, one per color channel.

eComparisonOperation The type of comparison operation to be used. The only valid values are: NPP_CMP_LESS and NPP_CMP_GREATER.

Returns:

Image Data Related Error Codes, ROI Related Error Codes, or NPP_NOT_SUPPORTED_MODE_-ERROR if an invalid comparison operation type is specified.

7.138.2.164 NppStatus nppiThreshold_Val_8u_AC4R (const Npp8u ∗ *pSrc*, int *nSrcStep*, Npp8u ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, const Npp8u *rThresholds*[3], const Npp8u *rValues*[3], NppCmpOp *eComparisonOperation*)

4 channel 8-bit unsigned char image threshold, not affecting Alpha.

If for a comparison operations OP the predicate (sourcePixel.channel OP nThreshold) is true, the channel value is set to nValue, otherwise it is set to sourcePixel.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

rThresholds The threshold values, one per color channel.

rValues The threshold replacement values, one per color channel.

eComparisonOperation The type of comparison operation to be used. The only valid values are: NPP_CMP_LESS and NPP_CMP_GREATER.

Returns:

Image Data Related Error Codes, ROI Related Error Codes, or NPP_NOT_SUPPORTED_MODE_-ERROR if an invalid comparison operation type is specified.

7.138.2.165 NppStatus nppiThreshold_Val_8u_C1IR (Npp8u ∗ *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*, const Npp8u *nThreshold*, const Npp8u *nValue*, NppCmpOp *eComparisonOperation*)

1 channel 8-bit unsigned char in place threshold.

If for a comparison operations OP the predicate (sourcePixel OP nThreshold) is true, the pixel is set to nValue, otherwise it is set to sourcePixel.

Parameters:

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oSizeROI Region-of-Interest (ROI).

nThreshold The threshold value.

nValue The threshold replacement value.

eComparisonOperation The type of comparison operation to be used. The only valid values are: NPP_CMP_LESS and NPP_CMP_GREATER.

Returns:

Image Data Related Error Codes, ROI Related Error Codes, or NPP_NOT_SUPPORTED_MODE_ERROR if an invalid comparison operation type is specified.

7.138.2.166 NppStatus nppiThreshold_Val_8u_C1R (const Npp8u ∗ *pSrc*, int *nSrcStep*, Npp8u ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, const Npp8u *nThreshold*, const Npp8u *nValue*, NppCmpOp *eComparisonOperation*)

1 channel 8-bit unsigned char threshold.

If for a comparison operations OP the predicate (sourcePixel OP nThreshold) is true, the pixel is set to nValue, otherwise it is set to sourcePixel.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

nThreshold The threshold value.

nValue The threshold replacement value.

eComparisonOperation The type of comparison operation to be used. The only valid values are: NPP_CMP_LESS and NPP_CMP_GREATER.

Returns:

Image Data Related Error Codes, ROI Related Error Codes, or NPP_NOT_SUPPORTED_MODE_ERROR if an invalid comparison operation type is specified.

7.138.2.167 NppStatus nppiThreshold_Val_8u_C3IR (Npp8u ∗ *pSrcDst*, int *nSrcDstStep*, NppiSize *oSizeROI*, const Npp8u *rThresholds*[3], const Npp8u *rValues*[3], NppCmpOp *eComparisonOperation*)

3 channel 8-bit unsigned char in place threshold.

If for a comparison operations OP the predicate (sourcePixel OP nThreshold) is true, the pixel is set to nValue, otherwise it is set to sourcePixel.

Parameters:

pSrcDst In-Place Image Pointer.

nSrcDstStep In-Place-Image Line Step.

oSizeROI Region-of-Interest (ROI).

rThresholds The threshold values, one per color channel.

rValues The threshold replacement values, one per color channel.

eComparisonOperation The type of comparison operation to be used. The only valid values are: NPP_CMP_LESS and NPP_CMP_GREATER.

Returns:

Image Data Related Error Codes, ROI Related Error Codes, or NPP_NOT_SUPPORTED_MODE_-ERROR if an invalid comparison operation type is specified.

7.138.2.168 NppStatus nppiThreshold_Val_8u_C3R (const Npp8u ∗ *pSrc*, int *nSrcStep*, Npp8u ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, const Npp8u *rThresholds*[3], const Npp8u *rValues*[3], NppCmpOp *eComparisonOperation*)

3 channel 8-bit unsigned char threshold.

If for a comparison operations OP the predicate (sourcePixel OP nThreshold) is true, the pixel is set to nValue, otherwise it is set to sourcePixel.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

rThresholds The threshold values, one per color channel.

rValues The threshold replacement values, one per color channel.

eComparisonOperation The type of comparison operation to be used. The only valid values are: NPP_CMP_LESS and NPP_CMP_GREATER.

Returns:

Image Data Related Error Codes, ROI Related Error Codes, or NPP_NOT_SUPPORTED_MODE_-ERROR if an invalid comparison operation type is specified.

7.139 Compare Operations

Compare the pixels of two images and create a binary result image.

Functions

- NppStatus nppiCompare_8u_C1R (const Npp8u ∗pSrc1, int nSrc1Step, const Npp8u ∗pSrc2, int nSrc2Step, Npp8u ∗pDst, int nDstStep, NppiSize oSizeROI, NppCmpOp eComparisonOperation)

  1 channel 8-bit unsigned char image compare.

- NppStatus nppiCompare_8u_C3R (const Npp8u ∗pSrc1, int nSrc1Step, const Npp8u ∗pSrc2, int nSrc2Step, Npp8u ∗pDst, int nDstStep, NppiSize oSizeROI, NppCmpOp eComparisonOperation)

  3 channel 8-bit unsigned char image compare.

- NppStatus nppiCompare_8u_C4R (const Npp8u ∗pSrc1, int nSrc1Step, const Npp8u ∗pSrc2, int nSrc2Step, Npp8u ∗pDst, int nDstStep, NppiSize oSizeROI, NppCmpOp eComparisonOperation)

  4 channel 8-bit unsigned char image compare.

- NppStatus nppiCompare_8u_AC4R (const Npp8u ∗pSrc1, int nSrc1Step, const Npp8u ∗pSrc2, int nSrc2Step, Npp8u ∗pDst, int nDstStep, NppiSize oSizeROI, NppCmpOp eComparisonOperation)

  4 channel 8-bit unsigned char image compare, not affecting Alpha.

- NppStatus nppiCompare_16u_C1R (const Npp16u ∗pSrc1, int nSrc1Step, const Npp16u ∗pSrc2, int nSrc2Step, Npp8u ∗pDst, int nDstStep, NppiSize oSizeROI, NppCmpOp eComparisonOperation)

  1 channel 16-bit unsigned short image compare.

- NppStatus nppiCompare_16u_C3R (const Npp16u ∗pSrc1, int nSrc1Step, const Npp16u ∗pSrc2, int nSrc2Step, Npp8u ∗pDst, int nDstStep, NppiSize oSizeROI, NppCmpOp eComparisonOperation)

  3 channel 16-bit unsigned short image compare.

- NppStatus nppiCompare_16u_C4R (const Npp16u ∗pSrc1, int nSrc1Step, const Npp16u ∗pSrc2, int nSrc2Step, Npp8u ∗pDst, int nDstStep, NppiSize oSizeROI, NppCmpOp eComparisonOperation)

  4 channel 16-bit unsigned short image compare.

- NppStatus nppiCompare_16u_AC4R (const Npp16u ∗pSrc1, int nSrc1Step, const Npp16u ∗pSrc2, int nSrc2Step, Npp8u ∗pDst, int nDstStep, NppiSize oSizeROI, NppCmpOp eComparisonOperation)

  4 channel 16-bit unsigned short image compare, not affecting Alpha.

- NppStatus nppiCompare_16s_C1R (const Npp16s ∗pSrc1, int nSrc1Step, const Npp16s ∗pSrc2, int nSrc2Step, Npp8u ∗pDst, int nDstStep, NppiSize oSizeROI, NppCmpOp eComparisonOperation)

  1 channel 16-bit signed short image compare.

- NppStatus nppiCompare_16s_C3R (const Npp16s ∗pSrc1, int nSrc1Step, const Npp16s ∗pSrc2, int nSrc2Step, Npp8u ∗pDst, int nDstStep, NppiSize oSizeROI, NppCmpOp eComparisonOperation)

  3 channel 16-bit signed short image compare.

- NppStatus nppiCompare_16s_C4R (const Npp16s ∗pSrc1, int nSrc1Step, const Npp16s ∗pSrc2, int nSrc2Step, Npp8u ∗pDst, int nDstStep, NppiSize oSizeROI, NppCmpOp eComparisonOperation)

  4 channel 16-bit signed short image compare.

- NppStatus nppiCompare_16s_AC4R (const Npp16s ∗pSrc1, int nSrc1Step, const Npp16s ∗pSrc2, int nSrc2Step, Npp8u ∗pDst, int nDstStep, NppiSize oSizeROI, NppCmpOp eComparisonOperation)

  4 channel 16-bit signed short image compare, not affecting Alpha.

- NppStatus nppiCompare_32f_C1R (const Npp32f ∗pSrc1, int nSrc1Step, const Npp32f ∗pSrc2, int nSrc2Step, Npp8u ∗pDst, int nDstStep, NppiSize oSizeROI, NppCmpOp eComparisonOperation)

  1 channel 32-bit floating point image compare.

- NppStatus nppiCompare_32f_C3R (const Npp32f ∗pSrc1, int nSrc1Step, const Npp32f ∗pSrc2, int nSrc2Step, Npp8u ∗pDst, int nDstStep, NppiSize oSizeROI, NppCmpOp eComparisonOperation)

  3 channel 32-bit floating point image compare.

- NppStatus nppiCompare_32f_C4R (const Npp32f ∗pSrc1, int nSrc1Step, const Npp32f ∗pSrc2, int nSrc2Step, Npp8u ∗pDst, int nDstStep, NppiSize oSizeROI, NppCmpOp eComparisonOperation)

  4 channel 32-bit floating point image compare.

- NppStatus nppiCompare_32f_AC4R (const Npp32f ∗pSrc1, int nSrc1Step, const Npp32f ∗pSrc2, int nSrc2Step, Npp8u ∗pDst, int nDstStep, NppiSize oSizeROI, NppCmpOp eComparisonOperation)

  4 channel 32-bit signed floating point compare, not affecting Alpha.

- NppStatus nppiCompareC_8u_C1R (const Npp8u ∗pSrc, int nSrcStep, const Npp8u nConstant, Npp8u ∗pDst, int nDstStep, NppiSize oSizeROI, NppCmpOp eComparisonOperation)

  1 channel 8-bit unsigned char image compare with constant value.

- NppStatus nppiCompareC_8u_C3R (const Npp8u ∗pSrc, int nSrcStep, const Npp8u ∗pConstants, Npp8u ∗pDst, int nDstStep, NppiSize oSizeROI, NppCmpOp eComparisonOperation)

  3 channel 8-bit unsigned char image compare with constant value.

- NppStatus nppiCompareC_8u_C4R (const Npp8u ∗pSrc, int nSrcStep, const Npp8u ∗pConstants, Npp8u ∗pDst, int nDstStep, NppiSize oSizeROI, NppCmpOp eComparisonOperation)

  4 channel 8-bit unsigned char image compare with constant value.

- NppStatus nppiCompareC_8u_AC4R (const Npp8u ∗pSrc, int nSrcStep, const Npp8u ∗pConstants, Npp8u ∗pDst, int nDstStep, NppiSize oSizeROI, NppCmpOp eComparisonOperation)

  4 channel 8-bit unsigned char image compare, not affecting Alpha.

- NppStatus nppiCompareC_16u_C1R (const Npp16u ∗pSrc, int nSrcStep, const Npp16u nConstant, Npp8u ∗pDst, int nDstStep, NppiSize oSizeROI, NppCmpOp eComparisonOperation)

  1 channel 16-bit unsigned short image compare with constant value.

- NppStatus nppiCompareC_16u_C3R (const Npp16u ∗pSrc, int nSrcStep, const Npp16u ∗pConstants, Npp8u ∗pDst, int nDstStep, NppiSize oSizeROI, NppCmpOp eComparisonOperation)

  3 channel 16-bit unsigned short image compare with constant value.

- NppStatus nppiCompareC_16u_C4R (const Npp16u ∗pSrc, int nSrcStep, const Npp16u ∗pConstants, Npp8u ∗pDst, int nDstStep, NppiSize oSizeROI, NppCmpOp eComparisonOperation)

  4 channel 16-bit unsigned short image compare with constant value.

- NppStatus nppiCompareC_16u_AC4R (const Npp16u ∗pSrc, int nSrcStep, const Npp16u ∗pConstants, Npp8u ∗pDst, int nDstStep, NppiSize oSizeROI, NppCmpOp eComparisonOperation)

  4 channel 16-bit unsigned short image compare, not affecting Alpha.

- NppStatus nppiCompareC_16s_C1R (const Npp16s ∗pSrc, int nSrcStep, const Npp16s nConstant, Npp8u ∗pDst, int nDstStep, NppiSize oSizeROI, NppCmpOp eComparisonOperation)

  1 channel 16-bit signed short image compare with constant value.

- NppStatus nppiCompareC_16s_C3R (const Npp16s ∗pSrc, int nSrcStep, const Npp16s ∗pConstants, Npp8u ∗pDst, int nDstStep, NppiSize oSizeROI, NppCmpOp eComparisonOperation)

  3 channel 16-bit signed short image compare with constant value.

- NppStatus nppiCompareC_16s_C4R (const Npp16s ∗pSrc, int nSrcStep, const Npp16s ∗pConstants, Npp8u ∗pDst, int nDstStep, NppiSize oSizeROI, NppCmpOp eComparisonOperation)

  4 channel 16-bit signed short image compare with constant value.

- NppStatus nppiCompareC_16s_AC4R (const Npp16s ∗pSrc, int nSrcStep, const Npp16s ∗pConstants, Npp8u ∗pDst, int nDstStep, NppiSize oSizeROI, NppCmpOp eComparisonOperation)

  4 channel 16-bit signed short image compare, not affecting Alpha.

- NppStatus nppiCompareC_32f_C1R (const Npp32f ∗pSrc, int nSrcStep, const Npp32f nConstant, Npp8u ∗pDst, int nDstStep, NppiSize oSizeROI, NppCmpOp eComparisonOperation)

  1 channel 32-bit floating point image compare with constant value.

- NppStatus nppiCompareC_32f_C3R (const Npp32f ∗pSrc, int nSrcStep, const Npp32f ∗pConstants, Npp8u ∗pDst, int nDstStep, NppiSize oSizeROI, NppCmpOp eComparisonOperation)

  3 channel 32-bit floating point image compare with constant value.

- NppStatus nppiCompareC_32f_C4R (const Npp32f ∗pSrc, int nSrcStep, const Npp32f ∗pConstants, Npp8u ∗pDst, int nDstStep, NppiSize oSizeROI, NppCmpOp eComparisonOperation)

  4 channel 32-bit floating point image compare with constant value.

- NppStatus nppiCompareC_32f_AC4R (const Npp32f ∗pSrc, int nSrcStep, const Npp32f ∗pConstants, Npp8u ∗pDst, int nDstStep, NppiSize oSizeROI, NppCmpOp eComparisonOperation)

  4 channel 32-bit signed floating point compare, not affecting Alpha.

- NppStatus nppiCompareEqualEps_32f_C1R (const Npp32f ∗pSrc1, int nSrc1Step, const Npp32f ∗pSrc2, int nSrc2Step, Npp8u ∗pDst, int nDstStep, NppiSize oSizeROI, Npp32f nEpsilon)

  1 channel 32-bit floating point image compare whether two images are equal within epsilon.

- NppStatus nppiCompareEqualEps_32f_C3R (const Npp32f ∗pSrc1, int nSrc1Step, const Npp32f ∗pSrc2, int nSrc2Step, Npp8u ∗pDst, int nDstStep, NppiSize oSizeROI, Npp32f nEpsilon)

  3 channel 32-bit floating point image compare whether two images are equal within epsilon.

- NppStatus nppiCompareEqualEps_32f_C4R (const Npp32f ∗pSrc1, int nSrc1Step, const Npp32f ∗pSrc2, int nSrc2Step, Npp8u ∗pDst, int nDstStep, NppiSize oSizeROI, Npp32f nEpsilon)

  4 channel 32-bit floating point image compare whether two images are equal within epsilon.

- NppStatus nppiCompareEqualEps_32f_AC4R (const Npp32f ∗pSrc1, int nSrc1Step, const Npp32f ∗pSrc2, int nSrc2Step, Npp8u ∗pDst, int nDstStep, NppiSize oSizeROI, Npp32f nEpsilon)

  4 channel 32-bit signed floating point compare whether two images are equal within epsilon, not affecting Alpha.

- NppStatus nppiCompareEqualEpsC_32f_C1R (const Npp32f ∗pSrc, int nSrcStep, const Npp32f nConstant, Npp8u ∗pDst, int nDstStep, NppiSize oSizeROI, Npp32f nEpsilon)

  1 channel 32-bit floating point image compare whether image and constant are equal within epsilon.

- NppStatus nppiCompareEqualEpsC_32f_C3R (const Npp32f ∗pSrc, int nSrcStep, const Npp32f ∗pConstants, Npp8u ∗pDst, int nDstStep, NppiSize oSizeROI, Npp32f nEpsilon)

  3 channel 32-bit floating point image compare whether image and constant are equal within epsilon.

- NppStatus nppiCompareEqualEpsC_32f_C4R (const Npp32f ∗pSrc, int nSrcStep, const Npp32f ∗pConstants, Npp8u ∗pDst, int nDstStep, NppiSize oSizeROI, Npp32f nEpsilon)

  4 channel 32-bit floating point image compare whether image and constant are equal within epsilon.

- NppStatus nppiCompareEqualEpsC_32f_AC4R (const Npp32f ∗pSrc, int nSrcStep, const Npp32f ∗pConstants, Npp8u ∗pDst, int nDstStep, NppiSize oSizeROI, Npp32f nEpsilon)

  4 channel 32-bit signed floating point compare whether image and constant are equal within epsilon, not affecting Alpha.

7.139.1 Detailed Description

Compare the pixels of two images and create a binary result image.

In case of multi-channel image types, the condition must be fulfilled for all channels, otherwise the comparison is considered false. The "binary" result image is of type 8u_C1. False is represented by 0, true by NPP_MAX_8U.

7.139.2 Function Documentation

7.139.2.1 NppStatus nppiCompare_16s_AC4R (const Npp16s ∗ *pSrc1*, int *nSrc1Step*, const Npp16s ∗ *pSrc2*, int *nSrc2Step*, Npp8u ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, NppCmpOp *eComparisonOperation*)

4 channel 16-bit signed short image compare, not affecting Alpha.

Compare pSrc1's pixels with corresponding pixels in pSrc2.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

eComparisonOperation Specifies the comparison operation to be used in the pixel comparison.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.139.2.2 NppStatus nppiCompare_16s_C1R (const Npp16s ∗ *pSrc1*, int *nSrc1Step*, const Npp16s ∗ *pSrc2*, int *nSrc2Step*, Npp8u ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, NppCmpOp *eComparisonOperation*)

1 channel 16-bit signed short image compare.

Compare pSrc1's pixels with corresponding pixels in pSrc2.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

eComparisonOperation Specifies the comparison operation to be used in the pixel comparison.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.139.2.3 NppStatus nppiCompare_16s_C3R (const Npp16s ∗ *pSrc1*, int *nSrc1Step*, const Npp16s ∗ *pSrc2*, int *nSrc2Step*, Npp8u ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, NppCmpOp *eComparisonOperation*)

3 channel 16-bit signed short image compare.

Compare pSrc1's pixels with corresponding pixels in pSrc2.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

eComparisonOperation Specifies the comparison operation to be used in the pixel comparison.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.139.2.4 NppStatus nppiCompare_16s_C4R (const Npp16s * *pSrc1*, int *nSrc1Step*, const Npp16s * *pSrc2*, int *nSrc2Step*, Npp8u * *pDst*, int *nDstStep*, NppiSize *oSizeROI*, NppCmpOp *eComparisonOperation*)

4 channel 16-bit signed short image compare.

Compare pSrc1's pixels with corresponding pixels in pSrc2.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

eComparisonOperation Specifies the comparison operation to be used in the pixel comparison.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.139.2.5 NppStatus nppiCompare_16u_AC4R (const Npp16u * *pSrc1*, int *nSrc1Step*, const Npp16u * *pSrc2*, int *nSrc2Step*, Npp8u * *pDst*, int *nDstStep*, NppiSize *oSizeROI*, NppCmpOp *eComparisonOperation*)

4 channel 16-bit unsigned short image compare, not affecting Alpha.

Compare pSrc1's pixels with corresponding pixels in pSrc2.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

eComparisonOperation Specifies the comparison operation to be used in the pixel comparison.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.139.2.6 NppStatus nppiCompare_16u_C1R (const Npp16u * *pSrc1*, int *nSrc1Step*, const Npp16u * *pSrc2*, int *nSrc2Step*, Npp8u * *pDst*, int *nDstStep*, NppiSize *oSizeROI*, NppCmpOp *eComparisonOperation*)

1 channel 16-bit unsigned short image compare.

Compare pSrc1's pixels with corresponding pixels in pSrc2.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

eComparisonOperation Specifies the comparison operation to be used in the pixel comparison.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.139.2.7 NppStatus nppiCompare_16u_C3R (const Npp16u * *pSrc1*, int *nSrc1Step*, const Npp16u * *pSrc2*, int *nSrc2Step*, Npp8u * *pDst*, int *nDstStep*, NppiSize *oSizeROI*, NppCmpOp *eComparisonOperation*)

3 channel 16-bit unsigned short image compare.

Compare pSrc1's pixels with corresponding pixels in pSrc2.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

eComparisonOperation Specifies the comparison operation to be used in the pixel comparison.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.139.2.8 NppStatus nppiCompare_16u_C4R (const Npp16u ∗ *pSrc1*, int *nSrc1Step*, const Npp16u ∗ *pSrc2*, int *nSrc2Step*, Npp8u ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, NppCmpOp *eComparisonOperation*)

4 channel 16-bit unsigned short image compare.

Compare pSrc1's pixels with corresponding pixels in pSrc2.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

eComparisonOperation Specifies the comparison operation to be used in the pixel comparison.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.139.2.9 NppStatus nppiCompare_32f_AC4R (const Npp32f ∗ *pSrc1*, int *nSrc1Step*, const Npp32f ∗ *pSrc2*, int *nSrc2Step*, Npp8u ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, NppCmpOp *eComparisonOperation*)

4 channel 32-bit signed floating point compare, not affecting Alpha.

Compare pSrc1's pixels with corresponding pixels in pSrc2.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

eComparisonOperation Specifies the comparison operation to be used in the pixel comparison.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.139.2.10 NppStatus nppiCompare_32f_C1R (const Npp32f $*$ *pSrc1*, int *nSrc1Step*, const Npp32f $*$ *pSrc2*, int *nSrc2Step*, Npp8u $*$ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, NppCmpOp *eComparisonOperation*)

1 channel 32-bit floating point image compare.

Compare pSrc1's pixels with corresponding pixels in pSrc2.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

eComparisonOperation Specifies the comparison operation to be used in the pixel comparison.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.139.2.11 NppStatus nppiCompare_32f_C3R (const Npp32f $*$ *pSrc1*, int *nSrc1Step*, const Npp32f $*$ *pSrc2*, int *nSrc2Step*, Npp8u $*$ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, NppCmpOp *eComparisonOperation*)

3 channel 32-bit floating point image compare.

Compare pSrc1's pixels with corresponding pixels in pSrc2.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

eComparisonOperation Specifies the comparison operation to be used in the pixel comparison.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.139.2.12 NppStatus nppiCompare_32f_C4R (const Npp32f ∗ *pSrc1*, int *nSrc1Step*, const Npp32f ∗ *pSrc2*, int *nSrc2Step*, Npp8u ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, NppCmpOp *eComparisonOperation*)

4 channel 32-bit floating point image compare.

Compare pSrc1's pixels with corresponding pixels in pSrc2.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

eComparisonOperation Specifies the comparison operation to be used in the pixel comparison.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.139.2.13 NppStatus nppiCompare_8u_AC4R (const Npp8u ∗ *pSrc1*, int *nSrc1Step*, const Npp8u ∗ *pSrc2*, int *nSrc2Step*, Npp8u ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, NppCmpOp *eComparisonOperation*)

4 channel 8-bit unsigned char image compare, not affecting Alpha.

Compare pSrc1's pixels with corresponding pixels in pSrc2.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

eComparisonOperation Specifies the comparison operation to be used in the pixel comparison.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.139.2.14 NppStatus nppiCompare_8u_C1R (const Npp8u ∗ *pSrc1*, int *nSrc1Step*, const Npp8u ∗ *pSrc2*, int *nSrc2Step*, Npp8u ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, NppCmpOp *eComparisonOperation*)

1 channel 8-bit unsigned char image compare.

Compare pSrc1's pixels with corresponding pixels in pSrc2.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

eComparisonOperation Specifies the comparison operation to be used in the pixel comparison.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.139.2.15 NppStatus nppiCompare_8u_C3R (const Npp8u ∗ *pSrc1*, int *nSrc1Step*, const Npp8u ∗ *pSrc2*, int *nSrc2Step*, Npp8u ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, NppCmpOp *eComparisonOperation*)

3 channel 8-bit unsigned char image compare.

Compare pSrc1's pixels with corresponding pixels in pSrc2.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

eComparisonOperation Specifies the comparison operation to be used in the pixel comparison.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.139.2.16 NppStatus nppiCompare_8u_C4R (const Npp8u ∗ *pSrc1*, int *nSrc1Step*, const Npp8u ∗ *pSrc2*, int *nSrc2Step*, Npp8u ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, NppCmpOp *eComparisonOperation*)

4 channel 8-bit unsigned char image compare.

Compare pSrc1's pixels with corresponding pixels in pSrc2.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

eComparisonOperation Specifies the comparison operation to be used in the pixel comparison.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.139.2.17 NppStatus nppiCompareC_16s_AC4R (const Npp16s ∗ *pSrc*, int *nSrcStep*, const Npp16s ∗ *pConstants*, Npp8u ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, NppCmpOp *eComparisonOperation*)

4 channel 16-bit signed short image compare, not affecting Alpha.

Compare pSrc's pixels with constant value.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pConstants pointer to a list of constants, one per color channel.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

eComparisonOperation Specifies the comparison operation to be used in the pixel comparison.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.139.2.18 NppStatus nppiCompareC_16s_C1R (const Npp16s ∗ *pSrc*, int *nSrcStep*, const Npp16s *nConstant*, Npp8u ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, NppCmpOp *eComparisonOperation*)

1 channel 16-bit signed short image compare with constant value.

Compare pSrc's pixels with constant value.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

nConstant constant value.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

eComparisonOperation Specifies the comparison operation to be used in the pixel comparison.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.139.2.19 NppStatus nppiCompareC_16s_C3R (const Npp16s $*$ *pSrc*, int *nSrcStep*, const Npp16s $*$ *pConstants*, Npp8u $*$ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, NppCmpOp *eComparisonOperation*)

3 channel 16-bit signed short image compare with constant value.

Compare pSrc's pixels with constant value.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pConstants pointer to a list of constants, one per color channel.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

eComparisonOperation Specifies the comparison operation to be used in the pixel comparison.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.139.2.20 NppStatus nppiCompareC_16s_C4R (const Npp16s $*$ *pSrc*, int *nSrcStep*, const Npp16s $*$ *pConstants*, Npp8u $*$ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, NppCmpOp *eComparisonOperation*)

4 channel 16-bit signed short image compare with constant value.

Compare pSrc's pixels with constant value.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pConstants pointer to a list of constants, one per color channel.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

eComparisonOperation Specifies the comparison operation to be used in the pixel comparison.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.139.2.21 NppStatus nppiCompareC_16u_AC4R (const Npp16u ∗ *pSrc*, int *nSrcStep*, const Npp16u ∗ *pConstants*, Npp8u ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, NppCmpOp *eComparisonOperation*)

4 channel 16-bit unsigned short image compare, not affecting Alpha.

Compare pSrc's pixels with constant value.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pConstants pointer to a list of constants, one per color channel.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

eComparisonOperation Specifies the comparison operation to be used in the pixel comparison.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.139.2.22 NppStatus nppiCompareC_16u_C1R (const Npp16u ∗ *pSrc*, int *nSrcStep*, const Npp16u *nConstant*, Npp8u ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, NppCmpOp *eComparisonOperation*)

1 channel 16-bit unsigned short image compare with constant value.

Compare pSrc's pixels with constant value.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

nConstant constant value

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

eComparisonOperation Specifies the comparison operation to be used in the pixel comparison.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.139.2.23 NppStatus nppiCompareC_16u_C3R (const Npp16u ∗ *pSrc*, int *nSrcStep*, const Npp16u ∗ *pConstants*, Npp8u ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, NppCmpOp *eComparisonOperation*)

3 channel 16-bit unsigned short image compare with constant value.

Compare pSrc's pixels with constant value.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pConstants pointer to a list of constants, one per color channel.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

eComparisonOperation Specifies the comparison operation to be used in the pixel comparison.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.139.2.24 NppStatus nppiCompareC_16u_C4R (const Npp16u ∗ *pSrc*, int *nSrcStep*, const Npp16u ∗ *pConstants*, Npp8u ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, NppCmpOp *eComparisonOperation*)

4 channel 16-bit unsigned short image compare with constant value.

Compare pSrc's pixels with constant value.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pConstants pointer to a list of constants, one per color channel.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

eComparisonOperation Specifies the comparison operation to be used in the pixel comparison.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.139.2.25 NppStatus nppiCompareC_32f_AC4R (const Npp32f ∗ *pSrc*, int *nSrcStep*, const Npp32f ∗ *pConstants*, Npp8u ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, NppCmpOp *eComparisonOperation*)

4 channel 32-bit signed floating point compare, not affecting Alpha.

Compare pSrc's pixels with constant value.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pConstants pointer to a list of constants, one per color channel.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

eComparisonOperation Specifies the comparison operation to be used in the pixel comparison.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.139.2.26 NppStatus nppiCompareC_32f_C1R (const Npp32f * *pSrc*, int *nSrcStep*, const Npp32f *nConstant*, Npp8u * *pDst*, int *nDstStep*, NppiSize *oSizeROI*, NppCmpOp *eComparisonOperation*)

1 channel 32-bit floating point image compare with constant value.

Compare pSrc's pixels with constant value.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

nConstant constant value

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

eComparisonOperation Specifies the comparison operation to be used in the pixel comparison.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.139.2.27 NppStatus nppiCompareC_32f_C3R (const Npp32f * *pSrc*, int *nSrcStep*, const Npp32f * *pConstants*, Npp8u * *pDst*, int *nDstStep*, NppiSize *oSizeROI*, NppCmpOp *eComparisonOperation*)

3 channel 32-bit floating point image compare with constant value.

Compare pSrc's pixels with constant value.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pConstants pointer to a list of constants, one per color channel.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

eComparisonOperation Specifies the comparison operation to be used in the pixel comparison.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.139.2.28 NppStatus nppiCompareC_32f_C4R (const Npp32f ∗ *pSrc*, int *nSrcStep*, const Npp32f ∗ *pConstants*, Npp8u ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, NppCmpOp *eComparisonOperation*)

4 channel 32-bit floating point image compare with constant value.

Compare pSrc's pixels with constant value.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pConstants pointer to a list of constants, one per color channel.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

eComparisonOperation Specifies the comparison operation to be used in the pixel comparison.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.139.2.29 NppStatus nppiCompareC_8u_AC4R (const Npp8u ∗ *pSrc*, int *nSrcStep*, const Npp8u ∗ *pConstants*, Npp8u ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, NppCmpOp *eComparisonOperation*)

4 channel 8-bit unsigned char image compare, not affecting Alpha.

Compare pSrc's pixels with constant value.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pConstants pointer to a list of constants, one per color channel.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

eComparisonOperation Specifies the comparison operation to be used in the pixel comparison.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.139.2.30 NppStatus nppiCompareC_8u_C1R (const Npp8u ∗ *pSrc*, int *nSrcStep*, const Npp8u *nConstant*, Npp8u ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, NppCmpOp *eComparisonOperation*)

1 channel 8-bit unsigned char image compare with constant value.

Compare pSrc's pixels with constant value.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

nConstant constant value.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

eComparisonOperation Specifies the comparison operation to be used in the pixel comparison.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.139.2.31 NppStatus nppiCompareC_8u_C3R (const Npp8u ∗ *pSrc*, int *nSrcStep*, const Npp8u ∗ *pConstants*, Npp8u ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, NppCmpOp *eComparisonOperation*)

3 channel 8-bit unsigned char image compare with constant value.

Compare pSrc's pixels with constant value.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pConstants pointer to a list of constant values, one per color channel..

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

eComparisonOperation Specifies the comparison operation to be used in the pixel comparison.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.139.2.32 NppStatus nppiCompareC_8u_C4R (const Npp8u ∗ *pSrc*, int *nSrcStep*, const Npp8u ∗ *pConstants*, Npp8u ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, NppCmpOp *eComparisonOperation*)

4 channel 8-bit unsigned char image compare with constant value.

Compare pSrc's pixels with constant value.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pConstants pointer to a list of constants, one per color channel.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

eComparisonOperation Specifies the comparison operation to be used in the pixel comparison.

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.139.2.33 NppStatus nppiCompareEqualEps_32f_AC4R (const Npp32f ∗ *pSrc1*, int *nSrc1Step*, const Npp32f ∗ *pSrc2*, int *nSrc2Step*, Npp8u ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, Npp32f *nEpsilon*)

4 channel 32-bit signed floating point compare whether two images are equal within epsilon, not affecting Alpha.

Compare pSrc1's pixels with corresponding pixels in pSrc2 to determine whether they are equal with a difference of epsilon.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

nEpsilon epsilon tolerance value to compare to per color channel pixel absolute differences

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.139.2.34 NppStatus nppiCompareEqualEps_32f_C1R (const Npp32f ∗ *pSrc1*, int *nSrc1Step*, const Npp32f ∗ *pSrc2*, int *nSrc2Step*, Npp8u ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, Npp32f *nEpsilon*)

1 channel 32-bit floating point image compare whether two images are equal within epsilon.

Compare pSrc1's pixels with corresponding pixels in pSrc2 to determine whether they are equal with a difference of epsilon.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

nEpsilon epsilon tolerance value to compare to pixel absolute differences

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.139.2.35 NppStatus nppiCompareEqualEps_32f_C3R (const Npp32f ∗ *pSrc1*, int *nSrc1Step*, const Npp32f ∗ *pSrc2*, int *nSrc2Step*, Npp8u ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, Npp32f *nEpsilon*)

3 channel 32-bit floating point image compare whether two images are equal within epsilon.

Compare pSrc1's pixels with corresponding pixels in pSrc2 to determine whether they are equal with a difference of epsilon.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

nEpsilon epsilon tolerance value to compare to per color channel pixel absolute differences

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.139.2.36 NppStatus nppiCompareEqualEps_32f_C4R (const Npp32f ∗ *pSrc1*, int *nSrc1Step*, const Npp32f ∗ *pSrc2*, int *nSrc2Step*, Npp8u ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, Npp32f *nEpsilon*)

4 channel 32-bit floating point image compare whether two images are equal within epsilon.

Compare pSrc1's pixels with corresponding pixels in pSrc2 to determine whether they are equal with a difference of epsilon.

Parameters:

pSrc1 Source-Image Pointer.

nSrc1Step Source-Image Line Step.

pSrc2 Source-Image Pointer.

nSrc2Step Source-Image Line Step.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

nEpsilon epsilon tolerance value to compare to per color channel pixel absolute differences

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.139.2.37 NppStatus nppiCompareEqualEpsC_32f_AC4R (const Npp32f ∗ *pSrc*, int *nSrcStep*, const Npp32f ∗ *pConstants*, Npp8u ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, Npp32f *nEpsilon*)

4 channel 32-bit signed floating point compare whether image and constant are equal within epsilon, not affecting Alpha.

Compare pSrc's pixels with constant value to determine whether they are equal within a difference of epsilon.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pConstants pointer to a list of constants, one per color channel.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

nEpsilon epsilon tolerance value to compare to per color channel pixel absolute differences

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.139.2.38 NppStatus nppiCompareEqualEpsC_32f_C1R (const Npp32f ∗ *pSrc*, int *nSrcStep*, const Npp32f *nConstant*, Npp8u ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, Npp32f *nEpsilon*)

1 channel 32-bit floating point image compare whether image and constant are equal within epsilon.

Compare pSrc's pixels with constant value to determine whether they are equal within a difference of epsilon.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

nConstant constant value

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

nEpsilon epsilon tolerance value to compare to pixel absolute differences

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.139.2.39 NppStatus nppiCompareEqualEpsC_32f_C3R (const Npp32f ∗ *pSrc*, int *nSrcStep*, const Npp32f ∗ *pConstants*, Npp8u ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, Npp32f *nEpsilon*)

3 channel 32-bit floating point image compare whether image and constant are equal within epsilon.

Compare pSrc's pixels with constant value to determine whether they are equal within a difference of epsilon.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pConstants pointer to a list of constants, one per color channel.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

nEpsilon epsilon tolerance value to compare to per color channel pixel absolute differences

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.139.2.40 NppStatus nppiCompareEqualEpsC_32f_C4R (const Npp32f ∗ *pSrc*, int *nSrcStep*, const Npp32f ∗ *pConstants*, Npp8u ∗ *pDst*, int *nDstStep*, NppiSize *oSizeROI*, Npp32f *nEpsilon*)

4 channel 32-bit floating point image compare whether image and constant are equal within epsilon.

Compare pSrc's pixels with constant value to determine whether they are equal within a difference of epsilon.

Parameters:

pSrc Source-Image Pointer.

nSrcStep Source-Image Line Step.

pConstants pointer to a list of constants, one per color channel.

pDst Destination-Image Pointer.

nDstStep Destination-Image Line Step.

oSizeROI Region-of-Interest (ROI).

nEpsilon epsilon tolerance value to compare to per color channel pixel absolute differences

Returns:

Image Data Related Error Codes, ROI Related Error Codes

7.140 NPP Signal Processing

Modules

- Arithmetic and Logical Operations
- Conversion Functions
- Filtering Functions

  Functions that provide functionality of generating output signal based on the input signal like signal integral, etc.

- Initialization
- Statistical Functions

  Functions that provide global signal statistics like: sum, mean, standard deviation, min, max, etc.

- Memory Management

7.141 Arithmetic and Logical Operations

Modules

- Arithmetic Operations
- Logical And Shift Operations

7.142 Arithmetic Operations

Modules

- AddC

  Adds a constant value to each sample of a signal.

- AddProductC

  Adds product of a constant and each sample of a source signal to the each sample of destination signal.

- MulC

  Multiplies each sample of a signal by a constant value.

- SubC

  Subtracts a constant from each sample of a signal.

- SubCRev

  Subtracts each sample of a signal from a constant.

- DivC

  Divides each sample of a signal by a constant.

- DivCRev

  Divides a constant by each sample of a signal.

- Add

  Sample by sample addition of two signals.

- AddProduct

  Adds sample by sample product of two signals to the destination signal.

- Mul

  Sample by sample multiplication the samples of two signals.

- Sub

  Sample by sample subtraction of the samples of two signals.

- Div

  Sample by sample division of the samples of two signals.

- Div_Round

  Sample by sample division of the samples of two signals with rounding.

- Abs

  Absolute value of each sample of a signal.

- Sqr

  Squares each sample of a signal.

- Sqrt

Square root of each sample of a signal.

- Cubrt

  Cube root of each sample of a signal.

- Exp

  E raised to the power of each sample of a signal.

- Ln

  Natural logarithm of each sample of a signal.

- 10Log10

  Ten times the decimal logarithm of each sample of a signal.

- SumLn

  Sums up the natural logarithm of each sample of a signal.

- Arctan

  Inverse tangent of each sample of a signal.

- Normalize

  Normalize each sample of a real or complex signal using offset and division operations.

- Cauchy, CauchyD, and CauchyDD2

  Determine Cauchy robust error function and its first and second derivatives for each sample of a signal.

7.143 AddC

Adds a constant value to each sample of a signal.

Functions

- NppStatus nppsAddC_8u_ISfs (Npp8u nValue, Npp8u ∗pSrcDst, int nLength, int nScaleFactor)

  8-bit unsigned char in place signal add constant, scale, then clamp to saturated value

- NppStatus nppsAddC_8u_Sfs (const Npp8u ∗pSrc, Npp8u nValue, Npp8u ∗pDst, int nLength, int nScaleFactor)

  8-bit unsigned charvector add constant, scale, then clamp to saturated value.

- NppStatus nppsAddC_16u_ISfs (Npp16u nValue, Npp16u ∗pSrcDst, int nLength, int nScaleFactor)

  16-bit unsigned short in place signal add constant, scale, then clamp to saturated value.

- NppStatus nppsAddC_16u_Sfs (const Npp16u ∗pSrc, Npp16u nValue, Npp16u ∗pDst, int nLength, int nScaleFactor)

  16-bit unsigned short vector add constant, scale, then clamp to saturated value.

- NppStatus nppsAddC_16s_ISfs (Npp16s nValue, Npp16s ∗pSrcDst, int nLength, int nScaleFactor)

  16-bit signed short in place signal add constant, scale, then clamp to saturated value.

- NppStatus nppsAddC_16s_Sfs (const Npp16s ∗pSrc, Npp16s nValue, Npp16s ∗pDst, int nLength, int nScaleFactor)

  16-bit signed short signal add constant, scale, then clamp to saturated value.

- NppStatus nppsAddC_16sc_ISfs (Npp16sc nValue, Npp16sc ∗pSrcDst, int nLength, int nScaleFactor)

  16-bit integer complex number (16 bit real, 16 bit imaginary)signal add constant, scale, then clamp to saturated value.

- NppStatus nppsAddC_16sc_Sfs (const Npp16sc ∗pSrc, Npp16sc nValue, Npp16sc ∗pDst, int nLength, int nScaleFactor)

  16-bit integer complex number (16 bit real, 16 bit imaginary) signal add constant, scale, then clamp to saturated value.

- NppStatus nppsAddC_32s_ISfs (Npp32s nValue, Npp32s ∗pSrcDst, int nLength, int nScaleFactor)

  32-bit signed integer in place signal add constant and scale.

- NppStatus nppsAddC_32s_Sfs (const Npp32s ∗pSrc, Npp32s nValue, Npp32s ∗pDst, int nLength, int nScaleFactor)

  32-bit signed integersignal add constant and scale.

- NppStatus nppsAddC_32sc_ISfs (Npp32sc nValue, Npp32sc ∗pSrcDst, int nLength, int nScaleFactor)

  32-bit integer complex number (32 bit real, 32 bit imaginary) in place signal add constant and scale.

- NppStatus nppsAddC_32sc_Sfs (const Npp32sc ∗pSrc, Npp32sc nValue, Npp32sc ∗pDst, int nLength, int nScaleFactor)

32-bit integer complex number (32 bit real, 32 bit imaginary) signal add constant and scale.

- NppStatus nppsAddC_32f_I (Npp32f nValue, Npp32f ∗pSrcDst, int nLength)

  32-bit floating point in place signal add constant.

- NppStatus nppsAddC_32f (const Npp32f ∗pSrc, Npp32f nValue, Npp32f ∗pDst, int nLength)

  32-bit floating point signal add constant.

- NppStatus nppsAddC_32fc_I (Npp32fc nValue, Npp32fc ∗pSrcDst, int nLength)

  32-bit floating point complex number (32 bit real, 32 bit imaginary) in place signal add constant.

- NppStatus nppsAddC_32fc (const Npp32fc ∗pSrc, Npp32fc nValue, Npp32fc ∗pDst, int nLength)

  32-bit floating point complex number (32 bit real, 32 bit imaginary) signal add constant.

- NppStatus nppsAddC_64f_I (Npp64f nValue, Npp64f ∗pSrcDst, int nLength)

  64-bit floating point, in place signal add constant.

- NppStatus nppsAddC_64f (const Npp64f ∗pSrc, Npp64f nValue, Npp64f ∗pDst, int nLength)

  64-bit floating pointsignal add constant.

- NppStatus nppsAddC_64fc_I (Npp64fc nValue, Npp64fc ∗pSrcDst, int nLength)

  64-bit floating point complex number (64 bit real, 64 bit imaginary) in place signal add constant.

- NppStatus nppsAddC_64fc (const Npp64fc ∗pSrc, Npp64fc nValue, Npp64fc ∗pDst, int nLength)

  64-bit floating point complex number (64 bit real, 64 bit imaginary) signal add constant.

7.143.1 Detailed Description

Adds a constant value to each sample of a signal.

7.143.2 Function Documentation

7.143.2.1 NppStatus nppsAddC_16s_ISfs (Npp16s *nValue*, Npp16s ∗ *pSrcDst*, int *nLength*, int *nScaleFactor*)

16-bit signed short in place signal add constant, scale, then clamp to saturated value.

Parameters:

pSrcDst In-Place Signal Pointer.

nValue Constant value to be added to each vector element

nLength Signal Length.

nScaleFactor Integer Result Scaling.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.143.2.2 NppStatus nppsAddC_16s_Sfs (const Npp16s ∗ *pSrc*, Npp16s *nValue*, Npp16s ∗ *pDst*, int *nLength*, int *nScaleFactor*)

16-bit signed short signal add constant, scale, then clamp to saturated value.

Parameters:

pSrc Source Signal Pointer.

nValue Constant value to be added to each vector element

pDst Destination Signal Pointer.

nLength Signal Length.

nScaleFactor Integer Result Scaling.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.143.2.3 NppStatus nppsAddC_16sc_ISfs (Npp16sc *nValue*, Npp16sc ∗ *pSrcDst*, int *nLength*, int *nScaleFactor*)

16-bit integer complex number (16 bit real, 16 bit imaginary)signal add constant, scale, then clamp to saturated value.

Parameters:

pSrcDst In-Place Signal Pointer.

nValue Constant value to be added to each vector element

nLength Signal Length.

nScaleFactor Integer Result Scaling.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.143.2.4 NppStatus nppsAddC_16sc_Sfs (const Npp16sc ∗ *pSrc*, Npp16sc *nValue*, Npp16sc ∗ *pDst*, int *nLength*, int *nScaleFactor*)

16-bit integer complex number (16 bit real, 16 bit imaginary) signal add constant, scale, then clamp to saturated value.

Parameters:

pSrc Source Signal Pointer.

nValue Constant value to be added to each vector element

pDst Destination Signal Pointer.

nLength Signal Length.

nScaleFactor Integer Result Scaling.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.143.2.5 NppStatus nppsAddC_16u_ISfs (Npp16u *nValue*, Npp16u * *pSrcDst*, int *nLength*, int *nScaleFactor*)

16-bit unsigned short in place signal add constant, scale, then clamp to saturated value.

Parameters:

pSrcDst In-Place Signal Pointer.

nValue Constant value to be added to each vector element

nLength Signal Length.

nScaleFactor Integer Result Scaling.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.143.2.6 NppStatus nppsAddC_16u_Sfs (const Npp16u * *pSrc*, Npp16u *nValue*, Npp16u * *pDst*, int *nLength*, int *nScaleFactor*)

16-bit unsigned short vector add constant, scale, then clamp to saturated value.

Parameters:

pSrc Source Signal Pointer.

nValue Constant value to be added to each vector element

pDst Destination Signal Pointer.

nLength Signal Length.

nScaleFactor Integer Result Scaling.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.143.2.7 NppStatus nppsAddC_32f (const Npp32f * *pSrc*, Npp32f *nValue*, Npp32f * *pDst*, int *nLength*)

32-bit floating point signal add constant.

Parameters:

pSrc Source Signal Pointer.

nValue Constant value to be added to each vector element

pDst Destination Signal Pointer.

nLength Signal Length.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.143.2.8 NppStatus nppsAddC_32f_I (Npp32f *nValue*, Npp32f ∗ *pSrcDst*, int *nLength*)

32-bit floating point in place signal add constant.

Parameters:

pSrcDst In-Place Signal Pointer.

nValue Constant value to be added to each vector element

nLength Signal Length.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.143.2.9 NppStatus nppsAddC_32fc (const Npp32fc ∗ *pSrc*, Npp32fc *nValue*, Npp32fc ∗ *pDst*, int *nLength*)

32-bit floating point complex number (32 bit real, 32 bit imaginary) signal add constant.

Parameters:

pSrc Source Signal Pointer.

nValue Constant value to be added to each vector element

pDst Destination Signal Pointer.

nLength Signal Length.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.143.2.10 NppStatus nppsAddC_32fc_I (Npp32fc *nValue*, Npp32fc ∗ *pSrcDst*, int *nLength*)

32-bit floating point complex number (32 bit real, 32 bit imaginary) in place signal add constant.

Parameters:

pSrcDst In-Place Signal Pointer.

nValue Constant value to be added to each vector element

nLength Signal Length.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.143.2.11 NppStatus nppsAddC_32s_ISfs (Npp32s *nValue*, Npp32s ∗ *pSrcDst*, int *nLength*, int *nScaleFactor*)

32-bit signed integer in place signal add constant and scale.

Parameters:

pSrcDst In-Place Signal Pointer.

nValue Constant value to be added to each vector element

nLength Signal Length.

nScaleFactor Integer Result Scaling.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.143.2.12 NppStatus nppsAddC_32s_Sfs (const Npp32s ∗ *pSrc*, Npp32s *nValue*, Npp32s ∗ *pDst*, int *nLength*, int *nScaleFactor*)

32-bit signed integersignal add constant and scale.

Parameters:

pSrc Source Signal Pointer.

nValue Constant value to be added to each vector element

pDst Destination Signal Pointer.

nLength Signal Length.

nScaleFactor Integer Result Scaling.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.143.2.13 NppStatus nppsAddC_32sc_ISfs (Npp32sc *nValue*, Npp32sc ∗ *pSrcDst*, int *nLength*, int *nScaleFactor*)

32-bit integer complex number (32 bit real, 32 bit imaginary) in place signal add constant and scale.

Parameters:

pSrcDst In-Place Signal Pointer.

nValue Constant value to be added to each vector element

nLength Signal Length.

nScaleFactor Integer Result Scaling.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.143.2.14 NppStatus nppsAddC_32sc_Sfs (const Npp32sc * *pSrc*, Npp32sc *nValue*, Npp32sc * *pDst*, int *nLength*, int *nScaleFactor*)

32-bit integer complex number (32 bit real, 32 bit imaginary) signal add constant and scale.

Parameters:

pSrc Source Signal Pointer.

nValue Constant value to be added to each vector element

pDst Destination Signal Pointer.

nLength Signal Length.

nScaleFactor Integer Result Scaling.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.143.2.15 NppStatus nppsAddC_64f (const Npp64f * *pSrc*, Npp64f *nValue*, Npp64f * *pDst*, int *nLength*)

64-bit floating pointsignal add constant.

Parameters:

pSrc Source Signal Pointer.

nValue Constant value to be added to each vector element

pDst Destination Signal Pointer.

nLength Signal Length.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.143.2.16 NppStatus nppsAddC_64f_I (Npp64f *nValue*, Npp64f * *pSrcDst*, int *nLength*)

64-bit floating point, in place signal add constant.

Parameters:

pSrcDst In-Place Signal Pointer.

nValue Constant value to be added to each vector element

nLength Length of the vectors, number of items.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.143.2.17 NppStatus nppsAddC_64fc (const Npp64fc * *pSrc*, Npp64fc *nValue*, Npp64fc * *pDst*, int *nLength*)

64-bit floating point complex number (64 bit real, 64 bit imaginary) signal add constant.

Parameters:

pSrc Source Signal Pointer.

nValue Constant value to be added to each vector element

pDst Destination Signal Pointer.

nLength Signal Length.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.143.2.18 NppStatus nppsAddC_64fc_I (Npp64fc *nValue*, Npp64fc * *pSrcDst*, int *nLength*)

64-bit floating point complex number (64 bit real, 64 bit imaginary) in place signal add constant.

Parameters:

pSrcDst In-Place Signal Pointer.

nValue Constant value to be added to each vector element

nLength Signal Length.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.143.2.19 NppStatus nppsAddC_8u_ISfs (Npp8u *nValue*, Npp8u * *pSrcDst*, int *nLength*, int *nScaleFactor*)

8-bit unsigned char in place signal add constant, scale, then clamp to saturated value

Parameters:

pSrcDst In-Place Signal Pointer.

nValue Constant value to be added to each vector element

nLength Signal Length.

nScaleFactor Integer Result Scaling.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.143.2.20 NppStatus nppsAddC_8u_Sfs (const Npp8u ∗ *pSrc*, Npp8u *nValue*, Npp8u ∗ *pDst*, int *nLength*, int *nScaleFactor*)

8-bit unsigned charvector add constant, scale, then clamp to saturated value.

Parameters:

pSrc Source Signal Pointer.

nValue Constant value to be added to each vector element

pDst Destination Signal Pointer.

nLength Signal Length.

nScaleFactor Integer Result Scaling.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.144 AddProductC

Adds product of a constant and each sample of a source signal to the each sample of destination signal.

Functions

- NppStatus nppsAddProductC_32f (const Npp32f ∗pSrc, Npp32f nValue, Npp32f ∗pDst, int nLength)

  32-bit floating point signal add product of signal times constant to destination signal.

7.144.1 Detailed Description

Adds product of a constant and each sample of a source signal to the each sample of destination signal.

7.144.2 Function Documentation

7.144.2.1 NppStatus nppsAddProductC_32f (const Npp32f ∗ *pSrc*, Npp32f *nValue*, Npp32f ∗ *pDst*, int *nLength*)

32-bit floating point signal add product of signal times constant to destination signal.

Parameters:

pSrc Source Signal Pointer.

nValue Constant value to be multiplied by each vector element

pDst Destination Signal Pointer.

nLength Signal Length.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.145 MulC

Multiplies each sample of a signal by a constant value.

Functions

- NppStatus nppsMulC_8u_ISfs (Npp8u nValue, Npp8u ∗pSrcDst, int nLength, int nScaleFactor)

  8-bit unsigned char in place signal times constant, scale, then clamp to saturated value

- NppStatus nppsMulC_8u_Sfs (const Npp8u ∗pSrc, Npp8u nValue, Npp8u ∗pDst, int nLength, int nScaleFactor)

  8-bit unsigned char signal times constant, scale, then clamp to saturated value.

- NppStatus nppsMulC_16u_ISfs (Npp16u nValue, Npp16u ∗pSrcDst, int nLength, int nScaleFactor)

  16-bit unsigned short in place signal times constant, scale, then clamp to saturated value.

- NppStatus nppsMulC_16u_Sfs (const Npp16u ∗pSrc, Npp16u nValue, Npp16u ∗pDst, int nLength, int nScaleFactor)

  16-bit unsigned short signal times constant, scale, then clamp to saturated value.

- NppStatus nppsMulC_16s_ISfs (Npp16s nValue, Npp16s ∗pSrcDst, int nLength, int nScaleFactor)

  16-bit signed short in place signal times constant, scale, then clamp to saturated value.

- NppStatus nppsMulC_16s_Sfs (const Npp16s ∗pSrc, Npp16s nValue, Npp16s ∗pDst, int nLength, int nScaleFactor)

  16-bit signed short signal times constant, scale, then clamp to saturated value.

- NppStatus nppsMulC_16sc_ISfs (Npp16sc nValue, Npp16sc ∗pSrcDst, int nLength, int nScaleFactor)

  16-bit integer complex number (16 bit real, 16 bit imaginary)signal times constant, scale, then clamp to saturated value.

- NppStatus nppsMulC_16sc_Sfs (const Npp16sc ∗pSrc, Npp16sc nValue, Npp16sc ∗pDst, int nLength, int nScaleFactor)

  16-bit integer complex number (16 bit real, 16 bit imaginary)signal times constant, scale, then clamp to saturated value.

- NppStatus nppsMulC_32s_ISfs (Npp32s nValue, Npp32s ∗pSrcDst, int nLength, int nScaleFactor)

  32-bit signed integer in place signal times constant and scale.

- NppStatus nppsMulC_32s_Sfs (const Npp32s ∗pSrc, Npp32s nValue, Npp32s ∗pDst, int nLength, int nScaleFactor)

  32-bit signed integer signal times constant and scale.

- NppStatus nppsMulC_32sc_ISfs (Npp32sc nValue, Npp32sc ∗pSrcDst, int nLength, int nScaleFactor)

  32-bit integer complex number (32 bit real, 32 bit imaginary) in place signal times constant and scale.

- NppStatus nppsMulC_32sc_Sfs (const Npp32sc ∗pSrc, Npp32sc nValue, Npp32sc ∗pDst, int nLength, int nScaleFactor)

32-bit integer complex number (32 bit real, 32 bit imaginary) signal times constant and scale.

- NppStatus nppsMulC_32f_I (Npp32f nValue, Npp32f ∗pSrcDst, int nLength)

  32-bit floating point in place signal times constant.

- NppStatus nppsMulC_32f (const Npp32f ∗pSrc, Npp32f nValue, Npp32f ∗pDst, int nLength)

  32-bit floating point signal times constant.

- NppStatus nppsMulC_Low_32f16s (const Npp32f ∗pSrc, Npp32f nValue, Npp16s ∗pDst, int nLength)

  32-bit floating point signal times constant with output converted to 16-bit signed integer.

- NppStatus nppsMulC_32f16s_Sfs (const Npp32f ∗pSrc, Npp32f nValue, Npp16s ∗pDst, int nLength, int nScaleFactor)

  32-bit floating point signal times constant with output converted to 16-bit signed integer with scaling and saturation of output result.

- NppStatus nppsMulC_32fc_I (Npp32fc nValue, Npp32fc ∗pSrcDst, int nLength)

  32-bit floating point complex number (32 bit real, 32 bit imaginary) in place signal times constant.

- NppStatus nppsMulC_32fc (const Npp32fc ∗pSrc, Npp32fc nValue, Npp32fc ∗pDst, int nLength)

  32-bit floating point complex number (32 bit real, 32 bit imaginary) signal times constant.

- NppStatus nppsMulC_64f_I (Npp64f nValue, Npp64f ∗pSrcDst, int nLength)

  64-bit floating point, in place signal times constant.

- NppStatus nppsMulC_64f (const Npp64f ∗pSrc, Npp64f nValue, Npp64f ∗pDst, int nLength)

  64-bit floating point signal times constant.

- NppStatus nppsMulC_64f64s_ISfs (Npp64f nValue, Npp64s ∗pDst, int nLength, int nScaleFactor)

  64-bit floating point signal times constant with in place conversion to 64-bit signed integer and with scaling and saturation of output result.

- NppStatus nppsMulC_64fc_I (Npp64fc nValue, Npp64fc ∗pSrcDst, int nLength)

  64-bit floating point complex number (64 bit real, 64 bit imaginary) in place signal times constant.

- NppStatus nppsMulC_64fc (const Npp64fc ∗pSrc, Npp64fc nValue, Npp64fc ∗pDst, int nLength)

  64-bit floating point complex number (64 bit real, 64 bit imaginary) signal times constant.

7.145.1 Detailed Description

Multiplies each sample of a signal by a constant value.

7.145.2 Function Documentation

7.145.2.1 NppStatus nppsMulC_16s_ISfs (Npp16s *nValue*, Npp16s ∗ *pSrcDst*, int *nLength*, int *nScaleFactor*)

16-bit signed short in place signal times constant, scale, then clamp to saturated value.

Parameters:

pSrcDst In-Place Signal Pointer.

nValue Constant value to be multiplied by each vector element

nLength Signal Length.

nScaleFactor Integer Result Scaling.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.145.2.2 NppStatus nppsMulC_16s_Sfs (const Npp16s * *pSrc*, Npp16s *nValue*, Npp16s * *pDst*, int *nLength*, int *nScaleFactor*)

16-bit signed short signal times constant, scale, then clamp to saturated value.

Parameters:

pSrc Source Signal Pointer.

nValue Constant value to be multiplied by each vector element

pDst Destination Signal Pointer.

nLength Signal Length.

nScaleFactor Integer Result Scaling.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.145.2.3 NppStatus nppsMulC_16sc_ISfs (Npp16sc *nValue*, Npp16sc * *pSrcDst*, int *nLength*, int *nScaleFactor*)

16-bit integer complex number (16 bit real, 16 bit imaginary)signal times constant, scale, then clamp to saturated value.

Parameters:

pSrcDst In-Place Signal Pointer.

nValue Constant value to be multiplied by each vector element

nLength Signal Length.

nScaleFactor Integer Result Scaling.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.145.2.4 NppStatus nppsMulC_16sc_Sfs (const Npp16sc ∗ *pSrc*, Npp16sc *nValue*, Npp16sc ∗ *pDst*, int *nLength*, int *nScaleFactor*)

16-bit integer complex number (16 bit real, 16 bit imaginary)signal times constant, scale, then clamp to saturated value.

Parameters:

pSrc Source Signal Pointer.

nValue Constant value to be multiplied by each vector element

pDst Destination Signal Pointer.

nLength Signal Length.

nScaleFactor Integer Result Scaling.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.145.2.5 NppStatus nppsMulC_16u_ISfs (Npp16u *nValue*, Npp16u ∗ *pSrcDst*, int *nLength*, int *nScaleFactor*)

16-bit unsigned short in place signal times constant, scale, then clamp to saturated value.

Parameters:

pSrcDst In-Place Signal Pointer.

nValue Constant value to be multiplied by each vector element

nLength Signal Length.

nScaleFactor Integer Result Scaling.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.145.2.6 NppStatus nppsMulC_16u_Sfs (const Npp16u ∗ *pSrc*, Npp16u *nValue*, Npp16u ∗ *pDst*, int *nLength*, int *nScaleFactor*)

16-bit unsigned short signal times constant, scale, then clamp to saturated value.

Parameters:

pSrc Source Signal Pointer.

nValue Constant value to be multiplied by each vector element

pDst Destination Signal Pointer.

nLength Signal Length.

nScaleFactor Integer Result Scaling.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.145.2.7 NppStatus nppsMulC_32f (const Npp32f ∗ *pSrc*, Npp32f *nValue*, Npp32f ∗ *pDst*, int *nLength*)

32-bit floating point signal times constant.

Parameters:

pSrc Source Signal Pointer.

nValue Constant value to be multiplied by each vector element

pDst Destination Signal Pointer.

nLength Signal Length.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.145.2.8 NppStatus nppsMulC_32f16s_Sfs (const Npp32f ∗ *pSrc*, Npp32f *nValue*, Npp16s ∗ *pDst*, int *nLength*, int *nScaleFactor*)

32-bit floating point signal times constant with output converted to 16-bit signed integer with scaling and saturation of output result.

Parameters:

pSrc Source Signal Pointer.

nValue Constant value to be multiplied by each vector element

pDst Destination Signal Pointer.

nScaleFactor Integer Result Scaling.

nLength Signal Length.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.145.2.9 NppStatus nppsMulC_32f_I (Npp32f *nValue*, Npp32f ∗ *pSrcDst*, int *nLength*)

32-bit floating point in place signal times constant.

Parameters:

pSrcDst In-Place Signal Pointer.

nValue Constant value to be multiplied by each vector element

nLength Signal Length.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.145.2.10 NppStatus nppsMulC_32fc (const Npp32fc ∗ *pSrc*, Npp32fc *nValue*, Npp32fc ∗ *pDst*, int *nLength*)

32-bit floating point complex number (32 bit real, 32 bit imaginary) signal times constant.

Parameters:

pSrc Source Signal Pointer.

nValue Constant value to be multiplied by each vector element

pDst Destination Signal Pointer.

nLength Signal Length.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.145.2.11 NppStatus nppsMulC_32fc_I (Npp32fc *nValue*, Npp32fc ∗ *pSrcDst*, int *nLength*)

32-bit floating point complex number (32 bit real, 32 bit imaginary) in place signal times constant.

Parameters:

pSrcDst In-Place Signal Pointer.

nValue Constant value to be multiplied by each vector element

nLength Signal Length.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.145.2.12 NppStatus nppsMulC_32s_ISfs (Npp32s *nValue*, Npp32s ∗ *pSrcDst*, int *nLength*, int *nScaleFactor*)

32-bit signed integer in place signal times constant and scale.

Parameters:

pSrcDst In-Place Signal Pointer.

nValue Constant value to be multiplied by each vector element

nLength Signal Length.

nScaleFactor Integer Result Scaling.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.145.2.13 NppStatus nppsMulC_32s_Sfs (const Npp32s ∗ *pSrc*, Npp32s *nValue*, Npp32s ∗ *pDst*, int *nLength*, int *nScaleFactor*)

32-bit signed integer signal times constant and scale.

Parameters:

pSrc Source Signal Pointer.

nValue Constant value to be multiplied by each vector element

pDst Destination Signal Pointer.

nLength Signal Length.

nScaleFactor Integer Result Scaling.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.145.2.14 NppStatus nppsMulC_32sc_ISfs (Npp32sc *nValue*, Npp32sc ∗ *pSrcDst*, int *nLength*, int *nScaleFactor*)

32-bit integer complex number (32 bit real, 32 bit imaginary) in place signal times constant and scale.

Parameters:

pSrcDst In-Place Signal Pointer.

nValue Constant value to be multiplied by each vector element

nLength Signal Length.

nScaleFactor Integer Result Scaling.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.145.2.15 NppStatus nppsMulC_32sc_Sfs (const Npp32sc ∗ *pSrc*, Npp32sc *nValue*, Npp32sc ∗ *pDst*, int *nLength*, int *nScaleFactor*)

32-bit integer complex number (32 bit real, 32 bit imaginary) signal times constant and scale.

Parameters:

pSrc Source Signal Pointer.

nValue Constant value to be multiplied by each vector element

pDst Destination Signal Pointer.

nLength Signal Length.

nScaleFactor Integer Result Scaling.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.145.2.16 NppStatus nppsMulC_64f (const Npp64f * *pSrc*, Npp64f *nValue*, Npp64f * *pDst*, int *nLength*)

64-bit floating point signal times constant.

Parameters:

pSrc Source Signal Pointer.

nValue Constant value to be multiplied by each vector element

pDst Destination Signal Pointer.

nLength Signal Length.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.145.2.17 NppStatus nppsMulC_64f64s_ISfs (Npp64f *nValue*, Npp64s * *pDst*, int *nLength*, int *nScaleFactor*)

64-bit floating point signal times constant with in place conversion to 64-bit signed integer and with scaling and saturation of output result.

Parameters:

nValue Constant value to be multiplied by each vector element

pDst Destination Signal Pointer.

nLength Signal Length.

nScaleFactor Integer Result Scaling.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.145.2.18 NppStatus nppsMulC_64f_I (Npp64f *nValue*, Npp64f * *pSrcDst*, int *nLength*)

64-bit floating point, in place signal times constant.

Parameters:

pSrcDst In-Place Signal Pointer.

nValue Constant value to be multiplied by each vector element

nLength Length of the vectors, number of items.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.145.2.19 NppStatus nppsMulC_64fc (const Npp64fc * *pSrc*, Npp64fc *nValue*, Npp64fc * *pDst*, int *nLength*)

64-bit floating point complex number (64 bit real, 64 bit imaginary) signal times constant.

Parameters:

pSrc Source Signal Pointer.

nValue Constant value to be multiplied by each vector element

pDst Destination Signal Pointer.

nLength Signal Length.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.145.2.20 NppStatus nppsMulC_64fc_I (Npp64fc *nValue*, Npp64fc * *pSrcDst*, int *nLength*)

64-bit floating point complex number (64 bit real, 64 bit imaginary) in place signal times constant.

Parameters:

pSrcDst In-Place Signal Pointer.

nValue Constant value to be multiplied by each vector element

nLength Signal Length.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.145.2.21 NppStatus nppsMulC_8u_ISfs (Npp8u *nValue*, Npp8u * *pSrcDst*, int *nLength*, int *nScaleFactor*)

8-bit unsigned char in place signal times constant, scale, then clamp to saturated value

Parameters:

pSrcDst In-Place Signal Pointer.

nValue Constant value to be multiplied by each vector element

nLength Signal Length.

nScaleFactor Integer Result Scaling.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.145.2.22 NppStatus nppsMulC_8u_Sfs (const Npp8u * *pSrc*, Npp8u *nValue*, Npp8u * *pDst*, int *nLength*, int *nScaleFactor*)

8-bit unsigned char signal times constant, scale, then clamp to saturated value.

Parameters:

pSrc Source Signal Pointer.

nValue Constant value to be multiplied by each vector element

pDst Destination Signal Pointer.

nLength Signal Length.

nScaleFactor Integer Result Scaling.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.145.2.23 NppStatus nppsMulC_Low_32f16s (const Npp32f * *pSrc*, Npp32f *nValue*, Npp16s * *pDst*, int *nLength*)

32-bit floating point signal times constant with output converted to 16-bit signed integer.

Parameters:

pSrc Source Signal Pointer.

nValue Constant value to be multiplied by each vector element

pDst Destination Signal Pointer.

nLength Signal Length.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.146 SubC

Subtracts a constant from each sample of a signal.

Functions

- NppStatus nppsSubC_8u_ISfs (Npp8u nValue, Npp8u ∗pSrcDst, int nLength, int nScaleFactor)

  8-bit unsigned char in place signal subtract constant, scale, then clamp to saturated value

- NppStatus nppsSubC_8u_Sfs (const Npp8u ∗pSrc, Npp8u nValue, Npp8u ∗pDst, int nLength, int nScaleFactor)

  8-bit unsigned char signal subtract constant, scale, then clamp to saturated value.

- NppStatus nppsSubC_16u_ISfs (Npp16u nValue, Npp16u ∗pSrcDst, int nLength, int nScaleFactor)

  16-bit unsigned short in place signal subtract constant, scale, then clamp to saturated value.

- NppStatus nppsSubC_16u_Sfs (const Npp16u ∗pSrc, Npp16u nValue, Npp16u ∗pDst, int nLength, int nScaleFactor)

  16-bit unsigned short signal subtract constant, scale, then clamp to saturated value.

- NppStatus nppsSubC_16s_ISfs (Npp16s nValue, Npp16s ∗pSrcDst, int nLength, int nScaleFactor)

  16-bit signed short in place signal subtract constant, scale, then clamp to saturated value.

- NppStatus nppsSubC_16s_Sfs (const Npp16s ∗pSrc, Npp16s nValue, Npp16s ∗pDst, int nLength, int nScaleFactor)

  16-bit signed short signal subtract constant, scale, then clamp to saturated value.

- NppStatus nppsSubC_16sc_ISfs (Npp16sc nValue, Npp16sc ∗pSrcDst, int nLength, int nScaleFactor)

  16-bit integer complex number (16 bit real, 16 bit imaginary) signal subtract constant, scale, then clamp to saturated value.

- NppStatus nppsSubC_16sc_Sfs (const Npp16sc ∗pSrc, Npp16sc nValue, Npp16sc ∗pDst, int nLength, int nScaleFactor)

  16-bit integer complex number (16 bit real, 16 bit imaginary) signal subtract constant, scale, then clamp to saturated value.

- NppStatus nppsSubC_32s_ISfs (Npp32s nValue, Npp32s ∗pSrcDst, int nLength, int nScaleFactor)

  32-bit signed integer in place signal subtract constant and scale.

- NppStatus nppsSubC_32s_Sfs (const Npp32s ∗pSrc, Npp32s nValue, Npp32s ∗pDst, int nLength, int nScaleFactor)

  32-bit signed integer signal subtract constant and scale.

- NppStatus nppsSubC_32sc_ISfs (Npp32sc nValue, Npp32sc ∗pSrcDst, int nLength, int nScaleFactor)

  32-bit integer complex number (32 bit real, 32 bit imaginary) in place signal subtract constant and scale.

- NppStatus nppsSubC_32sc_Sfs (const Npp32sc ∗pSrc, Npp32sc nValue, Npp32sc ∗pDst, int nLength, int nScaleFactor)

32-bit integer complex number (32 bit real, 32 bit imaginary)signal subtract constant and scale.

- NppStatus nppsSubC_32f_I (Npp32f nValue, Npp32f ∗pSrcDst, int nLength)

  32-bit floating point in place signal subtract constant.

- NppStatus nppsSubC_32f (const Npp32f ∗pSrc, Npp32f nValue, Npp32f ∗pDst, int nLength)

  32-bit floating point signal subtract constant.

- NppStatus nppsSubC_32fc_I (Npp32fc nValue, Npp32fc ∗pSrcDst, int nLength)

  32-bit floating point complex number (32 bit real, 32 bit imaginary) in place signal subtract constant.

- NppStatus nppsSubC_32fc (const Npp32fc ∗pSrc, Npp32fc nValue, Npp32fc ∗pDst, int nLength)

  32-bit floating point complex number (32 bit real, 32 bit imaginary) signal subtract constant.

- NppStatus nppsSubC_64f_I (Npp64f nValue, Npp64f ∗pSrcDst, int nLength)

  64-bit floating point, in place signal subtract constant.

- NppStatus nppsSubC_64f (const Npp64f ∗pSrc, Npp64f nValue, Npp64f ∗pDst, int nLength)

  64-bit floating point signal subtract constant.

- NppStatus nppsSubC_64fc_I (Npp64fc nValue, Npp64fc ∗pSrcDst, int nLength)

  64-bit floating point complex number (64 bit real, 64 bit imaginary) in place signal subtract constant.

- NppStatus nppsSubC_64fc (const Npp64fc ∗pSrc, Npp64fc nValue, Npp64fc ∗pDst, int nLength)

  64-bit floating point complex number (64 bit real, 64 bit imaginary) signal subtract constant.

7.146.1 Detailed Description

Subtracts a constant from each sample of a signal.

7.146.2 Function Documentation

7.146.2.1 NppStatus nppsSubC_16s_ISfs (Npp16s *nValue*, Npp16s ∗ *pSrcDst*, int *nLength*, int *nScaleFactor*)

16-bit signed short in place signal subtract constant, scale, then clamp to saturated value.

Parameters:

pSrcDst In-Place Signal Pointer.

nValue Constant value to be subtracted from each vector element

nLength Signal Length.

nScaleFactor Integer Result Scaling.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.146.2.2 NppStatus nppsSubC_16s_Sfs (const Npp16s * *pSrc*, Npp16s *nValue*, Npp16s * *pDst*, int *nLength*, int *nScaleFactor*)

16-bit signed short signal subtract constant, scale, then clamp to saturated value.

Parameters:

pSrc Source Signal Pointer.

nValue Constant value to be subtracted from each vector element

pDst Destination Signal Pointer.

nLength Signal Length.

nScaleFactor Integer Result Scaling.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.146.2.3 NppStatus nppsSubC_16sc_ISfs (Npp16sc *nValue*, Npp16sc * *pSrcDst*, int *nLength*, int *nScaleFactor*)

16-bit integer complex number (16 bit real, 16 bit imaginary) signal subtract constant, scale, then clamp to saturated value.

Parameters:

pSrcDst In-Place Signal Pointer.

nValue Constant value to be subtracted from each vector element

nLength Signal Length.

nScaleFactor Integer Result Scaling.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.146.2.4 NppStatus nppsSubC_16sc_Sfs (const Npp16sc * *pSrc*, Npp16sc *nValue*, Npp16sc * *pDst*, int *nLength*, int *nScaleFactor*)

16-bit integer complex number (16 bit real, 16 bit imaginary) signal subtract constant, scale, then clamp to saturated value.

Parameters:

pSrc Source Signal Pointer.

nValue Constant value to be subtracted from each vector element

pDst Destination Signal Pointer.

nLength Signal Length.

nScaleFactor Integer Result Scaling.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.146.2.5 NppStatus nppsSubC_16u_ISfs (Npp16u *nValue*, Npp16u ∗ *pSrcDst*, int *nLength*, int *nScaleFactor*)

16-bit unsigned short in place signal subtract constant, scale, then clamp to saturated value.

Parameters:

pSrcDst In-Place Signal Pointer.

nValue Constant value to be subtracted from each vector element

nLength Signal Length.

nScaleFactor Integer Result Scaling.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.146.2.6 NppStatus nppsSubC_16u_Sfs (const Npp16u ∗ *pSrc*, Npp16u *nValue*, Npp16u ∗ *pDst*, int *nLength*, int *nScaleFactor*)

16-bit unsigned short signal subtract constant, scale, then clamp to saturated value.

Parameters:

pSrc Source Signal Pointer.

nValue Constant value to be subtracted from each vector element

pDst Destination Signal Pointer.

nLength Signal Length.

nScaleFactor Integer Result Scaling.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.146.2.7 NppStatus nppsSubC_32f (const Npp32f ∗ *pSrc*, Npp32f *nValue*, Npp32f ∗ *pDst*, int *nLength*)

32-bit floating point signal subtract constant.

Parameters:

pSrc Source Signal Pointer.

nValue Constant value to be subtracted from each vector element

pDst Destination Signal Pointer.

nLength Signal Length.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.146.2.8 NppStatus nppsSubC_32f_I (Npp32f *nValue*, Npp32f * *pSrcDst*, int *nLength*)

32-bit floating point in place signal subtract constant.

Parameters:

pSrcDst In-Place Signal Pointer.

nValue Constant value to be subtracted from each vector element

nLength Signal Length.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.146.2.9 NppStatus nppsSubC_32fc (const Npp32fc * *pSrc*, Npp32fc *nValue*, Npp32fc * *pDst*, int *nLength*)

32-bit floating point complex number (32 bit real, 32 bit imaginary) signal subtract constant.

Parameters:

pSrc Source Signal Pointer.

nValue Constant value to be subtracted from each vector element

pDst Destination Signal Pointer.

nLength Signal Length.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.146.2.10 NppStatus nppsSubC_32fc_I (Npp32fc *nValue*, Npp32fc * *pSrcDst*, int *nLength*)

32-bit floating point complex number (32 bit real, 32 bit imaginary) in place signal subtract constant.

Parameters:

pSrcDst In-Place Signal Pointer.

nValue Constant value to be subtracted from each vector element

nLength Signal Length.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.146.2.11 NppStatus nppsSubC_32s_ISfs (Npp32s *nValue*, Npp32s * *pSrcDst*, int *nLength*, int *nScaleFactor*)

32-bit signed integer in place signal subtract constant and scale.

Parameters:

pSrcDst In-Place Signal Pointer.

nValue Constant value to be subtracted from each vector element

nLength Signal Length.

nScaleFactor Integer Result Scaling.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.146.2.12 NppStatus nppsSubC_32s_Sfs (const Npp32s ∗ *pSrc*, Npp32s *nValue*, Npp32s ∗ *pDst*, int *nLength*, int *nScaleFactor*)

32-bit signed integer signal subtract constant and scale.

Parameters:

pSrc Source Signal Pointer.

nValue Constant value to be subtracted from each vector element

pDst Destination Signal Pointer.

nLength Signal Length.

nScaleFactor Integer Result Scaling.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.146.2.13 NppStatus nppsSubC_32sc_ISfs (Npp32sc *nValue*, Npp32sc ∗ *pSrcDst*, int *nLength*, int *nScaleFactor*)

32-bit integer complex number (32 bit real, 32 bit imaginary) in place signal subtract constant and scale.

Parameters:

pSrcDst In-Place Signal Pointer.

nValue Constant value to be subtracted from each vector element

nLength Signal Length.

nScaleFactor Integer Result Scaling.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.146.2.14 NppStatus nppsSubC_32sc_Sfs (const Npp32sc ∗ *pSrc*, Npp32sc *nValue*, Npp32sc ∗ *pDst*, int *nLength*, int *nScaleFactor*)

32-bit integer complex number (32 bit real, 32 bit imaginary)signal subtract constant and scale.

Parameters:

pSrc Source Signal Pointer.

nValue Constant value to be subtracted from each vector element

pDst Destination Signal Pointer.

nLength Signal Length.

nScaleFactor Integer Result Scaling.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.146.2.15 NppStatus nppsSubC_64f (const Npp64f ∗ *pSrc*, Npp64f *nValue*, Npp64f ∗ *pDst*, int *nLength*)

64-bit floating point signal subtract constant.

Parameters:

pSrc Source Signal Pointer.

nValue Constant value to be subtracted from each vector element

pDst Destination Signal Pointer.

nLength Signal Length.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.146.2.16 NppStatus nppsSubC_64f_I (Npp64f *nValue*, Npp64f ∗ *pSrcDst*, int *nLength*)

64-bit floating point, in place signal subtract constant.

Parameters:

pSrcDst In-Place Signal Pointer.

nValue Constant value to be subtracted from each vector element

nLength Length of the vectors, number of items.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.146.2.17 NppStatus nppsSubC_64fc (const Npp64fc * *pSrc*, Npp64fc *nValue*, Npp64fc * *pDst*, int *nLength*)

64-bit floating point complex number (64 bit real, 64 bit imaginary) signal subtract constant.

Parameters:

pSrc Source Signal Pointer.

nValue Constant value to be subtracted from each vector element

pDst Destination Signal Pointer.

nLength Signal Length.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.146.2.18 NppStatus nppsSubC_64fc_I (Npp64fc *nValue*, Npp64fc * *pSrcDst*, int *nLength*)

64-bit floating point complex number (64 bit real, 64 bit imaginary) in place signal subtract constant.

Parameters:

pSrcDst In-Place Signal Pointer.

nValue Constant value to be subtracted from each vector element

nLength Signal Length.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.146.2.19 NppStatus nppsSubC_8u_ISfs (Npp8u *nValue*, Npp8u * *pSrcDst*, int *nLength*, int *nScaleFactor*)

8-bit unsigned char in place signal subtract constant, scale, then clamp to saturated value

Parameters:

pSrcDst In-Place Signal Pointer.

nValue Constant value to be subtracted from each vector element

nLength Signal Length.

nScaleFactor Integer Result Scaling.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.146.2.20 NppStatus nppsSubC_8u_Sfs (const Npp8u * *pSrc*, Npp8u *nValue*, Npp8u * *pDst*, int *nLength*, int *nScaleFactor*)

8-bit unsigned char signal subtract constant, scale, then clamp to saturated value.

Parameters:

pSrc Source Signal Pointer.

nValue Constant value to be subtracted from each vector element

pDst Destination Signal Pointer.

nLength Signal Length.

nScaleFactor Integer Result Scaling.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.147 SubCRev

Subtracts each sample of a signal from a constant.

Functions

- NppStatus nppsSubCRev_8u_ISfs (Npp8u nValue, Npp8u ∗pSrcDst, int nLength, int nScaleFactor)

  8-bit unsigned char in place signal subtract from constant, scale, then clamp to saturated value

- NppStatus nppsSubCRev_8u_Sfs (const Npp8u ∗pSrc, Npp8u nValue, Npp8u ∗pDst, int nLength, int nScaleFactor)

  8-bit unsigned char signal subtract from constant, scale, then clamp to saturated value.

- NppStatus nppsSubCRev_16u_ISfs (Npp16u nValue, Npp16u ∗pSrcDst, int nLength, int nScaleFactor)

  16-bit unsigned short in place signal subtract from constant, scale, then clamp to saturated value.

- NppStatus nppsSubCRev_16u_Sfs (const Npp16u ∗pSrc, Npp16u nValue, Npp16u ∗pDst, int nLength, int nScaleFactor)

  16-bit unsigned short signal subtract from constant, scale, then clamp to saturated value.

- NppStatus nppsSubCRev_16s_ISfs (Npp16s nValue, Npp16s ∗pSrcDst, int nLength, int nScaleFactor)

  16-bit signed short in place signal subtract from constant, scale, then clamp to saturated value.

- NppStatus nppsSubCRev_16s_Sfs (const Npp16s ∗pSrc, Npp16s nValue, Npp16s ∗pDst, int nLength, int nScaleFactor)

  16-bit signed short signal subtract from constant, scale, then clamp to saturated value.

- NppStatus nppsSubCRev_16sc_ISfs (Npp16sc nValue, Npp16sc ∗pSrcDst, int nLength, int nScaleFactor)

  16-bit integer complex number (16 bit real, 16 bit imaginary) signal subtract from constant, scale, then clamp to saturated value.

- NppStatus nppsSubCRev_16sc_Sfs (const Npp16sc ∗pSrc, Npp16sc nValue, Npp16sc ∗pDst, int nLength, int nScaleFactor)

  16-bit integer complex number (16 bit real, 16 bit imaginary) signal subtract from constant, scale, then clamp to saturated value.

- NppStatus nppsSubCRev_32s_ISfs (Npp32s nValue, Npp32s ∗pSrcDst, int nLength, int nScaleFactor)

  32-bit signed integer in place signal subtract from constant and scale.

- NppStatus nppsSubCRev_32s_Sfs (const Npp32s ∗pSrc, Npp32s nValue, Npp32s ∗pDst, int nLength, int nScaleFactor)

  32-bit signed integersignal subtract from constant and scale.

- NppStatus nppsSubCRev_32sc_ISfs (Npp32sc nValue, Npp32sc ∗pSrcDst, int nLength, int nScaleFactor)

32-bit integer complex number (32 bit real, 32 bit imaginary) in place signal subtract from constant and scale.

- NppStatus nppsSubCRev_32sc_Sfs (const Npp32sc ∗pSrc, Npp32sc nValue, Npp32sc ∗pDst, int nLength, int nScaleFactor)

  32-bit integer complex number (32 bit real, 32 bit imaginary) signal subtract from constant and scale.

- NppStatus nppsSubCRev_32f_I (Npp32f nValue, Npp32f ∗pSrcDst, int nLength)

  32-bit floating point in place signal subtract from constant.

- NppStatus nppsSubCRev_32f (const Npp32f ∗pSrc, Npp32f nValue, Npp32f ∗pDst, int nLength)

  32-bit floating point signal subtract from constant.

- NppStatus nppsSubCRev_32fc_I (Npp32fc nValue, Npp32fc ∗pSrcDst, int nLength)

  32-bit floating point complex number (32 bit real, 32 bit imaginary) in place signal subtract from constant.

- NppStatus nppsSubCRev_32fc (const Npp32fc ∗pSrc, Npp32fc nValue, Npp32fc ∗pDst, int nLength)

  32-bit floating point complex number (32 bit real, 32 bit imaginary) signal subtract from constant.

- NppStatus nppsSubCRev_64f_I (Npp64f nValue, Npp64f ∗pSrcDst, int nLength)

  64-bit floating point, in place signal subtract from constant.

- NppStatus nppsSubCRev_64f (const Npp64f ∗pSrc, Npp64f nValue, Npp64f ∗pDst, int nLength)

  64-bit floating point signal subtract from constant.

- NppStatus nppsSubCRev_64fc_I (Npp64fc nValue, Npp64fc ∗pSrcDst, int nLength)

  64-bit floating point complex number (64 bit real, 64 bit imaginary) in place signal subtract from constant.

- NppStatus nppsSubCRev_64fc (const Npp64fc ∗pSrc, Npp64fc nValue, Npp64fc ∗pDst, int nLength)

  64-bit floating point complex number (64 bit real, 64 bit imaginary) signal subtract from constant.

7.147.1 Detailed Description

Subtracts each sample of a signal from a constant.

7.147.2 Function Documentation

7.147.2.1 NppStatus nppsSubCRev_16s_ISfs (Npp16s *nValue*, Npp16s ∗ *pSrcDst*, int *nLength*, int *nScaleFactor*)

16-bit signed short in place signal subtract from constant, scale, then clamp to saturated value.

Parameters:

pSrcDst In-Place Signal Pointer.

nValue Constant value each vector element is to be subtracted from

nLength Signal Length.

nScaleFactor Integer Result Scaling.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.147.2.2 NppStatus nppsSubCRev_16s_Sfs (const Npp16s ∗ *pSrc*, Npp16s *nValue*, Npp16s ∗ *pDst*, int *nLength*, int *nScaleFactor*)

16-bit signed short signal subtract from constant, scale, then clamp to saturated value.

Parameters:

pSrc Source Signal Pointer.

nValue Constant value each vector element is to be subtracted from

pDst Destination Signal Pointer.

nLength Signal Length.

nScaleFactor Integer Result Scaling.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.147.2.3 NppStatus nppsSubCRev_16sc_ISfs (Npp16sc *nValue*, Npp16sc ∗ *pSrcDst*, int *nLength*, int *nScaleFactor*)

16-bit integer complex number (16 bit real, 16 bit imaginary) signal subtract from constant, scale, then clamp to saturated value.

Parameters:

pSrcDst In-Place Signal Pointer.

nValue Constant value each vector element is to be subtracted from

nLength Signal Length.

nScaleFactor Integer Result Scaling.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.147.2.4 NppStatus nppsSubCRev_16sc_Sfs (const Npp16sc ∗ *pSrc*, Npp16sc *nValue*, Npp16sc ∗ *pDst*, int *nLength*, int *nScaleFactor*)

16-bit integer complex number (16 bit real, 16 bit imaginary) signal subtract from constant, scale, then clamp to saturated value.

Parameters:

pSrc Source Signal Pointer.

nValue Constant value each vector element is to be subtracted from

pDst Destination Signal Pointer.

nLength Signal Length.

nScaleFactor Integer Result Scaling.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.147.2.5 NppStatus nppsSubCRev_16u_ISfs (Npp16u *nValue*, Npp16u ∗ *pSrcDst*, int *nLength*, int *nScaleFactor*)

16-bit unsigned short in place signal subtract from constant, scale, then clamp to saturated value.

Parameters:

pSrcDst In-Place Signal Pointer.

nValue Constant value each vector element is to be subtracted from

nLength Signal Length.

nScaleFactor Integer Result Scaling.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.147.2.6 NppStatus nppsSubCRev_16u_Sfs (const Npp16u ∗ *pSrc*, Npp16u *nValue*, Npp16u ∗ *pDst*, int *nLength*, int *nScaleFactor*)

16-bit unsigned short signal subtract from constant, scale, then clamp to saturated value.

Parameters:

pSrc Source Signal Pointer.

nValue Constant value each vector element is to be subtracted from

pDst Destination Signal Pointer.

nLength Signal Length.

nScaleFactor Integer Result Scaling.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.147.2.7 NppStatus nppsSubCRev_32f (const Npp32f ∗ *pSrc*, Npp32f *nValue*, Npp32f ∗ *pDst*, int *nLength*)

32-bit floating point signal subtract from constant.

Parameters:

pSrc Source Signal Pointer.

nValue Constant value each vector element is to be subtracted from

pDst Destination Signal Pointer.

nLength Signal Length.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.147.2.8 NppStatus nppsSubCRev_32f_I (Npp32f *nValue*, Npp32f ∗ *pSrcDst*, int *nLength*)

32-bit floating point in place signal subtract from constant.

Parameters:

pSrcDst In-Place Signal Pointer.

nValue Constant value each vector element is to be subtracted from

nLength Signal Length.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.147.2.9 NppStatus nppsSubCRev_32fc (const Npp32fc ∗ *pSrc*, Npp32fc *nValue*, Npp32fc ∗ *pDst*, int *nLength*)

32-bit floating point complex number (32 bit real, 32 bit imaginary) signal subtract from constant.

Parameters:

pSrc Source Signal Pointer.

nValue Constant value each vector element is to be subtracted from

pDst Destination Signal Pointer.

nLength Signal Length.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.147.2.10 NppStatus nppsSubCRev_32fc_I (Npp32fc *nValue*, Npp32fc ∗ *pSrcDst*, int *nLength*)

32-bit floating point complex number (32 bit real, 32 bit imaginary) in place signal subtract from constant.

Parameters:

pSrcDst In-Place Signal Pointer.

nValue Constant value each vector element is to be subtracted from

nLength Signal Length.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.147.2.11 NppStatus nppsSubCRev_32s_ISfs (Npp32s *nValue*, Npp32s ∗ *pSrcDst*, int *nLength*, int *nScaleFactor*)

32-bit signed integer in place signal subtract from constant and scale.

Parameters:

pSrcDst In-Place Signal Pointer.

nValue Constant value each vector element is to be subtracted from

nLength Signal Length.

nScaleFactor Integer Result Scaling.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.147.2.12 NppStatus nppsSubCRev_32s_Sfs (const Npp32s ∗ *pSrc*, Npp32s *nValue*, Npp32s ∗ *pDst*, int *nLength*, int *nScaleFactor*)

32-bit signed integersignal subtract from constant and scale.

Parameters:

pSrc Source Signal Pointer.

nValue Constant value each vector element is to be subtracted from

pDst Destination Signal Pointer.

nLength Signal Length.

nScaleFactor Integer Result Scaling.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.147.2.13 NppStatus nppsSubCRev_32sc_ISfs (Npp32sc *nValue*, Npp32sc ∗ *pSrcDst*, int *nLength*, int *nScaleFactor*)

32-bit integer complex number (32 bit real, 32 bit imaginary) in place signal subtract from constant and scale.

Parameters:

pSrcDst In-Place Signal Pointer.

nValue Constant value each vector element is to be subtracted from

nLength Signal Length.

nScaleFactor Integer Result Scaling.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.147.2.14 NppStatus nppsSubCRev_32sc_Sfs (const Npp32sc * *pSrc*, Npp32sc *nValue*, Npp32sc * *pDst*, int *nLength*, int *nScaleFactor*)

32-bit integer complex number (32 bit real, 32 bit imaginary) signal subtract from constant and scale.

Parameters:

pSrc Source Signal Pointer.

nValue Constant value each vector element is to be subtracted from

pDst Destination Signal Pointer.

nLength Signal Length.

nScaleFactor Integer Result Scaling.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.147.2.15 NppStatus nppsSubCRev_64f (const Npp64f * *pSrc*, Npp64f *nValue*, Npp64f * *pDst*, int *nLength*)

64-bit floating point signal subtract from constant.

Parameters:

pSrc Source Signal Pointer.

nValue Constant value each vector element is to be subtracted from

pDst Destination Signal Pointer.

nLength Signal Length.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.147.2.16 NppStatus nppsSubCRev_64f_I (Npp64f *nValue*, Npp64f * *pSrcDst*, int *nLength*)

64-bit floating point, in place signal subtract from constant.

Parameters:

pSrcDst In-Place Signal Pointer.

nValue Constant value each vector element is to be subtracted from

nLength Length of the vectors, number of items.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.147.2.17 NppStatus nppsSubCRev_64fc (const Npp64fc ∗ *pSrc*, Npp64fc *nValue*, Npp64fc ∗ *pDst*, int *nLength*)

64-bit floating point complex number (64 bit real, 64 bit imaginary) signal subtract from constant.

Parameters:

pSrc Source Signal Pointer.

nValue Constant value each vector element is to be subtracted from

pDst Destination Signal Pointer.

nLength Signal Length.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.147.2.18 NppStatus nppsSubCRev_64fc_I (Npp64fc *nValue*, Npp64fc ∗ *pSrcDst*, int *nLength*)

64-bit floating point complex number (64 bit real, 64 bit imaginary) in place signal subtract from constant.

Parameters:

pSrcDst In-Place Signal Pointer.

nValue Constant value each vector element is to be subtracted from

nLength Signal Length.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.147.2.19 NppStatus nppsSubCRev_8u_ISfs (Npp8u *nValue*, Npp8u ∗ *pSrcDst*, int *nLength*, int *nScaleFactor*)

8-bit unsigned char in place signal subtract from constant, scale, then clamp to saturated value

Parameters:

pSrcDst In-Place Signal Pointer.

nValue Constant value each vector element is to be subtracted from

nLength Signal Length.

nScaleFactor Integer Result Scaling.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.147.2.20 NppStatus nppsSubCRev_8u_Sfs (const Npp8u * *pSrc*, Npp8u *nValue*, Npp8u * *pDst*, int *nLength*, int *nScaleFactor*)

8-bit unsigned char signal subtract from constant, scale, then clamp to saturated value.

Parameters:

pSrc Source Signal Pointer.

nValue Constant value each vector element is to be subtracted from

pDst Destination Signal Pointer.

nLength Signal Length.

nScaleFactor Integer Result Scaling.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.148 DivC

Divides each sample of a signal by a constant.

Functions

- NppStatus nppsDivC_8u_ISfs (Npp8u nValue, Npp8u ∗pSrcDst, int nLength, int nScaleFactor)

  8-bit unsigned char in place signal divided by constant, scale, then clamp to saturated value

- NppStatus nppsDivC_8u_Sfs (const Npp8u ∗pSrc, Npp8u nValue, Npp8u ∗pDst, int nLength, int nScaleFactor)

  8-bit unsigned char signal divided by constant, scale, then clamp to saturated value.

- NppStatus nppsDivC_16u_ISfs (Npp16u nValue, Npp16u ∗pSrcDst, int nLength, int nScaleFactor)

  16-bit unsigned short in place signal divided by constant, scale, then clamp to saturated value.

- NppStatus nppsDivC_16u_Sfs (const Npp16u ∗pSrc, Npp16u nValue, Npp16u ∗pDst, int nLength, int nScaleFactor)

  16-bit unsigned short signal divided by constant, scale, then clamp to saturated value.

- NppStatus nppsDivC_16s_ISfs (Npp16s nValue, Npp16s ∗pSrcDst, int nLength, int nScaleFactor)

  16-bit signed short in place signal divided by constant, scale, then clamp to saturated value.

- NppStatus nppsDivC_16s_Sfs (const Npp16s ∗pSrc, Npp16s nValue, Npp16s ∗pDst, int nLength, int nScaleFactor)

  16-bit signed short signal divided by constant, scale, then clamp to saturated value.

- NppStatus nppsDivC_16sc_ISfs (Npp16sc nValue, Npp16sc ∗pSrcDst, int nLength, int nScaleFactor)

  16-bit integer complex number (16 bit real, 16 bit imaginary)signal divided by constant, scale, then clamp to saturated value.

- NppStatus nppsDivC_16sc_Sfs (const Npp16sc ∗pSrc, Npp16sc nValue, Npp16sc ∗pDst, int nLength, int nScaleFactor)

  16-bit integer complex number (16 bit real, 16 bit imaginary) signal divided by constant, scale, then clamp to saturated value.

- NppStatus nppsDivC_32f_I (Npp32f nValue, Npp32f ∗pSrcDst, int nLength)

  32-bit floating point in place signal divided by constant.

- NppStatus nppsDivC_32f (const Npp32f ∗pSrc, Npp32f nValue, Npp32f ∗pDst, int nLength)

  32-bit floating point signal divided by constant.

- NppStatus nppsDivC_32fc_I (Npp32fc nValue, Npp32fc ∗pSrcDst, int nLength)

  32-bit floating point complex number (32 bit real, 32 bit imaginary) in place signal divided by constant.

- NppStatus nppsDivC_32fc (const Npp32fc ∗pSrc, Npp32fc nValue, Npp32fc ∗pDst, int nLength)

  32-bit floating point complex number (32 bit real, 32 bit imaginary) signal divided by constant.

- NppStatus nppsDivC_64f_I (Npp64f nValue, Npp64f ∗pSrcDst, int nLength)

64-bit floating point in place signal divided by constant.

- NppStatus nppsDivC_64f (const Npp64f ∗pSrc, Npp64f nValue, Npp64f ∗pDst, int nLength)

  64-bit floating point signal divided by constant.

- NppStatus nppsDivC_64fc_I (Npp64fc nValue, Npp64fc ∗pSrcDst, int nLength)

  64-bit floating point complex number (64 bit real, 64 bit imaginary) in place signal divided by constant.

- NppStatus nppsDivC_64fc (const Npp64fc ∗pSrc, Npp64fc nValue, Npp64fc ∗pDst, int nLength)

  64-bit floating point complex number (64 bit real, 64 bit imaginary) signal divided by constant.

7.148.1 Detailed Description

Divides each sample of a signal by a constant.

7.148.2 Function Documentation

7.148.2.1 NppStatus nppsDivC_16s_ISfs (Npp16s *nValue*, Npp16s ∗ *pSrcDst*, int *nLength*, int *nScaleFactor*)

16-bit signed short in place signal divided by constant, scale, then clamp to saturated value.

Parameters:

pSrcDst In-Place Signal Pointer.

nValue Constant value to be divided into each vector element

nLength Signal Length.

nScaleFactor Integer Result Scaling.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.148.2.2 NppStatus nppsDivC_16s_Sfs (const Npp16s ∗ *pSrc*, Npp16s *nValue*, Npp16s ∗ *pDst*, int *nLength*, int *nScaleFactor*)

16-bit signed short signal divided by constant, scale, then clamp to saturated value.

Parameters:

pSrc Source Signal Pointer.

nValue Constant value to be divided into each vector element

pDst Destination Signal Pointer.

nLength Signal Length.

nScaleFactor Integer Result Scaling.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.148.2.3 NppStatus nppsDivC_16sc_ISfs (Npp16sc *nValue*, Npp16sc ∗ *pSrcDst*, int *nLength*, int *nScaleFactor*)

16-bit integer complex number (16 bit real, 16 bit imaginary)signal divided by constant, scale, then clamp to saturated value.

Parameters:

pSrcDst In-Place Signal Pointer.

nValue Constant value to be divided into each vector element

nLength Signal Length.

nScaleFactor Integer Result Scaling.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.148.2.4 NppStatus nppsDivC_16sc_Sfs (const Npp16sc ∗ *pSrc*, Npp16sc *nValue*, Npp16sc ∗ *pDst*, int *nLength*, int *nScaleFactor*)

16-bit integer complex number (16 bit real, 16 bit imaginary) signal divided by constant, scale, then clamp to saturated value.

Parameters:

pSrc Source Signal Pointer.

nValue Constant value to be divided into each vector element

pDst Destination Signal Pointer.

nLength Signal Length.

nScaleFactor Integer Result Scaling.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.148.2.5 NppStatus nppsDivC_16u_ISfs (Npp16u *nValue*, Npp16u ∗ *pSrcDst*, int *nLength*, int *nScaleFactor*)

16-bit unsigned short in place signal divided by constant, scale, then clamp to saturated value.

Parameters:

pSrcDst In-Place Signal Pointer.

nValue Constant value to be divided into each vector element

nLength Signal Length.

nScaleFactor Integer Result Scaling.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.148.2.6 NppStatus nppsDivC_16u_Sfs (const Npp16u $*$ *pSrc*, Npp16u *nValue*, Npp16u $*$ *pDst*, int *nLength*, int *nScaleFactor*)

16-bit unsigned short signal divided by constant, scale, then clamp to saturated value.

Parameters:

pSrc Source Signal Pointer.

nValue Constant value to be divided into each vector element

pDst Destination Signal Pointer.

nLength Signal Length.

nScaleFactor Integer Result Scaling.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.148.2.7 NppStatus nppsDivC_32f (const Npp32f $*$ *pSrc*, Npp32f *nValue*, Npp32f $*$ *pDst*, int *nLength*)

32-bit floating point signal divided by constant.

Parameters:

pSrc Source Signal Pointer.

nValue Constant value to be divided into each vector element

pDst Destination Signal Pointer.

nLength Signal Length.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.148.2.8 NppStatus nppsDivC_32f_I (Npp32f *nValue*, Npp32f $*$ *pSrcDst*, int *nLength*)

32-bit floating point in place signal divided by constant.

Parameters:

pSrcDst In-Place Signal Pointer.

nValue Constant value to be divided into each vector element

nLength Signal Length.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.148.2.9 NppStatus nppsDivC_32fc (const Npp32fc ∗ *pSrc*, Npp32fc *nValue*, Npp32fc ∗ *pDst*, int *nLength*)

32-bit floating point complex number (32 bit real, 32 bit imaginary) signal divided by constant.

Parameters:

pSrc Source Signal Pointer.

nValue Constant value to be divided into each vector element

pDst Destination Signal Pointer.

nLength Signal Length.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.148.2.10 NppStatus nppsDivC_32fc_I (Npp32fc *nValue*, Npp32fc ∗ *pSrcDst*, int *nLength*)

32-bit floating point complex number (32 bit real, 32 bit imaginary) in place signal divided by constant.

Parameters:

pSrcDst In-Place Signal Pointer.

nValue Constant value to be divided into each vector element

nLength Signal Length.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.148.2.11 NppStatus nppsDivC_64f (const Npp64f ∗ *pSrc*, Npp64f *nValue*, Npp64f ∗ *pDst*, int *nLength*)

64-bit floating point signal divided by constant.

Parameters:

pSrc Source Signal Pointer.

nValue Constant value to be divided into each vector element

pDst Destination Signal Pointer.

nLength Signal Length.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.148.2.12 NppStatus nppsDivC_64f_I (Npp64f *nValue*, Npp64f ∗ *pSrcDst*, int *nLength*)

64-bit floating point in place signal divided by constant.

Parameters:

pSrcDst In-Place Signal Pointer.

nValue Constant value to be divided into each vector element

nLength Length of the vectors, number of items.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.148.2.13 NppStatus nppsDivC_64fc (const Npp64fc ∗ *pSrc*, Npp64fc *nValue*, Npp64fc ∗ *pDst*, int *nLength*)

64-bit floating point complex number (64 bit real, 64 bit imaginary) signal divided by constant.

Parameters:

pSrc Source Signal Pointer.

nValue Constant value to be divided into each vector element

pDst Destination Signal Pointer.

nLength Signal Length.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.148.2.14 NppStatus nppsDivC_64fc_I (Npp64fc *nValue*, Npp64fc ∗ *pSrcDst*, int *nLength*)

64-bit floating point complex number (64 bit real, 64 bit imaginary) in place signal divided by constant.

Parameters:

pSrcDst In-Place Signal Pointer.

nValue Constant value to be divided into each vector element

nLength Signal Length.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.148.2.15 NppStatus nppsDivC_8u_ISfs (Npp8u *nValue*, Npp8u ∗ *pSrcDst*, int *nLength*, int *nScaleFactor*)

8-bit unsigned char in place signal divided by constant, scale, then clamp to saturated value

Parameters:

pSrcDst In-Place Signal Pointer.

nValue Constant value to be divided into each vector element

nLength Signal Length.

nScaleFactor Integer Result Scaling.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.148.2.16 NppStatus nppsDivC_8u_Sfs (const Npp8u * *pSrc*, Npp8u *nValue*, Npp8u * *pDst*, int *nLength*, int *nScaleFactor*)

8-bit unsigned char signal divided by constant, scale, then clamp to saturated value.

Parameters:

pSrc Source Signal Pointer.

nValue Constant value to be divided into each vector element

pDst Destination Signal Pointer.

nLength Signal Length.

nScaleFactor Integer Result Scaling.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.149 DivCRev

Divides a constant by each sample of a signal.

Functions

- NppStatus nppsDivCRev_16u_I (Npp16u nValue, Npp16u ∗pSrcDst, int nLength)

  16-bit unsigned short in place constant divided by signal, then clamp to saturated value.
- NppStatus nppsDivCRev_16u (const Npp16u ∗pSrc, Npp16u nValue, Npp16u ∗pDst, int nLength)

  16-bit unsigned short signal divided by constant, then clamp to saturated value.
- NppStatus nppsDivCRev_32f_I (Npp32f nValue, Npp32f ∗pSrcDst, int nLength)

  32-bit floating point in place constant divided by signal.
- NppStatus nppsDivCRev_32f (const Npp32f ∗pSrc, Npp32f nValue, Npp32f ∗pDst, int nLength)

  32-bit floating point constant divided by signal.

7.149.1 Detailed Description

Divides a constant by each sample of a signal.

7.149.2 Function Documentation

7.149.2.1 NppStatus nppsDivCRev_16u (const Npp16u ∗ *pSrc*, Npp16u *nValue*, Npp16u ∗ *pDst*, int *nLength*)

16-bit unsigned short signal divided by constant, then clamp to saturated value.

Parameters:

pSrc Source Signal Pointer.

nValue Constant value to be divided by each vector element

pDst Destination Signal Pointer.

nLength Signal Length.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.149.2.2 NppStatus nppsDivCRev_16u_I (Npp16u *nValue*, Npp16u ∗ *pSrcDst*, int *nLength*)

16-bit unsigned short in place constant divided by signal, then clamp to saturated value.

Parameters:

pSrcDst In-Place Signal Pointer.

nValue Constant value to be divided by each vector element

nLength Signal Length.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.149.2.3 NppStatus nppsDivCRev_32f (const Npp32f * *pSrc*, Npp32f *nValue*, Npp32f * *pDst*, int *nLength*)

32-bit floating point constant divided by signal.

Parameters:

pSrc Source Signal Pointer.

nValue Constant value to be divided by each vector element

pDst Destination Signal Pointer.

nLength Signal Length.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.149.2.4 NppStatus nppsDivCRev_32f_I (Npp32f *nValue*, Npp32f * *pSrcDst*, int *nLength*)

32-bit floating point in place constant divided by signal.

Parameters:

pSrcDst In-Place Signal Pointer.

nValue Constant value to be divided by each vector element

nLength Signal Length.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.150 Add

Sample by sample addition of two signals.

Functions

- NppStatus nppsAdd_16s (const Npp16s ∗pSrc1, const Npp16s ∗pSrc2, Npp16s ∗pDst, int nLength)

  16-bit signed short signal add signal, then clamp to saturated value.

- NppStatus nppsAdd_16u (const Npp16u ∗pSrc1, const Npp16u ∗pSrc2, Npp16u ∗pDst, int nLength)

  16-bit unsigned short signal add signal, then clamp to saturated value.

- NppStatus nppsAdd_32u (const Npp32u ∗pSrc1, const Npp32u ∗pSrc2, Npp32u ∗pDst, int nLength)

  32-bit unsigned int signal add signal, then clamp to saturated value.

- NppStatus nppsAdd_32f (const Npp32f ∗pSrc1, const Npp32f ∗pSrc2, Npp32f ∗pDst, int nLength)

  32-bit floating point signal add signal, then clamp to saturated value.

- NppStatus nppsAdd_64f (const Npp64f ∗pSrc1, const Npp64f ∗pSrc2, Npp64f ∗pDst, int nLength)

  64-bit floating point signal add signal, then clamp to saturated value.

- NppStatus nppsAdd_32fc (const Npp32fc ∗pSrc1, const Npp32fc ∗pSrc2, Npp32fc ∗pDst, int nLength)

  32-bit complex floating point signal add signal, then clamp to saturated value.

- NppStatus nppsAdd_64fc (const Npp64fc ∗pSrc1, const Npp64fc ∗pSrc2, Npp64fc ∗pDst, int nLength)

  64-bit complex floating point signal add signal, then clamp to saturated value.

- NppStatus nppsAdd_8u16u (const Npp8u ∗pSrc1, const Npp8u ∗pSrc2, Npp16u ∗pDst, int nLength)

  8-bit unsigned char signal add signal with 16-bit unsigned result, then clamp to saturated value.

- NppStatus nppsAdd_16s32f (const Npp16s ∗pSrc1, const Npp16s ∗pSrc2, Npp32f ∗pDst, int nLength)

  16-bit signed short signal add signal with 32-bit floating point result, then clamp to saturated value.

- NppStatus nppsAdd_8u_Sfs (const Npp8u ∗pSrc1, const Npp8u ∗pSrc2, Npp8u ∗pDst, int nLength, int nScaleFactor)

  8-bit unsigned char add signal, scale, then clamp to saturated value.

- NppStatus nppsAdd_16u_Sfs (const Npp16u ∗pSrc1, const Npp16u ∗pSrc2, Npp16u ∗pDst, int nLength, int nScaleFactor)

  16-bit unsigned short add signal, scale, then clamp to saturated value.

- NppStatus nppsAdd_16s_Sfs (const Npp16s ∗pSrc1, const Npp16s ∗pSrc2, Npp16s ∗pDst, int nLength, int nScaleFactor)

16-bit signed short add signal, scale, then clamp to saturated value.

- NppStatus nppsAdd_32s_Sfs (const Npp32s ∗pSrc1, const Npp32s ∗pSrc2, Npp32s ∗pDst, int nLength, int nScaleFactor)

  32-bit signed integer add signal, scale, then clamp to saturated value.

- NppStatus nppsAdd_64s_Sfs (const Npp64s ∗pSrc1, const Npp64s ∗pSrc2, Npp64s ∗pDst, int nLength, int nScaleFactor)

  64-bit signed integer add signal, scale, then clamp to saturated value.

- NppStatus nppsAdd_16sc_Sfs (const Npp16sc ∗pSrc1, const Npp16sc ∗pSrc2, Npp16sc ∗pDst, int nLength, int nScaleFactor)

  16-bit signed complex short add signal, scale, then clamp to saturated value.

- NppStatus nppsAdd_32sc_Sfs (const Npp32sc ∗pSrc1, const Npp32sc ∗pSrc2, Npp32sc ∗pDst, int nLength, int nScaleFactor)

  32-bit signed complex integer add signal, scale, then clamp to saturated value.

- NppStatus nppsAdd_16s_I (const Npp16s ∗pSrc, Npp16s ∗pSrcDst, int nLength)

  16-bit signed short in place signal add signal, then clamp to saturated value.

- NppStatus nppsAdd_32f_I (const Npp32f ∗pSrc, Npp32f ∗pSrcDst, int nLength)

  32-bit floating point in place signal add signal, then clamp to saturated value.

- NppStatus nppsAdd_64f_I (const Npp64f ∗pSrc, Npp64f ∗pSrcDst, int nLength)

  64-bit floating point in place signal add signal, then clamp to saturated value.

- NppStatus nppsAdd_32fc_I (const Npp32fc ∗pSrc, Npp32fc ∗pSrcDst, int nLength)

  32-bit complex floating point in place signal add signal, then clamp to saturated value.

- NppStatus nppsAdd_64fc_I (const Npp64fc ∗pSrc, Npp64fc ∗pSrcDst, int nLength)

  64-bit complex floating point in place signal add signal, then clamp to saturated value.

- NppStatus nppsAdd_16s32s_I (const Npp16s ∗pSrc, Npp32s ∗pSrcDst, int nLength)

  16/32-bit signed short in place signal add signal with 32-bit signed integer results, then clamp to saturated value.

- NppStatus nppsAdd_8u_ISfs (const Npp8u ∗pSrc, Npp8u ∗pSrcDst, int nLength, int nScaleFactor)

  8-bit unsigned char in place signal add signal, with scaling, then clamp to saturated value.

- NppStatus nppsAdd_16u_ISfs (const Npp16u ∗pSrc, Npp16u ∗pSrcDst, int nLength, int nScaleFactor)

  16-bit unsigned short in place signal add signal, with scaling, then clamp to saturated value.

- NppStatus nppsAdd_16s_ISfs (const Npp16s ∗pSrc, Npp16s ∗pSrcDst, int nLength, int nScaleFactor)

  16-bit signed short in place signal add signal, with scaling, then clamp to saturated value.

- NppStatus nppsAdd_32s_ISfs (const Npp32s ∗pSrc, Npp32s ∗pSrcDst, int nLength, int nScaleFactor)

  32-bit signed integer in place signal add signal, with scaling, then clamp to saturated value.

- NppStatus nppsAdd_16sc_ISfs (const Npp16sc ∗pSrc, Npp16sc ∗pSrcDst, int nLength, int nScaleFactor)

  16-bit complex signed short in place signal add signal, with scaling, then clamp to saturated value.

- NppStatus nppsAdd_32sc_ISfs (const Npp32sc ∗pSrc, Npp32sc ∗pSrcDst, int nLength, int nScaleFactor)

  32-bit complex signed integer in place signal add signal, with scaling, then clamp to saturated value.

7.150.1 Detailed Description

Sample by sample addition of two signals.

7.150.2 Function Documentation

7.150.2.1 NppStatus nppsAdd_16s (const Npp16s ∗ *pSrc1*, const Npp16s ∗ *pSrc2*, Npp16s ∗ *pDst*, int *nLength*)

16-bit signed short signal add signal, then clamp to saturated value.

Parameters:

pSrc1 Source Signal Pointer.

pSrc2 Source Signal Pointer. signal2 elements to be added to signal1 elements

pDst Destination Signal Pointer.

nLength Signal Length.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.150.2.2 NppStatus nppsAdd_16s32f (const Npp16s ∗ *pSrc1*, const Npp16s ∗ *pSrc2*, Npp32f ∗ *pDst*, int *nLength*)

16-bit signed short signal add signal with 32-bit floating point result, then clamp to saturated value.

Parameters:

pSrc1 Source Signal Pointer.

pSrc2 Source Signal Pointer. signal2 elements to be added to signal1 elements

pDst Destination Signal Pointer.

nLength Signal Length.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.150.2.3 NppStatus nppsAdd_16s32s_I (const Npp16s ∗ *pSrc*, Npp32s ∗ *pSrcDst*, int *nLength*)

16/32-bit signed short in place signal add signal with 32-bit signed integer results, then clamp to saturated value.

Parameters:

pSrc Source Signal Pointer.

pSrcDst In-Place Signal Pointer. signal2 elements to be added to signal1 elements

nLength Signal Length.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.150.2.4 NppStatus nppsAdd_16s_I (const Npp16s ∗ *pSrc*, Npp16s ∗ *pSrcDst*, int *nLength*)

16-bit signed short in place signal add signal, then clamp to saturated value.

Parameters:

pSrc Source Signal Pointer.

pSrcDst In-Place Signal Pointer. signal2 elements to be added to signal1 elements

nLength Signal Length.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.150.2.5 NppStatus nppsAdd_16s_ISfs (const Npp16s ∗ *pSrc*, Npp16s ∗ *pSrcDst*, int *nLength*, int *nScaleFactor*)

16-bit signed short in place signal add signal, with scaling, then clamp to saturated value.

Parameters:

pSrc Source Signal Pointer.

pSrcDst In-Place Signal Pointer. signal2 elements to be added to signal1 elements

nLength Signal Length.

nScaleFactor Integer Result Scaling.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.150.2.6 NppStatus nppsAdd_16s_Sfs (const Npp16s * *pSrc1*, const Npp16s * *pSrc2*, Npp16s * *pDst*, int *nLength*, int *nScaleFactor*)

16-bit signed short add signal, scale, then clamp to saturated value.

Parameters:

pSrc1 Source Signal Pointer.

pSrc2 Source Signal Pointer, signal2 elements to be added to signal1 elements.

pDst Destination Signal Pointer.

nLength Signal Length.

nScaleFactor Integer Result Scaling.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.150.2.7 NppStatus nppsAdd_16sc_ISfs (const Npp16sc * *pSrc*, Npp16sc * *pSrcDst*, int *nLength*, int *nScaleFactor*)

16-bit complex signed short in place signal add signal, with scaling, then clamp to saturated value.

Parameters:

pSrc Source Signal Pointer.

pSrcDst In-Place Signal Pointer. signal2 elements to be added to signal1 elements

nLength Signal Length.

nScaleFactor Integer Result Scaling.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.150.2.8 NppStatus nppsAdd_16sc_Sfs (const Npp16sc * *pSrc1*, const Npp16sc * *pSrc2*, Npp16sc * *pDst*, int *nLength*, int *nScaleFactor*)

16-bit signed complex short add signal, scale, then clamp to saturated value.

Parameters:

pSrc1 Source Signal Pointer.

pSrc2 Source Signal Pointer, signal2 elements to be added to signal1 elements.

pDst Destination Signal Pointer.

nLength Signal Length.

nScaleFactor Integer Result Scaling.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.150.2.9 NppStatus nppsAdd_16u (const Npp16u ∗ *pSrc1*, const Npp16u ∗ *pSrc2*, Npp16u ∗ *pDst*, int *nLength*)

16-bit unsigned short signal add signal, then clamp to saturated value.

Parameters:

pSrc1 Source Signal Pointer.

pSrc2 Source Signal Pointer. signal2 elements to be added to signal1 elements

pDst Destination Signal Pointer.

nLength Signal Length.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.150.2.10 NppStatus nppsAdd_16u_ISfs (const Npp16u ∗ *pSrc*, Npp16u ∗ *pSrcDst*, int *nLength*, int *nScaleFactor*)

16-bit unsigned short in place signal add signal, with scaling, then clamp to saturated value.

Parameters:

pSrc Source Signal Pointer.

pSrcDst In-Place Signal Pointer. signal2 elements to be added to signal1 elements

nLength Signal Length.

nScaleFactor Integer Result Scaling.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.150.2.11 NppStatus nppsAdd_16u_Sfs (const Npp16u ∗ *pSrc1*, const Npp16u ∗ *pSrc2*, Npp16u ∗ *pDst*, int *nLength*, int *nScaleFactor*)

16-bit unsigned short add signal, scale, then clamp to saturated value.

Parameters:

pSrc1 Source Signal Pointer.

pSrc2 Source Signal Pointer, signal2 elements to be added to signal1 elements.

pDst Destination Signal Pointer.

nLength Signal Length.

nScaleFactor Integer Result Scaling.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.150.2.12 NppStatus nppsAdd_32f (const Npp32f ∗ *pSrc1*, const Npp32f ∗ *pSrc2*, Npp32f ∗ *pDst*, int *nLength*)

32-bit floating point signal add signal, then clamp to saturated value.

Parameters:

pSrc1 Source Signal Pointer.

pSrc2 Source Signal Pointer. signal2 elements to be added to signal1 elements

pDst Destination Signal Pointer.

nLength Signal Length.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.150.2.13 NppStatus nppsAdd_32f_I (const Npp32f ∗ *pSrc*, Npp32f ∗ *pSrcDst*, int *nLength*)

32-bit floating point in place signal add signal, then clamp to saturated value.

Parameters:

pSrc Source Signal Pointer.

pSrcDst In-Place Signal Pointer. signal2 elements to be added to signal1 elements

nLength Signal Length.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.150.2.14 NppStatus nppsAdd_32fc (const Npp32fc ∗ *pSrc1*, const Npp32fc ∗ *pSrc2*, Npp32fc ∗ *pDst*, int *nLength*)

32-bit complex floating point signal add signal, then clamp to saturated value.

Parameters:

pSrc1 Source Signal Pointer.

pSrc2 Source Signal Pointer. signal2 elements to be added to signal1 elements

pDst Destination Signal Pointer.

nLength Signal Length.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.150.2.15 NppStatus nppsAdd_32fc_I (const Npp32fc ∗ *pSrc*, Npp32fc ∗ *pSrcDst*, int *nLength*)

32-bit complex floating point in place signal add signal, then clamp to saturated value.

Parameters:

pSrc Source Signal Pointer.

pSrcDst In-Place Signal Pointer. signal2 elements to be added to signal1 elements

nLength Signal Length.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.150.2.16 NppStatus nppsAdd_32s_ISfs (const Npp32s ∗ *pSrc*, Npp32s ∗ *pSrcDst*, int *nLength*, int *nScaleFactor*)

32-bit signed integer in place signal add signal, with scaling, then clamp to saturated value.

Parameters:

pSrc Source Signal Pointer.

pSrcDst In-Place Signal Pointer. signal2 elements to be added to signal1 elements

nLength Signal Length.

nScaleFactor Integer Result Scaling.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.150.2.17 NppStatus nppsAdd_32s_Sfs (const Npp32s ∗ *pSrc1*, const Npp32s ∗ *pSrc2*, Npp32s ∗ *pDst*, int *nLength*, int *nScaleFactor*)

32-bit signed integer add signal, scale, then clamp to saturated value.

Parameters:

pSrc1 Source Signal Pointer.

pSrc2 Source Signal Pointer, signal2 elements to be added to signal1 elements.

pDst Destination Signal Pointer.

nLength Signal Length.

nScaleFactor Integer Result Scaling.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.150.2.18 NppStatus nppsAdd_32sc_ISfs (const Npp32sc ∗ *pSrc*, Npp32sc ∗ *pSrcDst*, int *nLength*, int *nScaleFactor*)

32-bit complex signed integer in place signal add signal, with scaling, then clamp to saturated value.

Parameters:

pSrc Source Signal Pointer.

pSrcDst In-Place Signal Pointer. signal2 elements to be added to signal1 elements

nLength Signal Length.

nScaleFactor Integer Result Scaling.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.150.2.19 NppStatus nppsAdd_32sc_Sfs (const Npp32sc ∗ *pSrc1*, const Npp32sc ∗ *pSrc2*, Npp32sc ∗ *pDst*, int *nLength*, int *nScaleFactor*)

32-bit signed complex integer add signal, scale, then clamp to saturated value.

Parameters:

pSrc1 Source Signal Pointer.

pSrc2 Source Signal Pointer, signal2 elements to be added to signal1 elements.

pDst Destination Signal Pointer.

nLength Signal Length.

nScaleFactor Integer Result Scaling.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.150.2.20 NppStatus nppsAdd_32u (const Npp32u ∗ *pSrc1*, const Npp32u ∗ *pSrc2*, Npp32u ∗ *pDst*, int *nLength*)

32-bit unsigned int signal add signal, then clamp to saturated value.

Parameters:

pSrc1 Source Signal Pointer.

pSrc2 Source Signal Pointer. signal2 elements to be added to signal1 elements

pDst Destination Signal Pointer.

nLength Signal Length.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.150.2.21 NppStatus nppsAdd_64f (const Npp64f * *pSrc1*, const Npp64f * *pSrc2*, Npp64f * *pDst*, int *nLength*)

64-bit floating point signal add signal, then clamp to saturated value.

Parameters:

pSrc1 Source Signal Pointer.

pSrc2 Source Signal Pointer. signal2 elements to be added to signal1 elements

pDst Destination Signal Pointer.

nLength Signal Length.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.150.2.22 NppStatus nppsAdd_64f_I (const Npp64f * *pSrc*, Npp64f * *pSrcDst*, int *nLength*)

64-bit floating point in place signal add signal, then clamp to saturated value.

Parameters:

pSrc Source Signal Pointer.

pSrcDst In-Place Signal Pointer. signal2 elements to be added to signal1 elements

nLength Signal Length.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.150.2.23 NppStatus nppsAdd_64fc (const Npp64fc * *pSrc1*, const Npp64fc * *pSrc2*, Npp64fc * *pDst*, int *nLength*)

64-bit complex floating point signal add signal, then clamp to saturated value.

Parameters:

pSrc1 Source Signal Pointer.

pSrc2 Source Signal Pointer. signal2 elements to be added to signal1 elements

pDst Destination Signal Pointer.

nLength Signal Length.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.150.2.24 NppStatus nppsAdd_64fc_I (const Npp64fc ∗ *pSrc*, Npp64fc ∗ *pSrcDst*, int *nLength*)

64-bit complex floating point in place signal add signal, then clamp to saturated value.

Parameters:

pSrc Source Signal Pointer.

pSrcDst In-Place Signal Pointer. signal2 elements to be added to signal1 elements

nLength Signal Length.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.150.2.25 NppStatus nppsAdd_64s_Sfs (const Npp64s ∗ *pSrc1*, const Npp64s ∗ *pSrc2*, Npp64s ∗ *pDst*, int *nLength*, int *nScaleFactor*)

64-bit signed integer add signal, scale, then clamp to saturated value.

Parameters:

pSrc1 Source Signal Pointer.

pSrc2 Source Signal Pointer, signal2 elements to be added to signal1 elements.

pDst Destination Signal Pointer.

nLength Signal Length.

nScaleFactor Integer Result Scaling.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.150.2.26 NppStatus nppsAdd_8u16u (const Npp8u ∗ *pSrc1*, const Npp8u ∗ *pSrc2*, Npp16u ∗ *pDst*, int *nLength*)

8-bit unsigned char signal add signal with 16-bit unsigned result, then clamp to saturated value.

Parameters:

pSrc1 Source Signal Pointer.

pSrc2 Source Signal Pointer. signal2 elements to be added to signal1 elements

pDst Destination Signal Pointer.

nLength Signal Length.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.150.2.27 NppStatus nppsAdd_8u_ISfs (const Npp8u ∗ *pSrc*, Npp8u ∗ *pSrcDst*, int *nLength*, int *nScaleFactor*)

8-bit unsigned char in place signal add signal, with scaling, then clamp to saturated value.

Parameters:

pSrc Source Signal Pointer.

pSrcDst In-Place Signal Pointer. signal2 elements to be added to signal1 elements

nLength Signal Length.

nScaleFactor Integer Result Scaling.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.150.2.28 NppStatus nppsAdd_8u_Sfs (const Npp8u ∗ *pSrc1*, const Npp8u ∗ *pSrc2*, Npp8u ∗ *pDst*, int *nLength*, int *nScaleFactor*)

8-bit unsigned char add signal, scale, then clamp to saturated value.

Parameters:

pSrc1 Source Signal Pointer.

pSrc2 Source Signal Pointer, signal2 elements to be added to signal1 elements.

pDst Destination Signal Pointer.

nLength Signal Length.

nScaleFactor Integer Result Scaling.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.151 AddProduct

Adds sample by sample product of two signals to the destination signal.

Functions

- NppStatus nppsAddProduct_32f (const Npp32f ∗pSrc1, const Npp32f ∗pSrc2, Npp32f ∗pDst, int nLength)

  32-bit floating point signal add product of source signal times destination signal to destination signal, then clamp to saturated value.

- NppStatus nppsAddProduct_64f (const Npp64f ∗pSrc1, const Npp64f ∗pSrc2, Npp64f ∗pDst, int nLength)

  64-bit floating point signal add product of source signal times destination signal to destination signal, then clamp to saturated value.

- NppStatus nppsAddProduct_32fc (const Npp32fc ∗pSrc1, const Npp32fc ∗pSrc2, Npp32fc ∗pDst, int nLength)

  32-bit complex floating point signal add product of source signal times destination signal to destination signal, then clamp to saturated value.

- NppStatus nppsAddProduct_64fc (const Npp64fc ∗pSrc1, const Npp64fc ∗pSrc2, Npp64fc ∗pDst, int nLength)

  64-bit complex floating point signal add product of source signal times destination signal to destination signal, then clamp to saturated value.

- NppStatus nppsAddProduct_16s_Sfs (const Npp16s ∗pSrc1, const Npp16s ∗pSrc2, Npp16s ∗pDst, int nLength, int nScaleFactor)

  16-bit signed short signal add product of source signal1 times source signal2 to destination signal, with scaling, then clamp to saturated value.

- NppStatus nppsAddProduct_32s_Sfs (const Npp32s ∗pSrc1, const Npp32s ∗pSrc2, Npp32s ∗pDst, int nLength, int nScaleFactor)

  32-bit signed short signal add product of source signal1 times source signal2 to destination signal, with scaling, then clamp to saturated value.

- NppStatus nppsAddProduct_16s32s_Sfs (const Npp16s ∗pSrc1, const Npp16s ∗pSrc2, Npp32s ∗pDst, int nLength, int nScaleFactor)

  16-bit signed short signal add product of source signal1 times source signal2 to 32-bit signed integer destination signal, with scaling, then clamp to saturated value.

7.151.1 Detailed Description

Adds sample by sample product of two signals to the destination signal.

7.151.2 Function Documentation

7.151.2.1 NppStatus nppsAddProduct_16s32s_Sfs (const Npp16s ∗ *pSrc1*, const Npp16s ∗ *pSrc2*, Npp32s ∗ *pDst*, int *nLength*, int *nScaleFactor*)

16-bit signed short signal add product of source signal1 times source signal2 to 32-bit signed integer destination signal, with scaling, then clamp to saturated value.

Parameters:

pSrc1 Source Signal Pointer.

pSrc2 Source Signal Pointer.

pDst Destination Signal Pointer. product of source1 and source2 signal elements to be added to destination elements

nLength Signal Length.

nScaleFactor Integer Result Scaling.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.151.2.2 NppStatus nppsAddProduct_16s_Sfs (const Npp16s ∗ *pSrc1*, const Npp16s ∗ *pSrc2*, Npp16s ∗ *pDst*, int *nLength*, int *nScaleFactor*)

16-bit signed short signal add product of source signal1 times source signal2 to destination signal, with scaling, then clamp to saturated value.

Parameters:

pSrc1 Source Signal Pointer.

pSrc2 Source Signal Pointer.

pDst Destination Signal Pointer. product of source1 and source2 signal elements to be added to destination elements

nLength Signal Length.

nScaleFactor Integer Result Scaling.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.151.2.3 NppStatus nppsAddProduct_32f (const Npp32f ∗ *pSrc1*, const Npp32f ∗ *pSrc2*, Npp32f ∗ *pDst*, int *nLength*)

32-bit floating point signal add product of source signal times destination signal to destination signal, then clamp to saturated value.

Parameters:

pSrc1 Source Signal Pointer.

pSrc2 Source Signal Pointer.

pDst Destination Signal Pointer. product of source1 and source2 signal elements to be added to destination elements

nLength Signal Length.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.151.2.4 NppStatus nppsAddProduct_32fc (const Npp32fc ∗ *pSrc1*, const Npp32fc ∗ *pSrc2*, Npp32fc ∗ *pDst*, int *nLength*)

32-bit complex floating point signal add product of source signal times destination signal to destination signal, then clamp to saturated value.

Parameters:

pSrc1 Source Signal Pointer.

pSrc2 Source Signal Pointer.

pDst Destination Signal Pointer. product of source1 and source2 signal elements to be added to destination elements

nLength Signal Length.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.151.2.5 NppStatus nppsAddProduct_32s_Sfs (const Npp32s ∗ *pSrc1*, const Npp32s ∗ *pSrc2*, Npp32s ∗ *pDst*, int *nLength*, int *nScaleFactor*)

32-bit signed short signal add product of source signal1 times source signal2 to destination signal, with scaling, then clamp to saturated value.

Parameters:

pSrc1 Source Signal Pointer.

pSrc2 Source Signal Pointer.

pDst Destination Signal Pointer. product of source1 and source2 signal elements to be added to destination elements

nLength Signal Length.

nScaleFactor Integer Result Scaling.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.151.2.6 NppStatus nppsAddProduct_64f (const Npp64f * *pSrc1*, const Npp64f * *pSrc2*, Npp64f * *pDst*, int *nLength*)

64-bit floating point signal add product of source signal times destination signal to destination signal, then clamp to saturated value.

Parameters:

pSrc1 Source Signal Pointer.

pSrc2 Source Signal Pointer.

pDst Destination Signal Pointer. product of source1 and source2 signal elements to be added to destination elements

nLength Signal Length.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.151.2.7 NppStatus nppsAddProduct_64fc (const Npp64fc * *pSrc1*, const Npp64fc * *pSrc2*, Npp64fc * *pDst*, int *nLength*)

64-bit complex floating point signal add product of source signal times destination signal to destination signal, then clamp to saturated value.

Parameters:

pSrc1 Source Signal Pointer.

pSrc2 Source Signal Pointer.

pDst Destination Signal Pointer. product of source1 and source2 signal elements to be added to destination elements

nLength Signal Length.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.152 Mul

Sample by sample multiplication the samples of two signals.

Functions

- NppStatus nppsMul_16s (const Npp16s ∗pSrc1, const Npp16s ∗pSrc2, Npp16s ∗pDst, int nLength)

  16-bit signed short signal times signal, then clamp to saturated value.

- NppStatus nppsMul_32f (const Npp32f ∗pSrc1, const Npp32f ∗pSrc2, Npp32f ∗pDst, int nLength)

  32-bit floating point signal times signal, then clamp to saturated value.

- NppStatus nppsMul_64f (const Npp64f ∗pSrc1, const Npp64f ∗pSrc2, Npp64f ∗pDst, int nLength)

  64-bit floating point signal times signal, then clamp to saturated value.

- NppStatus nppsMul_32fc (const Npp32fc ∗pSrc1, const Npp32fc ∗pSrc2, Npp32fc ∗pDst, int nLength)

  32-bit complex floating point signal times signal, then clamp to saturated value.

- NppStatus nppsMul_64fc (const Npp64fc ∗pSrc1, const Npp64fc ∗pSrc2, Npp64fc ∗pDst, int nLength)

  64-bit complex floating point signal times signal, then clamp to saturated value.

- NppStatus nppsMul_8u16u (const Npp8u ∗pSrc1, const Npp8u ∗pSrc2, Npp16u ∗pDst, int nLength)

  8-bit unsigned char signal times signal with 16-bit unsigned result, then clamp to saturated value.

- NppStatus nppsMul_16s32f (const Npp16s ∗pSrc1, const Npp16s ∗pSrc2, Npp32f ∗pDst, int nLength)

  16-bit signed short signal times signal with 32-bit floating point result, then clamp to saturated value.

- NppStatus nppsMul_32f32fc (const Npp32f ∗pSrc1, const Npp32fc ∗pSrc2, Npp32fc ∗pDst, int nLength)

  32-bit floating point signal times 32-bit complex floating point signal with complex 32-bit floating point result, then clamp to saturated value.

- NppStatus nppsMul_8u_Sfs (const Npp8u ∗pSrc1, const Npp8u ∗pSrc2, Npp8u ∗pDst, int nLength, int nScaleFactor)

  8-bit unsigned char signal times signal, scale, then clamp to saturated value.

- NppStatus nppsMul_16u_Sfs (const Npp16u ∗pSrc1, const Npp16u ∗pSrc2, Npp16u ∗pDst, int nLength, int nScaleFactor)

  16-bit unsigned short signal time signal, scale, then clamp to saturated value.

- NppStatus nppsMul_16s_Sfs (const Npp16s ∗pSrc1, const Npp16s ∗pSrc2, Npp16s ∗pDst, int nLength, int nScaleFactor)

  16-bit signed short signal times signal, scale, then clamp to saturated value.

- NppStatus nppsMul_32s_Sfs (const Npp32s ∗pSrc1, const Npp32s ∗pSrc2, Npp32s ∗pDst, int nLength, int nScaleFactor)

32-bit signed integer signal times signal, scale, then clamp to saturated value.

- NppStatus nppsMul_16sc_Sfs (const Npp16sc ∗pSrc1, const Npp16sc ∗pSrc2, Npp16sc ∗pDst, int nLength, int nScaleFactor)

  16-bit signed complex short signal times signal, scale, then clamp to saturated value.

- NppStatus nppsMul_32sc_Sfs (const Npp32sc ∗pSrc1, const Npp32sc ∗pSrc2, Npp32sc ∗pDst, int nLength, int nScaleFactor)

  32-bit signed complex integer signal times signal, scale, then clamp to saturated value.

- NppStatus nppsMul_16u16s_Sfs (const Npp16u ∗pSrc1, const Npp16s ∗pSrc2, Npp16s ∗pDst, int nLength, int nScaleFactor)

  16-bit unsigned short signal times 16-bit signed short signal, scale, then clamp to 16-bit signed saturated value.

- NppStatus nppsMul_16s32s_Sfs (const Npp16s ∗pSrc1, const Npp16s ∗pSrc2, Npp32s ∗pDst, int nLength, int nScaleFactor)

  16-bit signed short signal times signal, scale, then clamp to 32-bit signed saturated value.

- NppStatus nppsMul_32s32sc_Sfs (const Npp32s ∗pSrc1, const Npp32sc ∗pSrc2, Npp32sc ∗pDst, int nLength, int nScaleFactor)

  32-bit signed integer signal times 32-bit complex signed integer signal, scale, then clamp to 32-bit complex integer saturated value.

- NppStatus nppsMul_Low_32s_Sfs (const Npp32s ∗pSrc1, const Npp32s ∗pSrc2, Npp32s ∗pDst, int nLength, int nScaleFactor)

  32-bit signed integer signal times signal, scale, then clamp to saturated value.

- NppStatus nppsMul_16s_I (const Npp16s ∗pSrc, Npp16s ∗pSrcDst, int nLength)

  16-bit signed short in place signal times signal, then clamp to saturated value.

- NppStatus nppsMul_32f_I (const Npp32f ∗pSrc, Npp32f ∗pSrcDst, int nLength)

  32-bit floating point in place signal times signal, then clamp to saturated value.

- NppStatus nppsMul_64f_I (const Npp64f ∗pSrc, Npp64f ∗pSrcDst, int nLength)

  64-bit floating point in place signal times signal, then clamp to saturated value.

- NppStatus nppsMul_32fc_I (const Npp32fc ∗pSrc, Npp32fc ∗pSrcDst, int nLength)

  32-bit complex floating point in place signal times signal, then clamp to saturated value.

- NppStatus nppsMul_64fc_I (const Npp64fc ∗pSrc, Npp64fc ∗pSrcDst, int nLength)

  64-bit complex floating point in place signal times signal, then clamp to saturated value.

- NppStatus nppsMul_32f32fc_I (const Npp32f ∗pSrc, Npp32fc ∗pSrcDst, int nLength)

  32-bit complex floating point in place signal times 32-bit floating point signal, then clamp to 32-bit complex floating point saturated value.

- NppStatus nppsMul_8u_ISfs (const Npp8u ∗pSrc, Npp8u ∗pSrcDst, int nLength, int nScaleFactor)

  8-bit unsigned char in place signal times signal, with scaling, then clamp to saturated value.

- NppStatus nppsMul_16u_ISfs (const Npp16u ∗pSrc, Npp16u ∗pSrcDst, int nLength, int nScaleFactor)

  16-bit unsigned short in place signal times signal, with scaling, then clamp to saturated value.

- NppStatus nppsMul_16s_ISfs (const Npp16s ∗pSrc, Npp16s ∗pSrcDst, int nLength, int nScaleFactor)

  16-bit signed short in place signal times signal, with scaling, then clamp to saturated value.

- NppStatus nppsMul_32s_ISfs (const Npp32s ∗pSrc, Npp32s ∗pSrcDst, int nLength, int nScaleFactor)

  32-bit signed integer in place signal times signal, with scaling, then clamp to saturated value.

- NppStatus nppsMul_16sc_ISfs (const Npp16sc ∗pSrc, Npp16sc ∗pSrcDst, int nLength, int nScaleFactor)

  16-bit complex signed short in place signal times signal, with scaling, then clamp to saturated value.

- NppStatus nppsMul_32sc_ISfs (const Npp32sc ∗pSrc, Npp32sc ∗pSrcDst, int nLength, int nScaleFactor)

  32-bit complex signed integer in place signal times signal, with scaling, then clamp to saturated value.

- NppStatus nppsMul_32s32sc_ISfs (const Npp32s ∗pSrc, Npp32sc ∗pSrcDst, int nLength, int nScaleFactor)

  32-bit complex signed integer in place signal times 32-bit signed integer signal, with scaling, then clamp to saturated value.

7.152.1 Detailed Description

Sample by sample multiplication the samples of two signals.

7.152.2 Function Documentation

7.152.2.1 NppStatus nppsMul_16s (const Npp16s ∗ *pSrc1*, const Npp16s ∗ *pSrc2*, Npp16s ∗ *pDst*, int *nLength*)

16-bit signed short signal times signal, then clamp to saturated value.

Parameters:

pSrc1 Source Signal Pointer.

pSrc2 Source Signal Pointer. signal2 elements to be multiplied by signal1 elements

pDst Destination Signal Pointer.

nLength Signal Length.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.152.2.2 NppStatus nppsMul_16s32f (const Npp16s * *pSrc1*, const Npp16s * *pSrc2*, Npp32f * *pDst*, int *nLength*)

16-bit signed short signal times signal with 32-bit floating point result, then clamp to saturated value.

Parameters:

pSrc1 Source Signal Pointer.

pSrc2 Source Signal Pointer. signal2 elements to be multiplied by signal1 elements

pDst Destination Signal Pointer.

nLength Signal Length.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.152.2.3 NppStatus nppsMul_16s32s_Sfs (const Npp16s * *pSrc1*, const Npp16s * *pSrc2*, Npp32s * *pDst*, int *nLength*, int *nScaleFactor*)

16-bit signed short signal times signal, scale, then clamp to 32-bit signed saturated value.

Parameters:

pSrc1 Source Signal Pointer.

pSrc2 Source Signal Pointer, signal2 elements to be multiplied by signal1 elements.

pDst Destination Signal Pointer.

nLength Signal Length.

nScaleFactor Integer Result Scaling.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.152.2.4 NppStatus nppsMul_16s_I (const Npp16s * *pSrc*, Npp16s * *pSrcDst*, int *nLength*)

16-bit signed short in place signal times signal, then clamp to saturated value.

Parameters:

pSrc Source Signal Pointer.

pSrcDst In-Place Signal Pointer. signal2 elements to be multiplied by signal1 elements

nLength Signal Length.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.152.2.5 NppStatus nppsMul_16s_ISfs (const Npp16s ∗ *pSrc*, Npp16s ∗ *pSrcDst*, int *nLength*, int *nScaleFactor*)

16-bit signed short in place signal times signal, with scaling, then clamp to saturated value.

Parameters:

pSrc Source Signal Pointer.

pSrcDst In-Place Signal Pointer. signal2 elements to be multiplied by signal1 elements

nLength Signal Length.

nScaleFactor Integer Result Scaling.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.152.2.6 NppStatus nppsMul_16s_Sfs (const Npp16s ∗ *pSrc1*, const Npp16s ∗ *pSrc2*, Npp16s ∗ *pDst*, int *nLength*, int *nScaleFactor*)

16-bit signed short signal times signal, scale, then clamp to saturated value.

Parameters:

pSrc1 Source Signal Pointer.

pSrc2 Source Signal Pointer, signal2 elements to be multiplied by signal1 elements.

pDst Destination Signal Pointer.

nLength Signal Length.

nScaleFactor Integer Result Scaling.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.152.2.7 NppStatus nppsMul_16sc_ISfs (const Npp16sc ∗ *pSrc*, Npp16sc ∗ *pSrcDst*, int *nLength*, int *nScaleFactor*)

16-bit complex signed short in place signal times signal, with scaling, then clamp to saturated value.

Parameters:

pSrc Source Signal Pointer.

pSrcDst In-Place Signal Pointer. signal2 elements to be multiplied by signal1 elements

nLength Signal Length.

nScaleFactor Integer Result Scaling.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.152.2.8 NppStatus nppsMul_16sc_Sfs (const Npp16sc ∗ *pSrc1*, const Npp16sc ∗ *pSrc2*, Npp16sc ∗ *pDst*, int *nLength*, int *nScaleFactor*)

16-bit signed complex short signal times signal, scale, then clamp to saturated value.

Parameters:

pSrc1 Source Signal Pointer.

pSrc2 Source Signal Pointer, signal2 elements to be multiplied by signal1 elements.

pDst Destination Signal Pointer.

nLength Signal Length.

nScaleFactor Integer Result Scaling.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.152.2.9 NppStatus nppsMul_16u16s_Sfs (const Npp16u ∗ *pSrc1*, const Npp16s ∗ *pSrc2*, Npp16s ∗ *pDst*, int *nLength*, int *nScaleFactor*)

16-bit unsigned short signal times 16-bit signed short signal, scale, then clamp to 16-bit signed saturated value.

Parameters:

pSrc1 Source Signal Pointer.

pSrc2 Source Signal Pointer, signal2 elements to be multiplied by signal1 elements.

pDst Destination Signal Pointer.

nLength Signal Length.

nScaleFactor Integer Result Scaling.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.152.2.10 NppStatus nppsMul_16u_ISfs (const Npp16u ∗ *pSrc*, Npp16u ∗ *pSrcDst*, int *nLength*, int *nScaleFactor*)

16-bit unsigned short in place signal times signal, with scaling, then clamp to saturated value.

Parameters:

pSrc Source Signal Pointer.

pSrcDst In-Place Signal Pointer. signal2 elements to be multiplied by signal1 elements

nLength Signal Length.

nScaleFactor Integer Result Scaling.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.152.2.11 NppStatus nppsMul_16u_Sfs (const Npp16u ∗ *pSrc1*, const Npp16u ∗ *pSrc2*, Npp16u ∗ *pDst*, int *nLength*, int *nScaleFactor*)

16-bit unsigned short signal time signal, scale, then clamp to saturated value.

Parameters:

pSrc1 Source Signal Pointer.

pSrc2 Source Signal Pointer, signal2 elements to be multiplied by signal1 elements.

pDst Destination Signal Pointer.

nLength Signal Length.

nScaleFactor Integer Result Scaling.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.152.2.12 NppStatus nppsMul_32f (const Npp32f ∗ *pSrc1*, const Npp32f ∗ *pSrc2*, Npp32f ∗ *pDst*, int *nLength*)

32-bit floating point signal times signal, then clamp to saturated value.

Parameters:

pSrc1 Source Signal Pointer.

pSrc2 Source Signal Pointer. signal2 elements to be multiplied by signal1 elements

pDst Destination Signal Pointer.

nLength Signal Length.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.152.2.13 NppStatus nppsMul_32f32fc (const Npp32f ∗ *pSrc1*, const Npp32fc ∗ *pSrc2*, Npp32fc ∗ *pDst*, int *nLength*)

32-bit floating point signal times 32-bit complex floating point signal with complex 32-bit floating point result, then clamp to saturated value.

Parameters:

pSrc1 Source Signal Pointer.

pSrc2 Source Signal Pointer. signal2 elements to be multiplied by signal1 elements

pDst Destination Signal Pointer.

nLength Signal Length.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.152.2.14 NppStatus nppsMul_32f32fc_I (const Npp32f * *pSrc*, Npp32fc * *pSrcDst*, int *nLength*)

32-bit complex floating point in place signal times 32-bit floating point signal, then clamp to 32-bit complex floating point saturated value.

Parameters:

pSrc Source Signal Pointer.

pSrcDst In-Place Signal Pointer. signal2 elements to be multiplied by signal1 elements

nLength Signal Length.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.152.2.15 NppStatus nppsMul_32f_I (const Npp32f * *pSrc*, Npp32f * *pSrcDst*, int *nLength*)

32-bit floating point in place signal times signal, then clamp to saturated value.

Parameters:

pSrc Source Signal Pointer.

pSrcDst In-Place Signal Pointer. signal2 elements to be multiplied by signal1 elements

nLength Signal Length.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.152.2.16 NppStatus nppsMul_32fc (const Npp32fc * *pSrc1*, const Npp32fc * *pSrc2*, Npp32fc * *pDst*, int *nLength*)

32-bit complex floating point signal times signal, then clamp to saturated value.

Parameters:

pSrc1 Source Signal Pointer.

pSrc2 Source Signal Pointer. signal2 elements to be multiplied by signal1 elements

pDst Destination Signal Pointer.

nLength Signal Length.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.152.2.17 NppStatus nppsMul_32fc_I (const Npp32fc ∗ *pSrc*, Npp32fc ∗ *pSrcDst*, int *nLength*)

32-bit complex floating point in place signal times signal, then clamp to saturated value.

Parameters:

pSrc Source Signal Pointer.

pSrcDst In-Place Signal Pointer. signal2 elements to be multiplied by signal1 elements

nLength Signal Length.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.152.2.18 NppStatus nppsMul_32s32sc_ISfs (const Npp32s ∗ *pSrc*, Npp32sc ∗ *pSrcDst*, int *nLength*, int *nScaleFactor*)

32-bit complex signed integer in place signal times 32-bit signed integer signal, with scaling, then clamp to saturated value.

Parameters:

pSrc Source Signal Pointer.

pSrcDst In-Place Signal Pointer. signal2 elements to be multiplied by signal1 elements

nLength Signal Length.

nScaleFactor Integer Result Scaling.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.152.2.19 NppStatus nppsMul_32s32sc_Sfs (const Npp32s ∗ *pSrc1*, const Npp32sc ∗ *pSrc2*, Npp32sc ∗ *pDst*, int *nLength*, int *nScaleFactor*)

32-bit signed integer signal times 32-bit complex signed integer signal, scale, then clamp to 32-bit complex integer saturated value.

Parameters:

pSrc1 Source Signal Pointer.

pSrc2 Source Signal Pointer, signal2 elements to be multiplied by signal1 elements.

pDst Destination Signal Pointer.

nLength Signal Length.

nScaleFactor Integer Result Scaling.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.152.2.20 NppStatus nppsMul_32s_ISfs (const Npp32s * *pSrc*, Npp32s * *pSrcDst*, int *nLength*, int *nScaleFactor*)

32-bit signed integer in place signal times signal, with scaling, then clamp to saturated value.

Parameters:

pSrc Source Signal Pointer.

pSrcDst In-Place Signal Pointer. signal2 elements to be multiplied by signal1 elements

nLength Signal Length.

nScaleFactor Integer Result Scaling.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.152.2.21 NppStatus nppsMul_32s_Sfs (const Npp32s * *pSrc1*, const Npp32s * *pSrc2*, Npp32s * *pDst*, int *nLength*, int *nScaleFactor*)

32-bit signed integer signal times signal, scale, then clamp to saturated value.

Parameters:

pSrc1 Source Signal Pointer.

pSrc2 Source Signal Pointer, signal2 elements to be multiplied by signal1 elements.

pDst Destination Signal Pointer.

nLength Signal Length.

nScaleFactor Integer Result Scaling.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.152.2.22 NppStatus nppsMul_32sc_ISfs (const Npp32sc * *pSrc*, Npp32sc * *pSrcDst*, int *nLength*, int *nScaleFactor*)

32-bit complex signed integer in place signal times signal, with scaling, then clamp to saturated value.

Parameters:

pSrc Source Signal Pointer.

pSrcDst In-Place Signal Pointer. signal2 elements to be multiplied by signal1 elements

nLength Signal Length.

nScaleFactor Integer Result Scaling.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.152.2.23 NppStatus nppsMul_32sc_Sfs (const Npp32sc * *pSrc1*, const Npp32sc * *pSrc2*, Npp32sc * *pDst*, int *nLength*, int *nScaleFactor*)

32-bit signed complex integer signal times signal, scale, then clamp to saturated value.

Parameters:

pSrc1 Source Signal Pointer.

pSrc2 Source Signal Pointer, signal2 elements to be multiplied by signal1 elements.

pDst Destination Signal Pointer.

nLength Signal Length.

nScaleFactor Integer Result Scaling.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.152.2.24 NppStatus nppsMul_64f (const Npp64f * *pSrc1*, const Npp64f * *pSrc2*, Npp64f * *pDst*, int *nLength*)

64-bit floating point signal times signal, then clamp to saturated value.

Parameters:

pSrc1 Source Signal Pointer.

pSrc2 Source Signal Pointer. signal2 elements to be multiplied by signal1 elements

pDst Destination Signal Pointer.

nLength Signal Length.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.152.2.25 NppStatus nppsMul_64f_I (const Npp64f * *pSrc*, Npp64f * *pSrcDst*, int *nLength*)

64-bit floating point in place signal times signal, then clamp to saturated value.

Parameters:

pSrc Source Signal Pointer.

pSrcDst In-Place Signal Pointer. signal2 elements to be multiplied by signal1 elements

nLength Signal Length.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.152.2.26 NppStatus nppsMul_64fc (const Npp64fc ∗ *pSrc1*, const Npp64fc ∗ *pSrc2*, Npp64fc ∗ *pDst*, int *nLength*)

64-bit complex floating point signal times signal, then clamp to saturated value.

Parameters:

pSrc1 Source Signal Pointer.

pSrc2 Source Signal Pointer. signal2 elements to be multiplied by signal1 elements

pDst Destination Signal Pointer.

nLength Signal Length.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.152.2.27 NppStatus nppsMul_64fc_I (const Npp64fc ∗ *pSrc*, Npp64fc ∗ *pSrcDst*, int *nLength*)

64-bit complex floating point in place signal times signal, then clamp to saturated value.

Parameters:

pSrc Source Signal Pointer.

pSrcDst In-Place Signal Pointer. signal2 elements to be multiplied by signal1 elements

nLength Signal Length.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.152.2.28 NppStatus nppsMul_8u16u (const Npp8u ∗ *pSrc1*, const Npp8u ∗ *pSrc2*, Npp16u ∗ *pDst*, int *nLength*)

8-bit unsigned char signal times signal with 16-bit unsigned result, then clamp to saturated value.

Parameters:

pSrc1 Source Signal Pointer.

pSrc2 Source Signal Pointer. signal2 elements to be multiplied by signal1 elements

pDst Destination Signal Pointer.

nLength Signal Length.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.152.2.29 NppStatus nppsMul_8u_ISfs (const Npp8u ∗ *pSrc*, Npp8u ∗ *pSrcDst*, int *nLength*, int *nScaleFactor*)

8-bit unsigned char in place signal times signal, with scaling, then clamp to saturated value.

Parameters:

pSrc Source Signal Pointer.

pSrcDst In-Place Signal Pointer. signal2 elements to be multiplied by signal1 elements

nLength Signal Length.

nScaleFactor Integer Result Scaling.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.152.2.30 NppStatus nppsMul_8u_Sfs (const Npp8u ∗ *pSrc1*, const Npp8u ∗ *pSrc2*, Npp8u ∗ *pDst*, int *nLength*, int *nScaleFactor*)

8-bit unsigned char signal times signal, scale, then clamp to saturated value.

Parameters:

pSrc1 Source Signal Pointer.

pSrc2 Source Signal Pointer, signal2 elements to be multiplied by signal1 elements.

pDst Destination Signal Pointer.

nLength Signal Length.

nScaleFactor Integer Result Scaling.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.152.2.31 NppStatus nppsMul_Low_32s_Sfs (const Npp32s ∗ *pSrc1*, const Npp32s ∗ *pSrc2*, Npp32s ∗ *pDst*, int *nLength*, int *nScaleFactor*)

32-bit signed integer signal times signal, scale, then clamp to saturated value.

Parameters:

pSrc1 Source Signal Pointer.

pSrc2 Source Signal Pointer, signal2 elements to be multiplied by signal1 elements.

pDst Destination Signal Pointer.

nLength Signal Length.

nScaleFactor Integer Result Scaling.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.153 Sub

Sample by sample subtraction of the samples of two signals.

Functions

- NppStatus nppsSub_16s (const Npp16s ∗pSrc1, const Npp16s ∗pSrc2, Npp16s ∗pDst, int nLength)

  16-bit signed short signal subtract signal, then clamp to saturated value.

- NppStatus nppsSub_32f (const Npp32f ∗pSrc1, const Npp32f ∗pSrc2, Npp32f ∗pDst, int nLength)

  32-bit floating point signal subtract signal, then clamp to saturated value.

- NppStatus nppsSub_64f (const Npp64f ∗pSrc1, const Npp64f ∗pSrc2, Npp64f ∗pDst, int nLength)

  64-bit floating point signal subtract signal, then clamp to saturated value.

- NppStatus nppsSub_32fc (const Npp32fc ∗pSrc1, const Npp32fc ∗pSrc2, Npp32fc ∗pDst, int nLength)

  32-bit complex floating point signal subtract signal, then clamp to saturated value.

- NppStatus nppsSub_64fc (const Npp64fc ∗pSrc1, const Npp64fc ∗pSrc2, Npp64fc ∗pDst, int nLength)

  64-bit complex floating point signal subtract signal, then clamp to saturated value.

- NppStatus nppsSub_16s32f (const Npp16s ∗pSrc1, const Npp16s ∗pSrc2, Npp32f ∗pDst, int nLength)

  16-bit signed short signal subtract 16-bit signed short signal, then clamp and convert to 32-bit floating point saturated value.

- NppStatus nppsSub_8u_Sfs (const Npp8u ∗pSrc1, const Npp8u ∗pSrc2, Npp8u ∗pDst, int nLength, int nScaleFactor)

  8-bit unsigned char signal subtract signal, scale, then clamp to saturated value.

- NppStatus nppsSub_16u_Sfs (const Npp16u ∗pSrc1, const Npp16u ∗pSrc2, Npp16u ∗pDst, int nLength, int nScaleFactor)

  16-bit unsigned short signal subtract signal, scale, then clamp to saturated value.

- NppStatus nppsSub_16s_Sfs (const Npp16s ∗pSrc1, const Npp16s ∗pSrc2, Npp16s ∗pDst, int nLength, int nScaleFactor)

  16-bit signed short signal subtract signal, scale, then clamp to saturated value.

- NppStatus nppsSub_32s_Sfs (const Npp32s ∗pSrc1, const Npp32s ∗pSrc2, Npp32s ∗pDst, int nLength, int nScaleFactor)

  32-bit signed integer signal subtract signal, scale, then clamp to saturated value.

- NppStatus nppsSub_16sc_Sfs (const Npp16sc ∗pSrc1, const Npp16sc ∗pSrc2, Npp16sc ∗pDst, int nLength, int nScaleFactor)

  16-bit signed complex short signal subtract signal, scale, then clamp to saturated value.

- NppStatus nppsSub_32sc_Sfs (const Npp32sc ∗pSrc1, const Npp32sc ∗pSrc2, Npp32sc ∗pDst, int nLength, int nScaleFactor)

32-bit signed complex integer signal subtract signal, scale, then clamp to saturated value.

- NppStatus nppsSub_16s_I (const Npp16s ∗pSrc, Npp16s ∗pSrcDst, int nLength)
  16-bit signed short in place signal subtract signal, then clamp to saturated value.
- NppStatus nppsSub_32f_I (const Npp32f ∗pSrc, Npp32f ∗pSrcDst, int nLength)
  32-bit floating point in place signal subtract signal, then clamp to saturated value.
- NppStatus nppsSub_64f_I (const Npp64f ∗pSrc, Npp64f ∗pSrcDst, int nLength)
  64-bit floating point in place signal subtract signal, then clamp to saturated value.
- NppStatus nppsSub_32fc_I (const Npp32fc ∗pSrc, Npp32fc ∗pSrcDst, int nLength)
  32-bit complex floating point in place signal subtract signal, then clamp to saturated value.
- NppStatus nppsSub_64fc_I (const Npp64fc ∗pSrc, Npp64fc ∗pSrcDst, int nLength)
  64-bit complex floating point in place signal subtract signal, then clamp to saturated value.
- NppStatus nppsSub_8u_ISfs (const Npp8u ∗pSrc, Npp8u ∗pSrcDst, int nLength, int nScaleFactor)
  8-bit unsigned char in place signal subtract signal, with scaling, then clamp to saturated value.
- NppStatus nppsSub_16u_ISfs (const Npp16u ∗pSrc, Npp16u ∗pSrcDst, int nLength, int nScaleFactor)
  16-bit unsigned short in place signal subtract signal, with scaling, then clamp to saturated value.
- NppStatus nppsSub_16s_ISfs (const Npp16s ∗pSrc, Npp16s ∗pSrcDst, int nLength, int nScaleFactor)
  16-bit signed short in place signal subtract signal, with scaling, then clamp to saturated value.
- NppStatus nppsSub_32s_ISfs (const Npp32s ∗pSrc, Npp32s ∗pSrcDst, int nLength, int nScaleFactor)
  32-bit signed integer in place signal subtract signal, with scaling, then clamp to saturated value.
- NppStatus nppsSub_16sc_ISfs (const Npp16sc ∗pSrc, Npp16sc ∗pSrcDst, int nLength, int nScaleFactor)
  16-bit complex signed short in place signal subtract signal, with scaling, then clamp to saturated value.
- NppStatus nppsSub_32sc_ISfs (const Npp32sc ∗pSrc, Npp32sc ∗pSrcDst, int nLength, int nScaleFactor)
  32-bit complex signed integer in place signal subtract signal, with scaling, then clamp to saturated value.

7.153.1 Detailed Description

Sample by sample subtraction of the samples of two signals.

7.153.2 Function Documentation

7.153.2.1 NppStatus nppsSub_16s (const Npp16s ∗ *pSrc1*, const Npp16s ∗ *pSrc2*, Npp16s ∗ *pDst*, int *nLength*)

16-bit signed short signal subtract signal, then clamp to saturated value.

Parameters:

- ***pSrc1*** Source Signal Pointer.
- ***pSrc2*** Source Signal Pointer. signal1 elements to be subtracted from signal2 elements
- ***pDst*** Destination Signal Pointer.
- ***nLength*** Signal Length.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.153.2.2 NppStatus nppsSub_16s32f (const Npp16s ∗ *pSrc1*, const Npp16s ∗ *pSrc2*, Npp32f ∗ *pDst*, int *nLength*)

16-bit signed short signal subtract 16-bit signed short signal, then clamp and convert to 32-bit floating point saturated value.

Parameters:

- ***pSrc1*** Source Signal Pointer.
- ***pSrc2*** Source Signal Pointer. signal1 elements to be subtracted from signal2 elements
- ***pDst*** Destination Signal Pointer.
- ***nLength*** Signal Length.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.153.2.3 NppStatus nppsSub_16s_I (const Npp16s ∗ *pSrc*, Npp16s ∗ *pSrcDst*, int *nLength*)

16-bit signed short in place signal subtract signal, then clamp to saturated value.

Parameters:

- ***pSrc*** Source Signal Pointer.
- ***pSrcDst*** In-Place Signal Pointer. signal1 elements to be subtracted from signal2 elements
- ***nLength*** Signal Length.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.153.2.4 NppStatus nppsSub_16s_ISfs (const Npp16s ∗ *pSrc*, Npp16s ∗ *pSrcDst*, int *nLength*, int *nScaleFactor*)

16-bit signed short in place signal subtract signal, with scaling, then clamp to saturated value.

Parameters:

- ***pSrc*** Source Signal Pointer.

pSrcDst In-Place Signal Pointer. signal1 elements to be subtracted from signal2 elements

nLength Signal Length.

nScaleFactor Integer Result Scaling.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.153.2.5 NppStatus nppsSub_16s_Sfs (const Npp16s * *pSrc1*, const Npp16s * *pSrc2*, Npp16s * *pDst*, int *nLength*, int *nScaleFactor*)

16-bit signed short signal subtract signal, scale, then clamp to saturated value.

Parameters:

pSrc1 Source Signal Pointer.

pSrc2 Source Signal Pointer, signal1 elements to be subtracted from signal2 elements.

pDst Destination Signal Pointer.

nLength Signal Length.

nScaleFactor Integer Result Scaling.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.153.2.6 NppStatus nppsSub_16sc_ISfs (const Npp16sc * *pSrc*, Npp16sc * *pSrcDst*, int *nLength*, int *nScaleFactor*)

16-bit complex signed short in place signal subtract signal, with scaling, then clamp to saturated value.

Parameters:

pSrc Source Signal Pointer.

pSrcDst In-Place Signal Pointer. signal1 elements to be subtracted from signal2 elements

nLength Signal Length.

nScaleFactor Integer Result Scaling.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.153.2.7 NppStatus nppsSub_16sc_Sfs (const Npp16sc * *pSrc1*, const Npp16sc * *pSrc2*, Npp16sc * *pDst*, int *nLength*, int *nScaleFactor*)

16-bit signed complex short signal subtract signal, scale, then clamp to saturated value.

Parameters:

pSrc1 Source Signal Pointer.

pSrc2 Source Signal Pointer, signal1 elements to be subtracted from signal2 elements.

pDst Destination Signal Pointer.

nLength Signal Length.

nScaleFactor Integer Result Scaling.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.153.2.8 NppStatus nppsSub_16u_ISfs (const Npp16u * *pSrc*, Npp16u * *pSrcDst*, int *nLength*, int *nScaleFactor*)

16-bit unsigned short in place signal subtract signal, with scaling, then clamp to saturated value.

Parameters:

pSrc Source Signal Pointer.

pSrcDst In-Place Signal Pointer. signal1 elements to be subtracted from signal2 elements

nLength Signal Length.

nScaleFactor Integer Result Scaling.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.153.2.9 NppStatus nppsSub_16u_Sfs (const Npp16u * *pSrc1*, const Npp16u * *pSrc2*, Npp16u * *pDst*, int *nLength*, int *nScaleFactor*)

16-bit unsigned short signal subtract signal, scale, then clamp to saturated value.

Parameters:

pSrc1 Source Signal Pointer.

pSrc2 Source Signal Pointer, signal1 elements to be subtracted from signal2 elements.

pDst Destination Signal Pointer.

nLength Signal Length.

nScaleFactor Integer Result Scaling.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.153.2.10 NppStatus nppsSub_32f (const Npp32f * *pSrc1*, const Npp32f * *pSrc2*, Npp32f * *pDst*, int *nLength*)

32-bit floating point signal subtract signal, then clamp to saturated value.

Parameters:

pSrc1 Source Signal Pointer.

pSrc2 Source Signal Pointer. signal1 elements to be subtracted from signal2 elements
pDst Destination Signal Pointer.
nLength Signal Length.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.153.2.11 NppStatus nppsSub_32f_I (const Npp32f ∗ *pSrc*, Npp32f ∗ *pSrcDst*, int *nLength*)

32-bit floating point in place signal subtract signal, then clamp to saturated value.

Parameters:

pSrc Source Signal Pointer.
pSrcDst In-Place Signal Pointer. signal1 elements to be subtracted from signal2 elements
nLength Signal Length.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.153.2.12 NppStatus nppsSub_32fc (const Npp32fc ∗ *pSrc1*, const Npp32fc ∗ *pSrc2*, Npp32fc ∗ *pDst*, int *nLength*)

32-bit complex floating point signal subtract signal, then clamp to saturated value.

Parameters:

pSrc1 Source Signal Pointer.
pSrc2 Source Signal Pointer. signal1 elements to be subtracted from signal2 elements
pDst Destination Signal Pointer.
nLength Signal Length.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.153.2.13 NppStatus nppsSub_32fc_I (const Npp32fc ∗ *pSrc*, Npp32fc ∗ *pSrcDst*, int *nLength*)

32-bit complex floating point in place signal subtract signal, then clamp to saturated value.

Parameters:

pSrc Source Signal Pointer.
pSrcDst In-Place Signal Pointer. signal1 elements to be subtracted from signal2 elements
nLength Signal Length.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.153.2.14 NppStatus nppsSub_32s_ISfs (const Npp32s * *pSrc*, Npp32s * *pSrcDst*, int *nLength*, int *nScaleFactor*)

32-bit signed integer in place signal subtract signal, with scaling, then clamp to saturated value.

Parameters:

pSrc Source Signal Pointer.

pSrcDst In-Place Signal Pointer. signal1 elements to be subtracted from signal2 elements

nLength Signal Length.

nScaleFactor Integer Result Scaling.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.153.2.15 NppStatus nppsSub_32s_Sfs (const Npp32s * *pSrc1*, const Npp32s * *pSrc2*, Npp32s * *pDst*, int *nLength*, int *nScaleFactor*)

32-bit signed integer signal subtract signal, scale, then clamp to saturated value.

Parameters:

pSrc1 Source Signal Pointer.

pSrc2 Source Signal Pointer, signal1 elements to be subtracted from signal2 elements.

pDst Destination Signal Pointer.

nLength Signal Length.

nScaleFactor Integer Result Scaling.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.153.2.16 NppStatus nppsSub_32sc_ISfs (const Npp32sc * *pSrc*, Npp32sc * *pSrcDst*, int *nLength*, int *nScaleFactor*)

32-bit complex signed integer in place signal subtract signal, with scaling, then clamp to saturated value.

Parameters:

pSrc Source Signal Pointer.

pSrcDst In-Place Signal Pointer. signal1 elements to be subtracted from signal2 elements

nLength Signal Length.

nScaleFactor Integer Result Scaling.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.153.2.17 NppStatus nppsSub_32sc_Sfs (const Npp32sc * *pSrc1*, const Npp32sc * *pSrc2*, Npp32sc * *pDst*, int *nLength*, int *nScaleFactor*)

32-bit signed complex integer signal subtract signal, scale, then clamp to saturated value.

Parameters:

pSrc1 Source Signal Pointer.

pSrc2 Source Signal Pointer, signal1 elements to be subtracted from signal2 elements.

pDst Destination Signal Pointer.

nLength Signal Length.

nScaleFactor Integer Result Scaling.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.153.2.18 NppStatus nppsSub_64f (const Npp64f * *pSrc1*, const Npp64f * *pSrc2*, Npp64f * *pDst*, int *nLength*)

64-bit floating point signal subtract signal, then clamp to saturated value.

Parameters:

pSrc1 Source Signal Pointer.

pSrc2 Source Signal Pointer. signal1 elements to be subtracted from signal2 elements

pDst Destination Signal Pointer.

nLength Signal Length.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.153.2.19 NppStatus nppsSub_64f_I (const Npp64f * *pSrc*, Npp64f * *pSrcDst*, int *nLength*)

64-bit floating point in place signal subtract signal, then clamp to saturated value.

Parameters:

pSrc Source Signal Pointer.

pSrcDst In-Place Signal Pointer. signal1 elements to be subtracted from signal2 elements

nLength Signal Length.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.153.2.20 NppStatus nppsSub_64fc (const Npp64fc * *pSrc1*, const Npp64fc * *pSrc2*, Npp64fc * *pDst*, int *nLength*)

64-bit complex floating point signal subtract signal, then clamp to saturated value.

Parameters:

pSrc1 Source Signal Pointer.

pSrc2 Source Signal Pointer. signal1 elements to be subtracted from signal2 elements

pDst Destination Signal Pointer.

nLength Signal Length.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.153.2.21 NppStatus nppsSub_64fc_I (const Npp64fc * *pSrc*, Npp64fc * *pSrcDst*, int *nLength*)

64-bit complex floating point in place signal subtract signal, then clamp to saturated value.

Parameters:

pSrc Source Signal Pointer.

pSrcDst In-Place Signal Pointer. signal1 elements to be subtracted from signal2 elements

nLength Signal Length.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.153.2.22 NppStatus nppsSub_8u_ISfs (const Npp8u * *pSrc*, Npp8u * *pSrcDst*, int *nLength*, int *nScaleFactor*)

8-bit unsigned char in place signal subtract signal, with scaling, then clamp to saturated value.

Parameters:

pSrc Source Signal Pointer.

pSrcDst In-Place Signal Pointer. signal1 elements to be subtracted from signal2 elements

nLength Signal Length.

nScaleFactor Integer Result Scaling.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.153.2.23 NppStatus nppsSub_8u_Sfs (const Npp8u * *pSrc1*, const Npp8u * *pSrc2*, Npp8u * *pDst*, int *nLength*, int *nScaleFactor*)

8-bit unsigned char signal subtract signal, scale, then clamp to saturated value.

Parameters:

pSrc1 Source Signal Pointer.

pSrc2 Source Signal Pointer, signal1 elements to be subtracted from signal2 elements.

pDst Destination Signal Pointer.

nLength Signal Length.

nScaleFactor Integer Result Scaling.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.154 Div

Sample by sample division of the samples of two signals.

Functions

- NppStatus nppsDiv_8u_Sfs (const Npp8u ∗pSrc1, const Npp8u ∗pSrc2, Npp8u ∗pDst, int nLength, int nScaleFactor)

  8-bit unsigned char signal divide signal, scale, then clamp to saturated value.

- NppStatus nppsDiv_16u_Sfs (const Npp16u ∗pSrc1, const Npp16u ∗pSrc2, Npp16u ∗pDst, int nLength, int nScaleFactor)

  16-bit unsigned short signal divide signal, scale, then clamp to saturated value.

- NppStatus nppsDiv_16s_Sfs (const Npp16s ∗pSrc1, const Npp16s ∗pSrc2, Npp16s ∗pDst, int nLength, int nScaleFactor)

  16-bit signed short signal divide signal, scale, then clamp to saturated value.

- NppStatus nppsDiv_32s_Sfs (const Npp32s ∗pSrc1, const Npp32s ∗pSrc2, Npp32s ∗pDst, int nLength, int nScaleFactor)

  32-bit signed integer signal divide signal, scale, then clamp to saturated value.

- NppStatus nppsDiv_16sc_Sfs (const Npp16sc ∗pSrc1, const Npp16sc ∗pSrc2, Npp16sc ∗pDst, int nLength, int nScaleFactor)

  16-bit signed complex short signal divide signal, scale, then clamp to saturated value.

- NppStatus nppsDiv_32s16s_Sfs (const Npp16s ∗pSrc1, const Npp32s ∗pSrc2, Npp16s ∗pDst, int nLength, int nScaleFactor)

  32-bit signed integer signal divided by 16-bit signed short signal, scale, then clamp to 16-bit signed short saturated value.

- NppStatus nppsDiv_32f (const Npp32f ∗pSrc1, const Npp32f ∗pSrc2, Npp32f ∗pDst, int nLength)

  32-bit floating point signal divide signal, then clamp to saturated value.

- NppStatus nppsDiv_64f (const Npp64f ∗pSrc1, const Npp64f ∗pSrc2, Npp64f ∗pDst, int nLength)

  64-bit floating point signal divide signal, then clamp to saturated value.

- NppStatus nppsDiv_32fc (const Npp32fc ∗pSrc1, const Npp32fc ∗pSrc2, Npp32fc ∗pDst, int nLength)

  32-bit complex floating point signal divide signal, then clamp to saturated value.

- NppStatus nppsDiv_64fc (const Npp64fc ∗pSrc1, const Npp64fc ∗pSrc2, Npp64fc ∗pDst, int nLength)

  64-bit complex floating point signal divide signal, then clamp to saturated value.

- NppStatus nppsDiv_8u_ISfs (const Npp8u ∗pSrc, Npp8u ∗pSrcDst, int nLength, int nScaleFactor)

  8-bit unsigned char in place signal divide signal, with scaling, then clamp to saturated value.

- NppStatus nppsDiv_16u_ISfs (const Npp16u ∗pSrc, Npp16u ∗pSrcDst, int nLength, int nScaleFactor)

16-bit unsigned short in place signal divide signal, with scaling, then clamp to saturated value.

- NppStatus nppsDiv_16s_ISfs (const Npp16s ∗pSrc, Npp16s ∗pSrcDst, int nLength, int nScaleFactor)

  16-bit signed short in place signal divide signal, with scaling, then clamp to saturated value.

- NppStatus nppsDiv_16sc_ISfs (const Npp16sc ∗pSrc, Npp16sc ∗pSrcDst, int nLength, int nScaleFactor)

  16-bit complex signed short in place signal divide signal, with scaling, then clamp to saturated value.

- NppStatus nppsDiv_32s_ISfs (const Npp32s ∗pSrc, Npp32s ∗pSrcDst, int nLength, int nScaleFactor)

  32-bit signed integer in place signal divide signal, with scaling, then clamp to saturated value.

- NppStatus nppsDiv_32f_I (const Npp32f ∗pSrc, Npp32f ∗pSrcDst, int nLength)

  32-bit floating point in place signal divide signal, then clamp to saturated value.

- NppStatus nppsDiv_64f_I (const Npp64f ∗pSrc, Npp64f ∗pSrcDst, int nLength)

  64-bit floating point in place signal divide signal, then clamp to saturated value.

- NppStatus nppsDiv_32fc_I (const Npp32fc ∗pSrc, Npp32fc ∗pSrcDst, int nLength)

  32-bit complex floating point in place signal divide signal, then clamp to saturated value.

- NppStatus nppsDiv_64fc_I (const Npp64fc ∗pSrc, Npp64fc ∗pSrcDst, int nLength)

  64-bit complex floating point in place signal divide signal, then clamp to saturated value.

7.154.1 Detailed Description

Sample by sample division of the samples of two signals.

7.154.2 Function Documentation

7.154.2.1 NppStatus nppsDiv_16s_ISfs (const Npp16s ∗ *pSrc*, Npp16s ∗ *pSrcDst*, int *nLength*, int *nScaleFactor*)

16-bit signed short in place signal divide signal, with scaling, then clamp to saturated value.

Parameters:

pSrc Source Signal Pointer.

pSrcDst In-Place Signal Pointer. signal1 divisor elements to be divided into signal2 dividend elements

nLength Signal Length.

nScaleFactor Integer Result Scaling.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.154.2.2 NppStatus nppsDiv_16s_Sfs (const Npp16s ∗ *pSrc1*, const Npp16s ∗ *pSrc2*, Npp16s ∗ *pDst*, int *nLength*, int *nScaleFactor*)

16-bit signed short signal divide signal, scale, then clamp to saturated value.

Parameters:

pSrc1 Source Signal Pointer.

pSrc2 Source Signal Pointer, signal1 divisor elements to be divided into signal2 dividend elements.

pDst Destination Signal Pointer.

nLength Signal Length.

nScaleFactor Integer Result Scaling.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.154.2.3 NppStatus nppsDiv_16sc_ISfs (const Npp16sc ∗ *pSrc*, Npp16sc ∗ *pSrcDst*, int *nLength*, int *nScaleFactor*)

16-bit complex signed short in place signal divide signal, with scaling, then clamp to saturated value.

Parameters:

pSrc Source Signal Pointer.

pSrcDst In-Place Signal Pointer. signal1 divisor elements to be divided into signal2 dividend elements

nLength Signal Length.

nScaleFactor Integer Result Scaling.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.154.2.4 NppStatus nppsDiv_16sc_Sfs (const Npp16sc ∗ *pSrc1*, const Npp16sc ∗ *pSrc2*, Npp16sc ∗ *pDst*, int *nLength*, int *nScaleFactor*)

16-bit signed complex short signal divide signal, scale, then clamp to saturated value.

Parameters:

pSrc1 Source Signal Pointer.

pSrc2 Source Signal Pointer, signal1 divisor elements to be divided into signal2 dividend elements.

pDst Destination Signal Pointer.

nLength Signal Length.

nScaleFactor Integer Result Scaling.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.154.2.5 NppStatus nppsDiv_16u_ISfs (const Npp16u ∗ *pSrc*, Npp16u ∗ *pSrcDst*, int *nLength*, int *nScaleFactor*)

16-bit unsigned short in place signal divide signal, with scaling, then clamp to saturated value.

Parameters:

pSrc Source Signal Pointer.

pSrcDst In-Place Signal Pointer. signal1 divisor elements to be divided into signal2 dividend elements

nLength Signal Length.

nScaleFactor Integer Result Scaling.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.154.2.6 NppStatus nppsDiv_16u_Sfs (const Npp16u ∗ *pSrc1*, const Npp16u ∗ *pSrc2*, Npp16u ∗ *pDst*, int *nLength*, int *nScaleFactor*)

16-bit unsigned short signal divide signal, scale, then clamp to saturated value.

Parameters:

pSrc1 Source Signal Pointer.

pSrc2 Source Signal Pointer, signal1 divisor elements to be divided into signal2 dividend elements.

pDst Destination Signal Pointer.

nLength Signal Length.

nScaleFactor Integer Result Scaling.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.154.2.7 NppStatus nppsDiv_32f (const Npp32f ∗ *pSrc1*, const Npp32f ∗ *pSrc2*, Npp32f ∗ *pDst*, int *nLength*)

32-bit floating point signal divide signal, then clamp to saturated value.

Parameters:

pSrc1 Source Signal Pointer.

pSrc2 Source Signal Pointer, signal1 divisor elements to be divided into signal2 dividend elements.

pDst Destination Signal Pointer.

nLength Signal Length.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.154.2.8 NppStatus nppsDiv_32f_I (const Npp32f ∗ *pSrc*, Npp32f ∗ *pSrcDst*, int *nLength*)

32-bit floating point in place signal divide signal, then clamp to saturated value.

Parameters:

pSrc Source Signal Pointer.

pSrcDst In-Place Signal Pointer. signal1 divisor elements to be divided into signal2 dividend elements

nLength Signal Length.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.154.2.9 NppStatus nppsDiv_32fc (const Npp32fc ∗ *pSrc1*, const Npp32fc ∗ *pSrc2*, Npp32fc ∗ *pDst*, int *nLength*)

32-bit complex floating point signal divide signal, then clamp to saturated value.

Parameters:

pSrc1 Source Signal Pointer.

pSrc2 Source Signal Pointer, signal1 divisor elements to be divided into signal2 dividend elements.

pDst Destination Signal Pointer.

nLength Signal Length.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.154.2.10 NppStatus nppsDiv_32fc_I (const Npp32fc ∗ *pSrc*, Npp32fc ∗ *pSrcDst*, int *nLength*)

32-bit complex floating point in place signal divide signal, then clamp to saturated value.

Parameters:

pSrc Source Signal Pointer.

pSrcDst In-Place Signal Pointer. signal1 divisor elements to be divided into signal2 dividend elements

nLength Signal Length.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.154.2.11 NppStatus nppsDiv_32s16s_Sfs (const Npp16s ∗ *pSrc1*, const Npp32s ∗ *pSrc2*, Npp16s ∗ *pDst*, int *nLength*, int *nScaleFactor*)

32-bit signed integer signal divided by 16-bit signed short signal, scale, then clamp to 16-bit signed short saturated value.

Parameters:

pSrc1 Source Signal Pointer.

pSrc2 Source Signal Pointer, signal1 divisor elements to be divided into signal2 dividend elements.

pDst Destination Signal Pointer.

nLength Signal Length.

nScaleFactor Integer Result Scaling.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.154.2.12 NppStatus nppsDiv_32s_ISfs (const Npp32s ∗ *pSrc*, Npp32s ∗ *pSrcDst*, int *nLength*, int *nScaleFactor*)

32-bit signed integer in place signal divide signal, with scaling, then clamp to saturated value.

Parameters:

pSrc Source Signal Pointer.

pSrcDst In-Place Signal Pointer. signal1 divisor elements to be divided into signal2 dividend elements

nLength Signal Length.

nScaleFactor Integer Result Scaling.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.154.2.13 NppStatus nppsDiv_32s_Sfs (const Npp32s ∗ *pSrc1*, const Npp32s ∗ *pSrc2*, Npp32s ∗ *pDst*, int *nLength*, int *nScaleFactor*)

32-bit signed integer signal divide signal, scale, then clamp to saturated value.

Parameters:

pSrc1 Source Signal Pointer.

pSrc2 Source Signal Pointer, signal1 divisor elements to be divided into signal2 dividend elements.

pDst Destination Signal Pointer.

nLength Signal Length.

nScaleFactor Integer Result Scaling.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.154.2.14 NppStatus nppsDiv_64f (const Npp64f ∗ *pSrc1*, const Npp64f ∗ *pSrc2*, Npp64f ∗ *pDst*, int *nLength*)

64-bit floating point signal divide signal, then clamp to saturated value.

Parameters:

pSrc1 Source Signal Pointer.

pSrc2 Source Signal Pointer, signal1 divisor elements to be divided into signal2 dividend elements.

pDst Destination Signal Pointer.

nLength Signal Length.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.154.2.15 NppStatus nppsDiv_64f_I (const Npp64f ∗ *pSrc*, Npp64f ∗ *pSrcDst*, int *nLength*)

64-bit floating point in place signal divide signal, then clamp to saturated value.

Parameters:

pSrc Source Signal Pointer.

pSrcDst In-Place Signal Pointer. signal1 divisor elements to be divided into signal2 dividend elements

nLength Signal Length.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.154.2.16 NppStatus nppsDiv_64fc (const Npp64fc ∗ *pSrc1*, const Npp64fc ∗ *pSrc2*, Npp64fc ∗ *pDst*, int *nLength*)

64-bit complex floating point signal divide signal, then clamp to saturated value.

Parameters:

pSrc1 Source Signal Pointer.

pSrc2 Source Signal Pointer, signal1 divisor elements to be divided into signal2 dividend elements.

pDst Destination Signal Pointer.

nLength Signal Length.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.154.2.17 NppStatus nppsDiv_64fc_I (const Npp64fc * *pSrc*, Npp64fc * *pSrcDst*, int *nLength*)

64-bit complex floating point in place signal divide signal, then clamp to saturated value.

Parameters:

pSrc Source Signal Pointer.

pSrcDst In-Place Signal Pointer. signal1 divisor elements to be divided into signal2 dividend elements

nLength Signal Length.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.154.2.18 NppStatus nppsDiv_8u_ISfs (const Npp8u * *pSrc*, Npp8u * *pSrcDst*, int *nLength*, int *nScaleFactor*)

8-bit unsigned char in place signal divide signal, with scaling, then clamp to saturated value.

Parameters:

pSrc Source Signal Pointer.

pSrcDst In-Place Signal Pointer. signal1 divisor elements to be divided into signal2 dividend elements

nLength Signal Length.

nScaleFactor Integer Result Scaling.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.154.2.19 NppStatus nppsDiv_8u_Sfs (const Npp8u * *pSrc1*, const Npp8u * *pSrc2*, Npp8u * *pDst*, int *nLength*, int *nScaleFactor*)

8-bit unsigned char signal divide signal, scale, then clamp to saturated value.

Parameters:

pSrc1 Source Signal Pointer.

pSrc2 Source Signal Pointer, signal1 divisor elements to be divided into signal2 dividend elements.

pDst Destination Signal Pointer.

nLength Signal Length.

nScaleFactor Integer Result Scaling.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.155 Div_Round

Sample by sample division of the samples of two signals with rounding.

Functions

- NppStatus nppsDiv_Round_8u_Sfs (const Npp8u ∗pSrc1, const Npp8u ∗pSrc2, Npp8u ∗pDst, int nLength, NppRoundMode nRndMode, int nScaleFactor)

  8-bit unsigned char signal divide signal, scale, then clamp to saturated value.

- NppStatus nppsDiv_Round_16u_Sfs (const Npp16u ∗pSrc1, const Npp16u ∗pSrc2, Npp16u ∗pDst, int nLength, NppRoundMode nRndMode, int nScaleFactor)

  16-bit unsigned short signal divide signal, scale, round, then clamp to saturated value.

- NppStatus nppsDiv_Round_16s_Sfs (const Npp16s ∗pSrc1, const Npp16s ∗pSrc2, Npp16s ∗pDst, int nLength, NppRoundMode nRndMode, int nScaleFactor)

  16-bit signed short signal divide signal, scale, round, then clamp to saturated value.

- NppStatus nppsDiv_Round_8u_ISfs (const Npp8u ∗pSrc, Npp8u ∗pSrcDst, int nLength, NppRoundMode nRndMode, int nScaleFactor)

  8-bit unsigned char in place signal divide signal, with scaling, rounding then clamp to saturated value.

- NppStatus nppsDiv_Round_16u_ISfs (const Npp16u ∗pSrc, Npp16u ∗pSrcDst, int nLength, NppRoundMode nRndMode, int nScaleFactor)

  16-bit unsigned short in place signal divide signal, with scaling, rounding then clamp to saturated value.

- NppStatus nppsDiv_Round_16s_ISfs (const Npp16s ∗pSrc, Npp16s ∗pSrcDst, int nLength, NppRoundMode nRndMode, int nScaleFactor)

  16-bit signed short in place signal divide signal, with scaling, rounding then clamp to saturated value.

7.155.1 Detailed Description

Sample by sample division of the samples of two signals with rounding.

7.155.2 Function Documentation

7.155.2.1 NppStatus nppsDiv_Round_16s_ISfs (const Npp16s ∗ *pSrc*, Npp16s ∗ *pSrcDst*, int *nLength*, NppRoundMode *nRndMode*, int *nScaleFactor*)

16-bit signed short in place signal divide signal, with scaling, rounding then clamp to saturated value.

Parameters:

pSrc Source Signal Pointer.

pSrcDst In-Place Signal Pointer. signal1 divisor elements to be divided into signal2 dividend elements

nLength Signal Length.

nRndMode various rounding modes.

nScaleFactor Integer Result Scaling.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.155.2.2 NppStatus nppsDiv_Round_16s_Sfs (const Npp16s ∗ *pSrc1*, const Npp16s ∗ *pSrc2*, Npp16s ∗ *pDst*, int *nLength*, NppRoundMode *nRndMode*, int *nScaleFactor*)

16-bit signed short signal divide signal, scale, round, then clamp to saturated value.

Parameters:

pSrc1 Source Signal Pointer.

pSrc2 Source Signal Pointer, signal1 divisor elements to be divided into signal2 dividend elements.

pDst Destination Signal Pointer.

nLength Signal Length.

nRndMode various rounding modes.

nScaleFactor Integer Result Scaling.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.155.2.3 NppStatus nppsDiv_Round_16u_ISfs (const Npp16u ∗ *pSrc*, Npp16u ∗ *pSrcDst*, int *nLength*, NppRoundMode *nRndMode*, int *nScaleFactor*)

16-bit unsigned short in place signal divide signal, with scaling, rounding then clamp to saturated value.

Parameters:

pSrc Source Signal Pointer.

pSrcDst In-Place Signal Pointer. signal1 divisor elements to be divided into signal2 dividend elements

nLength Signal Length.

nRndMode various rounding modes.

nScaleFactor Integer Result Scaling.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.155.2.4 NppStatus nppsDiv_Round_16u_Sfs (const Npp16u ∗ *pSrc1*, const Npp16u ∗ *pSrc2*, Npp16u ∗ *pDst*, int *nLength*, NppRoundMode *nRndMode*, int *nScaleFactor*)

16-bit unsigned short signal divide signal, scale, round, then clamp to saturated value.

Parameters:

pSrc1 Source Signal Pointer.

pSrc2 Source Signal Pointer, signal1 divisor elements to be divided into signal2 dividend elements.

pDst Destination Signal Pointer.

nLength Signal Length.

nRndMode various rounding modes.

nScaleFactor Integer Result Scaling.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.155.2.5 NppStatus nppsDiv_Round_8u_ISfs (const Npp8u ∗ *pSrc*, Npp8u ∗ *pSrcDst*, int *nLength*, NppRoundMode *nRndMode*, int *nScaleFactor*)

8-bit unsigned char in place signal divide signal, with scaling, rounding then clamp to saturated value.

Parameters:

pSrc Source Signal Pointer.

pSrcDst In-Place Signal Pointer. signal1 divisor elements to be divided into signal2 dividend elements

nLength Signal Length.

nRndMode various rounding modes.

nScaleFactor Integer Result Scaling.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.155.2.6 NppStatus nppsDiv_Round_8u_Sfs (const Npp8u ∗ *pSrc1*, const Npp8u ∗ *pSrc2*, Npp8u ∗ *pDst*, int *nLength*, NppRoundMode *nRndMode*, int *nScaleFactor*)

8-bit unsigned char signal divide signal, scale, then clamp to saturated value.

Parameters:

pSrc1 Source Signal Pointer.

pSrc2 Source Signal Pointer, signal1 divisor elements to be divided into signal2 dividend elements.

pDst Destination Signal Pointer.

nLength Signal Length.

nRndMode various rounding modes.

nScaleFactor Integer Result Scaling.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.156 Abs

Absolute value of each sample of a signal.

Functions

- NppStatus nppsAbs_16s (const Npp16s ∗pSrc, Npp16s ∗pDst, int nLength)
  16-bit signed short signal absolute value.
- NppStatus nppsAbs_32s (const Npp32s ∗pSrc, Npp32s ∗pDst, int nLength)
  32-bit signed integer signal absolute value.
- NppStatus nppsAbs_32f (const Npp32f ∗pSrc, Npp32f ∗pDst, int nLength)
  32-bit floating point signal absolute value.
- NppStatus nppsAbs_64f (const Npp64f ∗pSrc, Npp64f ∗pDst, int nLength)
  64-bit floating point signal absolute value.
- NppStatus nppsAbs_16s_I (Npp16s ∗pSrcDst, int nLength)
  16-bit signed short signal absolute value.
- NppStatus nppsAbs_32s_I (Npp32s ∗pSrcDst, int nLength)
  32-bit signed integer signal absolute value.
- NppStatus nppsAbs_32f_I (Npp32f ∗pSrcDst, int nLength)
  32-bit floating point signal absolute value.
- NppStatus nppsAbs_64f_I (Npp64f ∗pSrcDst, int nLength)
  64-bit floating point signal absolute value.

7.156.1 Detailed Description

Absolute value of each sample of a signal.

7.156.2 Function Documentation

7.156.2.1 NppStatus nppsAbs_16s (const Npp16s ∗ *pSrc*, Npp16s ∗ *pDst*, int *nLength*)

16-bit signed short signal absolute value.

Parameters:

pSrc Source Signal Pointer.
pDst Destination Signal Pointer.
nLength Signal Length.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.156.2.2 NppStatus nppsAbs_16s_I (Npp16s ∗ *pSrcDst*, int *nLength*)

16-bit signed short signal absolute value.

Parameters:

pSrcDst In-Place Signal Pointer.
nLength Signal Length.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.156.2.3 NppStatus nppsAbs_32f (const Npp32f ∗ *pSrc*, Npp32f ∗ *pDst*, int *nLength*)

32-bit floating point signal absolute value.

Parameters:

pSrc Source Signal Pointer.
pDst Destination Signal Pointer.
nLength Signal Length.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.156.2.4 NppStatus nppsAbs_32f_I (Npp32f ∗ *pSrcDst*, int *nLength*)

32-bit floating point signal absolute value.

Parameters:

pSrcDst In-Place Signal Pointer.
nLength Signal Length.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.156.2.5 NppStatus nppsAbs_32s (const Npp32s ∗ *pSrc*, Npp32s ∗ *pDst*, int *nLength*)

32-bit signed integer signal absolute value.

Parameters:

pSrc Source Signal Pointer.
pDst Destination Signal Pointer.
nLength Signal Length.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.156.2.6 NppStatus nppsAbs_32s_I (Npp32s ∗ *pSrcDst*, int *nLength*)

32-bit signed integer signal absolute value.

Parameters:

pSrcDst In-Place Signal Pointer.

nLength Signal Length.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.156.2.7 NppStatus nppsAbs_64f (const Npp64f ∗ *pSrc*, Npp64f ∗ *pDst*, int *nLength*)

64-bit floating point signal absolute value.

Parameters:

pSrc Source Signal Pointer.

pDst Destination Signal Pointer.

nLength Signal Length.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.156.2.8 NppStatus nppsAbs_64f_I (Npp64f ∗ *pSrcDst*, int *nLength*)

64-bit floating point signal absolute value.

Parameters:

pSrcDst In-Place Signal Pointer.

nLength Signal Length.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.157 Sqr

Squares each sample of a signal.

Functions

- NppStatus nppsSqr_32f (const Npp32f ∗pSrc, Npp32f ∗pDst, int nLength)

  32-bit floating point signal squared.

- NppStatus nppsSqr_64f (const Npp64f ∗pSrc, Npp64f ∗pDst, int nLength)

  64-bit floating point signal squared.

- NppStatus nppsSqr_32fc (const Npp32fc ∗pSrc, Npp32fc ∗pDst, int nLength)

  32-bit complex floating point signal squared.

- NppStatus nppsSqr_64fc (const Npp64fc ∗pSrc, Npp64fc ∗pDst, int nLength)

  64-bit complex floating point signal squared.

- NppStatus nppsSqr_32f_I (Npp32f ∗pSrcDst, int nLength)

  32-bit floating point signal squared.

- NppStatus nppsSqr_64f_I (Npp64f ∗pSrcDst, int nLength)

  64-bit floating point signal squared.

- NppStatus nppsSqr_32fc_I (Npp32fc ∗pSrcDst, int nLength)

  32-bit complex floating point signal squared.

- NppStatus nppsSqr_64fc_I (Npp64fc ∗pSrcDst, int nLength)

  64-bit complex floating point signal squared.

- NppStatus nppsSqr_8u_Sfs (const Npp8u ∗pSrc, Npp8u ∗pDst, int nLength, int nScaleFactor)

  8-bit unsigned char signal squared, scale, then clamp to saturated value.

- NppStatus nppsSqr_16u_Sfs (const Npp16u ∗pSrc, Npp16u ∗pDst, int nLength, int nScaleFactor)

  16-bit unsigned short signal squared, scale, then clamp to saturated value.

- NppStatus nppsSqr_16s_Sfs (const Npp16s ∗pSrc, Npp16s ∗pDst, int nLength, int nScaleFactor)

  16-bit signed short signal squared, scale, then clamp to saturated value.

- NppStatus nppsSqr_16sc_Sfs (const Npp16sc ∗pSrc, Npp16sc ∗pDst, int nLength, int nScaleFactor)

  16-bit complex signed short signal squared, scale, then clamp to saturated value.

- NppStatus nppsSqr_8u_ISfs (Npp8u ∗pSrcDst, int nLength, int nScaleFactor)

  8-bit unsigned char signal squared, scale, then clamp to saturated value.

- NppStatus nppsSqr_16u_ISfs (Npp16u ∗pSrcDst, int nLength, int nScaleFactor)

  16-bit unsigned short signal squared, scale, then clamp to saturated value.

- NppStatus nppsSqr_16s_ISfs (Npp16s ∗pSrcDst, int nLength, int nScaleFactor)
  16-bit signed short signal squared, scale, then clamp to saturated value.
- NppStatus nppsSqr_16sc_ISfs (Npp16sc ∗pSrcDst, int nLength, int nScaleFactor)
  16-bit complex signed short signal squared, scale, then clamp to saturated value.

7.157.1 Detailed Description

Squares each sample of a signal.

7.157.2 Function Documentation

7.157.2.1 NppStatus nppsSqr_16s_ISfs (Npp16s ∗ *pSrcDst*, int *nLength*, int *nScaleFactor*)

16-bit signed short signal squared, scale, then clamp to saturated value.

Parameters:

pSrcDst In-Place Signal Pointer.

nLength Signal Length.

nScaleFactor Integer Result Scaling.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.157.2.2 NppStatus nppsSqr_16s_Sfs (const Npp16s ∗ *pSrc*, Npp16s ∗ *pDst*, int *nLength*, int *nScaleFactor*)

16-bit signed short signal squared, scale, then clamp to saturated value.

Parameters:

pSrc Source Signal Pointer.

pDst Destination Signal Pointer.

nLength Signal Length.

nScaleFactor Integer Result Scaling.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.157.2.3 NppStatus nppsSqr_16sc_ISfs (Npp16sc ∗ *pSrcDst*, int *nLength*, int *nScaleFactor*)

16-bit complex signed short signal squared, scale, then clamp to saturated value.

Parameters:

pSrcDst In-Place Signal Pointer.

nLength Signal Length.

nScaleFactor Integer Result Scaling.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.157.2.4 NppStatus nppsSqr_16sc_Sfs (const Npp16sc ∗ *pSrc*, Npp16sc ∗ *pDst*, int *nLength*, int *nScaleFactor*)

16-bit complex signed short signal squared, scale, then clamp to saturated value.

Parameters:

pSrc Source Signal Pointer.

pDst Destination Signal Pointer.

nLength Signal Length.

nScaleFactor Integer Result Scaling.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.157.2.5 NppStatus nppsSqr_16u_ISfs (Npp16u ∗ *pSrcDst*, int *nLength*, int *nScaleFactor*)

16-bit unsigned short signal squared, scale, then clamp to saturated value.

Parameters:

pSrcDst In-Place Signal Pointer.

nLength Signal Length.

nScaleFactor Integer Result Scaling.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.157.2.6 NppStatus nppsSqr_16u_Sfs (const Npp16u ∗ *pSrc*, Npp16u ∗ *pDst*, int *nLength*, int *nScaleFactor*)

16-bit unsigned short signal squared, scale, then clamp to saturated value.

Parameters:

pSrc Source Signal Pointer.

pDst Destination Signal Pointer.

nLength Signal Length.

nScaleFactor Integer Result Scaling.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.157.2.7 NppStatus nppsSqr_32f (const Npp32f ∗ *pSrc*, Npp32f ∗ *pDst*, int *nLength*)

32-bit floating point signal squared.

Parameters:

pSrc Source Signal Pointer.
pDst Destination Signal Pointer.
nLength Signal Length.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.157.2.8 NppStatus nppsSqr_32f_I (Npp32f ∗ *pSrcDst*, int *nLength*)

32-bit floating point signal squared.

Parameters:

pSrcDst In-Place Signal Pointer.
nLength Signal Length.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.157.2.9 NppStatus nppsSqr_32fc (const Npp32fc ∗ *pSrc*, Npp32fc ∗ *pDst*, int *nLength*)

32-bit complex floating point signal squared.

Parameters:

pSrc Source Signal Pointer.
pDst Destination Signal Pointer.
nLength Signal Length.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.157.2.10 NppStatus nppsSqr_32fc_I (Npp32fc ∗ *pSrcDst*, int *nLength*)

32-bit complex floating point signal squared.

Parameters:

pSrcDst In-Place Signal Pointer.
nLength Signal Length.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.157.2.11 NppStatus nppsSqr_64f (const Npp64f ∗ *pSrc*, Npp64f ∗ *pDst*, int *nLength*)

64-bit floating point signal squared.

Parameters:

pSrc Source Signal Pointer.
pDst Destination Signal Pointer.
nLength Signal Length.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.157.2.12 NppStatus nppsSqr_64f_I (Npp64f ∗ *pSrcDst*, int *nLength*)

64-bit floating point signal squared.

Parameters:

pSrcDst In-Place Signal Pointer.
nLength Signal Length.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.157.2.13 NppStatus nppsSqr_64fc (const Npp64fc ∗ *pSrc*, Npp64fc ∗ *pDst*, int *nLength*)

64-bit complex floating point signal squared.

Parameters:

pSrc Source Signal Pointer.
pDst Destination Signal Pointer.
nLength Signal Length.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.157.2.14 NppStatus nppsSqr_64fc_I (Npp64fc ∗ *pSrcDst*, int *nLength*)

64-bit complex floating point signal squared.

Parameters:

pSrcDst In-Place Signal Pointer.
nLength Signal Length.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.157.2.15 NppStatus nppsSqr_8u_ISfs (Npp8u $*$ *pSrcDst*, int *nLength*, int *nScaleFactor*)

8-bit unsigned char signal squared, scale, then clamp to saturated value.

Parameters:

pSrcDst In-Place Signal Pointer.

nLength Signal Length.

nScaleFactor Integer Result Scaling.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.157.2.16 NppStatus nppsSqr_8u_Sfs (const Npp8u $*$ *pSrc*, Npp8u $*$ *pDst*, int *nLength*, int *nScaleFactor*)

8-bit unsigned char signal squared, scale, then clamp to saturated value.

Parameters:

pSrc Source Signal Pointer.

pDst Destination Signal Pointer.

nLength Signal Length.

nScaleFactor Integer Result Scaling.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.158 Sqrt

Square root of each sample of a signal.

Functions

- NppStatus nppsSqrt_32f (const Npp32f ∗pSrc, Npp32f ∗pDst, int nLength)

  32-bit floating point signal square root.

- NppStatus nppsSqrt_64f (const Npp64f ∗pSrc, Npp64f ∗pDst, int nLength)

  64-bit floating point signal square root.

- NppStatus nppsSqrt_32fc (const Npp32fc ∗pSrc, Npp32fc ∗pDst, int nLength)

  32-bit complex floating point signal square root.

- NppStatus nppsSqrt_64fc (const Npp64fc ∗pSrc, Npp64fc ∗pDst, int nLength)

  64-bit complex floating point signal square root.

- NppStatus nppsSqrt_32f_I (Npp32f ∗pSrcDst, int nLength)

  32-bit floating point signal square root.

- NppStatus nppsSqrt_64f_I (Npp64f ∗pSrcDst, int nLength)

  64-bit floating point signal square root.

- NppStatus nppsSqrt_32fc_I (Npp32fc ∗pSrcDst, int nLength)

  32-bit complex floating point signal square root.

- NppStatus nppsSqrt_64fc_I (Npp64fc ∗pSrcDst, int nLength)

  64-bit complex floating point signal square root.

- NppStatus nppsSqrt_8u_Sfs (const Npp8u ∗pSrc, Npp8u ∗pDst, int nLength, int nScaleFactor)

  8-bit unsigned char signal square root, scale, then clamp to saturated value.

- NppStatus nppsSqrt_16u_Sfs (const Npp16u ∗pSrc, Npp16u ∗pDst, int nLength, int nScaleFactor)

  16-bit unsigned short signal square root, scale, then clamp to saturated value.

- NppStatus nppsSqrt_16s_Sfs (const Npp16s ∗pSrc, Npp16s ∗pDst, int nLength, int nScaleFactor)

  16-bit signed short signal square root, scale, then clamp to saturated value.

- NppStatus nppsSqrt_16sc_Sfs (const Npp16sc ∗pSrc, Npp16sc ∗pDst, int nLength, int nScaleFactor)

  16-bit complex signed short signal square root, scale, then clamp to saturated value.

- NppStatus nppsSqrt_64s_Sfs (const Npp64s ∗pSrc, Npp64s ∗pDst, int nLength, int nScaleFactor)

  64-bit signed integer signal square root, scale, then clamp to saturated value.

- NppStatus nppsSqrt_32s16s_Sfs (const Npp32s ∗pSrc, Npp16s ∗pDst, int nLength, int nScaleFactor)

  32-bit signed integer signal square root, scale, then clamp to 16-bit signed integer saturated value.

- NppStatus nppsSqrt_64s16s_Sfs (const Npp64s ∗pSrc, Npp16s ∗pDst, int nLength, int nScaleFactor)

  64-bit signed integer signal square root, scale, then clamp to 16-bit signed integer saturated value.

- NppStatus nppsSqrt_8u_ISfs (Npp8u ∗pSrcDst, int nLength, int nScaleFactor)

  8-bit unsigned char signal square root, scale, then clamp to saturated value.

- NppStatus nppsSqrt_16u_ISfs (Npp16u ∗pSrcDst, int nLength, int nScaleFactor)

  16-bit unsigned short signal square root, scale, then clamp to saturated value.

- NppStatus nppsSqrt_16s_ISfs (Npp16s ∗pSrcDst, int nLength, int nScaleFactor)

  16-bit signed short signal square root, scale, then clamp to saturated value.

- NppStatus nppsSqrt_16sc_ISfs (Npp16sc ∗pSrcDst, int nLength, int nScaleFactor)

  16-bit complex signed short signal square root, scale, then clamp to saturated value.

- NppStatus nppsSqrt_64s_ISfs (Npp64s ∗pSrcDst, int nLength, int nScaleFactor)

  64-bit signed integer signal square root, scale, then clamp to saturated value.

7.158.1 Detailed Description

Square root of each sample of a signal.

7.158.2 Function Documentation

7.158.2.1 NppStatus nppsSqrt_16s_ISfs (Npp16s ∗ *pSrcDst*, int *nLength*, int *nScaleFactor*)

16-bit signed short signal square root, scale, then clamp to saturated value.

Parameters:

pSrcDst In-Place Signal Pointer.

nLength Signal Length.

nScaleFactor Integer Result Scaling.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.158.2.2 NppStatus nppsSqrt_16s_Sfs (const Npp16s ∗ *pSrc*, Npp16s ∗ *pDst*, int *nLength*, int *nScaleFactor*)

16-bit signed short signal square root, scale, then clamp to saturated value.

Parameters:

pSrc Source Signal Pointer.

pDst Destination Signal Pointer.

nLength Signal Length.

nScaleFactor Integer Result Scaling.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.158.2.3 NppStatus nppsSqrt_16sc_ISfs (Npp16sc ∗ *pSrcDst*, int *nLength*, int *nScaleFactor*)

16-bit complex signed short signal square root, scale, then clamp to saturated value.

Parameters:

pSrcDst In-Place Signal Pointer.

nLength Signal Length.

nScaleFactor Integer Result Scaling.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.158.2.4 NppStatus nppsSqrt_16sc_Sfs (const Npp16sc ∗ *pSrc*, Npp16sc ∗ *pDst*, int *nLength*, int *nScaleFactor*)

16-bit complex signed short signal square root, scale, then clamp to saturated value.

Parameters:

pSrc Source Signal Pointer.

pDst Destination Signal Pointer.

nLength Signal Length.

nScaleFactor Integer Result Scaling.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.158.2.5 NppStatus nppsSqrt_16u_ISfs (Npp16u ∗ *pSrcDst*, int *nLength*, int *nScaleFactor*)

16-bit unsigned short signal square root, scale, then clamp to saturated value.

Parameters:

pSrcDst In-Place Signal Pointer.

nLength Signal Length.

nScaleFactor Integer Result Scaling.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.158.2.6 NppStatus nppsSqrt_16u_Sfs (const Npp16u ∗ *pSrc*, Npp16u ∗ *pDst*, int *nLength*, int *nScaleFactor*)

16-bit unsigned short signal square root, scale, then clamp to saturated value.

Parameters:

pSrc Source Signal Pointer.

pDst Destination Signal Pointer.

nLength Signal Length.

nScaleFactor Integer Result Scaling.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.158.2.7 NppStatus nppsSqrt_32f (const Npp32f ∗ *pSrc*, Npp32f ∗ *pDst*, int *nLength*)

32-bit floating point signal square root.

Parameters:

pSrc Source Signal Pointer.

pDst Destination Signal Pointer.

nLength Signal Length.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.158.2.8 NppStatus nppsSqrt_32f_I (Npp32f ∗ *pSrcDst*, int *nLength*)

32-bit floating point signal square root.

Parameters:

pSrcDst In-Place Signal Pointer.

nLength Signal Length.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.158.2.9 NppStatus nppsSqrt_32fc (const Npp32fc ∗ *pSrc*, Npp32fc ∗ *pDst*, int *nLength*)

32-bit complex floating point signal square root.

Parameters:

pSrc Source Signal Pointer.

pDst Destination Signal Pointer.

nLength Signal Length.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.158.2.10 NppStatus nppsSqrt_32fc_I (Npp32fc * *pSrcDst*, int *nLength*)

32-bit complex floating point signal square root.

Parameters:

pSrcDst In-Place Signal Pointer.

nLength Signal Length.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.158.2.11 NppStatus nppsSqrt_32s16s_Sfs (const Npp32s * *pSrc*, Npp16s * *pDst*, int *nLength*, int *nScaleFactor*)

32-bit signed integer signal square root, scale, then clamp to 16-bit signed integer saturated value.

Parameters:

pSrc Source Signal Pointer.

pDst Destination Signal Pointer.

nLength Signal Length.

nScaleFactor Integer Result Scaling.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.158.2.12 NppStatus nppsSqrt_64f (const Npp64f * *pSrc*, Npp64f * *pDst*, int *nLength*)

64-bit floating point signal square root.

Parameters:

pSrc Source Signal Pointer.

pDst Destination Signal Pointer.

nLength Signal Length.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.158.2.13 NppStatus nppsSqrt_64f_I (Npp64f ∗ *pSrcDst*, int *nLength*)

64-bit floating point signal square root.

Parameters:

pSrcDst In-Place Signal Pointer.
nLength Signal Length.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.158.2.14 NppStatus nppsSqrt_64fc (const Npp64fc ∗ *pSrc*, Npp64fc ∗ *pDst*, int *nLength*)

64-bit complex floating point signal square root.

Parameters:

pSrc Source Signal Pointer.
pDst Destination Signal Pointer.
nLength Signal Length.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.158.2.15 NppStatus nppsSqrt_64fc_I (Npp64fc ∗ *pSrcDst*, int *nLength*)

64-bit complex floating point signal square root.

Parameters:

pSrcDst In-Place Signal Pointer.
nLength Signal Length.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.158.2.16 NppStatus nppsSqrt_64s16s_Sfs (const Npp64s ∗ *pSrc*, Npp16s ∗ *pDst*, int *nLength*, int *nScaleFactor*)

64-bit signed integer signal square root, scale, then clamp to 16-bit signed integer saturated value.

Parameters:

pSrc Source Signal Pointer.
pDst Destination Signal Pointer.
nLength Signal Length.
nScaleFactor Integer Result Scaling.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.158.2.17 NppStatus nppsSqrt_64s_ISfs (Npp64s ∗ *pSrcDst*, int *nLength*, int *nScaleFactor*)

64-bit signed integer signal square root, scale, then clamp to saturated value.

Parameters:

pSrcDst In-Place Signal Pointer.

nLength Signal Length.

nScaleFactor Integer Result Scaling.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.158.2.18 NppStatus nppsSqrt_64s_Sfs (const Npp64s ∗ *pSrc*, Npp64s ∗ *pDst*, int *nLength*, int *nScaleFactor*)

64-bit signed integer signal square root, scale, then clamp to saturated value.

Parameters:

pSrc Source Signal Pointer.

pDst Destination Signal Pointer.

nLength Signal Length.

nScaleFactor Integer Result Scaling.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.158.2.19 NppStatus nppsSqrt_8u_ISfs (Npp8u ∗ *pSrcDst*, int *nLength*, int *nScaleFactor*)

8-bit unsigned char signal square root, scale, then clamp to saturated value.

Parameters:

pSrcDst In-Place Signal Pointer.

nLength Signal Length.

nScaleFactor Integer Result Scaling.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.158.2.20 NppStatus nppsSqrt_8u_Sfs (const Npp8u ∗ *pSrc*, Npp8u ∗ *pDst*, int *nLength*, int *nScaleFactor*)

8-bit unsigned char signal square root, scale, then clamp to saturated value.

Parameters:

- ***pSrc*** Source Signal Pointer.
- ***pDst*** Destination Signal Pointer.
- ***nLength*** Signal Length.
- ***nScaleFactor*** Integer Result Scaling.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.159 Cubrt

Cube root of each sample of a signal.

Functions

- NppStatus nppsCubrt_32f (const Npp32f ∗pSrc, Npp32f ∗pDst, int nLength)

  32-bit floating point signal cube root.

- NppStatus nppsCubrt_32s16s_Sfs (const Npp32s ∗pSrc, Npp16s ∗pDst, int nLength, int nScaleFactor)

  32-bit signed integer signal cube root, scale, then clamp to 16-bit signed integer saturated value.

7.159.1 Detailed Description

Cube root of each sample of a signal.

7.159.2 Function Documentation

7.159.2.1 NppStatus nppsCubrt_32f (const Npp32f ∗ *pSrc*, Npp32f ∗ *pDst*, int *nLength*)

32-bit floating point signal cube root.

Parameters:

pSrc Source Signal Pointer.

pDst Destination Signal Pointer.

nLength Signal Length.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.159.2.2 NppStatus nppsCubrt_32s16s_Sfs (const Npp32s ∗ *pSrc*, Npp16s ∗ *pDst*, int *nLength*, int *nScaleFactor*)

32-bit signed integer signal cube root, scale, then clamp to 16-bit signed integer saturated value.

Parameters:

pSrc Source Signal Pointer.

pDst Destination Signal Pointer.

nLength Signal Length.

nScaleFactor Integer Result Scaling.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.160 Exp

E raised to the power of each sample of a signal.

Functions

- NppStatus nppsExp_32f (const Npp32f ∗pSrc, Npp32f ∗pDst, int nLength)
  32-bit floating point signal exponent.
- NppStatus nppsExp_64f (const Npp64f ∗pSrc, Npp64f ∗pDst, int nLength)
  64-bit floating point signal exponent.
- NppStatus nppsExp_32f64f (const Npp32f ∗pSrc, Npp64f ∗pDst, int nLength)
  32-bit floating point signal exponent with 64-bit floating point result.
- NppStatus nppsExp_32f_I (Npp32f ∗pSrcDst, int nLength)
  32-bit floating point signal exponent.
- NppStatus nppsExp_64f_I (Npp64f ∗pSrcDst, int nLength)
  64-bit floating point signal exponent.
- NppStatus nppsExp_16s_Sfs (const Npp16s ∗pSrc, Npp16s ∗pDst, int nLength, int nScaleFactor)
  16-bit signed short signal exponent, scale, then clamp to saturated value.
- NppStatus nppsExp_32s_Sfs (const Npp32s ∗pSrc, Npp32s ∗pDst, int nLength, int nScaleFactor)
  32-bit signed integer signal exponent, scale, then clamp to saturated value.
- NppStatus nppsExp_64s_Sfs (const Npp64s ∗pSrc, Npp64s ∗pDst, int nLength, int nScaleFactor)
  64-bit signed integer signal exponent, scale, then clamp to saturated value.
- NppStatus nppsExp_16s_ISfs (Npp16s ∗pSrcDst, int nLength, int nScaleFactor)
  16-bit signed short signal exponent, scale, then clamp to saturated value.
- NppStatus nppsExp_32s_ISfs (Npp32s ∗pSrcDst, int nLength, int nScaleFactor)
  32-bit signed integer signal exponent, scale, then clamp to saturated value.
- NppStatus nppsExp_64s_ISfs (Npp64s ∗pSrcDst, int nLength, int nScaleFactor)
  64-bit signed integer signal exponent, scale, then clamp to saturated value.

7.160.1 Detailed Description

E raised to the power of each sample of a signal.

7.160.2 Function Documentation

7.160.2.1 NppStatus nppsExp_16s_ISfs (Npp16s ∗ *pSrcDst*, int *nLength*, int *nScaleFactor*)

16-bit signed short signal exponent, scale, then clamp to saturated value.

Parameters:

pSrcDst In-Place Signal Pointer.
nLength Signal Length.
nScaleFactor Integer Result Scaling.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.160.2.2 NppStatus nppsExp_16s_Sfs (const Npp16s ∗ *pSrc*, Npp16s ∗ *pDst*, int *nLength*, int *nScaleFactor*)

16-bit signed short signal exponent, scale, then clamp to saturated value.

Parameters:

pSrc Source Signal Pointer.
pDst Destination Signal Pointer.
nLength Signal Length.
nScaleFactor Integer Result Scaling.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.160.2.3 NppStatus nppsExp_32f (const Npp32f ∗ *pSrc*, Npp32f ∗ *pDst*, int *nLength*)

32-bit floating point signal exponent.

Parameters:

pSrc Source Signal Pointer.
pDst Destination Signal Pointer.
nLength Signal Length.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.160.2.4 NppStatus nppsExp_32f64f (const Npp32f ∗ *pSrc*, Npp64f ∗ *pDst*, int *nLength*)

32-bit floating point signal exponent with 64-bit floating point result.

Parameters:

pSrc Source Signal Pointer.
pDst Destination Signal Pointer.
nLength Signal Length.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.160.2.5 NppStatus nppsExp_32f_I (Npp32f ∗ *pSrcDst*, int *nLength*)

32-bit floating point signal exponent.

Parameters:

pSrcDst In-Place Signal Pointer.

nLength Signal Length.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.160.2.6 NppStatus nppsExp_32s_ISfs (Npp32s ∗ *pSrcDst*, int *nLength*, int *nScaleFactor*)

32-bit signed integer signal exponent, scale, then clamp to saturated value.

Parameters:

pSrcDst In-Place Signal Pointer.

nLength Signal Length.

nScaleFactor Integer Result Scaling.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.160.2.7 NppStatus nppsExp_32s_Sfs (const Npp32s ∗ *pSrc*, Npp32s ∗ *pDst*, int *nLength*, int *nScaleFactor*)

32-bit signed integer signal exponent, scale, then clamp to saturated value.

Parameters:

pSrc Source Signal Pointer.

pDst Destination Signal Pointer.

nLength Signal Length.

nScaleFactor Integer Result Scaling.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.160.2.8 NppStatus nppsExp_64f (const Npp64f ∗ *pSrc*, Npp64f ∗ *pDst*, int *nLength*)

64-bit floating point signal exponent.

Parameters:

pSrc Source Signal Pointer.

pDst Destination Signal Pointer.

nLength Signal Length.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.160.2.9 NppStatus nppsExp_64f_I (Npp64f ∗ *pSrcDst*, int *nLength*)

64-bit floating point signal exponent.

Parameters:

pSrcDst In-Place Signal Pointer.

nLength Signal Length.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.160.2.10 NppStatus nppsExp_64s_ISfs (Npp64s ∗ *pSrcDst*, int *nLength*, int *nScaleFactor*)

64-bit signed integer signal exponent, scale, then clamp to saturated value.

Parameters:

pSrcDst In-Place Signal Pointer.

nLength Signal Length.

nScaleFactor Integer Result Scaling.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.160.2.11 NppStatus nppsExp_64s_Sfs (const Npp64s ∗ *pSrc*, Npp64s ∗ *pDst*, int *nLength*, int *nScaleFactor*)

64-bit signed integer signal exponent, scale, then clamp to saturated value.

Parameters:

pSrc Source Signal Pointer.

pDst Destination Signal Pointer.

nLength Signal Length.

nScaleFactor Integer Result Scaling.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.161 Ln

Natural logarithm of each sample of a signal.

Functions

- NppStatus nppsLn_32f (const Npp32f ∗pSrc, Npp32f ∗pDst, int nLength)

  32-bit floating point signal natural logarithm.

- NppStatus nppsLn_64f (const Npp64f ∗pSrc, Npp64f ∗pDst, int nLength)

  64-bit floating point signal natural logarithm.

- NppStatus nppsLn_64f32f (const Npp64f ∗pSrc, Npp32f ∗pDst, int nLength)

  64-bit floating point signal natural logarithm with 32-bit floating point result.

- NppStatus nppsLn_32f_I (Npp32f ∗pSrcDst, int nLength)

  32-bit floating point signal natural logarithm.

- NppStatus nppsLn_64f_I (Npp64f ∗pSrcDst, int nLength)

  64-bit floating point signal natural logarithm.

- NppStatus nppsLn_16s_Sfs (const Npp16s ∗pSrc, Npp16s ∗pDst, int nLength, int nScaleFactor)

  16-bit signed short signal natural logarithm, scale, then clamp to saturated value.

- NppStatus nppsLn_32s_Sfs (const Npp32s ∗pSrc, Npp32s ∗pDst, int nLength, int nScaleFactor)

  32-bit signed integer signal natural logarithm, scale, then clamp to saturated value.

- NppStatus nppsLn_32s16s_Sfs (const Npp32s ∗pSrc, Npp16s ∗pDst, int nLength, int nScaleFactor)

  32-bit signed integer signal natural logarithm, scale, then clamp to 16-bit signed short saturated value.

- NppStatus nppsLn_16s_ISfs (Npp16s ∗pSrcDst, int nLength, int nScaleFactor)

  16-bit signed short signal natural logarithm, scale, then clamp to saturated value.

- NppStatus nppsLn_32s_ISfs (Npp32s ∗pSrcDst, int nLength, int nScaleFactor)

  32-bit signed integer signal natural logarithm, scale, then clamp to saturated value.

7.161.1 Detailed Description

Natural logarithm of each sample of a signal.

7.161.2 Function Documentation

7.161.2.1 NppStatus nppsLn_16s_ISfs (Npp16s ∗ *pSrcDst*, int *nLength*, int *nScaleFactor*)

16-bit signed short signal natural logarithm, scale, then clamp to saturated value.

Parameters:

pSrcDst In-Place Signal Pointer.

nLength Signal Length.

nScaleFactor Integer Result Scaling.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.161.2.2 NppStatus nppsLn_16s_Sfs (const Npp16s * *pSrc*, Npp16s * *pDst*, int *nLength*, int *nScaleFactor*)

16-bit signed short signal natural logarithm, scale, then clamp to saturated value.

Parameters:

pSrc Source Signal Pointer.

pDst Destination Signal Pointer.

nLength Signal Length.

nScaleFactor Integer Result Scaling.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.161.2.3 NppStatus nppsLn_32f (const Npp32f * *pSrc*, Npp32f * *pDst*, int *nLength*)

32-bit floating point signal natural logarithm.

Parameters:

pSrc Source Signal Pointer.

pDst Destination Signal Pointer.

nLength Signal Length.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.161.2.4 NppStatus nppsLn_32f_I (Npp32f * *pSrcDst*, int *nLength*)

32-bit floating point signal natural logarithm.

Parameters:

pSrcDst In-Place Signal Pointer.

nLength Signal Length.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.161.2.5 NppStatus nppsLn_32s16s_Sfs (const Npp32s $*$ *pSrc*, Npp16s $*$ *pDst*, int *nLength*, int *nScaleFactor*)

32-bit signed integer signal natural logarithm, scale, then clamp to 16-bit signed short saturated value.

Parameters:

pSrc Source Signal Pointer.

pDst Destination Signal Pointer.

nLength Signal Length.

nScaleFactor Integer Result Scaling.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.161.2.6 NppStatus nppsLn_32s_ISfs (Npp32s $*$ *pSrcDst*, int *nLength*, int *nScaleFactor*)

32-bit signed integer signal natural logarithm, scale, then clamp to saturated value.

Parameters:

pSrcDst In-Place Signal Pointer.

nLength Signal Length.

nScaleFactor Integer Result Scaling.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.161.2.7 NppStatus nppsLn_32s_Sfs (const Npp32s $*$ *pSrc*, Npp32s $*$ *pDst*, int *nLength*, int *nScaleFactor*)

32-bit signed integer signal natural logarithm, scale, then clamp to saturated value.

Parameters:

pSrc Source Signal Pointer.

pDst Destination Signal Pointer.

nLength Signal Length.

nScaleFactor Integer Result Scaling.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.161.2.8 NppStatus nppsLn_64f (const Npp64f * *pSrc*, Npp64f * *pDst*, int *nLength*)

64-bit floating point signal natural logarithm.

Parameters:

pSrc Source Signal Pointer.

pDst Destination Signal Pointer.

nLength Signal Length.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.161.2.9 NppStatus nppsLn_64f32f (const Npp64f * *pSrc*, Npp32f * *pDst*, int *nLength*)

64-bit floating point signal natural logarithm with 32-bit floating point result.

Parameters:

pSrc Source Signal Pointer.

pDst Destination Signal Pointer.

nLength Signal Length.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.161.2.10 NppStatus nppsLn_64f_I (Npp64f * *pSrcDst*, int *nLength*)

64-bit floating point signal natural logarithm.

Parameters:

pSrcDst In-Place Signal Pointer.

nLength Signal Length.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.162 10Log10

Ten times the decimal logarithm of each sample of a signal.

Functions

- NppStatus npps10Log10_32s_Sfs (const Npp32s ∗pSrc, Npp32s ∗pDst, int nLength, int nScaleFactor)

  32-bit signed integer signal 10 times base 10 logarithm, scale, then clamp to saturated value.

- NppStatus npps10Log10_32s_ISfs (Npp32s ∗pSrcDst, int nLength, int nScaleFactor)

  32-bit signed integer signal 10 times base 10 logarithm, scale, then clamp to saturated value.

7.162.1 Detailed Description

Ten times the decimal logarithm of each sample of a signal.

7.162.2 Function Documentation

7.162.2.1 NppStatus npps10Log10_32s_ISfs (Npp32s ∗ *pSrcDst*, int *nLength*, int *nScaleFactor*)

32-bit signed integer signal 10 times base 10 logarithm, scale, then clamp to saturated value.

Parameters:

pSrcDst In-Place Signal Pointer.

nLength Signal Length.

nScaleFactor Integer Result Scaling.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.162.2.2 NppStatus npps10Log10_32s_Sfs (const Npp32s ∗ *pSrc*, Npp32s ∗ *pDst*, int *nLength*, int *nScaleFactor*)

32-bit signed integer signal 10 times base 10 logarithm, scale, then clamp to saturated value.

Parameters:

pSrc Source Signal Pointer.

pDst Destination Signal Pointer.

nLength Signal Length.

nScaleFactor Integer Result Scaling.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.163 SumLn

Sums up the natural logarithm of each sample of a signal.

Functions

- NppStatus nppsSumLnGetBufferSize_32f (int nLength, int ∗hpBufferSize)

  Device scratch buffer size (in bytes) for 32f SumLn.
- NppStatus nppsSumLn_32f (const Npp32f ∗pSrc, int nLength, Npp32f ∗pDst, Npp8u ∗pDeviceBuffer)

  32-bit floating point signal sum natural logarithm.
- NppStatus nppsSumLnGetBufferSize_64f (int nLength, int ∗hpBufferSize)

  Device scratch buffer size (in bytes) for 64f SumLn.
- NppStatus nppsSumLn_64f (const Npp64f ∗pSrc, int nLength, Npp64f ∗pDst, Npp8u ∗pDeviceBuffer)

  64-bit floating point signal sum natural logarithm.
- NppStatus nppsSumLnGetBufferSize_32f64f (int nLength, int ∗hpBufferSize)

  Device scratch buffer size (in bytes) for 32f64f SumLn.
- NppStatus nppsSumLn_32f64f (const Npp32f ∗pSrc, int nLength, Npp64f ∗pDst, Npp8u ∗pDeviceBuffer)

  32-bit flaoting point input, 64-bit floating point output signal sum natural logarithm.
- NppStatus nppsSumLnGetBufferSize_16s32f (int nLength, int ∗hpBufferSize)

  Device scratch buffer size (in bytes) for 16s32f SumLn.
- NppStatus nppsSumLn_16s32f (const Npp16s ∗pSrc, int nLength, Npp32f ∗pDst, Npp8u ∗pDeviceBuffer)

  16-bit signed short integer input, 32-bit floating point output signal sum natural logarithm.

7.163.1 Detailed Description

Sums up the natural logarithm of each sample of a signal.

7.163.2 Function Documentation

7.163.2.1 NppStatus nppsSumLn_16s32f (const Npp16s ∗ *pSrc*, int *nLength*, Npp32f ∗ *pDst*, Npp8u ∗ *pDeviceBuffer*)

16-bit signed short integer input, 32-bit floating point output signal sum natural logarithm.

Parameters:

pSrc Source Signal Pointer.

nLength Signal Length.

pDst Pointer to the output result.

pDeviceBuffer Pointer to the required device memory allocation.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.163.2.2 NppStatus nppsSumLn_32f (const Npp32f ∗ *pSrc*, int *nLength*, Npp32f ∗ *pDst*, Npp8u ∗ *pDeviceBuffer*)

32-bit floating point signal sum natural logarithm.

Parameters:

pSrc Source Signal Pointer.

nLength Signal Length.

pDst Pointer to the output result.

pDeviceBuffer Pointer to the required device memory allocation.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.163.2.3 NppStatus nppsSumLn_32f64f (const Npp32f ∗ *pSrc*, int *nLength*, Npp64f ∗ *pDst*, Npp8u ∗ *pDeviceBuffer*)

32-bit flaoting point input, 64-bit floating point output signal sum natural logarithm.

Parameters:

pSrc Source Signal Pointer.

nLength Signal Length.

pDst Pointer to the output result.

pDeviceBuffer Pointer to the required device memory allocation.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.163.2.4 NppStatus nppsSumLn_64f (const Npp64f ∗ *pSrc*, int *nLength*, Npp64f ∗ *pDst*, Npp8u ∗ *pDeviceBuffer*)

64-bit floating point signal sum natural logarithm.

Parameters:

pSrc Source Signal Pointer.

nLength Signal Length.

pDst Pointer to the output result.

pDeviceBuffer Pointer to the required device memory allocation.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.163.2.5 NppStatus nppsSumLnGetBufferSize_16s32f (int *nLength*, int ∗ *hpBufferSize*)

Device scratch buffer size (in bytes) for 16s32f SumLn.

This primitive provides the correct buffer size for nppsSumLn_16s32f.

Parameters:

nLength Signal Length.

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_SUCCESS

7.163.2.6 NppStatus nppsSumLnGetBufferSize_32f (int *nLength*, int ∗ *hpBufferSize*)

Device scratch buffer size (in bytes) for 32f SumLn.

This primitive provides the correct buffer size for nppsSumLn_32f.

Parameters:

nLength Signal Length.

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_SUCCESS

7.163.2.7 NppStatus nppsSumLnGetBufferSize_32f64f (int *nLength*, int ∗ *hpBufferSize*)

Device scratch buffer size (in bytes) for 32f64f SumLn.

This primitive provides the correct buffer size for nppsSumLn_32f64f.

Parameters:

nLength Signal Length.

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_SUCCESS

7.163.2.8 NppStatus nppsSumLnGetBufferSize_64f (int *nLength*, int ∗ *hpBufferSize*)

Device scratch buffer size (in bytes) for 64f SumLn.

This primitive provides the correct buffer size for nppsSumLn_64f.

Parameters:

nLength Signal Length.

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_SUCCESS

7.164 Arctan

Inverse tangent of each sample of a signal.

Functions

- NppStatus nppsArctan_32f (const Npp32f ∗pSrc, Npp32f ∗pDst, int nLength)
  32-bit floating point signal inverse tangent.
- NppStatus nppsArctan_64f (const Npp64f ∗pSrc, Npp64f ∗pDst, int nLength)
  64-bit floating point signal inverse tangent.
- NppStatus nppsArctan_32f_I (Npp32f ∗pSrcDst, int nLength)
  32-bit floating point signal inverse tangent.
- NppStatus nppsArctan_64f_I (Npp64f ∗pSrcDst, int nLength)
  64-bit floating point signal inverse tangent.

7.164.1 Detailed Description

Inverse tangent of each sample of a signal.

7.164.2 Function Documentation

7.164.2.1 NppStatus nppsArctan_32f (const Npp32f ∗ *pSrc*, Npp32f ∗ *pDst*, int *nLength*)

32-bit floating point signal inverse tangent.

Parameters:

pSrc Source Signal Pointer.
pDst Destination Signal Pointer.
nLength Signal Length.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.164.2.2 NppStatus nppsArctan_32f_I (Npp32f ∗ *pSrcDst*, int *nLength*)

32-bit floating point signal inverse tangent.

Parameters:

pSrcDst In-Place Signal Pointer.
nLength Signal Length.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.164.2.3 NppStatus nppsArctan_64f (const Npp64f * *pSrc*, Npp64f * *pDst*, int *nLength*)

64-bit floating point signal inverse tangent.

Parameters:

pSrc Source Signal Pointer.

pDst Destination Signal Pointer.

nLength Signal Length.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.164.2.4 NppStatus nppsArctan_64f_I (Npp64f * *pSrcDst*, int *nLength*)

64-bit floating point signal inverse tangent.

Parameters:

pSrcDst In-Place Signal Pointer.

nLength Signal Length.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.165 Normalize

Normalize each sample of a real or complex signal using offset and division operations.

Functions

- NppStatus nppsNormalize_32f (const Npp32f ∗pSrc, Npp32f ∗pDst, int nLength, Npp32f vSub, Npp32f vDiv)

  32-bit floating point signal normalize.

- NppStatus nppsNormalize_32fc (const Npp32fc ∗pSrc, Npp32fc ∗pDst, int nLength, Npp32fc vSub, Npp32f vDiv)

  32-bit complex floating point signal normalize.

- NppStatus nppsNormalize_64f (const Npp64f ∗pSrc, Npp64f ∗pDst, int nLength, Npp64f vSub, Npp64f vDiv)

  64-bit floating point signal normalize.

- NppStatus nppsNormalize_64fc (const Npp64fc ∗pSrc, Npp64fc ∗pDst, int nLength, Npp64fc vSub, Npp64f vDiv)

  64-bit complex floating point signal normalize.

- NppStatus nppsNormalize_16s_Sfs (const Npp16s ∗pSrc, Npp16s ∗pDst, int nLength, Npp16s vSub, int vDiv, int nScaleFactor)

  16-bit signed short signal normalize, scale, then clamp to saturated value.

- NppStatus nppsNormalize_16sc_Sfs (const Npp16sc ∗pSrc, Npp16sc ∗pDst, int nLength, Npp16sc vSub, int vDiv, int nScaleFactor)

  16-bit complex signed short signal normalize, scale, then clamp to saturated value.

7.165.1 Detailed Description

Normalize each sample of a real or complex signal using offset and division operations.

7.165.2 Function Documentation

7.165.2.1 NppStatus nppsNormalize_16s_Sfs (const Npp16s ∗ *pSrc*, Npp16s ∗ *pDst*, int *nLength*, Npp16s *vSub*, int *vDiv*, int *nScaleFactor*)

16-bit signed short signal normalize, scale, then clamp to saturated value.

Parameters:

pSrc Source Signal Pointer.

pDst Destination Signal Pointer.

nLength Signal Length.

vSub value subtracted from each signal element before division

vDiv divisor of post-subtracted signal element dividend

nScaleFactor Integer Result Scaling.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.165.2.2 NppStatus nppsNormalize_16sc_Sfs (const Npp16sc ∗ *pSrc*, Npp16sc ∗ *pDst*, int *nLength*, Npp16sc *vSub*, int *vDiv*, int *nScaleFactor*)

16-bit complex signed short signal normalize, scale, then clamp to saturated value.

Parameters:

pSrc Source Signal Pointer.

pDst Destination Signal Pointer.

nLength Signal Length.

vSub value subtracted from each signal element before division

vDiv divisor of post-subtracted signal element dividend

nScaleFactor Integer Result Scaling.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.165.2.3 NppStatus nppsNormalize_32f (const Npp32f ∗ *pSrc*, Npp32f ∗ *pDst*, int *nLength*, Npp32f *vSub*, Npp32f *vDiv*)

32-bit floating point signal normalize.

Parameters:

pSrc Source Signal Pointer.

pDst Destination Signal Pointer.

nLength Signal Length.

vSub value subtracted from each signal element before division

vDiv divisor of post-subtracted signal element dividend

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.165.2.4 NppStatus nppsNormalize_32fc (const Npp32fc ∗ *pSrc*, Npp32fc ∗ *pDst*, int *nLength*, Npp32fc *vSub*, Npp32f *vDiv*)

32-bit complex floating point signal normalize.

Parameters:

pSrc Source Signal Pointer.

pDst Destination Signal Pointer.

nLength Signal Length.

vSub value subtracted from each signal element before division

vDiv divisor of post-subtracted signal element dividend

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.165.2.5 NppStatus nppsNormalize_64f (const Npp64f ∗ *pSrc*, Npp64f ∗ *pDst*, int *nLength*, Npp64f *vSub*, Npp64f *vDiv*)

64-bit floating point signal normalize.

Parameters:

pSrc Source Signal Pointer.

pDst Destination Signal Pointer.

nLength Signal Length.

vSub value subtracted from each signal element before division

vDiv divisor of post-subtracted signal element dividend

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.165.2.6 NppStatus nppsNormalize_64fc (const Npp64fc ∗ *pSrc*, Npp64fc ∗ *pDst*, int *nLength*, Npp64fc *vSub*, Npp64f *vDiv*)

64-bit complex floating point signal normalize.

Parameters:

pSrc Source Signal Pointer.

pDst Destination Signal Pointer.

nLength Signal Length.

vSub value subtracted from each signal element before division

vDiv divisor of post-subtracted signal element dividend

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.166 Cauchy, CauchyD, and CauchyDD2

Determine Cauchy robust error function and its first and second derivatives for each sample of a signal.

Functions

- NppStatus nppsCauchy_32f_I (Npp32f ∗pSrcDst, int nLength, Npp32f nParam)

  32-bit floating point signal Cauchy error calculation.

- NppStatus nppsCauchyD_32f_I (Npp32f ∗pSrcDst, int nLength, Npp32f nParam)

  32-bit floating point signal Cauchy first derivative.

- NppStatus nppsCauchyDD2_32f_I (Npp32f ∗pSrcDst, Npp32f ∗pD2FVal, int nLength, Npp32f nParam)

  32-bit floating point signal Cauchy first and second derivatives.

7.166.1 Detailed Description

Determine Cauchy robust error function and its first and second derivatives for each sample of a signal.

7.166.2 Function Documentation

7.166.2.1 NppStatus nppsCauchy_32f_I (Npp32f ∗ *pSrcDst*, int *nLength*, Npp32f *nParam*)

32-bit floating point signal Cauchy error calculation.

Parameters:

pSrcDst In-Place Signal Pointer.

nLength Signal Length.

nParam constant used in Cauchy formula

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.166.2.2 NppStatus nppsCauchyD_32f_I (Npp32f ∗ *pSrcDst*, int *nLength*, Npp32f *nParam*)

32-bit floating point signal Cauchy first derivative.

Parameters:

pSrcDst In-Place Signal Pointer.

nLength Signal Length.

nParam constant used in Cauchy formula

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.166.2.3 NppStatus nppsCauchyDD2_32f_I (Npp32f ∗ *pSrcDst*, Npp32f ∗ *pD2FVal*, int *nLength*, Npp32f *nParam*)

32-bit floating point signal Cauchy first and second derivatives.

Parameters:

pSrcDst In-Place Signal Pointer.

pD2FVal Source Signal Pointer. This signal contains the second derivative of the source signal.

nLength Signal Length.

nParam constant used in Cauchy formula

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.167 Logical And Shift Operations

Modules

- AndC

  Bitwise AND of a constant and each sample of a signal.

- And

  Sample by sample bitwise AND of samples from two signals.

- OrC

  Bitwise OR of a constant and each sample of a signal.

- Or

  Sample by sample bitwise OR of the samples from two signals.

- XorC

  Bitwise XOR of a constant and each sample of a signal.

- Xor

  Sample by sample bitwise XOR of the samples from two signals.

- Not

  Bitwise NOT of each sample of a signal.

- LShiftC

  Left shifts the bits of each sample of a signal by a constant amount.

- RShiftC

  Right shifts the bits of each sample of a signal by a constant amount.

7.168 AndC

Bitwise AND of a constant and each sample of a signal.

Functions

- NppStatus nppsAndC_8u (const Npp8u ∗pSrc, Npp8u nValue, Npp8u ∗pDst, int nLength)

  8-bit unsigned char signal and with constant.

- NppStatus nppsAndC_16u (const Npp16u ∗pSrc, Npp16u nValue, Npp16u ∗pDst, int nLength)

  16-bit unsigned short signal and with constant.

- NppStatus nppsAndC_32u (const Npp32u ∗pSrc, Npp32u nValue, Npp32u ∗pDst, int nLength)

  32-bit unsigned integer signal and with constant.

- NppStatus nppsAndC_8u_I (Npp8u nValue, Npp8u ∗pSrcDst, int nLength)

  8-bit unsigned char in place signal and with constant.

- NppStatus nppsAndC_16u_I (Npp16u nValue, Npp16u ∗pSrcDst, int nLength)

  16-bit unsigned short in place signal and with constant.

- NppStatus nppsAndC_32u_I (Npp32u nValue, Npp32u ∗pSrcDst, int nLength)

  32-bit unsigned signed integer in place signal and with constant.

7.168.1 Detailed Description

Bitwise AND of a constant and each sample of a signal.

7.168.2 Function Documentation

7.168.2.1 NppStatus nppsAndC_16u (const Npp16u ∗ *pSrc*, Npp16u *nValue*, Npp16u ∗ *pDst*, int *nLength*)

16-bit unsigned short signal and with constant.

Parameters:

pSrc Source Signal Pointer.

nValue Constant value to be anded with each vector element

pDst Destination Signal Pointer.

nLength Signal Length.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.168.2.2 NppStatus nppsAndC_16u_I (Npp16u *nValue*, Npp16u ∗ *pSrcDst*, int *nLength*)

16-bit unsigned short in place signal and with constant.

Parameters:

pSrcDst In-Place Signal Pointer.

nValue Constant value to be anded with each vector element

nLength Signal Length.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.168.2.3 NppStatus nppsAndC_32u (const Npp32u ∗ *pSrc*, Npp32u *nValue*, Npp32u ∗ *pDst*, int *nLength*)

32-bit unsigned integer signal and with constant.

Parameters:

pSrc Source Signal Pointer.

nValue Constant value to be anded with each vector element

pDst Destination Signal Pointer.

nLength Signal Length.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.168.2.4 NppStatus nppsAndC_32u_I (Npp32u *nValue*, Npp32u ∗ *pSrcDst*, int *nLength*)

32-bit unsigned signed integer in place signal and with constant.

Parameters:

pSrcDst In-Place Signal Pointer.

nValue Constant value to be anded with each vector element

nLength Signal Length.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.168.2.5 NppStatus nppsAndC_8u (const Npp8u ∗ *pSrc*, Npp8u *nValue*, Npp8u ∗ *pDst*, int *nLength*)

8-bit unsigned char signal and with constant.

Parameters:

pSrc Source Signal Pointer.

nValue Constant value to be anded with each vector element

pDst Destination Signal Pointer.

nLength Signal Length.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.168.2.6 NppStatus nppsAndC_8u_I (Npp8u *nValue*, Npp8u ∗ *pSrcDst*, int *nLength*)

8-bit unsigned char in place signal and with constant.

Parameters:

pSrcDst In-Place Signal Pointer.

nValue Constant value to be anded with each vector element

nLength Signal Length.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.169 And

Sample by sample bitwise AND of samples from two signals.

Functions

- NppStatus nppsAnd_8u (const Npp8u ∗pSrc1, const Npp8u ∗pSrc2, Npp8u ∗pDst, int nLength)

  8-bit unsigned char signal and with signal.
- NppStatus nppsAnd_16u (const Npp16u ∗pSrc1, const Npp16u ∗pSrc2, Npp16u ∗pDst, int nLength)

  16-bit unsigned short signal and with signal.
- NppStatus nppsAnd_32u (const Npp32u ∗pSrc1, const Npp32u ∗pSrc2, Npp32u ∗pDst, int nLength)

  32-bit unsigned integer signal and with signal.
- NppStatus nppsAnd_8u_I (const Npp8u ∗pSrc, Npp8u ∗pSrcDst, int nLength)

  8-bit unsigned char in place signal and with signal.
- NppStatus nppsAnd_16u_I (const Npp16u ∗pSrc, Npp16u ∗pSrcDst, int nLength)

  16-bit unsigned short in place signal and with signal.
- NppStatus nppsAnd_32u_I (const Npp32u ∗pSrc, Npp32u ∗pSrcDst, int nLength)

  32-bit unsigned integer in place signal and with signal.

7.169.1 Detailed Description

Sample by sample bitwise AND of samples from two signals.

7.169.2 Function Documentation

7.169.2.1 NppStatus nppsAnd_16u (const Npp16u ∗ *pSrc1*, const Npp16u ∗ *pSrc2*, Npp16u ∗ *pDst*, int *nLength*)

16-bit unsigned short signal and with signal.

Parameters:

pSrc1 Source Signal Pointer.

pSrc2 Source Signal Pointer. signal2 elements to be anded with signal1 elements

pDst Destination Signal Pointer.

nLength Signal Length.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.169.2.2 NppStatus nppsAnd_16u_I (const Npp16u ∗ *pSrc*, Npp16u ∗ *pSrcDst*, int *nLength*)

16-bit unsigned short in place signal and with signal.

Parameters:

pSrc Source Signal Pointer.

pSrcDst In-Place Signal Pointer. signal2 elements to be anded with signal1 elements

nLength Signal Length.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.169.2.3 NppStatus nppsAnd_32u (const Npp32u ∗ *pSrc1*, const Npp32u ∗ *pSrc2*, Npp32u ∗ *pDst*, int *nLength*)

32-bit unsigned integer signal and with signal.

Parameters:

pSrc1 Source Signal Pointer.

pSrc2 Source Signal Pointer. signal2 elements to be anded with signal1 elements

pDst Destination Signal Pointer.

nLength Signal Length.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.169.2.4 NppStatus nppsAnd_32u_I (const Npp32u ∗ *pSrc*, Npp32u ∗ *pSrcDst*, int *nLength*)

32-bit unsigned integer in place signal and with signal.

Parameters:

pSrc Source Signal Pointer.

pSrcDst In-Place Signal Pointer. signal2 elements to be anded with signal1 elements

nLength Signal Length.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.169.2.5 NppStatus nppsAnd_8u (const Npp8u ∗ *pSrc1*, const Npp8u ∗ *pSrc2*, Npp8u ∗ *pDst*, int *nLength*)

8-bit unsigned char signal and with signal.

Parameters:

pSrc1 Source Signal Pointer.

pSrc2 Source Signal Pointer. signal2 elements to be anded with signal1 elements

pDst Destination Signal Pointer.

nLength Signal Length.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.169.2.6 NppStatus nppsAnd_8u_I (const Npp8u * *pSrc*, Npp8u * *pSrcDst*, int *nLength*)

8-bit unsigned char in place signal and with signal.

Parameters:

pSrc Source Signal Pointer.

pSrcDst In-Place Signal Pointer. signal2 elements to be anded with signal1 elements

nLength Signal Length.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.170 OrC

Bitwise OR of a constant and each sample of a signal.

Functions

- NppStatus nppsOrC_8u (const Npp8u ∗pSrc, Npp8u nValue, Npp8u ∗pDst, int nLength)

  8-bit unsigned char signal or with constant.
- NppStatus nppsOrC_16u (const Npp16u ∗pSrc, Npp16u nValue, Npp16u ∗pDst, int nLength)

  16-bit unsigned short signal or with constant.
- NppStatus nppsOrC_32u (const Npp32u ∗pSrc, Npp32u nValue, Npp32u ∗pDst, int nLength)

  32-bit unsigned integer signal or with constant.
- NppStatus nppsOrC_8u_I (Npp8u nValue, Npp8u ∗pSrcDst, int nLength)

  8-bit unsigned char in place signal or with constant.
- NppStatus nppsOrC_16u_I (Npp16u nValue, Npp16u ∗pSrcDst, int nLength)

  16-bit unsigned short in place signal or with constant.
- NppStatus nppsOrC_32u_I (Npp32u nValue, Npp32u ∗pSrcDst, int nLength)

  32-bit unsigned signed integer in place signal or with constant.

7.170.1 Detailed Description

Bitwise OR of a constant and each sample of a signal.

7.170.2 Function Documentation

7.170.2.1 NppStatus nppsOrC_16u (const Npp16u ∗ *pSrc*, Npp16u *nValue*, Npp16u ∗ *pDst*, int *nLength*)

16-bit unsigned short signal or with constant.

Parameters:

pSrc Source Signal Pointer.

nValue Constant value to be ored with each vector element

pDst Destination Signal Pointer.

nLength Signal Length.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.170.2.2 NppStatus nppsOrC_16u_I (Npp16u *nValue*, Npp16u ∗ *pSrcDst*, int *nLength*)

16-bit unsigned short in place signal or with constant.

Parameters:

pSrcDst In-Place Signal Pointer.

nValue Constant value to be ored with each vector element

nLength Signal Length.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.170.2.3 NppStatus nppsOrC_32u (const Npp32u ∗ *pSrc*, Npp32u *nValue*, Npp32u ∗ *pDst*, int *nLength*)

32-bit unsigned integer signal or with constant.

Parameters:

pSrc Source Signal Pointer.

nValue Constant value to be ored with each vector element

pDst Destination Signal Pointer.

nLength Signal Length.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.170.2.4 NppStatus nppsOrC_32u_I (Npp32u *nValue*, Npp32u ∗ *pSrcDst*, int *nLength*)

32-bit unsigned signed integer in place signal or with constant.

Parameters:

pSrcDst In-Place Signal Pointer.

nValue Constant value to be ored with each vector element

nLength Signal Length.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.170.2.5 NppStatus nppsOrC_8u (const Npp8u ∗ *pSrc*, Npp8u *nValue*, Npp8u ∗ *pDst*, int *nLength*)

8-bit unsigned char signal or with constant.

Parameters:

pSrc Source Signal Pointer.

nValue Constant value to be ored with each vector element

pDst Destination Signal Pointer.

nLength Signal Length.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.170.2.6 NppStatus nppsOrC_8u_I (Npp8u *nValue*, Npp8u ∗ *pSrcDst*, int *nLength*)

8-bit unsigned char in place signal or with constant.

Parameters:

pSrcDst In-Place Signal Pointer.

nValue Constant value to be ored with each vector element

nLength Signal Length.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.171 Or

Sample by sample bitwise OR of the samples from two signals.

Functions

- NppStatus nppsOr_8u (const Npp8u ∗pSrc1, const Npp8u ∗pSrc2, Npp8u ∗pDst, int nLength)

  8-bit unsigned char signal or with signal.

- NppStatus nppsOr_16u (const Npp16u ∗pSrc1, const Npp16u ∗pSrc2, Npp16u ∗pDst, int nLength)

  16-bit unsigned short signal or with signal.

- NppStatus nppsOr_32u (const Npp32u ∗pSrc1, const Npp32u ∗pSrc2, Npp32u ∗pDst, int nLength)

  32-bit unsigned integer signal or with signal.

- NppStatus nppsOr_8u_I (const Npp8u ∗pSrc, Npp8u ∗pSrcDst, int nLength)

  8-bit unsigned char in place signal or with signal.

- NppStatus nppsOr_16u_I (const Npp16u ∗pSrc, Npp16u ∗pSrcDst, int nLength)

  16-bit unsigned short in place signal or with signal.

- NppStatus nppsOr_32u_I (const Npp32u ∗pSrc, Npp32u ∗pSrcDst, int nLength)

  32-bit unsigned integer in place signal or with signal.

7.171.1 Detailed Description

Sample by sample bitwise OR of the samples from two signals.

7.171.2 Function Documentation

7.171.2.1 NppStatus nppsOr_16u (const Npp16u ∗ *pSrc1*, const Npp16u ∗ *pSrc2*, Npp16u ∗ *pDst*, int *nLength*)

16-bit unsigned short signal or with signal.

Parameters:

pSrc1 Source Signal Pointer.

pSrc2 Source Signal Pointer. signal2 elements to be ored with signal1 elements

pDst Destination Signal Pointer.

nLength Signal Length.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.171.2.2 NppStatus nppsOr_16u_I (const Npp16u ∗ *pSrc*, Npp16u ∗ *pSrcDst*, int *nLength*)

16-bit unsigned short in place signal or with signal.

Parameters:

pSrc Source Signal Pointer.

pSrcDst In-Place Signal Pointer. signal2 elements to be ored with signal1 elements

nLength Signal Length.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.171.2.3 NppStatus nppsOr_32u (const Npp32u ∗ *pSrc1*, const Npp32u ∗ *pSrc2*, Npp32u ∗ *pDst*, int *nLength*)

32-bit unsigned integer signal or with signal.

Parameters:

pSrc1 Source Signal Pointer.

pSrc2 Source Signal Pointer. signal2 elements to be ored with signal1 elements

pDst Destination Signal Pointer.

nLength Signal Length.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.171.2.4 NppStatus nppsOr_32u_I (const Npp32u ∗ *pSrc*, Npp32u ∗ *pSrcDst*, int *nLength*)

32-bit unsigned integer in place signal or with signal.

Parameters:

pSrc Source Signal Pointer.

pSrcDst In-Place Signal Pointer. signal2 elements to be ored with signal1 elements

nLength Signal Length.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.171.2.5 NppStatus nppsOr_8u (const Npp8u ∗ *pSrc1*, const Npp8u ∗ *pSrc2*, Npp8u ∗ *pDst*, int *nLength*)

8-bit unsigned char signal or with signal.

Parameters:

pSrc1 Source Signal Pointer.

pSrc2 Source Signal Pointer. signal2 elements to be ored with signal1 elements

pDst Destination Signal Pointer.

nLength Signal Length.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.171.2.6 NppStatus nppsOr_8u_I (const Npp8u ∗ *pSrc*, Npp8u ∗ *pSrcDst*, int *nLength*)

8-bit unsigned char in place signal or with signal.

Parameters:

pSrc Source Signal Pointer.

pSrcDst In-Place Signal Pointer. signal2 elements to be ored with signal1 elements

nLength Signal Length.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.172 XorC

Bitwise XOR of a constant and each sample of a signal.

Functions

- NppStatus nppsXorC_8u (const Npp8u ∗pSrc, Npp8u nValue, Npp8u ∗pDst, int nLength)

  8-bit unsigned char signal exclusive or with constant.

- NppStatus nppsXorC_16u (const Npp16u ∗pSrc, Npp16u nValue, Npp16u ∗pDst, int nLength)

  16-bit unsigned short signal exclusive or with constant.

- NppStatus nppsXorC_32u (const Npp32u ∗pSrc, Npp32u nValue, Npp32u ∗pDst, int nLength)

  32-bit unsigned integer signal exclusive or with constant.

- NppStatus nppsXorC_8u_I (Npp8u nValue, Npp8u ∗pSrcDst, int nLength)

  8-bit unsigned char in place signal exclusive or with constant.

- NppStatus nppsXorC_16u_I (Npp16u nValue, Npp16u ∗pSrcDst, int nLength)

  16-bit unsigned short in place signal exclusive or with constant.

- NppStatus nppsXorC_32u_I (Npp32u nValue, Npp32u ∗pSrcDst, int nLength)

  32-bit unsigned signed integer in place signal exclusive or with constant.

7.172.1 Detailed Description

Bitwise XOR of a constant and each sample of a signal.

7.172.2 Function Documentation

7.172.2.1 NppStatus nppsXorC_16u (const Npp16u ∗ *pSrc*, Npp16u *nValue*, Npp16u ∗ *pDst*, int *nLength*)

16-bit unsigned short signal exclusive or with constant.

Parameters:

pSrc Source Signal Pointer.

nValue Constant value to be exclusive ored with each vector element

pDst Destination Signal Pointer.

nLength Signal Length.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.172.2.2 NppStatus nppsXorC_16u_I (Npp16u *nValue*, Npp16u ∗ *pSrcDst*, int *nLength*)

16-bit unsigned short in place signal exclusive or with constant.

Parameters:

pSrcDst In-Place Signal Pointer.

nValue Constant value to be exclusive ored with each vector element

nLength Signal Length.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.172.2.3 NppStatus nppsXorC_32u (const Npp32u ∗ *pSrc*, Npp32u *nValue*, Npp32u ∗ *pDst*, int *nLength*)

32-bit unsigned integer signal exclusive or with constant.

Parameters:

pSrc Source Signal Pointer.

nValue Constant value to be exclusive ored with each vector element

pDst Destination Signal Pointer.

nLength Signal Length.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.172.2.4 NppStatus nppsXorC_32u_I (Npp32u *nValue*, Npp32u ∗ *pSrcDst*, int *nLength*)

32-bit unsigned signed integer in place signal exclusive or with constant.

Parameters:

pSrcDst In-Place Signal Pointer.

nValue Constant value to be exclusive ored with each vector element

nLength Signal Length.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.172.2.5 NppStatus nppsXorC_8u (const Npp8u ∗ *pSrc*, Npp8u *nValue*, Npp8u ∗ *pDst*, int *nLength*)

8-bit unsigned char signal exclusive or with constant.

Parameters:

pSrc Source Signal Pointer.

nValue Constant value to be exclusive ored with each vector element

pDst Destination Signal Pointer.

nLength Signal Length.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.172.2.6 NppStatus nppsXorC_8u_I (Npp8u *nValue*, Npp8u ∗ *pSrcDst*, int *nLength*)

8-bit unsigned char in place signal exclusive or with constant.

Parameters:

pSrcDst In-Place Signal Pointer.

nValue Constant value to be exclusive ored with each vector element

nLength Signal Length.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.173 Xor

Sample by sample bitwise XOR of the samples from two signals.

Functions

- NppStatus nppsXor_8u (const Npp8u ∗pSrc1, const Npp8u ∗pSrc2, Npp8u ∗pDst, int nLength)

  8-bit unsigned char signal exclusive or with signal.

- NppStatus nppsXor_16u (const Npp16u ∗pSrc1, const Npp16u ∗pSrc2, Npp16u ∗pDst, int nLength)

  16-bit unsigned short signal exclusive or with signal.

- NppStatus nppsXor_32u (const Npp32u ∗pSrc1, const Npp32u ∗pSrc2, Npp32u ∗pDst, int nLength)

  32-bit unsigned integer signal exclusive or with signal.

- NppStatus nppsXor_8u_I (const Npp8u ∗pSrc, Npp8u ∗pSrcDst, int nLength)

  8-bit unsigned char in place signal exclusive or with signal.

- NppStatus nppsXor_16u_I (const Npp16u ∗pSrc, Npp16u ∗pSrcDst, int nLength)

  16-bit unsigned short in place signal exclusive or with signal.

- NppStatus nppsXor_32u_I (const Npp32u ∗pSrc, Npp32u ∗pSrcDst, int nLength)

  32-bit unsigned integer in place signal exclusive or with signal.

7.173.1 Detailed Description

Sample by sample bitwise XOR of the samples from two signals.

7.173.2 Function Documentation

7.173.2.1 NppStatus nppsXor_16u (const Npp16u ∗ *pSrc1*, const Npp16u ∗ *pSrc2*, Npp16u ∗ *pDst*, int *nLength*)

16-bit unsigned short signal exclusive or with signal.

Parameters:

pSrc1 Source Signal Pointer.

pSrc2 Source Signal Pointer. signal2 elements to be exclusive ored with signal1 elements

pDst Destination Signal Pointer.

nLength Signal Length.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.173.2.2 NppStatus nppsXor_16u_I (const Npp16u ∗ *pSrc*, Npp16u ∗ *pSrcDst*, int *nLength*)

16-bit unsigned short in place signal exclusive or with signal.

Parameters:

pSrc Source Signal Pointer.

pSrcDst In-Place Signal Pointer. signal2 elements to be exclusive ored with signal1 elements

nLength Signal Length.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.173.2.3 NppStatus nppsXor_32u (const Npp32u ∗ *pSrc1*, const Npp32u ∗ *pSrc2*, Npp32u ∗ *pDst*, int *nLength*)

32-bit unsigned integer signal exclusive or with signal.

Parameters:

pSrc1 Source Signal Pointer.

pSrc2 Source Signal Pointer. signal2 elements to be exclusive ored with signal1 elements

pDst Destination Signal Pointer.

nLength Signal Length.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.173.2.4 NppStatus nppsXor_32u_I (const Npp32u ∗ *pSrc*, Npp32u ∗ *pSrcDst*, int *nLength*)

32-bit unsigned integer in place signal exclusive or with signal.

Parameters:

pSrc Source Signal Pointer.

pSrcDst In-Place Signal Pointer. signal2 elements to be exclusive ored with signal1 elements

nLength Signal Length.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.173.2.5 NppStatus nppsXor_8u (const Npp8u ∗ *pSrc1*, const Npp8u ∗ *pSrc2*, Npp8u ∗ *pDst*, int *nLength*)

8-bit unsigned char signal exclusive or with signal.

Parameters:

pSrc1 Source Signal Pointer.

pSrc2 Source Signal Pointer. signal2 elements to be exclusive ored with signal1 elements

pDst Destination Signal Pointer.

nLength Signal Length.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.173.2.6 NppStatus nppsXor_8u_I (const Npp8u ∗ *pSrc*, Npp8u ∗ *pSrcDst*, int *nLength*)

8-bit unsigned char in place signal exclusive or with signal.

Parameters:

pSrc Source Signal Pointer.

pSrcDst In-Place Signal Pointer. signal2 elements to be exclusive ored with signal1 elements

nLength Signal Length.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.174 Not

Bitwise NOT of each sample of a signal.

Functions

- NppStatus nppsNot_8u (const Npp8u ∗pSrc, Npp8u ∗pDst, int nLength)

  8-bit unsigned char not signal.

- NppStatus nppsNot_16u (const Npp16u ∗pSrc, Npp16u ∗pDst, int nLength)

  16-bit unsigned short not signal.

- NppStatus nppsNot_32u (const Npp32u ∗pSrc, Npp32u ∗pDst, int nLength)

  32-bit unsigned integer not signal.

- NppStatus nppsNot_8u_I (Npp8u ∗pSrcDst, int nLength)

  8-bit unsigned char in place not signal.

- NppStatus nppsNot_16u_I (Npp16u ∗pSrcDst, int nLength)

  16-bit unsigned short in place not signal.

- NppStatus nppsNot_32u_I (Npp32u ∗pSrcDst, int nLength)

  32-bit unsigned signed integer in place not signal.

7.174.1 Detailed Description

Bitwise NOT of each sample of a signal.

7.174.2 Function Documentation

7.174.2.1 NppStatus nppsNot_16u (const Npp16u ∗ *pSrc*, Npp16u ∗ *pDst*, int *nLength*)

16-bit unsigned short not signal.

Parameters:

pSrc Source Signal Pointer.

pDst Destination Signal Pointer.

nLength Signal Length.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.174.2.2 NppStatus nppsNot_16u_I (Npp16u * *pSrcDst*, int *nLength*)

16-bit unsigned short in place not signal.

Parameters:

pSrcDst In-Place Signal Pointer.
nLength Signal Length.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.174.2.3 NppStatus nppsNot_32u (const Npp32u * *pSrc*, Npp32u * *pDst*, int *nLength*)

32-bit unsigned integer not signal.

Parameters:

pSrc Source Signal Pointer.
pDst Destination Signal Pointer.
nLength Signal Length.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.174.2.4 NppStatus nppsNot_32u_I (Npp32u * *pSrcDst*, int *nLength*)

32-bit unsigned signed integer in place not signal.

Parameters:

pSrcDst In-Place Signal Pointer.
nLength Signal Length.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.174.2.5 NppStatus nppsNot_8u (const Npp8u * *pSrc*, Npp8u * *pDst*, int *nLength*)

8-bit unsigned char not signal.

Parameters:

pSrc Source Signal Pointer.
pDst Destination Signal Pointer.
nLength Signal Length.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.174.2.6 NppStatus nppsNot_8u_I (Npp8u * *pSrcDst*, int *nLength*)

8-bit unsigned char in place not signal.

Parameters:

pSrcDst In-Place Signal Pointer.

nLength Signal Length.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.175 LShiftC

Left shifts the bits of each sample of a signal by a constant amount.

Functions

- NppStatus nppsLShiftC_8u (const Npp8u ∗pSrc, int nValue, Npp8u ∗pDst, int nLength)

  8-bit unsigned char signal left shift with constant.

- NppStatus nppsLShiftC_16u (const Npp16u ∗pSrc, int nValue, Npp16u ∗pDst, int nLength)

  16-bit unsigned short signal left shift with constant.

- NppStatus nppsLShiftC_16s (const Npp16s ∗pSrc, int nValue, Npp16s ∗pDst, int nLength)

  16-bit signed short signal left shift with constant.

- NppStatus nppsLShiftC_32u (const Npp32u ∗pSrc, int nValue, Npp32u ∗pDst, int nLength)

  32-bit unsigned integer signal left shift with constant.

- NppStatus nppsLShiftC_32s (const Npp32s ∗pSrc, int nValue, Npp32s ∗pDst, int nLength)

  32-bit signed integer signal left shift with constant.

- NppStatus nppsLShiftC_8u_I (int nValue, Npp8u ∗pSrcDst, int nLength)

  8-bit unsigned char in place signal left shift with constant.

- NppStatus nppsLShiftC_16u_I (int nValue, Npp16u ∗pSrcDst, int nLength)

  16-bit unsigned short in place signal left shift with constant.

- NppStatus nppsLShiftC_16s_I (int nValue, Npp16s ∗pSrcDst, int nLength)

  16-bit signed short in place signal left shift with constant.

- NppStatus nppsLShiftC_32u_I (int nValue, Npp32u ∗pSrcDst, int nLength)

  32-bit unsigned signed integer in place signal left shift with constant.

- NppStatus nppsLShiftC_32s_I (int nValue, Npp32s ∗pSrcDst, int nLength)

  32-bit signed signed integer in place signal left shift with constant.

7.175.1 Detailed Description

Left shifts the bits of each sample of a signal by a constant amount.

7.175.2 Function Documentation

7.175.2.1 NppStatus nppsLShiftC_16s (const Npp16s ∗ *pSrc*, int *nValue*, Npp16s ∗ *pDst*, int *nLength*)

16-bit signed short signal left shift with constant.

Parameters:

pSrc Source Signal Pointer.
nValue Constant value to be used to left shift each vector element
pDst Destination Signal Pointer.
nLength Signal Length.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.175.2.2 NppStatus nppsLShiftC_16s_I (int *nValue*, Npp16s ∗ *pSrcDst*, int *nLength*)

16-bit signed short in place signal left shift with constant.

Parameters:

pSrcDst In-Place Signal Pointer.
nValue Constant value to be used to left shift each vector element
nLength Signal Length.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.175.2.3 NppStatus nppsLShiftC_16u (const Npp16u ∗ *pSrc*, int *nValue*, Npp16u ∗ *pDst*, int *nLength*)

16-bit unsigned short signal left shift with constant.

Parameters:

pSrc Source Signal Pointer.
nValue Constant value to be used to left shift each vector element
pDst Destination Signal Pointer.
nLength Signal Length.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.175.2.4 NppStatus nppsLShiftC_16u_I (int *nValue*, Npp16u ∗ *pSrcDst*, int *nLength*)

16-bit unsigned short in place signal left shift with constant.

Parameters:

pSrcDst In-Place Signal Pointer.
nValue Constant value to be used to left shift each vector element
nLength Signal Length.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.175.2.5 NppStatus nppsLShiftC_32s (const Npp32s ∗ *pSrc*, int *nValue*, Npp32s ∗ *pDst*, int *nLength*)

32-bit signed integer signal left shift with constant.

Parameters:

pSrc Source Signal Pointer.

nValue Constant value to be used to left shift each vector element

pDst Destination Signal Pointer.

nLength Signal Length.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.175.2.6 NppStatus nppsLShiftC_32s_I (int *nValue*, Npp32s ∗ *pSrcDst*, int *nLength*)

32-bit signed signed integer in place signal left shift with constant.

Parameters:

pSrcDst In-Place Signal Pointer.

nValue Constant value to be used to left shift each vector element

nLength Signal Length.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.175.2.7 NppStatus nppsLShiftC_32u (const Npp32u ∗ *pSrc*, int *nValue*, Npp32u ∗ *pDst*, int *nLength*)

32-bit unsigned integer signal left shift with constant.

Parameters:

pSrc Source Signal Pointer.

nValue Constant value to be used to left shift each vector element

pDst Destination Signal Pointer.

nLength Signal Length.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.175.2.8 NppStatus nppsLShiftC_32u_I (int *nValue*, Npp32u ∗ *pSrcDst*, int *nLength*)

32-bit unsigned signed integer in place signal left shift with constant.

Parameters:

pSrcDst In-Place Signal Pointer.

nValue Constant value to be used to left shift each vector element

nLength Signal Length.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.175.2.9 NppStatus nppsLShiftC_8u (const Npp8u ∗ *pSrc*, int *nValue*, Npp8u ∗ *pDst*, int *nLength*)

8-bit unsigned char signal left shift with constant.

Parameters:

pSrc Source Signal Pointer.

nValue Constant value to be used to left shift each vector element

pDst Destination Signal Pointer.

nLength Signal Length.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.175.2.10 NppStatus nppsLShiftC_8u_I (int *nValue*, Npp8u ∗ *pSrcDst*, int *nLength*)

8-bit unsigned char in place signal left shift with constant.

Parameters:

pSrcDst In-Place Signal Pointer.

nValue Constant value to be used to left shift each vector element

nLength Signal Length.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.176 RShiftC

Right shifts the bits of each sample of a signal by a constant amount.

Functions

- NppStatus nppsRShiftC_8u (const Npp8u ∗pSrc, int nValue, Npp8u ∗pDst, int nLength)

  8-bit unsigned char signal right shift with constant.

- NppStatus nppsRShiftC_16u (const Npp16u ∗pSrc, int nValue, Npp16u ∗pDst, int nLength)

  16-bit unsigned short signal right shift with constant.

- NppStatus nppsRShiftC_16s (const Npp16s ∗pSrc, int nValue, Npp16s ∗pDst, int nLength)

  16-bit signed short signal right shift with constant.

- NppStatus nppsRShiftC_32u (const Npp32u ∗pSrc, int nValue, Npp32u ∗pDst, int nLength)

  32-bit unsigned integer signal right shift with constant.

- NppStatus nppsRShiftC_32s (const Npp32s ∗pSrc, int nValue, Npp32s ∗pDst, int nLength)

  32-bit signed integer signal right shift with constant.

- NppStatus nppsRShiftC_8u_I (int nValue, Npp8u ∗pSrcDst, int nLength)

  8-bit unsigned char in place signal right shift with constant.

- NppStatus nppsRShiftC_16u_I (int nValue, Npp16u ∗pSrcDst, int nLength)

  16-bit unsigned short in place signal right shift with constant.

- NppStatus nppsRShiftC_16s_I (int nValue, Npp16s ∗pSrcDst, int nLength)

  16-bit signed short in place signal right shift with constant.

- NppStatus nppsRShiftC_32u_I (int nValue, Npp32u ∗pSrcDst, int nLength)

  32-bit unsigned signed integer in place signal right shift with constant.

- NppStatus nppsRShiftC_32s_I (int nValue, Npp32s ∗pSrcDst, int nLength)

  32-bit signed signed integer in place signal right shift with constant.

7.176.1 Detailed Description

Right shifts the bits of each sample of a signal by a constant amount.

7.176.2 Function Documentation

7.176.2.1 NppStatus nppsRShiftC_16s (const Npp16s ∗ *pSrc*, int *nValue*, Npp16s ∗ *pDst*, int *nLength*)

16-bit signed short signal right shift with constant.

Parameters:

pSrc Source Signal Pointer.
nValue Constant value to be used to right shift each vector element
pDst Destination Signal Pointer.
nLength Signal Length.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.176.2.2 NppStatus nppsRShiftC_16s_I (int *nValue*, Npp16s ∗ *pSrcDst*, int *nLength*)

16-bit signed short in place signal right shift with constant.

Parameters:

pSrcDst In-Place Signal Pointer.
nValue Constant value to be used to right shift each vector element
nLength Signal Length.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.176.2.3 NppStatus nppsRShiftC_16u (const Npp16u ∗ *pSrc*, int *nValue*, Npp16u ∗ *pDst*, int *nLength*)

16-bit unsigned short signal right shift with constant.

Parameters:

pSrc Source Signal Pointer.
nValue Constant value to be used to right shift each vector element
pDst Destination Signal Pointer.
nLength Signal Length.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.176.2.4 NppStatus nppsRShiftC_16u_I (int *nValue*, Npp16u ∗ *pSrcDst*, int *nLength*)

16-bit unsigned short in place signal right shift with constant.

Parameters:

pSrcDst In-Place Signal Pointer.
nValue Constant value to be used to right shift each vector element
nLength Signal Length.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.176.2.5 NppStatus nppsRShiftC_32s (const Npp32s ∗ *pSrc*, int *nValue*, Npp32s ∗ *pDst*, int *nLength*)

32-bit signed integer signal right shift with constant.

Parameters:

pSrc Source Signal Pointer.

nValue Constant value to be used to right shift each vector element

pDst Destination Signal Pointer.

nLength Signal Length.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.176.2.6 NppStatus nppsRShiftC_32s_I (int *nValue*, Npp32s ∗ *pSrcDst*, int *nLength*)

32-bit signed signed integer in place signal right shift with constant.

Parameters:

pSrcDst In-Place Signal Pointer.

nValue Constant value to be used to right shift each vector element

nLength Signal Length.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.176.2.7 NppStatus nppsRShiftC_32u (const Npp32u ∗ *pSrc*, int *nValue*, Npp32u ∗ *pDst*, int *nLength*)

32-bit unsigned integer signal right shift with constant.

Parameters:

pSrc Source Signal Pointer.

nValue Constant value to be used to right shift each vector element

pDst Destination Signal Pointer.

nLength Signal Length.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.176.2.8 NppStatus nppsRShiftC_32u_I (int *nValue*, Npp32u ∗ *pSrcDst*, int *nLength*)

32-bit unsigned signed integer in place signal right shift with constant.

Parameters:

pSrcDst In-Place Signal Pointer.

nValue Constant value to be used to right shift each vector element

nLength Signal Length.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.176.2.9 NppStatus nppsRShiftC_8u (const Npp8u ∗ *pSrc*, int *nValue*, Npp8u ∗ *pDst*, int *nLength*)

8-bit unsigned char signal right shift with constant.

Parameters:

pSrc Source Signal Pointer.

nValue Constant value to be used to right shift each vector element

pDst Destination Signal Pointer.

nLength Signal Length.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.176.2.10 NppStatus nppsRShiftC_8u_I (int *nValue*, Npp8u ∗ *pSrcDst*, int *nLength*)

8-bit unsigned char in place signal right shift with constant.

Parameters:

pSrcDst In-Place Signal Pointer.

nValue Constant value to be used to right shift each vector element

nLength Signal Length.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.177 Conversion Functions

Modules

- Convert
- Threshold

7.178 Convert

Convert

Routines for converting the sample-data type of signals.

- NppStatus nppsConvert_8s16s (const Npp8s ∗pSrc, Npp16s ∗pDst, int nLength)
- NppStatus nppsConvert_8s32f (const Npp8s ∗pSrc, Npp32f ∗pDst, int nLength)
- NppStatus nppsConvert_8u32f (const Npp8u ∗pSrc, Npp32f ∗pDst, int nLength)
- NppStatus nppsConvert_16s8s_Sfs (const Npp16s ∗pSrc, Npp8s ∗pDst, Npp32u nLength, NppRoundMode eRoundMode, int nScaleFactor)
- NppStatus nppsConvert_16s32s (const Npp16s ∗pSrc, Npp32s ∗pDst, int nLength)
- NppStatus nppsConvert_16s32f (const Npp16s ∗pSrc, Npp32f ∗pDst, int nLength)
- NppStatus nppsConvert_16u32f (const Npp16u ∗pSrc, Npp32f ∗pDst, int nLength)
- NppStatus nppsConvert_32s16s (const Npp32s ∗pSrc, Npp16s ∗pDst, int nLength)
- NppStatus nppsConvert_32s32f (const Npp32s ∗pSrc, Npp32f ∗pDst, int nLength)
- NppStatus nppsConvert_32s64f (const Npp32s ∗pSrc, Npp64f ∗pDst, int nLength)
- NppStatus nppsConvert_32f64f (const Npp32f ∗pSrc, Npp64f ∗pDst, int nLength)
- NppStatus nppsConvert_64s64f (const Npp64s ∗pSrc, Npp64f ∗pDst, int nLength)
- NppStatus nppsConvert_64f32f (const Npp64f ∗pSrc, Npp32f ∗pDst, int nLength)
- NppStatus nppsConvert_16s32f_Sfs (const Npp16s ∗pSrc, Npp32f ∗pDst, int nLength, int nScaleFactor)
- NppStatus nppsConvert_16s64f_Sfs (const Npp16s ∗pSrc, Npp64f ∗pDst, int nLength, int nScaleFactor)
- NppStatus nppsConvert_32s16s_Sfs (const Npp32s ∗pSrc, Npp16s ∗pDst, int nLength, int nScaleFactor)
- NppStatus nppsConvert_32s32f_Sfs (const Npp32s ∗pSrc, Npp32f ∗pDst, int nLength, int nScaleFactor)
- NppStatus nppsConvert_32s64f_Sfs (const Npp32s ∗pSrc, Npp64f ∗pDst, int nLength, int nScaleFactor)
- NppStatus nppsConvert_32f8s_Sfs (const Npp32f ∗pSrc, Npp8s ∗pDst, int nLength, NppRoundMode eRoundMode, int nScaleFactor)
- NppStatus nppsConvert_32f8u_Sfs (const Npp32f ∗pSrc, Npp8u ∗pDst, int nLength, NppRoundMode eRoundMode, int nScaleFactor)
- NppStatus nppsConvert_32f16s_Sfs (const Npp32f ∗pSrc, Npp16s ∗pDst, int nLength, NppRoundMode eRoundMode, int nScaleFactor)
- NppStatus nppsConvert_32f16u_Sfs (const Npp32f ∗pSrc, Npp16u ∗pDst, int nLength, NppRoundMode eRoundMode, int nScaleFactor)
- NppStatus nppsConvert_32f32s_Sfs (const Npp32f ∗pSrc, Npp32s ∗pDst, int nLength, NppRoundMode eRoundMode, int nScaleFactor)
- NppStatus nppsConvert_64s32s_Sfs (const Npp64s ∗pSrc, Npp32s ∗pDst, int nLength, NppRoundMode eRoundMode, int nScaleFactor)
- NppStatus nppsConvert_64f16s_Sfs (const Npp64f ∗pSrc, Npp16s ∗pDst, int nLength, NppRoundMode eRoundMode, int nScaleFactor)
- NppStatus nppsConvert_64f32s_Sfs (const Npp64f ∗pSrc, Npp32s ∗pDst, int nLength, NppRoundMode eRoundMode, int nScaleFactor)
- NppStatus nppsConvert_64f64s_Sfs (const Npp64f ∗pSrc, Npp64s ∗pDst, int nLength, NppRoundMode eRoundMode, int nScaleFactor)

7.178.1 Function Documentation

7.178.1.1 NppStatus nppsConvert_16s32f (const Npp16s * pSrc, Npp32f * pDst, int nLength)

7.178.1.2 NppStatus nppsConvert_16s32f_Sfs (const Npp16s * pSrc, Npp32f * pDst, int nLength, int nScaleFactor)

7.178.1.3 NppStatus nppsConvert_16s32s (const Npp16s * pSrc, Npp32s * pDst, int nLength)

7.178.1.4 NppStatus nppsConvert_16s64f_Sfs (const Npp16s * pSrc, Npp64f * pDst, int nLength, int nScaleFactor)

7.178.1.5 NppStatus nppsConvert_16s8s_Sfs (const Npp16s * pSrc, Npp8s * pDst, Npp32u nLength, NppRoundMode eRoundMode, int nScaleFactor)

7.178.1.6 NppStatus nppsConvert_16u32f (const Npp16u * pSrc, Npp32f * pDst, int nLength)

7.178.1.7 NppStatus nppsConvert_32f16s_Sfs (const Npp32f * pSrc, Npp16s * pDst, int nLength, NppRoundMode eRoundMode, int nScaleFactor)

7.178.1.8 NppStatus nppsConvert_32f16u_Sfs (const Npp32f * pSrc, Npp16u * pDst, int nLength, NppRoundMode eRoundMode, int nScaleFactor)

7.178.1.9 NppStatus nppsConvert_32f32s_Sfs (const Npp32f * pSrc, Npp32s * pDst, int nLength, NppRoundMode eRoundMode, int nScaleFactor)

7.178.1.10 NppStatus nppsConvert_32f64f (const Npp32f * pSrc, Npp64f * pDst, int nLength)

7.178.1.11 NppStatus nppsConvert_32f8s_Sfs (const Npp32f * pSrc, Npp8s * pDst, int nLength, NppRoundMode eRoundMode, int nScaleFactor)

7.178.1.12 NppStatus nppsConvert_32f8u_Sfs (const Npp32f * pSrc, Npp8u * pDst, int nLength, NppRoundMode eRoundMode, int nScaleFactor)

7.178.1.13 NppStatus nppsConvert_32s16s (const Npp32s * pSrc, Npp16s * pDst, int nLength)

7.178.1.14 NppStatus nppsConvert_32s16s_Sfs (const Npp32s * pSrc, Npp16s * pDst, int nLength, int nScaleFactor)

7.178.1.15 NppStatus nppsConvert_32s32f (const Npp32s * pSrc, Npp32f * pDst, int nLength)

7.178.1.16 NppStatus nppsConvert_32s32f_Sfs (const Npp32s * pSrc, Npp32f * pDst, int nLength, int nScaleFactor)

7.178.1.17 NppStatus nppsConvert_32s64f (const Npp32s * pSrc, Npp64f * pDst, int nLength)

7.178.1.18 NppStatus nppsConvert_32s64f_Sfs (const Npp32s * pSrc, Npp64f * pDst, int nLength, int nScaleFactor)

7.178.1.19 NppStatus nppsConvert_64f16s_Sfs (const Npp64f * pSrc, Npp16s * pDst, int nLength, NppRoundMode eRoundMode, int nScaleFactor)

7.178.1.20 NppStatus nppsConvert_64f32f (const Npp64f * pSrc, Npp32f * pDst, int nLength)

7.178.1.21 NppStatus nppsConvert_64f32s_Sfs (const Npp64f * pSrc, Npp32s * pDst, int nLength, NppRoundMode eRoundMode, int nScaleFactor)

7.178.1.22 NppStatus nppsConvert_64f64s_Sfs (const Npp64f * pSrc, Npp64s * pDst, int nLength, NppRoundMode eRoundMode, int nScaleFactor)

7.178.1.23 NppStatus nppsConvert_64s32s_Sfs (const Npp64s * pSrc, Npp32s * pDst, int nLength,

7.179 Threshold

Threshold Functions

Performs the threshold operation on the samples of a signal by limiting the sample values by a specified constant value.

- NppStatus nppsThreshold_16s (const Npp16s ∗pSrc, Npp16s ∗pDst, int nLength, Npp16s nLevel, NppCmpOp nRelOp)

  16-bit signed short signal threshold with constant level.

- NppStatus nppsThreshold_16s_I (Npp16s ∗pSrcDst, int nLength, Npp16s nLevel, NppCmpOp nRelOp)

  16-bit in place signed short signal threshold with constant level.

- NppStatus nppsThreshold_16sc (const Npp16sc ∗pSrc, Npp16sc ∗pDst, int nLength, Npp16s nLevel, NppCmpOp nRelOp)

  16-bit signed short complex number signal threshold with constant level.

- NppStatus nppsThreshold_16sc_I (Npp16sc ∗pSrcDst, int nLength, Npp16s nLevel, NppCmpOp nRelOp)

  16-bit in place signed short complex number signal threshold with constant level.

- NppStatus nppsThreshold_32f (const Npp32f ∗pSrc, Npp32f ∗pDst, int nLength, Npp32f nLevel, NppCmpOp nRelOp)

  32-bit floating point signal threshold with constant level.

- NppStatus nppsThreshold_32f_I (Npp32f ∗pSrcDst, int nLength, Npp32f nLevel, NppCmpOp nRelOp)

  32-bit in place floating point signal threshold with constant level.

- NppStatus nppsThreshold_32fc (const Npp32fc ∗pSrc, Npp32fc ∗pDst, int nLength, Npp32f nLevel, NppCmpOp nRelOp)

  32-bit floating point complex number signal threshold with constant level.

- NppStatus nppsThreshold_32fc_I (Npp32fc ∗pSrcDst, int nLength, Npp32f nLevel, NppCmpOp nRelOp)

  32-bit in place floating point complex number signal threshold with constant level.

- NppStatus nppsThreshold_64f (const Npp64f ∗pSrc, Npp64f ∗pDst, int nLength, Npp64f nLevel, NppCmpOp nRelOp)

  64-bit floating point signal threshold with constant level.

- NppStatus nppsThreshold_64f_I (Npp64f ∗pSrcDst, int nLength, Npp64f nLevel, NppCmpOp nRelOp)

  64-bit in place floating point signal threshold with constant level.

- NppStatus nppsThreshold_64fc (const Npp64fc ∗pSrc, Npp64fc ∗pDst, int nLength, Npp64f nLevel, NppCmpOp nRelOp)

  64-bit floating point complex number signal threshold with constant level.

- NppStatus nppsThreshold_64fc_I (Npp64fc ∗pSrcDst, int nLength, Npp64f nLevel, NppCmpOp nRelOp)

  64-bit in place floating point complex number signal threshold with constant level.

- NppStatus nppsThreshold_LT_16s (const Npp16s ∗pSrc, Npp16s ∗pDst, int nLength, Npp16s nLevel)

  16-bit signed short signal NPP_CMP_LESS threshold with constant level.

- NppStatus nppsThreshold_LT_16s_I (Npp16s ∗pSrcDst, int nLength, Npp16s nLevel)

  16-bit in place signed short signal NPP_CMP_LESS threshold with constant level.

- NppStatus nppsThreshold_LT_16sc (const Npp16sc ∗pSrc, Npp16sc ∗pDst, int nLength, Npp16s nLevel)

  16-bit signed short complex number signal NPP_CMP_LESS threshold with constant level.

- NppStatus nppsThreshold_LT_16sc_I (Npp16sc ∗pSrcDst, int nLength, Npp16s nLevel)

  16-bit in place signed short complex number signal NPP_CMP_LESS threshold with constant level.

- NppStatus nppsThreshold_LT_32f (const Npp32f ∗pSrc, Npp32f ∗pDst, int nLength, Npp32f nLevel)

  32-bit floating point signal NPP_CMP_LESS threshold with constant level.

- NppStatus nppsThreshold_LT_32f_I (Npp32f ∗pSrcDst, int nLength, Npp32f nLevel)

  32-bit in place floating point signal NPP_CMP_LESS threshold with constant level.

- NppStatus nppsThreshold_LT_32fc (const Npp32fc ∗pSrc, Npp32fc ∗pDst, int nLength, Npp32f nLevel)

  32-bit floating point complex number signal NPP_CMP_LESS threshold with constant level.

- NppStatus nppsThreshold_LT_32fc_I (Npp32fc ∗pSrcDst, int nLength, Npp32f nLevel)

  32-bit in place floating point complex number signal NPP_CMP_LESS threshold with constant level.

- NppStatus nppsThreshold_LT_64f (const Npp64f ∗pSrc, Npp64f ∗pDst, int nLength, Npp64f nLevel)

  64-bit floating point signal NPP_CMP_LESS threshold with constant level.

- NppStatus nppsThreshold_LT_64f_I (Npp64f ∗pSrcDst, int nLength, Npp64f nLevel)

  64-bit in place floating point signal NPP_CMP_LESS threshold with constant level.

- NppStatus nppsThreshold_LT_64fc (const Npp64fc ∗pSrc, Npp64fc ∗pDst, int nLength, Npp64f nLevel)

  64-bit floating point complex number signal NPP_CMP_LESS threshold with constant level.

- NppStatus nppsThreshold_LT_64fc_I (Npp64fc ∗pSrcDst, int nLength, Npp64f nLevel)

  64-bit in place floating point complex number signal NPP_CMP_LESS threshold with constant level.

- NppStatus nppsThreshold_GT_16s (const Npp16s ∗pSrc, Npp16s ∗pDst, int nLength, Npp16s nLevel)

  16-bit signed short signal NPP_CMP_GREATER threshold with constant level.

- NppStatus nppsThreshold_GT_16s_I (Npp16s ∗pSrcDst, int nLength, Npp16s nLevel)

  16-bit in place signed short signal NPP_CMP_GREATER threshold with constant level.

- NppStatus nppsThreshold_GT_16sc (const Npp16sc ∗pSrc, Npp16sc ∗pDst, int nLength, Npp16s nLevel)

  16-bit signed short complex number signal NPP_CMP_GREATER threshold with constant level.

- NppStatus nppsThreshold_GT_16sc_I (Npp16sc ∗pSrcDst, int nLength, Npp16s nLevel)

  16-bit in place signed short complex number signal NPP_CMP_GREATER threshold with constant level.

- NppStatus nppsThreshold_GT_32f (const Npp32f ∗pSrc, Npp32f ∗pDst, int nLength, Npp32f nLevel)

  32-bit floating point signal NPP_CMP_GREATER threshold with constant level.

- NppStatus nppsThreshold_GT_32f_I (Npp32f ∗pSrcDst, int nLength, Npp32f nLevel)

  32-bit in place floating point signal NPP_CMP_GREATER threshold with constant level.

- NppStatus nppsThreshold_GT_32fc (const Npp32fc ∗pSrc, Npp32fc ∗pDst, int nLength, Npp32f nLevel)

  32-bit floating point complex number signal NPP_CMP_GREATER threshold with constant level.

- NppStatus nppsThreshold_GT_32fc_I (Npp32fc ∗pSrcDst, int nLength, Npp32f nLevel)

  32-bit in place floating point complex number signal NPP_CMP_GREATER threshold with constant level.

- NppStatus nppsThreshold_GT_64f (const Npp64f ∗pSrc, Npp64f ∗pDst, int nLength, Npp64f nLevel)

  64-bit floating point signal NPP_CMP_GREATER threshold with constant level.

- NppStatus nppsThreshold_GT_64f_I (Npp64f ∗pSrcDst, int nLength, Npp64f nLevel)

  64-bit in place floating point signal NPP_CMP_GREATER threshold with constant level.

- NppStatus nppsThreshold_GT_64fc (const Npp64fc ∗pSrc, Npp64fc ∗pDst, int nLength, Npp64f nLevel)

  64-bit floating point complex number signal NPP_CMP_GREATER threshold with constant level.

- NppStatus nppsThreshold_GT_64fc_I (Npp64fc ∗pSrcDst, int nLength, Npp64f nLevel)

  64-bit in place floating point complex number signal NPP_CMP_GREATER threshold with constant level.

- NppStatus nppsThreshold_LTVal_16s (const Npp16s ∗pSrc, Npp16s ∗pDst, int nLength, Npp16s nLevel, Npp16s nValue)

  16-bit signed short signal NPP_CMP_LESS threshold with constant level.

- NppStatus nppsThreshold_LTVal_16s_I (Npp16s ∗pSrcDst, int nLength, Npp16s nLevel, Npp16s nValue)

  16-bit in place signed short signal NPP_CMP_LESS threshold with constant level.

- NppStatus nppsThreshold_LTVal_16sc (const Npp16sc ∗pSrc, Npp16sc ∗pDst, int nLength, Npp16s nLevel, Npp16sc nValue)

  16-bit signed short complex number signal NPP_CMP_LESS threshold with constant level.

- NppStatus nppsThreshold_LTVal_16sc_I (Npp16sc ∗pSrcDst, int nLength, Npp16s nLevel, Npp16sc nValue)

  16-bit in place signed short complex number signal NPP_CMP_LESS threshold with constant level.

- NppStatus nppsThreshold_LTVal_32f (const Npp32f ∗pSrc, Npp32f ∗pDst, int nLength, Npp32f nLevel, Npp32f nValue)

  32-bit floating point signal NPP_CMP_LESS threshold with constant level.

- NppStatus nppsThreshold_LTVal_32f_I (Npp32f ∗pSrcDst, int nLength, Npp32f nLevel, Npp32f nValue)

  32-bit in place floating point signal NPP_CMP_LESS threshold with constant level.

- NppStatus nppsThreshold_LTVal_32fc (const Npp32fc ∗pSrc, Npp32fc ∗pDst, int nLength, Npp32f nLevel, Npp32fc nValue)

  32-bit floating point complex number signal NPP_CMP_LESS threshold with constant level.

- NppStatus nppsThreshold_LTVal_32fc_I (Npp32fc ∗pSrcDst, int nLength, Npp32f nLevel, Npp32fc nValue)

  32-bit in place floating point complex number signal NPP_CMP_LESS threshold with constant level.

- NppStatus nppsThreshold_LTVal_64f (const Npp64f ∗pSrc, Npp64f ∗pDst, int nLength, Npp64f nLevel, Npp64f nValue)

  64-bit floating point signal NPP_CMP_LESS threshold with constant level.

- NppStatus nppsThreshold_LTVal_64f_I (Npp64f ∗pSrcDst, int nLength, Npp64f nLevel, Npp64f nValue)

  64-bit in place floating point signal NPP_CMP_LESS threshold with constant level.

- NppStatus nppsThreshold_LTVal_64fc (const Npp64fc ∗pSrc, Npp64fc ∗pDst, int nLength, Npp64f nLevel, Npp64fc nValue)

  64-bit floating point complex number signal NPP_CMP_LESS threshold with constant level.

- NppStatus nppsThreshold_LTVal_64fc_I (Npp64fc ∗pSrcDst, int nLength, Npp64f nLevel, Npp64fc nValue)

  64-bit in place floating point complex number signal NPP_CMP_LESS threshold with constant level.

- NppStatus nppsThreshold_GTVal_16s (const Npp16s ∗pSrc, Npp16s ∗pDst, int nLength, Npp16s nLevel, Npp16s nValue)

  16-bit signed short signal NPP_CMP_GREATER threshold with constant level.

- NppStatus nppsThreshold_GTVal_16s_I (Npp16s ∗pSrcDst, int nLength, Npp16s nLevel, Npp16s nValue)

  16-bit in place signed short signal NPP_CMP_GREATER threshold with constant level.

- NppStatus nppsThreshold_GTVal_16sc (const Npp16sc ∗pSrc, Npp16sc ∗pDst, int nLength, Npp16s nLevel, Npp16sc nValue)

  16-bit signed short complex number signal NPP_CMP_GREATER threshold with constant level.

- NppStatus nppsThreshold_GTVal_16sc_I (Npp16sc ∗pSrcDst, int nLength, Npp16s nLevel, Npp16sc nValue)

  16-bit in place signed short complex number signal NPP_CMP_GREATER threshold with constant level.

- NppStatus nppsThreshold_GTVal_32f (const Npp32f ∗pSrc, Npp32f ∗pDst, int nLength, Npp32f nLevel, Npp32f nValue)

  32-bit floating point signal NPP_CMP_GREATER threshold with constant level.

- NppStatus nppsThreshold_GTVal_32f_I (Npp32f ∗pSrcDst, int nLength, Npp32f nLevel, Npp32f nValue)

  32-bit in place floating point signal NPP_CMP_GREATER threshold with constant level.

- NppStatus nppsThreshold_GTVal_32fc (const Npp32fc ∗pSrc, Npp32fc ∗pDst, int nLength, Npp32f nLevel, Npp32fc nValue)

  32-bit floating point complex number signal NPP_CMP_GREATER threshold with constant level.

- NppStatus nppsThreshold_GTVal_32fc_I (Npp32fc ∗pSrcDst, int nLength, Npp32f nLevel, Npp32fc nValue)

  32-bit in place floating point complex number signal NPP_CMP_GREATER threshold with constant level.

- NppStatus nppsThreshold_GTVal_64f (const Npp64f ∗pSrc, Npp64f ∗pDst, int nLength, Npp64f nLevel, Npp64f nValue)

  64-bit floating point signal NPP_CMP_GREATER threshold with constant level.

- NppStatus nppsThreshold_GTVal_64f_I (Npp64f ∗pSrcDst, int nLength, Npp64f nLevel, Npp64f nValue)

  64-bit in place floating point signal NPP_CMP_GREATER threshold with constant level.

- NppStatus nppsThreshold_GTVal_64fc (const Npp64fc ∗pSrc, Npp64fc ∗pDst, int nLength, Npp64f nLevel, Npp64fc nValue)

  64-bit floating point complex number signal NPP_CMP_GREATER threshold with constant level.

- NppStatus nppsThreshold_GTVal_64fc_I (Npp64fc ∗pSrcDst, int nLength, Npp64f nLevel, Npp64fc nValue)

  64-bit in place floating point complex number signal NPP_CMP_GREATER threshold with constant level.

7.179.1 Function Documentation

7.179.1.1 NppStatus nppsThreshold_16s (const Npp16s ∗ *pSrc*, Npp16s ∗ *pDst*, int *nLength*, Npp16s *nLevel*, NppCmpOp *nRelOp*)

16-bit signed short signal threshold with constant level.

Parameters:

pSrc Source Signal Pointer.

pDst Destination Signal Pointer.

nLength Signal Length.

nLevel Constant threshold value to be used to limit each signal sample

nRelOp NppCmpOp type of thresholding operation (NPP_CMP_LESS or NPP_CMP_GREATER only).

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.179.1.2 NppStatus nppsThreshold_16s_I (Npp16s ∗ *pSrcDst*, int *nLength*, Npp16s *nLevel*, NppCmpOp *nRelOp*)

16-bit in place signed short signal threshold with constant level.

Parameters:

pSrcDst In-Place Signal Pointer.

nLength Signal Length.

nLevel Constant threshold value to be used to limit each signal sample

nRelOp NppCmpOp type of thresholding operation (NPP_CMP_LESS or NPP_CMP_GREATER only).

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.179.1.3 NppStatus nppsThreshold_16sc (const Npp16sc ∗ *pSrc*, Npp16sc ∗ *pDst*, int *nLength*, Npp16s *nLevel*, NppCmpOp *nRelOp*)

16-bit signed short complex number signal threshold with constant level.

Parameters:

pSrc Source Signal Pointer.

pDst Destination Signal Pointer.

nLength Signal Length.

nLevel Constant threshold value (real part only and must be greater than 0) to be used to limit each signal sample

nRelOp NppCmpOp type of thresholding operation (NPP_CMP_LESS or NPP_CMP_GREATER only).

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.179.1.4 NppStatus nppsThreshold_16sc_I (Npp16sc ∗ *pSrcDst*, int *nLength*, Npp16s *nLevel*, NppCmpOp *nRelOp*)

16-bit in place signed short complex number signal threshold with constant level.

Parameters:

pSrcDst In-Place Signal Pointer.

nLength Signal Length.

nLevel Constant threshold value (real part only and must be greater than 0) to be used to limit each signal sample

nRelOp NppCmpOp type of thresholding operation (NPP_CMP_LESS or NPP_CMP_GREATER only).

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.179.1.5 NppStatus nppsThreshold_32f (const Npp32f ∗ *pSrc*, Npp32f ∗ *pDst*, int *nLength*, Npp32f *nLevel*, NppCmpOp *nRelOp*)

32-bit floating point signal threshold with constant level.

Parameters:

pSrc Source Signal Pointer.

pDst Destination Signal Pointer.

nLength Signal Length.

nLevel Constant threshold value to be used to limit each signal sample

nRelOp NppCmpOp type of thresholding operation (NPP_CMP_LESS or NPP_CMP_GREATER only).

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.179.1.6 NppStatus nppsThreshold_32f_I (Npp32f ∗ *pSrcDst*, int *nLength*, Npp32f *nLevel*, NppCmpOp *nRelOp*)

32-bit in place floating point signal threshold with constant level.

Parameters:

pSrcDst In-Place Signal Pointer.

nLength Signal Length.

nLevel Constant threshold value to be used to limit each signal sample

nRelOp NppCmpOp type of thresholding operation (NPP_CMP_LESS or NPP_CMP_GREATER only).

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.179.1.7 NppStatus nppsThreshold_32fc (const Npp32fc ∗ *pSrc*, Npp32fc ∗ *pDst*, int *nLength*, Npp32f *nLevel*, NppCmpOp *nRelOp*)

32-bit floating point complex number signal threshold with constant level.

Parameters:

pSrc Source Signal Pointer.

pDst Destination Signal Pointer.

nLength Signal Length.

nLevel Constant threshold value (real part only and must be greater than 0) to be used to limit each signal sample

nRelOp NppCmpOp type of thresholding operation (NPP_CMP_LESS or NPP_CMP_GREATER only).

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.179.1.8 NppStatus nppsThreshold_32fc_I (Npp32fc ∗ *pSrcDst*, int *nLength*, Npp32f *nLevel*, NppCmpOp *nRelOp*)

32-bit in place floating point complex number signal threshold with constant level.

Parameters:

pSrcDst In-Place Signal Pointer.

nLength Signal Length.

nLevel Constant threshold value (real part only and must be greater than 0) to be used to limit each signal sample

nRelOp NppCmpOp type of thresholding operation (NPP_CMP_LESS or NPP_CMP_GREATER only).

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.179.1.9 NppStatus nppsThreshold_64f (const Npp64f ∗ *pSrc*, Npp64f ∗ *pDst*, int *nLength*, Npp64f *nLevel*, NppCmpOp *nRelOp*)

64-bit floating point signal threshold with constant level.

Parameters:

pSrc Source Signal Pointer.

pDst Destination Signal Pointer.

nLength Signal Length.

nLevel Constant threshold value to be used to limit each signal sample

nRelOp NppCmpOp type of thresholding operation (NPP_CMP_LESS or NPP_CMP_GREATER only).

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.179.1.10 NppStatus nppsThreshold_64f_I (Npp64f ∗ *pSrcDst*, int *nLength*, Npp64f *nLevel*, NppCmpOp *nRelOp*)

64-bit in place floating point signal threshold with constant level.

Parameters:

pSrcDst In-Place Signal Pointer.

nLength Signal Length.

nLevel Constant threshold value to be used to limit each signal sample

nRelOp NppCmpOp type of thresholding operation (NPP_CMP_LESS or NPP_CMP_GREATER only).

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.179.1.11 NppStatus nppsThreshold_64fc (const Npp64fc ∗ *pSrc*, Npp64fc ∗ *pDst*, int *nLength*, Npp64f *nLevel*, NppCmpOp *nRelOp*)

64-bit floating point complex number signal threshold with constant level.

Parameters:

pSrc Source Signal Pointer.

pDst Destination Signal Pointer.

nLength Signal Length.

nLevel Constant threshold value (real part only and must be greater than 0) to be used to limit each signal sample

nRelOp NppCmpOp type of thresholding operation (NPP_CMP_LESS or NPP_CMP_GREATER only).

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.179.1.12 NppStatus nppsThreshold_64fc_I (Npp64fc ∗ *pSrcDst*, int *nLength*, Npp64f *nLevel*, NppCmpOp *nRelOp*)

64-bit in place floating point complex number signal threshold with constant level.

Parameters:

pSrcDst In-Place Signal Pointer.

nLength Signal Length.

nLevel Constant threshold value (real part only and must be greater than 0) to be used to limit each signal sample

nRelOp NppCmpOp type of thresholding operation (NPP_CMP_LESS or NPP_CMP_GREATER only).

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.179.1.13 NppStatus nppsThreshold_GT_16s (const Npp16s ∗ *pSrc*, Npp16s ∗ *pDst*, int *nLength*, Npp16s *nLevel*)

16-bit signed short signal NPP_CMP_GREATER threshold with constant level.

Parameters:

pSrc Source Signal Pointer.

pDst Destination Signal Pointer.

nLength Signal Length.

nLevel Constant threshold value to be used to limit each signal sample

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.179.1.14 NppStatus nppsThreshold_GT_16s_I (Npp16s ∗ *pSrcDst*, int *nLength*, Npp16s *nLevel*)

16-bit in place signed short signal NPP_CMP_GREATER threshold with constant level.

Parameters:

pSrcDst In-Place Signal Pointer.

nLength Signal Length.

nLevel Constant threshold value to be used to limit each signal sample

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.179.1.15 NppStatus nppsThreshold_GT_16sc (const Npp16sc ∗ *pSrc*, Npp16sc ∗ *pDst*, int *nLength*, Npp16s *nLevel*)

16-bit signed short complex number signal NPP_CMP_GREATER threshold with constant level.

Parameters:

pSrc Source Signal Pointer.

pDst Destination Signal Pointer.

nLength Signal Length.

nLevel Constant threshold value (real part only and must be greater than 0) to be used to limit each signal sample

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.179.1.16 NppStatus nppsThreshold_GT_16sc_I (Npp16sc ∗ *pSrcDst*, int *nLength*, Npp16s *nLevel*)

16-bit in place signed short complex number signal NPP_CMP_GREATER threshold with constant level.

Parameters:

pSrcDst In-Place Signal Pointer.

nLength Signal Length.

nLevel Constant threshold value (real part only and must be greater than 0) to be used to limit each signal sample

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.179.1.17 NppStatus nppsThreshold_GT_32f (const Npp32f ∗ *pSrc*, Npp32f ∗ *pDst*, int *nLength*, Npp32f *nLevel*)

32-bit floating point signal NPP_CMP_GREATER threshold with constant level.

Parameters:

pSrc Source Signal Pointer.

pDst Destination Signal Pointer.

nLength Signal Length.

nLevel Constant threshold value to be used to limit each signal sample

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.179.1.18 NppStatus nppsThreshold_GT_32f_I (Npp32f ∗ *pSrcDst*, int *nLength*, Npp32f *nLevel*)

32-bit in place floating point signal NPP_CMP_GREATER threshold with constant level.

Parameters:

pSrcDst In-Place Signal Pointer.

nLength Signal Length.

nLevel Constant threshold value to be used to limit each signal sample

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.179.1.19 NppStatus nppsThreshold_GT_32fc (const Npp32fc * *pSrc*, Npp32fc * *pDst*, int *nLength*, Npp32f *nLevel*)

32-bit floating point complex number signal NPP_CMP_GREATER threshold with constant level.

Parameters:

pSrc Source Signal Pointer.

pDst Destination Signal Pointer.

nLength Signal Length.

nLevel Constant threshold value (real part only and must be greater than 0) to be used to limit each signal sample

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.179.1.20 NppStatus nppsThreshold_GT_32fc_I (Npp32fc * *pSrcDst*, int *nLength*, Npp32f *nLevel*)

32-bit in place floating point complex number signal NPP_CMP_GREATER threshold with constant level.

Parameters:

pSrcDst In-Place Signal Pointer.

nLength Signal Length.

nLevel Constant threshold value (real part only and must be greater than 0) to be used to limit each signal sample

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.179.1.21 NppStatus nppsThreshold_GT_64f (const Npp64f * *pSrc*, Npp64f * *pDst*, int *nLength*, Npp64f *nLevel*)

64-bit floating point signal NPP_CMP_GREATER threshold with constant level.

Parameters:

pSrc Source Signal Pointer.

pDst Destination Signal Pointer.

nLength Signal Length.

nLevel Constant threshold value to be used to limit each signal sample

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.179.1.22 NppStatus nppsThreshold_GT_64f_I (Npp64f ∗ *pSrcDst*, int *nLength*, Npp64f *nLevel*)

64-bit in place floating point signal NPP_CMP_GREATER threshold with constant level.

Parameters:

pSrcDst In-Place Signal Pointer.

nLength Signal Length.

nLevel Constant threshold value to be used to limit each signal sample

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.179.1.23 NppStatus nppsThreshold_GT_64fc (const Npp64fc ∗ *pSrc*, Npp64fc ∗ *pDst*, int *nLength*, Npp64f *nLevel*)

64-bit floating point complex number signal NPP_CMP_GREATER threshold with constant level.

Parameters:

pSrc Source Signal Pointer.

pDst Destination Signal Pointer.

nLength Signal Length.

nLevel Constant threshold value (real part only and must be greater than 0) to be used to limit each signal sample

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.179.1.24 NppStatus nppsThreshold_GT_64fc_I (Npp64fc ∗ *pSrcDst*, int *nLength*, Npp64f *nLevel*)

64-bit in place floating point complex number signal NPP_CMP_GREATER threshold with constant level.

Parameters:

pSrcDst In-Place Signal Pointer.

nLength Signal Length.

nLevel Constant threshold value (real part only and must be greater than 0) to be used to limit each signal sample

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.179.1.25 NppStatus nppsThreshold_GTVal_16s (const Npp16s * *pSrc*, Npp16s * *pDst*, int *nLength*, Npp16s *nLevel*, Npp16s *nValue*)

16-bit signed short signal NPP_CMP_GREATER threshold with constant level.

Parameters:

pSrc Source Signal Pointer.

pDst Destination Signal Pointer.

nLength Signal Length.

nLevel Constant threshold value to be used to limit each signal sample

nValue Constant value to replace source value when threshold test is true.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.179.1.26 NppStatus nppsThreshold_GTVal_16s_I (Npp16s * *pSrcDst*, int *nLength*, Npp16s *nLevel*, Npp16s *nValue*)

16-bit in place signed short signal NPP_CMP_GREATER threshold with constant level.

Parameters:

pSrcDst In-Place Signal Pointer.

nLength Signal Length.

nLevel Constant threshold value to be used to limit each signal sample

nValue Constant value to replace source value when threshold test is true.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.179.1.27 NppStatus nppsThreshold_GTVal_16sc (const Npp16sc * *pSrc*, Npp16sc * *pDst*, int *nLength*, Npp16s *nLevel*, Npp16sc *nValue*)

16-bit signed short complex number signal NPP_CMP_GREATER threshold with constant level.

Parameters:

pSrc Source Signal Pointer.

pDst Destination Signal Pointer.

nLength Signal Length.

nLevel Constant threshold value (real part only and must be greater than 0) to be used to limit each signal sample

nValue Constant value to replace source value when threshold test is true.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.179.1.28 NppStatus nppsThreshold_GTVal_16sc_I (Npp16sc ∗ *pSrcDst*, int *nLength*, Npp16s *nLevel*, Npp16sc *nValue*)

16-bit in place signed short complex number signal NPP_CMP_GREATER threshold with constant level.

Parameters:

pSrcDst In-Place Signal Pointer.

nLength Signal Length.

nLevel Constant threshold value (real part only and must be greater than 0) to be used to limit each signal sample

nValue Constant value to replace source value when threshold test is true.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.179.1.29 NppStatus nppsThreshold_GTVal_32f (const Npp32f ∗ *pSrc*, Npp32f ∗ *pDst*, int *nLength*, Npp32f *nLevel*, Npp32f *nValue*)

32-bit floating point signal NPP_CMP_GREATER threshold with constant level.

Parameters:

pSrc Source Signal Pointer.

pDst Destination Signal Pointer.

nLength Signal Length.

nLevel Constant threshold value to be used to limit each signal sample

nValue Constant value to replace source value when threshold test is true.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.179.1.30 NppStatus nppsThreshold_GTVal_32f_I (Npp32f ∗ *pSrcDst*, int *nLength*, Npp32f *nLevel*, Npp32f *nValue*)

32-bit in place floating point signal NPP_CMP_GREATER threshold with constant level.

Parameters:

pSrcDst In-Place Signal Pointer.

nLength Signal Length.

nLevel Constant threshold value to be used to limit each signal sample

nValue Constant value to replace source value when threshold test is true.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.179.1.31 NppStatus nppsThreshold_GTVal_32fc (const Npp32fc ∗ *pSrc*, Npp32fc ∗ *pDst*, int *nLength*, Npp32f *nLevel*, Npp32fc *nValue*)

32-bit floating point complex number signal NPP_CMP_GREATER threshold with constant level.

Parameters:

pSrc Source Signal Pointer.

pDst Destination Signal Pointer.

nLength Signal Length.

nLevel Constant threshold value (real part only and must be greater than 0) to be used to limit each signal sample

nValue Constant value to replace source value when threshold test is true.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.179.1.32 NppStatus nppsThreshold_GTVal_32fc_I (Npp32fc ∗ *pSrcDst*, int *nLength*, Npp32f *nLevel*, Npp32fc *nValue*)

32-bit in place floating point complex number signal NPP_CMP_GREATER threshold with constant level.

Parameters:

pSrcDst In-Place Signal Pointer.

nLength Signal Length.

nLevel Constant threshold value (real part only and must be greater than 0) to be used to limit each signal sample

nValue Constant value to replace source value when threshold test is true.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.179.1.33 NppStatus nppsThreshold_GTVal_64f (const Npp64f ∗ *pSrc*, Npp64f ∗ *pDst*, int *nLength*, Npp64f *nLevel*, Npp64f *nValue*)

64-bit floating point signal NPP_CMP_GREATER threshold with constant level.

Parameters:

pSrc Source Signal Pointer.

pDst Destination Signal Pointer.

nLength Signal Length.

nLevel Constant threshold value to be used to limit each signal sample

nValue Constant value to replace source value when threshold test is true.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.179.1.34 NppStatus nppsThreshold_GTVal_64f_I (Npp64f ∗ *pSrcDst*, int *nLength*, Npp64f *nLevel*, Npp64f *nValue*)

64-bit in place floating point signal NPP_CMP_GREATER threshold with constant level.

Parameters:

pSrcDst In-Place Signal Pointer.

nLength Signal Length.

nLevel Constant threshold value to be used to limit each signal sample

nValue Constant value to replace source value when threshold test is true.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.179.1.35 NppStatus nppsThreshold_GTVal_64fc (const Npp64fc ∗ *pSrc*, Npp64fc ∗ *pDst*, int *nLength*, Npp64f *nLevel*, Npp64fc *nValue*)

64-bit floating point complex number signal NPP_CMP_GREATER threshold with constant level.

Parameters:

pSrc Source Signal Pointer.

pDst Destination Signal Pointer.

nLength Signal Length.

nLevel Constant threshold value (real part only and must be greater than 0) to be used to limit each signal sample

nValue Constant value to replace source value when threshold test is true.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.179.1.36 NppStatus nppsThreshold_GTVal_64fc_I (Npp64fc ∗ *pSrcDst*, int *nLength*, Npp64f *nLevel*, Npp64fc *nValue*)

64-bit in place floating point complex number signal NPP_CMP_GREATER threshold with constant level.

Parameters:

pSrcDst In-Place Signal Pointer.

nLength Signal Length.

nLevel Constant threshold value (real part only and must be greater than 0) to be used to limit each signal sample

nValue Constant value to replace source value when threshold test is true.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.179.1.37 NppStatus nppsThreshold_LT_16s (const Npp16s ∗ *pSrc*, Npp16s ∗ *pDst*, int *nLength*, Npp16s *nLevel*)

16-bit signed short signal NPP_CMP_LESS threshold with constant level.

Parameters:

pSrc Source Signal Pointer.

pDst Destination Signal Pointer.

nLength Signal Length.

nLevel Constant threshold value to be used to limit each signal sample

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.179.1.38 NppStatus nppsThreshold_LT_16s_I (Npp16s ∗ *pSrcDst*, int *nLength*, Npp16s *nLevel*)

16-bit in place signed short signal NPP_CMP_LESS threshold with constant level.

Parameters:

pSrcDst In-Place Signal Pointer.

nLength Signal Length.

nLevel Constant threshold value to be used to limit each signal sample

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.179.1.39 NppStatus nppsThreshold_LT_16sc (const Npp16sc ∗ *pSrc*, Npp16sc ∗ *pDst*, int *nLength*, Npp16s *nLevel*)

16-bit signed short complex number signal NPP_CMP_LESS threshold with constant level.

Parameters:

pSrc Source Signal Pointer.

pDst Destination Signal Pointer.

nLength Signal Length.

nLevel Constant threshold value (real part only and must be greater than 0) to be used to limit each signal sample

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.179.1.40 NppStatus nppsThreshold_LT_16sc_I (Npp16sc * *pSrcDst*, int *nLength*, Npp16s *nLevel*)

16-bit in place signed short complex number signal NPP_CMP_LESS threshold with constant level.

Parameters:

pSrcDst In-Place Signal Pointer.

nLength Signal Length.

nLevel Constant threshold value (real part only and must be greater than 0) to be used to limit each signal sample

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.179.1.41 NppStatus nppsThreshold_LT_32f (const Npp32f * *pSrc*, Npp32f * *pDst*, int *nLength*, Npp32f *nLevel*)

32-bit floating point signal NPP_CMP_LESS threshold with constant level.

Parameters:

pSrc Source Signal Pointer.

pDst Destination Signal Pointer.

nLength Signal Length.

nLevel Constant threshold value to be used to limit each signal sample

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.179.1.42 NppStatus nppsThreshold_LT_32f_I (Npp32f * *pSrcDst*, int *nLength*, Npp32f *nLevel*)

32-bit in place floating point signal NPP_CMP_LESS threshold with constant level.

Parameters:

pSrcDst In-Place Signal Pointer.

nLength Signal Length.

nLevel Constant threshold value to be used to limit each signal sample

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.179.1.43 NppStatus nppsThreshold_LT_32fc (const Npp32fc ∗ *pSrc*, Npp32fc ∗ *pDst*, int *nLength*, Npp32f *nLevel*)

32-bit floating point complex number signal NPP_CMP_LESS threshold with constant level.

Parameters:

pSrc Source Signal Pointer.

pDst Destination Signal Pointer.

nLength Signal Length.

nLevel Constant threshold value (real part only and must be greater than 0) to be used to limit each signal sample

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.179.1.44 NppStatus nppsThreshold_LT_32fc_I (Npp32fc ∗ *pSrcDst*, int *nLength*, Npp32f *nLevel*)

32-bit in place floating point complex number signal NPP_CMP_LESS threshold with constant level.

Parameters:

pSrcDst In-Place Signal Pointer.

nLength Signal Length.

nLevel Constant threshold value (real part only and must be greater than 0) to be used to limit each signal sample

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.179.1.45 NppStatus nppsThreshold_LT_64f (const Npp64f ∗ *pSrc*, Npp64f ∗ *pDst*, int *nLength*, Npp64f *nLevel*)

64-bit floating point signal NPP_CMP_LESS threshold with constant level.

Parameters:

pSrc Source Signal Pointer.

pDst Destination Signal Pointer.

nLength Signal Length.

nLevel Constant threshold value to be used to limit each signal sample

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.179.1.46 NppStatus nppsThreshold_LT_64f_I (Npp64f ∗ *pSrcDst*, int *nLength*, Npp64f *nLevel*)

64-bit in place floating point signal NPP_CMP_LESS threshold with constant level.

Parameters:

pSrcDst In-Place Signal Pointer.

nLength Signal Length.

nLevel Constant threshold value to be used to limit each signal sample

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.179.1.47 NppStatus nppsThreshold_LT_64fc (const Npp64fc ∗ *pSrc*, Npp64fc ∗ *pDst*, int *nLength*, Npp64f *nLevel*)

64-bit floating point complex number signal NPP_CMP_LESS threshold with constant level.

Parameters:

pSrc Source Signal Pointer.

pDst Destination Signal Pointer.

nLength Signal Length.

nLevel Constant threshold value (real part only and must be greater than 0) to be used to limit each signal sample

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.179.1.48 NppStatus nppsThreshold_LT_64fc_I (Npp64fc ∗ *pSrcDst*, int *nLength*, Npp64f *nLevel*)

64-bit in place floating point complex number signal NPP_CMP_LESS threshold with constant level.

Parameters:

pSrcDst In-Place Signal Pointer.

nLength Signal Length.

nLevel Constant threshold value (real part only and must be greater than 0) to be used to limit each signal sample

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.179.1.49 NppStatus nppsThreshold_LTVal_16s (const Npp16s ∗ *pSrc*, Npp16s ∗ *pDst*, int *nLength*, Npp16s *nLevel*, Npp16s *nValue*)

16-bit signed short signal NPP_CMP_LESS threshold with constant level.

Parameters:

pSrc Source Signal Pointer.

pDst Destination Signal Pointer.

nLength Signal Length.

nLevel Constant threshold value to be used to limit each signal sample

nValue Constant value to replace source value when threshold test is true.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.179.1.50 NppStatus nppsThreshold_LTVal_16s_I (Npp16s ∗ *pSrcDst*, int *nLength*, Npp16s *nLevel*, Npp16s *nValue*)

16-bit in place signed short signal NPP_CMP_LESS threshold with constant level.

Parameters:

pSrcDst In-Place Signal Pointer.

nLength Signal Length.

nLevel Constant threshold value to be used to limit each signal sample

nValue Constant value to replace source value when threshold test is true.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.179.1.51 NppStatus nppsThreshold_LTVal_16sc (const Npp16sc ∗ *pSrc*, Npp16sc ∗ *pDst*, int *nLength*, Npp16s *nLevel*, Npp16sc *nValue*)

16-bit signed short complex number signal NPP_CMP_LESS threshold with constant level.

Parameters:

pSrc Source Signal Pointer.

pDst Destination Signal Pointer.

nLength Signal Length.

nLevel Constant threshold value (real part only and must be greater than 0) to be used to limit each signal sample

nValue Constant value to replace source value when threshold test is true.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.179.1.52 NppStatus nppsThreshold_LTVal_16sc_I (Npp16sc ∗ *pSrcDst*, int *nLength*, Npp16s *nLevel*, Npp16sc *nValue*)

16-bit in place signed short complex number signal NPP_CMP_LESS threshold with constant level.

Parameters:

pSrcDst In-Place Signal Pointer.

nLength Signal Length.

nLevel Constant threshold value (real part only and must be greater than 0) to be used to limit each signal sample

nValue Constant value to replace source value when threshold test is true.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.179.1.53 NppStatus nppsThreshold_LTVal_32f (const Npp32f ∗ *pSrc*, Npp32f ∗ *pDst*, int *nLength*, Npp32f *nLevel*, Npp32f *nValue*)

32-bit floating point signal NPP_CMP_LESS threshold with constant level.

Parameters:

pSrc Source Signal Pointer.

pDst Destination Signal Pointer.

nLength Signal Length.

nLevel Constant threshold value to be used to limit each signal sample

nValue Constant value to replace source value when threshold test is true.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.179.1.54 NppStatus nppsThreshold_LTVal_32f_I (Npp32f ∗ *pSrcDst*, int *nLength*, Npp32f *nLevel*, Npp32f *nValue*)

32-bit in place floating point signal NPP_CMP_LESS threshold with constant level.

Parameters:

pSrcDst In-Place Signal Pointer.

nLength Signal Length.

nLevel Constant threshold value to be used to limit each signal sample

nValue Constant value to replace source value when threshold test is true.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.179.1.55 NppStatus nppsThreshold_LTVal_32fc (const Npp32fc ∗ *pSrc*, Npp32fc ∗ *pDst*, int *nLength*, Npp32f *nLevel*, Npp32fc *nValue*)

32-bit floating point complex number signal NPP_CMP_LESS threshold with constant level.

Parameters:

pSrc Source Signal Pointer.

pDst Destination Signal Pointer.

nLength Signal Length.

nLevel Constant threshold value (real part only and must be greater than 0) to be used to limit each signal sample

nValue Constant value to replace source value when threshold test is true.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.179.1.56 NppStatus nppsThreshold_LTVal_32fc_I (Npp32fc ∗ *pSrcDst*, int *nLength*, Npp32f *nLevel*, Npp32fc *nValue*)

32-bit in place floating point complex number signal NPP_CMP_LESS threshold with constant level.

Parameters:

pSrcDst In-Place Signal Pointer.

nLength Signal Length.

nLevel Constant threshold value (real part only and must be greater than 0) to be used to limit each signal sample

nValue Constant value to replace source value when threshold test is true.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.179.1.57 NppStatus nppsThreshold_LTVal_64f (const Npp64f ∗ *pSrc*, Npp64f ∗ *pDst*, int *nLength*, Npp64f *nLevel*, Npp64f *nValue*)

64-bit floating point signal NPP_CMP_LESS threshold with constant level.

Parameters:

pSrc Source Signal Pointer.

pDst Destination Signal Pointer.

nLength Signal Length.

nLevel Constant threshold value to be used to limit each signal sample

nValue Constant value to replace source value when threshold test is true.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.179.1.58 NppStatus nppsThreshold_LTVal_64f_I (Npp64f $*$ *pSrcDst*, int *nLength*, Npp64f *nLevel*, Npp64f *nValue*)

64-bit in place floating point signal NPP_CMP_LESS threshold with constant level.

Parameters:

pSrcDst In-Place Signal Pointer.

nLength Signal Length.

nLevel Constant threshold value to be used to limit each signal sample

nValue Constant value to replace source value when threshold test is true.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.179.1.59 NppStatus nppsThreshold_LTVal_64fc (const Npp64fc $*$ *pSrc*, Npp64fc $*$ *pDst*, int *nLength*, Npp64f *nLevel*, Npp64fc *nValue*)

64-bit floating point complex number signal NPP_CMP_LESS threshold with constant level.

Parameters:

pSrc Source Signal Pointer.

pDst Destination Signal Pointer.

nLength Signal Length.

nLevel Constant threshold value (real part only and must be greater than 0) to be used to limit each signal sample

nValue Constant value to replace source value when threshold test is true.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.179.1.60 NppStatus nppsThreshold_LTVal_64fc_I (Npp64fc $*$ *pSrcDst*, int *nLength*, Npp64f *nLevel*, Npp64fc *nValue*)

64-bit in place floating point complex number signal NPP_CMP_LESS threshold with constant level.

Parameters:

pSrcDst In-Place Signal Pointer.

nLength Signal Length.

nLevel Constant threshold value (real part only and must be greater than 0) to be used to limit each signal sample

nValue Constant value to replace source value when threshold test is true.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.180 Filtering Functions

Functions that provide functionality of generating output signal based on the input signal like signal integral, etc.

Modules

- Integral

  Compute the indefinite interal of a given signal.

7.180.1 Detailed Description

Functions that provide functionality of generating output signal based on the input signal like signal integral, etc.

7.181 Integral

Compute the indefinite interal of a given signal.

Functions

- NppStatus nppsIntegralGetBufferSize_32s (int nLength, int ∗hpBufferSize)
- NppStatus nppsIntegral_32s (const Npp32s ∗pSrc, Npp32s ∗pDst, int nLength, Npp8u ∗pDeviceBuffer)

7.181.1 Detailed Description

Compute the indefinite interal of a given signal.

The i-th element is computed to be

$$s_i' = \sum_0^i s_j$$

7.181.2 Function Documentation

7.181.2.1 NppStatus nppsIntegral_32s (const Npp32s ∗ *pSrc*, Npp32s ∗ *pDst*, int *nLength*, Npp8u ∗ *pDeviceBuffer*)

7.181.2.2 NppStatus nppsIntegralGetBufferSize_32s (int *nLength*, int ∗ *hpBufferSize*)

7.182 Initialization

Modules

- Set
- Zero
- Copy

7.183 Set

Set

Set methods for 1D vectors of various types.

The copy methods operate on vector data given as a pointer to the underlying data-type (e.g. 8-bit vectors would be passed as pointers to Npp8u type) and length of the vectors, i.e. the number of items.

- NppStatus nppsSet_8u (Npp8u nValue, Npp8u ∗pDst, int nLength)

  8-bit unsigned char, vector set method.

- NppStatus nppsSet_8s (Npp8s nValue, Npp8s ∗pDst, int nLength)

  8-bit signed char, vector set method.

- NppStatus nppsSet_16u (Npp16u nValue, Npp16u ∗pDst, int nLength)

  16-bit unsigned integer, vector set method.

- NppStatus nppsSet_16s (Npp16s nValue, Npp16s ∗pDst, int nLength)

  16-bit signed integer, vector set method.

- NppStatus nppsSet_16sc (Npp16sc nValue, Npp16sc ∗pDst, int nLength)

  16-bit integer complex, vector set method.

- NppStatus nppsSet_32u (Npp32u nValue, Npp32u ∗pDst, int nLength)

  32-bit unsigned integer, vector set method.

- NppStatus nppsSet_32s (Npp32s nValue, Npp32s ∗pDst, int nLength)

  32-bit signed integer, vector set method.

- NppStatus nppsSet_32sc (Npp32sc nValue, Npp32sc ∗pDst, int nLength)

  32-bit integer complex, vector set method.

- NppStatus nppsSet_32f (Npp32f nValue, Npp32f ∗pDst, int nLength)

  32-bit float, vector set method.

- NppStatus nppsSet_32fc (Npp32fc nValue, Npp32fc ∗pDst, int nLength)

  32-bit float complex, vector set method.

- NppStatus nppsSet_64s (Npp64s nValue, Npp64s ∗pDst, int nLength)

  64-bit long long integer, vector set method.

- NppStatus nppsSet_64sc (Npp64sc nValue, Npp64sc ∗pDst, int nLength)

  64-bit long long integer complex, vector set method.

- NppStatus nppsSet_64f (Npp64f nValue, Npp64f ∗pDst, int nLength)

  64-bit double, vector set method.

- NppStatus nppsSet_64fc (Npp64fc nValue, Npp64fc ∗pDst, int nLength)

  64-bit double complex, vector set method.

7.183.1 Function Documentation

7.183.1.1 NppStatus nppsSet_16s (Npp16s *nValue*, Npp16s ∗ *pDst*, int *nLength*)

16-bit signed integer, vector set method.

Parameters:

nValue Value used to initialize the vector pDst.

pDst Destination Signal Pointer.

nLength Signal Length.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.183.1.2 NppStatus nppsSet_16sc (Npp16sc *nValue*, Npp16sc ∗ *pDst*, int *nLength*)

16-bit integer complex, vector set method.

Parameters:

nValue Value used to initialize the vector pDst.

pDst Destination Signal Pointer.

nLength Signal Length.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.183.1.3 NppStatus nppsSet_16u (Npp16u *nValue*, Npp16u ∗ *pDst*, int *nLength*)

16-bit unsigned integer, vector set method.

Parameters:

nValue Value used to initialize the vector pDst.

pDst Destination Signal Pointer.

nLength Signal Length.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.183.1.4 NppStatus nppsSet_32f (Npp32f *nValue*, Npp32f ∗ *pDst*, int *nLength*)

32-bit float, vector set method.

Parameters:

nValue Value used to initialize the vector pDst.

pDst Destination Signal Pointer.

nLength Signal Length.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.183.1.5 NppStatus nppsSet_32fc (Npp32fc *nValue*, Npp32fc ∗ *pDst*, int *nLength*)

32-bit float complex, vector set method.

Parameters:

nValue Value used to initialize the vector pDst.

pDst Destination Signal Pointer.

nLength Signal Length.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.183.1.6 NppStatus nppsSet_32s (Npp32s *nValue*, Npp32s ∗ *pDst*, int *nLength*)

32-bit signed integer, vector set method.

Parameters:

nValue Value used to initialize the vector pDst.

pDst Destination Signal Pointer.

nLength Signal Length.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.183.1.7 NppStatus nppsSet_32sc (Npp32sc *nValue*, Npp32sc ∗ *pDst*, int *nLength*)

32-bit integer complex, vector set method.

Parameters:

nValue Value used to initialize the vector pDst.

pDst Destination Signal Pointer.

nLength Signal Length.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.183.1.8 NppStatus nppsSet_32u (Npp32u *nValue*, Npp32u ∗ *pDst*, int *nLength*)

32-bit unsigned integer, vector set method.

Parameters:

nValue Value used to initialize the vector pDst.

pDst Destination Signal Pointer.

nLength Signal Length.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.183.1.9 NppStatus nppsSet_64f (Npp64f *nValue*, Npp64f ∗ *pDst*, int *nLength*)

64-bit double, vector set method.

Parameters:

nValue Value used to initialize the vector pDst.

pDst Destination Signal Pointer.

nLength Signal Length.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.183.1.10 NppStatus nppsSet_64fc (Npp64fc *nValue*, Npp64fc ∗ *pDst*, int *nLength*)

64-bit double complex, vector set method.

Parameters:

nValue Value used to initialize the vector pDst.

pDst Destination Signal Pointer.

nLength Signal Length.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.183.1.11 NppStatus nppsSet_64s (Npp64s *nValue*, Npp64s ∗ *pDst*, int *nLength*)

64-bit long long integer, vector set method.

Parameters:

nValue Value used to initialize the vector pDst.

pDst Destination Signal Pointer.

nLength Signal Length.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.183.1.12 NppStatus nppsSet_64sc (Npp64sc *nValue*, Npp64sc ∗ *pDst*, int *nLength*)

64-bit long long integer complex, vector set method.

Parameters:

nValue Value used to initialize the vector pDst.

pDst Destination Signal Pointer.

nLength Signal Length.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.183.1.13 NppStatus nppsSet_8s (Npp8s *nValue*, Npp8s ∗ *pDst*, int *nLength*)

8-bit signed char, vector set method.

Parameters:

nValue Value used to initialize the vector pDst.

pDst Destination Signal Pointer.

nLength Signal Length.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.183.1.14 NppStatus nppsSet_8u (Npp8u *nValue*, Npp8u ∗ *pDst*, int *nLength*)

8-bit unsigned char, vector set method.

Parameters:

nValue Value used to initialize the vector pDst.

pDst Destination Signal Pointer.

nLength Signal Length.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.184 Zero

Zero

Set signals to zero.

- NppStatus nppsZero_8u (Npp8u ∗pDst, int nLength)
  8-bit unsigned char, vector zero method.
- NppStatus nppsZero_16s (Npp16s ∗pDst, int nLength)
  16-bit integer, vector zero method.
- NppStatus nppsZero_16sc (Npp16sc ∗pDst, int nLength)
  16-bit integer complex, vector zero method.
- NppStatus nppsZero_32s (Npp32s ∗pDst, int nLength)
  32-bit integer, vector zero method.
- NppStatus nppsZero_32sc (Npp32sc ∗pDst, int nLength)
  32-bit integer complex, vector zero method.
- NppStatus nppsZero_32f (Npp32f ∗pDst, int nLength)
  32-bit float, vector zero method.
- NppStatus nppsZero_32fc (Npp32fc ∗pDst, int nLength)
  32-bit float complex, vector zero method.
- NppStatus nppsZero_64s (Npp64s ∗pDst, int nLength)
  64-bit long long integer, vector zero method.
- NppStatus nppsZero_64sc (Npp64sc ∗pDst, int nLength)
  64-bit long long integer complex, vector zero method.
- NppStatus nppsZero_64f (Npp64f ∗pDst, int nLength)
  64-bit double, vector zero method.
- NppStatus nppsZero_64fc (Npp64fc ∗pDst, int nLength)
  64-bit double complex, vector zero method.

7.184.1 Function Documentation

7.184.1.1 NppStatus nppsZero_16s (Npp16s ∗ *pDst*, int *nLength*)

16-bit integer, vector zero method.

Parameters:

pDst Destination Signal Pointer.

nLength Signal Length.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.184.1.2 NppStatus nppsZero_16sc (Npp16sc * *pDst*, int *nLength*)

16-bit integer complex, vector zero method.

Parameters:

pDst Destination Signal Pointer.
nLength Signal Length.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.184.1.3 NppStatus nppsZero_32f (Npp32f * *pDst*, int *nLength*)

32-bit float, vector zero method.

Parameters:

pDst Destination Signal Pointer.
nLength Signal Length.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.184.1.4 NppStatus nppsZero_32fc (Npp32fc * *pDst*, int *nLength*)

32-bit float complex, vector zero method.

Parameters:

pDst Destination Signal Pointer.
nLength Signal Length.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.184.1.5 NppStatus nppsZero_32s (Npp32s * *pDst*, int *nLength*)

32-bit integer, vector zero method.

Parameters:

pDst Destination Signal Pointer.
nLength Signal Length.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.184.1.6 NppStatus nppsZero_32sc (Npp32sc ∗ *pDst*, int *nLength*)

32-bit integer complex, vector zero method.

Parameters:

pDst Destination Signal Pointer.

nLength Signal Length.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.184.1.7 NppStatus nppsZero_64f (Npp64f ∗ *pDst*, int *nLength*)

64-bit double, vector zero method.

Parameters:

pDst Destination Signal Pointer.

nLength Signal Length.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.184.1.8 NppStatus nppsZero_64fc (Npp64fc ∗ *pDst*, int *nLength*)

64-bit double complex, vector zero method.

Parameters:

pDst Destination Signal Pointer.

nLength Signal Length.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.184.1.9 NppStatus nppsZero_64s (Npp64s ∗ *pDst*, int *nLength*)

64-bit long long integer, vector zero method.

Parameters:

pDst Destination Signal Pointer.

nLength Signal Length.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.184.1.10 NppStatus nppsZero_64sc (Npp64sc * *pDst*, int *nLength*)

64-bit long long integer complex, vector zero method.

Parameters:

pDst Destination Signal Pointer.

nLength Signal Length.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.184.1.11 NppStatus nppsZero_8u (Npp8u * *pDst*, int *nLength*)

8-bit unsigned char, vector zero method.

Parameters:

pDst Destination Signal Pointer.

nLength Signal Length.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.185 Copy

Copy

Copy methods for various type signals.

Copy methods operate on signal data given as a pointer to the underlying data-type (e.g. 8-bit vectors would be passed as pointers to Npp8u type) and length of the vectors, i.e. the number of items.

- NppStatus nppsCopy_8u (const Npp8u ∗pSrc, Npp8u ∗pDst, int nLength)

  8-bit unsigned char, vector copy method
- NppStatus nppsCopy_16s (const Npp16s ∗pSrc, Npp16s ∗pDst, int nLength)

  16-bit signed short, vector copy method.
- NppStatus nppsCopy_32s (const Npp32s ∗pSrc, Npp32s ∗pDst, int nLength)

  32-bit signed integer, vector copy method.
- NppStatus nppsCopy_32f (const Npp32f ∗pSrc, Npp32f ∗pDst, int nLength)

  32-bit float, vector copy method.
- NppStatus nppsCopy_64s (const Npp64s ∗pSrc, Npp64s ∗pDst, int nLength)

  64-bit signed integer, vector copy method.
- NppStatus nppsCopy_16sc (const Npp16sc ∗pSrc, Npp16sc ∗pDst, int nLength)

  16-bit complex short, vector copy method.
- NppStatus nppsCopy_32sc (const Npp32sc ∗pSrc, Npp32sc ∗pDst, int nLength)

  32-bit complex signed integer, vector copy method.
- NppStatus nppsCopy_32fc (const Npp32fc ∗pSrc, Npp32fc ∗pDst, int nLength)

  32-bit complex float, vector copy method.
- NppStatus nppsCopy_64sc (const Npp64sc ∗pSrc, Npp64sc ∗pDst, int nLength)

  64-bit complex signed integer, vector copy method.
- NppStatus nppsCopy_64fc (const Npp64fc ∗pSrc, Npp64fc ∗pDst, int nLength)

  64-bit complex double, vector copy method.

7.185.1 Function Documentation

7.185.1.1 NppStatus nppsCopy_16s (const Npp16s ∗ *pSrc*, Npp16s ∗ *pDst*, int *nLength*)

16-bit signed short, vector copy method.

Parameters:

pSrc Source Signal Pointer.

pDst Destination Signal Pointer.

nLength Signal Length.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.185.1.2 NppStatus nppsCopy_16sc (const Npp16sc ∗ *pSrc*, Npp16sc ∗ *pDst*, int *nLength*)

16-bit complex short, vector copy method.

Parameters:

pSrc Source Signal Pointer.

pDst Destination Signal Pointer.

nLength Signal Length.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.185.1.3 NppStatus nppsCopy_32f (const Npp32f ∗ *pSrc*, Npp32f ∗ *pDst*, int *nLength*)

32-bit float, vector copy method.

Parameters:

pSrc Source Signal Pointer.

pDst Destination Signal Pointer.

nLength Signal Length.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.185.1.4 NppStatus nppsCopy_32fc (const Npp32fc ∗ *pSrc*, Npp32fc ∗ *pDst*, int *nLength*)

32-bit complex float, vector copy method.

Parameters:

pSrc Source Signal Pointer.

pDst Destination Signal Pointer.

nLength Signal Length.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.185.1.5 NppStatus nppsCopy_32s (const Npp32s * *pSrc*, Npp32s * *pDst*, int *nLength*)

32-bit signed integer, vector copy method.

Parameters:

pSrc Source Signal Pointer.

pDst Destination Signal Pointer.

nLength Signal Length.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.185.1.6 NppStatus nppsCopy_32sc (const Npp32sc * *pSrc*, Npp32sc * *pDst*, int *nLength*)

32-bit complex signed integer, vector copy method.

Parameters:

pSrc Source Signal Pointer.

pDst Destination Signal Pointer.

nLength Signal Length.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.185.1.7 NppStatus nppsCopy_64fc (const Npp64fc * *pSrc*, Npp64fc * *pDst*, int *nLength*)

64-bit complex double, vector copy method.

Parameters:

pSrc Source Signal Pointer.

pDst Destination Signal Pointer.

nLength Signal Length.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.185.1.8 NppStatus nppsCopy_64s (const Npp64s * *pSrc*, Npp64s * *pDst*, int *nLength*)

64-bit signed integer, vector copy method.

Parameters:

pSrc Source Signal Pointer.

pDst Destination Signal Pointer.

nLength Signal Length.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.185.1.9 NppStatus nppsCopy_64sc (const Npp64sc ∗ *pSrc*, Npp64sc ∗ *pDst*, int *nLength*)

64-bit complex signed integer, vector copy method.

Parameters:

pSrc Source Signal Pointer.

pDst Destination Signal Pointer.

nLength Signal Length.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.185.1.10 NppStatus nppsCopy_8u (const Npp8u ∗ *pSrc*, Npp8u ∗ *pDst*, int *nLength*)

8-bit unsigned char, vector copy method

Parameters:

pSrc Source Signal Pointer.

pDst Destination Signal Pointer.

nLength Signal Length.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.186 Statistical Functions

Functions that provide global signal statistics like: sum, mean, standard deviation, min, max, etc.

Modules

- MinEvery And MaxEvery Functions

  Performs the min or max operation on the samples of a signal.

- Sum

  signal_min_every_or_max_every

- Maximum
- Minimum
- Mean
- Standard Deviation
- Mean And Standard Deviation
- Minimum_Maximum
- Infinity Norm
- L1 Norm
- L2 Norm
- Infinity Norm Diff
- L1 Norm Diff
- L2 Norm Diff
- Dot Product
- Count In Range
- Count Zero Crossings
- MaximumError

  Primitives for computing the maximum error between two signals.

- AverageError

  Primitives for computing the Average error between two signals.

- MaximumRelativeError

  Primitives for computing the MaximumRelative error between two signals.

- AverageRelativeError

  Primitives for computing the AverageRelative error between two signals.

7.186.1 Detailed Description

Functions that provide global signal statistics like: sum, mean, standard deviation, min, max, etc.

7.187 MinEvery And MaxEvery Functions

Performs the min or max operation on the samples of a signal.

Functions

- NppStatus nppsMinEvery_8u_I (const Npp8u ∗pSrc, Npp8u ∗pSrcDst, int nLength)
  8-bit in place min value for each pair of elements.
- NppStatus nppsMinEvery_16u_I (const Npp16u ∗pSrc, Npp16u ∗pSrcDst, int nLength)
  16-bit unsigned short integer in place min value for each pair of elements.
- NppStatus nppsMinEvery_16s_I (const Npp16s ∗pSrc, Npp16s ∗pSrcDst, int nLength)
  16-bit signed short integer in place min value for each pair of elements.
- NppStatus nppsMinEvery_32s_I (const Npp32s ∗pSrc, Npp32s ∗pSrcDst, int nLength)
  32-bit signed integer in place min value for each pair of elements.
- NppStatus nppsMinEvery_32f_I (const Npp32f ∗pSrc, Npp32f ∗pSrcDst, int nLength)
  32-bit floating point in place min value for each pair of elements.
- NppStatus nppsMinEvery_64f_I (const Npp64f ∗pSrc, Npp64f ∗pSrcDst, int nLength)
  64-bit floating point in place min value for each pair of elements.
- NppStatus nppsMaxEvery_8u_I (const Npp8u ∗pSrc, Npp8u ∗pSrcDst, int nLength)
  8-bit in place max value for each pair of elements.
- NppStatus nppsMaxEvery_16u_I (const Npp16u ∗pSrc, Npp16u ∗pSrcDst, int nLength)
  16-bit unsigned short integer in place max value for each pair of elements.
- NppStatus nppsMaxEvery_16s_I (const Npp16s ∗pSrc, Npp16s ∗pSrcDst, int nLength)
  16-bit signed short integer in place max value for each pair of elements.
- NppStatus nppsMaxEvery_32s_I (const Npp32s ∗pSrc, Npp32s ∗pSrcDst, int nLength)
  32-bit signed integer in place max value for each pair of elements.
- NppStatus nppsMaxEvery_32f_I (const Npp32f ∗pSrc, Npp32f ∗pSrcDst, int nLength)
  32-bit floating point in place max value for each pair of elements.

7.187.1 Detailed Description

Performs the min or max operation on the samples of a signal.

7.187.2 Function Documentation

7.187.2.1 NppStatus nppsMaxEvery_16s_I (const Npp16s ∗ *pSrc*, Npp16s ∗ *pSrcDst*, int *nLength*)

16-bit signed short integer in place max value for each pair of elements.

Parameters:

pSrc Source Signal Pointer.

pSrcDst In-Place Signal Pointer.

nLength Signal Length.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.187.2.2 NppStatus nppsMaxEvery_16u_I (const Npp16u ∗ *pSrc*, Npp16u ∗ *pSrcDst*, int *nLength*)

16-bit unsigned short integer in place max value for each pair of elements.

Parameters:

pSrc Source Signal Pointer.

pSrcDst In-Place Signal Pointer.

nLength Signal Length.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.187.2.3 NppStatus nppsMaxEvery_32f_I (const Npp32f ∗ *pSrc*, Npp32f ∗ *pSrcDst*, int *nLength*)

32-bit floating point in place max value for each pair of elements.

Parameters:

pSrc Source Signal Pointer.

pSrcDst In-Place Signal Pointer.

nLength Signal Length.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.187.2.4 NppStatus nppsMaxEvery_32s_I (const Npp32s ∗ *pSrc*, Npp32s ∗ *pSrcDst*, int *nLength*)

32-bit signed integer in place max value for each pair of elements.

Parameters:

pSrc Source Signal Pointer.

pSrcDst In-Place Signal Pointer.

nLength Signal Length.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.187.2.5 NppStatus nppsMaxEvery_8u_I (const Npp8u ∗ *pSrc*, Npp8u ∗ *pSrcDst*, int *nLength*)

8-bit in place max value for each pair of elements.

Parameters:

pSrc Source Signal Pointer.

pSrcDst In-Place Signal Pointer.

nLength Signal Length.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.187.2.6 NppStatus nppsMinEvery_16s_I (const Npp16s ∗ *pSrc*, Npp16s ∗ *pSrcDst*, int *nLength*)

16-bit signed short integer in place min value for each pair of elements.

Parameters:

pSrc Source Signal Pointer.

pSrcDst In-Place Signal Pointer.

nLength Signal Length.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.187.2.7 NppStatus nppsMinEvery_16u_I (const Npp16u ∗ *pSrc*, Npp16u ∗ *pSrcDst*, int *nLength*)

16-bit unsigned short integer in place min value for each pair of elements.

Parameters:

pSrc Source Signal Pointer.

pSrcDst In-Place Signal Pointer.

nLength Signal Length.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.187.2.8 NppStatus nppsMinEvery_32f_I (const Npp32f ∗ *pSrc*, Npp32f ∗ *pSrcDst*, int *nLength*)

32-bit floating point in place min value for each pair of elements.

Parameters:

pSrc Source Signal Pointer.

pSrcDst In-Place Signal Pointer.

nLength Signal Length.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.187.2.9 NppStatus nppsMinEvery_32s_I (const Npp32s ∗ *pSrc*, Npp32s ∗ *pSrcDst*, int *nLength*)

32-bit signed integer in place min value for each pair of elements.

Parameters:

pSrc Source Signal Pointer.

pSrcDst In-Place Signal Pointer.

nLength Signal Length.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.187.2.10 NppStatus nppsMinEvery_64f_I (const Npp64f ∗ *pSrc*, Npp64f ∗ *pSrcDst*, int *nLength*)

64-bit floating point in place min value for each pair of elements.

Parameters:

pSrc Source Signal Pointer.

pSrcDst In-Place Signal Pointer.

nLength Signal Length.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.187.2.11 NppStatus nppsMinEvery_8u_I (const Npp8u ∗ *pSrc*, Npp8u ∗ *pSrcDst*, int *nLength*)

8-bit in place min value for each pair of elements.

Parameters:

pSrc Source Signal Pointer.

pSrcDst In-Place Signal Pointer.

nLength Signal Length.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.188 Sum

signal_min_every_or_max_every

Functions

- NppStatus nppsSumGetBufferSize_32f (int nLength, int ∗hpBufferSize)

  Device scratch buffer size (in bytes) for nppsSum_32f.

- NppStatus nppsSumGetBufferSize_32fc (int nLength, int ∗hpBufferSize)

  Device scratch buffer size (in bytes) for nppsSum_32fc.

- NppStatus nppsSumGetBufferSize_64f (int nLength, int ∗hpBufferSize)

  Device scratch buffer size (in bytes) for nppsSum_64f.

- NppStatus nppsSumGetBufferSize_64fc (int nLength, int ∗hpBufferSize)

  Device scratch buffer size (in bytes) for nppsSum_64fc.

- NppStatus nppsSumGetBufferSize_16s_Sfs (int nLength, int ∗hpBufferSize)

  Device scratch buffer size (in bytes) for nppsSum_16s_Sfs.

- NppStatus nppsSumGetBufferSize_16sc_Sfs (int nLength, int ∗hpBufferSize)

  Device scratch buffer size (in bytes) for nppsSum_16sc_Sfs.

- NppStatus nppsSumGetBufferSize_16sc32sc_Sfs (int nLength, int ∗hpBufferSize)

  Device scratch buffer size (in bytes) for nppsSum_16sc32sc_Sfs.

- NppStatus nppsSumGetBufferSize_32s_Sfs (int nLength, int ∗hpBufferSize)

  Device scratch buffer size (in bytes) for nppsSum_32s_Sfs.

- NppStatus nppsSumGetBufferSize_16s32s_Sfs (int nLength, int ∗hpBufferSize)

  Device scratch buffer size (in bytes) for nppsSum_16s32s_Sfs.

- NppStatus nppsSum_32f (const Npp32f ∗pSrc, int nLength, Npp32f ∗pSum, Npp8u ∗pDeviceBuffer)

  32-bit float vector sum method

- NppStatus nppsSum_32fc (const Npp32fc ∗pSrc, int nLength, Npp32fc ∗pSum, Npp8u ∗pDeviceBuffer)

  32-bit float complex vector sum method

- NppStatus nppsSum_64f (const Npp64f ∗pSrc, int nLength, Npp64f ∗pSum, Npp8u ∗pDeviceBuffer)

  64-bit double vector sum method

- NppStatus nppsSum_64fc (const Npp64fc ∗pSrc, int nLength, Npp64fc ∗pSum, Npp8u ∗pDeviceBuffer)

  64-bit double complex vector sum method

- NppStatus nppsSum_16s_Sfs (const Npp16s ∗pSrc, int nLength, Npp16s ∗pSum, int nScaleFactor, Npp8u ∗pDeviceBuffer)

  16-bit short vector sum with integer scaling method

- NppStatus nppsSum_32s_Sfs (const Npp32s ∗pSrc, int nLength, Npp32s ∗pSum, int nScaleFactor, Npp8u ∗pDeviceBuffer)

  32-bit integer vector sum with integer scaling method

- NppStatus nppsSum_16sc_Sfs (const Npp16sc ∗pSrc, int nLength, Npp16sc ∗pSum, int nScaleFactor, Npp8u ∗pDeviceBuffer)

  16-bit short complex vector sum with integer scaling method

- NppStatus nppsSum_16sc32sc_Sfs (const Npp16sc ∗pSrc, int nLength, Npp32sc ∗pSum, int nScaleFactor, Npp8u ∗pDeviceBuffer)

  16-bit short complex vector sum (32bit int complex) with integer scaling method

- NppStatus nppsSum_16s32s_Sfs (const Npp16s ∗pSrc, int nLength, Npp32s ∗pSum, int nScaleFactor, Npp8u ∗pDeviceBuffer)

  16-bit integer vector sum (32bit) with integer scaling method

7.188.1 Detailed Description

signal_min_every_or_max_every

7.188.2 Function Documentation

7.188.2.1 NppStatus nppsSum_16s32s_Sfs (const Npp16s ∗ *pSrc*, int *nLength*, Npp32s ∗ *pSum*, int *nScaleFactor*, Npp8u ∗ *pDeviceBuffer*)

16-bit integer vector sum (32bit) with integer scaling method

Parameters:

pSrc Source Signal Pointer.

nLength Signal Length.

pSum Pointer to the output result.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppsSumGetBufferSize_16s32s_Sfs to determine the minium number of bytes required.

nScaleFactor Integer Result Scaling.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.188.2.2 NppStatus nppsSum_16s_Sfs (const Npp16s ∗ *pSrc*, int *nLength*, Npp16s ∗ *pSum*, int *nScaleFactor*, Npp8u ∗ *pDeviceBuffer*)

16-bit short vector sum with integer scaling method

Parameters:

pSrc Source Signal Pointer.

nLength Signal Length.

pSum Pointer to the output result.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppsSumGetBufferSize_16s_Sfs to determine the minium number of bytes required.

nScaleFactor Integer Result Scaling.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.188.2.3 NppStatus nppsSum_16sc32sc_Sfs (const Npp16sc ∗ *pSrc*, int *nLength*, Npp32sc ∗ *pSum*, int *nScaleFactor*, Npp8u ∗ *pDeviceBuffer*)

16-bit short complex vector sum (32bit int complex) with integer scaling method

Parameters:

pSrc Source Signal Pointer.

nLength Signal Length.

pSum Pointer to the output result.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppsSumGetBufferSize_16sc32sc_Sfs to determine the minium number of bytes required.

nScaleFactor Integer Result Scaling.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.188.2.4 NppStatus nppsSum_16sc_Sfs (const Npp16sc ∗ *pSrc*, int *nLength*, Npp16sc ∗ *pSum*, int *nScaleFactor*, Npp8u ∗ *pDeviceBuffer*)

16-bit short complex vector sum with integer scaling method

Parameters:

pSrc Source Signal Pointer.

nLength Signal Length.

pSum Pointer to the output result.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppsSumGetBufferSize_16sc_Sfs to determine the minium number of bytes required.

nScaleFactor Integer Result Scaling.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.188.2.5 NppStatus nppsSum_32f (const Npp32f ∗ *pSrc*, int *nLength*, Npp32f ∗ *pSum*, Npp8u ∗ *pDeviceBuffer*)

32-bit float vector sum method

Parameters:

pSrc Source Signal Pointer.

nLength Signal Length.

pSum Pointer to the output result.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppsSumGetBufferSize_32f to determine the minium number of bytes required.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.188.2.6 NppStatus nppsSum_32fc (const Npp32fc ∗ *pSrc*, int *nLength*, Npp32fc ∗ *pSum*, Npp8u ∗ *pDeviceBuffer*)

32-bit float complex vector sum method

Parameters:

pSrc Source Signal Pointer.

nLength Signal Length.

pSum Pointer to the output result.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppsSumGetBufferSize_32fc to determine the minium number of bytes required.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.188.2.7 NppStatus nppsSum_32s_Sfs (const Npp32s ∗ *pSrc*, int *nLength*, Npp32s ∗ *pSum*, int *nScaleFactor*, Npp8u ∗ *pDeviceBuffer*)

32-bit integer vector sum with integer scaling method

Parameters:

pSrc Source Signal Pointer.

nLength Signal Length.

pSum Pointer to the output result.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppsSumGetBufferSize_32s_Sfs to determine the minium number of bytes required.

nScaleFactor Integer Result Scaling.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.188.2.8 NppStatus nppsSum_64f (const Npp64f ∗ *pSrc*, int *nLength*, Npp64f ∗ *pSum*, Npp8u ∗ *pDeviceBuffer*)

64-bit double vector sum method

Parameters:

pSrc Source Signal Pointer.

nLength Signal Length.

pSum Pointer to the output result.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppsSumGetBufferSize_64f to determine the minium number of bytes required.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.188.2.9 NppStatus nppsSum_64fc (const Npp64fc ∗ *pSrc*, int *nLength*, Npp64fc ∗ *pSum*, Npp8u ∗ *pDeviceBuffer*)

64-bit double complex vector sum method

Parameters:

pSrc Source Signal Pointer.

nLength Signal Length.

pSum Pointer to the output result.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppsSumGetBufferSize_64fc to determine the minium number of bytes required.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.188.2.10 NppStatus nppsSumGetBufferSize_16s32s_Sfs (int *nLength*, int ∗ *hpBufferSize*)

Device scratch buffer size (in bytes) for nppsSum_16s32s_Sfs.

Parameters:

nLength Signal Length.

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_SUCCESS

7.188.2.11 NppStatus nppsSumGetBufferSize_16s_Sfs (int *nLength*, int ∗ *hpBufferSize*)

Device scratch buffer size (in bytes) for nppsSum_16s_Sfs.

Parameters:

nLength Signal Length.

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_SUCCESS

7.188.2.12 NppStatus nppsSumGetBufferSize_16sc32sc_Sfs (int *nLength*, int ∗ *hpBufferSize*)

Device scratch buffer size (in bytes) for nppsSum_16sc32sc_Sfs.

Parameters:

nLength Signal Length.

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_SUCCESS

7.188.2.13 NppStatus nppsSumGetBufferSize_16sc_Sfs (int *nLength*, int ∗ *hpBufferSize*)

Device scratch buffer size (in bytes) for nppsSum_16sc_Sfs.

Parameters:

nLength Signal Length.

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_SUCCESS

7.188.2.14 NppStatus nppsSumGetBufferSize_32f (int *nLength*, int ∗ *hpBufferSize*)

Device scratch buffer size (in bytes) for nppsSum_32f.

Parameters:

nLength Signal Length.

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_SUCCESS

7.188.2.15 NppStatus nppsSumGetBufferSize_32fc (int *nLength*, int ∗ *hpBufferSize*)

Device scratch buffer size (in bytes) for nppsSum_32fc.

Parameters:

nLength Signal Length.

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_SUCCESS

7.188.2.16 NppStatus nppsSumGetBufferSize_32s_Sfs (int *nLength*, int ∗ *hpBufferSize*)

Device scratch buffer size (in bytes) for nppsSum_32s_Sfs.

Parameters:

nLength Signal Length.

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_SUCCESS

7.188.2.17 NppStatus nppsSumGetBufferSize_64f (int *nLength*, int ∗ *hpBufferSize*)

Device scratch buffer size (in bytes) for nppsSum_64f.

Parameters:

nLength Signal Length.

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_SUCCESS

7.188.2.18 NppStatus nppsSumGetBufferSize_64fc (int *nLength*, int ∗ *hpBufferSize*)

Device scratch buffer size (in bytes) for nppsSum_64fc.

Parameters:

nLength Signal Length.

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_SUCCESS

7.189 Maximum

Functions

- NppStatus nppsMaxGetBufferSize_16s (int nLength, int ∗hpBufferSize)

  Device scratch buffer size (in bytes) for nppsMax_16s.

- NppStatus nppsMaxGetBufferSize_32s (int nLength, int ∗hpBufferSize)

  Device scratch buffer size (in bytes) for nppsMax_32s.

- NppStatus nppsMaxGetBufferSize_32f (int nLength, int ∗hpBufferSize)

  Device scratch buffer size (in bytes) for nppsMax_32f.

- NppStatus nppsMaxGetBufferSize_64f (int nLength, int ∗hpBufferSize)

  Device scratch buffer size (in bytes) for nppsMax_64f.

- NppStatus nppsMax_16s (const Npp16s ∗pSrc, int nLength, Npp16s ∗pMax, Npp8u ∗pDeviceBuffer)

  16-bit integer vector max method

- NppStatus nppsMax_32s (const Npp32s ∗pSrc, int nLength, Npp32s ∗pMax, Npp8u ∗pDeviceBuffer)

  32-bit integer vector max method

- NppStatus nppsMax_32f (const Npp32f ∗pSrc, int nLength, Npp32f ∗pMax, Npp8u ∗pDeviceBuffer)

  32-bit float vector max method

- NppStatus nppsMax_64f (const Npp64f ∗pSrc, int nLength, Npp64f ∗pMax, Npp8u ∗pDeviceBuffer)

  64-bit float vector max method

- NppStatus nppsMaxIndxGetBufferSize_16s (int nLength, int ∗hpBufferSize)

  Device scratch buffer size (in bytes) for nppsMaxIndx_16s.

- NppStatus nppsMaxIndxGetBufferSize_32s (int nLength, int ∗hpBufferSize)

  Device scratch buffer size (in bytes) for nppsMaxIndx_32s.

- NppStatus nppsMaxIndxGetBufferSize_32f (int nLength, int ∗hpBufferSize)

  Device scratch buffer size (in bytes) for nppsMaxIndx_32f.

- NppStatus nppsMaxIndxGetBufferSize_64f (int nLength, int ∗hpBufferSize)

  Device scratch buffer size (in bytes) for nppsMaxIndx_64f.

- NppStatus nppsMaxIndx_16s (const Npp16s ∗pSrc, int nLength, Npp16s ∗pMax, int ∗pIndx, Npp8u ∗pDeviceBuffer)

  16-bit integer vector max index method

- NppStatus nppsMaxIndx_32s (const Npp32s ∗pSrc, int nLength, Npp32s ∗pMax, int ∗pIndx, Npp8u ∗pDeviceBuffer)

32-bit integer vector max index method

- NppStatus nppsMaxIndx_32f (const Npp32f ∗pSrc, int nLength, Npp32f ∗pMax, int ∗pIndx, Npp8u ∗pDeviceBuffer)

  32-bit float vector max index method

- NppStatus nppsMaxIndx_64f (const Npp64f ∗pSrc, int nLength, Npp64f ∗pMax, int ∗pIndx, Npp8u ∗pDeviceBuffer)

  64-bit float vector max index method

- NppStatus nppsMaxAbsGetBufferSize_16s (int nLength, int ∗hpBufferSize)

  Device scratch buffer size (in bytes) for nppsMaxAbs_16s.

- NppStatus nppsMaxAbsGetBufferSize_32s (int nLength, int ∗hpBufferSize)

  Device scratch buffer size (in bytes) for nppsMaxAbs_32s.

- NppStatus nppsMaxAbs_16s (const Npp16s ∗pSrc, int nLength, Npp16s ∗pMaxAbs, Npp8u ∗pDeviceBuffer)

  16-bit integer vector max absolute method

- NppStatus nppsMaxAbs_32s (const Npp32s ∗pSrc, int nLength, Npp32s ∗pMaxAbs, Npp8u ∗pDeviceBuffer)

  32-bit integer vector max absolute method

- NppStatus nppsMaxAbsIndxGetBufferSize_16s (int nLength, int ∗hpBufferSize)

  Device scratch buffer size (in bytes) for nppsMaxAbsIndx_16s.

- NppStatus nppsMaxAbsIndxGetBufferSize_32s (int nLength, int ∗hpBufferSize)

  Device scratch buffer size (in bytes) for nppsMaxAbsIndx_32s.

- NppStatus nppsMaxAbsIndx_16s (const Npp16s ∗pSrc, int nLength, Npp16s ∗pMaxAbs, int ∗pIndx, Npp8u ∗pDeviceBuffer)

  16-bit integer vector max absolute index method

- NppStatus nppsMaxAbsIndx_32s (const Npp32s ∗pSrc, int nLength, Npp32s ∗pMaxAbs, int ∗pIndx, Npp8u ∗pDeviceBuffer)

  32-bit integer vector max absolute index method

7.189.1 Function Documentation

7.189.1.1 NppStatus nppsMax_16s (const Npp16s ∗ *pSrc*, int *nLength*, Npp16s ∗ *pMax*, Npp8u ∗ *pDeviceBuffer*)

16-bit integer vector max method

Parameters:

pSrc Source Signal Pointer.

nLength Signal Length.

pMax Pointer to the output result.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppsMaxGetBufferSize_16s to determine the minium number of bytes required.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.189.1.2 NppStatus nppsMax_32f (const Npp32f * *pSrc*, int *nLength*, Npp32f * *pMax*, Npp8u * *pDeviceBuffer*)

32-bit float vector max method

Parameters:

pSrc Source Signal Pointer.

nLength Signal Length.

pMax Pointer to the output result.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppsMaxGetBufferSize_32f to determine the minium number of bytes required.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.189.1.3 NppStatus nppsMax_32s (const Npp32s * *pSrc*, int *nLength*, Npp32s * *pMax*, Npp8u * *pDeviceBuffer*)

32-bit integer vector max method

Parameters:

pSrc Source Signal Pointer.

nLength Signal Length.

pMax Pointer to the output result.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppsMaxGetBufferSize_32s to determine the minium number of bytes required.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.189.1.4 NppStatus nppsMax_64f (const Npp64f * *pSrc*, int *nLength*, Npp64f * *pMax*, Npp8u * *pDeviceBuffer*)

64-bit float vector max method

Parameters:

pSrc Source Signal Pointer.

nLength Signal Length.

pMax Pointer to the output result.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppsMaxGetBufferSize_64f to determine the minium number of bytes required.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.189.1.5 NppStatus nppsMaxAbs_16s (const Npp16s ∗ *pSrc*, int *nLength*, Npp16s ∗ *pMaxAbs*, Npp8u ∗ *pDeviceBuffer*)

16-bit integer vector max absolute method

Parameters:

pSrc Source Signal Pointer.

nLength Signal Length.

pMaxAbs Pointer to the output result.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppsMaxAbsGetBufferSize_16s to determine the minium number of bytes required.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.189.1.6 NppStatus nppsMaxAbs_32s (const Npp32s ∗ *pSrc*, int *nLength*, Npp32s ∗ *pMaxAbs*, Npp8u ∗ *pDeviceBuffer*)

32-bit integer vector max absolute method

Parameters:

pSrc Source Signal Pointer.

nLength Signal Length.

pMaxAbs Pointer to the output result.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppsMaxAbsGetBufferSize_32s to determine the minium number of bytes required.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.189.1.7 NppStatus nppsMaxAbsGetBufferSize_16s (int *nLength*, int ∗ *hpBufferSize*)

Device scratch buffer size (in bytes) for nppsMaxAbs_16s.

Parameters:

nLength Signal Length.

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_SUCCESS

7.189.1.8 NppStatus nppsMaxAbsGetBufferSize_32s (int *nLength*, int ∗ *hpBufferSize*)

Device scratch buffer size (in bytes) for nppsMaxAbs_32s.

Parameters:

nLength Signal Length.

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_SUCCESS

7.189.1.9 NppStatus nppsMaxAbsIndx_16s (const Npp16s ∗ *pSrc*, int *nLength*, Npp16s ∗ *pMaxAbs*, int ∗ *pIndx*, Npp8u ∗ *pDeviceBuffer*)

16-bit integer vector max absolute index method

Parameters:

pSrc Source Signal Pointer.

nLength Signal Length.

pMaxAbs Pointer to the output result.

pIndx Pointer to the index value of the first maximum element.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppsMaxAbsIndxGetBufferSize_16s to determine the minium number of bytes required.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.189.1.10 NppStatus nppsMaxAbsIndx_32s (const Npp32s ∗ *pSrc*, int *nLength*, Npp32s ∗ *pMaxAbs*, int ∗ *pIndx*, Npp8u ∗ *pDeviceBuffer*)

32-bit integer vector max absolute index method

Parameters:

pSrc Source Signal Pointer.

nLength Signal Length.

pMaxAbs Pointer to the output result.

pIndx Pointer to the index value of the first maximum element.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppsMaxAbsIndxGetBufferSize_32s to determine the minium number of bytes required.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.189.1.11 NppStatus nppsMaxAbsIndxGetBufferSize_16s (int *nLength*, int ∗ *hpBufferSize*)

Device scratch buffer size (in bytes) for nppsMaxAbsIndx_16s.

Parameters:

nLength Signal Length.

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_SUCCESS

7.189.1.12 NppStatus nppsMaxAbsIndxGetBufferSize_32s (int *nLength*, int ∗ *hpBufferSize*)

Device scratch buffer size (in bytes) for nppsMaxAbsIndx_32s.

Parameters:

nLength Signal Length.

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_SUCCESS

7.189.1.13 NppStatus nppsMaxGetBufferSize_16s (int *nLength*, int ∗ *hpBufferSize*)

Device scratch buffer size (in bytes) for nppsMax_16s.

Parameters:

nLength Signal Length.

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_SUCCESS

7.189.1.14 NppStatus nppsMaxGetBufferSize_32f (int *nLength*, int ∗ *hpBufferSize*)

Device scratch buffer size (in bytes) for nppsMax_32f.

Parameters:

nLength Signal Length.

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_SUCCESS

7.189.1.15 NppStatus nppsMaxGetBufferSize_32s (int *nLength*, int ∗ *hpBufferSize*)

Device scratch buffer size (in bytes) for nppsMax_32s.

Parameters:

nLength Signal Length.

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_SUCCESS

7.189.1.16 NppStatus nppsMaxGetBufferSize_64f (int *nLength*, int ∗ *hpBufferSize*)

Device scratch buffer size (in bytes) for nppsMax_64f.

Parameters:

nLength Signal Length.

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_SUCCESS

7.189.1.17 NppStatus nppsMaxIndx_16s (const Npp16s ∗ *pSrc*, int *nLength*, Npp16s ∗ *pMax*, int ∗ *pIndx*, Npp8u ∗ *pDeviceBuffer*)

16-bit integer vector max index method

Parameters:

pSrc Source Signal Pointer.

nLength Signal Length.

pMax Pointer to the output result.

pIndx Pointer to the index value of the first maximum element.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppsMaxIndxGetBufferSize_16s to determine the minium number of bytes required.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.189.1.18 NppStatus nppsMaxIndx_32f (const Npp32f ∗ *pSrc*, int *nLength*, Npp32f ∗ *pMax*, int ∗ *pIndx*, Npp8u ∗ *pDeviceBuffer*)

32-bit float vector max index method

Parameters:

pSrc Source Signal Pointer.

nLength Signal Length.

pMax Pointer to the output result.

pIndx Pointer to the index value of the first maximum element.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppsMaxIndxGetBufferSize_32f to determine the minium number of bytes required.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.189.1.19 NppStatus nppsMaxIndx_32s (const Npp32s ∗ *pSrc*, int *nLength*, Npp32s ∗ *pMax*, int ∗ *pIndx*, Npp8u ∗ *pDeviceBuffer*)

32-bit integer vector max index method

Parameters:

pSrc Source Signal Pointer.

nLength Signal Length.

pMax Pointer to the output result.

pIndx Pointer to the index value of the first maximum element.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppsMaxIndxGetBufferSize_32s to determine the minium number of bytes required.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.189.1.20 NppStatus nppsMaxIndx_64f (const Npp64f * *pSrc*, int *nLength*, Npp64f * *pMax*, int * *pIndx*, Npp8u * *pDeviceBuffer*)

64-bit float vector max index method

Parameters:

pSrc Source Signal Pointer.

nLength Signal Length.

pMax Pointer to the output result.

pIndx Pointer to the index value of the first maximum element.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppsMaxIndxGetBufferSize_64f to determine the minium number of bytes required.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.189.1.21 NppStatus nppsMaxIndxGetBufferSize_16s (int *nLength*, int * *hpBufferSize*)

Device scratch buffer size (in bytes) for nppsMaxIndx_16s.

Parameters:

nLength Signal Length.

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_SUCCESS

7.189.1.22 NppStatus nppsMaxIndxGetBufferSize_32f (int *nLength*, int * *hpBufferSize*)

Device scratch buffer size (in bytes) for nppsMaxIndx_32f.

Parameters:

nLength Signal Length.

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_SUCCESS

7.189.1.23 NppStatus nppsMaxIndxGetBufferSize_32s (int *nLength*, int ∗ *hpBufferSize*)

Device scratch buffer size (in bytes) for nppsMaxIndx_32s.

Parameters:

nLength Signal Length.

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_SUCCESS

7.189.1.24 NppStatus nppsMaxIndxGetBufferSize_64f (int *nLength*, int ∗ *hpBufferSize*)

Device scratch buffer size (in bytes) for nppsMaxIndx_64f.

Parameters:

nLength Signal Length.

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_SUCCESS

7.190 Minimum

Functions

- NppStatus nppsMinGetBufferSize_16s (int nLength, int ∗hpBufferSize)

  Device scratch buffer size (in bytes) for nppsMin_16s.

- NppStatus nppsMinGetBufferSize_32s (int nLength, int ∗hpBufferSize)

  Device scratch buffer size (in bytes) for nppsMin_32s.

- NppStatus nppsMinGetBufferSize_32f (int nLength, int ∗hpBufferSize)

  Device scratch buffer size (in bytes) for nppsMin_32f.

- NppStatus nppsMinGetBufferSize_64f (int nLength, int ∗hpBufferSize)

  Device scratch buffer size (in bytes) for nppsMin_64f.

- NppStatus nppsMin_16s (const Npp16s ∗pSrc, int nLength, Npp16s ∗pMin, Npp8u ∗pDeviceBuffer)

  16-bit integer vector min method

- NppStatus nppsMin_32s (const Npp32s ∗pSrc, int nLength, Npp32s ∗pMin, Npp8u ∗pDeviceBuffer)

  32-bit integer vector min method

- NppStatus nppsMin_32f (const Npp32f ∗pSrc, int nLength, Npp32f ∗pMin, Npp8u ∗pDeviceBuffer)

  32-bit integer vector min method

- NppStatus nppsMin_64f (const Npp64f ∗pSrc, int nLength, Npp64f ∗pMin, Npp8u ∗pDeviceBuffer)

  64-bit integer vector min method

- NppStatus nppsMinIndxGetBufferSize_16s (int nLength, int ∗hpBufferSize)

  Device scratch buffer size (in bytes) for nppsMinIndx_16s.

- NppStatus nppsMinIndxGetBufferSize_32s (int nLength, int ∗hpBufferSize)

  Device scratch buffer size (in bytes) for nppsMinIndx_32s.

- NppStatus nppsMinIndxGetBufferSize_32f (int nLength, int ∗hpBufferSize)

  Device scratch buffer size (in bytes) for nppsMinIndx_32f.

- NppStatus nppsMinIndxGetBufferSize_64f (int nLength, int ∗hpBufferSize)

  Device scratch buffer size (in bytes) for nppsMinIndx_64f.

- NppStatus nppsMinIndx_16s (const Npp16s ∗pSrc, int nLength, Npp16s ∗pMin, int ∗pIndx, Npp8u ∗pDeviceBuffer)

  16-bit integer vector min index method

- NppStatus nppsMinIndx_32s (const Npp32s ∗pSrc, int nLength, Npp32s ∗pMin, int ∗pIndx, Npp8u ∗pDeviceBuffer)

32-bit integer vector min index method

- NppStatus nppsMinIndx_32f (const Npp32f ∗pSrc, int nLength, Npp32f ∗pMin, int ∗pIndx, Npp8u ∗pDeviceBuffer)

  32-bit float vector min index method

- NppStatus nppsMinIndx_64f (const Npp64f ∗pSrc, int nLength, Npp64f ∗pMin, int ∗pIndx, Npp8u ∗pDeviceBuffer)

  64-bit float vector min index method

- NppStatus nppsMinAbsGetBufferSize_16s (int nLength, int ∗hpBufferSize)

  Device scratch buffer size (in bytes) for nppsMinAbs_16s.

- NppStatus nppsMinAbsGetBufferSize_32s (int nLength, int ∗hpBufferSize)

  Device scratch buffer size (in bytes) for nppsMinAbs_32s.

- NppStatus nppsMinAbs_16s (const Npp16s ∗pSrc, int nLength, Npp16s ∗pMinAbs, Npp8u ∗pDeviceBuffer)

  16-bit integer vector min absolute method

- NppStatus nppsMinAbs_32s (const Npp32s ∗pSrc, int nLength, Npp32s ∗pMinAbs, Npp8u ∗pDeviceBuffer)

  32-bit integer vector min absolute method

- NppStatus nppsMinAbsIndxGetBufferSize_16s (int nLength, int ∗hpBufferSize)

  Device scratch buffer size (in bytes) for nppsMinAbsIndx_16s.

- NppStatus nppsMinAbsIndxGetBufferSize_32s (int nLength, int ∗hpBufferSize)

  Device scratch buffer size (in bytes) for nppsMinAbsIndx_32s.

- NppStatus nppsMinAbsIndx_16s (const Npp16s ∗pSrc, int nLength, Npp16s ∗pMinAbs, int ∗pIndx, Npp8u ∗pDeviceBuffer)

  16-bit integer vector min absolute index method

- NppStatus nppsMinAbsIndx_32s (const Npp32s ∗pSrc, int nLength, Npp32s ∗pMinAbs, int ∗pIndx, Npp8u ∗pDeviceBuffer)

  32-bit integer vector min absolute index method

7.190.1 Function Documentation

7.190.1.1 NppStatus nppsMin_16s (const Npp16s ∗ *pSrc*, int *nLength*, Npp16s ∗ *pMin*, Npp8u ∗ *pDeviceBuffer*)

16-bit integer vector min method

Parameters:

pSrc Source Signal Pointer.

nLength Signal Length.

pMin Pointer to the output result.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppsMinGetBufferSize_16s to determine the minium number of bytes required.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.190.1.2 NppStatus nppsMin_32f (const Npp32f ∗ *pSrc*, int *nLength*, Npp32f ∗ *pMin*, Npp8u ∗ *pDeviceBuffer*)

32-bit integer vector min method

Parameters:

pSrc Source Signal Pointer.

nLength Signal Length.

pMin Pointer to the output result.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppsMinGetBufferSize_32f to determine the minium number of bytes required.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.190.1.3 NppStatus nppsMin_32s (const Npp32s ∗ *pSrc*, int *nLength*, Npp32s ∗ *pMin*, Npp8u ∗ *pDeviceBuffer*)

32-bit integer vector min method

Parameters:

pSrc Source Signal Pointer.

nLength Signal Length.

pMin Pointer to the output result.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppsMinGetBufferSize_32s to determine the minium number of bytes required.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.190.1.4 NppStatus nppsMin_64f (const Npp64f ∗ *pSrc*, int *nLength*, Npp64f ∗ *pMin*, Npp8u ∗ *pDeviceBuffer*)

64-bit integer vector min method

Parameters:

pSrc Source Signal Pointer.

nLength Signal Length.

pMin Pointer to the output result.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppsMinGetBufferSize_64f to determine the minium number of bytes required.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.190.1.5 NppStatus nppsMinAbs_16s (const Npp16s ∗ *pSrc*, int *nLength*, Npp16s ∗ *pMinAbs*, Npp8u ∗ *pDeviceBuffer*)

16-bit integer vector min absolute method

Parameters:

pSrc Source Signal Pointer.

nLength Signal Length.

pMinAbs Pointer to the output result.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppsMinAbsGetBufferSize_16s to determine the minium number of bytes required.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.190.1.6 NppStatus nppsMinAbs_32s (const Npp32s ∗ *pSrc*, int *nLength*, Npp32s ∗ *pMinAbs*, Npp8u ∗ *pDeviceBuffer*)

32-bit integer vector min absolute method

Parameters:

pSrc Source Signal Pointer.

nLength Signal Length.

pMinAbs Pointer to the output result.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppsMinAbsGetBufferSize_16s to determine the minium number of bytes required.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.190.1.7 NppStatus nppsMinAbsGetBufferSize_16s (int *nLength*, int ∗ *hpBufferSize*)

Device scratch buffer size (in bytes) for nppsMinAbs_16s.

Parameters:

nLength Signal Length.

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_SUCCESS

7.190.1.8 NppStatus nppsMinAbsGetBufferSize_32s (int *nLength*, int ∗ *hpBufferSize*)

Device scratch buffer size (in bytes) for nppsMinAbs_32s.

Parameters:

nLength Signal Length.

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_SUCCESS

7.190.1.9 NppStatus nppsMinAbsIndx_16s (const Npp16s ∗ *pSrc*, int *nLength*, Npp16s ∗ *pMinAbs*, int ∗ *pIndx*, Npp8u ∗ *pDeviceBuffer*)

16-bit integer vector min absolute index method

Parameters:

pSrc Source Signal Pointer.

nLength Signal Length.

pMinAbs Pointer to the output result.

pIndx Pointer to the index value of the first minimum element.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppsMinAbsIndxGetBufferSize_16s to determine the minium number of bytes required.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.190.1.10 NppStatus nppsMinAbsIndx_32s (const Npp32s ∗ *pSrc*, int *nLength*, Npp32s ∗ *pMinAbs*, int ∗ *pIndx*, Npp8u ∗ *pDeviceBuffer*)

32-bit integer vector min absolute index method

Parameters:

pSrc Source Signal Pointer.

nLength Signal Length.

pMinAbs Pointer to the output result.

pIndx Pointer to the index value of the first minimum element.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppsMinAbsIndxGetBufferSize_32s to determine the minium number of bytes required.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.190.1.11 NppStatus nppsMinAbsIndxGetBufferSize_16s (int *nLength*, int ∗ *hpBufferSize*)

Device scratch buffer size (in bytes) for nppsMinAbsIndx_16s.

Parameters:

nLength Signal Length.

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_SUCCESS

7.190.1.12 NppStatus nppsMinAbsIndxGetBufferSize_32s (int *nLength*, int ∗ *hpBufferSize*)

Device scratch buffer size (in bytes) for nppsMinAbsIndx_32s.

Parameters:

nLength Signal Length.

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_SUCCESS

7.190.1.13 NppStatus nppsMinGetBufferSize_16s (int *nLength*, int ∗ *hpBufferSize*)

Device scratch buffer size (in bytes) for nppsMin_16s.

Parameters:

nLength Signal Length.

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_SUCCESS

7.190.1.14 NppStatus nppsMinGetBufferSize_32f (int *nLength*, int * *hpBufferSize*)

Device scratch buffer size (in bytes) for nppsMin_32f.

Parameters:

nLength Signal Length.

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_SUCCESS

7.190.1.15 NppStatus nppsMinGetBufferSize_32s (int *nLength*, int * *hpBufferSize*)

Device scratch buffer size (in bytes) for nppsMin_32s.

Parameters:

nLength Signal Length.

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_SUCCESS

7.190.1.16 NppStatus nppsMinGetBufferSize_64f (int *nLength*, int * *hpBufferSize*)

Device scratch buffer size (in bytes) for nppsMin_64f.

Parameters:

nLength Signal Length.

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_SUCCESS

7.190.1.17 NppStatus nppsMinIndx_16s (const Npp16s * *pSrc*, int *nLength*, Npp16s * *pMin*, int * *pIndx*, Npp8u * *pDeviceBuffer*)

16-bit integer vector min index method

Parameters:

pSrc Source Signal Pointer.

nLength Signal Length.

pMin Pointer to the output result.

pIndx Pointer to the index value of the first minimum element.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppsMinIndxGetBufferSize_16s to determine the minium number of bytes required.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.190.1.18 NppStatus nppsMinIndx_32f (const Npp32f ∗ *pSrc*, int *nLength*, Npp32f ∗ *pMin*, int ∗ *pIndx*, Npp8u ∗ *pDeviceBuffer*)

32-bit float vector min index method

Parameters:

pSrc Source Signal Pointer.

nLength Signal Length.

pMin Pointer to the output result.

pIndx Pointer to the index value of the first minimum element.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppsMinIndxGetBufferSize_32f to determine the minium number of bytes required.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.190.1.19 NppStatus nppsMinIndx_32s (const Npp32s ∗ *pSrc*, int *nLength*, Npp32s ∗ *pMin*, int ∗ *pIndx*, Npp8u ∗ *pDeviceBuffer*)

32-bit integer vector min index method

Parameters:

pSrc Source Signal Pointer.

nLength Signal Length.

pMin Pointer to the output result.

pIndx Pointer to the index value of the first minimum element.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppsMinIndxGetBufferSize_32s to determine the minium number of bytes required.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.190.1.20 NppStatus nppsMinIndx_64f (const Npp64f ∗ *pSrc*, int *nLength*, Npp64f ∗ *pMin*, int ∗ *pIndx*, Npp8u ∗ *pDeviceBuffer*)

64-bit float vector min index method

Parameters:

pSrc Source Signal Pointer.

nLength Signal Length.

pMin Pointer to the output result.

pIndx Pointer to the index value of the first minimum element.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppsMinIndxGetBufferSize_64f to determine the minium number of bytes required.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.190.1.21 NppStatus nppsMinIndxGetBufferSize_16s (int *nLength*, int ∗ *hpBufferSize*)

Device scratch buffer size (in bytes) for nppsMinIndx_16s.

Parameters:

nLength Signal Length.

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_SUCCESS

7.190.1.22 NppStatus nppsMinIndxGetBufferSize_32f (int *nLength*, int ∗ *hpBufferSize*)

Device scratch buffer size (in bytes) for nppsMinIndx_32f.

Parameters:

nLength Signal Length.

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_SUCCESS

7.190.1.23 NppStatus nppsMinIndxGetBufferSize_32s (int *nLength*, int * *hpBufferSize*)

Device scratch buffer size (in bytes) for nppsMinIndx_32s.

Parameters:

nLength Signal Length.

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_SUCCESS

7.190.1.24 NppStatus nppsMinIndxGetBufferSize_64f (int *nLength*, int * *hpBufferSize*)

Device scratch buffer size (in bytes) for nppsMinIndx_64f.

Parameters:

nLength Signal Length.

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_SUCCESS

7.191 Mean

Functions

- NppStatus nppsMeanGetBufferSize_32f (int nLength, int ∗hpBufferSize)

  Device scratch buffer size (in bytes) for nppsMean_32f.

- NppStatus nppsMeanGetBufferSize_32fc (int nLength, int ∗hpBufferSize)

  Device scratch buffer size (in bytes) for nppsMean_32fc.

- NppStatus nppsMeanGetBufferSize_64f (int nLength, int ∗hpBufferSize)

  Device scratch buffer size (in bytes) for nppsMean_64f.

- NppStatus nppsMeanGetBufferSize_64fc (int nLength, int ∗hpBufferSize)

  Device scratch buffer size (in bytes) for nppsMean_64fc.

- NppStatus nppsMeanGetBufferSize_16s_Sfs (int nLength, int ∗hpBufferSize)

  Device scratch buffer size (in bytes) for nppsMean_16s_Sfs.

- NppStatus nppsMeanGetBufferSize_32s_Sfs (int nLength, int ∗hpBufferSize)

  Device scratch buffer size (in bytes) for nppsMean_32s_Sfs.

- NppStatus nppsMeanGetBufferSize_16sc_Sfs (int nLength, int ∗hpBufferSize)

  Device scratch buffer size (in bytes) for nppsMean_16sc_Sfs.

- NppStatus nppsMean_32f (const Npp32f ∗pSrc, int nLength, Npp32f ∗pMean, Npp8u ∗pDeviceBuffer)

  32-bit float vector mean method

- NppStatus nppsMean_32fc (const Npp32fc ∗pSrc, int nLength, Npp32fc ∗pMean, Npp8u ∗pDeviceBuffer)

  32-bit float complex vector mean method

- NppStatus nppsMean_64f (const Npp64f ∗pSrc, int nLength, Npp64f ∗pMean, Npp8u ∗pDeviceBuffer)

  64-bit double vector mean method

- NppStatus nppsMean_64fc (const Npp64fc ∗pSrc, int nLength, Npp64fc ∗pMean, Npp8u ∗pDeviceBuffer)

  64-bit double complex vector mean method

- NppStatus nppsMean_16s_Sfs (const Npp16s ∗pSrc, int nLength, Npp16s ∗pMean, int nScaleFactor, Npp8u ∗pDeviceBuffer)

  16-bit short vector mean with integer scaling method

- NppStatus nppsMean_32s_Sfs (const Npp32s ∗pSrc, int nLength, Npp32s ∗pMean, int nScaleFactor, Npp8u ∗pDeviceBuffer)

  32-bit integer vector mean with integer scaling method

- NppStatus nppsMean_16sc_Sfs (const Npp16sc ∗pSrc, int nLength, Npp16sc ∗pMean, int nScaleFactor, Npp8u ∗pDeviceBuffer)

16-bit short complex vector mean with integer scaling method

7.191.1 Function Documentation

7.191.1.1 NppStatus nppsMean_16s_Sfs (const Npp16s ∗ *pSrc*, int *nLength*, Npp16s ∗ *pMean*, int *nScaleFactor*, Npp8u ∗ *pDeviceBuffer*)

16-bit short vector mean with integer scaling method

Parameters:

pSrc Source Signal Pointer.

nLength Signal Length.

pMean Pointer to the output result.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppsMeanGetBufferSize_16s_Sfs to determine the minium number of bytes required.

nScaleFactor Integer Result Scaling.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.191.1.2 NppStatus nppsMean_16sc_Sfs (const Npp16sc ∗ *pSrc*, int *nLength*, Npp16sc ∗ *pMean*, int *nScaleFactor*, Npp8u ∗ *pDeviceBuffer*)

16-bit short complex vector mean with integer scaling method

Parameters:

pSrc Source Signal Pointer.

nLength Signal Length.

pMean Pointer to the output result.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppsMeanGetBufferSize_16sc_Sfs to determine the minium number of bytes required.

nScaleFactor Integer Result Scaling.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.191.1.3 NppStatus nppsMean_32f (const Npp32f ∗ *pSrc*, int *nLength*, Npp32f ∗ *pMean*, Npp8u ∗ *pDeviceBuffer*)

32-bit float vector mean method

Parameters:

pSrc Source Signal Pointer.

nLength Signal Length.

pMean Pointer to the output result.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppsMeanGetBufferSize_32f to determine the minium number of bytes required.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.191.1.4 NppStatus nppsMean_32fc (const Npp32fc * *pSrc*, int *nLength*, Npp32fc * *pMean*, Npp8u * *pDeviceBuffer*)

32-bit float complex vector mean method

Parameters:

pSrc Source Signal Pointer.

nLength Signal Length.

pMean Pointer to the output result.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppsMeanGetBufferSize_32fc to determine the minium number of bytes required.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.191.1.5 NppStatus nppsMean_32s_Sfs (const Npp32s * *pSrc*, int *nLength*, Npp32s * *pMean*, int *nScaleFactor*, Npp8u * *pDeviceBuffer*)

32-bit integer vector mean with integer scaling method

Parameters:

pSrc Source Signal Pointer.

nLength Signal Length.

pMean Pointer to the output result.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppsMeanGetBufferSize_32s_Sfs to determine the minium number of bytes required.

nScaleFactor Integer Result Scaling.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.191.1.6 NppStatus nppsMean_64f (const Npp64f $*$ *pSrc*, int *nLength*, Npp64f $*$ *pMean*, Npp8u $*$ *pDeviceBuffer*)

64-bit double vector mean method

Parameters:

pSrc Source Signal Pointer.

nLength Signal Length.

pMean Pointer to the output result.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppsMeanGetBufferSize_64f to determine the minium number of bytes required.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.191.1.7 NppStatus nppsMean_64fc (const Npp64fc $*$ *pSrc*, int *nLength*, Npp64fc $*$ *pMean*, Npp8u $*$ *pDeviceBuffer*)

64-bit double complex vector mean method

Parameters:

pSrc Source Signal Pointer.

nLength Signal Length.

pMean Pointer to the output result.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppsMeanGetBufferSize_64fc to determine the minium number of bytes required.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.191.1.8 NppStatus nppsMeanGetBufferSize_16s_Sfs (int *nLength*, int $*$ *hpBufferSize*)

Device scratch buffer size (in bytes) for nppsMean_16s_Sfs.

Parameters:

nLength Signal Length.

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_SUCCESS

7.191.1.9 NppStatus nppsMeanGetBufferSize_16sc_Sfs (int *nLength*, int * *hpBufferSize*)

Device scratch buffer size (in bytes) for nppsMean_16sc_Sfs.

Parameters:

nLength Signal Length.

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_SUCCESS

7.191.1.10 NppStatus nppsMeanGetBufferSize_32f (int *nLength*, int * *hpBufferSize*)

Device scratch buffer size (in bytes) for nppsMean_32f.

Parameters:

nLength Signal Length.

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_SUCCESS

7.191.1.11 NppStatus nppsMeanGetBufferSize_32fc (int *nLength*, int * *hpBufferSize*)

Device scratch buffer size (in bytes) for nppsMean_32fc.

Parameters:

nLength Signal Length.

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_SUCCESS

7.191.1.12 NppStatus nppsMeanGetBufferSize_32s_Sfs (int *nLength*, int * *hpBufferSize*)

Device scratch buffer size (in bytes) for nppsMean_32s_Sfs.

Parameters:

nLength Signal Length.

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_SUCCESS

7.191.1.13 NppStatus nppsMeanGetBufferSize_64f (int *nLength*, int ∗ *hpBufferSize*)

Device scratch buffer size (in bytes) for nppsMean_64f.

Parameters:

nLength Signal Length.

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_SUCCESS

7.191.1.14 NppStatus nppsMeanGetBufferSize_64fc (int *nLength*, int ∗ *hpBufferSize*)

Device scratch buffer size (in bytes) for nppsMean_64fc.

Parameters:

nLength Signal Length.

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_SUCCESS

7.192 Standard Deviation

Functions

- NppStatus nppsStdDevGetBufferSize_32f (int nLength, int ∗hpBufferSize)

  Device scratch buffer size (in bytes) for nppsStdDev_32f.

- NppStatus nppsStdDevGetBufferSize_64f (int nLength, int ∗hpBufferSize)

  Device scratch buffer size (in bytes) for nppsStdDev_64f.

- NppStatus nppsStdDevGetBufferSize_16s32s_Sfs (int nLength, int ∗hpBufferSize)

  Device scratch buffer size (in bytes) for nppsStdDev_16s32s_Sfs.

- NppStatus nppsStdDevGetBufferSize_16s_Sfs (int nLength, int ∗hpBufferSize)

  Device scratch buffer size (in bytes) for nppsStdDev_16s_Sfs.

- NppStatus nppsStdDev_32f (const Npp32f ∗pSrc, int nLength, Npp32f ∗pStdDev, Npp8u ∗pDeviceBuffer)

  32-bit float vector standard deviation method

- NppStatus nppsStdDev_64f (const Npp64f ∗pSrc, int nLength, Npp64f ∗pStdDev, Npp8u ∗pDeviceBuffer)

  64-bit float vector standard deviation method

- NppStatus nppsStdDev_16s32s_Sfs (const Npp16s ∗pSrc, int nLength, Npp32s ∗pStdDev, int nScaleFactor, Npp8u ∗pDeviceBuffer)

  16-bit float vector standard deviation method (return value is 32-bit)

- NppStatus nppsStdDev_16s_Sfs (const Npp16s ∗pSrc, int nLength, Npp16s ∗pStdDev, int nScaleFactor, Npp8u ∗pDeviceBuffer)

  16-bit float vector standard deviation method (return value is also 16-bit)

7.192.1 Function Documentation

7.192.1.1 NppStatus nppsStdDev_16s32s_Sfs (const Npp16s ∗ *pSrc*, int *nLength*, Npp32s ∗ *pStdDev*, int *nScaleFactor*, Npp8u ∗ *pDeviceBuffer*)

16-bit float vector standard deviation method (return value is 32-bit)

Parameters:

pSrc Source Signal Pointer.

nLength Signal Length.

pStdDev Pointer to the output result.

nScaleFactor Integer Result Scaling.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppsStdDevGetBufferSize_16s32s_Sfs to determine the minium number of bytes required.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.192.1.2 NppStatus nppsStdDev_16s_Sfs (const Npp16s ∗ *pSrc*, int *nLength*, Npp16s ∗ *pStdDev*, int *nScaleFactor*, Npp8u ∗ *pDeviceBuffer*)

16-bit float vector standard deviation method (return value is also 16-bit)

Parameters:

pSrc Source Signal Pointer.

nLength Signal Length.

pStdDev Pointer to the output result.

nScaleFactor Integer Result Scaling.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppsStdDevGetBufferSize_16s_Sfs to determine the minium number of bytes required.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.192.1.3 NppStatus nppsStdDev_32f (const Npp32f ∗ *pSrc*, int *nLength*, Npp32f ∗ *pStdDev*, Npp8u ∗ *pDeviceBuffer*)

32-bit float vector standard deviation method

Parameters:

pSrc Source Signal Pointer.

nLength Signal Length.

pStdDev Pointer to the output result.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppsStdDevGetBufferSize_32f to determine the minium number of bytes required.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.192.1.4 NppStatus nppsStdDev_64f (const Npp64f ∗ *pSrc*, int *nLength*, Npp64f ∗ *pStdDev*, Npp8u ∗ *pDeviceBuffer*)

64-bit float vector standard deviation method

Parameters:

pSrc Source Signal Pointer.

nLength Signal Length.

pStdDev Pointer to the output result.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppsStdDevGetBufferSize_64f to determine the minium number of bytes required.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.192.1.5 NppStatus nppsStdDevGetBufferSize_16s32s_Sfs (int *nLength*, int ∗ *hpBufferSize*)

Device scratch buffer size (in bytes) for nppsStdDev_16s32s_Sfs.

Parameters:

nLength Signal Length.

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_SUCCESS

7.192.1.6 NppStatus nppsStdDevGetBufferSize_16s_Sfs (int *nLength*, int ∗ *hpBufferSize*)

Device scratch buffer size (in bytes) for nppsStdDev_16s_Sfs.

Parameters:

nLength Signal Length.

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_SUCCESS

7.192.1.7 NppStatus nppsStdDevGetBufferSize_32f (int *nLength*, int ∗ *hpBufferSize*)

Device scratch buffer size (in bytes) for nppsStdDev_32f.

Parameters:

nLength Signal Length.

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_SUCCESS

7.192.1.8 NppStatus nppsStdDevGetBufferSize_64f (int *nLength*, int ∗ *hpBufferSize*)

Device scratch buffer size (in bytes) for nppsStdDev_64f.

Parameters:

nLength Signal Length.

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_SUCCESS

7.193 Mean And Standard Deviation

Functions

- NppStatus nppsMeanStdDevGetBufferSize_32f (int nLength, int ∗hpBufferSize)
  Device scratch buffer size (in bytes) for nppsMeanStdDev_32f.
- NppStatus nppsMeanStdDevGetBufferSize_64f (int nLength, int ∗hpBufferSize)
  Device scratch buffer size (in bytes) for nppsMeanStdDev_64f.
- NppStatus nppsMeanStdDevGetBufferSize_16s32s_Sfs (int nLength, int ∗hpBufferSize)
  Device scratch buffer size (in bytes) for nppsMeanStdDev_16s32s_Sfs.
- NppStatus nppsMeanStdDevGetBufferSize_16s_Sfs (int nLength, int ∗hpBufferSize)
  Device scratch buffer size (in bytes) for nppsMeanStdDev_16s_Sfs.
- NppStatus nppsMeanStdDev_32f (const Npp32f ∗pSrc, int nLength, Npp32f ∗pMean, Npp32f ∗pStdDev, Npp8u ∗pDeviceBuffer)
  32-bit float vector mean and standard deviation method
- NppStatus nppsMeanStdDev_64f (const Npp64f ∗pSrc, int nLength, Npp64f ∗pMean, Npp64f ∗pStdDev, Npp8u ∗pDeviceBuffer)
  64-bit float vector mean and standard deviation method
- NppStatus nppsMeanStdDev_16s32s_Sfs (const Npp16s ∗pSrc, int nLength, Npp32s ∗pMean, Npp32s ∗pStdDev, int nScaleFactor, Npp8u ∗pDeviceBuffer)
  16-bit float vector mean and standard deviation method (return values are 32-bit)
- NppStatus nppsMeanStdDev_16s_Sfs (const Npp16s ∗pSrc, int nLength, Npp16s ∗pMean, Npp16s ∗pStdDev, int nScaleFactor, Npp8u ∗pDeviceBuffer)
  16-bit float vector mean and standard deviation method (return values are also 16-bit)

7.193.1 Function Documentation

7.193.1.1 NppStatus nppsMeanStdDev_16s32s_Sfs (const Npp16s ∗ *pSrc*, int *nLength*, Npp32s ∗ *pMean*, Npp32s ∗ *pStdDev*, int *nScaleFactor*, Npp8u ∗ *pDeviceBuffer*)

16-bit float vector mean and standard deviation method (return values are 32-bit)

Parameters:

pSrc Source Signal Pointer.

nLength Signal Length.

pMean Pointer to the output mean value.

pStdDev Pointer to the output standard deviation value.

nScaleFactor Integer Result Scaling.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppsMeanStdDevGetBufferSize_16s32s_Sfs to determine the minium number of bytes required.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.193.1.2 NppStatus nppsMeanStdDev_16s_Sfs (const Npp16s ∗ *pSrc*, int *nLength*, Npp16s ∗ *pMean*, Npp16s ∗ *pStdDev*, int *nScaleFactor*, Npp8u ∗ *pDeviceBuffer*)

16-bit float vector mean and standard deviation method (return values are also 16-bit)

Parameters:

pSrc Source Signal Pointer.

nLength Signal Length.

pMean Pointer to the output mean value.

pStdDev Pointer to the output standard deviation value.

nScaleFactor Integer Result Scaling.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppsMeanStdDevGetBufferSize_16s_Sfs to determine the minium number of bytes required.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.193.1.3 NppStatus nppsMeanStdDev_32f (const Npp32f ∗ *pSrc*, int *nLength*, Npp32f ∗ *pMean*, Npp32f ∗ *pStdDev*, Npp8u ∗ *pDeviceBuffer*)

32-bit float vector mean and standard deviation method

Parameters:

pSrc Source Signal Pointer.

nLength Signal Length.

pMean Pointer to the output mean value.

pStdDev Pointer to the output standard deviation value.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppsMeanStdDevGetBufferSize_32f to determine the minium number of bytes required.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.193.1.4 NppStatus nppsMeanStdDev_64f (const Npp64f ∗ *pSrc*, int *nLength*, Npp64f ∗ *pMean*, Npp64f ∗ *pStdDev*, Npp8u ∗ *pDeviceBuffer*)

64-bit float vector mean and standard deviation method

Parameters:

pSrc Source Signal Pointer.

nLength Signal Length.

pMean Pointer to the output mean value.

pStdDev Pointer to the output standard deviation value.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppsMeanStdDevGetBufferSize_64f to determine the minium number of bytes required.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.193.1.5 NppStatus nppsMeanStdDevGetBufferSize_16s32s_Sfs (int *nLength*, int ∗ *hpBufferSize*)

Device scratch buffer size (in bytes) for nppsMeanStdDev_16s32s_Sfs.

Parameters:

nLength Signal Length.

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_SUCCESS

7.193.1.6 NppStatus nppsMeanStdDevGetBufferSize_16s_Sfs (int *nLength*, int ∗ *hpBufferSize*)

Device scratch buffer size (in bytes) for nppsMeanStdDev_16s_Sfs.

Parameters:

nLength Signal Length.

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_SUCCESS

7.193.1.7 NppStatus nppsMeanStdDevGetBufferSize_32f (int *nLength*, int ∗ *hpBufferSize*)

Device scratch buffer size (in bytes) for nppsMeanStdDev_32f.

Parameters:

nLength Signal Length.

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_SUCCESS

7.193.1.8 NppStatus nppsMeanStdDevGetBufferSize_64f (int *nLength*, int ∗ *hpBufferSize*)

Device scratch buffer size (in bytes) for nppsMeanStdDev_64f.

Parameters:

nLength Signal Length.

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.* Scratch Buffer and Host Pointer.

Returns:

NPP_SUCCESS

7.194 Minimum_Maximum

Functions

- NppStatus nppsMinMaxGetBufferSize_8u (int nLength, int ∗hpBufferSize)

  Device-buffer size (in bytes) for nppsMinMax_8u.

- NppStatus nppsMinMaxGetBufferSize_16s (int nLength, int ∗hpBufferSize)

  Device-buffer size (in bytes) for nppsMinMax_16s.

- NppStatus nppsMinMaxGetBufferSize_16u (int nLength, int ∗hpBufferSize)

  Device-buffer size (in bytes) for nppsMinMax_16u.

- NppStatus nppsMinMaxGetBufferSize_32s (int nLength, int ∗hpBufferSize)

  Device-buffer size (in bytes) for nppsMinMax_32s.

- NppStatus nppsMinMaxGetBufferSize_32u (int nLength, int ∗hpBufferSize)

  Device-buffer size (in bytes) for nppsMinMax_32u.

- NppStatus nppsMinMaxGetBufferSize_32f (int nLength, int ∗hpBufferSize)

  Device-buffer size (in bytes) for nppsMinMax_32f.

- NppStatus nppsMinMaxGetBufferSize_64f (int nLength, int ∗hpBufferSize)

  Device-buffer size (in bytes) for nppsMinMax_64f.

- NppStatus nppsMinMax_8u (const Npp8u ∗pSrc, int nLength, Npp8u ∗pMin, Npp8u ∗pMax, Npp8u ∗pDeviceBuffer)

  8-bit char vector min and max method

- NppStatus nppsMinMax_16s (const Npp16s ∗pSrc, int nLength, Npp16s ∗pMin, Npp16s ∗pMax, Npp8u ∗pDeviceBuffer)

  16-bit signed short vector min and max method

- NppStatus nppsMinMax_16u (const Npp16u ∗pSrc, int nLength, Npp16u ∗pMin, Npp16u ∗pMax, Npp8u ∗pDeviceBuffer)

  16-bit unsigned short vector min and max method

- NppStatus nppsMinMax_32u (const Npp32u ∗pSrc, int nLength, Npp32u ∗pMin, Npp32u ∗pMax, Npp8u ∗pDeviceBuffer)

  32-bit unsigned int vector min and max method

- NppStatus nppsMinMax_32s (const Npp32s ∗pSrc, int nLength, Npp32s ∗pMin, Npp32s ∗pMax, Npp8u ∗pDeviceBuffer)

  32-bit signed int vector min and max method

- NppStatus nppsMinMax_32f (const Npp32f ∗pSrc, int nLength, Npp32f ∗pMin, Npp32f ∗pMax, Npp8u ∗pDeviceBuffer)

  32-bit float vector min and max method

- NppStatus nppsMinMax_64f (const Npp64f ∗pSrc, int nLength, Npp64f ∗pMin, Npp64f ∗pMax, Npp8u ∗pDeviceBuffer)

64-bit double vector min and max method

- NppStatus nppsMinMaxIndxGetBufferSize_8u (int nLength, int ∗hpBufferSize)
  Device-buffer size (in bytes) for nppsMinMaxIndx_8u.
- NppStatus nppsMinMaxIndxGetBufferSize_16s (int nLength, int ∗hpBufferSize)
  Device-buffer size (in bytes) for nppsMinMaxIndx_16s.
- NppStatus nppsMinMaxIndxGetBufferSize_16u (int nLength, int ∗hpBufferSize)
  Device-buffer size (in bytes) for nppsMinMaxIndx_16u.
- NppStatus nppsMinMaxIndxGetBufferSize_32s (int nLength, int ∗hpBufferSize)
  Device-buffer size (in bytes) for nppsMinMaxIndx_32s.
- NppStatus nppsMinMaxIndxGetBufferSize_32u (int nLength, int ∗hpBufferSize)
  Device-buffer size (in bytes) for nppsMinMaxIndx_32u.
- NppStatus nppsMinMaxIndxGetBufferSize_32f (int nLength, int ∗hpBufferSize)
  Device-buffer size (in bytes) for nppsMinMaxIndx_32f.
- NppStatus nppsMinMaxIndxGetBufferSize_64f (int nLength, int ∗hpBufferSize)
  Device-buffer size (in bytes) for nppsMinMaxIndx_64f.
- NppStatus nppsMinMaxIndx_8u (const Npp8u ∗pSrc, int nLength, Npp8u ∗pMin, int ∗pMinIndx, Npp8u ∗pMax, int ∗pMaxIndx, Npp8u ∗pDeviceBuffer)
  8-bit char vector min and max with indices method
- NppStatus nppsMinMaxIndx_16s (const Npp16s ∗pSrc, int nLength, Npp16s ∗pMin, int ∗pMinIndx, Npp16s ∗pMax, int ∗pMaxIndx, Npp8u ∗pDeviceBuffer)
  16-bit signed short vector min and max with indices method
- NppStatus nppsMinMaxIndx_16u (const Npp16u ∗pSrc, int nLength, Npp16u ∗pMin, int ∗pMinIndx, Npp16u ∗pMax, int ∗pMaxIndx, Npp8u ∗pDeviceBuffer)
  16-bit unsigned short vector min and max with indices method
- NppStatus nppsMinMaxIndx_32s (const Npp32s ∗pSrc, int nLength, Npp32s ∗pMin, int ∗pMinIndx, Npp32s ∗pMax, int ∗pMaxIndx, Npp8u ∗pDeviceBuffer)
  32-bit signed short vector min and max with indices method
- NppStatus nppsMinMaxIndx_32u (const Npp32u ∗pSrc, int nLength, Npp32u ∗pMin, int ∗pMinIndx, Npp32u ∗pMax, int ∗pMaxIndx, Npp8u ∗pDeviceBuffer)
  32-bit unsigned short vector min and max with indices method
- NppStatus nppsMinMaxIndx_32f (const Npp32f ∗pSrc, int nLength, Npp32f ∗pMin, int ∗pMinIndx, Npp32f ∗pMax, int ∗pMaxIndx, Npp8u ∗pDeviceBuffer)
  32-bit float vector min and max with indices method
- NppStatus nppsMinMaxIndx_64f (const Npp64f ∗pSrc, int nLength, Npp64f ∗pMin, int ∗pMinIndx, Npp64f ∗pMax, int ∗pMaxIndx, Npp8u ∗pDeviceBuffer)
  64-bit float vector min and max with indices method

7.194.1 Function Documentation

7.194.1.1 NppStatus nppsMinMax_16s (const Npp16s ∗ *pSrc*, int *nLength*, Npp16s ∗ *pMin*, Npp16s ∗ *pMax*, Npp8u ∗ *pDeviceBuffer*)

16-bit signed short vector min and max method

Parameters:

pSrc Source Signal Pointer.

nLength Signal Length.

pMin Pointer to the min output result.

pMax Pointer to the max output result.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppsMinMaxGetBufferSize_16s to determine the minium number of bytes required.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.194.1.2 NppStatus nppsMinMax_16u (const Npp16u ∗ *pSrc*, int *nLength*, Npp16u ∗ *pMin*, Npp16u ∗ *pMax*, Npp8u ∗ *pDeviceBuffer*)

16-bit unsigned short vector min and max method

Parameters:

pSrc Source Signal Pointer.

nLength Signal Length.

pMin Pointer to the min output result.

pMax Pointer to the max output result.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppsMinMaxGetBufferSize_16u to determine the minium number of bytes required.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.194.1.3 NppStatus nppsMinMax_32f (const Npp32f ∗ *pSrc*, int *nLength*, Npp32f ∗ *pMin*, Npp32f ∗ *pMax*, Npp8u ∗ *pDeviceBuffer*)

32-bit float vector min and max method

Parameters:

pSrc Source Signal Pointer.

nLength Signal Length.

pMin Pointer to the min output result.

pMax Pointer to the max output result.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppsMinMaxGetBufferSize_32f to determine the minium number of bytes required.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.194.1.4 NppStatus nppsMinMax_32s (const Npp32s ∗ *pSrc*, int *nLength*, Npp32s ∗ *pMin*, Npp32s ∗ *pMax*, Npp8u ∗ *pDeviceBuffer*)

32-bit signed int vector min and max method

Parameters:

pSrc Source Signal Pointer.

nLength Signal Length.

pMin Pointer to the min output result.

pMax Pointer to the max output result.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppsMinMaxGetBufferSize_32s to determine the minium number of bytes required.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.194.1.5 NppStatus nppsMinMax_32u (const Npp32u ∗ *pSrc*, int *nLength*, Npp32u ∗ *pMin*, Npp32u ∗ *pMax*, Npp8u ∗ *pDeviceBuffer*)

32-bit unsigned int vector min and max method

Parameters:

pSrc Source Signal Pointer.

nLength Signal Length.

pMin Pointer to the min output result.

pMax Pointer to the max output result.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppsMinMaxGetBufferSize_32u to determine the minium number of bytes required.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.194.1.6 NppStatus nppsMinMax_64f (const Npp64f ∗ *pSrc*, int *nLength*, Npp64f ∗ *pMin*, Npp64f ∗ *pMax*, Npp8u ∗ *pDeviceBuffer*)

64-bit double vector min and max method

Parameters:

pSrc Source Signal Pointer.

nLength Signal Length.

pMin Pointer to the min output result.

pMax Pointer to the max output result.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppsMinMaxGetBufferSize_64f to determine the minium number of bytes required.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.194.1.7 NppStatus nppsMinMax_8u (const Npp8u ∗ *pSrc*, int *nLength*, Npp8u ∗ *pMin*, Npp8u ∗ *pMax*, Npp8u ∗ *pDeviceBuffer*)

8-bit char vector min and max method

Parameters:

pSrc Source Signal Pointer.

nLength Signal Length.

pMin Pointer to the min output result.

pMax Pointer to the max output result.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppsMinMaxGetBufferSize_8u to determine the minium number of bytes required.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.194.1.8 NppStatus nppsMinMaxGetBufferSize_16s (int *nLength*, int ∗ *hpBufferSize*)

Device-buffer size (in bytes) for nppsMinMax_16s.

Parameters:

nLength Signal Length.

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.*

Returns:

NPP_SUCCESS

7.194.1.9 NppStatus nppsMinMaxGetBufferSize_16u (int *nLength*, int ∗ *hpBufferSize*)

Device-buffer size (in bytes) for nppsMinMax_16u.

Parameters:

nLength Signal Length.

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.*

Returns:

NPP_SUCCESS

7.194.1.10 NppStatus nppsMinMaxGetBufferSize_32f (int *nLength*, int ∗ *hpBufferSize*)

Device-buffer size (in bytes) for nppsMinMax_32f.

Parameters:

nLength Signal Length.

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.*

Returns:

NPP_SUCCESS

7.194.1.11 NppStatus nppsMinMaxGetBufferSize_32s (int *nLength*, int ∗ *hpBufferSize*)

Device-buffer size (in bytes) for nppsMinMax_32s.

Parameters:

nLength Signal Length.

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.*

Returns:

NPP_SUCCESS

7.194.1.12 NppStatus nppsMinMaxGetBufferSize_32u (int *nLength*, int ∗ *hpBufferSize*)

Device-buffer size (in bytes) for nppsMinMax_32u.

Parameters:

nLength Signal Length.

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.*

Returns:

NPP_SUCCESS

7.194.1.13 NppStatus nppsMinMaxGetBufferSize_64f (int *nLength*, int ∗ *hpBufferSize*)

Device-buffer size (in bytes) for nppsMinMax_64f.

Parameters:

nLength Signal Length.

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.*

Returns:

NPP_SUCCESS

7.194.1.14 NppStatus nppsMinMaxGetBufferSize_8u (int *nLength*, int ∗ *hpBufferSize*)

Device-buffer size (in bytes) for nppsMinMax_8u.

Parameters:

nLength Signal Length.

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.*

Returns:

NPP_SUCCESS

7.194.1.15 NppStatus nppsMinMaxIndx_16s (const Npp16s ∗ *pSrc*, int *nLength*, Npp16s ∗ *pMin*, int ∗ *pMinIndx*, Npp16s ∗ *pMax*, int ∗ *pMaxIndx*, Npp8u ∗ *pDeviceBuffer*)

16-bit signed short vector min and max with indices method

Parameters:

pSrc Source Signal Pointer.

nLength Signal Length.

pMin Pointer to the min output result.

pMinIndx Pointer to the index of the first min value.

pMax Pointer to the max output result.

pMaxIndx Pointer to the index of the first max value.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppsMinMaxIndxGetBufferSize_16s to determine the minium number of bytes required.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.194.1.16 NppStatus nppsMinMaxIndx_16u (const Npp16u * *pSrc*, int *nLength*, Npp16u * *pMin*, int * *pMinIndx*, Npp16u * *pMax*, int * *pMaxIndx*, Npp8u * *pDeviceBuffer*)

16-bit unsigned short vector min and max with indices method

Parameters:

pSrc Source Signal Pointer.

nLength Signal Length.

pMin Pointer to the min output result.

pMinIndx Pointer to the index of the first min value.

pMax Pointer to the max output result.

pMaxIndx Pointer to the index of the first max value.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppsMinMaxIndxGetBufferSize_16u to determine the minium number of bytes required.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.194.1.17 NppStatus nppsMinMaxIndx_32f (const Npp32f * *pSrc*, int *nLength*, Npp32f * *pMin*, int * *pMinIndx*, Npp32f * *pMax*, int * *pMaxIndx*, Npp8u * *pDeviceBuffer*)

32-bit float vector min and max with indices method

Parameters:

pSrc Source Signal Pointer.

nLength Signal Length.

pMin Pointer to the min output result.

pMinIndx Pointer to the index of the first min value.

pMax Pointer to the max output result.

pMaxIndx Pointer to the index of the first max value.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppsMinMaxIndxGetBufferSize_32f to determine the minium number of bytes required.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.194.1.18 NppStatus nppsMinMaxIndx_32s (const Npp32s * *pSrc*, int *nLength*, Npp32s * *pMin*, int * *pMinIndx*, Npp32s * *pMax*, int * *pMaxIndx*, Npp8u * *pDeviceBuffer*)

32-bit signed short vector min and max with indices method

Parameters:

pSrc Source Signal Pointer.

nLength Signal Length.

pMin Pointer to the min output result.

pMinIndx Pointer to the index of the first min value.

pMax Pointer to the max output result.

pMaxIndx Pointer to the index of the first max value.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppsMinMaxIndxGetBufferSize_32s to determine the minium number of bytes required.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.194.1.19 NppStatus nppsMinMaxIndx_32u (const Npp32u ∗ *pSrc*, int *nLength*, Npp32u ∗ *pMin*, int ∗ *pMinIndx*, Npp32u ∗ *pMax*, int ∗ *pMaxIndx*, Npp8u ∗ *pDeviceBuffer*)

32-bit unsigned short vector min and max with indices method

Parameters:

pSrc Source Signal Pointer.

nLength Signal Length.

pMin Pointer to the min output result.

pMinIndx Pointer to the index of the first min value.

pMax Pointer to the max output result.

pMaxIndx Pointer to the index of the first max value.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppsMinMaxIndxGetBufferSize_32u to determine the minium number of bytes required.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.194.1.20 NppStatus nppsMinMaxIndx_64f (const Npp64f ∗ *pSrc*, int *nLength*, Npp64f ∗ *pMin*, int ∗ *pMinIndx*, Npp64f ∗ *pMax*, int ∗ *pMaxIndx*, Npp8u ∗ *pDeviceBuffer*)

64-bit float vector min and max with indices method

Parameters:

pSrc Source Signal Pointer.

nLength Signal Length.

pMin Pointer to the min output result.

pMinIndx Pointer to the index of the first min value.

pMax Pointer to the max output result.

pMaxIndx Pointer to the index of the first max value.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppsMinMaxIndxGetBufferSize_64f to determine the minium number of bytes required.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.194.1.21 NppStatus nppsMinMaxIndx_8u (const Npp8u ∗ *pSrc*, int *nLength*, Npp8u ∗ *pMin*, int ∗ *pMinIndx*, Npp8u ∗ *pMax*, int ∗ *pMaxIndx*, Npp8u ∗ *pDeviceBuffer*)

8-bit char vector min and max with indices method

Parameters:

pSrc Source Signal Pointer.

nLength Signal Length.

pMin Pointer to the min output result.

pMinIndx Pointer to the index of the first min value.

pMax Pointer to the max output result.

pMaxIndx Pointer to the index of the first max value.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppsMinMaxIndxGetBufferSize_8u to determine the minium number of bytes required.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.194.1.22 NppStatus nppsMinMaxIndxGetBufferSize_16s (int *nLength*, int ∗ *hpBufferSize*)

Device-buffer size (in bytes) for nppsMinMaxIndx_16s.

Parameters:

nLength Signal Length.

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.*

Returns:

NPP_SUCCESS

7.194.1.23 NppStatus nppsMinMaxIndxGetBufferSize_16u (int *nLength*, int ∗ *hpBufferSize*)

Device-buffer size (in bytes) for nppsMinMaxIndx_16u.

Parameters:

nLength Signal Length.

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.*

Returns:

NPP_SUCCESS

7.194.1.24 NppStatus nppsMinMaxIndxGetBufferSize_32f (int *nLength*, int ∗ *hpBufferSize*)

Device-buffer size (in bytes) for nppsMinMaxIndx_32f.

Parameters:

nLength Signal Length.

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.*

Returns:

NPP_SUCCESS

7.194.1.25 NppStatus nppsMinMaxIndxGetBufferSize_32s (int *nLength*, int ∗ *hpBufferSize*)

Device-buffer size (in bytes) for nppsMinMaxIndx_32s.

Parameters:

nLength Signal Length.

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.*

Returns:

NPP_SUCCESS

7.194.1.26 NppStatus nppsMinMaxIndxGetBufferSize_32u (int *nLength*, int ∗ *hpBufferSize*)

Device-buffer size (in bytes) for nppsMinMaxIndx_32u.

Parameters:

nLength Signal Length.

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.*

Returns:

NPP_SUCCESS

7.194.1.27 NppStatus nppsMinMaxIndxGetBufferSize_64f (int *nLength*, int ∗ *hpBufferSize*)

Device-buffer size (in bytes) for nppsMinMaxIndx_64f.

Parameters:

nLength Signal Length.

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.*

Returns:

NPP_SUCCESS

7.194.1.28 NppStatus nppsMinMaxIndxGetBufferSize_8u (int *nLength*, int ∗ *hpBufferSize*)

Device-buffer size (in bytes) for nppsMinMaxIndx_8u.

Parameters:

nLength Signal Length.

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.*

Returns:

NPP_SUCCESS

7.195 Infinity Norm

Functions

- NppStatus nppsNormInfGetBufferSize_32f (int nLength, int ∗hpBufferSize)

  Device-buffer size (in bytes) for nppsNorm_Inf_32f.

- NppStatus nppsNorm_Inf_32f (const Npp32f ∗pSrc, int nLength, Npp32f ∗pNorm, Npp8u ∗pDeviceBuffer)

  32-bit float vector C norm method

- NppStatus nppsNormInfGetBufferSize_64f (int nLength, int ∗hpBufferSize)

  Device-buffer size (in bytes) for nppsNorm_Inf_64f.

- NppStatus nppsNorm_Inf_64f (const Npp64f ∗pSrc, int nLength, Npp64f ∗pNorm, Npp8u ∗pDeviceBuffer)

  64-bit float vector C norm method

- NppStatus nppsNormInfGetBufferSize_16s32f (int nLength, int ∗hpBufferSize)

  Device-buffer size (in bytes) for nppsNorm_Inf_16s32f.

- NppStatus nppsNorm_Inf_16s32f (const Npp16s ∗pSrc, int nLength, Npp32f ∗pNorm, Npp8u ∗pDeviceBuffer)

  16-bit signed short integer vector C norm method, return value is 32-bit float.

- NppStatus nppsNormInfGetBufferSize_32fc32f (int nLength, int ∗hpBufferSize)

  Device-buffer size (in bytes) for nppsNorm_Inf_32fc32f.

- NppStatus nppsNorm_Inf_32fc32f (const Npp32fc ∗pSrc, int nLength, Npp32f ∗pNorm, Npp8u ∗pDeviceBuffer)

  32-bit float complex vector C norm method, return value is 32-bit float.

- NppStatus nppsNormInfGetBufferSize_64fc64f (int nLength, int ∗hpBufferSize)

  Device-buffer size (in bytes) for nppsNorm_Inf_64fc64f.

- NppStatus nppsNorm_Inf_64fc64f (const Npp64fc ∗pSrc, int nLength, Npp64f ∗pNorm, Npp8u ∗pDeviceBuffer)

  64-bit float complex vector C norm method, return value is 64-bit float.

- NppStatus nppsNormInfGetBufferSize_16s32s_Sfs (int nLength, int ∗hpBufferSize)

  Device-buffer size (in bytes) for nppsNorm_Inf_16s32s_Sfs.

- NppStatus nppsNorm_Inf_16s32s_Sfs (const Npp16s ∗pSrc, int nLength, Npp32s ∗pNorm, int nScaleFactor, Npp8u ∗pDeviceBuffer)

  16-bit signed short integer vector C norm method, return value is 32-bit signed integer.

7.195.1 Function Documentation

7.195.1.1 NppStatus nppsNorm_Inf_16s32f (const Npp16s * *pSrc*, int *nLength*, Npp32f * *pNorm*, Npp8u * *pDeviceBuffer*)

16-bit signed short integer vector C norm method, return value is 32-bit float.

Parameters:

pSrc Source Signal Pointer.

nLength Signal Length.

pNorm Pointer to the norm result.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppsNormInfGetBufferSize_16s32f to determine the minium number of bytes required.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.195.1.2 NppStatus nppsNorm_Inf_16s32s_Sfs (const Npp16s * *pSrc*, int *nLength*, Npp32s * *pNorm*, int *nScaleFactor*, Npp8u * *pDeviceBuffer*)

16-bit signed short integer vector C norm method, return value is 32-bit signed integer.

Parameters:

pSrc Source Signal Pointer.

nLength Signal Length.

pNorm Pointer to the norm result.

nScaleFactor Integer Result Scaling.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppsNormInfGetBufferSize_16s32s_Sfs to determine the minium number of bytes required.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.195.1.3 NppStatus nppsNorm_Inf_32f (const Npp32f * *pSrc*, int *nLength*, Npp32f * *pNorm*, Npp8u * *pDeviceBuffer*)

32-bit float vector C norm method

Parameters:

pSrc Source Signal Pointer.

nLength Signal Length.

pNorm Pointer to the norm result.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppsNormInfGetBufferSize_32f to determine the minium number of bytes required.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.195.1.4 NppStatus nppsNorm_Inf_32fc32f (const Npp32fc ∗ *pSrc*, int *nLength*, Npp32f ∗ *pNorm*, Npp8u ∗ *pDeviceBuffer*)

32-bit float complex vector C norm method, return value is 32-bit float.

Parameters:

pSrc Source Signal Pointer.

nLength Signal Length.

pNorm Pointer to the norm result.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppsNormInfGetBufferSize_32fc32f to determine the minium number of bytes required.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.195.1.5 NppStatus nppsNorm_Inf_64f (const Npp64f ∗ *pSrc*, int *nLength*, Npp64f ∗ *pNorm*, Npp8u ∗ *pDeviceBuffer*)

64-bit float vector C norm method

Parameters:

pSrc Source Signal Pointer.

nLength Signal Length.

pNorm Pointer to the norm result.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppsNormInfGetBufferSize_64f to determine the minium number of bytes required.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.195.1.6 NppStatus nppsNorm_Inf_64fc64f (const Npp64fc ∗ *pSrc*, int *nLength*, Npp64f ∗ *pNorm*, Npp8u ∗ *pDeviceBuffer*)

64-bit float complex vector C norm method, return value is 64-bit float.

Parameters:

pSrc Source Signal Pointer.

nLength Signal Length.

pNorm Pointer to the norm result.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppsNormInfGetBufferSize_64fc64f to determine the minium number of bytes required.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.195.1.7 NppStatus nppsNormInfGetBufferSize_16s32f (int *nLength*, int ∗ *hpBufferSize*)

Device-buffer size (in bytes) for nppsNorm_Inf_16s32f.

Parameters:

nLength Signal Length.

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.*

Returns:

NPP_SUCCESS

7.195.1.8 NppStatus nppsNormInfGetBufferSize_16s32s_Sfs (int *nLength*, int ∗ *hpBufferSize*)

Device-buffer size (in bytes) for nppsNorm_Inf_16s32s_Sfs.

Parameters:

nLength Signal Length.

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.*

Returns:

NPP_SUCCESS

7.195.1.9 NppStatus nppsNormInfGetBufferSize_32f (int *nLength*, int ∗ *hpBufferSize*)

Device-buffer size (in bytes) for nppsNorm_Inf_32f.

Parameters:

nLength Signal Length.

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.*

Returns:

NPP_SUCCESS

7.195.1.10 NppStatus nppsNormInfGetBufferSize_32fc32f (int *nLength*, int ∗ *hpBufferSize*)

Device-buffer size (in bytes) for nppsNorm_Inf_32fc32f.

Parameters:

nLength Signal Length.

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.*

Returns:

NPP_SUCCESS

7.195.1.11 NppStatus nppsNormInfGetBufferSize_64f (int *nLength*, int ∗ *hpBufferSize*)

Device-buffer size (in bytes) for nppsNorm_Inf_64f.

Parameters:

nLength Signal Length.

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.*

Returns:

NPP_SUCCESS

7.195.1.12 NppStatus nppsNormInfGetBufferSize_64fc64f (int *nLength*, int ∗ *hpBufferSize*)

Device-buffer size (in bytes) for nppsNorm_Inf_64fc64f.

Parameters:

nLength Signal Length.

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.*

Returns:

NPP_SUCCESS

7.196 L1 Norm

Functions

- NppStatus nppsNormL1GetBufferSize_32f (int nLength, int ∗hpBufferSize)

  Device-buffer size (in bytes) for nppsNorm_L1_32f.

- NppStatus nppsNorm_L1_32f (const Npp32f ∗pSrc, int nLength, Npp32f ∗pNorm, Npp8u ∗pDeviceBuffer)

  32-bit float vector L1 norm method

- NppStatus nppsNormL1GetBufferSize_64f (int nLength, int ∗hpBufferSize)

  Device-buffer size (in bytes) for nppsNorm_L1_64f.

- NppStatus nppsNorm_L1_64f (const Npp64f ∗pSrc, int nLength, Npp64f ∗pNorm, Npp8u ∗pDeviceBuffer)

  64-bit float vector L1 norm method

- NppStatus nppsNormL1GetBufferSize_16s32f (int nLength, int ∗hpBufferSize)

  Device-buffer size (in bytes) for nppsNorm_L1_16s32f.

- NppStatus nppsNorm_L1_16s32f (const Npp16s ∗pSrc, int nLength, Npp32f ∗pNorm, Npp8u ∗pDeviceBuffer)

  16-bit signed short integer vector L1 norm method, return value is 32-bit float.

- NppStatus nppsNormL1GetBufferSize_32fc64f (int nLength, int ∗hpBufferSize)

  Device-buffer size (in bytes) for nppsNorm_L1_32fc64f.

- NppStatus nppsNorm_L1_32fc64f (const Npp32fc ∗pSrc, int nLength, Npp64f ∗pNorm, Npp8u ∗pDeviceBuffer)

  32-bit float complex vector L1 norm method, return value is 64-bit float.

- NppStatus nppsNormL1GetBufferSize_64fc64f (int nLength, int ∗hpBufferSize)

  Device-buffer size (in bytes) for nppsNorm_L1_64fc64f.

- NppStatus nppsNorm_L1_64fc64f (const Npp64fc ∗pSrc, int nLength, Npp64f ∗pNorm, Npp8u ∗pDeviceBuffer)

  64-bit float complex vector L1 norm method, return value is 64-bit float.

- NppStatus nppsNormL1GetBufferSize_16s32s_Sfs (int nLength, int ∗hpBufferSize)

  Device-buffer size (in bytes) for nppsNorm_L1_16s32s_Sfs.

- NppStatus nppsNorm_L1_16s32s_Sfs (const Npp16s ∗pSrc, int nLength, Npp32s ∗pNorm, int nScaleFactor, Npp8u ∗pDeviceBuffer)

  16-bit signed short integer vector L1 norm method, return value is 32-bit signed integer.

- NppStatus nppsNormL1GetBufferSize_16s64s_Sfs (int nLength, int ∗hpBufferSize)

  Device-buffer size (in bytes) for nppsNorm_L1_16s64s_Sfs.

- NppStatus nppsNorm_L1_16s64s_Sfs (const Npp16s ∗pSrc, int nLength, Npp64s ∗pNorm, int nScaleFactor, Npp8u ∗pDeviceBuffer)

16-bit signed short integer vector L1 norm method, return value is 64-bit signed integer.

7.196.1 Function Documentation

7.196.1.1 NppStatus nppsNorm_L1_16s32f (const Npp16s * *pSrc*, int *nLength*, Npp32f * *pNorm*, Npp8u * *pDeviceBuffer*)

16-bit signed short integer vector L1 norm method, return value is 32-bit float.

Parameters:

pSrc Source Signal Pointer.

nLength Signal Length.

pNorm Pointer to the L1 norm result.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppsNormL1GetBufferSize_16s32f to determine the minium number of bytes required.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.196.1.2 NppStatus nppsNorm_L1_16s32s_Sfs (const Npp16s * *pSrc*, int *nLength*, Npp32s * *pNorm*, int *nScaleFactor*, Npp8u * *pDeviceBuffer*)

16-bit signed short integer vector L1 norm method, return value is 32-bit signed integer.

Parameters:

pSrc Source Signal Pointer.

nLength Signal Length.

pNorm Pointer to the norm result.

nScaleFactor Integer Result Scaling.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppsNormL1GetBufferSize_16s32s_Sfs to determine the minium number of bytes required.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.196.1.3 NppStatus nppsNorm_L1_16s64s_Sfs (const Npp16s * *pSrc*, int *nLength*, Npp64s * *pNorm*, int *nScaleFactor*, Npp8u * *pDeviceBuffer*)

16-bit signed short integer vector L1 norm method, return value is 64-bit signed integer.

Parameters:

pSrc Source Signal Pointer.

nLength Signal Length.

pNorm Pointer to the norm result.

nScaleFactor Integer Result Scaling.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppsNormL1GetBufferSize_16s64s_Sfs to determine the minium number of bytes required.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.196.1.4 NppStatus nppsNorm_L1_32f (const Npp32f ∗ *pSrc*, int *nLength*, Npp32f ∗ *pNorm*, Npp8u ∗ *pDeviceBuffer*)

32-bit float vector L1 norm method

Parameters:

pSrc Source Signal Pointer.

nLength Signal Length.

pNorm Pointer to the norm result.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppsNormL1GetBufferSize_32f to determine the minium number of bytes required.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.196.1.5 NppStatus nppsNorm_L1_32fc64f (const Npp32fc ∗ *pSrc*, int *nLength*, Npp64f ∗ *pNorm*, Npp8u ∗ *pDeviceBuffer*)

32-bit float complex vector L1 norm method, return value is 64-bit float.

Parameters:

pSrc Source Signal Pointer.

nLength Signal Length.

pNorm Pointer to the norm result.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppsNormL1GetBufferSize_32fc64f to determine the minium number of bytes required.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.196.1.6 NppStatus nppsNorm_L1_64f (const Npp64f ∗ *pSrc*, int *nLength*, Npp64f ∗ *pNorm*, Npp8u ∗ *pDeviceBuffer*)

64-bit float vector L1 norm method

Parameters:

pSrc Source Signal Pointer.

nLength Signal Length.

pNorm Pointer to the norm result.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppsNormL1GetBufferSize_64f to determine the minium number of bytes required.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.196.1.7 NppStatus nppsNorm_L1_64fc64f (const Npp64fc ∗ *pSrc*, int *nLength*, Npp64f ∗ *pNorm*, Npp8u ∗ *pDeviceBuffer*)

64-bit float complex vector L1 norm method, return value is 64-bit float.

Parameters:

pSrc Source Signal Pointer.

nLength Signal Length.

pNorm Pointer to the norm result.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppsNormL1GetBufferSize_64fc64f to determine the minium number of bytes required.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.196.1.8 NppStatus nppsNormL1GetBufferSize_16s32f (int *nLength*, int ∗ *hpBufferSize*)

Device-buffer size (in bytes) for nppsNorm_L1_16s32f.

Parameters:

nLength Signal Length.

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.*

Returns:

NPP_SUCCESS

7.196.1.9 NppStatus nppsNormL1GetBufferSize_16s32s_Sfs (int *nLength*, int ∗ *hpBufferSize*)

Device-buffer size (in bytes) for nppsNorm_L1_16s32s_Sfs.

Parameters:

nLength Signal Length.

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.*

Returns:

NPP_SUCCESS

7.196.1.10 NppStatus nppsNormL1GetBufferSize_16s64s_Sfs (int *nLength*, int ∗ *hpBufferSize*)

Device-buffer size (in bytes) for nppsNorm_L1_16s64s_Sfs.

Parameters:

nLength Signal Length.

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.*

Returns:

NPP_SUCCESS

7.196.1.11 NppStatus nppsNormL1GetBufferSize_32f (int *nLength*, int ∗ *hpBufferSize*)

Device-buffer size (in bytes) for nppsNorm_L1_32f.

Parameters:

nLength Signal Length.

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.*

Returns:

NPP_SUCCESS

7.196.1.12 NppStatus nppsNormL1GetBufferSize_32fc64f (int *nLength*, int ∗ *hpBufferSize*)

Device-buffer size (in bytes) for nppsNorm_L1_32fc64f.

Parameters:

nLength Signal Length.

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.*

Returns:

NPP_SUCCESS

7.196.1.13 NppStatus nppsNormL1GetBufferSize_64f (int *nLength*, int ∗ *hpBufferSize*)

Device-buffer size (in bytes) for nppsNorm_L1_64f.

Parameters:

nLength Signal Length.

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.*

Returns:

NPP_SUCCESS

7.196.1.14 NppStatus nppsNormL1GetBufferSize_64fc64f (int *nLength*, int $*$ *hpBufferSize*)

Device-buffer size (in bytes) for nppsNorm_L1_64fc64f.

Parameters:

nLength Signal Length.

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.*

Returns:

NPP_SUCCESS

7.197 L2 Norm

Functions

- NppStatus nppsNormL2GetBufferSize_32f (int nLength, int ∗hpBufferSize)

  Device-buffer size (in bytes) for nppsNorm_L2_32f.

- NppStatus nppsNorm_L2_32f (const Npp32f ∗pSrc, int nLength, Npp32f ∗pNorm, Npp8u ∗pDeviceBuffer)

  32-bit float vector L2 norm method

- NppStatus nppsNormL2GetBufferSize_64f (int nLength, int ∗hpBufferSize)

  Device-buffer size (in bytes) for nppsNorm_L2_64f.

- NppStatus nppsNorm_L2_64f (const Npp64f ∗pSrc, int nLength, Npp64f ∗pNorm, Npp8u ∗pDeviceBuffer)

  64-bit float vector L2 norm method

- NppStatus nppsNormL2GetBufferSize_16s32f (int nLength, int ∗hpBufferSize)

  Device-buffer size (in bytes) for nppsNorm_L2_16s32f.

- NppStatus nppsNorm_L2_16s32f (const Npp16s ∗pSrc, int nLength, Npp32f ∗pNorm, Npp8u ∗pDeviceBuffer)

  16-bit signed short integer vector L2 norm method, return value is 32-bit float.

- NppStatus nppsNormL2GetBufferSize_32fc64f (int nLength, int ∗hpBufferSize)

  Device-buffer size (in bytes) for nppsNorm_L2_32fc64f.

- NppStatus nppsNorm_L2_32fc64f (const Npp32fc ∗pSrc, int nLength, Npp64f ∗pNorm, Npp8u ∗pDeviceBuffer)

  32-bit float complex vector L2 norm method, return value is 64-bit float.

- NppStatus nppsNormL2GetBufferSize_64fc64f (int nLength, int ∗hpBufferSize)

  Device-buffer size (in bytes) for nppsNorm_L2_64fc64f.

- NppStatus nppsNorm_L2_64fc64f (const Npp64fc ∗pSrc, int nLength, Npp64f ∗pNorm, Npp8u ∗pDeviceBuffer)

  64-bit float complex vector L2 norm method, return value is 64-bit float.

- NppStatus nppsNormL2GetBufferSize_16s32s_Sfs (int nLength, int ∗hpBufferSize)

  Device-buffer size (in bytes) for nppsNorm_L2_16s32s_Sfs.

- NppStatus nppsNorm_L2_16s32s_Sfs (const Npp16s ∗pSrc, int nLength, Npp32s ∗pNorm, int nScaleFactor, Npp8u ∗pDeviceBuffer)

  16-bit signed short integer vector L2 norm method, return value is 32-bit signed integer.

- NppStatus nppsNormL2SqrGetBufferSize_16s64s_Sfs (int nLength, int ∗hpBufferSize)

  Device-buffer size (in bytes) for nppsNorm_L2Sqr_16s64s_Sfs.

- NppStatus nppsNorm_L2Sqr_16s64s_Sfs (const Npp16s ∗pSrc, int nLength, Npp64s ∗pNorm, int nScaleFactor, Npp8u ∗pDeviceBuffer)

16-bit signed short integer vector L2 Square norm method, return value is 64-bit signed integer.

7.197.1 Function Documentation

7.197.1.1 NppStatus nppsNorm_L2_16s32f (const Npp16s ∗ *pSrc*, int *nLength*, Npp32f ∗ *pNorm*, Npp8u ∗ *pDeviceBuffer*)

16-bit signed short integer vector L2 norm method, return value is 32-bit float.

Parameters:

pSrc Source Signal Pointer.

nLength Signal Length.

pNorm Pointer to the norm result.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppsNormL2GetBufferSize_16s32f to determine the minium number of bytes required.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.197.1.2 NppStatus nppsNorm_L2_16s32s_Sfs (const Npp16s ∗ *pSrc*, int *nLength*, Npp32s ∗ *pNorm*, int *nScaleFactor*, Npp8u ∗ *pDeviceBuffer*)

16-bit signed short integer vector L2 norm method, return value is 32-bit signed integer.

Parameters:

pSrc Source Signal Pointer.

nLength Signal Length.

pNorm Pointer to the norm result.

nScaleFactor Integer Result Scaling.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppsNormL2GetBufferSize_16s32s_Sfs to determine the minium number of bytes required.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.197.1.3 NppStatus nppsNorm_L2_32f (const Npp32f ∗ *pSrc*, int *nLength*, Npp32f ∗ *pNorm*, Npp8u ∗ *pDeviceBuffer*)

32-bit float vector L2 norm method

Parameters:

pSrc Source Signal Pointer.

nLength Signal Length.

pNorm Pointer to the norm result.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppsNormL2GetBufferSize_32f to determine the minium number of bytes required.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.197.1.4 NppStatus nppsNorm_L2_32fc64f (const Npp32fc * *pSrc*, int *nLength*, Npp64f * *pNorm*, Npp8u * *pDeviceBuffer*)

32-bit float complex vector L2 norm method, return value is 64-bit float.

Parameters:

pSrc Source Signal Pointer.

nLength Signal Length.

pNorm Pointer to the norm result.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppsNormL2GetBufferSize_32fc64f to determine the minium number of bytes required.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.197.1.5 NppStatus nppsNorm_L2_64f (const Npp64f * *pSrc*, int *nLength*, Npp64f * *pNorm*, Npp8u * *pDeviceBuffer*)

64-bit float vector L2 norm method

Parameters:

pSrc Source Signal Pointer.

nLength Signal Length.

pNorm Pointer to the norm result.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppsNormL2GetBufferSize_64f to determine the minium number of bytes required.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.197.1.6 NppStatus nppsNorm_L2_64fc64f (const Npp64fc * *pSrc*, int *nLength*, Npp64f * *pNorm*, Npp8u * *pDeviceBuffer*)

64-bit float complex vector L2 norm method, return value is 64-bit float.

Parameters:

pSrc Source Signal Pointer.

nLength Signal Length.

pNorm Pointer to the norm result.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppsNormL2GetBufferSize_64fc64f to determine the minium number of bytes required.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.197.1.7 NppStatus nppsNorm_L2Sqr_16s64s_Sfs (const Npp16s * *pSrc*, int *nLength*, Npp64s * *pNorm*, int *nScaleFactor*, Npp8u * *pDeviceBuffer*)

16-bit signed short integer vector L2 Square norm method, return value is 64-bit signed integer.

Parameters:

pSrc Source Signal Pointer.

nLength Signal Length.

pNorm Pointer to the norm result.

nScaleFactor Integer Result Scaling.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppsNormL2SqrGetBufferSize_16s64s_Sfs to determine the minium number of bytes required.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.197.1.8 NppStatus nppsNormL2GetBufferSize_16s32f (int *nLength*, int * *hpBufferSize*)

Device-buffer size (in bytes) for nppsNorm_L2_16s32f.

Parameters:

nLength Signal Length.

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.*

Returns:

NPP_SUCCESS

7.197.1.9 NppStatus nppsNormL2GetBufferSize_16s32s_Sfs (int *nLength*, int * *hpBufferSize*)

Device-buffer size (in bytes) for nppsNorm_L2_16s32s_Sfs.

Parameters:

nLength Signal Length.

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.*

Returns:

NPP_SUCCESS

7.197.1.10 NppStatus nppsNormL2GetBufferSize_32f (int *nLength*, int ∗ *hpBufferSize*)

Device-buffer size (in bytes) for nppsNorm_L2_32f.

Parameters:

nLength Signal Length.

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.*

Returns:

NPP_SUCCESS

7.197.1.11 NppStatus nppsNormL2GetBufferSize_32fc64f (int *nLength*, int ∗ *hpBufferSize*)

Device-buffer size (in bytes) for nppsNorm_L2_32fc64f.

Parameters:

nLength Signal Length.

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.*

Returns:

NPP_SUCCESS

7.197.1.12 NppStatus nppsNormL2GetBufferSize_64f (int *nLength*, int ∗ *hpBufferSize*)

Device-buffer size (in bytes) for nppsNorm_L2_64f.

Parameters:

nLength Signal Length.

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.*

Returns:

NPP_SUCCESS

7.197.1.13 NppStatus nppsNormL2GetBufferSize_64fc64f (int *nLength*, int ∗ *hpBufferSize*)

Device-buffer size (in bytes) for nppsNorm_L2_64fc64f.

Parameters:

nLength Signal Length.

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.*

Returns:

NPP_SUCCESS

7.197.1.14 NppStatus nppsNormL2SqrGetBufferSize_16s64s_Sfs (int *nLength*, int ∗ *hpBufferSize*)

Device-buffer size (in bytes) for nppsNorm_L2Sqr_16s64s_Sfs.

Parameters:

nLength Signal Length.

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.*

Returns:

NPP_SUCCESS

7.198 Infinity Norm Diff

Functions

- NppStatus nppsNormDiffInfGetBufferSize_32f (int nLength, int ∗hpBufferSize)

  Device-buffer size (in bytes) for nppsNormDiff_Inf_32f.

- NppStatus nppsNormDiff_Inf_32f (const Npp32f ∗pSrc1, const Npp32f ∗pSrc2, int nLength, Npp32f ∗pNorm, Npp8u ∗pDeviceBuffer)

  32-bit float C norm method on two vectors' difference

- NppStatus nppsNormDiffInfGetBufferSize_64f (int nLength, int ∗hpBufferSize)

  Device-buffer size (in bytes) for nppsNormDiff_Inf_64f.

- NppStatus nppsNormDiff_Inf_64f (const Npp64f ∗pSrc1, const Npp64f ∗pSrc2, int nLength, Npp64f ∗pNorm, Npp8u ∗pDeviceBuffer)

  64-bit float C norm method on two vectors' difference

- NppStatus nppsNormDiffInfGetBufferSize_16s32f (int nLength, int ∗hpBufferSize)

  Device-buffer size (in bytes) for nppsNormDiff_Inf_16s32f.

- NppStatus nppsNormDiff_Inf_16s32f (const Npp16s ∗pSrc1, const Npp16s ∗pSrc2, int nLength, Npp32f ∗pNorm, Npp8u ∗pDeviceBuffer)

  16-bit signed short integer C norm method on two vectors' difference, return value is 32-bit float.

- NppStatus nppsNormDiffInfGetBufferSize_32fc32f (int nLength, int ∗hpBufferSize)

  Device-buffer size (in bytes) for nppsNormDiff_Inf_32fc32f.

- NppStatus nppsNormDiff_Inf_32fc32f (const Npp32fc ∗pSrc1, const Npp32fc ∗pSrc2, int nLength, Npp32f ∗pNorm, Npp8u ∗pDeviceBuffer)

  32-bit float complex C norm method on two vectors' difference, return value is 32-bit float.

- NppStatus nppsNormDiffInfGetBufferSize_64fc64f (int nLength, int ∗hpBufferSize)

  Device-buffer size (in bytes) for nppsNormDiff_Inf_64fc64f.

- NppStatus nppsNormDiff_Inf_64fc64f (const Npp64fc ∗pSrc1, const Npp64fc ∗pSrc2, int nLength, Npp64f ∗pNorm, Npp8u ∗pDeviceBuffer)

  64-bit float complex C norm method on two vectors' difference, return value is 64-bit float.

- NppStatus nppsNormDiffInfGetBufferSize_16s32s_Sfs (int nLength, int ∗hpBufferSize)

  Device-buffer size (in bytes) for nppsNormDiff_Inf_16s32s_Sfs.

- NppStatus nppsNormDiff_Inf_16s32s_Sfs (const Npp16s ∗pSrc1, const Npp16s ∗pSrc2, int nLength, Npp32s ∗pNorm, int nScaleFactor, Npp8u ∗pDeviceBuffer)

  16-bit signed short integer C norm method on two vectors' difference, return value is 32-bit signed integer.

7.198.1 Function Documentation

7.198.1.1 NppStatus nppsNormDiff_Inf_16s32f (const Npp16s * *pSrc1*, const Npp16s * *pSrc2*, int *nLength*, Npp32f * *pNorm*, Npp8u * *pDeviceBuffer*)

16-bit signed short integer C norm method on two vectors' difference, return value is 32-bit float.

Parameters:

pSrc1 Source Signal Pointer.

pSrc2 Source Signal Pointer.

nLength Signal Length.

pNorm Pointer to the norm result.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppsNormDiffInfGetBufferSize_16s32f to determine the minium number of bytes required.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.198.1.2 NppStatus nppsNormDiff_Inf_16s32s_Sfs (const Npp16s * *pSrc1*, const Npp16s * *pSrc2*, int *nLength*, Npp32s * *pNorm*, int *nScaleFactor*, Npp8u * *pDeviceBuffer*)

16-bit signed short integer C norm method on two vectors' difference, return value is 32-bit signed integer.

Parameters:

pSrc1 Source Signal Pointer.

pSrc2 Source Signal Pointer.

nLength Signal Length.

pNorm Pointer to the norm result.

nScaleFactor Integer Result Scaling.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppsNormDiffInfGetBufferSize_16s32s_Sfs to determine the minium number of bytes required.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.198.1.3 NppStatus nppsNormDiff_Inf_32f (const Npp32f * *pSrc1*, const Npp32f * *pSrc2*, int *nLength*, Npp32f * *pNorm*, Npp8u * *pDeviceBuffer*)

32-bit float C norm method on two vectors' difference

Parameters:

pSrc1 Source Signal Pointer.

pSrc2 Source Signal Pointer.

nLength Signal Length.

pNorm Pointer to the norm result.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppsNormDiffInfGetBufferSize_32f to determine the minium number of bytes required.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.198.1.4 NppStatus nppsNormDiff_Inf_32fc32f (const Npp32fc ∗ *pSrc1*, const Npp32fc ∗ *pSrc2*, int *nLength*, Npp32f ∗ *pNorm*, Npp8u ∗ *pDeviceBuffer*)

32-bit float complex C norm method on two vectors' difference, return value is 32-bit float.

Parameters:

pSrc1 Source Signal Pointer.

pSrc2 Source Signal Pointer.

nLength Signal Length.

pNorm Pointer to the norm result.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppsNormDiffInfGetBufferSize_32fc32f to determine the minium number of bytes required.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.198.1.5 NppStatus nppsNormDiff_Inf_64f (const Npp64f ∗ *pSrc1*, const Npp64f ∗ *pSrc2*, int *nLength*, Npp64f ∗ *pNorm*, Npp8u ∗ *pDeviceBuffer*)

64-bit float C norm method on two vectors' difference

Parameters:

pSrc1 Source Signal Pointer.

pSrc2 Source Signal Pointer.

nLength Signal Length.

pNorm Pointer to the norm result.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppsNormDiffInfGetBufferSize_64f to determine the minium number of bytes required.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.198.1.6 NppStatus nppsNormDiff_Inf_64fc64f (const Npp64fc * *pSrc1*, const Npp64fc * *pSrc2*, int *nLength*, Npp64f * *pNorm*, Npp8u * *pDeviceBuffer*)

64-bit float complex C norm method on two vectors' difference, return value is 64-bit float.

Parameters:

pSrc1 Source Signal Pointer.

pSrc2 Source Signal Pointer.

nLength Signal Length.

pNorm Pointer to the norm result.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppsNormDiffInfGetBufferSize_64fc64f to determine the minium number of bytes required.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.198.1.7 NppStatus nppsNormDiffInfGetBufferSize_16s32f (int *nLength*, int * *hpBufferSize*)

Device-buffer size (in bytes) for nppsNormDiff_Inf_16s32f.

Parameters:

nLength Signal Length.

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.*

Returns:

NPP_SUCCESS

7.198.1.8 NppStatus nppsNormDiffInfGetBufferSize_16s32s_Sfs (int *nLength*, int * *hpBufferSize*)

Device-buffer size (in bytes) for nppsNormDiff_Inf_16s32s_Sfs.

Parameters:

nLength Signal Length.

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.*

Returns:

NPP_SUCCESS

7.198.1.9 NppStatus nppsNormDiffInfGetBufferSize_32f (int *nLength*, int * *hpBufferSize*)

Device-buffer size (in bytes) for nppsNormDiff_Inf_32f.

Parameters:

nLength Signal Length.

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.*

Returns:

NPP_SUCCESS

7.198.1.10 NppStatus nppsNormDiffInfGetBufferSize_32fc32f (int *nLength*, int ∗ *hpBufferSize*)

Device-buffer size (in bytes) for nppsNormDiff_Inf_32fc32f.

Parameters:

nLength Signal Length.

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.*

Returns:

NPP_SUCCESS

7.198.1.11 NppStatus nppsNormDiffInfGetBufferSize_64f (int *nLength*, int ∗ *hpBufferSize*)

Device-buffer size (in bytes) for nppsNormDiff_Inf_64f.

Parameters:

nLength Signal Length.

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.*

Returns:

NPP_SUCCESS

7.198.1.12 NppStatus nppsNormDiffInfGetBufferSize_64fc64f (int *nLength*, int ∗ *hpBufferSize*)

Device-buffer size (in bytes) for nppsNormDiff_Inf_64fc64f.

Parameters:

nLength Signal Length.

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.*

Returns:

NPP_SUCCESS

7.199 L1 Norm Diff

Functions

- NppStatus nppsNormDiffL1GetBufferSize_32f (int nLength, int ∗hpBufferSize)

  Device-buffer size (in bytes) for nppsNormDiff_L1_32f.

- NppStatus nppsNormDiff_L1_32f (const Npp32f ∗pSrc1, const Npp32f ∗pSrc2, int nLength, Npp32f ∗pNorm, Npp8u ∗pDeviceBuffer)

  32-bit float L1 norm method on two vectors' difference

- NppStatus nppsNormDiffL1GetBufferSize_64f (int nLength, int ∗hpBufferSize)

  Device-buffer size (in bytes) for nppsNormDiff_L1_64f.

- NppStatus nppsNormDiff_L1_64f (const Npp64f ∗pSrc1, const Npp64f ∗pSrc2, int nLength, Npp64f ∗pNorm, Npp8u ∗pDeviceBuffer)

  64-bit float L1 norm method on two vectors' difference

- NppStatus nppsNormDiffL1GetBufferSize_16s32f (int nLength, int ∗hpBufferSize)

  Device-buffer size (in bytes) for nppsNormDiff_L1_16s32f.

- NppStatus nppsNormDiff_L1_16s32f (const Npp16s ∗pSrc1, const Npp16s ∗pSrc2, int nLength, Npp32f ∗pNorm, Npp8u ∗pDeviceBuffer)

  16-bit signed short integer L1 norm method on two vectors' difference, return value is 32-bit float.

- NppStatus nppsNormDiffL1GetBufferSize_32fc64f (int nLength, int ∗hpBufferSize)

  Device-buffer size (in bytes) for nppsNormDiff_L1_32fc64f.

- NppStatus nppsNormDiff_L1_32fc64f (const Npp32fc ∗pSrc1, const Npp32fc ∗pSrc2, int nLength, Npp64f ∗pNorm, Npp8u ∗pDeviceBuffer)

  32-bit float complex L1 norm method on two vectors' difference, return value is 64-bit float.

- NppStatus nppsNormDiffL1GetBufferSize_64fc64f (int nLength, int ∗hpBufferSize)

  Device-buffer size (in bytes) for nppsNormDiff_L1_64fc64f.

- NppStatus nppsNormDiff_L1_64fc64f (const Npp64fc ∗pSrc1, const Npp64fc ∗pSrc2, int nLength, Npp64f ∗pNorm, Npp8u ∗pDeviceBuffer)

  64-bit float complex L1 norm method on two vectors' difference, return value is 64-bit float.

- NppStatus nppsNormDiffL1GetBufferSize_16s32s_Sfs (int nLength, int ∗hpBufferSize)

  Device-buffer size (in bytes) for nppsNormDiff_L1_16s32s_Sfs.

- NppStatus nppsNormDiff_L1_16s32s_Sfs (const Npp16s ∗pSrc1, const Npp16s ∗pSrc2, int nLength, Npp32s ∗pNorm, int nScaleFactor, Npp8u ∗pDeviceBuffer)

  16-bit signed short integer L1 norm method on two vectors' difference, return value is 32-bit signed integer.

- NppStatus nppsNormDiffL1GetBufferSize_16s64s_Sfs (int nLength, int ∗hpBufferSize)

  Device-buffer size (in bytes) for nppsNormDiff_L1_16s64s_Sfs.

- NppStatus nppsNormDiff_L1_16s64s_Sfs (const Npp16s ∗pSrc1, const Npp16s ∗pSrc2, int nLength, Npp64s ∗pNorm, int nScaleFactor, Npp8u ∗pDeviceBuffer)

16-bit signed short integer L1 norm method on two vectors' difference, return value is 64-bit signed integer.

7.199.1 Function Documentation

7.199.1.1 NppStatus nppsNormDiff_L1_16s32f (const Npp16s ∗ *pSrc1*, const Npp16s ∗ *pSrc2*, int *nLength*, Npp32f ∗ *pNorm*, Npp8u ∗ *pDeviceBuffer*)

16-bit signed short integer L1 norm method on two vectors' difference, return value is 32-bit float.

Parameters:

pSrc1 Source Signal Pointer.

pSrc2 Source Signal Pointer.

nLength Signal Length.

pNorm Pointer to the L1 norm result.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppsNormDiffL1GetBufferSize_16s32f to determine the minium number of bytes required.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.199.1.2 NppStatus nppsNormDiff_L1_16s32s_Sfs (const Npp16s ∗ *pSrc1*, const Npp16s ∗ *pSrc2*, int *nLength*, Npp32s ∗ *pNorm*, int *nScaleFactor*, Npp8u ∗ *pDeviceBuffer*)

16-bit signed short integer L1 norm method on two vectors' difference, return value is 32-bit signed integer.

Parameters:

pSrc1 Source Signal Pointer.

pSrc2 Source Signal Pointer..

nLength Signal Length.

pNorm Pointer to the norm result.

nScaleFactor Integer Result Scaling.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppsNormDiffL1GetBufferSize_16s32s_Sfs to determine the minium number of bytes required.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.199.1.3 NppStatus nppsNormDiff_L1_16s64s_Sfs (const Npp16s ∗ *pSrc1*, const Npp16s ∗ *pSrc2*, int *nLength*, Npp64s ∗ *pNorm*, int *nScaleFactor*, Npp8u ∗ *pDeviceBuffer*)

16-bit signed short integer L1 norm method on two vectors' difference, return value is 64-bit signed integer.

Parameters:

pSrc1 Source Signal Pointer.

pSrc2 Source Signal Pointer.

nLength Signal Length.

pNorm Pointer to the norm result.

nScaleFactor Integer Result Scaling.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppsNormDiffL1GetBufferSize_16s64s_Sfs to determine the minium number of bytes required.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.199.1.4 NppStatus nppsNormDiff_L1_32f (const Npp32f ∗ *pSrc1*, const Npp32f ∗ *pSrc2*, int *nLength*, Npp32f ∗ *pNorm*, Npp8u ∗ *pDeviceBuffer*)

32-bit float L1 norm method on two vectors' difference

Parameters:

pSrc1 Source Signal Pointer.

pSrc2 Source Signal Pointer.

nLength Signal Length.

pNorm Pointer to the norm result.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppsNormDiffL1GetBufferSize_32f to determine the minium number of bytes required.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.199.1.5 NppStatus nppsNormDiff_L1_32fc64f (const Npp32fc ∗ *pSrc1*, const Npp32fc ∗ *pSrc2*, int *nLength*, Npp64f ∗ *pNorm*, Npp8u ∗ *pDeviceBuffer*)

32-bit float complex L1 norm method on two vectors' difference, return value is 64-bit float.

Parameters:

pSrc1 Source Signal Pointer.

pSrc2 Source Signal Pointer.

nLength Signal Length.

pNorm Pointer to the norm result.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppsNormDiffL1GetBufferSize_32fc64f to determine the minium number of bytes required.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.199.1.6 NppStatus nppsNormDiff_L1_64f (const Npp64f * *pSrc1*, const Npp64f * *pSrc2*, int *nLength*, Npp64f * *pNorm*, Npp8u * *pDeviceBuffer*)

64-bit float L1 norm method on two vectors' difference

Parameters:

pSrc1 Source Signal Pointer.

pSrc2 Source Signal Pointer.

nLength Signal Length.

pNorm Pointer to the norm result.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppsNormDiffL1GetBufferSize_64f to determine the minium number of bytes required.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.199.1.7 NppStatus nppsNormDiff_L1_64fc64f (const Npp64fc * *pSrc1*, const Npp64fc * *pSrc2*, int *nLength*, Npp64f * *pNorm*, Npp8u * *pDeviceBuffer*)

64-bit float complex L1 norm method on two vectors' difference, return value is 64-bit float.

Parameters:

pSrc1 Source Signal Pointer.

pSrc2 Source Signal Pointer.

nLength Signal Length.

pNorm Pointer to the norm result.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppsNormDiffL1GetBufferSize_64fc64f to determine the minium number of bytes required.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.199.1.8 NppStatus nppsNormDiffL1GetBufferSize_16s32f (int *nLength*, int * *hpBufferSize*)

Device-buffer size (in bytes) for nppsNormDiff_L1_16s32f.

Parameters:

nLength Signal Length.

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.*

Returns:

NPP_SUCCESS

7.199.1.9 NppStatus nppsNormDiffL1GetBufferSize_16s32s_Sfs (int *nLength*, int ∗ *hpBufferSize*)

Device-buffer size (in bytes) for nppsNormDiff_L1_16s32s_Sfs.

Parameters:

nLength Signal Length.

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.*

Returns:

NPP_SUCCESS

7.199.1.10 NppStatus nppsNormDiffL1GetBufferSize_16s64s_Sfs (int *nLength*, int ∗ *hpBufferSize*)

Device-buffer size (in bytes) for nppsNormDiff_L1_16s64s_Sfs.

Parameters:

nLength Signal Length.

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.*

Returns:

NPP_SUCCESS

7.199.1.11 NppStatus nppsNormDiffL1GetBufferSize_32f (int *nLength*, int ∗ *hpBufferSize*)

Device-buffer size (in bytes) for nppsNormDiff_L1_32f.

Parameters:

nLength Signal Length.

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.*

Returns:

NPP_SUCCESS

7.199.1.12 NppStatus nppsNormDiffL1GetBufferSize_32fc64f (int *nLength*, int ∗ *hpBufferSize*)

Device-buffer size (in bytes) for nppsNormDiff_L1_32fc64f.

Parameters:

nLength Signal Length.

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.*

Returns:

NPP_SUCCESS

7.199.1.13 NppStatus nppsNormDiffL1GetBufferSize_64f (int *nLength*, int * *hpBufferSize*)

Device-buffer size (in bytes) for nppsNormDiff_L1_64f.

Parameters:

nLength Signal Length.

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.*

Returns:

NPP_SUCCESS

7.199.1.14 NppStatus nppsNormDiffL1GetBufferSize_64fc64f (int *nLength*, int * *hpBufferSize*)

Device-buffer size (in bytes) for nppsNormDiff_L1_64fc64f.

Parameters:

nLength Signal Length.

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.*

Returns:

NPP_SUCCESS

7.200 L2 Norm Diff

Functions

- NppStatus nppsNormDiffL2GetBufferSize_32f (int nLength, int ∗hpBufferSize)

  Device-buffer size (in bytes) for nppsNormDiff_L2_32f.

- NppStatus nppsNormDiff_L2_32f (const Npp32f ∗pSrc1, const Npp32f ∗pSrc2, int nLength, Npp32f ∗pNorm, Npp8u ∗pDeviceBuffer)

  32-bit float L2 norm method on two vectors' difference

- NppStatus nppsNormDiffL2GetBufferSize_64f (int nLength, int ∗hpBufferSize)

  Device-buffer size (in bytes) for nppsNormDiff_L2_64f.

- NppStatus nppsNormDiff_L2_64f (const Npp64f ∗pSrc1, const Npp64f ∗pSrc2, int nLength, Npp64f ∗pNorm, Npp8u ∗pDeviceBuffer)

  64-bit float L2 norm method on two vectors' difference

- NppStatus nppsNormDiffL2GetBufferSize_16s32f (int nLength, int ∗hpBufferSize)

  Device-buffer size (in bytes) for nppsNormDiff_L2_16s32f.

- NppStatus nppsNormDiff_L2_16s32f (const Npp16s ∗pSrc1, const Npp16s ∗pSrc2, int nLength, Npp32f ∗pNorm, Npp8u ∗pDeviceBuffer)

  16-bit signed short integer L2 norm method on two vectors' difference, return value is 32-bit float.

- NppStatus nppsNormDiffL2GetBufferSize_32fc64f (int nLength, int ∗hpBufferSize)

  Device-buffer size (in bytes) for nppsNormDiff_L2_32fc64f.

- NppStatus nppsNormDiff_L2_32fc64f (const Npp32fc ∗pSrc1, const Npp32fc ∗pSrc2, int nLength, Npp64f ∗pNorm, Npp8u ∗pDeviceBuffer)

  32-bit float complex L2 norm method on two vectors' difference, return value is 64-bit float.

- NppStatus nppsNormDiffL2GetBufferSize_64fc64f (int nLength, int ∗hpBufferSize)

  Device-buffer size (in bytes) for nppsNormDiff_L2_64fc64f.

- NppStatus nppsNormDiff_L2_64fc64f (const Npp64fc ∗pSrc1, const Npp64fc ∗pSrc2, int nLength, Npp64f ∗pNorm, Npp8u ∗pDeviceBuffer)

  64-bit float complex L2 norm method on two vectors' difference, return value is 64-bit float.

- NppStatus nppsNormDiffL2GetBufferSize_16s32s_Sfs (int nLength, int ∗hpBufferSize)

  Device-buffer size (in bytes) for nppsNormDiff_L2_16s32s_Sfs.

- NppStatus nppsNormDiff_L2_16s32s_Sfs (const Npp16s ∗pSrc1, const Npp16s ∗pSrc2, int nLength, Npp32s ∗pNorm, int nScaleFactor, Npp8u ∗pDeviceBuffer)

  16-bit signed short integer L2 norm method on two vectors' difference, return value is 32-bit signed integer.

- NppStatus nppsNormDiffL2SqrGetBufferSize_16s64s_Sfs (int nLength, int ∗hpBufferSize)

  Device-buffer size (in bytes) for nppsNormDiff_L2Sqr_16s64s_Sfs.

- NppStatus nppsNormDiff_L2Sqr_16s64s_Sfs (const Npp16s ∗pSrc1, const Npp16s ∗pSrc2, int nLength, Npp64s ∗pNorm, int nScaleFactor, Npp8u ∗pDeviceBuffer)

16-bit signed short integer L2 Square norm method on two vectors' difference, return value is 64-bit signed integer.

7.200.1 Function Documentation

7.200.1.1 NppStatus nppsNormDiff_L2_16s32f (const Npp16s ∗ *pSrc1*, const Npp16s ∗ *pSrc2*, int *nLength*, Npp32f ∗ *pNorm*, Npp8u ∗ *pDeviceBuffer*)

16-bit signed short integer L2 norm method on two vectors' difference, return value is 32-bit float.

Parameters:

pSrc1 Source Signal Pointer.

pSrc2 Source Signal Pointer.

nLength Signal Length.

pNorm Pointer to the norm result.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppsNormDiffL2GetBufferSize_16s32f to determine the minium number of bytes required.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.200.1.2 NppStatus nppsNormDiff_L2_16s32s_Sfs (const Npp16s ∗ *pSrc1*, const Npp16s ∗ *pSrc2*, int *nLength*, Npp32s ∗ *pNorm*, int *nScaleFactor*, Npp8u ∗ *pDeviceBuffer*)

16-bit signed short integer L2 norm method on two vectors' difference, return value is 32-bit signed integer.

Parameters:

pSrc1 Source Signal Pointer.

pSrc2 Source Signal Pointer.

nLength Signal Length.

pNorm Pointer to the norm result.

nScaleFactor Integer Result Scaling.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppsNormDiffL2GetBufferSize_16s32s_Sfs to determine the minium number of bytes required.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.200.1.3 NppStatus nppsNormDiff_L2_32f (const Npp32f ∗ *pSrc1*, const Npp32f ∗ *pSrc2*, int *nLength*, Npp32f ∗ *pNorm*, Npp8u ∗ *pDeviceBuffer*)

32-bit float L2 norm method on two vectors' difference

Parameters:

pSrc1 Source Signal Pointer.

pSrc2 Source Signal Pointer.

nLength Signal Length.

pNorm Pointer to the norm result.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppsNormDiffL2GetBufferSize_32f to determine the minium number of bytes required.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.200.1.4 NppStatus nppsNormDiff_L2_32fc64f (const Npp32fc ∗ *pSrc1*, const Npp32fc ∗ *pSrc2*, int *nLength*, Npp64f ∗ *pNorm*, Npp8u ∗ *pDeviceBuffer*)

32-bit float complex L2 norm method on two vectors' difference, return value is 64-bit float.

Parameters:

pSrc1 Source Signal Pointer.

pSrc2 Source Signal Pointer.

nLength Signal Length.

pNorm Pointer to the norm result.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppsNormDiffL2GetBufferSize_32fc64f to determine the minium number of bytes required.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.200.1.5 NppStatus nppsNormDiff_L2_64f (const Npp64f ∗ *pSrc1*, const Npp64f ∗ *pSrc2*, int *nLength*, Npp64f ∗ *pNorm*, Npp8u ∗ *pDeviceBuffer*)

64-bit float L2 norm method on two vectors' difference

Parameters:

pSrc1 Source Signal Pointer.

pSrc2 Source Signal Pointer.

nLength Signal Length.

pNorm Pointer to the norm result.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppsNormDiffL2GetBufferSize_64f to determine the minium number of bytes required.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.200.1.6 NppStatus nppsNormDiff_L2_64fc64f (const Npp64fc ∗ *pSrc1*, const Npp64fc ∗ *pSrc2*, int *nLength*, Npp64f ∗ *pNorm*, Npp8u ∗ *pDeviceBuffer*)

64-bit float complex L2 norm method on two vectors' difference, return value is 64-bit float.

Parameters:

pSrc1 Source Signal Pointer.

pSrc2 Source Signal Pointer.

nLength Signal Length.

pNorm Pointer to the norm result.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppsNormDiffL2GetBufferSize_64fc64f to determine the minium number of bytes required.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.200.1.7 NppStatus nppsNormDiff_L2Sqr_16s64s_Sfs (const Npp16s ∗ *pSrc1*, const Npp16s ∗ *pSrc2*, int *nLength*, Npp64s ∗ *pNorm*, int *nScaleFactor*, Npp8u ∗ *pDeviceBuffer*)

16-bit signed short integer L2 Square norm method on two vectors' difference, return value is 64-bit signed integer.

Parameters:

pSrc1 Source Signal Pointer.

pSrc2 Source Signal Pointer.

nLength Signal Length.

pNorm Pointer to the norm result.

nScaleFactor Integer Result Scaling.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppsNormDiffL2SqrGetBufferSize_16s64s_Sfs to determine the minium number of bytes required.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.200.1.8 NppStatus nppsNormDiffL2GetBufferSize_16s32f (int *nLength*, int ∗ *hpBufferSize*)

Device-buffer size (in bytes) for nppsNormDiff_L2_16s32f.

Parameters:

nLength Signal Length.

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.*

Returns:

NPP_SUCCESS

7.200.1.9 NppStatus nppsNormDiffL2GetBufferSize_16s32s_Sfs (int *nLength*, int ∗ *hpBufferSize*)

Device-buffer size (in bytes) for nppsNormDiff_L2_16s32s_Sfs.

Parameters:

nLength Signal Length.

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.*

Returns:

NPP_SUCCESS

7.200.1.10 NppStatus nppsNormDiffL2GetBufferSize_32f (int *nLength*, int ∗ *hpBufferSize*)

Device-buffer size (in bytes) for nppsNormDiff_L2_32f.

Parameters:

nLength Signal Length.

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.*

Returns:

NPP_SUCCESS

7.200.1.11 NppStatus nppsNormDiffL2GetBufferSize_32fc64f (int *nLength*, int ∗ *hpBufferSize*)

Device-buffer size (in bytes) for nppsNormDiff_L2_32fc64f.

Parameters:

nLength Signal Length.

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.*

Returns:

NPP_SUCCESS

7.200.1.12 NppStatus nppsNormDiffL2GetBufferSize_64f (int *nLength*, int ∗ *hpBufferSize*)

Device-buffer size (in bytes) for nppsNormDiff_L2_64f.

Parameters:

nLength Signal Length.

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.*

Returns:

NPP_SUCCESS

7.200.1.13 NppStatus nppsNormDiffL2GetBufferSize_64fc64f (int *nLength*, int ∗ *hpBufferSize*)

Device-buffer size (in bytes) for nppsNormDiff_L2_64fc64f.

Parameters:

nLength Signal Length.

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.*

Returns:

NPP_SUCCESS

7.200.1.14 NppStatus nppsNormDiffL2SqrGetBufferSize_16s64s_Sfs (int *nLength*, int ∗ *hpBufferSize*)

Device-buffer size (in bytes) for nppsNormDiff_L2Sqr_16s64s_Sfs.

Parameters:

nLength Signal Length.

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.*

Returns:

NPP_SUCCESS

7.201 Dot Product

Functions

- NppStatus nppsDotProdGetBufferSize_32f (int nLength, int ∗hpBufferSize)

  Device-buffer size (in bytes) for nppsDotProd_32f.

- NppStatus nppsDotProd_32f (const Npp32f ∗pSrc1, const Npp32f ∗pSrc2, int nLength, Npp32f ∗pDp, Npp8u ∗pDeviceBuffer)

  32-bit float dot product method, return value is 32-bit float.

- NppStatus nppsDotProdGetBufferSize_32fc (int nLength, int ∗hpBufferSize)

  Device-buffer size (in bytes) for nppsDotProd_32fc.

- NppStatus nppsDotProd_32fc (const Npp32fc ∗pSrc1, const Npp32fc ∗pSrc2, int nLength, Npp32fc ∗pDp, Npp8u ∗pDeviceBuffer)

  32-bit float complex dot product method, return value is 32-bit float complex.

- NppStatus nppsDotProdGetBufferSize_32f32fc (int nLength, int ∗hpBufferSize)

  Device-buffer size (in bytes) for nppsDotProd_32f32fc.

- NppStatus nppsDotProd_32f32fc (const Npp32f ∗pSrc1, const Npp32fc ∗pSrc2, int nLength, Npp32fc ∗pDp, Npp8u ∗pDeviceBuffer)

  32-bit float and 32-bit float complex dot product method, return value is 32-bit float complex.

- NppStatus nppsDotProdGetBufferSize_32f64f (int nLength, int ∗hpBufferSize)

  Device-buffer size (in bytes) for nppsDotProd_32f64f.

- NppStatus nppsDotProd_32f64f (const Npp32f ∗pSrc1, const Npp32f ∗pSrc2, int nLength, Npp64f ∗pDp, Npp8u ∗pDeviceBuffer)

  32-bit float dot product method, return value is 64-bit float.

- NppStatus nppsDotProdGetBufferSize_32fc64fc (int nLength, int ∗hpBufferSize)

  Device-buffer size (in bytes) for nppsDotProd_32fc64fc.

- NppStatus nppsDotProd_32fc64fc (const Npp32fc ∗pSrc1, const Npp32fc ∗pSrc2, int nLength, Npp64fc ∗pDp, Npp8u ∗pDeviceBuffer)

  32-bit float complex dot product method, return value is 64-bit float complex.

- NppStatus nppsDotProdGetBufferSize_32f32fc64fc (int nLength, int ∗hpBufferSize)

  Device-buffer size (in bytes) for nppsDotProd_32f32fc64fc.

- NppStatus nppsDotProd_32f32fc64fc (const Npp32f ∗pSrc1, const Npp32fc ∗pSrc2, int nLength, Npp64fc ∗pDp, Npp8u ∗pDeviceBuffer)

  32-bit float and 32-bit float complex dot product method, return value is 64-bit float complex.

- NppStatus nppsDotProdGetBufferSize_64f (int nLength, int ∗hpBufferSize)

  Device-buffer size (in bytes) for nppsDotProd_64f.

- NppStatus nppsDotProd_64f (const Npp64f ∗pSrc1, const Npp64f ∗pSrc2, int nLength, Npp64f ∗pDp, Npp8u ∗pDeviceBuffer)

64-bit float dot product method, return value is 64-bit float.

- NppStatus nppsDotProdGetBufferSize_64fc (int nLength, int ∗hpBufferSize)

  Device-buffer size (in bytes) for nppsDotProd_64fc.

- NppStatus nppsDotProd_64fc (const Npp64fc ∗pSrc1, const Npp64fc ∗pSrc2, int nLength, Npp64fc ∗pDp, Npp8u ∗pDeviceBuffer)

  64-bit float complex dot product method, return value is 64-bit float complex.

- NppStatus nppsDotProdGetBufferSize_64f64fc (int nLength, int ∗hpBufferSize)

  Device-buffer size (in bytes) for nppsDotProd_64f64fc.

- NppStatus nppsDotProd_64f64fc (const Npp64f ∗pSrc1, const Npp64fc ∗pSrc2, int nLength, Npp64fc ∗pDp, Npp8u ∗pDeviceBuffer)

  64-bit float and 64-bit float complex dot product method, return value is 64-bit float complex.

- NppStatus nppsDotProdGetBufferSize_16s64s (int nLength, int ∗hpBufferSize)

  Device-buffer size (in bytes) for nppsDotProd_16s64s.

- NppStatus nppsDotProd_16s64s (const Npp16s ∗pSrc1, const Npp16s ∗pSrc2, int nLength, Npp64s ∗pDp, Npp8u ∗pDeviceBuffer)

  16-bit signed short integer dot product method, return value is 64-bit signed integer.

- NppStatus nppsDotProdGetBufferSize_16sc64sc (int nLength, int ∗hpBufferSize)

  Device-buffer size (in bytes) for nppsDotProd_16sc64sc.

- NppStatus nppsDotProd_16sc64sc (const Npp16sc ∗pSrc1, const Npp16sc ∗pSrc2, int nLength, Npp64sc ∗pDp, Npp8u ∗pDeviceBuffer)

  16-bit signed short integer complex dot product method, return value is 64-bit signed integer complex.

- NppStatus nppsDotProdGetBufferSize_16s16sc64sc (int nLength, int ∗hpBufferSize)

  Device-buffer size (in bytes) for nppsDotProd_16s16sc64sc.

- NppStatus nppsDotProd_16s16sc64sc (const Npp16s ∗pSrc1, const Npp16sc ∗pSrc2, int nLength, Npp64sc ∗pDp, Npp8u ∗pDeviceBuffer)

  16-bit signed short integer and 16-bit signed short integer short dot product method, return value is 64-bit signed integer complex.

- NppStatus nppsDotProdGetBufferSize_16s32f (int nLength, int ∗hpBufferSize)

  Device-buffer size (in bytes) for nppsDotProd_16s32f.

- NppStatus nppsDotProd_16s32f (const Npp16s ∗pSrc1, const Npp16s ∗pSrc2, int nLength, Npp32f ∗pDp, Npp8u ∗pDeviceBuffer)

  16-bit signed short integer dot product method, return value is 32-bit float.

- NppStatus nppsDotProdGetBufferSize_16sc32fc (int nLength, int ∗hpBufferSize)

  Device-buffer size (in bytes) for nppsDotProd_16sc32fc.

- NppStatus nppsDotProd_16sc32fc (const Npp16sc ∗pSrc1, const Npp16sc ∗pSrc2, int nLength, Npp32fc ∗pDp, Npp8u ∗pDeviceBuffer)

  16-bit signed short integer complex dot product method, return value is 32-bit float complex.

- NppStatus nppsDotProdGetBufferSize_16s16sc32fc (int nLength, int ∗hpBufferSize)

  Device-buffer size (in bytes) for nppsDotProd_16s16sc32fc.

- NppStatus nppsDotProd_16s16sc32fc (const Npp16s ∗pSrc1, const Npp16sc ∗pSrc2, int nLength, Npp32fc ∗pDp, Npp8u ∗pDeviceBuffer)

  16-bit signed short integer and 16-bit signed short integer complex dot product method, return value is 32-bit float complex.

- NppStatus nppsDotProdGetBufferSize_16s_Sfs (int nLength, int ∗hpBufferSize)

  Device-buffer size (in bytes) for nppsDotProd_16s_Sfs.

- NppStatus nppsDotProd_16s_Sfs (const Npp16s ∗pSrc1, const Npp16s ∗pSrc2, int nLength, Npp16s ∗pDp, int nScaleFactor, Npp8u ∗pDeviceBuffer)

  16-bit signed short integer dot product method, return value is 16-bit signed short integer.

- NppStatus nppsDotProdGetBufferSize_16sc_Sfs (int nLength, int ∗hpBufferSize)

  Device-buffer size (in bytes) for nppsDotProd_16sc_Sfs.

- NppStatus nppsDotProd_16sc_Sfs (const Npp16sc ∗pSrc1, const Npp16sc ∗pSrc2, int nLength, Npp16sc ∗pDp, int nScaleFactor, Npp8u ∗pDeviceBuffer)

  16-bit signed short integer complex dot product method, return value is 16-bit signed short integer complex.

- NppStatus nppsDotProdGetBufferSize_32s_Sfs (int nLength, int ∗hpBufferSize)

  Device-buffer size (in bytes) for nppsDotProd_32s_Sfs.

- NppStatus nppsDotProd_32s_Sfs (const Npp32s ∗pSrc1, const Npp32s ∗pSrc2, int nLength, Npp32s ∗pDp, int nScaleFactor, Npp8u ∗pDeviceBuffer)

  32-bit signed integer dot product method, return value is 32-bit signed integer.

- NppStatus nppsDotProdGetBufferSize_32sc_Sfs (int nLength, int ∗hpBufferSize)

  Device-buffer size (in bytes) for nppsDotProd_32sc_Sfs.

- NppStatus nppsDotProd_32sc_Sfs (const Npp32sc ∗pSrc1, const Npp32sc ∗pSrc2, int nLength, Npp32sc ∗pDp, int nScaleFactor, Npp8u ∗pDeviceBuffer)

  32-bit signed integer complex dot product method, return value is 32-bit signed integer complex.

- NppStatus nppsDotProdGetBufferSize_16s32s_Sfs (int nLength, int ∗hpBufferSize)

  Device-buffer size (in bytes) for nppsDotProd_16s32s_Sfs.

- NppStatus nppsDotProd_16s32s_Sfs (const Npp16s ∗pSrc1, const Npp16s ∗pSrc2, int nLength, Npp32s ∗pDp, int nScaleFactor, Npp8u ∗pDeviceBuffer)

  16-bit signed short integer dot product method, return value is 32-bit signed integer.

- NppStatus nppsDotProdGetBufferSize_16s16sc32sc_Sfs (int nLength, int ∗hpBufferSize)

  Device-buffer size (in bytes) for nppsDotProd_16s16sc32sc_Sfs.

- NppStatus nppsDotProd_16s16sc32sc_Sfs (const Npp16s ∗pSrc1, const Npp16sc ∗pSrc2, int nLength, Npp32sc ∗pDp, int nScaleFactor, Npp8u ∗pDeviceBuffer)

  16-bit signed short integer and 16-bit signed short integer complex dot product method, return value is 32-bit signed integer complex.

- NppStatus nppsDotProdGetBufferSize_16s32s32s_Sfs (int nLength, int ∗hpBufferSize)

  Device-buffer size (in bytes) for nppsDotProd_16s32s32s_Sfs.

- NppStatus nppsDotProd_16s32s32s_Sfs (const Npp16s ∗pSrc1, const Npp32s ∗pSrc2, int nLength, Npp32s ∗pDp, int nScaleFactor, Npp8u ∗pDeviceBuffer)

  16-bit signed short integer and 32-bit signed integer dot product method, return value is 32-bit signed integer.

- NppStatus nppsDotProdGetBufferSize_16s16sc_Sfs (int nLength, int ∗hpBufferSize)

  Device-buffer size (in bytes) for nppsDotProd_16s16sc_Sfs.

- NppStatus nppsDotProd_16s16sc_Sfs (const Npp16s ∗pSrc1, const Npp16sc ∗pSrc2, int nLength, Npp16sc ∗pDp, int nScaleFactor, Npp8u ∗pDeviceBuffer)

  16-bit signed short integer and 16-bit signed short integer complex dot product method, return value is 16-bit signed short integer complex.

- NppStatus nppsDotProdGetBufferSize_16sc32sc_Sfs (int nLength, int ∗hpBufferSize)

  Device-buffer size (in bytes) for nppsDotProd_16sc32sc_Sfs.

- NppStatus nppsDotProd_16sc32sc_Sfs (const Npp16sc ∗pSrc1, const Npp16sc ∗pSrc2, int nLength, Npp32sc ∗pDp, int nScaleFactor, Npp8u ∗pDeviceBuffer)

  16-bit signed short integer complex dot product method, return value is 32-bit signed integer complex.

- NppStatus nppsDotProdGetBufferSize_32s32sc_Sfs (int nLength, int ∗hpBufferSize)

  Device-buffer size (in bytes) for nppsDotProd_32s32sc_Sfs.

- NppStatus nppsDotProd_32s32sc_Sfs (const Npp32s ∗pSrc1, const Npp32sc ∗pSrc2, int nLength, Npp32sc ∗pDp, int nScaleFactor, Npp8u ∗pDeviceBuffer)

  32-bit signed short integer and 32-bit signed short integer complex dot product method, return value is 32-bit signed integer complex.

7.201.1 Function Documentation

7.201.1.1 NppStatus nppsDotProd_16s16sc32fc (const Npp16s ∗ *pSrc1*, const Npp16sc ∗ *pSrc2*, int *nLength*, Npp32fc ∗ *pDp*, Npp8u ∗ *pDeviceBuffer*)

16-bit signed short integer and 16-bit signed short integer complex dot product method, return value is 32-bit float complex.

Parameters:

pSrc1 Source Signal Pointer.

pSrc2 Source Signal Pointer.

nLength Signal Length.

pDp Pointer to the dot product result.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppsDotProdGetBufferSize_16s16sc32fc to determine the minium number of bytes required.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.201.1.2 NppStatus nppsDotProd_16s16sc32sc_Sfs (const Npp16s ∗ *pSrc1*, const Npp16sc ∗ *pSrc2*, int *nLength*, Npp32sc ∗ *pDp*, int *nScaleFactor*, Npp8u ∗ *pDeviceBuffer*)

16-bit signed short integer and 16-bit signed short integer complex dot product method, return value is 32-bit signed integer complex.

Parameters:

pSrc1 Source Signal Pointer.

pSrc2 Source Signal Pointer.

nLength Signal Length.

pDp Pointer to the dot product result.

nScaleFactor Integer Result Scaling.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppsDotProdGetBufferSize_16s16sc32sc_Sfs to determine the minium number of bytes required.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.201.1.3 NppStatus nppsDotProd_16s16sc64sc (const Npp16s ∗ *pSrc1*, const Npp16sc ∗ *pSrc2*, int *nLength*, Npp64sc ∗ *pDp*, Npp8u ∗ *pDeviceBuffer*)

16-bit signed short integer and 16-bit signed short integer short dot product method, return value is 64-bit signed integer complex.

Parameters:

pSrc1 Source Signal Pointer.

pSrc2 Source Signal Pointer.

nLength Signal Length.

pDp Pointer to the dot product result.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppsDotProdGetBufferSize_16s16sc64sc to determine the minium number of bytes required.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.201.1.4 NppStatus nppsDotProd_16s16sc_Sfs (const Npp16s * *pSrc1*, const Npp16sc * *pSrc2*, int *nLength*, Npp16sc * *pDp*, int *nScaleFactor*, Npp8u * *pDeviceBuffer*)

16-bit signed short integer and 16-bit signed short integer complex dot product method, return value is 16-bit signed short integer complex.

Parameters:

pSrc1 Source Signal Pointer.

pSrc2 Source Signal Pointer.

nLength Signal Length.

pDp Pointer to the dot product result.

nScaleFactor Integer Result Scaling.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppsDotProdGetBufferSize_16s16sc_Sfs to determine the minium number of bytes required.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.201.1.5 NppStatus nppsDotProd_16s32f (const Npp16s * *pSrc1*, const Npp16s * *pSrc2*, int *nLength*, Npp32f * *pDp*, Npp8u * *pDeviceBuffer*)

16-bit signed short integer dot product method, return value is 32-bit float.

Parameters:

pSrc1 Source Signal Pointer.

pSrc2 Source Signal Pointer.

nLength Signal Length.

pDp Pointer to the dot product result.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppsDotProdGetBufferSize_16s32f to determine the minium number of bytes required.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.201.1.6 NppStatus nppsDotProd_16s32s32s_Sfs (const Npp16s * *pSrc1*, const Npp32s * *pSrc2*, int *nLength*, Npp32s * *pDp*, int *nScaleFactor*, Npp8u * *pDeviceBuffer*)

16-bit signed short integer and 32-bit signed integer dot product method, return value is 32-bit signed integer.

Parameters:

pSrc1 Source Signal Pointer.

pSrc2 Source Signal Pointer.

nLength Signal Length.

pDp Pointer to the dot product result.

nScaleFactor Integer Result Scaling.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppsDotProdGetBufferSize_16s32s32s_Sfs to determine the minium number of bytes required.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.201.1.7 NppStatus nppsDotProd_16s32s_Sfs (const Npp16s ∗ *pSrc1*, const Npp16s ∗ *pSrc2*, int *nLength*, Npp32s ∗ *pDp*, int *nScaleFactor*, Npp8u ∗ *pDeviceBuffer*)

16-bit signed short integer dot product method, return value is 32-bit signed integer.

Parameters:

pSrc1 Source Signal Pointer.

pSrc2 Source Signal Pointer.

nLength Signal Length.

pDp Pointer to the dot product result.

nScaleFactor Integer Result Scaling.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppsDotProdGetBufferSize_16s32s_Sfs to determine the minium number of bytes required.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.201.1.8 NppStatus nppsDotProd_16s64s (const Npp16s ∗ *pSrc1*, const Npp16s ∗ *pSrc2*, int *nLength*, Npp64s ∗ *pDp*, Npp8u ∗ *pDeviceBuffer*)

16-bit signed short integer dot product method, return value is 64-bit signed integer.

Parameters:

pSrc1 Source Signal Pointer.

pSrc2 Source Signal Pointer.

nLength Signal Length.

pDp Pointer to the dot product result.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppsDotProdGetBufferSize_16s64s to determine the minium number of bytes required.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.201.1.9 NppStatus nppsDotProd_16s_Sfs (const Npp16s ∗ *pSrc1*, const Npp16s ∗ *pSrc2*, int *nLength*, Npp16s ∗ *pDp*, int *nScaleFactor*, Npp8u ∗ *pDeviceBuffer*)

16-bit signed short integer dot product method, return value is 16-bit signed short integer.

Parameters:

pSrc1 Source Signal Pointer.

pSrc2 Source Signal Pointer.

nLength Signal Length.

pDp Pointer to the dot product result.

nScaleFactor Integer Result Scaling.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppsDotProdGetBufferSize_16s_Sfs to determine the minium number of bytes required.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.201.1.10 NppStatus nppsDotProd_16sc32fc (const Npp16sc ∗ *pSrc1*, const Npp16sc ∗ *pSrc2*, int *nLength*, Npp32fc ∗ *pDp*, Npp8u ∗ *pDeviceBuffer*)

16-bit signed short integer complex dot product method, return value is 32-bit float complex.

Parameters:

pSrc1 Source Signal Pointer.

pSrc2 Source Signal Pointer.

nLength Signal Length.

pDp Pointer to the dot product result.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppsDotProdGetBufferSize_16sc32fc to determine the minium number of bytes required.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.201.1.11 NppStatus nppsDotProd_16sc32sc_Sfs (const Npp16sc ∗ *pSrc1*, const Npp16sc ∗ *pSrc2*, int *nLength*, Npp32sc ∗ *pDp*, int *nScaleFactor*, Npp8u ∗ *pDeviceBuffer*)

16-bit signed short integer complex dot product method, return value is 32-bit signed integer complex.

Parameters:

pSrc1 Source Signal Pointer.

pSrc2 Source Signal Pointer.

nLength Signal Length.

pDp Pointer to the dot product result.

nScaleFactor Integer Result Scaling.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppsDotProdGetBufferSize_16sc32sc_Sfs to determine the minium number of bytes required.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.201.1.12 NppStatus nppsDotProd_16sc64sc (const Npp16sc * *pSrc1*, const Npp16sc * *pSrc2*, int *nLength*, Npp64sc * *pDp*, Npp8u * *pDeviceBuffer*)

16-bit signed short integer complex dot product method, return value is 64-bit signed integer complex.

Parameters:

pSrc1 Source Signal Pointer.

pSrc2 Source Signal Pointer.

nLength Signal Length.

pDp Pointer to the dot product result.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppsDotProdGetBufferSize_16sc64sc to determine the minium number of bytes required.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.201.1.13 NppStatus nppsDotProd_16sc_Sfs (const Npp16sc * *pSrc1*, const Npp16sc * *pSrc2*, int *nLength*, Npp16sc * *pDp*, int *nScaleFactor*, Npp8u * *pDeviceBuffer*)

16-bit signed short integer complex dot product method, return value is 16-bit signed short integer complex.

Parameters:

pSrc1 Source Signal Pointer.

pSrc2 Source Signal Pointer.

nLength Signal Length.

pDp Pointer to the dot product result.

nScaleFactor Integer Result Scaling.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppsDotProdGetBufferSize_16sc_Sfs to determine the minium number of bytes required.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.201.1.14 NppStatus nppsDotProd_32f (const Npp32f ∗ *pSrc1*, const Npp32f ∗ *pSrc2*, int *nLength*, Npp32f ∗ *pDp*, Npp8u ∗ *pDeviceBuffer*)

32-bit float dot product method, return value is 32-bit float.

Parameters:

pSrc1 Source Signal Pointer.

pSrc2 Source Signal Pointer.

nLength Signal Length.

pDp Pointer to the dot product result.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppsDotProdGetBufferSize_32f to determine the minium number of bytes required.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.201.1.15 NppStatus nppsDotProd_32f32fc (const Npp32f ∗ *pSrc1*, const Npp32fc ∗ *pSrc2*, int *nLength*, Npp32fc ∗ *pDp*, Npp8u ∗ *pDeviceBuffer*)

32-bit float and 32-bit float complex dot product method, return value is 32-bit float complex.

Parameters:

pSrc1 Source Signal Pointer.

pSrc2 Source Signal Pointer.

nLength Signal Length.

pDp Pointer to the dot product result.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppsDotProdGetBufferSize_32f32fc to determine the minium number of bytes required.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.201.1.16 NppStatus nppsDotProd_32f32fc64fc (const Npp32f ∗ *pSrc1*, const Npp32fc ∗ *pSrc2*, int *nLength*, Npp64fc ∗ *pDp*, Npp8u ∗ *pDeviceBuffer*)

32-bit float and 32-bit float complex dot product method, return value is 64-bit float complex.

Parameters:

pSrc1 Source Signal Pointer.

pSrc2 Source Signal Pointer.

nLength Signal Length.

pDp Pointer to the dot product result.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppsDotProdGetBufferSize_32f32fc64fc to determine the minium number of bytes required.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.201.1.17 NppStatus nppsDotProd_32f64f (const Npp32f ∗ *pSrc1*, const Npp32f ∗ *pSrc2*, int *nLength*, Npp64f ∗ *pDp*, Npp8u ∗ *pDeviceBuffer*)

32-bit float dot product method, return value is 64-bit float.

Parameters:

pSrc1 Source Signal Pointer.

pSrc2 Source Signal Pointer.

nLength Signal Length.

pDp Pointer to the dot product result.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppsDotProdGetBufferSize_32f64f to determine the minium number of bytes required.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.201.1.18 NppStatus nppsDotProd_32fc (const Npp32fc ∗ *pSrc1*, const Npp32fc ∗ *pSrc2*, int *nLength*, Npp32fc ∗ *pDp*, Npp8u ∗ *pDeviceBuffer*)

32-bit float complex dot product method, return value is 32-bit float complex.

Parameters:

pSrc1 Source Signal Pointer.

pSrc2 Source Signal Pointer.

nLength Signal Length.

pDp Pointer to the dot product result.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppsDotProdGetBufferSize_32fc to determine the minium number of bytes required.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.201.1.19 NppStatus nppsDotProd_32fc64fc (const Npp32fc ∗ *pSrc1*, const Npp32fc ∗ *pSrc2*, int *nLength*, Npp64fc ∗ *pDp*, Npp8u ∗ *pDeviceBuffer*)

32-bit float complex dot product method, return value is 64-bit float complex.

Parameters:

pSrc1 Source Signal Pointer.

pSrc2 Source Signal Pointer.

nLength Signal Length.

pDp Pointer to the dot product result.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppsDotProdGetBufferSize_32fc64fc to determine the minium number of bytes required.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.201.1.20 NppStatus nppsDotProd_32s32sc_Sfs (const Npp32s ∗ *pSrc1*, const Npp32sc ∗ *pSrc2*, int *nLength*, Npp32sc ∗ *pDp*, int *nScaleFactor*, Npp8u ∗ *pDeviceBuffer*)

32-bit signed short integer and 32-bit signed short integer complex dot product method, return value is 32-bit signed integer complex.

Parameters:

pSrc1 Source Signal Pointer.

pSrc2 Source Signal Pointer.

nLength Signal Length.

pDp Pointer to the dot product result.

nScaleFactor Integer Result Scaling.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppsDotProdGetBufferSize_32s32sc_Sfs to determine the minium number of bytes required.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.201.1.21 NppStatus nppsDotProd_32s_Sfs (const Npp32s ∗ *pSrc1*, const Npp32s ∗ *pSrc2*, int *nLength*, Npp32s ∗ *pDp*, int *nScaleFactor*, Npp8u ∗ *pDeviceBuffer*)

32-bit signed integer dot product method, return value is 32-bit signed integer.

Parameters:

pSrc1 Source Signal Pointer.

pSrc2 Source Signal Pointer.

nLength Signal Length.

pDp Pointer to the dot product result.

nScaleFactor Integer Result Scaling.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppsDotProdGetBufferSize_32s_Sfs to determine the minium number of bytes required.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.201.1.22 NppStatus nppsDotProd_32sc_Sfs (const Npp32sc ∗ *pSrc1*, const Npp32sc ∗ *pSrc2*, int *nLength*, Npp32sc ∗ *pDp*, int *nScaleFactor*, Npp8u ∗ *pDeviceBuffer*)

32-bit signed integer complex dot product method, return value is 32-bit signed integer complex.

Parameters:

pSrc1 Source Signal Pointer.

pSrc2 Source Signal Pointer.

nLength Signal Length.

pDp Pointer to the dot product result.

nScaleFactor Integer Result Scaling.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppsDotProdGetBufferSize_32sc_Sfs to determine the minium number of bytes required.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.201.1.23 NppStatus nppsDotProd_64f (const Npp64f ∗ *pSrc1*, const Npp64f ∗ *pSrc2*, int *nLength*, Npp64f ∗ *pDp*, Npp8u ∗ *pDeviceBuffer*)

64-bit float dot product method, return value is 64-bit float.

Parameters:

pSrc1 Source Signal Pointer.

pSrc2 Source Signal Pointer.

nLength Signal Length.

pDp Pointer to the dot product result.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppsDotProdGetBufferSize_64f to determine the minium number of bytes required.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.201.1.24 NppStatus nppsDotProd_64f64fc (const Npp64f ∗ *pSrc1*, const Npp64fc ∗ *pSrc2*, int *nLength*, Npp64fc ∗ *pDp*, Npp8u ∗ *pDeviceBuffer*)

64-bit float and 64-bit float complex dot product method, return value is 64-bit float complex.

Parameters:

pSrc1 Source Signal Pointer.

pSrc2 Source Signal Pointer.

nLength Signal Length.

pDp Pointer to the dot product result.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppsDotProdGetBufferSize_64f64fc to determine the minium number of bytes required.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.201.1.25 NppStatus nppsDotProd_64fc (const Npp64fc * *pSrc1*, const Npp64fc * *pSrc2*, int *nLength*, Npp64fc * *pDp*, Npp8u * *pDeviceBuffer*)

64-bit float complex dot product method, return value is 64-bit float complex.

Parameters:

pSrc1 Source Signal Pointer.

pSrc2 Source Signal Pointer.

nLength Signal Length.

pDp Pointer to the dot product result.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppsDotProdGetBufferSize_64fc to determine the minium number of bytes required.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.201.1.26 NppStatus nppsDotProdGetBufferSize_16s16sc32fc (int *nLength*, int * *hpBufferSize*)

Device-buffer size (in bytes) for nppsDotProd_16s16sc32fc.

Parameters:

nLength Signal Length.

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.*

Returns:

NPP_SUCCESS

7.201.1.27 NppStatus nppsDotProdGetBufferSize_16s16sc32sc_Sfs (int *nLength*, int * *hpBufferSize*)

Device-buffer size (in bytes) for nppsDotProd_16s16sc32sc_Sfs.

Parameters:

nLength Signal Length.

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.*

Returns:

NPP_SUCCESS

7.201.1.28 NppStatus nppsDotProdGetBufferSize_16s16sc64sc (int *nLength*, int * *hpBufferSize*)

Device-buffer size (in bytes) for nppsDotProd_16s16sc64sc.

Parameters:

nLength Signal Length.

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.*

Returns:

NPP_SUCCESS

7.201.1.29 NppStatus nppsDotProdGetBufferSize_16s16sc_Sfs (int *nLength*, int * *hpBufferSize*)

Device-buffer size (in bytes) for nppsDotProd_16s16sc_Sfs.

Parameters:

nLength Signal Length.

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.*

Returns:

NPP_SUCCESS

7.201.1.30 NppStatus nppsDotProdGetBufferSize_16s32f (int *nLength*, int * *hpBufferSize*)

Device-buffer size (in bytes) for nppsDotProd_16s32f.

Parameters:

nLength Signal Length.

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.*

Returns:

NPP_SUCCESS

7.201.1.31 NppStatus nppsDotProdGetBufferSize_16s32s32s_Sfs (int *nLength*, int * *hpBufferSize*)

Device-buffer size (in bytes) for nppsDotProd_16s32s32s_Sfs.

Parameters:

nLength Signal Length.

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.*

Returns:

NPP_SUCCESS

7.201.1.32 NppStatus nppsDotProdGetBufferSize_16s32s_Sfs (int *nLength*, int ∗ *hpBufferSize*)

Device-buffer size (in bytes) for nppsDotProd_16s32s_Sfs.

Parameters:

nLength Signal Length.

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.*

Returns:

NPP_SUCCESS

7.201.1.33 NppStatus nppsDotProdGetBufferSize_16s64s (int *nLength*, int ∗ *hpBufferSize*)

Device-buffer size (in bytes) for nppsDotProd_16s64s.

Parameters:

nLength Signal Length.

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.*

Returns:

NPP_SUCCESS

7.201.1.34 NppStatus nppsDotProdGetBufferSize_16s_Sfs (int *nLength*, int ∗ *hpBufferSize*)

Device-buffer size (in bytes) for nppsDotProd_16s_Sfs.

Parameters:

nLength Signal Length.

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.*

Returns:

NPP_SUCCESS

7.201.1.35 NppStatus nppsDotProdGetBufferSize_16sc32fc (int *nLength*, int ∗ *hpBufferSize*)

Device-buffer size (in bytes) for nppsDotProd_16sc32fc.

Parameters:

nLength Signal Length.

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.*

Returns:

NPP_SUCCESS

7.201.1.36 NppStatus nppsDotProdGetBufferSize_16sc32sc_Sfs (int *nLength*, int ∗ *hpBufferSize*)

Device-buffer size (in bytes) for nppsDotProd_16sc32sc_Sfs.

Parameters:

nLength Signal Length.

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.*

Returns:

NPP_SUCCESS

7.201.1.37 NppStatus nppsDotProdGetBufferSize_16sc64sc (int *nLength*, int ∗ *hpBufferSize*)

Device-buffer size (in bytes) for nppsDotProd_16sc64sc.

Parameters:

nLength Signal Length.

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.*

Returns:

NPP_SUCCESS

7.201.1.38 NppStatus nppsDotProdGetBufferSize_16sc_Sfs (int *nLength*, int ∗ *hpBufferSize*)

Device-buffer size (in bytes) for nppsDotProd_16sc_Sfs.

Parameters:

nLength Signal Length.

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.*

Returns:

NPP_SUCCESS

7.201.1.39 NppStatus nppsDotProdGetBufferSize_32f (int *nLength*, int ∗ *hpBufferSize*)

Device-buffer size (in bytes) for nppsDotProd_32f.

Parameters:

nLength Signal Length.

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.*

Returns:

NPP_SUCCESS

7.201.1.40 NppStatus nppsDotProdGetBufferSize_32f32fc (int *nLength*, int ∗ *hpBufferSize*)

Device-buffer size (in bytes) for nppsDotProd_32f32fc.

Parameters:

nLength Signal Length.

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.*

Returns:

NPP_SUCCESS

7.201.1.41 NppStatus nppsDotProdGetBufferSize_32f32fc64fc (int *nLength*, int ∗ *hpBufferSize*)

Device-buffer size (in bytes) for nppsDotProd_32f32fc64fc.

Parameters:

nLength Signal Length.

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.*

Returns:

NPP_SUCCESS

7.201.1.42 NppStatus nppsDotProdGetBufferSize_32f64f (int *nLength*, int ∗ *hpBufferSize*)

Device-buffer size (in bytes) for nppsDotProd_32f64f.

Parameters:

nLength Signal Length.

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.*

Returns:

NPP_SUCCESS

7.201.1.43 NppStatus nppsDotProdGetBufferSize_32fc (int *nLength*, int ∗ *hpBufferSize*)

Device-buffer size (in bytes) for nppsDotProd_32fc.

Parameters:

nLength Signal Length.

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.*

Returns:

NPP_SUCCESS

7.201.1.44 NppStatus nppsDotProdGetBufferSize_32fc64fc (int *nLength*, int ∗ *hpBufferSize*)

Device-buffer size (in bytes) for nppsDotProd_32fc64fc.

Parameters:

nLength Signal Length.

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.*

Returns:

NPP_SUCCESS

7.201.1.45 NppStatus nppsDotProdGetBufferSize_32s32sc_Sfs (int *nLength*, int ∗ *hpBufferSize*)

Device-buffer size (in bytes) for nppsDotProd_32s32sc_Sfs.

Parameters:

nLength Signal Length.

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.*

Returns:

NPP_SUCCESS

7.201.1.46 NppStatus nppsDotProdGetBufferSize_32s_Sfs (int *nLength*, int ∗ *hpBufferSize*)

Device-buffer size (in bytes) for nppsDotProd_32s_Sfs.

Parameters:

nLength Signal Length.

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.*

Returns:

NPP_SUCCESS

7.201.1.47 NppStatus nppsDotProdGetBufferSize_32sc_Sfs (int *nLength*, int ∗ *hpBufferSize*)

Device-buffer size (in bytes) for nppsDotProd_32sc_Sfs.

Parameters:

nLength Signal Length.

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.*

Returns:

NPP_SUCCESS

7.201.1.48 NppStatus nppsDotProdGetBufferSize_64f (int *nLength*, int ∗ *hpBufferSize*)

Device-buffer size (in bytes) for nppsDotProd_64f.

Parameters:

nLength Signal Length.

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.*

Returns:

NPP_SUCCESS

7.201.1.49 NppStatus nppsDotProdGetBufferSize_64f64fc (int *nLength*, int ∗ *hpBufferSize*)

Device-buffer size (in bytes) for nppsDotProd_64f64fc.

Parameters:

nLength Signal Length.

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.*

Returns:

NPP_SUCCESS

7.201.1.50 NppStatus nppsDotProdGetBufferSize_64fc (int *nLength*, int ∗ *hpBufferSize*)

Device-buffer size (in bytes) for nppsDotProd_64fc.

Parameters:

nLength Signal Length.

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.*

Returns:

NPP_SUCCESS

7.202 Count In Range

Functions

- NppStatus nppsCountInRangeGetBufferSize_32s (int nLength, int ∗hpBufferSize)

  Device-buffer size (in bytes) for nppsCountInRange_32s.

- NppStatus nppsCountInRange_32s (const Npp32s ∗pSrc, int nLength, int ∗pCounts, Npp32s nLowerBound, Npp32s nUpperBound, Npp8u ∗pDeviceBuffer)

  Computes the number of elements whose values fall into the specified range on a 32-bit signed integer array.

7.202.1 Function Documentation

7.202.1.1 NppStatus nppsCountInRange_32s (const Npp32s ∗ *pSrc*, int *nLength*, int ∗ *pCounts*, Npp32s *nLowerBound*, Npp32s *nUpperBound*, Npp8u ∗ *pDeviceBuffer*)

Computes the number of elements whose values fall into the specified range on a 32-bit signed integer array.

Parameters:

pSrc Source Signal Pointer.

nLength Signal Length.

pCounts Pointer to the number of elements.

nLowerBound Lower bound of the specified range.

nUpperBound Upper bound of the specified range.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppsCountInRangeGetBufferSize_32s to determine the minium number of bytes required.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.202.1.2 NppStatus nppsCountInRangeGetBufferSize_32s (int *nLength*, int ∗ *hpBufferSize*)

Device-buffer size (in bytes) for nppsCountInRange_32s.

Parameters:

nLength Signal Length.

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.*

Returns:

NPP_SUCCESS

7.203 Count Zero Crossings

Functions

- NppStatus nppsZeroCrossingGetBufferSize_16s32f (int nLength, int ∗hpBufferSize)

  Device-buffer size (in bytes) for nppsZeroCrossing_16s32f.

- NppStatus nppsZeroCrossing_16s32f (const Npp16s ∗pSrc, int nLength, Npp32f ∗pValZC, NppsZCType tZCType, Npp8u ∗pDeviceBuffer)

  16-bit signed short integer zero crossing method, return value is 32-bit floating point.

- NppStatus nppsZeroCrossingGetBufferSize_32f (int nLength, int ∗hpBufferSize)

  Device-buffer size (in bytes) for nppsZeroCrossing_32f.

- NppStatus nppsZeroCrossing_32f (const Npp32f ∗pSrc, int nLength, Npp32f ∗pValZC, NppsZCType tZCType, Npp8u ∗pDeviceBuffer)

  32-bit floating-point zero crossing method, return value is 32-bit floating point.

7.203.1 Function Documentation

7.203.1.1 NppStatus nppsZeroCrossing_16s32f (const Npp16s ∗ *pSrc*, int *nLength*, Npp32f ∗ *pValZC*, NppsZCType *tZCType*, Npp8u ∗ *pDeviceBuffer*)

16-bit signed short integer zero crossing method, return value is 32-bit floating point.

Parameters:

pSrc Source Signal Pointer.

nLength Signal Length.

pValZC Pointer to the output result.

tZCType Type of the zero crossing measure: nppZCR, nppZCXor or nppZCC.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppsZeroCrossingGetBufferSize_16s32f to determine the minium number of bytes required.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.203.1.2 NppStatus nppsZeroCrossing_32f (const Npp32f ∗ *pSrc*, int *nLength*, Npp32f ∗ *pValZC*, NppsZCType *tZCType*, Npp8u ∗ *pDeviceBuffer*)

32-bit floating-point zero crossing method, return value is 32-bit floating point.

Parameters:

pSrc Source Signal Pointer.

nLength Signal Length.

pValZC Pointer to the output result.

tZCType Type of the zero crossing measure: nppZCR, nppZCXor or nppZCC.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppsZeroCrossingGetBufferSize_32f to determine the minium number of bytes required.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.203.1.3 NppStatus nppsZeroCrossingGetBufferSize_16s32f (int *nLength*, int ∗ *hpBufferSize*)

Device-buffer size (in bytes) for nppsZeroCrossing_16s32f.

Parameters:

nLength Signal Length.

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.*

Returns:

NPP_SUCCESS

7.203.1.4 NppStatus nppsZeroCrossingGetBufferSize_32f (int *nLength*, int ∗ *hpBufferSize*)

Device-buffer size (in bytes) for nppsZeroCrossing_32f.

Parameters:

nLength Signal Length.

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.*

Returns:

NPP_SUCCESS

7.204 MaximumError

Primitives for computing the maximum error between two signals.

Functions

- NppStatus nppsMaximumError_8u (const Npp8u ∗pSrc1, const Npp8u ∗pSrc2, int nLength, Npp64f ∗pDst, Npp8u ∗pDeviceBuffer)

  8-bit unsigned char maximum method.

- NppStatus nppsMaximumError_8s (const Npp8s ∗pSrc1, const Npp8s ∗pSrc2, int nLength, Npp64f ∗pDst, Npp8u ∗pDeviceBuffer)

  8-bit signed char maximum method.

- NppStatus nppsMaximumError_16u (const Npp16u ∗pSrc1, const Npp16u ∗pSrc2, int nLength, Npp64f ∗pDst, Npp8u ∗pDeviceBuffer)

  16-bit unsigned short integer maximum method.

- NppStatus nppsMaximumError_16s (const Npp16s ∗pSrc1, const Npp16s ∗pSrc2, int nLength, Npp64f ∗pDst, Npp8u ∗pDeviceBuffer)

  16-bit signed short integer maximum method.

- NppStatus nppsMaximumError_16sc (const Npp16sc ∗pSrc1, const Npp16sc ∗pSrc2, int nLength, Npp64f ∗pDst, Npp8u ∗pDeviceBuffer)

  16-bit unsigned short complex integer maximum method.

- NppStatus nppsMaximumError_32u (const Npp32u ∗pSrc1, const Npp32u ∗pSrc2, int nLength, Npp64f ∗pDst, Npp8u ∗pDeviceBuffer)

  32-bit unsigned short integer maximum method.

- NppStatus nppsMaximumError_32s (const Npp32s ∗pSrc1, const Npp32s ∗pSrc2, int nLength, Npp64f ∗pDst, Npp8u ∗pDeviceBuffer)

  32-bit signed short integer maximum method.

- NppStatus nppsMaximumError_32sc (const Npp32sc ∗pSrc1, const Npp32sc ∗pSrc2, int nLength, Npp64f ∗pDst, Npp8u ∗pDeviceBuffer)

  32-bit unsigned short complex integer maximum method.

- NppStatus nppsMaximumError_64s (const Npp64s ∗pSrc1, const Npp64s ∗pSrc2, int nLength, Npp64f ∗pDst, Npp8u ∗pDeviceBuffer)

  64-bit signed short integer maximum method.

- NppStatus nppsMaximumError_64sc (const Npp64sc ∗pSrc1, const Npp64sc ∗pSrc2, int nLength, Npp64f ∗pDst, Npp8u ∗pDeviceBuffer)

  64-bit unsigned short complex integer maximum method.

- NppStatus nppsMaximumError_32f (const Npp32f ∗pSrc1, const Npp32f ∗pSrc2, int nLength, Npp64f ∗pDst, Npp8u ∗pDeviceBuffer)

  32-bit floating point maximum method.

- NppStatus nppsMaximumError_32fc (const Npp32fc ∗pSrc1, const Npp32fc ∗pSrc2, int nLength, Npp64f ∗pDst, Npp8u ∗pDeviceBuffer)

  32-bit floating point complex maximum method.

- NppStatus nppsMaximumError_64f (const Npp64f ∗pSrc1, const Npp64f ∗pSrc2, int nLength, Npp64f ∗pDst, Npp8u ∗pDeviceBuffer)

  64-bit floating point maximum method.

- NppStatus nppsMaximumError_64fc (const Npp64fc ∗pSrc1, const Npp64fc ∗pSrc2, int nLength, Npp64f ∗pDst, Npp8u ∗pDeviceBuffer)

  64-bit floating point complex maximum method.

- NppStatus nppsMaximumErrorGetBufferSize_8u (int nLength, int ∗hpBufferSize)

  Device-buffer size (in bytes) for nppsMaximumError_8u.

- NppStatus nppsMaximumErrorGetBufferSize_8s (int nLength, int ∗hpBufferSize)

  Device-buffer size (in bytes) for nppsMaximumError_8s.

- NppStatus nppsMaximumErrorGetBufferSize_16u (int nLength, int ∗hpBufferSize)

  Device-buffer size (in bytes) for nppsMaximumError_16u.

- NppStatus nppsMaximumErrorGetBufferSize_16s (int nLength, int ∗hpBufferSize)

  Device-buffer size (in bytes) for nppsMaximumError_16s.

- NppStatus nppsMaximumErrorGetBufferSize_16sc (int nLength, int ∗hpBufferSize)

  Device-buffer size (in bytes) for nppsMaximumError_16sc.

- NppStatus nppsMaximumErrorGetBufferSize_32u (int nLength, int ∗hpBufferSize)

  Device-buffer size (in bytes) for nppsMaximumError_32u.

- NppStatus nppsMaximumErrorGetBufferSize_32s (int nLength, int ∗hpBufferSize)

  Device-buffer size (in bytes) for nppsMaximumError_32s.

- NppStatus nppsMaximumErrorGetBufferSize_32sc (int nLength, int ∗hpBufferSize)

  Device-buffer size (in bytes) for nppsMaximumError_32sc.

- NppStatus nppsMaximumErrorGetBufferSize_64s (int nLength, int ∗hpBufferSize)

  Device-buffer size (in bytes) for nppsMaximumError_64s.

- NppStatus nppsMaximumErrorGetBufferSize_64sc (int nLength, int ∗hpBufferSize)

  Device-buffer size (in bytes) for nppsMaximumError_64sc.

- NppStatus nppsMaximumErrorGetBufferSize_32f (int nLength, int ∗hpBufferSize)

  Device-buffer size (in bytes) for nppsMaximumError_32f.

- NppStatus nppsMaximumErrorGetBufferSize_32fc (int nLength, int ∗hpBufferSize)

  Device-buffer size (in bytes) for nppsMaximumError_32fc.

- NppStatus nppsMaximumErrorGetBufferSize_64f (int nLength, int ∗hpBufferSize)

  Device-buffer size (in bytes) for nppsMaximumError_64f.

- NppStatus nppsMaximumErrorGetBufferSize_64fc (int nLength, int ∗hpBufferSize)

  Device-buffer size (in bytes) for nppsMaximumError_64fc.

7.204.1 Detailed Description

Primitives for computing the maximum error between two signals.

Given two signals $pSrc1$ and $pSrc2$ both with length N, the maximum error is defined as the largest absolute difference between the corresponding elements of two signals.

If the signal is in complex format, the absolute value of the complex number is used.

7.204.2 Function Documentation

7.204.2.1 NppStatus nppsMaximumError_16s (const Npp16s ∗ *pSrc1*, const Npp16s ∗ *pSrc2*, int *nLength*, Npp64f ∗ *pDst*, Npp8u ∗ *pDeviceBuffer*)

16-bit signed short integer maximum method.

Parameters:

pSrc1 Source Signal Pointer.

pSrc2 Source Signal Pointer.

nLength Signal Length.

pDst Pointer to the error result.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppsMaximumErrorGetBufferSize_16s to determine the minium number of bytes required.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.204.2.2 NppStatus nppsMaximumError_16sc (const Npp16sc ∗ *pSrc1*, const Npp16sc ∗ *pSrc2*, int *nLength*, Npp64f ∗ *pDst*, Npp8u ∗ *pDeviceBuffer*)

16-bit unsigned short complex integer maximum method.

Parameters:

pSrc1 Source Signal Pointer.

pSrc2 Source Signal Pointer.

nLength Signal Length.

pDst Pointer to the error result.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppsMaximumErrorGetBufferSize_16sc to determine the minium number of bytes required.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.204.2.3 NppStatus nppsMaximumError_16u (const Npp16u ∗ *pSrc1*, const Npp16u ∗ *pSrc2*, int *nLength*, Npp64f ∗ *pDst*, Npp8u ∗ *pDeviceBuffer*)

16-bit unsigned short integer maximum method.

Parameters:

pSrc1 Source Signal Pointer.

pSrc2 Source Signal Pointer.

nLength Signal Length.

pDst Pointer to the error result.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppsMaximumErrorGetBufferSize_16u to determine the minium number of bytes required.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.204.2.4 NppStatus nppsMaximumError_32f (const Npp32f ∗ *pSrc1*, const Npp32f ∗ *pSrc2*, int *nLength*, Npp64f ∗ *pDst*, Npp8u ∗ *pDeviceBuffer*)

32-bit floating point maximum method.

Parameters:

pSrc1 Source Signal Pointer.

pSrc2 Source Signal Pointer.

nLength Signal Length.

pDst Pointer to the error result.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppsMaximumErrorGetBufferSize_32f to determine the minium number of bytes required.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.204.2.5 NppStatus nppsMaximumError_32fc (const Npp32fc ∗ *pSrc1*, const Npp32fc ∗ *pSrc2*, int *nLength*, Npp64f ∗ *pDst*, Npp8u ∗ *pDeviceBuffer*)

32-bit floating point complex maximum method.

Parameters:

pSrc1 Source Signal Pointer.

pSrc2 Source Signal Pointer.

nLength Signal Length.

pDst Pointer to the error result.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppsMaximumErrorGetBufferSize_32fc to determine the minium number of bytes required.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.204.2.6 NppStatus nppsMaximumError_32s (const Npp32s ∗ *pSrc1*, const Npp32s ∗ *pSrc2*, int *nLength*, Npp64f ∗ *pDst*, Npp8u ∗ *pDeviceBuffer*)

32-bit signed short integer maximum method.

Parameters:

pSrc1 Source Signal Pointer.

pSrc2 Source Signal Pointer.

nLength Signal Length.

pDst Pointer to the error result.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppsMaximumErrorGetBufferSize_32s to determine the minium number of bytes required.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.204.2.7 NppStatus nppsMaximumError_32sc (const Npp32sc ∗ *pSrc1*, const Npp32sc ∗ *pSrc2*, int *nLength*, Npp64f ∗ *pDst*, Npp8u ∗ *pDeviceBuffer*)

32-bit unsigned short complex integer maximum method.

Parameters:

pSrc1 Source Signal Pointer.

pSrc2 Source Signal Pointer.

nLength Signal Length.

pDst Pointer to the error result.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppsMaximumErrorGetBufferSize_32sc to determine the minium number of bytes required.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.204.2.8 NppStatus nppsMaximumError_32u (const Npp32u ∗ *pSrc1*, const Npp32u ∗ *pSrc2*, int *nLength*, Npp64f ∗ *pDst*, Npp8u ∗ *pDeviceBuffer*)

32-bit unsigned short integer maximum method.

Parameters:

pSrc1 Source Signal Pointer.

pSrc2 Source Signal Pointer.

nLength Signal Length.

pDst Pointer to the error result.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppsMaximumErrorGetBufferSize_32u to determine the minium number of bytes required.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.204.2.9 NppStatus nppsMaximumError_64f (const Npp64f ∗ *pSrc1*, const Npp64f ∗ *pSrc2*, int *nLength*, Npp64f ∗ *pDst*, Npp8u ∗ *pDeviceBuffer*)

64-bit floating point maximum method.

Parameters:

pSrc1 Source Signal Pointer.

pSrc2 Source Signal Pointer.

nLength Signal Length.

pDst Pointer to the error result.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppsMaximumErrorGetBufferSize_64f to determine the minium number of bytes required.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.204.2.10 NppStatus nppsMaximumError_64fc (const Npp64fc ∗ *pSrc1*, const Npp64fc ∗ *pSrc2*, int *nLength*, Npp64f ∗ *pDst*, Npp8u ∗ *pDeviceBuffer*)

64-bit floating point complex maximum method.

Parameters:

pSrc1 Source Signal Pointer.

pSrc2 Source Signal Pointer.

nLength Signal Length.

pDst Pointer to the error result.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppsMaximumErrorGetBufferSize_64fc to determine the minium number of bytes required.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.204.2.11 NppStatus nppsMaximumError_64s (const Npp64s ∗ *pSrc1*, const Npp64s ∗ *pSrc2*, int *nLength*, Npp64f ∗ *pDst*, Npp8u ∗ *pDeviceBuffer*)

64-bit signed short integer maximum method.

Parameters:

pSrc1 Source Signal Pointer.

pSrc2 Source Signal Pointer.

nLength Signal Length.

pDst Pointer to the error result.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppsMaximumErrorGetBufferSize_64s to determine the minium number of bytes required.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.204.2.12 NppStatus nppsMaximumError_64sc (const Npp64sc ∗ *pSrc1*, const Npp64sc ∗ *pSrc2*, int *nLength*, Npp64f ∗ *pDst*, Npp8u ∗ *pDeviceBuffer*)

64-bit unsigned short complex integer maximum method.

Parameters:

pSrc1 Source Signal Pointer.

pSrc2 Source Signal Pointer.

nLength Signal Length.

pDst Pointer to the error result.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppsMaximumErrorGetBufferSize_64sc to determine the minium number of bytes required.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.204.2.13 NppStatus nppsMaximumError_8s (const Npp8s ∗ *pSrc1*, const Npp8s ∗ *pSrc2*, int *nLength*, Npp64f ∗ *pDst*, Npp8u ∗ *pDeviceBuffer*)

8-bit signed char maximum method.

Parameters:

pSrc1 Source Signal Pointer.

pSrc2 Source Signal Pointer.

nLength Signal Length.

pDst Pointer to the error result.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppsMaximumErrorGetBufferSize_8s to determine the minium number of bytes required.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.204.2.14 NppStatus nppsMaximumError_8u (const Npp8u ∗ *pSrc1*, const Npp8u ∗ *pSrc2*, int *nLength*, Npp64f ∗ *pDst*, Npp8u ∗ *pDeviceBuffer*)

8-bit unsigned char maximum method.

Parameters:

pSrc1 Source Signal Pointer.

pSrc2 Source Signal Pointer.

nLength Signal Length.

pDst Pointer to the error result.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppsMaximumErrorGetBufferSize_8u to determine the minium number of bytes required.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.204.2.15 NppStatus nppsMaximumErrorGetBufferSize_16s (int *nLength*, int ∗ *hpBufferSize*)

Device-buffer size (in bytes) for nppsMaximumError_16s.

Parameters:

nLength Signal Length.

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.*

Returns:

NPP_SUCCESS

7.204.2.16 NppStatus nppsMaximumErrorGetBufferSize_16sc (int *nLength*, int ∗ *hpBufferSize*)

Device-buffer size (in bytes) for nppsMaximumError_16sc.

Parameters:

nLength Signal Length.

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.*

Returns:

NPP_SUCCESS

7.204.2.17 NppStatus nppsMaximumErrorGetBufferSize_16u (int *nLength*, int ∗ *hpBufferSize*)

Device-buffer size (in bytes) for nppsMaximumError_16u.

Parameters:

nLength Signal Length.

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.*

Returns:

NPP_SUCCESS

7.204.2.18 NppStatus nppsMaximumErrorGetBufferSize_32f (int *nLength*, int ∗ *hpBufferSize*)

Device-buffer size (in bytes) for nppsMaximumError_32f.

Parameters:

nLength Signal Length.

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.*

Returns:

NPP_SUCCESS

7.204.2.19 NppStatus nppsMaximumErrorGetBufferSize_32fc (int *nLength*, int ∗ *hpBufferSize*)

Device-buffer size (in bytes) for nppsMaximumError_32fc.

Parameters:

nLength Signal Length.

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.*

Returns:

NPP_SUCCESS

7.204.2.20 NppStatus nppsMaximumErrorGetBufferSize_32s (int *nLength*, int ∗ *hpBufferSize*)

Device-buffer size (in bytes) for nppsMaximumError_32s.

Parameters:

nLength Signal Length.

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.*

Returns:

NPP_SUCCESS

7.204.2.21 NppStatus nppsMaximumErrorGetBufferSize_32sc (int *nLength*, int ∗ *hpBufferSize*)

Device-buffer size (in bytes) for nppsMaximumError_32sc.

Parameters:

nLength Signal Length.

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.*

Returns:

NPP_SUCCESS

7.204.2.22 NppStatus nppsMaximumErrorGetBufferSize_32u (int *nLength*, int ∗ *hpBufferSize*)

Device-buffer size (in bytes) for nppsMaximumError_32u.

Parameters:

nLength Signal Length.

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.*

Returns:

NPP_SUCCESS

7.204.2.23 NppStatus nppsMaximumErrorGetBufferSize_64f (int *nLength*, int ∗ *hpBufferSize*)

Device-buffer size (in bytes) for nppsMaximumError_64f.

Parameters:

nLength Signal Length.

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.*

Returns:

NPP_SUCCESS

7.204.2.24 NppStatus nppsMaximumErrorGetBufferSize_64fc (int *nLength*, int ∗ *hpBufferSize*)

Device-buffer size (in bytes) for nppsMaximumError_64fc.

Parameters:

nLength Signal Length.

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.*

Returns:

NPP_SUCCESS

7.204.2.25 NppStatus nppsMaximumErrorGetBufferSize_64s (int *nLength*, int ∗ *hpBufferSize*)

Device-buffer size (in bytes) for nppsMaximumError_64s.

Parameters:

nLength Signal Length.

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.*

Returns:

NPP_SUCCESS

7.204.2.26 NppStatus nppsMaximumErrorGetBufferSize_64sc (int *nLength*, int ∗ *hpBufferSize*)

Device-buffer size (in bytes) for nppsMaximumError_64sc.

Parameters:

nLength Signal Length.

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.*

Returns:

NPP_SUCCESS

7.204.2.27 NppStatus nppsMaximumErrorGetBufferSize_8s (int *nLength*, int ∗ *hpBufferSize*)

Device-buffer size (in bytes) for nppsMaximumError_8s.

Parameters:

nLength Signal Length.

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.*

Returns:

NPP_SUCCESS

7.204.2.28 NppStatus nppsMaximumErrorGetBufferSize_8u (int *nLength*, int ∗ *hpBufferSize*)

Device-buffer size (in bytes) for nppsMaximumError_8u.

Parameters:

nLength Signal Length.

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.*

Returns:

NPP_SUCCESS

7.205 AverageError

Primitives for computing the Average error between two signals.

Functions

- NppStatus nppsAverageError_8u (const Npp8u ∗pSrc1, const Npp8u ∗pSrc2, int nLength, Npp64f ∗pDst, Npp8u ∗pDeviceBuffer)

  8-bit unsigned char Average method.

- NppStatus nppsAverageError_8s (const Npp8s ∗pSrc1, const Npp8s ∗pSrc2, int nLength, Npp64f ∗pDst, Npp8u ∗pDeviceBuffer)

  8-bit signed char Average method.

- NppStatus nppsAverageError_16u (const Npp16u ∗pSrc1, const Npp16u ∗pSrc2, int nLength, Npp64f ∗pDst, Npp8u ∗pDeviceBuffer)

  16-bit unsigned short integer Average method.

- NppStatus nppsAverageError_16s (const Npp16s ∗pSrc1, const Npp16s ∗pSrc2, int nLength, Npp64f ∗pDst, Npp8u ∗pDeviceBuffer)

  16-bit signed short integer Average method.

- NppStatus nppsAverageError_16sc (const Npp16sc ∗pSrc1, const Npp16sc ∗pSrc2, int nLength, Npp64f ∗pDst, Npp8u ∗pDeviceBuffer)

  16-bit unsigned short complex integer Average method.

- NppStatus nppsAverageError_32u (const Npp32u ∗pSrc1, const Npp32u ∗pSrc2, int nLength, Npp64f ∗pDst, Npp8u ∗pDeviceBuffer)

  32-bit unsigned short integer Average method.

- NppStatus nppsAverageError_32s (const Npp32s ∗pSrc1, const Npp32s ∗pSrc2, int nLength, Npp64f ∗pDst, Npp8u ∗pDeviceBuffer)

  32-bit signed short integer Average method.

- NppStatus nppsAverageError_32sc (const Npp32sc ∗pSrc1, const Npp32sc ∗pSrc2, int nLength, Npp64f ∗pDst, Npp8u ∗pDeviceBuffer)

  32-bit unsigned short complex integer Average method.

- NppStatus nppsAverageError_64s (const Npp64s ∗pSrc1, const Npp64s ∗pSrc2, int nLength, Npp64f ∗pDst, Npp8u ∗pDeviceBuffer)

  64-bit signed short integer Average method.

- NppStatus nppsAverageError_64sc (const Npp64sc ∗pSrc1, const Npp64sc ∗pSrc2, int nLength, Npp64f ∗pDst, Npp8u ∗pDeviceBuffer)

  64-bit unsigned short complex integer Average method.

- NppStatus nppsAverageError_32f (const Npp32f ∗pSrc1, const Npp32f ∗pSrc2, int nLength, Npp64f ∗pDst, Npp8u ∗pDeviceBuffer)

  32-bit floating point Average method.

- NppStatus nppsAverageError_32fc (const Npp32fc ∗pSrc1, const Npp32fc ∗pSrc2, int nLength, Npp64f ∗pDst, Npp8u ∗pDeviceBuffer)

    32-bit floating point complex Average method.

- NppStatus nppsAverageError_64f (const Npp64f ∗pSrc1, const Npp64f ∗pSrc2, int nLength, Npp64f ∗pDst, Npp8u ∗pDeviceBuffer)

    64-bit floating point Average method.

- NppStatus nppsAverageError_64fc (const Npp64fc ∗pSrc1, const Npp64fc ∗pSrc2, int nLength, Npp64f ∗pDst, Npp8u ∗pDeviceBuffer)

    64-bit floating point complex Average method.

- NppStatus nppsAverageErrorGetBufferSize_8u (int nLength, int ∗hpBufferSize)

    Device-buffer size (in bytes) for nppsAverageError_8u.

- NppStatus nppsAverageErrorGetBufferSize_8s (int nLength, int ∗hpBufferSize)

    Device-buffer size (in bytes) for nppsAverageError_8s.

- NppStatus nppsAverageErrorGetBufferSize_16u (int nLength, int ∗hpBufferSize)

    Device-buffer size (in bytes) for nppsAverageError_16u.

- NppStatus nppsAverageErrorGetBufferSize_16s (int nLength, int ∗hpBufferSize)

    Device-buffer size (in bytes) for nppsAverageError_16s.

- NppStatus nppsAverageErrorGetBufferSize_16sc (int nLength, int ∗hpBufferSize)

    Device-buffer size (in bytes) for nppsAverageError_16sc.

- NppStatus nppsAverageErrorGetBufferSize_32u (int nLength, int ∗hpBufferSize)

    Device-buffer size (in bytes) for nppsAverageError_32u.

- NppStatus nppsAverageErrorGetBufferSize_32s (int nLength, int ∗hpBufferSize)

    Device-buffer size (in bytes) for nppsAverageError_32s.

- NppStatus nppsAverageErrorGetBufferSize_32sc (int nLength, int ∗hpBufferSize)

    Device-buffer size (in bytes) for nppsAverageError_32sc.

- NppStatus nppsAverageErrorGetBufferSize_64s (int nLength, int ∗hpBufferSize)

    Device-buffer size (in bytes) for nppsAverageError_64s.

- NppStatus nppsAverageErrorGetBufferSize_64sc (int nLength, int ∗hpBufferSize)

    Device-buffer size (in bytes) for nppsAverageError_64sc.

- NppStatus nppsAverageErrorGetBufferSize_32f (int nLength, int ∗hpBufferSize)

    Device-buffer size (in bytes) for nppsAverageError_32f.

- NppStatus nppsAverageErrorGetBufferSize_32fc (int nLength, int ∗hpBufferSize)

    Device-buffer size (in bytes) for nppsAverageError_32fc.

- NppStatus nppsAverageErrorGetBufferSize_64f (int nLength, int ∗hpBufferSize)

    Device-buffer size (in bytes) for nppsAverageError_64f.

- NppStatus nppsAverageErrorGetBufferSize_64fc (int nLength, int ∗hpBufferSize)
  Device-buffer size (in bytes) for nppsAverageError_64fc.

7.205.1 Detailed Description

Primitives for computing the Average error between two signals.

Given two signals $pSrc1$ and $pSrc2$ both with length N, the average error is defined as

$$AverageError = \frac{1}{N}\sum_{n=0}^{N-1}|pSrc1(n) - pSrc2(n)|$$

If the signal is in complex format, the absolute value of the complex number is used.

7.205.2 Function Documentation

7.205.2.1 NppStatus nppsAverageError_16s (const Npp16s ∗ *pSrc1*, const Npp16s ∗ *pSrc2*, int *nLength*, Npp64f ∗ *pDst*, Npp8u ∗ *pDeviceBuffer*)

16-bit signed short integer Average method.

Parameters:

pSrc1 Source Signal Pointer.

pSrc2 Source Signal Pointer.

nLength Signal Length.

pDst Pointer to the error result.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppsAverageErrorGetBufferSize_16s to determine the minium number of bytes required.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.205.2.2 NppStatus nppsAverageError_16sc (const Npp16sc ∗ *pSrc1*, const Npp16sc ∗ *pSrc2*, int *nLength*, Npp64f ∗ *pDst*, Npp8u ∗ *pDeviceBuffer*)

16-bit unsigned short complex integer Average method.

Parameters:

pSrc1 Source Signal Pointer.

pSrc2 Source Signal Pointer.

nLength Signal Length.

pDst Pointer to the error result.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppsAverageErrorGetBufferSize_16sc to determine the minium number of bytes required.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.205.2.3 NppStatus nppsAverageError_16u (const Npp16u ∗ *pSrc1*, const Npp16u ∗ *pSrc2*, int *nLength*, Npp64f ∗ *pDst*, Npp8u ∗ *pDeviceBuffer*)

16-bit unsigned short integer Average method.

Parameters:

pSrc1 Source Signal Pointer.

pSrc2 Source Signal Pointer.

nLength Signal Length.

pDst Pointer to the error result.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppsAverageErrorGetBufferSize_16u to determine the minium number of bytes required.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.205.2.4 NppStatus nppsAverageError_32f (const Npp32f ∗ *pSrc1*, const Npp32f ∗ *pSrc2*, int *nLength*, Npp64f ∗ *pDst*, Npp8u ∗ *pDeviceBuffer*)

32-bit floating point Average method.

Parameters:

pSrc1 Source Signal Pointer.

pSrc2 Source Signal Pointer.

nLength Signal Length.

pDst Pointer to the error result.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppsAverageErrorGetBufferSize_32f to determine the minium number of bytes required.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.205.2.5 NppStatus nppsAverageError_32fc (const Npp32fc ∗ *pSrc1*, const Npp32fc ∗ *pSrc2*, int *nLength*, Npp64f ∗ *pDst*, Npp8u ∗ *pDeviceBuffer*)

32-bit floating point complex Average method.

Parameters:

pSrc1 Source Signal Pointer.

pSrc2 Source Signal Pointer.

nLength Signal Length.

pDst Pointer to the error result.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppsAverageErrorGetBufferSize_32fc to determine the minium number of bytes required.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.205.2.6 NppStatus nppsAverageError_32s (const Npp32s ∗ *pSrc1*, const Npp32s ∗ *pSrc2*, int *nLength*, Npp64f ∗ *pDst*, Npp8u ∗ *pDeviceBuffer*)

32-bit signed short integer Average method.

Parameters:

pSrc1 Source Signal Pointer.

pSrc2 Source Signal Pointer.

nLength Signal Length.

pDst Pointer to the error result.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppsAverageErrorGetBufferSize_32s to determine the minium number of bytes required.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.205.2.7 NppStatus nppsAverageError_32sc (const Npp32sc ∗ *pSrc1*, const Npp32sc ∗ *pSrc2*, int *nLength*, Npp64f ∗ *pDst*, Npp8u ∗ *pDeviceBuffer*)

32-bit unsigned short complex integer Average method.

Parameters:

pSrc1 Source Signal Pointer.

pSrc2 Source Signal Pointer.

nLength Signal Length.

pDst Pointer to the error result.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppsAverageErrorGetBufferSize_32sc to determine the minium number of bytes required.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.205.2.8 NppStatus nppsAverageError_32u (const Npp32u ∗ *pSrc1*, const Npp32u ∗ *pSrc2*, int *nLength*, Npp64f ∗ *pDst*, Npp8u ∗ *pDeviceBuffer*)

32-bit unsigned short integer Average method.

Parameters:

pSrc1 Source Signal Pointer.

pSrc2 Source Signal Pointer.

nLength Signal Length.

pDst Pointer to the error result.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppsAverageErrorGetBufferSize_32u to determine the minium number of bytes required.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.205.2.9 NppStatus nppsAverageError_64f (const Npp64f ∗ *pSrc1*, const Npp64f ∗ *pSrc2*, int *nLength*, Npp64f ∗ *pDst*, Npp8u ∗ *pDeviceBuffer*)

64-bit floating point Average method.

Parameters:

pSrc1 Source Signal Pointer.

pSrc2 Source Signal Pointer.

nLength Signal Length.

pDst Pointer to the error result.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppsAverageErrorGetBufferSize_64f to determine the minium number of bytes required.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.205.2.10 NppStatus nppsAverageError_64fc (const Npp64fc ∗ *pSrc1*, const Npp64fc ∗ *pSrc2*, int *nLength*, Npp64f ∗ *pDst*, Npp8u ∗ *pDeviceBuffer*)

64-bit floating point complex Average method.

Parameters:

pSrc1 Source Signal Pointer.

pSrc2 Source Signal Pointer.

nLength Signal Length.

pDst Pointer to the error result.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppsAverageErrorGetBufferSize_64fc to determine the minium number of bytes required.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.205.2.11 NppStatus nppsAverageError_64s (const Npp64s ∗ *pSrc1*, const Npp64s ∗ *pSrc2*, int *nLength*, Npp64f ∗ *pDst*, Npp8u ∗ *pDeviceBuffer*)

64-bit signed short integer Average method.

Parameters:

pSrc1 Source Signal Pointer.

pSrc2 Source Signal Pointer.

nLength Signal Length.

pDst Pointer to the error result.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppsAverageErrorGetBufferSize_64s to determine the minium number of bytes required.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.205.2.12 NppStatus nppsAverageError_64sc (const Npp64sc * *pSrc1*, const Npp64sc * *pSrc2*, int *nLength*, Npp64f * *pDst*, Npp8u * *pDeviceBuffer*)

64-bit unsigned short complex integer Average method.

Parameters:

pSrc1 Source Signal Pointer.

pSrc2 Source Signal Pointer.

nLength Signal Length.

pDst Pointer to the error result.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppsAverageErrorGetBufferSize_64sc to determine the minium number of bytes required.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.205.2.13 NppStatus nppsAverageError_8s (const Npp8s * *pSrc1*, const Npp8s * *pSrc2*, int *nLength*, Npp64f * *pDst*, Npp8u * *pDeviceBuffer*)

8-bit signed char Average method.

Parameters:

pSrc1 Source Signal Pointer.

pSrc2 Source Signal Pointer.

nLength Signal Length.

pDst Pointer to the error result.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppsAverageErrorGetBufferSize_8s to determine the minium number of bytes required.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.205.2.14 NppStatus nppsAverageError_8u (const Npp8u * *pSrc1*, const Npp8u * *pSrc2*, int *nLength*, Npp64f * *pDst*, Npp8u * *pDeviceBuffer*)

8-bit unsigned char Average method.

Parameters:

pSrc1 Source Signal Pointer.

pSrc2 Source Signal Pointer.

nLength Signal Length.

pDst Pointer to the error result.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppsAverageErrorGetBufferSize_8u to determine the minium number of bytes required.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.205.2.15 NppStatus nppsAverageErrorGetBufferSize_16s (int *nLength*, int ∗ *hpBufferSize*)

Device-buffer size (in bytes) for nppsAverageError_16s.

Parameters:

nLength Signal Length.

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.*

Returns:

NPP_SUCCESS

7.205.2.16 NppStatus nppsAverageErrorGetBufferSize_16sc (int *nLength*, int ∗ *hpBufferSize*)

Device-buffer size (in bytes) for nppsAverageError_16sc.

Parameters:

nLength Signal Length.

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.*

Returns:

NPP_SUCCESS

7.205.2.17 NppStatus nppsAverageErrorGetBufferSize_16u (int *nLength*, int ∗ *hpBufferSize*)

Device-buffer size (in bytes) for nppsAverageError_16u.

Parameters:

nLength Signal Length.

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.*

Returns:

NPP_SUCCESS

7.205.2.18 NppStatus nppsAverageErrorGetBufferSize_32f (int *nLength*, int ∗ *hpBufferSize*)

Device-buffer size (in bytes) for nppsAverageError_32f.

Parameters:

nLength Signal Length.

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.*

Returns:

NPP_SUCCESS

7.205.2.19 NppStatus nppsAverageErrorGetBufferSize_32fc (int *nLength*, int ∗ *hpBufferSize*)

Device-buffer size (in bytes) for nppsAverageError_32fc.

Parameters:

nLength Signal Length.

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.*

Returns:

NPP_SUCCESS

7.205.2.20 NppStatus nppsAverageErrorGetBufferSize_32s (int *nLength*, int ∗ *hpBufferSize*)

Device-buffer size (in bytes) for nppsAverageError_32s.

Parameters:

nLength Signal Length.

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.*

Returns:

NPP_SUCCESS

7.205.2.21 NppStatus nppsAverageErrorGetBufferSize_32sc (int *nLength*, int ∗ *hpBufferSize*)

Device-buffer size (in bytes) for nppsAverageError_32sc.

Parameters:

nLength Signal Length.

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.*

Returns:

NPP_SUCCESS

7.205.2.22 NppStatus nppsAverageErrorGetBufferSize_32u (int *nLength*, int ∗ *hpBufferSize*)

Device-buffer size (in bytes) for nppsAverageError_32u.

Parameters:

nLength Signal Length.

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.*

Returns:

NPP_SUCCESS

7.205.2.23 NppStatus nppsAverageErrorGetBufferSize_64f (int *nLength*, int ∗ *hpBufferSize*)

Device-buffer size (in bytes) for nppsAverageError_64f.

Parameters:

nLength Signal Length.

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.*

Returns:

NPP_SUCCESS

7.205.2.24 NppStatus nppsAverageErrorGetBufferSize_64fc (int *nLength*, int ∗ *hpBufferSize*)

Device-buffer size (in bytes) for nppsAverageError_64fc.

Parameters:

nLength Signal Length.

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.*

Returns:

NPP_SUCCESS

7.205.2.25 NppStatus nppsAverageErrorGetBufferSize_64s (int *nLength*, int ∗ *hpBufferSize*)

Device-buffer size (in bytes) for nppsAverageError_64s.

Parameters:

nLength Signal Length.

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.*

Returns:

NPP_SUCCESS

7.205.2.26 NppStatus nppsAverageErrorGetBufferSize_64sc (int *nLength*, int ∗ *hpBufferSize*)

Device-buffer size (in bytes) for nppsAverageError_64sc.

Parameters:

nLength Signal Length.

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.*

Returns:

NPP_SUCCESS

7.205.2.27 NppStatus nppsAverageErrorGetBufferSize_8s (int *nLength*, int * *hpBufferSize*)

Device-buffer size (in bytes) for nppsAverageError_8s.

Parameters:

nLength Signal Length.

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.*

Returns:

NPP_SUCCESS

7.205.2.28 NppStatus nppsAverageErrorGetBufferSize_8u (int *nLength*, int * *hpBufferSize*)

Device-buffer size (in bytes) for nppsAverageError_8u.

Parameters:

nLength Signal Length.

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.*

Returns:

NPP_SUCCESS

7.206 MaximumRelativeError

Primitives for computing the MaximumRelative error between two signals.

Functions

- NppStatus nppsMaximumRelativeError_8u (const Npp8u ∗pSrc1, const Npp8u ∗pSrc2, int nLength, Npp64f ∗pDst, Npp8u ∗pDeviceBuffer)

  8-bit unsigned char MaximumRelative method.

- NppStatus nppsMaximumRelativeError_8s (const Npp8s ∗pSrc1, const Npp8s ∗pSrc2, int nLength, Npp64f ∗pDst, Npp8u ∗pDeviceBuffer)

  8-bit signed char MaximumRelative method.

- NppStatus nppsMaximumRelativeError_16u (const Npp16u ∗pSrc1, const Npp16u ∗pSrc2, int nLength, Npp64f ∗pDst, Npp8u ∗pDeviceBuffer)

  16-bit unsigned short integer MaximumRelative method.

- NppStatus nppsMaximumRelativeError_16s (const Npp16s ∗pSrc1, const Npp16s ∗pSrc2, int nLength, Npp64f ∗pDst, Npp8u ∗pDeviceBuffer)

  16-bit signed short integer MaximumRelative method.

- NppStatus nppsMaximumRelativeError_16sc (const Npp16sc ∗pSrc1, const Npp16sc ∗pSrc2, int nLength, Npp64f ∗pDst, Npp8u ∗pDeviceBuffer)

  16-bit unsigned short complex integer MaximumRelative method.

- NppStatus nppsMaximumRelativeError_32u (const Npp32u ∗pSrc1, const Npp32u ∗pSrc2, int nLength, Npp64f ∗pDst, Npp8u ∗pDeviceBuffer)

  32-bit unsigned short integer MaximumRelative method.

- NppStatus nppsMaximumRelativeError_32s (const Npp32s ∗pSrc1, const Npp32s ∗pSrc2, int nLength, Npp64f ∗pDst, Npp8u ∗pDeviceBuffer)

  32-bit signed short integer MaximumRelative method.

- NppStatus nppsMaximumRelativeError_32sc (const Npp32sc ∗pSrc1, const Npp32sc ∗pSrc2, int nLength, Npp64f ∗pDst, Npp8u ∗pDeviceBuffer)

  32-bit unsigned short complex integer MaximumRelative method.

- NppStatus nppsMaximumRelativeError_64s (const Npp64s ∗pSrc1, const Npp64s ∗pSrc2, int nLength, Npp64f ∗pDst, Npp8u ∗pDeviceBuffer)

  64-bit signed short integer MaximumRelative method.

- NppStatus nppsMaximumRelativeError_64sc (const Npp64sc ∗pSrc1, const Npp64sc ∗pSrc2, int nLength, Npp64f ∗pDst, Npp8u ∗pDeviceBuffer)

  64-bit unsigned short complex integer MaximumRelative method.

- NppStatus nppsMaximumRelativeError_32f (const Npp32f ∗pSrc1, const Npp32f ∗pSrc2, int nLength, Npp64f ∗pDst, Npp8u ∗pDeviceBuffer)

  32-bit floating point MaximumRelative method.

- NppStatus nppsMaximumRelativeError_32fc (const Npp32fc ∗pSrc1, const Npp32fc ∗pSrc2, int nLength, Npp64f ∗pDst, Npp8u ∗pDeviceBuffer)

  32-bit floating point complex MaximumRelative method.

- NppStatus nppsMaximumRelativeError_64f (const Npp64f ∗pSrc1, const Npp64f ∗pSrc2, int nLength, Npp64f ∗pDst, Npp8u ∗pDeviceBuffer)

  64-bit floating point MaximumRelative method.

- NppStatus nppsMaximumRelativeError_64fc (const Npp64fc ∗pSrc1, const Npp64fc ∗pSrc2, int nLength, Npp64f ∗pDst, Npp8u ∗pDeviceBuffer)

  64-bit floating point complex MaximumRelative method.

- NppStatus nppsMaximumRelativeErrorGetBufferSize_8u (int nLength, int ∗hpBufferSize)

  Device-buffer size (in bytes) for nppsMaximumRelativeError_8u.

- NppStatus nppsMaximumRelativeErrorGetBufferSize_8s (int nLength, int ∗hpBufferSize)

  Device-buffer size (in bytes) for nppsMaximumRelativeError_8s.

- NppStatus nppsMaximumRelativeErrorGetBufferSize_16u (int nLength, int ∗hpBufferSize)

  Device-buffer size (in bytes) for nppsMaximumRelativeError_16u.

- NppStatus nppsMaximumRelativeErrorGetBufferSize_16s (int nLength, int ∗hpBufferSize)

  Device-buffer size (in bytes) for nppsMaximumRelativeError_16s.

- NppStatus nppsMaximumRelativeErrorGetBufferSize_16sc (int nLength, int ∗hpBufferSize)

  Device-buffer size (in bytes) for nppsMaximumRelativeError_16sc.

- NppStatus nppsMaximumRelativeErrorGetBufferSize_32u (int nLength, int ∗hpBufferSize)

  Device-buffer size (in bytes) for nppsMaximumRelativeError_32u.

- NppStatus nppsMaximumRelativeErrorGetBufferSize_32s (int nLength, int ∗hpBufferSize)

  Device-buffer size (in bytes) for nppsMaximumRelativeError_32s.

- NppStatus nppsMaximumRelativeErrorGetBufferSize_32sc (int nLength, int ∗hpBufferSize)

  Device-buffer size (in bytes) for nppsMaximumRelativeError_32sc.

- NppStatus nppsMaximumRelativeErrorGetBufferSize_64s (int nLength, int ∗hpBufferSize)

  Device-buffer size (in bytes) for nppsMaximumRelativeError_64s.

- NppStatus nppsMaximumRelativeErrorGetBufferSize_64sc (int nLength, int ∗hpBufferSize)

  Device-buffer size (in bytes) for nppsMaximumRelativeError_64sc.

- NppStatus nppsMaximumRelativeErrorGetBufferSize_32f (int nLength, int ∗hpBufferSize)

  Device-buffer size (in bytes) for nppsMaximumRelativeError_32f.

- NppStatus nppsMaximumRelativeErrorGetBufferSize_32fc (int nLength, int ∗hpBufferSize)

  Device-buffer size (in bytes) for nppsMaximumRelativeError_32fc.

- NppStatus nppsMaximumRelativeErrorGetBufferSize_64f (int nLength, int ∗hpBufferSize)

  Device-buffer size (in bytes) for nppsMaximumRelativeError_64f.

- NppStatus nppsMaximumRelativeErrorGetBufferSize_64fc (int nLength, int ∗hpBufferSize)

  Device-buffer size (in bytes) for nppsMaximumRelativeError_64fc.

7.206.1 Detailed Description

Primitives for computing the MaximumRelative error between two signals.

Given two signals $pSrc1$ and $pSrc2$ both with length N, the maximum relative error is defined as

$$MaximumRelativeError = max \frac{|pSrc1(n) - pSrc2(n)|}{max(|pSrc1(n)|, |pSrc2(n)|)}$$

If the signal is in complex format, the absolute value of the complex number is used.

7.206.2 Function Documentation

7.206.2.1 NppStatus nppsMaximumRelativeError_16s (const Npp16s ∗ *pSrc1*, const Npp16s ∗ *pSrc2*, int *nLength*, Npp64f ∗ *pDst*, Npp8u ∗ *pDeviceBuffer*)

16-bit signed short integer MaximumRelative method.

Parameters:

pSrc1 Source Signal Pointer.

pSrc2 Source Signal Pointer.

nLength Signal Length.

pDst Pointer to the error result.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppsMaximumRelativeErrorGetBufferSize_16s to determine the minium number of bytes required.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.206.2.2 NppStatus nppsMaximumRelativeError_16sc (const Npp16sc ∗ *pSrc1*, const Npp16sc ∗ *pSrc2*, int *nLength*, Npp64f ∗ *pDst*, Npp8u ∗ *pDeviceBuffer*)

16-bit unsigned short complex integer MaximumRelative method.

Parameters:

pSrc1 Source Signal Pointer.

pSrc2 Source Signal Pointer.

nLength Signal Length.

pDst Pointer to the error result.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppsMaximumRelativeErrorGetBufferSize_16sc to determine the minium number of bytes required.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.206.2.3 NppStatus nppsMaximumRelativeError_16u (const Npp16u ∗ *pSrc1*, const Npp16u ∗ *pSrc2*, int *nLength*, Npp64f ∗ *pDst*, Npp8u ∗ *pDeviceBuffer*)

16-bit unsigned short integer MaximumRelative method.

Parameters:

pSrc1 Source Signal Pointer.

pSrc2 Source Signal Pointer.

nLength Signal Length.

pDst Pointer to the error result.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppsMaximumRelativeErrorGetBufferSize_16u to determine the minium number of bytes required.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.206.2.4 NppStatus nppsMaximumRelativeError_32f (const Npp32f ∗ *pSrc1*, const Npp32f ∗ *pSrc2*, int *nLength*, Npp64f ∗ *pDst*, Npp8u ∗ *pDeviceBuffer*)

32-bit floating point MaximumRelative method.

Parameters:

pSrc1 Source Signal Pointer.

pSrc2 Source Signal Pointer.

nLength Signal Length.

pDst Pointer to the error result.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppsMaximumRelativeErrorGetBufferSize_32f to determine the minium number of bytes required.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.206.2.5 NppStatus nppsMaximumRelativeError_32fc (const Npp32fc ∗ *pSrc1*, const Npp32fc ∗ *pSrc2*, int *nLength*, Npp64f ∗ *pDst*, Npp8u ∗ *pDeviceBuffer*)

32-bit floating point complex MaximumRelative method.

Parameters:

pSrc1 Source Signal Pointer.

pSrc2 Source Signal Pointer.

nLength Signal Length.

pDst Pointer to the error result.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppsMaximumRelativeErrorGetBufferSize_32fc to determine the minium number of bytes required.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.206.2.6 NppStatus nppsMaximumRelativeError_32s (const Npp32s ∗ *pSrc1*, const Npp32s ∗ *pSrc2*, int *nLength*, Npp64f ∗ *pDst*, Npp8u ∗ *pDeviceBuffer*)

32-bit signed short integer MaximumRelative method.

Parameters:

pSrc1 Source Signal Pointer.

pSrc2 Source Signal Pointer.

nLength Signal Length.

pDst Pointer to the error result.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppsMaximumRelativeErrorGetBufferSize_32s to determine the minium number of bytes required.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.206.2.7 NppStatus nppsMaximumRelativeError_32sc (const Npp32sc ∗ *pSrc1*, const Npp32sc ∗ *pSrc2*, int *nLength*, Npp64f ∗ *pDst*, Npp8u ∗ *pDeviceBuffer*)

32-bit unsigned short complex integer MaximumRelative method.

Parameters:

pSrc1 Source Signal Pointer.

pSrc2 Source Signal Pointer.

nLength Signal Length.

pDst Pointer to the error result.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppsMaximumRelativeErrorGetBufferSize_32sc to determine the minium number of bytes required.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.206.2.8 NppStatus nppsMaximumRelativeError_32u (const Npp32u $*$ *pSrc1*, const Npp32u $*$ *pSrc2*, int *nLength*, Npp64f $*$ *pDst*, Npp8u $*$ *pDeviceBuffer*)

32-bit unsigned short integer MaximumRelative method.

Parameters:

pSrc1 Source Signal Pointer.

pSrc2 Source Signal Pointer.

nLength Signal Length.

pDst Pointer to the error result.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppsMaximumRelativeErrorGetBufferSize_32u to determine the minium number of bytes required.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.206.2.9 NppStatus nppsMaximumRelativeError_64f (const Npp64f $*$ *pSrc1*, const Npp64f $*$ *pSrc2*, int *nLength*, Npp64f $*$ *pDst*, Npp8u $*$ *pDeviceBuffer*)

64-bit floating point MaximumRelative method.

Parameters:

pSrc1 Source Signal Pointer.

pSrc2 Source Signal Pointer.

nLength Signal Length.

pDst Pointer to the error result.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppsMaximumRelativeErrorGetBufferSize_64f to determine the minium number of bytes required.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.206.2.10 NppStatus nppsMaximumRelativeError_64fc (const Npp64fc ∗ *pSrc1*, const Npp64fc ∗ *pSrc2*, int *nLength*, Npp64f ∗ *pDst*, Npp8u ∗ *pDeviceBuffer*)

64-bit floating point complex MaximumRelative method.

Parameters:

pSrc1 Source Signal Pointer.

pSrc2 Source Signal Pointer.

nLength Signal Length.

pDst Pointer to the error result.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppsMaximumRelativeErrorGetBufferSize_64fc to determine the minium number of bytes required.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.206.2.11 NppStatus nppsMaximumRelativeError_64s (const Npp64s ∗ *pSrc1*, const Npp64s ∗ *pSrc2*, int *nLength*, Npp64f ∗ *pDst*, Npp8u ∗ *pDeviceBuffer*)

64-bit signed short integer MaximumRelative method.

Parameters:

pSrc1 Source Signal Pointer.

pSrc2 Source Signal Pointer.

nLength Signal Length.

pDst Pointer to the error result.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppsMaximumRelativeErrorGetBufferSize_64s to determine the minium number of bytes required.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.206.2.12 NppStatus nppsMaximumRelativeError_64sc (const Npp64sc ∗ *pSrc1*, const Npp64sc ∗ *pSrc2*, int *nLength*, Npp64f ∗ *pDst*, Npp8u ∗ *pDeviceBuffer*)

64-bit unsigned short complex integer MaximumRelative method.

Parameters:

pSrc1 Source Signal Pointer.

pSrc2 Source Signal Pointer.

nLength Signal Length.

pDst Pointer to the error result.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppsMaximumRelativeErrorGetBufferSize_64sc to determine the minium number of bytes required.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.206.2.13 NppStatus nppsMaximumRelativeError_8s (const Npp8s ∗ *pSrc1*, const Npp8s ∗ *pSrc2*, int *nLength*, Npp64f ∗ *pDst*, Npp8u ∗ *pDeviceBuffer*)

8-bit signed char MaximumRelative method.

Parameters:

pSrc1 Source Signal Pointer.

pSrc2 Source Signal Pointer.

nLength Signal Length.

pDst Pointer to the error result.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppsMaximumRelativeErrorGetBufferSize_8s to determine the minium number of bytes required.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.206.2.14 NppStatus nppsMaximumRelativeError_8u (const Npp8u ∗ *pSrc1*, const Npp8u ∗ *pSrc2*, int *nLength*, Npp64f ∗ *pDst*, Npp8u ∗ *pDeviceBuffer*)

8-bit unsigned char MaximumRelative method.

Parameters:

pSrc1 Source Signal Pointer.

pSrc2 Source Signal Pointer.

nLength Signal Length.

pDst Pointer to the error result.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppsMaximumRelativeErrorGetBufferSize_8u to determine the minium number of bytes required.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.206.2.15 NppStatus nppsMaximumRelativeErrorGetBufferSize_16s (int *nLength*, int * *hpBufferSize*)

Device-buffer size (in bytes) for nppsMaximumRelativeError_16s.

Parameters:

nLength Signal Length.

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.*

Returns:

NPP_SUCCESS

7.206.2.16 NppStatus nppsMaximumRelativeErrorGetBufferSize_16sc (int *nLength*, int * *hpBufferSize*)

Device-buffer size (in bytes) for nppsMaximumRelativeError_16sc.

Parameters:

nLength Signal Length.

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.*

Returns:

NPP_SUCCESS

7.206.2.17 NppStatus nppsMaximumRelativeErrorGetBufferSize_16u (int *nLength*, int * *hpBufferSize*)

Device-buffer size (in bytes) for nppsMaximumRelativeError_16u.

Parameters:

nLength Signal Length.

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.*

Returns:

NPP_SUCCESS

7.206.2.18 NppStatus nppsMaximumRelativeErrorGetBufferSize_32f (int *nLength*, int * *hpBufferSize*)

Device-buffer size (in bytes) for nppsMaximumRelativeError_32f.

Parameters:

nLength Signal Length.

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.*

Returns:

NPP_SUCCESS

7.206.2.19 NppStatus nppsMaximumRelativeErrorGetBufferSize_32fc (int *nLength*, int * *hpBufferSize*)

Device-buffer size (in bytes) for nppsMaximumRelativeError_32fc.

Parameters:

nLength Signal Length.

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.*

Returns:

NPP_SUCCESS

7.206.2.20 NppStatus nppsMaximumRelativeErrorGetBufferSize_32s (int *nLength*, int * *hpBufferSize*)

Device-buffer size (in bytes) for nppsMaximumRelativeError_32s.

Parameters:

nLength Signal Length.

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.*

Returns:

NPP_SUCCESS

7.206.2.21 NppStatus nppsMaximumRelativeErrorGetBufferSize_32sc (int *nLength*, int * *hpBufferSize*)

Device-buffer size (in bytes) for nppsMaximumRelativeError_32sc.

Parameters:

nLength Signal Length.

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.*

Returns:

NPP_SUCCESS

7.206.2.22 NppStatus nppsMaximumRelativeErrorGetBufferSize_32u (int *nLength*, int * *hpBufferSize*)

Device-buffer size (in bytes) for nppsMaximumRelativeError_32u.

Parameters:

nLength Signal Length.

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.*

Returns:

NPP_SUCCESS

7.206.2.23 NppStatus nppsMaximumRelativeErrorGetBufferSize_64f (int *nLength*, int * *hpBufferSize*)

Device-buffer size (in bytes) for nppsMaximumRelativeError_64f.

Parameters:

nLength Signal Length.

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.*

Returns:

NPP_SUCCESS

7.206.2.24 NppStatus nppsMaximumRelativeErrorGetBufferSize_64fc (int *nLength*, int * *hpBufferSize*)

Device-buffer size (in bytes) for nppsMaximumRelativeError_64fc.

Parameters:

nLength Signal Length.

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.*

Returns:

NPP_SUCCESS

7.206.2.25 NppStatus nppsMaximumRelativeErrorGetBufferSize_64s (int *nLength*, int * *hpBufferSize*)

Device-buffer size (in bytes) for nppsMaximumRelativeError_64s.

Parameters:

nLength Signal Length.

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.*

Returns:

NPP_SUCCESS

7.206.2.26 NppStatus nppsMaximumRelativeErrorGetBufferSize_64sc (int *nLength*, int * *hpBufferSize*)

Device-buffer size (in bytes) for nppsMaximumRelativeError_64sc.

Parameters:

nLength Signal Length.

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.*

Returns:

NPP_SUCCESS

7.206.2.27 NppStatus nppsMaximumRelativeErrorGetBufferSize_8s (int *nLength*, int * *hpBufferSize*)

Device-buffer size (in bytes) for nppsMaximumRelativeError_8s.

Parameters:

nLength Signal Length.

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.*

Returns:

NPP_SUCCESS

7.206.2.28 NppStatus nppsMaximumRelativeErrorGetBufferSize_8u (int *nLength*, int * *hpBufferSize*)

Device-buffer size (in bytes) for nppsMaximumRelativeError_8u.

Parameters:

nLength Signal Length.

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.*

Returns:

NPP_SUCCESS

7.207 AverageRelativeError

Primitives for computing the AverageRelative error between two signals.

Functions

- NppStatus nppsAverageRelativeError_8u (const Npp8u ∗pSrc1, const Npp8u ∗pSrc2, int nLength, Npp64f ∗pDst, Npp8u ∗pDeviceBuffer)

  8-bit unsigned char AverageRelative method.

- NppStatus nppsAverageRelativeError_8s (const Npp8s ∗pSrc1, const Npp8s ∗pSrc2, int nLength, Npp64f ∗pDst, Npp8u ∗pDeviceBuffer)

  8-bit signed char AverageRelative method.

- NppStatus nppsAverageRelativeError_16u (const Npp16u ∗pSrc1, const Npp16u ∗pSrc2, int nLength, Npp64f ∗pDst, Npp8u ∗pDeviceBuffer)

  16-bit unsigned short integer AverageRelative method.

- NppStatus nppsAverageRelativeError_16s (const Npp16s ∗pSrc1, const Npp16s ∗pSrc2, int nLength, Npp64f ∗pDst, Npp8u ∗pDeviceBuffer)

  16-bit signed short integer AverageRelative method.

- NppStatus nppsAverageRelativeError_16sc (const Npp16sc ∗pSrc1, const Npp16sc ∗pSrc2, int nLength, Npp64f ∗pDst, Npp8u ∗pDeviceBuffer)

  16-bit unsigned short complex integer AverageRelative method.

- NppStatus nppsAverageRelativeError_32u (const Npp32u ∗pSrc1, const Npp32u ∗pSrc2, int nLength, Npp64f ∗pDst, Npp8u ∗pDeviceBuffer)

  32-bit unsigned short integer AverageRelative method.

- NppStatus nppsAverageRelativeError_32s (const Npp32s ∗pSrc1, const Npp32s ∗pSrc2, int nLength, Npp64f ∗pDst, Npp8u ∗pDeviceBuffer)

  32-bit signed short integer AverageRelative method.

- NppStatus nppsAverageRelativeError_32sc (const Npp32sc ∗pSrc1, const Npp32sc ∗pSrc2, int nLength, Npp64f ∗pDst, Npp8u ∗pDeviceBuffer)

  32-bit unsigned short complex integer AverageRelative method.

- NppStatus nppsAverageRelativeError_64s (const Npp64s ∗pSrc1, const Npp64s ∗pSrc2, int nLength, Npp64f ∗pDst, Npp8u ∗pDeviceBuffer)

  64-bit signed short integer AverageRelative method.

- NppStatus nppsAverageRelativeError_64sc (const Npp64sc ∗pSrc1, const Npp64sc ∗pSrc2, int nLength, Npp64f ∗pDst, Npp8u ∗pDeviceBuffer)

  64-bit unsigned short complex integer AverageRelative method.

- NppStatus nppsAverageRelativeError_32f (const Npp32f ∗pSrc1, const Npp32f ∗pSrc2, int nLength, Npp64f ∗pDst, Npp8u ∗pDeviceBuffer)

  32-bit floating point AverageRelative method.

- NppStatus nppsAverageRelativeError_32fc (const Npp32fc ∗pSrc1, const Npp32fc ∗pSrc2, int nLength, Npp64f ∗pDst, Npp8u ∗pDeviceBuffer)

  32-bit floating point complex AverageRelative method.

- NppStatus nppsAverageRelativeError_64f (const Npp64f ∗pSrc1, const Npp64f ∗pSrc2, int nLength, Npp64f ∗pDst, Npp8u ∗pDeviceBuffer)

  64-bit floating point AverageRelative method.

- NppStatus nppsAverageRelativeError_64fc (const Npp64fc ∗pSrc1, const Npp64fc ∗pSrc2, int nLength, Npp64f ∗pDst, Npp8u ∗pDeviceBuffer)

  64-bit floating point complex AverageRelative method.

- NppStatus nppsAverageRelativeErrorGetBufferSize_8u (int nLength, int ∗hpBufferSize)

  Device-buffer size (in bytes) for nppsAverageRelativeError_8u.

- NppStatus nppsAverageRelativeErrorGetBufferSize_8s (int nLength, int ∗hpBufferSize)

  Device-buffer size (in bytes) for nppsAverageRelativeError_8s.

- NppStatus nppsAverageRelativeErrorGetBufferSize_16u (int nLength, int ∗hpBufferSize)

  Device-buffer size (in bytes) for nppsAverageRelativeError_16u.

- NppStatus nppsAverageRelativeErrorGetBufferSize_16s (int nLength, int ∗hpBufferSize)

  Device-buffer size (in bytes) for nppsAverageRelativeError_16s.

- NppStatus nppsAverageRelativeErrorGetBufferSize_16sc (int nLength, int ∗hpBufferSize)

  Device-buffer size (in bytes) for nppsAverageRelativeError_16sc.

- NppStatus nppsAverageRelativeErrorGetBufferSize_32u (int nLength, int ∗hpBufferSize)

  Device-buffer size (in bytes) for nppsAverageRelativeError_32u.

- NppStatus nppsAverageRelativeErrorGetBufferSize_32s (int nLength, int ∗hpBufferSize)

  Device-buffer size (in bytes) for nppsAverageRelativeError_32s.

- NppStatus nppsAverageRelativeErrorGetBufferSize_32sc (int nLength, int ∗hpBufferSize)

  Device-buffer size (in bytes) for nppsAverageRelativeError_32sc.

- NppStatus nppsAverageRelativeErrorGetBufferSize_64s (int nLength, int ∗hpBufferSize)

  Device-buffer size (in bytes) for nppsAverageRelativeError_64s.

- NppStatus nppsAverageRelativeErrorGetBufferSize_64sc (int nLength, int ∗hpBufferSize)

  Device-buffer size (in bytes) for nppsAverageRelativeError_64sc.

- NppStatus nppsAverageRelativeErrorGetBufferSize_32f (int nLength, int ∗hpBufferSize)

  Device-buffer size (in bytes) for nppsAverageRelativeError_32f.

- NppStatus nppsAverageRelativeErrorGetBufferSize_32fc (int nLength, int ∗hpBufferSize)

  Device-buffer size (in bytes) for nppsAverageRelativeError_32fc.

- NppStatus nppsAverageRelativeErrorGetBufferSize_64f (int nLength, int ∗hpBufferSize)

  Device-buffer size (in bytes) for nppsAverageRelativeError_64f.

- NppStatus nppsAverageRelativeErrorGetBufferSize_64fc (int nLength, int ∗hpBufferSize)

  Device-buffer size (in bytes) for nppsAverageRelativeError_64fc.

7.207.1 Detailed Description

Primitives for computing the AverageRelative error between two signals.

Given two signals $pSrc1$ and $pSrc2$ both with length N, the average relative error is defined as

$$AverageRelativeError = \frac{1}{N}\sum_{n=0}^{N-1}\frac{|pSrc1(n) - pSrc2(n)|}{max(|pSrc1(n)|, |pSrc2(n)|)}$$

If the signal is in complex format, the absolute value of the complex number is used.

7.207.2 Function Documentation

7.207.2.1 NppStatus nppsAverageRelativeError_16s (const Npp16s ∗ *pSrc1*, const Npp16s ∗ *pSrc2*, int *nLength*, Npp64f ∗ *pDst*, Npp8u ∗ *pDeviceBuffer*)

16-bit signed short integer AverageRelative method.

Parameters:

pSrc1 Source Signal Pointer.

pSrc2 Source Signal Pointer.

nLength Signal Length.

pDst Pointer to the error result.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppsAverageRelativeErrorGetBufferSize_16s to determine the minium number of bytes required.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.207.2.2 NppStatus nppsAverageRelativeError_16sc (const Npp16sc ∗ *pSrc1*, const Npp16sc ∗ *pSrc2*, int *nLength*, Npp64f ∗ *pDst*, Npp8u ∗ *pDeviceBuffer*)

16-bit unsigned short complex integer AverageRelative method.

Parameters:

pSrc1 Source Signal Pointer.

pSrc2 Source Signal Pointer.

nLength Signal Length.

pDst Pointer to the error result.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppsAverageRelativeErrorGetBufferSize_16sc to determine the minium number of bytes required.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.207.2.3 NppStatus nppsAverageRelativeError_16u (const Npp16u * *pSrc1*, const Npp16u * *pSrc2*, int *nLength*, Npp64f * *pDst*, Npp8u * *pDeviceBuffer*)

16-bit unsigned short integer AverageRelative method.

Parameters:

pSrc1 Source Signal Pointer.

pSrc2 Source Signal Pointer.

nLength Signal Length.

pDst Pointer to the error result.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppsAverageRelativeErrorGetBufferSize_16u to determine the minium number of bytes required.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.207.2.4 NppStatus nppsAverageRelativeError_32f (const Npp32f * *pSrc1*, const Npp32f * *pSrc2*, int *nLength*, Npp64f * *pDst*, Npp8u * *pDeviceBuffer*)

32-bit floating point AverageRelative method.

Parameters:

pSrc1 Source Signal Pointer.

pSrc2 Source Signal Pointer.

nLength Signal Length.

pDst Pointer to the error result.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppsAverageRelativeErrorGetBufferSize_32f to determine the minium number of bytes required.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.207.2.5 NppStatus nppsAverageRelativeError_32fc (const Npp32fc * *pSrc1*, const Npp32fc * *pSrc2*, int *nLength*, Npp64f * *pDst*, Npp8u * *pDeviceBuffer*)

32-bit floating point complex AverageRelative method.

Parameters:

pSrc1 Source Signal Pointer.

pSrc2 Source Signal Pointer.

nLength Signal Length.

pDst Pointer to the error result.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppsAverageRelativeErrorGetBufferSize_32fc to determine the minium number of bytes required.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.207.2.6 NppStatus nppsAverageRelativeError_32s (const Npp32s * *pSrc1*, const Npp32s * *pSrc2*, int *nLength*, Npp64f * *pDst*, Npp8u * *pDeviceBuffer*)

32-bit signed short integer AverageRelative method.

Parameters:

pSrc1 Source Signal Pointer.

pSrc2 Source Signal Pointer.

nLength Signal Length.

pDst Pointer to the error result.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppsAverageRelativeErrorGetBufferSize_32s to determine the minium number of bytes required.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.207.2.7 NppStatus nppsAverageRelativeError_32sc (const Npp32sc * *pSrc1*, const Npp32sc * *pSrc2*, int *nLength*, Npp64f * *pDst*, Npp8u * *pDeviceBuffer*)

32-bit unsigned short complex integer AverageRelative method.

Parameters:

pSrc1 Source Signal Pointer.

pSrc2 Source Signal Pointer.

nLength Signal Length.

pDst Pointer to the error result.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppsAverageRelativeErrorGetBufferSize_32sc to determine the minium number of bytes required.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.207.2.8 NppStatus nppsAverageRelativeError_32u (const Npp32u ∗ *pSrc1*, const Npp32u ∗ *pSrc2*, int *nLength*, Npp64f ∗ *pDst*, Npp8u ∗ *pDeviceBuffer*)

32-bit unsigned short integer AverageRelative method.

Parameters:

pSrc1 Source Signal Pointer.

pSrc2 Source Signal Pointer.

nLength Signal Length.

pDst Pointer to the error result.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppsAverageRelativeErrorGetBufferSize_32u to determine the minium number of bytes required.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.207.2.9 NppStatus nppsAverageRelativeError_64f (const Npp64f ∗ *pSrc1*, const Npp64f ∗ *pSrc2*, int *nLength*, Npp64f ∗ *pDst*, Npp8u ∗ *pDeviceBuffer*)

64-bit floating point AverageRelative method.

Parameters:

pSrc1 Source Signal Pointer.

pSrc2 Source Signal Pointer.

nLength Signal Length.

pDst Pointer to the error result.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppsAverageRelativeErrorGetBufferSize_64f to determine the minium number of bytes required.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.207.2.10 NppStatus nppsAverageRelativeError_64fc (const Npp64fc ∗ *pSrc1*, const Npp64fc ∗ *pSrc2*, int *nLength*, Npp64f ∗ *pDst*, Npp8u ∗ *pDeviceBuffer*)

64-bit floating point complex AverageRelative method.

Parameters:

pSrc1 Source Signal Pointer.

pSrc2 Source Signal Pointer.

nLength Signal Length.

pDst Pointer to the error result.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppsAverageRelativeErrorGetBufferSize_64fc to determine the minium number of bytes required.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.207.2.11 NppStatus nppsAverageRelativeError_64s (const Npp64s ∗ *pSrc1*, const Npp64s ∗ *pSrc2*, int *nLength*, Npp64f ∗ *pDst*, Npp8u ∗ *pDeviceBuffer*)

64-bit signed short integer AverageRelative method.

Parameters:

pSrc1 Source Signal Pointer.

pSrc2 Source Signal Pointer.

nLength Signal Length.

pDst Pointer to the error result.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppsAverageRelativeErrorGetBufferSize_64s to determine the minium number of bytes required.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.207.2.12 NppStatus nppsAverageRelativeError_64sc (const Npp64sc ∗ *pSrc1*, const Npp64sc ∗ *pSrc2*, int *nLength*, Npp64f ∗ *pDst*, Npp8u ∗ *pDeviceBuffer*)

64-bit unsigned short complex integer AverageRelative method.

Parameters:

pSrc1 Source Signal Pointer.

pSrc2 Source Signal Pointer.

nLength Signal Length.

pDst Pointer to the error result.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppsAverageRelativeErrorGetBufferSize_64sc to determine the minium number of bytes required.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.207.2.13 NppStatus nppsAverageRelativeError_8s (const Npp8s ∗ *pSrc1*, const Npp8s ∗ *pSrc2*, int *nLength*, Npp64f ∗ *pDst*, Npp8u ∗ *pDeviceBuffer*)

8-bit signed char AverageRelative method.

Parameters:

pSrc1 Source Signal Pointer.

pSrc2 Source Signal Pointer.

nLength Signal Length.

pDst Pointer to the error result.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppsAverageRelativeErrorGetBufferSize_8s to determine the minium number of bytes required.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.207.2.14 NppStatus nppsAverageRelativeError_8u (const Npp8u ∗ *pSrc1*, const Npp8u ∗ *pSrc2*, int *nLength*, Npp64f ∗ *pDst*, Npp8u ∗ *pDeviceBuffer*)

8-bit unsigned char AverageRelative method.

Parameters:

pSrc1 Source Signal Pointer.

pSrc2 Source Signal Pointer.

nLength Signal Length.

pDst Pointer to the error result.

pDeviceBuffer Pointer to the required device memory allocation, Scratch Buffer and Host Pointer. Use nppsAverageRelativeErrorGetBufferSize_8u to determine the minium number of bytes required.

Returns:

Signal Data Related Error Codes, Length Related Error Codes.

7.207.2.15 NppStatus nppsAverageRelativeErrorGetBufferSize_16s (int *nLength*, int * *hpBufferSize*)

Device-buffer size (in bytes) for nppsAverageRelativeError_16s.

Parameters:

nLength Signal Length.

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.*

Returns:

NPP_SUCCESS

7.207.2.16 NppStatus nppsAverageRelativeErrorGetBufferSize_16sc (int *nLength*, int * *hpBufferSize*)

Device-buffer size (in bytes) for nppsAverageRelativeError_16sc.

Parameters:

nLength Signal Length.

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.*

Returns:

NPP_SUCCESS

7.207.2.17 NppStatus nppsAverageRelativeErrorGetBufferSize_16u (int *nLength*, int * *hpBufferSize*)

Device-buffer size (in bytes) for nppsAverageRelativeError_16u.

Parameters:

nLength Signal Length.

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.*

Returns:

NPP_SUCCESS

7.207.2.18 NppStatus nppsAverageRelativeErrorGetBufferSize_32f (int *nLength*, int * *hpBufferSize*)

Device-buffer size (in bytes) for nppsAverageRelativeError_32f.

Parameters:

nLength Signal Length.

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.*

Returns:

NPP_SUCCESS

7.207.2.19 NppStatus nppsAverageRelativeErrorGetBufferSize_32fc (int *nLength*, int ∗ *hpBufferSize*)

Device-buffer size (in bytes) for nppsAverageRelativeError_32fc.

Parameters:

nLength Signal Length.

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.*

Returns:

NPP_SUCCESS

7.207.2.20 NppStatus nppsAverageRelativeErrorGetBufferSize_32s (int *nLength*, int ∗ *hpBufferSize*)

Device-buffer size (in bytes) for nppsAverageRelativeError_32s.

Parameters:

nLength Signal Length.

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.*

Returns:

NPP_SUCCESS

7.207.2.21 NppStatus nppsAverageRelativeErrorGetBufferSize_32sc (int *nLength*, int ∗ *hpBufferSize*)

Device-buffer size (in bytes) for nppsAverageRelativeError_32sc.

Parameters:

nLength Signal Length.

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.*

Returns:

NPP_SUCCESS

7.207.2.22 NppStatus nppsAverageRelativeErrorGetBufferSize_32u (int *nLength*, int ∗ *hpBufferSize*)

Device-buffer size (in bytes) for nppsAverageRelativeError_32u.

Parameters:

nLength Signal Length.

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.*

Returns:

NPP_SUCCESS

7.207.2.23 NppStatus nppsAverageRelativeErrorGetBufferSize_64f (int *nLength*, int ∗ *hpBufferSize*)

Device-buffer size (in bytes) for nppsAverageRelativeError_64f.

Parameters:

nLength Signal Length.

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.*

Returns:

NPP_SUCCESS

7.207.2.24 NppStatus nppsAverageRelativeErrorGetBufferSize_64fc (int *nLength*, int ∗ *hpBufferSize*)

Device-buffer size (in bytes) for nppsAverageRelativeError_64fc.

Parameters:

nLength Signal Length.

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.*

Returns:

NPP_SUCCESS

7.207.2.25 NppStatus nppsAverageRelativeErrorGetBufferSize_64s (int *nLength*, int ∗ *hpBufferSize*)

Device-buffer size (in bytes) for nppsAverageRelativeError_64s.

Parameters:

nLength Signal Length.

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.*

Returns:

NPP_SUCCESS

7.207.2.26 NppStatus nppsAverageRelativeErrorGetBufferSize_64sc (int *nLength*, int ∗ *hpBufferSize*)

Device-buffer size (in bytes) for nppsAverageRelativeError_64sc.

Parameters:

nLength Signal Length.

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.*

Returns:

NPP_SUCCESS

7.207.2.27 NppStatus nppsAverageRelativeErrorGetBufferSize_8s (int *nLength*, int * *hpBufferSize*)

Device-buffer size (in bytes) for nppsAverageRelativeError_8s.

Parameters:

nLength Signal Length.

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.*

Returns:

NPP_SUCCESS

7.207.2.28 NppStatus nppsAverageRelativeErrorGetBufferSize_8u (int *nLength*, int * *hpBufferSize*)

Device-buffer size (in bytes) for nppsAverageRelativeError_8u.

Parameters:

nLength Signal Length.

hpBufferSize Required buffer size. Important: hpBufferSize is a *host pointer.*

Returns:

NPP_SUCCESS

7.208 Memory Management

Modules

- Malloc

  Signal-allocator methods for allocating 1D arrays of data in device memory.

- Free

  Free signal memory.

7.209 Malloc

Signal-allocator methods for allocating 1D arrays of data in device memory.

Functions

- Npp8u ∗ nppsMalloc_8u (int nSize)

  8-bit unsigned signal allocator.

- Npp8s ∗ nppsMalloc_8s (int nSize)

  8-bit signed signal allocator.

- Npp16u ∗ nppsMalloc_16u (int nSize)

  16-bit unsigned signal allocator.

- Npp16s ∗ nppsMalloc_16s (int nSize)

  16-bit signal allocator.

- Npp16sc ∗ nppsMalloc_16sc (int nSize)

  16-bit complex-value signal allocator.

- Npp32u ∗ nppsMalloc_32u (int nSize)

  32-bit unsigned signal allocator.

- Npp32s ∗ nppsMalloc_32s (int nSize)

  32-bit integer signal allocator.

- Npp32sc ∗ nppsMalloc_32sc (int nSize)

  32-bit complex integer signal allocator.

- Npp32f ∗ nppsMalloc_32f (int nSize)

  32-bit float signal allocator.

- Npp32fc ∗ nppsMalloc_32fc (int nSize)

  32-bit complex float signal allocator.

- Npp64s ∗ nppsMalloc_64s (int nSize)

  64-bit long integer signal allocator.

- Npp64sc ∗ nppsMalloc_64sc (int nSize)

  64-bit complex long integer signal allocator.

- Npp64f ∗ nppsMalloc_64f (int nSize)

  64-bit float (double) signal allocator.

- Npp64fc ∗ nppsMalloc_64fc (int nSize)

  64-bit complex complex signal allocator.

7.209.1 Detailed Description

Signal-allocator methods for allocating 1D arrays of data in device memory.

All allocators have size parameters to specify the size of the signal (1D array) being allocated.

The allocator methods return a pointer to the newly allocated memory of appropriate type. If device-memory allocation is not possible due to resource constaints the allocators return 0 (i.e. NULL pointer).

All signal allocators allocate memory aligned such that it is beneficial to the performance of the majority of the signal-processing primitives. It is no mandatory however to use these allocators. Any valid CUDA device-memory pointers can be passed to NPP primitives.

7.209.2 Function Documentation

7.209.2.1 Npp16s∗ nppsMalloc_16s (int *nSize*)

16-bit signal allocator.

Parameters:

nSize Number of shorts in the new signal.

Returns:

A pointer to the new signal. 0 (NULL-pointer) indicates that an error occurred during allocation.

7.209.2.2 Npp16sc∗ nppsMalloc_16sc (int *nSize*)

16-bit complex-value signal allocator.

Parameters:

nSize Number of 16-bit complex numbers in the new signal.

Returns:

A pointer to the new signal. 0 (NULL-pointer) indicates that an error occurred during allocation.

7.209.2.3 Npp16u∗ nppsMalloc_16u (int *nSize*)

16-bit unsigned signal allocator.

Parameters:

nSize Number of unsigned shorts in the new signal.

Returns:

A pointer to the new signal. 0 (NULL-pointer) indicates that an error occurred during allocation.

7.209.2.4 Npp32f∗ nppsMalloc_32f (int *nSize*)

32-bit float signal allocator.

Parameters:

nSize Number of floats in the new signal.

Returns:

A pointer to the new signal. 0 (NULL-pointer) indicates that an error occurred during allocation.

7.209.2.5 Npp32fc∗ nppsMalloc_32fc (int *nSize*)

32-bit complex float signal allocator.

Parameters:

nSize Number of complex float values in the new signal.

Returns:

A pointer to the new signal. 0 (NULL-pointer) indicates that an error occurred during allocation.

7.209.2.6 Npp32s∗ nppsMalloc_32s (int *nSize*)

32-bit integer signal allocator.

Parameters:

nSize Number of ints in the new signal.

Returns:

A pointer to the new signal. 0 (NULL-pointer) indicates that an error occurred during allocation.

7.209.2.7 Npp32sc∗ nppsMalloc_32sc (int *nSize*)

32-bit complex integer signal allocator.

Parameters:

nSize Number of complex integner values in the new signal.

Returns:

A pointer to the new signal. 0 (NULL-pointer) indicates that an error occurred during allocation.

7.209.2.8 Npp32u* nppsMalloc_32u (int *nSize*)

32-bit unsigned signal allocator.

Parameters:

nSize Number of unsigned ints in the new signal.

Returns:

A pointer to the new signal. 0 (NULL-pointer) indicates that an error occurred during allocation.

7.209.2.9 Npp64f* nppsMalloc_64f (int *nSize*)

64-bit float (double) signal allocator.

Parameters:

nSize Number of doubles in the new signal.

Returns:

A pointer to the new signal. 0 (NULL-pointer) indicates that an error occurred during allocation.

7.209.2.10 Npp64fc* nppsMalloc_64fc (int *nSize*)

64-bit complex complex signal allocator.

Parameters:

nSize Number of complex double valuess in the new signal.

Returns:

A pointer to the new signal. 0 (NULL-pointer) indicates that an error occurred during allocation.

7.209.2.11 Npp64s* nppsMalloc_64s (int *nSize*)

64-bit long integer signal allocator.

Parameters:

nSize Number of long ints in the new signal.

Returns:

A pointer to the new signal. 0 (NULL-pointer) indicates that an error occurred during allocation.

7.209.2.12 Npp64sc∗ nppsMalloc_64sc (int *nSize*)

64-bit complex long integer signal allocator.

Parameters:

nSize Number of complex long int values in the new signal.

Returns:

A pointer to the new signal. 0 (NULL-pointer) indicates that an error occurred during allocation.

7.209.2.13 Npp8s∗ nppsMalloc_8s (int *nSize*)

8-bit signed signal allocator.

Parameters:

nSize Number of (signed) chars in the new signal.

Returns:

A pointer to the new signal. 0 (NULL-pointer) indicates that an error occurred during allocation.

7.209.2.14 Npp8u∗ nppsMalloc_8u (int *nSize*)

8-bit unsigned signal allocator.

Parameters:

nSize Number of unsigned chars in the new signal.

Returns:

A pointer to the new signal. 0 (NULL-pointer) indicates that an error occurred during allocation.

7.210 Free

Free signal memory.

Functions

- void nppsFree (void ∗pValues)

  Free method for any signal memory.

7.210.1 Detailed Description

Free signal memory.

7.210.2 Function Documentation

7.210.2.1 void nppsFree (void ∗ *pValues*)

Free method for any signal memory.

Parameters:

pValues A pointer to memory allocated using nppiMalloc_<modifier>.

Chapter 8

Data Structure Documentation

8.1 NPP_ALIGN_16 Struct Reference

Complex Number This struct represents a long long complex number.

```
#include <nppdefs.h>
```

Data Fields

- Npp64s re

  Real part.

- Npp64s im

  Imaginary part.

- Npp64f re

  Real part.

- Npp64f im

  Imaginary part.

8.1.1 Detailed Description

Complex Number This struct represents a long long complex number.

Complex Number This struct represents a double floating-point complex number.

8.1.2 Field Documentation

8.1.2.1 Npp64f NPP_ALIGN_16::im

Imaginary part.

8.1.2.2 Npp64s NPP_ALIGN_16::im

Imaginary part.

8.1.2.3 Npp64f NPP_ALIGN_16::re

Real part.

8.1.2.4 Npp64s NPP_ALIGN_16::re

Real part.

The documentation for this struct was generated from the following file:

- C:/src/sw/rel/gpgpu/toolkit/r6.5/NPP/npp/include/nppdefs.h

8.2 NPP_ALIGN_8 Struct Reference

Complex Number This struct represents an unsigned int complex number.

```
#include <nppdefs.h>
```

Data Fields

- Npp32u re

  Real part.

- Npp32u im

  Imaginary part.

- Npp32s re

  Real part.

- Npp32s im

  Imaginary part.

- Npp32f re

  Real part.

- Npp32f im

  Imaginary part.

8.2.1 Detailed Description

Complex Number This struct represents an unsigned int complex number.

Complex Number This struct represents a single floating-point complex number.

Complex Number This struct represents a signed int complex number.

8.2.2 Field Documentation

8.2.2.1 Npp32f NPP_ALIGN_8::im

Imaginary part.

8.2.2.2 Npp32s NPP_ALIGN_8::im

Imaginary part.

8.2.2.3 Npp32u NPP_ALIGN_8::im

Imaginary part.

8.2.2.4 Npp32f NPP_ALIGN_8::re

Real part.

8.2.2.5 Npp32s NPP_ALIGN_8::re

Real part.

8.2.2.6 Npp32u NPP_ALIGN_8::re

Real part.

The documentation for this struct was generated from the following file:

- C:/src/sw/rel/gpgpu/toolkit/r6.5/NPP/npp/include/nppdefs.h

8.3 NppiHaarBuffer Struct Reference

```
#include <nppdefs.h>
```

Data Fields

- int haarBufferSize

  size of the buffer

- Npp32s ∗ haarBuffer

  buffer

8.3.1 Field Documentation

8.3.1.1 Npp32s∗ NppiHaarBuffer::haarBuffer

buffer

8.3.1.2 int NppiHaarBuffer::haarBufferSize

size of the buffer

The documentation for this struct was generated from the following file:

- C:/src/sw/rel/gpgpu/toolkit/r6.5/NPP/npp/include/nppdefs.h

8.4 NppiHaarClassifier_32f Struct Reference

```
#include <nppdefs.h>
```

Data Fields

- int numClassifiers

  number of classifiers

- Npp32s ∗ classifiers

  packed classifier data 40 bytes each

- size_t classifierStep
- NppiSize classifierSize
- Npp32s ∗ counterDevice

8.4.1 Field Documentation

8.4.1.1 Npp32s∗ NppiHaarClassifier_32f::classifiers

packed classifier data 40 bytes each

8.4.1.2 NppiSize NppiHaarClassifier_32f::classifierSize

8.4.1.3 size_t NppiHaarClassifier_32f::classifierStep

8.4.1.4 Npp32s∗ NppiHaarClassifier_32f::counterDevice

8.4.1.5 int NppiHaarClassifier_32f::numClassifiers

number of classifiers

The documentation for this struct was generated from the following file:

- C:/src/sw/rel/gpgpu/toolkit/r6.5/NPP/npp/include/nppdefs.h

8.5 NppiPoint Struct Reference

2D Point

```
#include <nppdefs.h>
```

Data Fields

- int x

  x-coordinate.

- int y

  y-coordinate.

8.5.1 Detailed Description

2D Point

8.5.2 Field Documentation

8.5.2.1 int NppiPoint::x

x-coordinate.

8.5.2.2 int NppiPoint::y

y-coordinate.

The documentation for this struct was generated from the following file:

- C:/src/sw/rel/gpgpu/toolkit/r6.5/NPP/npp/include/nppdefs.h

8.6 NppiRect Struct Reference

2D Rectangle This struct contains position and size information of a rectangle in two space.

```
#include <nppdefs.h>
```

Data Fields

- int x

  x-coordinate of upper left corner.

- int y

  y-coordinate of upper left corner.

- int width

  Rectangle width.

- int height

  Rectangle height.

8.6.1 Detailed Description

2D Rectangle This struct contains position and size information of a rectangle in two space.

The rectangle's position is usually signified by the coordinate of its upper-left corner.

8.6.2 Field Documentation

8.6.2.1 int NppiRect::height

Rectangle height.

8.6.2.2 int NppiRect::width

Rectangle width.

8.6.2.3 int NppiRect::x

x-coordinate of upper left corner.

8.6.2.4 int NppiRect::y

y-coordinate of upper left corner.

The documentation for this struct was generated from the following file:

- C:/src/sw/rel/gpgpu/toolkit/r6.5/NPP/npp/include/nppdefs.h

8.7 NppiSize Struct Reference

2D Size This struct typically represents the size of a a rectangular region in two space.

```
#include <nppdefs.h>
```

Data Fields

- int width

  Rectangle width.

- int height

  Rectangle height.

8.7.1 Detailed Description

2D Size This struct typically represents the size of a a rectangular region in two space.

8.7.2 Field Documentation

8.7.2.1 int NppiSize::height

Rectangle height.

8.7.2.2 int NppiSize::width

Rectangle width.

The documentation for this struct was generated from the following file:

- C:/src/sw/rel/gpgpu/toolkit/r6.5/NPP/npp/include/nppdefs.h

8.8 NppLibraryVersion Struct Reference

```
#include <nppdefs.h>
```

Data Fields

- int major

  Major version number.
- int minor

  Minor version number.
- int build

  Build number.

8.8.1 Field Documentation

8.8.1.1 int NppLibraryVersion::build

Build number.

This reflects the nightly build this release was made from.

8.8.1.2 int NppLibraryVersion::major

Major version number.

8.8.1.3 int NppLibraryVersion::minor

Minor version number.

The documentation for this struct was generated from the following file:

- C:/src/sw/rel/gpgpu/toolkit/r6.5/NPP/npp/include/nppdefs.h

Index

__align__
    npp_basic_types, 49, 50
10Log10, 2427
1D Linear Filter, 1012
1D Window Sum, 1069
2D Fixed Linear Filters, 1139

Abs, 320, 2401
AbsDiff, 327
AbsDiffC, 166
Add, 168, 2351
AddC, 55, 2304
AddProduct, 200, 2363
AddProductC, 2313
AddSquare, 197
AddWeighted, 204
Affine Transforms, 1294
Alpha Composition, 472
AlphaComp, 488
AlphaCompC, 473
AlphaPremul, 495
AlphaPremulC, 481
And, 432, 2443
AndC, 371, 2440
Arctan, 2432
Arithmetic and Logical Operations, 52, 2301
Arithmetic Operations, 53, 2302
AverageError, 2104, 2639
AverageRelativeError, 2151, 2662

Basic NPP Data Types, 47
build
    NppLibraryVersion, 2690

Cauchy, CauchyD, and CauchyDD2, 2437
classifiers
    NppiHaarClassifier_32f, 2686
classifierSize
    NppiHaarClassifier_32f, 2686
classifierStep
    NppiHaarClassifier_32f, 2686
Color and Sampling Conversion, 497
Color Gamma Correction, 608
Color Model Conversion, 498
Color Processing, 617
Color Sampling Format Conversion, 580
Compare Operations, 2277
Complement Color Key, 614
Compression, 714
Conversion Functions, 2469
Convert, 814, 2470
Convolution, 1080
Copy, 767, 2510
Copy Constant Border, 873
Copy Replicate Border, 886
Copy Sub-Pixel, 911
Copy Wrap Border, 898
core_npp
    nppGetGpuComputeCapability, 32
    nppGetGpuName, 32
    nppGetGpuNumSMs, 32
    nppGetLibVersion, 32
    nppGetMaxThreadsPerBlock, 32
    nppGetMaxThreadsPerSM, 32
    nppGetStream, 33
    nppSetStream, 33
Count In Range, 2625
Count Zero Crossings, 2626
counterDevice
    NppiHaarClassifier_32f, 2686
CountInRange., 1883
CrossCorrFull_Norm, 1976
CrossCorrFull_NormLevel, 2012
crosscorrfullnorm
    nppiCrossCorrFull_Norm_16u32f_AC4R, 1978
    nppiCrossCorrFull_Norm_16u32f_C1R, 1978
    nppiCrossCorrFull_Norm_16u32f_C3R, 1978
    nppiCrossCorrFull_Norm_16u32f_C4R, 1979
    nppiCrossCorrFull_Norm_32f_AC4R, 1979
    nppiCrossCorrFull_Norm_32f_C1R, 1980
    nppiCrossCorrFull_Norm_32f_C3R, 1980
    nppiCrossCorrFull_Norm_32f_C4R, 1981
    nppiCrossCorrFull_Norm_8s32f_AC4R, 1981
    nppiCrossCorrFull_Norm_8s32f_C1R, 1981
    nppiCrossCorrFull_Norm_8s32f_C3R, 1982
    nppiCrossCorrFull_Norm_8s32f_C4R, 1982
    nppiCrossCorrFull_Norm_8u32f_AC4R, 1983
    nppiCrossCorrFull_Norm_8u32f_C1R, 1983
    nppiCrossCorrFull_Norm_8u32f_C3R, 1984

nppiCrossCorrFull_Norm_8u32f_C4R, 1984
nppiCrossCorrFull_Norm_8u_AC4RSfs, 1984
nppiCrossCorrFull_Norm_8u_C1RSfs, 1985
nppiCrossCorrFull_Norm_8u_C3RSfs, 1985
nppiCrossCorrFull_Norm_8u_C4RSfs, 1986
crosscorrfullnormlevel
nppiCrossCorrFull_NormLevel_16u32f_AC4R, 2016
nppiCrossCorrFull_NormLevel_16u32f_C1R, 2016
nppiCrossCorrFull_NormLevel_16u32f_C3R, 2016
nppiCrossCorrFull_NormLevel_16u32f_C4R, 2017
nppiCrossCorrFull_NormLevel_32f_AC4R, 2017
nppiCrossCorrFull_NormLevel_32f_C1R, 2018
nppiCrossCorrFull_NormLevel_32f_C3R, 2018
nppiCrossCorrFull_NormLevel_32f_C4R, 2019
nppiCrossCorrFull_NormLevel_8s32f_AC4R, 2019
nppiCrossCorrFull_NormLevel_8s32f_C1R, 2020
nppiCrossCorrFull_NormLevel_8s32f_C3R, 2020
nppiCrossCorrFull_NormLevel_8s32f_C4R, 2021
nppiCrossCorrFull_NormLevel_8u32f_AC4R, 2021
nppiCrossCorrFull_NormLevel_8u32f_C1R, 2022
nppiCrossCorrFull_NormLevel_8u32f_C3R, 2022
nppiCrossCorrFull_NormLevel_8u32f_C4R, 2023
nppiCrossCorrFull_NormLevel_8u_AC4RSfs, 2023
nppiCrossCorrFull_NormLevel_8u_C1RSfs, 2024
nppiCrossCorrFull_NormLevel_8u_C3RSfs, 2024
nppiCrossCorrFull_NormLevel_8u_C4RSfs, 2025
nppiFullNormLevelGetBufferHostSize_16u32f_AC4R, 2025
nppiFullNormLevelGetBufferHostSize_16u32f_C1R, 2026
nppiFullNormLevelGetBufferHostSize_16u32f_C3R, 2026
nppiFullNormLevelGetBufferHostSize_16u32f_C4R, 2026
nppiFullNormLevelGetBufferHostSize_32f_AC4R, 2027
nppiFullNormLevelGetBufferHostSize_32f_C1R, 2027
nppiFullNormLevelGetBufferHostSize_32f_C3R, 2027
nppiFullNormLevelGetBufferHostSize_32f_C4R, 2027
nppiFullNormLevelGetBufferHostSize_8s32f_AC4R, 2028
nppiFullNormLevelGetBufferHostSize_8s32f_C1R, 2028
nppiFullNormLevelGetBufferHostSize_8s32f_C3R, 2028
nppiFullNormLevelGetBufferHostSize_8s32f_C4R, 2029
nppiFullNormLevelGetBufferHostSize_8u32f_AC4R, 2029
nppiFullNormLevelGetBufferHostSize_8u32f_C1R, 2029
nppiFullNormLevelGetBufferHostSize_8u32f_C3R, 2029
nppiFullNormLevelGetBufferHostSize_8u32f_C4R, 2030
nppiFullNormLevelGetBufferHostSize_8u_AC4RSfs, 2030
nppiFullNormLevelGetBufferHostSize_8u_C1RSfs, 2030
nppiFullNormLevelGetBufferHostSize_8u_C3RSfs, 2031
nppiFullNormLevelGetBufferHostSize_8u_C4RSfs, 2031
CrossCorrSame_Norm, 1987
CrossCorrSame_NormLevel, 2032
crosscorrsamenorm
nppiCrossCorrSame_Norm_16u32f_AC4R, 1989
nppiCrossCorrSame_Norm_16u32f_C1R, 1989
nppiCrossCorrSame_Norm_16u32f_C3R, 1989
nppiCrossCorrSame_Norm_16u32f_C4R, 1990
nppiCrossCorrSame_Norm_32f_AC4R, 1990
nppiCrossCorrSame_Norm_32f_C1R, 1991
nppiCrossCorrSame_Norm_32f_C3R, 1991
nppiCrossCorrSame_Norm_32f_C4R, 1992
nppiCrossCorrSame_Norm_8s32f_AC4R, 1992
nppiCrossCorrSame_Norm_8s32f_C1R, 1992
nppiCrossCorrSame_Norm_8s32f_C3R, 1993
nppiCrossCorrSame_Norm_8s32f_C4R, 1993
nppiCrossCorrSame_Norm_8u32f_AC4R, 1994

nppiCrossCorrSame_Norm_8u32f_C1R, 1994
nppiCrossCorrSame_Norm_8u32f_C3R, 1995
nppiCrossCorrSame_Norm_8u32f_C4R, 1995
nppiCrossCorrSame_Norm_8u_AC4RSfs, 1995
nppiCrossCorrSame_Norm_8u_C1RSfs, 1996
nppiCrossCorrSame_Norm_8u_C3RSfs, 1996
nppiCrossCorrSame_Norm_8u_C4RSfs, 1997

crosscorrsamenormlevel
nppiCrossCorrSame_NormLevel_16u32f_AC4R, 2036
nppiCrossCorrSame_NormLevel_16u32f_C1R, 2036
nppiCrossCorrSame_NormLevel_16u32f_C3R, 2036
nppiCrossCorrSame_NormLevel_16u32f_C4R, 2037
nppiCrossCorrSame_NormLevel_32f_AC4R, 2037
nppiCrossCorrSame_NormLevel_32f_C1R, 2038
nppiCrossCorrSame_NormLevel_32f_C3R, 2038
nppiCrossCorrSame_NormLevel_32f_C4R, 2039
nppiCrossCorrSame_NormLevel_8s32f_AC4R, 2039
nppiCrossCorrSame_NormLevel_8s32f_C1R, 2040
nppiCrossCorrSame_NormLevel_8s32f_C3R, 2040
nppiCrossCorrSame_NormLevel_8s32f_C4R, 2041
nppiCrossCorrSame_NormLevel_8u32f_AC4R, 2041
nppiCrossCorrSame_NormLevel_8u32f_C1R, 2042
nppiCrossCorrSame_NormLevel_8u32f_C3R, 2042
nppiCrossCorrSame_NormLevel_8u32f_C4R, 2043
nppiCrossCorrSame_NormLevel_8u_AC4RSfs, 2043
nppiCrossCorrSame_NormLevel_8u_C1RSfs, 2044
nppiCrossCorrSame_NormLevel_8u_C3RSfs, 2044
nppiCrossCorrSame_NormLevel_8u_C4RSfs, 2045
nppiSameNormLevelGetBufferHostSize_16u32f_AC4R, 2045
nppiSameNormLevelGetBufferHostSize_16u32f_C1R, 2046
nppiSameNormLevelGetBufferHostSize_16u32f_C3R, 2046
nppiSameNormLevelGetBufferHostSize_16u32f_C4R, 2046
nppiSameNormLevelGetBufferHostSize_32f_AC4R, 2047
nppiSameNormLevelGetBufferHostSize_32f_C1R, 2047
nppiSameNormLevelGetBufferHostSize_32f_C3R, 2047
nppiSameNormLevelGetBufferHostSize_32f_C4R, 2047
nppiSameNormLevelGetBufferHostSize_8s32f_AC4R, 2048
nppiSameNormLevelGetBufferHostSize_8s32f_C1R, 2048
nppiSameNormLevelGetBufferHostSize_8s32f_C3R, 2048
nppiSameNormLevelGetBufferHostSize_8s32f_C4R, 2049
nppiSameNormLevelGetBufferHostSize_8u32f_AC4R, 2049
nppiSameNormLevelGetBufferHostSize_8u32f_C1R, 2049
nppiSameNormLevelGetBufferHostSize_8u32f_C3R, 2049
nppiSameNormLevelGetBufferHostSize_8u32f_C4R, 2050
nppiSameNormLevelGetBufferHostSize_8u_AC4RSfs, 2050
nppiSameNormLevelGetBufferHostSize_8u_C1RSfs, 2050
nppiSameNormLevelGetBufferHostSize_8u_C3RSfs, 2051
nppiSameNormLevelGetBufferHostSize_8u_C4RSfs, 2051

CrossCorrValid, 2009

crosscorrvalid
nppiCrossCorrValid_16u32f_C1R, 2009
nppiCrossCorrValid_32f_C1R, 2010
nppiCrossCorrValid_8s32f_C1R, 2010
nppiCrossCorrValid_8u32f_C1R, 2010

CrossCorrValid_Norm, 1998

CrossCorrValid_NormLevel, 2052

crosscorrvalidnorm
nppiCrossCorrValid_Norm_16u32f_AC4R, 2000
nppiCrossCorrValid_Norm_16u32f_C1R, 2000
nppiCrossCorrValid_Norm_16u32f_C3R, 2000
nppiCrossCorrValid_Norm_16u32f_C4R, 2001
nppiCrossCorrValid_Norm_32f_AC4R, 2001

nppiCrossCorrValid_Norm_32f_C1R, 2002
nppiCrossCorrValid_Norm_32f_C3R, 2002
nppiCrossCorrValid_Norm_32f_C4R, 2003
nppiCrossCorrValid_Norm_8s32f_AC4R, 2003
nppiCrossCorrValid_Norm_8s32f_C1R, 2003
nppiCrossCorrValid_Norm_8s32f_C3R, 2004
nppiCrossCorrValid_Norm_8s32f_C4R, 2004
nppiCrossCorrValid_Norm_8u32f_AC4R, 2005
nppiCrossCorrValid_Norm_8u32f_C1R, 2005
nppiCrossCorrValid_Norm_8u32f_C3R, 2006
nppiCrossCorrValid_Norm_8u32f_C4R, 2006
nppiCrossCorrValid_Norm_8u_AC4RSfs, 2006
nppiCrossCorrValid_Norm_8u_C1RSfs, 2007
nppiCrossCorrValid_Norm_8u_C3RSfs, 2007
nppiCrossCorrValid_Norm_8u_C4RSfs, 2008
crosscorrvalidnormlevel
nppiCrossCorrValid_NormLevel_16u32f_AC4R, 2056
nppiCrossCorrValid_NormLevel_16u32f_C1R, 2056
nppiCrossCorrValid_NormLevel_16u32f_C3R, 2056
nppiCrossCorrValid_NormLevel_16u32f_C4R, 2057
nppiCrossCorrValid_NormLevel_32f_AC4R, 2057
nppiCrossCorrValid_NormLevel_32f_C1R, 2058
nppiCrossCorrValid_NormLevel_32f_C3R, 2058
nppiCrossCorrValid_NormLevel_32f_C4R, 2059
nppiCrossCorrValid_NormLevel_8s32f_AC4R, 2059
nppiCrossCorrValid_NormLevel_8s32f_C1R, 2060
nppiCrossCorrValid_NormLevel_8s32f_C3R, 2060
nppiCrossCorrValid_NormLevel_8s32f_C4R, 2061
nppiCrossCorrValid_NormLevel_8u32f_AC4R, 2061
nppiCrossCorrValid_NormLevel_8u32f_C1R, 2062
nppiCrossCorrValid_NormLevel_8u32f_C3R, 2062
nppiCrossCorrValid_NormLevel_8u32f_C4R, 2063
nppiCrossCorrValid_NormLevel_8u_AC4RSfs, 2063
nppiCrossCorrValid_NormLevel_8u_C1RSfs, 2064
nppiCrossCorrValid_NormLevel_8u_C3RSfs, 2064
nppiCrossCorrValid_NormLevel_8u_C4RSfs, 2065
nppiValidNormLevelGetBufferHostSize_16u32f_AC4R, 2065
nppiValidNormLevelGetBufferHostSize_16u32f_C1R, 2066
nppiValidNormLevelGetBufferHostSize_16u32f_C3R, 2066
nppiValidNormLevelGetBufferHostSize_16u32f_C4R, 2066
nppiValidNormLevelGetBufferHostSize_32f_AC4R, 2067
nppiValidNormLevelGetBufferHostSize_32f_C1R, 2067
nppiValidNormLevelGetBufferHostSize_32f_C3R, 2067
nppiValidNormLevelGetBufferHostSize_32f_C4R, 2067
nppiValidNormLevelGetBufferHostSize_8s32f_AC4R, 2068
nppiValidNormLevelGetBufferHostSize_8s32f_C1R, 2068
nppiValidNormLevelGetBufferHostSize_8s32f_C3R, 2068
nppiValidNormLevelGetBufferHostSize_8s32f_C4R, 2069
nppiValidNormLevelGetBufferHostSize_8u32f_AC4R, 2069
nppiValidNormLevelGetBufferHostSize_8u32f_C1R, 2069
nppiValidNormLevelGetBufferHostSize_8u32f_C3R, 2069
nppiValidNormLevelGetBufferHostSize_8u32f_C4R, 2070
nppiValidNormLevelGetBufferHostSize_8u_AC4RSfs, 2070
nppiValidNormLevelGetBufferHostSize_8u_C1RSfs, 2070
nppiValidNormLevelGetBufferHostSize_8u_C3RSfs, 2071
nppiValidNormLevelGetBufferHostSize_8u_C4RSfs, 2071
Cubrt, 2418

Data Exchange and Initialization, 732
Dilate3x3, 1409
Dilate3x3Border, 1415
Dilation, 1394
Dilation with border control, 1401
Div, 276, 2390

Div_Round, 305, 2398
DivC, 140, 2342
DivCRev, 2349
Dot Product, 2605
DotProd, 1858
Duplicate Channel, 922

Erode, 1422
Erode3x3, 1437
Erode3x3Border, 1443
Erosion with border control, 1429
Exp, 363, 2419

Filtering Functions, 954, 2498
Fixed Filters, 1178
fixed_filters
  nppiFilterPrewittHoriz_16s_AC4R, 1185
  nppiFilterPrewittHoriz_16s_C1R, 1185
  nppiFilterPrewittHoriz_16s_C3R, 1186
  nppiFilterPrewittHoriz_16s_C4R, 1186
  nppiFilterPrewittHoriz_32f_AC4R, 1186
  nppiFilterPrewittHoriz_32f_C1R, 1187
  nppiFilterPrewittHoriz_32f_C3R, 1187
  nppiFilterPrewittHoriz_32f_C4R, 1187
  nppiFilterPrewittHoriz_8u_AC4R, 1188
  nppiFilterPrewittHoriz_8u_C1R, 1188
  nppiFilterPrewittHoriz_8u_C3R, 1188
  nppiFilterPrewittHoriz_8u_C4R, 1189
  nppiFilterPrewittVert_16s_AC4R, 1189
  nppiFilterPrewittVert_16s_C1R, 1189
  nppiFilterPrewittVert_16s_C3R, 1190
  nppiFilterPrewittVert_16s_C4R, 1190
  nppiFilterPrewittVert_32f_AC4R, 1190
  nppiFilterPrewittVert_32f_C1R, 1191
  nppiFilterPrewittVert_32f_C3R, 1191
  nppiFilterPrewittVert_32f_C4R, 1191
  nppiFilterPrewittVert_8u_AC4R, 1192
  nppiFilterPrewittVert_8u_C1R, 1192
  nppiFilterPrewittVert_8u_C3R, 1192
  nppiFilterPrewittVert_8u_C4R, 1193
  nppiFilterScharrHoriz_32f_C1R, 1193
  nppiFilterScharrHoriz_8s16s_C1R, 1193
  nppiFilterScharrHoriz_8u16s_C1R, 1194
  nppiFilterScharrHorizBorder_32f_C1R, 1194
  nppiFilterScharrHorizBorder_8s16s_C1R, 1195
  nppiFilterScharrHorizBorder_8u16s_C1R, 1195
  nppiFilterScharrVert_32f_C1R, 1195
  nppiFilterScharrVert_8s16s_C1R, 1196
  nppiFilterScharrVert_8u16s_C1R, 1196
  nppiFilterScharrVertBorder_32f_C1R, 1196
  nppiFilterScharrVertBorder_8s16s_C1R, 1197
  nppiFilterScharrVertBorder_8u16s_C1R, 1197
  nppiFilterSobelHoriz_16s_AC4R, 1198
  nppiFilterSobelHoriz_16s_C1R, 1198
  nppiFilterSobelHoriz_16s_C3R, 1198
  nppiFilterSobelHoriz_16s_C4R, 1199
  nppiFilterSobelHoriz_32f_AC4R, 1199
  nppiFilterSobelHoriz_32f_C1R, 1199
  nppiFilterSobelHoriz_32f_C3R, 1200
  nppiFilterSobelHoriz_32f_C4R, 1200
  nppiFilterSobelHoriz_8s16s_C1R, 1200
  nppiFilterSobelHoriz_8u16s_C1R, 1201
  nppiFilterSobelHoriz_8u_AC4R, 1201
  nppiFilterSobelHoriz_8u_C1R, 1201
  nppiFilterSobelHoriz_8u_C3R, 1202
  nppiFilterSobelHoriz_8u_C4R, 1202
  nppiFilterSobelHorizMask_32f_C1R, 1202
  nppiFilterSobelHorizSecond_32f_C1R, 1203
  nppiFilterSobelHorizSecond_8s16s_C1R, 1203
  nppiFilterSobelHorizSecond_8u16s_C1R, 1204
  nppiFilterSobelVert_16s_AC4R, 1204
  nppiFilterSobelVert_16s_C1R, 1204
  nppiFilterSobelVert_16s_C3R, 1205
  nppiFilterSobelVert_16s_C4R, 1205
  nppiFilterSobelVert_32f_AC4R, 1205
  nppiFilterSobelVert_32f_C1R, 1206
  nppiFilterSobelVert_32f_C3R, 1206
  nppiFilterSobelVert_32f_C4R, 1206
  nppiFilterSobelVert_8s16s_C1R, 1207
  nppiFilterSobelVert_8u16s_C1R, 1207
  nppiFilterSobelVert_8u_AC4R, 1207
  nppiFilterSobelVert_8u_C1R, 1208
  nppiFilterSobelVert_8u_C3R, 1208
  nppiFilterSobelVert_8u_C4R, 1208
  nppiFilterSobelVertMask_32f_C1R, 1209
Fourier Transforms, 1391
Free, 2680

Geometry Transforms, 1210
GraphCut, 725

haarBuffer
  NppiHaarBuffer, 2685
haarBufferSize
  NppiHaarBuffer, 2685
height
  NppiRect, 2688
  NppiSize, 2689
HistogramEven, 1911
HistogramRange, 1924

im
  NPP_ALIGN_16, 2681
  NPP_ALIGN_8, 2683

Image Norms, 1654
Image Proximity, 1940
Image Quality Index, 2072
image_1D_linear_filter
  nppiFilterColumn32f_16s_AC4R, 1022
  nppiFilterColumn32f_16s_C1R, 1023
  nppiFilterColumn32f_16s_C3R, 1023
  nppiFilterColumn32f_16s_C4R, 1023
  nppiFilterColumn32f_16u_AC4R, 1024
  nppiFilterColumn32f_16u_C1R, 1024
  nppiFilterColumn32f_16u_C3R, 1025
  nppiFilterColumn32f_16u_C4R, 1025
  nppiFilterColumn32f_8u_AC4R, 1026
  nppiFilterColumn32f_8u_C1R, 1026
  nppiFilterColumn32f_8u_C3R, 1027
  nppiFilterColumn32f_8u_C4R, 1027
  nppiFilterColumn_16s_AC4R, 1028
  nppiFilterColumn_16s_C1R, 1028
  nppiFilterColumn_16s_C3R, 1029
  nppiFilterColumn_16s_C4R, 1029
  nppiFilterColumn_16u_AC4R, 1030
  nppiFilterColumn_16u_C1R, 1030
  nppiFilterColumn_16u_C3R, 1031
  nppiFilterColumn_16u_C4R, 1031
  nppiFilterColumn_32f_AC4R, 1032
  nppiFilterColumn_32f_C1R, 1032
  nppiFilterColumn_32f_C3R, 1033
  nppiFilterColumn_32f_C4R, 1033
  nppiFilterColumn_64f_C1R, 1034
  nppiFilterColumn_8u_AC4R, 1034
  nppiFilterColumn_8u_C1R, 1035
  nppiFilterColumn_8u_C3R, 1035
  nppiFilterColumn_8u_C4R, 1036
  nppiFilterRow32f_16s_AC4R, 1036
  nppiFilterRow32f_16s_C1R, 1037
  nppiFilterRow32f_16s_C3R, 1037
  nppiFilterRow32f_16s_C4R, 1038
  nppiFilterRow32f_16u_AC4R, 1038
  nppiFilterRow32f_16u_C1R, 1039
  nppiFilterRow32f_16u_C3R, 1039
  nppiFilterRow32f_16u_C4R, 1040
  nppiFilterRow32f_8u_AC4R, 1040
  nppiFilterRow32f_8u_C1R, 1041
  nppiFilterRow32f_8u_C3R, 1041
  nppiFilterRow32f_8u_C4R, 1042
  nppiFilterRow_16s_AC4R, 1042
  nppiFilterRow_16s_C1R, 1043
  nppiFilterRow_16s_C3R, 1043
  nppiFilterRow_16s_C4R, 1044
  nppiFilterRow_16u_AC4R, 1044
  nppiFilterRow_16u_C1R, 1045
  nppiFilterRow_16u_C3R, 1045
  nppiFilterRow_16u_C4R, 1046
  nppiFilterRow_32f_AC4R, 1046
  nppiFilterRow_32f_C1R, 1047
  nppiFilterRow_32f_C3R, 1047
  nppiFilterRow_32f_C4R, 1048
  nppiFilterRow_64f_C1R, 1048
  nppiFilterRow_8u_AC4R, 1049
  nppiFilterRow_8u_C1R, 1049
  nppiFilterRow_8u_C3R, 1050
  nppiFilterRow_8u_C4R, 1050
  nppiFilterSobelCross_32f_C1R, 1051
  nppiFilterSobelCross_8s16s_C1R, 1051
  nppiFilterSobelCross_8u16s_C1R, 1052
  nppiFilterSobelHorizBorder_16s_AC4R, 1052
  nppiFilterSobelHorizBorder_16s_C1R, 1052
  nppiFilterSobelHorizBorder_16s_C3R, 1053
  nppiFilterSobelHorizBorder_16s_C4R, 1053
  nppiFilterSobelHorizBorder_32f_AC4R, 1054
  nppiFilterSobelHorizBorder_32f_C1R, 1054
  nppiFilterSobelHorizBorder_32f_C3R, 1055
  nppiFilterSobelHorizBorder_32f_C4R, 1055
  nppiFilterSobelHorizBorder_8s16s_C1R, 1055
  nppiFilterSobelHorizBorder_8u16s_C1R, 1056
  nppiFilterSobelHorizBorder_8u_AC4R, 1056
  nppiFilterSobelHorizBorder_8u_C1R, 1057
  nppiFilterSobelHorizBorder_8u_C3R, 1057
  nppiFilterSobelHorizBorder_8u_C4R, 1058
  nppiFilterSobelHorizMaskBorder_32f_C1R, 1058
  nppiFilterSobelHorizSecondBorder_32f_C1R, 1059
  nppiFilterSobelHorizSecondBorder_8s16s_C1R, 1059
  nppiFilterSobelHorizSecondBorder_8u16s_C1R, 1060
  nppiFilterSobelVertBorder_16s_AC4R, 1060
  nppiFilterSobelVertBorder_16s_C1R, 1060
  nppiFilterSobelVertBorder_16s_C3R, 1061
  nppiFilterSobelVertBorder_16s_C4R, 1061
  nppiFilterSobelVertBorder_32f_AC4R, 1062
  nppiFilterSobelVertBorder_32f_C1R, 1062
  nppiFilterSobelVertBorder_32f_C3R, 1063
  nppiFilterSobelVertBorder_32f_C4R, 1063
  nppiFilterSobelVertBorder_8s16s_C1R, 1063
  nppiFilterSobelVertBorder_8u16s_C1R, 1064
  nppiFilterSobelVertBorder_8u_AC4R, 1064
  nppiFilterSobelVertBorder_8u_C1R, 1065
  nppiFilterSobelVertBorder_8u_C3R, 1065
  nppiFilterSobelVertBorder_8u_C4R, 1066
  nppiFilterSobelVertMaskBorder_32f_C1R, 1066
  nppiFilterSobelVertSecond_32f_C1R, 1067
  nppiFilterSobelVertSecond_8s16s_C1R, 1067
  nppiFilterSobelVertSecond_8u16s_C1R, 1067

image_1D_window_sum
- nppiSumWindowColumn_16s32f_C1R, 1070
- nppiSumWindowColumn_16s32f_C3R, 1071
- nppiSumWindowColumn_16s32f_C4R, 1071
- nppiSumWindowColumn_16u32f_C1R, 1072
- nppiSumWindowColumn_16u32f_C3R, 1072
- nppiSumWindowColumn_16u32f_C4R, 1073
- nppiSumWindowColumn_8u32f_C1R, 1073
- nppiSumWindowColumn_8u32f_C3R, 1073
- nppiSumWindowColumn_8u32f_C4R, 1074
- nppiSumWindowRow_16s32f_C1R, 1074
- nppiSumWindowRow_16s32f_C3R, 1075
- nppiSumWindowRow_16s32f_C4R, 1075
- nppiSumWindowRow_16u32f_C1R, 1076
- nppiSumWindowRow_16u32f_C3R, 1076
- nppiSumWindowRow_16u32f_C4R, 1077
- nppiSumWindowRow_8u32f_C1R, 1077
- nppiSumWindowRow_8u32f_C3R, 1078
- nppiSumWindowRow_8u32f_C4R, 1078

image_2D_fixed_linear_filters
- nppiFilterBox_16s_AC4R, 1140
- nppiFilterBox_16s_C1R, 1140
- nppiFilterBox_16s_C3R, 1141
- nppiFilterBox_16s_C4R, 1141
- nppiFilterBox_16u_AC4R, 1142
- nppiFilterBox_16u_C1R, 1142
- nppiFilterBox_16u_C3R, 1142
- nppiFilterBox_16u_C4R, 1143
- nppiFilterBox_32f_AC4R, 1143
- nppiFilterBox_32f_C1R, 1144
- nppiFilterBox_32f_C3R, 1144
- nppiFilterBox_32f_C4R, 1144
- nppiFilterBox_64f_C1R, 1145
- nppiFilterBox_8u_AC4R, 1145
- nppiFilterBox_8u_C1R, 1146
- nppiFilterBox_8u_C3R, 1146
- nppiFilterBox_8u_C4R, 1146

image_abs
- nppiAbs_16s_AC4IR, 321
- nppiAbs_16s_AC4R, 321
- nppiAbs_16s_C1IR, 321
- nppiAbs_16s_C1R, 322
- nppiAbs_16s_C3IR, 322
- nppiAbs_16s_C3R, 322
- nppiAbs_16s_C4IR, 323
- nppiAbs_16s_C4R, 323
- nppiAbs_32f_AC4IR, 323
- nppiAbs_32f_AC4R, 324
- nppiAbs_32f_C1IR, 324
- nppiAbs_32f_C1R, 324
- nppiAbs_32f_C3IR, 325
- nppiAbs_32f_C3R, 325
- nppiAbs_32f_C4IR, 325
- nppiAbs_32f_C4R, 326

image_absdiff
- nppiAbsDiff_16u_C1R, 327
- nppiAbsDiff_32f_C1R, 328
- nppiAbsDiff_8u_C1R, 328
- nppiAbsDiff_8u_C3R, 328
- nppiAbsDiff_8u_C4R, 329

image_absdiffc
- nppiAbsDiffC_16u_C1R, 166
- nppiAbsDiffC_32f_C1R, 166
- nppiAbsDiffC_8u_C1R, 167

image_add
- nppiAdd_16s_AC4IRSfs, 173
- nppiAdd_16s_AC4RSfs, 173
- nppiAdd_16s_C1IRSfs, 174
- nppiAdd_16s_C1RSfs, 174
- nppiAdd_16s_C3IRSfs, 175
- nppiAdd_16s_C3RSfs, 175
- nppiAdd_16s_C4IRSfs, 175
- nppiAdd_16s_C4RSfs, 176
- nppiAdd_16sc_AC4IRSfs, 176
- nppiAdd_16sc_AC4RSfs, 177
- nppiAdd_16sc_C1IRSfs, 177
- nppiAdd_16sc_C1RSfs, 177
- nppiAdd_16sc_C3IRSfs, 178
- nppiAdd_16sc_C3RSfs, 178
- nppiAdd_16u_AC4IRSfs, 179
- nppiAdd_16u_AC4RSfs, 179
- nppiAdd_16u_C1IRSfs, 180
- nppiAdd_16u_C1RSfs, 180
- nppiAdd_16u_C3IRSfs, 180
- nppiAdd_16u_C3RSfs, 181
- nppiAdd_16u_C4IRSfs, 181
- nppiAdd_16u_C4RSfs, 182
- nppiAdd_32f_AC4IR, 182
- nppiAdd_32f_AC4R, 182
- nppiAdd_32f_C1IR, 183
- nppiAdd_32f_C1R, 183
- nppiAdd_32f_C3IR, 184
- nppiAdd_32f_C3R, 184
- nppiAdd_32f_C4IR, 184
- nppiAdd_32f_C4R, 185
- nppiAdd_32fc_AC4IR, 185
- nppiAdd_32fc_AC4R, 185
- nppiAdd_32fc_C1IR, 186
- nppiAdd_32fc_C1R, 186
- nppiAdd_32fc_C3IR, 187
- nppiAdd_32fc_C3R, 187
- nppiAdd_32fc_C4IR, 187
- nppiAdd_32fc_C4R, 188
- nppiAdd_32s_C1IRSfs, 188
- nppiAdd_32s_C1R, 189
- nppiAdd_32s_C1RSfs, 189
- nppiAdd_32s_C3IRSfs, 189
- nppiAdd_32s_C3RSfs, 190

nppiAdd_32sc_AC4IRSfs, 190
nppiAdd_32sc_AC4RSfs, 191
nppiAdd_32sc_C1IRSfs, 191
nppiAdd_32sc_C1RSfs, 191
nppiAdd_32sc_C3IRSfs, 192
nppiAdd_32sc_C3RSfs, 192
nppiAdd_8u_AC4IRSfs, 193
nppiAdd_8u_AC4RSfs, 193
nppiAdd_8u_C1IRSfs, 194
nppiAdd_8u_C1RSfs, 194
nppiAdd_8u_C3IRSfs, 194
nppiAdd_8u_C3RSfs, 195
nppiAdd_8u_C4IRSfs, 195
nppiAdd_8u_C4RSfs, 196
image_addc
nppiAddC_16s_AC4IRSfs, 60
nppiAddC_16s_AC4RSfs, 60
nppiAddC_16s_C1IRSfs, 60
nppiAddC_16s_C1RSfs, 61
nppiAddC_16s_C3IRSfs, 61
nppiAddC_16s_C3RSfs, 61
nppiAddC_16s_C4IRSfs, 62
nppiAddC_16s_C4RSfs, 62
nppiAddC_16sc_AC4IRSfs, 63
nppiAddC_16sc_AC4RSfs, 63
nppiAddC_16sc_C1IRSfs, 63
nppiAddC_16sc_C1RSfs, 64
nppiAddC_16sc_C3IRSfs, 64
nppiAddC_16sc_C3RSfs, 65
nppiAddC_16u_AC4IRSfs, 65
nppiAddC_16u_AC4RSfs, 65
nppiAddC_16u_C1IRSfs, 66
nppiAddC_16u_C1RSfs, 66
nppiAddC_16u_C3IRSfs, 67
nppiAddC_16u_C3RSfs, 67
nppiAddC_16u_C4IRSfs, 67
nppiAddC_16u_C4RSfs, 68
nppiAddC_32f_AC4IR, 68
nppiAddC_32f_AC4R, 68
nppiAddC_32f_C1IR, 69
nppiAddC_32f_C1R, 69
nppiAddC_32f_C3IR, 69
nppiAddC_32f_C3R, 70
nppiAddC_32f_C4IR, 70
nppiAddC_32f_C4R, 70
nppiAddC_32fc_AC4IR, 71
nppiAddC_32fc_AC4R, 71
nppiAddC_32fc_C1IR, 71
nppiAddC_32fc_C1R, 72
nppiAddC_32fc_C3IR, 72
nppiAddC_32fc_C3R, 72
nppiAddC_32fc_C4IR, 73
nppiAddC_32fc_C4R, 73
nppiAddC_32s_C1IRSfs, 74
nppiAddC_32s_C1RSfs, 74
nppiAddC_32s_C3IRSfs, 74
nppiAddC_32s_C3RSfs, 75
nppiAddC_32sc_AC4IRSfs, 75
nppiAddC_32sc_AC4RSfs, 75
nppiAddC_32sc_C1IRSfs, 76
nppiAddC_32sc_C1RSfs, 76
nppiAddC_32sc_C3IRSfs, 77
nppiAddC_32sc_C3RSfs, 77
nppiAddC_8u_AC4IRSfs, 77
nppiAddC_8u_AC4RSfs, 78
nppiAddC_8u_C1IRSfs, 78
nppiAddC_8u_C1RSfs, 79
nppiAddC_8u_C3IRSfs, 79
nppiAddC_8u_C3RSfs, 79
nppiAddC_8u_C4IRSfs, 80
nppiAddC_8u_C4RSfs, 80
image_addproduct
nppiAddProduct_16u32f_C1IMR, 200
nppiAddProduct_16u32f_C1IR, 201
nppiAddProduct_32f_C1IMR, 201
nppiAddProduct_32f_C1IR, 202
nppiAddProduct_8u32f_C1IMR, 202
nppiAddProduct_8u32f_C1IR, 202
image_addsquare
nppiAddSquare_16u32f_C1IMR, 197
nppiAddSquare_16u32f_C1IR, 198
nppiAddSquare_32f_C1IMR, 198
nppiAddSquare_32f_C1IR, 198
nppiAddSquare_8u32f_C1IMR, 199
nppiAddSquare_8u32f_C1IR, 199
image_addweighted
nppiAddWeighted_16u32f_C1IMR, 204
nppiAddWeighted_16u32f_C1IR, 205
nppiAddWeighted_32f_C1IMR, 205
nppiAddWeighted_32f_C1IR, 206
nppiAddWeighted_8u32f_C1IMR, 206
nppiAddWeighted_8u32f_C1IR, 206
image_affine_transform
nppiGetAffineBound, 1303
nppiGetAffineQuad, 1303
nppiGetAffineTransform, 1304
nppiWarpAffine_16u_AC4R, 1304
nppiWarpAffine_16u_C1R, 1305
nppiWarpAffine_16u_C3R, 1305
nppiWarpAffine_16u_C4R, 1306
nppiWarpAffine_16u_P3R, 1306
nppiWarpAffine_16u_P4R, 1307
nppiWarpAffine_32f_AC4R, 1307
nppiWarpAffine_32f_C1R, 1308
nppiWarpAffine_32f_C3R, 1308
nppiWarpAffine_32f_C4R, 1309
nppiWarpAffine_32f_P3R, 1309
nppiWarpAffine_32f_P4R, 1310

nppiWarpAffine_32s_AC4R, 1310
nppiWarpAffine_32s_C1R, 1311
nppiWarpAffine_32s_C3R, 1311
nppiWarpAffine_32s_C4R, 1312
nppiWarpAffine_32s_P3R, 1312
nppiWarpAffine_32s_P4R, 1313
nppiWarpAffine_64f_AC4R, 1313
nppiWarpAffine_64f_C1R, 1314
nppiWarpAffine_64f_C3R, 1314
nppiWarpAffine_64f_C4R, 1315
nppiWarpAffine_64f_P3R, 1315
nppiWarpAffine_64f_P4R, 1316
nppiWarpAffine_8u_AC4R, 1316
nppiWarpAffine_8u_C1R, 1317
nppiWarpAffine_8u_C3R, 1317
nppiWarpAffine_8u_C4R, 1318
nppiWarpAffine_8u_P3R, 1318
nppiWarpAffine_8u_P4R, 1319
nppiWarpAffineBack_16u_AC4R, 1319
nppiWarpAffineBack_16u_C1R, 1320
nppiWarpAffineBack_16u_C3R, 1320
nppiWarpAffineBack_16u_C4R, 1321
nppiWarpAffineBack_16u_P3R, 1321
nppiWarpAffineBack_16u_P4R, 1322
nppiWarpAffineBack_32f_AC4R, 1322
nppiWarpAffineBack_32f_C1R, 1323
nppiWarpAffineBack_32f_C3R, 1323
nppiWarpAffineBack_32f_C4R, 1324
nppiWarpAffineBack_32f_P3R, 1324
nppiWarpAffineBack_32f_P4R, 1325
nppiWarpAffineBack_32s_AC4R, 1325
nppiWarpAffineBack_32s_C1R, 1326
nppiWarpAffineBack_32s_C3R, 1326
nppiWarpAffineBack_32s_C4R, 1327
nppiWarpAffineBack_32s_P3R, 1327
nppiWarpAffineBack_32s_P4R, 1328
nppiWarpAffineBack_8u_AC4R, 1328
nppiWarpAffineBack_8u_C1R, 1329
nppiWarpAffineBack_8u_C3R, 1329
nppiWarpAffineBack_8u_C4R, 1330
nppiWarpAffineBack_8u_P3R, 1330
nppiWarpAffineBack_8u_P4R, 1331
nppiWarpAffineQuad_16u_AC4R, 1331
nppiWarpAffineQuad_16u_C1R, 1332
nppiWarpAffineQuad_16u_C3R, 1332
nppiWarpAffineQuad_16u_C4R, 1333
nppiWarpAffineQuad_16u_P3R, 1333
nppiWarpAffineQuad_16u_P4R, 1334
nppiWarpAffineQuad_32f_AC4R, 1334
nppiWarpAffineQuad_32f_C1R, 1335
nppiWarpAffineQuad_32f_C3R, 1335
nppiWarpAffineQuad_32f_C4R, 1336
nppiWarpAffineQuad_32f_P3R, 1336
nppiWarpAffineQuad_32f_P4R, 1337
nppiWarpAffineQuad_32s_AC4R, 1337
nppiWarpAffineQuad_32s_C1R, 1338
nppiWarpAffineQuad_32s_C3R, 1338
nppiWarpAffineQuad_32s_C4R, 1339
nppiWarpAffineQuad_32s_P3R, 1339
nppiWarpAffineQuad_32s_P4R, 1340
nppiWarpAffineQuad_8u_AC4R, 1340
nppiWarpAffineQuad_8u_C1R, 1341
nppiWarpAffineQuad_8u_C3R, 1341
nppiWarpAffineQuad_8u_C4R, 1342
nppiWarpAffineQuad_8u_P3R, 1342
nppiWarpAffineQuad_8u_P4R, 1343
image_alphacomp
nppiAlphaComp_16s_AC1R, 489
nppiAlphaComp_16u_AC1R, 489
nppiAlphaComp_16u_AC4R, 490
nppiAlphaComp_32f_AC1R, 490
nppiAlphaComp_32f_AC4R, 491
nppiAlphaComp_32s_AC1R, 491
nppiAlphaComp_32s_AC4R, 491
nppiAlphaComp_32u_AC1R, 492
nppiAlphaComp_32u_AC4R, 492
nppiAlphaComp_8s_AC1R, 493
nppiAlphaComp_8u_AC1R, 493
nppiAlphaComp_8u_AC4R, 494
image_alphacompc
nppiAlphaCompC_16s_C1R, 474
nppiAlphaCompC_16u_AC4R, 474
nppiAlphaCompC_16u_C1R, 475
nppiAlphaCompC_16u_C3R, 475
nppiAlphaCompC_16u_C4R, 476
nppiAlphaCompC_32f_C1R, 476
nppiAlphaCompC_32s_C1R, 477
nppiAlphaCompC_32u_C1R, 477
nppiAlphaCompC_8s_C1R, 478
nppiAlphaCompC_8u_AC4R, 478
nppiAlphaCompC_8u_C1R, 479
nppiAlphaCompC_8u_C3R, 479
nppiAlphaCompC_8u_C4R, 480
image_alphapremul
nppiAlphaPremul_16u_AC4IR, 495
nppiAlphaPremul_16u_AC4R, 495
nppiAlphaPremul_8u_AC4IR, 496
nppiAlphaPremul_8u_AC4R, 496
image_alphapremulc
nppiAlphaPremulC_16u_AC4IR, 482
nppiAlphaPremulC_16u_AC4R, 482
nppiAlphaPremulC_16u_C1IR, 483
nppiAlphaPremulC_16u_C1R, 483
nppiAlphaPremulC_16u_C3IR, 483
nppiAlphaPremulC_16u_C3R, 484
nppiAlphaPremulC_16u_C4IR, 484
nppiAlphaPremulC_16u_C4R, 484
nppiAlphaPremulC_8u_AC4IR, 485

nppiAlphaPremulC_8u_AC4R, 485
nppiAlphaPremulC_8u_C1IR, 485
nppiAlphaPremulC_8u_C1R, 486
nppiAlphaPremulC_8u_C3IR, 486
nppiAlphaPremulC_8u_C3R, 486
nppiAlphaPremulC_8u_C4IR, 487
nppiAlphaPremulC_8u_C4R, 487
image_and
nppiAnd_16u_AC4IR, 434
nppiAnd_16u_AC4R, 434
nppiAnd_16u_C1IR, 434
nppiAnd_16u_C1R, 435
nppiAnd_16u_C3IR, 435
nppiAnd_16u_C3R, 435
nppiAnd_16u_C4IR, 436
nppiAnd_16u_C4R, 436
nppiAnd_32s_AC4IR, 437
nppiAnd_32s_AC4R, 437
nppiAnd_32s_C1IR, 437
nppiAnd_32s_C1R, 438
nppiAnd_32s_C3IR, 438
nppiAnd_32s_C3R, 438
nppiAnd_32s_C4IR, 439
nppiAnd_32s_C4R, 439
nppiAnd_8u_AC4IR, 440
nppiAnd_8u_AC4R, 440
nppiAnd_8u_C1IR, 440
nppiAnd_8u_C1R, 441
nppiAnd_8u_C3IR, 441
nppiAnd_8u_C3R, 441
nppiAnd_8u_C4IR, 442
nppiAnd_8u_C4R, 442
image_andc
nppiAndC_16u_AC4IR, 373
nppiAndC_16u_AC4R, 373
nppiAndC_16u_C1IR, 373
nppiAndC_16u_C1R, 374
nppiAndC_16u_C3IR, 374
nppiAndC_16u_C3R, 374
nppiAndC_16u_C4IR, 375
nppiAndC_16u_C4R, 375
nppiAndC_32s_AC4IR, 375
nppiAndC_32s_AC4R, 376
nppiAndC_32s_C1IR, 376
nppiAndC_32s_C1R, 376
nppiAndC_32s_C3IR, 377
nppiAndC_32s_C3R, 377
nppiAndC_32s_C4IR, 377
nppiAndC_32s_C4R, 378
nppiAndC_8u_AC4IR, 378
nppiAndC_8u_AC4R, 378
nppiAndC_8u_C1IR, 379
nppiAndC_8u_C1R, 379
nppiAndC_8u_C3IR, 379
nppiAndC_8u_C3R, 380
nppiAndC_8u_C4IR, 380
nppiAndC_8u_C4R, 380
image_average_error
nppiAverageError_16s_C1R, 2107
nppiAverageError_16s_C2R, 2108
nppiAverageError_16s_C3R, 2108
nppiAverageError_16s_C4R, 2109
nppiAverageError_16sc_C1R, 2109
nppiAverageError_16sc_C2R, 2109
nppiAverageError_16sc_C3R, 2110
nppiAverageError_16sc_C4R, 2110
nppiAverageError_16u_C1R, 2111
nppiAverageError_16u_C2R, 2111
nppiAverageError_16u_C3R, 2112
nppiAverageError_16u_C4R, 2112
nppiAverageError_32f_C1R, 2112
nppiAverageError_32f_C2R, 2113
nppiAverageError_32f_C3R, 2113
nppiAverageError_32f_C4R, 2114
nppiAverageError_32fc_C1R, 2114
nppiAverageError_32fc_C2R, 2115
nppiAverageError_32fc_C3R, 2115
nppiAverageError_32fc_C4R, 2116
nppiAverageError_32s_C1R, 2116
nppiAverageError_32s_C2R, 2116
nppiAverageError_32s_C3R, 2117
nppiAverageError_32s_C4R, 2117
nppiAverageError_32sc_C1R, 2118
nppiAverageError_32sc_C2R, 2118
nppiAverageError_32sc_C3R, 2119
nppiAverageError_32sc_C4R, 2119
nppiAverageError_32u_C1R, 2119
nppiAverageError_32u_C2R, 2120
nppiAverageError_32u_C3R, 2120
nppiAverageError_32u_C4R, 2121
nppiAverageError_64f_C1R, 2121
nppiAverageError_64f_C2R, 2122
nppiAverageError_64f_C3R, 2122
nppiAverageError_64f_C4R, 2123
nppiAverageError_8s_C1R, 2123
nppiAverageError_8s_C2R, 2123
nppiAverageError_8s_C3R, 2124
nppiAverageError_8s_C4R, 2124
nppiAverageError_8u_C1R, 2125
nppiAverageError_8u_C2R, 2125
nppiAverageError_8u_C3R, 2126
nppiAverageError_8u_C4R, 2126
image_average_relative_error
nppiAverageRelativeError_16s_C1R, 2154
nppiAverageRelativeError_16s_C2R, 2155
nppiAverageRelativeError_16s_C3R, 2155
nppiAverageRelativeError_16s_C4R, 2156
nppiAverageRelativeError_16sc_C1R, 2156

nppiAverageRelativeError_16sc_C2R, 2157
nppiAverageRelativeError_16sc_C3R, 2157
nppiAverageRelativeError_16sc_C4R, 2157
nppiAverageRelativeError_16u_C1R, 2158
nppiAverageRelativeError_16u_C2R, 2158
nppiAverageRelativeError_16u_C3R, 2159
nppiAverageRelativeError_16u_C4R, 2159
nppiAverageRelativeError_32f_C1R, 2160
nppiAverageRelativeError_32f_C2R, 2160
nppiAverageRelativeError_32f_C3R, 2161
nppiAverageRelativeError_32f_C4R, 2161
nppiAverageRelativeError_32fc_C1R, 2162
nppiAverageRelativeError_32fc_C2R, 2162
nppiAverageRelativeError_32fc_C3R, 2162
nppiAverageRelativeError_32fc_C4R, 2163
nppiAverageRelativeError_32s_C1R, 2163
nppiAverageRelativeError_32s_C2R, 2164
nppiAverageRelativeError_32s_C3R, 2164
nppiAverageRelativeError_32s_C4R, 2165
nppiAverageRelativeError_32sc_C1R, 2165
nppiAverageRelativeError_32sc_C2R, 2166
nppiAverageRelativeError_32sc_C3R, 2166
nppiAverageRelativeError_32sc_C4R, 2167
nppiAverageRelativeError_32u_C1R, 2167
nppiAverageRelativeError_32u_C2R, 2167
nppiAverageRelativeError_32u_C3R, 2168
nppiAverageRelativeError_32u_C4R, 2168
nppiAverageRelativeError_64f_C1R, 2169
nppiAverageRelativeError_64f_C2R, 2169
nppiAverageRelativeError_64f_C3R, 2170
nppiAverageRelativeError_64f_C4R, 2170
nppiAverageRelativeError_8s_C1R, 2171
nppiAverageRelativeError_8s_C2R, 2171
nppiAverageRelativeError_8s_C3R, 2172
nppiAverageRelativeError_8s_C4R, 2172
nppiAverageRelativeError_8u_C1R, 2172
nppiAverageRelativeError_8u_C2R, 2173
nppiAverageRelativeError_8u_C3R, 2173
nppiAverageRelativeError_8u_C4R, 2174

image_color_gamma_correction
nppiGammaFwd_8u_AC4IR, 609
nppiGammaFwd_8u_AC4R, 609
nppiGammaFwd_8u_C3IR, 609
nppiGammaFwd_8u_C3R, 610
nppiGammaFwd_8u_IP3R, 610
nppiGammaFwd_8u_P3R, 610
nppiGammaInv_8u_AC4IR, 611
nppiGammaInv_8u_AC4R, 611
nppiGammaInv_8u_C3IR, 611
nppiGammaInv_8u_C3R, 612
nppiGammaInv_8u_IP3R, 612
nppiGammaInv_8u_P3R, 612

image_color_model_conversion
nppiBGRToCbYCr422_709HDTV_8u_AC4C2R, 525
nppiBGRToCbYCr422_709HDTV_8u_C3C2R, 525
nppiBGRToCbYCr422_8u_AC4C2R, 526
nppiBGRToHLS_8u_AC4P4R, 526
nppiBGRToHLS_8u_AC4R, 526
nppiBGRToHLS_8u_AP4C4R, 527
nppiBGRToHLS_8u_AP4R, 527
nppiBGRToHLS_8u_C3P3R, 527
nppiBGRToHLS_8u_P3C3R, 528
nppiBGRToHLS_8u_P3R, 528
nppiBGRToLab_8u_C3R, 528
nppiBGRToYCbCr411_8u_AC4P3R, 529
nppiBGRToYCbCr411_8u_C3P3R, 529
nppiBGRToYCbCr420_709CSC_8u_AC4P3R, 530
nppiBGRToYCbCr420_709CSC_8u_C3P3R, 530
nppiBGRToYCbCr420_709HDTV_8u_AC4P3R, 530
nppiBGRToYCbCr420_8u_AC4P3R, 531
nppiBGRToYCbCr420_8u_C3P3R, 531
nppiBGRToYCbCr422_8u_AC4C2R, 532
nppiBGRToYCbCr422_8u_AC4P3R, 532
nppiBGRToYCbCr422_8u_C3C2R, 532
nppiBGRToYCbCr422_8u_C3P3R, 533
nppiBGRToYCbCr_8u_AC4P3R, 533
nppiBGRToYCbCr_8u_AC4P4R, 534
nppiBGRToYCbCr_8u_C3P3R, 534
nppiBGRToYCrCb420_709CSC_8u_AC4P3R, 534
nppiBGRToYCrCb420_709CSC_8u_C3P3R, 535
nppiBGRToYCrCb420_8u_AC4P3R, 535
nppiBGRToYCrCb420_8u_C3P3R, 536
nppiBGRToYUV420_8u_AC4P3R, 536
nppiBGRToYUV_8u_AC4P4R, 536
nppiBGRToYUV_8u_AC4R, 537
nppiBGRToYUV_8u_C3P3R, 537
nppiBGRToYUV_8u_C3R, 538
nppiBGRToYUV_8u_P3R, 538
nppiCbYCr422ToBGR_709HDTV_8u_C2C3R, 538
nppiCbYCr422ToBGR_709HDTV_8u_C2C4R, 539
nppiCbYCr422ToBGR_8u_C2C4R, 539
nppiCbYCr422ToRGB_8u_C2C3R, 539
nppiColorToGray_16s_AC4C1R, 540
nppiColorToGray_16s_C3C1R, 540
nppiColorToGray_16u_AC4C1R, 541
nppiColorToGray_16u_C3C1R, 541
nppiColorToGray_32f_AC4C1R, 541
nppiColorToGray_32f_C3C1R, 542

nppiColorToGray_8u_AC4C1R, 542
nppiColorToGray_8u_C3C1R, 542
nppiHLSToBGR_8u_AC4P4R, 543
nppiHLSToBGR_8u_AC4R, 543
nppiHLSToBGR_8u_AP4C4R, 543
nppiHLSToBGR_8u_AP4R, 544
nppiHLSToBGR_8u_C3P3R, 544
nppiHLSToBGR_8u_P3C3R, 544
nppiHLSToBGR_8u_P3R, 545
nppiHLSToRGB_8u_AC4R, 545
nppiHLSToRGB_8u_C3R, 545
nppiHSVToRGB_8u_AC4R, 546
nppiHSVToRGB_8u_C3R, 546
nppiLabToBGR_8u_C3R, 546
nppiLUVToRGB_8u_AC4R, 547
nppiLUVToRGB_8u_C3R, 547
nppiNV21ToBGR_8u_P2C4R, 547
nppiNV21ToRGB_8u_P2C4R, 548
nppiRGBToCbYCr422_8u_C3C2R, 548
nppiRGBToCbYCr422Gamma_8u_C3C2R, 548
nppiRGBToGray_16s_AC4C1R, 549
nppiRGBToGray_16s_C3C1R, 549
nppiRGBToGray_16u_AC4C1R, 549
nppiRGBToGray_16u_C3C1R, 550
nppiRGBToGray_32f_AC4C1R, 550
nppiRGBToGray_32f_C3C1R, 550
nppiRGBToGray_8u_AC4C1R, 551
nppiRGBToGray_8u_C3C1R, 551
nppiRGBToHLS_8u_AC4R, 551
nppiRGBToHLS_8u_C3R, 552
nppiRGBToHSV_8u_AC4R, 552
nppiRGBToHSV_8u_C3R, 552
nppiRGBToLUV_8u_AC4R, 553
nppiRGBToLUV_8u_C3R, 553
nppiRGBToXYZ_8u_AC4R, 553
nppiRGBToXYZ_8u_C3R, 554
nppiRGBToYCbCr420_8u_C3P3R, 554
nppiRGBToYCbCr422_8u_C3C2R, 554
nppiRGBToYCbCr422_8u_C3P3R, 555
nppiRGBToYCbCr422_8u_P3C2R, 555
nppiRGBToYCbCr_8u_AC4P3R, 556
nppiRGBToYCbCr_8u_AC4R, 556
nppiRGBToYCbCr_8u_C3P3R, 556
nppiRGBToYCbCr_8u_C3R, 557
nppiRGBToYCbCr_8u_P3R, 557
nppiRGBToYCC_8u_AC4R, 557
nppiRGBToYCC_8u_C3R, 558
nppiRGBToYCrCb420_8u_AC4P3R, 558
nppiRGBToYCrCb422_8u_C3C2R, 558
nppiRGBToYCrCb422_8u_P3C2R, 559
nppiRGBToYUV420_8u_C3P3R, 559
nppiRGBToYUV420_8u_P3R, 559
nppiRGBToYUV422_8u_C3C2R, 560
nppiRGBToYUV422_8u_C3P3R, 560
nppiRGBToYUV422_8u_P3R, 560
nppiRGBToYUV_8u_AC4P4R, 561
nppiRGBToYUV_8u_AC4R, 561
nppiRGBToYUV_8u_C3P3R, 562
nppiRGBToYUV_8u_C3R, 562
nppiRGBToYUV_8u_P3R, 562
nppiXYZToRGB_8u_AC4R, 563
nppiXYZToRGB_8u_C3R, 563
nppiYCbCr411ToBGR_8u_P3C3R, 563
nppiYCbCr411ToBGR_8u_P3C4R, 564
nppiYCbCr420ToBGR_709CSC_8u_P3C3R, 564
nppiYCbCr420ToBGR_709HDTV_8u_P3C4R, 564
nppiYCbCr420ToBGR_8u_P3C3R, 565
nppiYCbCr420ToBGR_8u_P3C4R, 565
nppiYCbCr420ToRGB_8u_P3C3R, 566
nppiYCbCr422ToBGR_8u_C2C3R, 566
nppiYCbCr422ToBGR_8u_C2C4R, 566
nppiYCbCr422ToBGR_8u_P3C3R, 567
nppiYCbCr422ToRGB_8u_C2C3R, 567
nppiYCbCr422ToRGB_8u_C2P3R, 567
nppiYCbCr422ToRGB_8u_P3C3R, 568
nppiYCbCrToBGR_709CSC_8u_P3C3R, 568
nppiYCbCrToBGR_709CSC_8u_P3C4R, 568
nppiYCbCrToBGR_8u_P3C3R, 569
nppiYCbCrToBGR_8u_P3C4R, 569
nppiYCbCrToRGB_8u_AC4R, 570
nppiYCbCrToRGB_8u_C3R, 570
nppiYCbCrToRGB_8u_P3C3R, 570
nppiYCbCrToRGB_8u_P3C4R, 571
nppiYCbCrToRGB_8u_P3R, 571
nppiYCCToRGB_8u_AC4R, 571
nppiYCCToRGB_8u_C3R, 572
nppiYCrCb420ToRGB_8u_P3C4R, 572
nppiYCrCb422ToRGB_8u_C2C3R, 572
nppiYCrCb422ToRGB_8u_C2P3R, 573
nppiYUV420ToBGR_8u_P3C3R, 573
nppiYUV420ToBGR_8u_P3C4R, 573
nppiYUV420ToRGB_8u_P3AC4R, 574
nppiYUV420ToRGB_8u_P3C3R, 574
nppiYUV420ToRGB_8u_P3C4R, 574
nppiYUV420ToRGB_8u_P3R, 575
nppiYUV422ToRGB_8u_C2C3R, 575
nppiYUV422ToRGB_8u_P3AC4R, 575
nppiYUV422ToRGB_8u_P3C3R, 576
nppiYUV422ToRGB_8u_P3R, 576
nppiYUVToBGR_8u_AC4R, 576
nppiYUVToBGR_8u_C3R, 577
nppiYUVToBGR_8u_P3C3R, 577
nppiYUVToBGR_8u_P3R, 577
nppiYUVToRGB_8u_AC4R, 578
nppiYUVToRGB_8u_C3R, 578

nppiYUVToRGB_8u_P3C3R, 578
nppiYUVToRGB_8u_P3R, 579
image_color_processing
nppiColorTwist32f_16s_AC4IR, 631
nppiColorTwist32f_16s_AC4R, 632
nppiColorTwist32f_16s_C1IR, 632
nppiColorTwist32f_16s_C1R, 632
nppiColorTwist32f_16s_C2IR, 633
nppiColorTwist32f_16s_C2R, 633
nppiColorTwist32f_16s_C3IR, 634
nppiColorTwist32f_16s_C3R, 634
nppiColorTwist32f_16s_IP3R, 634
nppiColorTwist32f_16s_P3R, 635
nppiColorTwist32f_16u_AC4IR, 635
nppiColorTwist32f_16u_AC4R, 636
nppiColorTwist32f_16u_C1IR, 636
nppiColorTwist32f_16u_C1R, 636
nppiColorTwist32f_16u_C2IR, 637
nppiColorTwist32f_16u_C2R, 637
nppiColorTwist32f_16u_C3IR, 637
nppiColorTwist32f_16u_C3R, 638
nppiColorTwist32f_16u_IP3R, 638
nppiColorTwist32f_16u_P3R, 638
nppiColorTwist32f_8s_AC4IR, 639
nppiColorTwist32f_8s_AC4R, 639
nppiColorTwist32f_8s_C1IR, 640
nppiColorTwist32f_8s_C1R, 640
nppiColorTwist32f_8s_C2IR, 640
nppiColorTwist32f_8s_C2R, 641
nppiColorTwist32f_8s_C3IR, 641
nppiColorTwist32f_8s_C3R, 641
nppiColorTwist32f_8s_C4IR, 642
nppiColorTwist32f_8s_C4R, 642
nppiColorTwist32f_8s_IP3R, 643
nppiColorTwist32f_8s_P3R, 643
nppiColorTwist32f_8u_AC4IR, 643
nppiColorTwist32f_8u_AC4R, 644
nppiColorTwist32f_8u_C1IR, 644
nppiColorTwist32f_8u_C1R, 645
nppiColorTwist32f_8u_C2IR, 645
nppiColorTwist32f_8u_C2R, 645
nppiColorTwist32f_8u_C3IR, 646
nppiColorTwist32f_8u_C3R, 646
nppiColorTwist32f_8u_C4IR, 647
nppiColorTwist32f_8u_C4R, 647
nppiColorTwist32f_8u_IP3R, 647
nppiColorTwist32f_8u_P3R, 648
nppiColorTwist32fC_8u_C4IR, 648
nppiColorTwist32fC_8u_C4R, 649
nppiColorTwist_32f_AC4IR, 649
nppiColorTwist_32f_AC4R, 650
nppiColorTwist_32f_C1IR, 650
nppiColorTwist_32f_C1R, 650
nppiColorTwist_32f_C2IR, 651
nppiColorTwist_32f_C2R, 651
nppiColorTwist_32f_C3IR, 652
nppiColorTwist_32f_C3R, 652
nppiColorTwist_32f_C4IR, 652
nppiColorTwist_32f_C4R, 653
nppiColorTwist_32f_IP3R, 653
nppiColorTwist_32f_P3R, 654
nppiColorTwist_32fC_C4IR, 654
nppiColorTwist_32fC_C4R, 654
nppiLUT_16s_AC4IR, 655
nppiLUT_16s_AC4R, 655
nppiLUT_16s_C1IR, 656
nppiLUT_16s_C1R, 656
nppiLUT_16s_C3IR, 657
nppiLUT_16s_C3R, 657
nppiLUT_16s_C4IR, 658
nppiLUT_16s_C4R, 658
nppiLUT_16u_AC4IR, 659
nppiLUT_16u_AC4R, 659
nppiLUT_16u_C1IR, 660
nppiLUT_16u_C1R, 660
nppiLUT_16u_C3IR, 661
nppiLUT_16u_C3R, 661
nppiLUT_16u_C4IR, 662
nppiLUT_16u_C4R, 662
nppiLUT_32f_AC4IR, 663
nppiLUT_32f_AC4R, 663
nppiLUT_32f_C1IR, 664
nppiLUT_32f_C1R, 664
nppiLUT_32f_C3IR, 665
nppiLUT_32f_C3R, 665
nppiLUT_32f_C4IR, 666
nppiLUT_32f_C4R, 666
nppiLUT_8u_AC4IR, 667
nppiLUT_8u_AC4R, 667
nppiLUT_8u_C1IR, 668
nppiLUT_8u_C1R, 668
nppiLUT_8u_C3IR, 669
nppiLUT_8u_C3R, 669
nppiLUT_8u_C4IR, 670
nppiLUT_8u_C4R, 670
nppiLUT_Cubic_16s_AC4IR, 671
nppiLUT_Cubic_16s_AC4R, 671
nppiLUT_Cubic_16s_C1IR, 672
nppiLUT_Cubic_16s_C1R, 672
nppiLUT_Cubic_16s_C3IR, 673
nppiLUT_Cubic_16s_C3R, 673
nppiLUT_Cubic_16s_C4IR, 674
nppiLUT_Cubic_16s_C4R, 674
nppiLUT_Cubic_16u_AC4IR, 675
nppiLUT_Cubic_16u_AC4R, 675
nppiLUT_Cubic_16u_C1IR, 676
nppiLUT_Cubic_16u_C1R, 676
nppiLUT_Cubic_16u_C3IR, 677

nppiLUT_Cubic_16u_C3R, 677
nppiLUT_Cubic_16u_C4IR, 678
nppiLUT_Cubic_16u_C4R, 678
nppiLUT_Cubic_32f_AC4IR, 679
nppiLUT_Cubic_32f_AC4R, 679
nppiLUT_Cubic_32f_C1IR, 680
nppiLUT_Cubic_32f_C1R, 680
nppiLUT_Cubic_32f_C3IR, 681
nppiLUT_Cubic_32f_C3R, 681
nppiLUT_Cubic_32f_C4IR, 682
nppiLUT_Cubic_32f_C4R, 682
nppiLUT_Cubic_8u_AC4IR, 683
nppiLUT_Cubic_8u_AC4R, 683
nppiLUT_Cubic_8u_C1IR, 684
nppiLUT_Cubic_8u_C1R, 684
nppiLUT_Cubic_8u_C3IR, 685
nppiLUT_Cubic_8u_C3R, 685
nppiLUT_Cubic_8u_C4IR, 686
nppiLUT_Cubic_8u_C4R, 686
nppiLUT_Linear_16s_AC4IR, 687
nppiLUT_Linear_16s_AC4R, 687
nppiLUT_Linear_16s_C1IR, 688
nppiLUT_Linear_16s_C1R, 688
nppiLUT_Linear_16s_C3IR, 689
nppiLUT_Linear_16s_C3R, 689
nppiLUT_Linear_16s_C4IR, 690
nppiLUT_Linear_16s_C4R, 690
nppiLUT_Linear_16u_AC4IR, 691
nppiLUT_Linear_16u_AC4R, 691
nppiLUT_Linear_16u_C1IR, 692
nppiLUT_Linear_16u_C1R, 692
nppiLUT_Linear_16u_C3IR, 693
nppiLUT_Linear_16u_C3R, 693
nppiLUT_Linear_16u_C4IR, 694
nppiLUT_Linear_16u_C4R, 694
nppiLUT_Linear_32f_AC4IR, 695
nppiLUT_Linear_32f_AC4R, 695
nppiLUT_Linear_32f_C1IR, 696
nppiLUT_Linear_32f_C1R, 696
nppiLUT_Linear_32f_C3IR, 697
nppiLUT_Linear_32f_C3R, 697
nppiLUT_Linear_32f_C4IR, 698
nppiLUT_Linear_32f_C4R, 698
nppiLUT_Linear_8u_AC4IR, 699
nppiLUT_Linear_8u_AC4R, 699
nppiLUT_Linear_8u_C1IR, 700
nppiLUT_Linear_8u_C1R, 701
nppiLUT_Linear_8u_C3IR, 701
nppiLUT_Linear_8u_C3R, 702
nppiLUT_Linear_8u_C4IR, 702
nppiLUT_Linear_8u_C4R, 703
nppiLUT_Trilinear_8u_AC4IR, 703
nppiLUT_Trilinear_8u_AC4R, 704
nppiLUT_Trilinear_8u_C4R, 705
nppiLUTPalette_16u24u_C1R, 705
nppiLUTPalette_16u32u_C1R, 706
nppiLUTPalette_16u8u_C1R, 706
nppiLUTPalette_16u_AC4R, 707
nppiLUTPalette_16u_C1R, 707
nppiLUTPalette_16u_C3R, 708
nppiLUTPalette_16u_C4R, 708
nppiLUTPalette_8u24u_C1R, 709
nppiLUTPalette_8u32u_C1R, 709
nppiLUTPalette_8u_AC4R, 710
nppiLUTPalette_8u_C1R, 710
nppiLUTPalette_8u_C3R, 711
nppiLUTPalette_8u_C4R, 711
nppiLUTPaletteSwap_16u_C3A0C4R, 712
nppiLUTPaletteSwap_8u_C3A0C4R, 712
image_color_sampling_format_conversion
nppiCbYCr422ToYCbCr411_8u_C2P3R, 587
nppiCbYCr422ToYCbCr420_8u_C2P2R, 588
nppiCbYCr422ToYCbCr420_8u_C2P3R, 588
nppiCbYCr422ToYCbCr422_8u_C2P3R, 588
nppiCbYCr422ToYCbCr422_8u_C2R, 589
nppiCbYCr422ToYCrCb420_8u_C2P3R, 589
nppiYCbCr411_8u_P2P3R, 590
nppiYCbCr411_8u_P3P2R, 590
nppiYCbCr411ToYCbCr420_8u_P2P3R, 590
nppiYCbCr411ToYCbCr420_8u_P3P2R, 591
nppiYCbCr411ToYCbCr420_8u_P3R, 591
nppiYCbCr411ToYCbCr422_8u_P2C2R, 592
nppiYCbCr411ToYCbCr422_8u_P2P3R, 592
nppiYCbCr411ToYCbCr422_8u_P3C2R, 592
nppiYCbCr411ToYCbCr422_8u_P3R, 593
nppiYCbCr411ToYCrCb420_8u_P2P3R, 593
nppiYCbCr411ToYCrCb422_8u_P3C2R, 594
nppiYCbCr411ToYCrCb422_8u_P3R, 594
nppiYCbCr420_8u_P2P3R, 594
nppiYCbCr420_8u_P3P2R, 595
nppiYCbCr420ToCbYCr422_8u_P2C2R, 595
nppiYCbCr420ToYCbCr411_8u_P2P3R, 596
nppiYCbCr420ToYCbCr411_8u_P3P2R, 596
nppiYCbCr420ToYCbCr422_8u_P2C2R, 597
nppiYCbCr420ToYCbCr422_8u_P2P3R, 597
nppiYCbCr420ToYCbCr422_8u_P3R, 597
nppiYCbCr420ToYCrCb420_8u_P2P3R, 598
nppiYCbCr422_8u_C2P3R, 598
nppiYCbCr422_8u_P3C2R, 599
nppiYCbCr422ToCbYCr422_8u_C2R, 599
nppiYCbCr422ToYCbCr411_8u_C2P2R, 599
nppiYCbCr422ToYCbCr411_8u_C2P3R, 600
nppiYCbCr422ToYCbCr411_8u_P3P2R, 600
nppiYCbCr422ToYCbCr411_8u_P3R, 601
nppiYCbCr422ToYCbCr420_8u_C2P2R, 601
nppiYCbCr422ToYCbCr420_8u_C2P3R, 602
nppiYCbCr422ToYCbCr420_8u_P3P2R, 602
nppiYCbCr422ToYCbCr420_8u_P3R, 602

nppiYCbCr422ToYCrCb420_8u_C2P3R, 603
nppiYCbCr422ToYCrCb422_8u_C2R, 603
nppiYCbCr422ToYCrCb422_8u_P3C2R, 604
nppiYCrCb420ToCbYCr422_8u_P3C2R, 604
nppiYCrCb420ToYCbCr411_8u_P3P2R, 604
nppiYCrCb420ToYCbCr420_8u_P3P2R, 605
nppiYCrCb420ToYCbCr422_8u_P3C2R, 605
nppiYCrCb420ToYCbCr422_8u_P3R, 606
nppiYCrCb422ToYCbCr411_8u_C2P3R, 606
nppiYCrCb422ToYCbCr420_8u_C2P3R, 607
nppiYCrCb422ToYCbCr422_8u_C2P3R, 607
image_compare_operations
nppiCompare_16s_AC4R, 2280
nppiCompare_16s_C1R, 2281
nppiCompare_16s_C3R, 2281
nppiCompare_16s_C4R, 2281
nppiCompare_16u_AC4R, 2282
nppiCompare_16u_C1R, 2282
nppiCompare_16u_C3R, 2283
nppiCompare_16u_C4R, 2283
nppiCompare_32f_AC4R, 2284
nppiCompare_32f_C1R, 2284
nppiCompare_32f_C3R, 2285
nppiCompare_32f_C4R, 2285
nppiCompare_8u_AC4R, 2286
nppiCompare_8u_C1R, 2286
nppiCompare_8u_C3R, 2287
nppiCompare_8u_C4R, 2287
nppiCompareC_16s_AC4R, 2288
nppiCompareC_16s_C1R, 2288
nppiCompareC_16s_C3R, 2289
nppiCompareC_16s_C4R, 2289
nppiCompareC_16u_AC4R, 2290
nppiCompareC_16u_C1R, 2290
nppiCompareC_16u_C3R, 2290
nppiCompareC_16u_C4R, 2291
nppiCompareC_32f_AC4R, 2291
nppiCompareC_32f_C1R, 2292
nppiCompareC_32f_C3R, 2292
nppiCompareC_32f_C4R, 2293
nppiCompareC_8u_AC4R, 2293
nppiCompareC_8u_C1R, 2293
nppiCompareC_8u_C3R, 2294
nppiCompareC_8u_C4R, 2294
nppiCompareEqualEps_32f_AC4R, 2295
nppiCompareEqualEps_32f_C1R, 2295
nppiCompareEqualEps_32f_C3R, 2296
nppiCompareEqualEps_32f_C4R, 2296
nppiCompareEqualEpsC_32f_AC4R, 2297
nppiCompareEqualEpsC_32f_C1R, 2297
nppiCompareEqualEpsC_32f_C3R, 2298
nppiCompareEqualEpsC_32f_C4R, 2298
image_complement_color_key
nppiAlphaCompColorKey_8u_AC4R, 614
nppiCompColorKey_8u_C1R, 615
nppiCompColorKey_8u_C3R, 615
nppiCompColorKey_8u_C4R, 616
image_compression
nppiDecodeHuffmanScanHost_JPEG_8u16s_P1R, 715
nppiDecodeHuffmanScanHost_JPEG_8u16s_P3R, 715
NppiDecodeHuffmanSpec, 715
nppiDecodeHuffmanSpecFreeHost_JPEG, 716
nppiDecodeHuffmanSpecGetBufSize_JPEG, 716
nppiDecodeHuffmanSpecInitAllocHost_JPEG, 716
nppiDecodeHuffmanSpecInitHost_JPEG, 717
image_convert
nppiConvert_16s16u_C1Rs, 822
nppiConvert_16s32f_AC4R, 822
nppiConvert_16s32f_C1R, 823
nppiConvert_16s32f_C3R, 823
nppiConvert_16s32f_C4R, 823
nppiConvert_16s32s_AC4R, 824
nppiConvert_16s32s_C1R, 824
nppiConvert_16s32s_C3R, 824
nppiConvert_16s32s_C4R, 825
nppiConvert_16s32u_C1Rs, 825
nppiConvert_16s8s_C1RSfs, 825
nppiConvert_16s8u_AC4R, 826
nppiConvert_16s8u_C1R, 826
nppiConvert_16s8u_C3R, 826
nppiConvert_16s8u_C4R, 827
nppiConvert_16u16s_C1RSfs, 827
nppiConvert_16u32f_AC4R, 827
nppiConvert_16u32f_C1R, 828
nppiConvert_16u32f_C3R, 828
nppiConvert_16u32f_C4R, 828
nppiConvert_16u32s_AC4R, 829
nppiConvert_16u32s_C1R, 829
nppiConvert_16u32s_C3R, 829
nppiConvert_16u32s_C4R, 830
nppiConvert_16u32u_C1R, 830
nppiConvert_16u8s_C1RSfs, 830
nppiConvert_16u8u_AC4R, 831
nppiConvert_16u8u_C1R, 831
nppiConvert_16u8u_C3R, 831
nppiConvert_16u8u_C4R, 832
nppiConvert_32f16s_AC4R, 832
nppiConvert_32f16s_C1R, 832
nppiConvert_32f16s_C1RSfs, 833
nppiConvert_32f16s_C3R, 833
nppiConvert_32f16s_C4R, 834
nppiConvert_32f16u_AC4R, 834
nppiConvert_32f16u_C1R, 834

nppiConvert_32f16u_C1RSfs, 835
nppiConvert_32f16u_C3R, 835
nppiConvert_32f16u_C4R, 836
nppiConvert_32f32s_C1RSfs, 836
nppiConvert_32f32u_C1RSfs, 836
nppiConvert_32f8s_AC4R, 837
nppiConvert_32f8s_C1R, 837
nppiConvert_32f8s_C1RSfs, 838
nppiConvert_32f8s_C3R, 838
nppiConvert_32f8s_C4R, 838
nppiConvert_32f8u_AC4R, 839
nppiConvert_32f8u_C1R, 839
nppiConvert_32f8u_C1RSfs, 839
nppiConvert_32f8u_C3R, 840
nppiConvert_32f8u_C4R, 840
nppiConvert_32s16s_C1RSfs, 841
nppiConvert_32s16u_C1RSfs, 841
nppiConvert_32s32f_C1R, 841
nppiConvert_32s32u_C1Rs, 842
nppiConvert_32s8s_AC4R, 842
nppiConvert_32s8s_C1R, 842
nppiConvert_32s8s_C3R, 843
nppiConvert_32s8s_C4R, 843
nppiConvert_32s8u_AC4R, 843
nppiConvert_32s8u_C1R, 844
nppiConvert_32s8u_C3R, 844
nppiConvert_32s8u_C4R, 844
nppiConvert_32u16s_C1RSfs, 845
nppiConvert_32u16u_C1RSfs, 845
nppiConvert_32u32f_C1R, 846
nppiConvert_32u32s_C1RSfs, 846
nppiConvert_32u8s_C1RSfs, 846
nppiConvert_32u8u_C1RSfs, 847
nppiConvert_8s16s_C1R, 847
nppiConvert_8s16u_C1Rs, 848
nppiConvert_8s32f_AC4R, 848
nppiConvert_8s32f_C1R, 848
nppiConvert_8s32f_C3R, 849
nppiConvert_8s32f_C4R, 849
nppiConvert_8s32s_AC4R, 849
nppiConvert_8s32s_C1R, 850
nppiConvert_8s32s_C3R, 850
nppiConvert_8s32s_C4R, 850
nppiConvert_8s32u_C1Rs, 851
nppiConvert_8s8u_C1Rs, 851
nppiConvert_8u16s_AC4R, 851
nppiConvert_8u16s_C1R, 852
nppiConvert_8u16s_C3R, 852
nppiConvert_8u16s_C4R, 852
nppiConvert_8u16u_AC4R, 853
nppiConvert_8u16u_C1R, 853
nppiConvert_8u16u_C3R, 853
nppiConvert_8u16u_C4R, 854
nppiConvert_8u32f_AC4R, 854
nppiConvert_8u32f_C1R, 854
nppiConvert_8u32f_C3R, 855
nppiConvert_8u32f_C4R, 855
nppiConvert_8u32s_AC4R, 855
nppiConvert_8u32s_C1R, 856
nppiConvert_8u32s_C3R, 856
nppiConvert_8u32s_C4R, 856
nppiConvert_8u8s_C1RSfs, 857
image_convolution
nppiFilter32f_16s_AC4R, 1089
nppiFilter32f_16s_C1R, 1090
nppiFilter32f_16s_C3R, 1090
nppiFilter32f_16s_C4R, 1090
nppiFilter32f_16u_AC4R, 1091
nppiFilter32f_16u_C1R, 1091
nppiFilter32f_16u_C3R, 1092
nppiFilter32f_16u_C4R, 1092
nppiFilter32f_32s_AC4R, 1093
nppiFilter32f_32s_C1R, 1093
nppiFilter32f_32s_C3R, 1094
nppiFilter32f_32s_C4R, 1094
nppiFilter32f_8s16s_AC4R, 1095
nppiFilter32f_8s16s_C1R, 1095
nppiFilter32f_8s16s_C3R, 1096
nppiFilter32f_8s16s_C4R, 1096
nppiFilter32f_8s_AC4R, 1097
nppiFilter32f_8s_C1R, 1097
nppiFilter32f_8s_C2R, 1098
nppiFilter32f_8s_C3R, 1098
nppiFilter32f_8s_C4R, 1099
nppiFilter32f_8u16s_AC4R, 1099
nppiFilter32f_8u16s_C1R, 1100
nppiFilter32f_8u16s_C3R, 1100
nppiFilter32f_8u16s_C4R, 1101
nppiFilter32f_8u_AC4R, 1101
nppiFilter32f_8u_C1R, 1102
nppiFilter32f_8u_C2R, 1102
nppiFilter32f_8u_C3R, 1103
nppiFilter32f_8u_C4R, 1103
nppiFilter_16s_AC4R, 1104
nppiFilter_16s_C1R, 1104
nppiFilter_16s_C3R, 1105
nppiFilter_16s_C4R, 1105
nppiFilter_16u_AC4R, 1106
nppiFilter_16u_C1R, 1106
nppiFilter_16u_C3R, 1107
nppiFilter_16u_C4R, 1107
nppiFilter_32f_AC4R, 1108
nppiFilter_32f_C1R, 1108
nppiFilter_32f_C2R, 1109
nppiFilter_32f_C3R, 1109
nppiFilter_32f_C4R, 1110
nppiFilter_64f_C1R, 1110
nppiFilter_8u_AC4R, 1111

nppiFilter_8u_C1R, 1111
nppiFilter_8u_C3R, 1112
nppiFilter_8u_C4R, 1112
nppiFilterBorder32f_16s_AC4R, 1113
nppiFilterBorder32f_16s_C1R, 1113
nppiFilterBorder32f_16s_C3R, 1114
nppiFilterBorder32f_16s_C4R, 1114
nppiFilterBorder32f_16u_AC4R, 1115
nppiFilterBorder32f_16u_C1R, 1115
nppiFilterBorder32f_16u_C3R, 1116
nppiFilterBorder32f_16u_C4R, 1116
nppiFilterBorder32f_32s_AC4R, 1117
nppiFilterBorder32f_32s_C1R, 1117
nppiFilterBorder32f_32s_C3R, 1118
nppiFilterBorder32f_32s_C4R, 1118
nppiFilterBorder32f_8s16s_AC4R, 1119
nppiFilterBorder32f_8s16s_C1R, 1119
nppiFilterBorder32f_8s16s_C3R, 1120
nppiFilterBorder32f_8s16s_C4R, 1120
nppiFilterBorder32f_8s_AC4R, 1121
nppiFilterBorder32f_8s_C1R, 1121
nppiFilterBorder32f_8s_C2R, 1122
nppiFilterBorder32f_8s_C3R, 1122
nppiFilterBorder32f_8s_C4R, 1123
nppiFilterBorder32f_8u16s_AC4R, 1123
nppiFilterBorder32f_8u16s_C1R, 1124
nppiFilterBorder32f_8u16s_C3R, 1124
nppiFilterBorder32f_8u16s_C4R, 1125
nppiFilterBorder32f_8u_AC4R, 1125
nppiFilterBorder32f_8u_C1R, 1126
nppiFilterBorder32f_8u_C2R, 1126
nppiFilterBorder32f_8u_C3R, 1127
nppiFilterBorder32f_8u_C4R, 1127
nppiFilterBorder_16s_AC4R, 1128
nppiFilterBorder_16s_C1R, 1129
nppiFilterBorder_16s_C3R, 1129
nppiFilterBorder_16s_C4R, 1130
nppiFilterBorder_16u_AC4R, 1130
nppiFilterBorder_16u_C1R, 1131
nppiFilterBorder_16u_C3R, 1132
nppiFilterBorder_16u_C4R, 1132
nppiFilterBorder_32f_AC4R, 1133
nppiFilterBorder_32f_C1R, 1133
nppiFilterBorder_32f_C2R, 1134
nppiFilterBorder_32f_C3R, 1134
nppiFilterBorder_32f_C4R, 1135
nppiFilterBorder_8u_AC4R, 1135
nppiFilterBorder_8u_C1R, 1136
nppiFilterBorder_8u_C3R, 1137
nppiFilterBorder_8u_C4R, 1137

image_copy
nppiCopy_16s_AC4MR, 776
nppiCopy_16s_AC4R, 777
nppiCopy_16s_C1C3R, 777
nppiCopy_16s_C1C4R, 777
nppiCopy_16s_C1MR, 778
nppiCopy_16s_C1R, 778
nppiCopy_16s_C3C1R, 778
nppiCopy_16s_C3CR, 779
nppiCopy_16s_C3MR, 779
nppiCopy_16s_C3P3R, 779
nppiCopy_16s_C3R, 780
nppiCopy_16s_C4C1R, 780
nppiCopy_16s_C4CR, 780
nppiCopy_16s_C4MR, 781
nppiCopy_16s_C4P4R, 781
nppiCopy_16s_C4R, 781
nppiCopy_16s_P3C3R, 782
nppiCopy_16s_P4C4R, 782
nppiCopy_16sc_AC4R, 782
nppiCopy_16sc_C1R, 783
nppiCopy_16sc_C2R, 783
nppiCopy_16sc_C3R, 783
nppiCopy_16sc_C4R, 784
nppiCopy_16u_AC4MR, 784
nppiCopy_16u_AC4R, 784
nppiCopy_16u_C1C3R, 785
nppiCopy_16u_C1C4R, 785
nppiCopy_16u_C1MR, 785
nppiCopy_16u_C1R, 786
nppiCopy_16u_C3C1R, 786
nppiCopy_16u_C3CR, 786
nppiCopy_16u_C3MR, 787
nppiCopy_16u_C3P3R, 787
nppiCopy_16u_C3R, 787
nppiCopy_16u_C4C1R, 788
nppiCopy_16u_C4CR, 788
nppiCopy_16u_C4MR, 788
nppiCopy_16u_C4P4R, 789
nppiCopy_16u_C4R, 789
nppiCopy_16u_P3C3R, 789
nppiCopy_16u_P4C4R, 790
nppiCopy_32f_AC4MR, 790
nppiCopy_32f_AC4R, 790
nppiCopy_32f_C1C3R, 791
nppiCopy_32f_C1C4R, 791
nppiCopy_32f_C1MR, 791
nppiCopy_32f_C1R, 792
nppiCopy_32f_C3C1R, 792
nppiCopy_32f_C3CR, 792
nppiCopy_32f_C3MR, 793
nppiCopy_32f_C3P3R, 793
nppiCopy_32f_C3R, 793
nppiCopy_32f_C4C1R, 794
nppiCopy_32f_C4CR, 794
nppiCopy_32f_C4MR, 794
nppiCopy_32f_C4P4R, 795
nppiCopy_32f_C4R, 795

nppiCopy_32f_P3C3R, 795
nppiCopy_32f_P4C4R, 796
nppiCopy_32fc_AC4R, 796
nppiCopy_32fc_C1R, 796
nppiCopy_32fc_C2R, 797
nppiCopy_32fc_C3R, 797
nppiCopy_32fc_C4R, 797
nppiCopy_32s_AC4MR, 798
nppiCopy_32s_AC4R, 798
nppiCopy_32s_C1C3R, 798
nppiCopy_32s_C1C4R, 799
nppiCopy_32s_C1MR, 799
nppiCopy_32s_C1R, 799
nppiCopy_32s_C3C1R, 800
nppiCopy_32s_C3CR, 800
nppiCopy_32s_C3MR, 800
nppiCopy_32s_C3P3R, 801
nppiCopy_32s_C3R, 801
nppiCopy_32s_C4C1R, 801
nppiCopy_32s_C4CR, 802
nppiCopy_32s_C4MR, 802
nppiCopy_32s_C4P4R, 802
nppiCopy_32s_C4R, 803
nppiCopy_32s_P3C3R, 803
nppiCopy_32s_P4C4R, 803
nppiCopy_32sc_AC4R, 804
nppiCopy_32sc_C1R, 804
nppiCopy_32sc_C2R, 804
nppiCopy_32sc_C3R, 805
nppiCopy_32sc_C4R, 805
nppiCopy_8s_AC4R, 805
nppiCopy_8s_C1R, 806
nppiCopy_8s_C2R, 806
nppiCopy_8s_C3R, 806
nppiCopy_8s_C4R, 807
nppiCopy_8u_AC4MR, 807
nppiCopy_8u_AC4R, 807
nppiCopy_8u_C1C3R, 808
nppiCopy_8u_C1C4R, 808
nppiCopy_8u_C1MR, 808
nppiCopy_8u_C1R, 809
nppiCopy_8u_C3C1R, 809
nppiCopy_8u_C3CR, 809
nppiCopy_8u_C3MR, 810
nppiCopy_8u_C3P3R, 810
nppiCopy_8u_C3R, 810
nppiCopy_8u_C4C1R, 811
nppiCopy_8u_C4CR, 811
nppiCopy_8u_C4MR, 811
nppiCopy_8u_C4P4R, 812
nppiCopy_8u_C4R, 812
nppiCopy_8u_P3C3R, 812
nppiCopy_8u_P4C4R, 813
image_copy_constant_border
nppiCopyConstBorder_16s_AC4R, 875
nppiCopyConstBorder_16s_C1R, 875
nppiCopyConstBorder_16s_C3R, 876
nppiCopyConstBorder_16s_C4R, 876
nppiCopyConstBorder_16u_AC4R, 877
nppiCopyConstBorder_16u_C1R, 877
nppiCopyConstBorder_16u_C3R, 878
nppiCopyConstBorder_16u_C4R, 878
nppiCopyConstBorder_32f_AC4R, 879
nppiCopyConstBorder_32f_C1R, 879
nppiCopyConstBorder_32f_C3R, 880
nppiCopyConstBorder_32f_C4R, 880
nppiCopyConstBorder_32s_AC4R, 881
nppiCopyConstBorder_32s_C1R, 881
nppiCopyConstBorder_32s_C3R, 882
nppiCopyConstBorder_32s_C4R, 882
nppiCopyConstBorder_8u_AC4R, 883
nppiCopyConstBorder_8u_C1R, 883
nppiCopyConstBorder_8u_C3R, 884
nppiCopyConstBorder_8u_C4R, 884
image_copy_replicate_border
nppiCopyReplicateBorder_16s_AC4R, 888
nppiCopyReplicateBorder_16s_C1R, 888
nppiCopyReplicateBorder_16s_C3R, 889
nppiCopyReplicateBorder_16s_C4R, 889
nppiCopyReplicateBorder_16u_AC4R, 890
nppiCopyReplicateBorder_16u_C1R, 890
nppiCopyReplicateBorder_16u_C3R, 891
nppiCopyReplicateBorder_16u_C4R, 891
nppiCopyReplicateBorder_32f_AC4R, 891
nppiCopyReplicateBorder_32f_C1R, 892
nppiCopyReplicateBorder_32f_C3R, 892
nppiCopyReplicateBorder_32f_C4R, 893
nppiCopyReplicateBorder_32s_AC4R, 893
nppiCopyReplicateBorder_32s_C1R, 894
nppiCopyReplicateBorder_32s_C3R, 894
nppiCopyReplicateBorder_32s_C4R, 895
nppiCopyReplicateBorder_8u_AC4R, 895
nppiCopyReplicateBorder_8u_C1R, 896
nppiCopyReplicateBorder_8u_C3R, 896
nppiCopyReplicateBorder_8u_C4R, 897
image_copy_sub_pixel
nppiCopySubpix_16s_AC4R, 912
nppiCopySubpix_16s_C1R, 913
nppiCopySubpix_16s_C3R, 913
nppiCopySubpix_16s_C4R, 914
nppiCopySubpix_16u_AC4R, 914
nppiCopySubpix_16u_C1R, 914
nppiCopySubpix_16u_C3R, 915
nppiCopySubpix_16u_C4R, 915
nppiCopySubpix_32f_AC4R, 916
nppiCopySubpix_32f_C1R, 916
nppiCopySubpix_32f_C3R, 916
nppiCopySubpix_32f_C4R, 917

nppiCopySubpix_32s_AC4R, 917
nppiCopySubpix_32s_C1R, 918
nppiCopySubpix_32s_C3R, 918
nppiCopySubpix_32s_C4R, 919
nppiCopySubpix_8u_AC4R, 919
nppiCopySubpix_8u_C1R, 919
nppiCopySubpix_8u_C3R, 920
nppiCopySubpix_8u_C4R, 920
image_copy_wrap_border
nppiCopyWrapBorder_16s_AC4R, 900
nppiCopyWrapBorder_16s_C1R, 900
nppiCopyWrapBorder_16s_C3R, 901
nppiCopyWrapBorder_16s_C4R, 901
nppiCopyWrapBorder_16u_AC4R, 902
nppiCopyWrapBorder_16u_C1R, 902
nppiCopyWrapBorder_16u_C3R, 903
nppiCopyWrapBorder_16u_C4R, 903
nppiCopyWrapBorder_32f_AC4R, 904
nppiCopyWrapBorder_32f_C1R, 904
nppiCopyWrapBorder_32f_C3R, 905
nppiCopyWrapBorder_32f_C4R, 905
nppiCopyWrapBorder_32s_AC4R, 906
nppiCopyWrapBorder_32s_C1R, 906
nppiCopyWrapBorder_32s_C3R, 907
nppiCopyWrapBorder_32s_C4R, 907
nppiCopyWrapBorder_8u_AC4R, 908
nppiCopyWrapBorder_8u_C1R, 908
nppiCopyWrapBorder_8u_C3R, 909
nppiCopyWrapBorder_8u_C4R, 909
image_count_in_range
nppiCountInRange_32f_AC4R, 1884
nppiCountInRange_32f_C1R, 1884
nppiCountInRange_32f_C3R, 1885
nppiCountInRange_8u_AC4R, 1885
nppiCountInRange_8u_C1R, 1886
nppiCountInRange_8u_C3R, 1886
nppiCountInRangeGetBufferHostSize_32f_AC4R, 1887
nppiCountInRangeGetBufferHostSize_32f_C1R, 1887
nppiCountInRangeGetBufferHostSize_32f_C3R, 1887
nppiCountInRangeGetBufferHostSize_8u_AC4R, 1887
nppiCountInRangeGetBufferHostSize_8u_C1R, 1888
nppiCountInRangeGetBufferHostSize_8u_C3R, 1888
image_dilate
nppiDilate_16u_AC4R, 1395
nppiDilate_16u_C1R, 1395
nppiDilate_16u_C3R, 1396
nppiDilate_16u_C4R, 1396
nppiDilate_32f_AC4R, 1396
nppiDilate_32f_C1R, 1397
nppiDilate_32f_C3R, 1397
nppiDilate_32f_C4R, 1398
nppiDilate_8u_AC4R, 1398
nppiDilate_8u_C1R, 1399
nppiDilate_8u_C3R, 1399
nppiDilate_8u_C4R, 1399
image_dilate_3x3
nppiDilate3x3_16u_AC4R, 1410
nppiDilate3x3_16u_C1R, 1410
nppiDilate3x3_16u_C3R, 1410
nppiDilate3x3_16u_C4R, 1411
nppiDilate3x3_32f_AC4R, 1411
nppiDilate3x3_32f_C1R, 1411
nppiDilate3x3_32f_C3R, 1412
nppiDilate3x3_32f_C4R, 1412
nppiDilate3x3_64f_C1R, 1412
nppiDilate3x3_8u_AC4R, 1413
nppiDilate3x3_8u_C1R, 1413
nppiDilate3x3_8u_C3R, 1413
nppiDilate3x3_8u_C4R, 1414
image_dilate_3x3_border
nppiDilate3x3Border_16u_AC4R, 1416
nppiDilate3x3Border_16u_C1R, 1416
nppiDilate3x3Border_16u_C3R, 1417
nppiDilate3x3Border_16u_C4R, 1417
nppiDilate3x3Border_32f_AC4R, 1418
nppiDilate3x3Border_32f_C1R, 1418
nppiDilate3x3Border_32f_C3R, 1419
nppiDilate3x3Border_32f_C4R, 1419
nppiDilate3x3Border_8u_AC4R, 1419
nppiDilate3x3Border_8u_C1R, 1420
nppiDilate3x3Border_8u_C3R, 1420
nppiDilate3x3Border_8u_C4R, 1421
image_dilate_border
nppiDilateBorder_16u_AC4R, 1402
nppiDilateBorder_16u_C1R, 1403
nppiDilateBorder_16u_C3R, 1403
nppiDilateBorder_16u_C4R, 1404
nppiDilateBorder_32f_AC4R, 1404
nppiDilateBorder_32f_C1R, 1405
nppiDilateBorder_32f_C3R, 1405
nppiDilateBorder_32f_C4R, 1406
nppiDilateBorder_8u_AC4R, 1406
nppiDilateBorder_8u_C1R, 1407
nppiDilateBorder_8u_C3R, 1407
nppiDilateBorder_8u_C4R, 1408
image_div
nppiDiv_16s_AC4IRSfs, 281
nppiDiv_16s_AC4RSfs, 281
nppiDiv_16s_C1IRSfs, 282
nppiDiv_16s_C1RSfs, 282
nppiDiv_16s_C3IRSfs, 282
nppiDiv_16s_C3RSfs, 283

nppiDiv_16s_C4IRSfs, 283
nppiDiv_16s_C4RSfs, 284
nppiDiv_16sc_AC4IRSfs, 284
nppiDiv_16sc_AC4RSfs, 284
nppiDiv_16sc_C1IRSfs, 285
nppiDiv_16sc_C1RSfs, 285
nppiDiv_16sc_C3IRSfs, 286
nppiDiv_16sc_C3RSfs, 286
nppiDiv_16u_AC4IRSfs, 287
nppiDiv_16u_AC4RSfs, 287
nppiDiv_16u_C1IRSfs, 287
nppiDiv_16u_C1RSfs, 288
nppiDiv_16u_C3IRSfs, 288
nppiDiv_16u_C3RSfs, 289
nppiDiv_16u_C4IRSfs, 289
nppiDiv_16u_C4RSfs, 289
nppiDiv_32f_AC4IR, 290
nppiDiv_32f_AC4R, 290
nppiDiv_32f_C1IR, 291
nppiDiv_32f_C1R, 291
nppiDiv_32f_C3IR, 291
nppiDiv_32f_C3R, 292
nppiDiv_32f_C4IR, 292
nppiDiv_32f_C4R, 292
nppiDiv_32fc_AC4IR, 293
nppiDiv_32fc_AC4R, 293
nppiDiv_32fc_C1IR, 294
nppiDiv_32fc_C1R, 294
nppiDiv_32fc_C3IR, 294
nppiDiv_32fc_C3R, 295
nppiDiv_32fc_C4IR, 295
nppiDiv_32fc_C4R, 295
nppiDiv_32s_C1IRSfs, 296
nppiDiv_32s_C1R, 296
nppiDiv_32s_C1RSfs, 297
nppiDiv_32s_C3IRSfs, 297
nppiDiv_32s_C3RSfs, 297
nppiDiv_32sc_AC4IRSfs, 298
nppiDiv_32sc_AC4RSfs, 298
nppiDiv_32sc_C1IRSfs, 299
nppiDiv_32sc_C1RSfs, 299
nppiDiv_32sc_C3IRSfs, 300
nppiDiv_32sc_C3RSfs, 300
nppiDiv_8u_AC4IRSfs, 300
nppiDiv_8u_AC4RSfs, 301
nppiDiv_8u_C1IRSfs, 301
nppiDiv_8u_C1RSfs, 302
nppiDiv_8u_C3IRSfs, 302
nppiDiv_8u_C3RSfs, 302
nppiDiv_8u_C4IRSfs, 303
nppiDiv_8u_C4RSfs, 303
image_divc
nppiDivC_16s_AC4IRSfs, 145
nppiDivC_16s_AC4RSfs, 145
nppiDivC_16s_C1IRSfs, 145
nppiDivC_16s_C1RSfs, 146
nppiDivC_16s_C3IRSfs, 146
nppiDivC_16s_C3RSfs, 146
nppiDivC_16s_C4IRSfs, 147
nppiDivC_16s_C4RSfs, 147
nppiDivC_16sc_AC4IRSfs, 148
nppiDivC_16sc_AC4RSfs, 148
nppiDivC_16sc_C1IRSfs, 148
nppiDivC_16sc_C1RSfs, 149
nppiDivC_16sc_C3IRSfs, 149
nppiDivC_16sc_C3RSfs, 150
nppiDivC_16u_AC4IRSfs, 150
nppiDivC_16u_AC4RSfs, 150
nppiDivC_16u_C1IRSfs, 151
nppiDivC_16u_C1RSfs, 151
nppiDivC_16u_C3IRSfs, 152
nppiDivC_16u_C3RSfs, 152
nppiDivC_16u_C4IRSfs, 152
nppiDivC_16u_C4RSfs, 153
nppiDivC_32f_AC4IR, 153
nppiDivC_32f_AC4R, 153
nppiDivC_32f_C1IR, 154
nppiDivC_32f_C1R, 154
nppiDivC_32f_C3IR, 154
nppiDivC_32f_C3R, 155
nppiDivC_32f_C4IR, 155
nppiDivC_32f_C4R, 155
nppiDivC_32fc_AC4IR, 156
nppiDivC_32fc_AC4R, 156
nppiDivC_32fc_C1IR, 156
nppiDivC_32fc_C1R, 157
nppiDivC_32fc_C3IR, 157
nppiDivC_32fc_C3R, 157
nppiDivC_32fc_C4IR, 158
nppiDivC_32fc_C4R, 158
nppiDivC_32s_C1IRSfs, 159
nppiDivC_32s_C1RSfs, 159
nppiDivC_32s_C3IRSfs, 159
nppiDivC_32s_C3RSfs, 160
nppiDivC_32sc_AC4IRSfs, 160
nppiDivC_32sc_AC4RSfs, 160
nppiDivC_32sc_C1IRSfs, 161
nppiDivC_32sc_C1RSfs, 161
nppiDivC_32sc_C3IRSfs, 162
nppiDivC_32sc_C3RSfs, 162
nppiDivC_8u_AC4IRSfs, 162
nppiDivC_8u_AC4RSfs, 163
nppiDivC_8u_C1IRSfs, 163
nppiDivC_8u_C1RSfs, 164
nppiDivC_8u_C3IRSfs, 164
nppiDivC_8u_C3RSfs, 164
nppiDivC_8u_C4IRSfs, 165
nppiDivC_8u_C4RSfs, 165

image_divround
nppiDiv_Round_16s_AC4IRSfs, 307
nppiDiv_Round_16s_AC4RSfs, 308
nppiDiv_Round_16s_C1IRSfs, 308
nppiDiv_Round_16s_C1RSfs, 309
nppiDiv_Round_16s_C3IRSfs, 309
nppiDiv_Round_16s_C3RSfs, 309
nppiDiv_Round_16s_C4IRSfs, 310
nppiDiv_Round_16s_C4RSfs, 310
nppiDiv_Round_16u_AC4IRSfs, 311
nppiDiv_Round_16u_AC4RSfs, 311
nppiDiv_Round_16u_C1IRSfs, 312
nppiDiv_Round_16u_C1RSfs, 312
nppiDiv_Round_16u_C3IRSfs, 313
nppiDiv_Round_16u_C3RSfs, 313
nppiDiv_Round_16u_C4IRSfs, 314
nppiDiv_Round_16u_C4RSfs, 314
nppiDiv_Round_8u_AC4IRSfs, 315
nppiDiv_Round_8u_AC4RSfs, 315
nppiDiv_Round_8u_C1IRSfs, 316
nppiDiv_Round_8u_C1RSfs, 316
nppiDiv_Round_8u_C3IRSfs, 317
nppiDiv_Round_8u_C3RSfs, 317
nppiDiv_Round_8u_C4IRSfs, 318
nppiDiv_Round_8u_C4RSfs, 318
image_dot_prod
nppiDotProd_16s64f_AC4R, 1862
nppiDotProd_16s64f_C1R, 1862
nppiDotProd_16s64f_C3R, 1863
nppiDotProd_16s64f_C4R, 1863
nppiDotProd_16u64f_AC4R, 1864
nppiDotProd_16u64f_C1R, 1864
nppiDotProd_16u64f_C3R, 1865
nppiDotProd_16u64f_C4R, 1865
nppiDotProd_32f64f_AC4R, 1865
nppiDotProd_32f64f_C1R, 1866
nppiDotProd_32f64f_C3R, 1866
nppiDotProd_32f64f_C4R, 1867
nppiDotProd_32s64f_AC4R, 1867
nppiDotProd_32s64f_C1R, 1868
nppiDotProd_32s64f_C3R, 1868
nppiDotProd_32s64f_C4R, 1868
nppiDotProd_32u64f_AC4R, 1869
nppiDotProd_32u64f_C1R, 1869
nppiDotProd_32u64f_C3R, 1870
nppiDotProd_32u64f_C4R, 1870
nppiDotProd_8s64f_AC4R, 1871
nppiDotProd_8s64f_C1R, 1871
nppiDotProd_8s64f_C3R, 1871
nppiDotProd_8s64f_C4R, 1872
nppiDotProd_8u64f_AC4R, 1872
nppiDotProd_8u64f_C1R, 1873
nppiDotProd_8u64f_C3R, 1873
nppiDotProd_8u64f_C4R, 1874
nppiDotProdGetBufferHostSize_16s64f_AC4R, 1874
nppiDotProdGetBufferHostSize_16s64f_C1R, 1874
nppiDotProdGetBufferHostSize_16s64f_C3R, 1875
nppiDotProdGetBufferHostSize_16s64f_C4R, 1875
nppiDotProdGetBufferHostSize_16u64f_AC4R, 1875
nppiDotProdGetBufferHostSize_16u64f_C1R, 1875
nppiDotProdGetBufferHostSize_16u64f_C3R, 1876
nppiDotProdGetBufferHostSize_16u64f_C4R, 1876
nppiDotProdGetBufferHostSize_32f64f_AC4R, 1876
nppiDotProdGetBufferHostSize_32f64f_C1R, 1877
nppiDotProdGetBufferHostSize_32f64f_C3R, 1877
nppiDotProdGetBufferHostSize_32f64f_C4R, 1877
nppiDotProdGetBufferHostSize_32s64f_AC4R, 1877
nppiDotProdGetBufferHostSize_32s64f_C1R, 1878
nppiDotProdGetBufferHostSize_32s64f_C3R, 1878
nppiDotProdGetBufferHostSize_32s64f_C4R, 1878
nppiDotProdGetBufferHostSize_32u64f_AC4R, 1879
nppiDotProdGetBufferHostSize_32u64f_C1R, 1879
nppiDotProdGetBufferHostSize_32u64f_C3R, 1879
nppiDotProdGetBufferHostSize_32u64f_C4R, 1879
nppiDotProdGetBufferHostSize_8s64f_AC4R, 1880
nppiDotProdGetBufferHostSize_8s64f_C1R, 1880
nppiDotProdGetBufferHostSize_8s64f_C3R, 1880
nppiDotProdGetBufferHostSize_8s64f_C4R, 1881
nppiDotProdGetBufferHostSize_8u64f_AC4R, 1881
nppiDotProdGetBufferHostSize_8u64f_C1R, 1881
nppiDotProdGetBufferHostSize_8u64f_C3R, 1881

nppiDotProdGetBufferHostSize_8u64f_C4R, 1882
image_duplicate_channel
nppiDup_16s_C1AC4R, 923
nppiDup_16s_C1C3R, 923
nppiDup_16s_C1C4R, 924
nppiDup_16u_C1AC4R, 924
nppiDup_16u_C1C3R, 924
nppiDup_16u_C1C4R, 925
nppiDup_32f_C1AC4R, 925
nppiDup_32f_C1C3R, 925
nppiDup_32f_C1C4R, 926
nppiDup_32s_C1AC4R, 926
nppiDup_32s_C1C3R, 926
nppiDup_32s_C1C4R, 927
nppiDup_8u_C1AC4R, 927
nppiDup_8u_C1C3R, 927
nppiDup_8u_C1C4R, 928
image_erode
nppiErode_16u_AC4R, 1423
nppiErode_16u_C1R, 1423
nppiErode_16u_C3R, 1424
nppiErode_16u_C4R, 1424
nppiErode_32f_AC4R, 1424
nppiErode_32f_C1R, 1425
nppiErode_32f_C3R, 1425
nppiErode_32f_C4R, 1426
nppiErode_8u_AC4R, 1426
nppiErode_8u_C1R, 1427
nppiErode_8u_C3R, 1427
nppiErode_8u_C4R, 1427
image_erode_3x3
nppiErode3x3_16u_AC4R, 1438
nppiErode3x3_16u_C1R, 1438
nppiErode3x3_16u_C3R, 1438
nppiErode3x3_16u_C4R, 1439
nppiErode3x3_32f_AC4R, 1439
nppiErode3x3_32f_C1R, 1439
nppiErode3x3_32f_C3R, 1440
nppiErode3x3_32f_C4R, 1440
nppiErode3x3_64f_C1R, 1440
nppiErode3x3_8u_AC4R, 1441
nppiErode3x3_8u_C1R, 1441
nppiErode3x3_8u_C3R, 1441
nppiErode3x3_8u_C4R, 1442
image_erode_3x3_border
nppiErode3x3Border_16u_AC4R, 1444
nppiErode3x3Border_16u_C1R, 1444
nppiErode3x3Border_16u_C3R, 1445
nppiErode3x3Border_16u_C4R, 1445
nppiErode3x3Border_32f_AC4R, 1446
nppiErode3x3Border_32f_C1R, 1446
nppiErode3x3Border_32f_C3R, 1447
nppiErode3x3Border_32f_C4R, 1447
nppiErode3x3Border_8u_AC4R, 1447
nppiErode3x3Border_8u_C1R, 1448
nppiErode3x3Border_8u_C3R, 1448
nppiErode3x3Border_8u_C4R, 1449
image_erode_border
nppiErodeBorder_16u_AC4R, 1430
nppiErodeBorder_16u_C1R, 1431
nppiErodeBorder_16u_C3R, 1431
nppiErodeBorder_16u_C4R, 1432
nppiErodeBorder_32f_AC4R, 1432
nppiErodeBorder_32f_C1R, 1433
nppiErodeBorder_32f_C3R, 1433
nppiErodeBorder_32f_C4R, 1434
nppiErodeBorder_8u_AC4R, 1434
nppiErodeBorder_8u_C1R, 1435
nppiErodeBorder_8u_C3R, 1435
nppiErodeBorder_8u_C4R, 1436
image_exp
nppiExp_16s_C1IRSfs, 364
nppiExp_16s_C1RSfs, 364
nppiExp_16s_C3IRSfs, 365
nppiExp_16s_C3RSfs, 365
nppiExp_16u_C1IRSfs, 365
nppiExp_16u_C1RSfs, 366
nppiExp_16u_C3IRSfs, 366
nppiExp_16u_C3RSfs, 366
nppiExp_32f_C1IR, 367
nppiExp_32f_C1R, 367
nppiExp_32f_C3IR, 367
nppiExp_32f_C3R, 368
nppiExp_8u_C1IRSfs, 368
nppiExp_8u_C1RSfs, 368
nppiExp_8u_C3IRSfs, 369
nppiExp_8u_C3RSfs, 369
image_filtering_functions
nppiFilterGauss_16s_AC4R, 966
nppiFilterGauss_16s_C1R, 967
nppiFilterGauss_16s_C3R, 967
nppiFilterGauss_16s_C4R, 967
nppiFilterGauss_16u_AC4R, 968
nppiFilterGauss_16u_C1R, 968
nppiFilterGauss_16u_C3R, 968
nppiFilterGauss_16u_C4R, 969
nppiFilterGauss_32f_AC4R, 969
nppiFilterGauss_32f_C1R, 969
nppiFilterGauss_32f_C3R, 970
nppiFilterGauss_32f_C4R, 970
nppiFilterGauss_8u_AC4R, 970
nppiFilterGauss_8u_C1R, 971
nppiFilterGauss_8u_C3R, 971
nppiFilterGauss_8u_C4R, 971
nppiFilterGaussBorder_16s_AC4R, 972
nppiFilterGaussBorder_16s_C1R, 972
nppiFilterGaussBorder_16s_C3R, 973

nppiFilterGaussBorder_16s_C4R, 973
nppiFilterGaussBorder_16u_AC4R, 974
nppiFilterGaussBorder_16u_C1R, 974
nppiFilterGaussBorder_16u_C3R, 975
nppiFilterGaussBorder_16u_C4R, 975
nppiFilterGaussBorder_32f_AC4R, 975
nppiFilterGaussBorder_32f_C1R, 976
nppiFilterGaussBorder_32f_C3R, 976
nppiFilterGaussBorder_32f_C4R, 977
nppiFilterGaussBorder_8u_AC4R, 977
nppiFilterGaussBorder_8u_C1R, 978
nppiFilterGaussBorder_8u_C3R, 978
nppiFilterGaussBorder_8u_C4R, 979
nppiFilterHighPass_16s_AC4R, 979
nppiFilterHighPass_16s_C1R, 980
nppiFilterHighPass_16s_C3R, 980
nppiFilterHighPass_16s_C4R, 980
nppiFilterHighPass_16u_AC4R, 981
nppiFilterHighPass_16u_C1R, 981
nppiFilterHighPass_16u_C3R, 981
nppiFilterHighPass_16u_C4R, 982
nppiFilterHighPass_32f_AC4R, 982
nppiFilterHighPass_32f_C1R, 982
nppiFilterHighPass_32f_C3R, 983
nppiFilterHighPass_32f_C4R, 983
nppiFilterHighPass_8u_AC4R, 983
nppiFilterHighPass_8u_C1R, 984
nppiFilterHighPass_8u_C3R, 984
nppiFilterHighPass_8u_C4R, 984
nppiFilterLaplace_16s_AC4R, 985
nppiFilterLaplace_16s_C1R, 985
nppiFilterLaplace_16s_C3R, 985
nppiFilterLaplace_16s_C4R, 986
nppiFilterLaplace_32f_AC4R, 986
nppiFilterLaplace_32f_C1R, 986
nppiFilterLaplace_32f_C3R, 987
nppiFilterLaplace_32f_C4R, 987
nppiFilterLaplace_8s16s_C1R, 987
nppiFilterLaplace_8u16s_C1R, 988
nppiFilterLaplace_8u_AC4R, 988
nppiFilterLaplace_8u_C1R, 988
nppiFilterLaplace_8u_C3R, 989
nppiFilterLaplace_8u_C4R, 989
nppiFilterLowPass_16s_AC4R, 989
nppiFilterLowPass_16s_C1R, 990
nppiFilterLowPass_16s_C3R, 990
nppiFilterLowPass_16s_C4R, 990
nppiFilterLowPass_16u_AC4R, 991
nppiFilterLowPass_16u_C1R, 991
nppiFilterLowPass_16u_C3R, 991
nppiFilterLowPass_16u_C4R, 992
nppiFilterLowPass_32f_AC4R, 992
nppiFilterLowPass_32f_C1R, 992
nppiFilterLowPass_32f_C3R, 993
nppiFilterLowPass_32f_C4R, 993
nppiFilterLowPass_8u_AC4R, 993
nppiFilterLowPass_8u_C1R, 994
nppiFilterLowPass_8u_C3R, 994
nppiFilterLowPass_8u_C4R, 994
nppiFilterRobertsDown_16s_AC4R, 995
nppiFilterRobertsDown_16s_C1R, 995
nppiFilterRobertsDown_16s_C3R, 995
nppiFilterRobertsDown_16s_C4R, 996
nppiFilterRobertsDown_32f_AC4R, 996
nppiFilterRobertsDown_32f_C1R, 996
nppiFilterRobertsDown_32f_C3R, 997
nppiFilterRobertsDown_32f_C4R, 997
nppiFilterRobertsDown_8u_AC4R, 997
nppiFilterRobertsDown_8u_C1R, 998
nppiFilterRobertsDown_8u_C3R, 998
nppiFilterRobertsDown_8u_C4R, 998
nppiFilterRobertsUp_16s_AC4R, 999
nppiFilterRobertsUp_16s_C1R, 999
nppiFilterRobertsUp_16s_C3R, 999
nppiFilterRobertsUp_16s_C4R, 1000
nppiFilterRobertsUp_32f_AC4R, 1000
nppiFilterRobertsUp_32f_C1R, 1000
nppiFilterRobertsUp_32f_C3R, 1001
nppiFilterRobertsUp_32f_C4R, 1001
nppiFilterRobertsUp_8u_AC4R, 1001
nppiFilterRobertsUp_8u_C1R, 1002
nppiFilterRobertsUp_8u_C3R, 1002
nppiFilterRobertsUp_8u_C4R, 1002
nppiFilterSharpen_16s_AC4R, 1003
nppiFilterSharpen_16s_C1R, 1003
nppiFilterSharpen_16s_C3R, 1003
nppiFilterSharpen_16s_C4R, 1004
nppiFilterSharpen_16u_AC4R, 1004
nppiFilterSharpen_16u_C1R, 1004
nppiFilterSharpen_16u_C3R, 1005
nppiFilterSharpen_16u_C4R, 1005
nppiFilterSharpen_32f_AC4R, 1005
nppiFilterSharpen_32f_C1R, 1006
nppiFilterSharpen_32f_C3R, 1006
nppiFilterSharpen_32f_C4R, 1006
nppiFilterSharpen_8u_AC4R, 1007
nppiFilterSharpen_8u_C1R, 1007
nppiFilterSharpen_8u_C3R, 1007
nppiFilterSharpen_8u_C4R, 1008
nppiFilterSobelCrossBorder_32f_C1R, 1008
nppiFilterSobelCrossBorder_8s16s_C1R, 1009
nppiFilterSobelCrossBorder_8u16s_C1R, 1009
nppiFilterSobelVertSecondBorder_32f_C1R, 1009
nppiFilterSobelVertSecondBorder_8s16s_C1R, 1010

nppiFilterSobelVertSecondBorder_8u16s_-C1R, 1010
image_fourier_transforms
nppiMagnitude_32fc32f_C1R, 1391
nppiMagnitudeSqr_32fc32f_C1R, 1391
image_graphcut
nppiGraphcut8_32f8u, 726
nppiGraphcut8_32s8u, 726
nppiGraphcut8GetSize, 727
nppiGraphcut8InitAlloc, 728
nppiGraphcut_32f8u, 728
nppiGraphcut_32s8u, 729
nppiGraphcutFree, 730
nppiGraphcutGetSize, 730
nppiGraphcutInitAlloc, 730
image_histogrameven
nppiEvenLevelsHost_32s, 1913
nppiHistogramEven_16s_AC4R, 1914
nppiHistogramEven_16s_C1R, 1914
nppiHistogramEven_16s_C3R, 1914
nppiHistogramEven_16s_C4R, 1915
nppiHistogramEven_16u_AC4R, 1915
nppiHistogramEven_16u_C1R, 1916
nppiHistogramEven_16u_C3R, 1916
nppiHistogramEven_16u_C4R, 1917
nppiHistogramEven_8u_AC4R, 1917
nppiHistogramEven_8u_C1R, 1918
nppiHistogramEven_8u_C3R, 1918
nppiHistogramEven_8u_C4R, 1919
nppiHistogramEvenGetBufferSize_16s_-AC4R, 1919
nppiHistogramEvenGetBufferSize_16s_C1R, 1919
nppiHistogramEvenGetBufferSize_16s_C3R, 1920
nppiHistogramEvenGetBufferSize_16s_C4R, 1920
nppiHistogramEvenGetBufferSize_16u_-AC4R, 1920
nppiHistogramEvenGetBufferSize_16u_C1R, 1921
nppiHistogramEvenGetBufferSize_16u_C3R, 1921
nppiHistogramEvenGetBufferSize_16u_C4R, 1921
nppiHistogramEvenGetBufferSize_8u_AC4R, 1922
nppiHistogramEvenGetBufferSize_8u_C1R, 1922
nppiHistogramEvenGetBufferSize_8u_C3R, 1922
nppiHistogramEvenGetBufferSize_8u_C4R, 1923
image_histogramrange
nppiHistogramRange_16s_AC4R, 1927
nppiHistogramRange_16s_C1R, 1927
nppiHistogramRange_16s_C3R, 1927
nppiHistogramRange_16s_C4R, 1928
nppiHistogramRange_16u_AC4R, 1928
nppiHistogramRange_16u_C1R, 1929
nppiHistogramRange_16u_C3R, 1929
nppiHistogramRange_16u_C4R, 1930
nppiHistogramRange_32f_AC4R, 1930
nppiHistogramRange_32f_C1R, 1931
nppiHistogramRange_32f_C3R, 1931
nppiHistogramRange_32f_C4R, 1931
nppiHistogramRange_8u_AC4R, 1932
nppiHistogramRange_8u_C1R, 1932
nppiHistogramRange_8u_C3R, 1933
nppiHistogramRange_8u_C4R, 1933
nppiHistogramRangeGetBufferSize_16s_-AC4R, 1934
nppiHistogramRangeGetBufferSize_16s_-C1R, 1934
nppiHistogramRangeGetBufferSize_16s_-C3R, 1934
nppiHistogramRangeGetBufferSize_16s_-C4R, 1935
nppiHistogramRangeGetBufferSize_16u_-AC4R, 1935
nppiHistogramRangeGetBufferSize_16u_-C1R, 1935
nppiHistogramRangeGetBufferSize_16u_-C3R, 1936
nppiHistogramRangeGetBufferSize_16u_-C4R, 1936
nppiHistogramRangeGetBufferSize_32f_-AC4R, 1936
nppiHistogramRangeGetBufferSize_32f_C1R, 1937
nppiHistogramRangeGetBufferSize_32f_C3R, 1937
nppiHistogramRangeGetBufferSize_32f_C4R, 1937
nppiHistogramRangeGetBufferSize_8u_-AC4R, 1938
nppiHistogramRangeGetBufferSize_8u_C1R, 1938
nppiHistogramRangeGetBufferSize_8u_C3R, 1938
nppiHistogramRangeGetBufferSize_8u_C4R, 1939
image_inf_norm
nppiNorm_Inf_16s_AC4R, 1660
nppiNorm_Inf_16s_C1R, 1660
nppiNorm_Inf_16s_C3R, 1660
nppiNorm_Inf_16s_C4R, 1661
nppiNorm_Inf_16u_AC4R, 1661

nppiNorm_Inf_16u_C1MR, 1661
nppiNorm_Inf_16u_C1R, 1662
nppiNorm_Inf_16u_C3CMR, 1662
nppiNorm_Inf_16u_C3R, 1663
nppiNorm_Inf_16u_C4R, 1663
nppiNorm_Inf_32f_AC4R, 1663
nppiNorm_Inf_32f_C1MR, 1664
nppiNorm_Inf_32f_C1R, 1664
nppiNorm_Inf_32f_C3CMR, 1665
nppiNorm_Inf_32f_C3R, 1665
nppiNorm_Inf_32f_C4R, 1665
nppiNorm_Inf_32s_C1R, 1666
nppiNorm_Inf_8s_C1MR, 1666
nppiNorm_Inf_8s_C3CMR, 1667
nppiNorm_Inf_8u_AC4R, 1667
nppiNorm_Inf_8u_C1MR, 1667
nppiNorm_Inf_8u_C1R, 1668
nppiNorm_Inf_8u_C3CMR, 1668
nppiNorm_Inf_8u_C3R, 1669
nppiNorm_Inf_8u_C4R, 1669
nppiNormInfGetBufferHostSize_16s_AC4R, 1669
nppiNormInfGetBufferHostSize_16s_C1R, 1670
nppiNormInfGetBufferHostSize_16s_C3R, 1670
nppiNormInfGetBufferHostSize_16s_C4R, 1670
nppiNormInfGetBufferHostSize_16u_AC4R, 1671
nppiNormInfGetBufferHostSize_16u_C1MR, 1671
nppiNormInfGetBufferHostSize_16u_C1R, 1671
nppiNormInfGetBufferHostSize_16u_C3CMR, 1671
nppiNormInfGetBufferHostSize_16u_C3R, 1672
nppiNormInfGetBufferHostSize_16u_C4R, 1672
nppiNormInfGetBufferHostSize_32f_AC4R, 1672
nppiNormInfGetBufferHostSize_32f_C1MR, 1673
nppiNormInfGetBufferHostSize_32f_C1R, 1673
nppiNormInfGetBufferHostSize_32f_C3CMR, 1673
nppiNormInfGetBufferHostSize_32f_C3R, 1673
nppiNormInfGetBufferHostSize_32f_C4R, 1674
nppiNormInfGetBufferHostSize_32s_C1R, 1674
nppiNormInfGetBufferHostSize_8s_C1MR, 1674
nppiNormInfGetBufferHostSize_8s_C3CMR, 1675
nppiNormInfGetBufferHostSize_8u_AC4R, 1675
nppiNormInfGetBufferHostSize_8u_C1MR, 1675
nppiNormInfGetBufferHostSize_8u_C1R, 1675
nppiNormInfGetBufferHostSize_8u_C3CMR, 1676
nppiNormInfGetBufferHostSize_8u_C3R, 1676
nppiNormInfGetBufferHostSize_8u_C4R, 1676
image_inf_normdiff
nppiNormDiff_Inf_16s_AC4R, 1724
nppiNormDiff_Inf_16s_C1R, 1724
nppiNormDiff_Inf_16s_C3R, 1725
nppiNormDiff_Inf_16s_C4R, 1725
nppiNormDiff_Inf_16u_AC4R, 1726
nppiNormDiff_Inf_16u_C1MR, 1726
nppiNormDiff_Inf_16u_C1R, 1727
nppiNormDiff_Inf_16u_C3CMR, 1727
nppiNormDiff_Inf_16u_C3R, 1728
nppiNormDiff_Inf_16u_C4R, 1728
nppiNormDiff_Inf_32f_AC4R, 1728
nppiNormDiff_Inf_32f_C1MR, 1729
nppiNormDiff_Inf_32f_C1R, 1729
nppiNormDiff_Inf_32f_C3CMR, 1730
nppiNormDiff_Inf_32f_C3R, 1730
nppiNormDiff_Inf_32f_C4R, 1731
nppiNormDiff_Inf_8s_C1MR, 1731
nppiNormDiff_Inf_8s_C3CMR, 1732
nppiNormDiff_Inf_8u_AC4R, 1732
nppiNormDiff_Inf_8u_C1MR, 1733
nppiNormDiff_Inf_8u_C1R, 1733
nppiNormDiff_Inf_8u_C3CMR, 1734
nppiNormDiff_Inf_8u_C3R, 1734
nppiNormDiff_Inf_8u_C4R, 1735
nppiNormDiffInfGetBufferHostSize_16s_AC4R, 1735
nppiNormDiffInfGetBufferHostSize_16s_C1R, 1735
nppiNormDiffInfGetBufferHostSize_16s_C3R, 1736
nppiNormDiffInfGetBufferHostSize_16s_C4R, 1736
nppiNormDiffInfGetBufferHostSize_16u_AC4R, 1736
nppiNormDiffInfGetBufferHostSize_16u_C1MR, 1737

nppiNormDiffInfGetBufferHostSize_16u_C1R, 1737
nppiNormDiffInfGetBufferHostSize_16u_C3CMR, 1737
nppiNormDiffInfGetBufferHostSize_16u_C3R, 1737
nppiNormDiffInfGetBufferHostSize_16u_C4R, 1738
nppiNormDiffInfGetBufferHostSize_32f_AC4R, 1738
nppiNormDiffInfGetBufferHostSize_32f_C1MR, 1738
nppiNormDiffInfGetBufferHostSize_32f_C1R, 1739
nppiNormDiffInfGetBufferHostSize_32f_C3CMR, 1739
nppiNormDiffInfGetBufferHostSize_32f_C3R, 1739
nppiNormDiffInfGetBufferHostSize_32f_C4R, 1739
nppiNormDiffInfGetBufferHostSize_8s_C1MR, 1740
nppiNormDiffInfGetBufferHostSize_8s_C3CMR, 1740
nppiNormDiffInfGetBufferHostSize_8u_AC4R, 1740
nppiNormDiffInfGetBufferHostSize_8u_C1MR, 1741
nppiNormDiffInfGetBufferHostSize_8u_C1R, 1741
nppiNormDiffInfGetBufferHostSize_8u_C3CMR, 1741
nppiNormDiffInfGetBufferHostSize_8u_C3R, 1741
nppiNormDiffInfGetBufferHostSize_8u_C4R, 1742
image_inf_normrel
nppiNormRel_Inf_16s_AC4R, 1793
nppiNormRel_Inf_16s_C1R, 1793
nppiNormRel_Inf_16s_C3R, 1794
nppiNormRel_Inf_16s_C4R, 1794
nppiNormRel_Inf_16u_AC4R, 1795
nppiNormRel_Inf_16u_C1MR, 1795
nppiNormRel_Inf_16u_C1R, 1796
nppiNormRel_Inf_16u_C3CMR, 1796
nppiNormRel_Inf_16u_C3R, 1797
nppiNormRel_Inf_16u_C4R, 1797
nppiNormRel_Inf_32f_AC4R, 1797
nppiNormRel_Inf_32f_C1MR, 1798
nppiNormRel_Inf_32f_C1R, 1798
nppiNormRel_Inf_32f_C3CMR, 1799
nppiNormRel_Inf_32f_C3R, 1799
nppiNormRel_Inf_32f_C4R, 1800
nppiNormRel_Inf_8s_C1MR, 1800
nppiNormRel_Inf_8s_C3CMR, 1801
nppiNormRel_Inf_8u_AC4R, 1801
nppiNormRel_Inf_8u_C1MR, 1802
nppiNormRel_Inf_8u_C1R, 1802
nppiNormRel_Inf_8u_C3CMR, 1803
nppiNormRel_Inf_8u_C3R, 1803
nppiNormRel_Inf_8u_C4R, 1804
nppiNormRelInfGetBufferHostSize_16s_AC4R, 1804
nppiNormRelInfGetBufferHostSize_16s_C1R, 1805
nppiNormRelInfGetBufferHostSize_16s_C3R, 1805
nppiNormRelInfGetBufferHostSize_16s_C4R, 1805
nppiNormRelInfGetBufferHostSize_16u_AC4R, 1805
nppiNormRelInfGetBufferHostSize_16u_C1MR, 1806
nppiNormRelInfGetBufferHostSize_16u_C1R, 1806
nppiNormRelInfGetBufferHostSize_16u_C3CMR, 1806
nppiNormRelInfGetBufferHostSize_16u_C3R, 1807
nppiNormRelInfGetBufferHostSize_16u_C4R, 1807
nppiNormRelInfGetBufferHostSize_32f_AC4R, 1807
nppiNormRelInfGetBufferHostSize_32f_C1MR, 1807
nppiNormRelInfGetBufferHostSize_32f_C1R, 1808
nppiNormRelInfGetBufferHostSize_32f_C3CMR, 1808
nppiNormRelInfGetBufferHostSize_32f_C3R, 1808
nppiNormRelInfGetBufferHostSize_32f_C4R, 1809
nppiNormRelInfGetBufferHostSize_32s_C1R, 1809
nppiNormRelInfGetBufferHostSize_8s_C1MR, 1809
nppiNormRelInfGetBufferHostSize_8s_C3CMR, 1809
nppiNormRelInfGetBufferHostSize_8u_AC4R, 1810
nppiNormRelInfGetBufferHostSize_8u_C1MR, 1810
nppiNormRelInfGetBufferHostSize_8u_C1R, 1810
nppiNormRelInfGetBufferHostSize_8u_C3CMR, 1811

  - nppiNormRelInfGetBufferHostSize_8u_C3R, 1811
  - nppiNormRelInfGetBufferHostSize_8u_C4R, 1811
- image_integral
  - nppiIntegral_8u32f_C1R, 1903
  - nppiIntegral_8u32s_C1R, 1903
- image_L1_norm
  - nppiNorm_L1_16s_AC4R, 1682
  - nppiNorm_L1_16s_C1R, 1682
  - nppiNorm_L1_16s_C3R, 1682
  - nppiNorm_L1_16s_C4R, 1683
  - nppiNorm_L1_16u_AC4R, 1683
  - nppiNorm_L1_16u_C1MR, 1683
  - nppiNorm_L1_16u_C1R, 1684
  - nppiNorm_L1_16u_C3CMR, 1684
  - nppiNorm_L1_16u_C3R, 1685
  - nppiNorm_L1_16u_C4R, 1685
  - nppiNorm_L1_32f_AC4R, 1685
  - nppiNorm_L1_32f_C1MR, 1686
  - nppiNorm_L1_32f_C1R, 1686
  - nppiNorm_L1_32f_C3CMR, 1686
  - nppiNorm_L1_32f_C3R, 1687
  - nppiNorm_L1_32f_C4R, 1687
  - nppiNorm_L1_8s_C1MR, 1688
  - nppiNorm_L1_8s_C3CMR, 1688
  - nppiNorm_L1_8u_AC4R, 1688
  - nppiNorm_L1_8u_C1MR, 1689
  - nppiNorm_L1_8u_C1R, 1689
  - nppiNorm_L1_8u_C3CMR, 1690
  - nppiNorm_L1_8u_C3R, 1690
  - nppiNorm_L1_8u_C4R, 1690
  - nppiNormL1GetBufferHostSize_16s_AC4R, 1691
  - nppiNormL1GetBufferHostSize_16s_C1R, 1691
  - nppiNormL1GetBufferHostSize_16s_C3R, 1691
  - nppiNormL1GetBufferHostSize_16s_C4R, 1692
  - nppiNormL1GetBufferHostSize_16u_AC4R, 1692
  - nppiNormL1GetBufferHostSize_16u_C1MR, 1692
  - nppiNormL1GetBufferHostSize_16u_C1R, 1693
  - nppiNormL1GetBufferHostSize_16u_C3CMR, 1693
  - nppiNormL1GetBufferHostSize_16u_C3R, 1693
  - nppiNormL1GetBufferHostSize_16u_C4R, 1693
  - nppiNormL1GetBufferHostSize_32f_AC4R, 1694
  - nppiNormL1GetBufferHostSize_32f_C1MR, 1694
  - nppiNormL1GetBufferHostSize_32f_C1R, 1694
  - nppiNormL1GetBufferHostSize_32f_C3CMR, 1695
  - nppiNormL1GetBufferHostSize_32f_C3R, 1695
  - nppiNormL1GetBufferHostSize_32f_C4R, 1695
  - nppiNormL1GetBufferHostSize_8s_C1MR, 1695
  - nppiNormL1GetBufferHostSize_8s_C3CMR, 1696
  - nppiNormL1GetBufferHostSize_8u_AC4R, 1696
  - nppiNormL1GetBufferHostSize_8u_C1MR, 1696
  - nppiNormL1GetBufferHostSize_8u_C1R, 1697
  - nppiNormL1GetBufferHostSize_8u_C3CMR, 1697
  - nppiNormL1GetBufferHostSize_8u_C3R, 1697
  - nppiNormL1GetBufferHostSize_8u_C4R, 1697
- image_L1_normdiff
  - nppiNormDiff_L1_16s_AC4R, 1747
  - nppiNormDiff_L1_16s_C1R, 1747
  - nppiNormDiff_L1_16s_C3R, 1748
  - nppiNormDiff_L1_16s_C4R, 1748
  - nppiNormDiff_L1_16u_AC4R, 1749
  - nppiNormDiff_L1_16u_C1MR, 1749
  - nppiNormDiff_L1_16u_C1R, 1749
  - nppiNormDiff_L1_16u_C3CMR, 1750
  - nppiNormDiff_L1_16u_C3R, 1750
  - nppiNormDiff_L1_16u_C4R, 1751
  - nppiNormDiff_L1_32f_AC4R, 1751
  - nppiNormDiff_L1_32f_C1MR, 1752
  - nppiNormDiff_L1_32f_C1R, 1752
  - nppiNormDiff_L1_32f_C3CMR, 1753
  - nppiNormDiff_L1_32f_C3R, 1753
  - nppiNormDiff_L1_32f_C4R, 1754
  - nppiNormDiff_L1_8s_C1MR, 1754
  - nppiNormDiff_L1_8s_C3CMR, 1755
  - nppiNormDiff_L1_8u_AC4R, 1755
  - nppiNormDiff_L1_8u_C1MR, 1756
  - nppiNormDiff_L1_8u_C1R, 1756
  - nppiNormDiff_L1_8u_C3CMR, 1756
  - nppiNormDiff_L1_8u_C3R, 1757
  - nppiNormDiff_L1_8u_C4R, 1757
  - nppiNormDiffL1GetBufferHostSize_16s_AC4R, 1758

nppiNormDiffL1GetBufferHostSize_16s_C1R, 1758
nppiNormDiffL1GetBufferHostSize_16s_C3R, 1758
nppiNormDiffL1GetBufferHostSize_16s_C4R, 1759
nppiNormDiffL1GetBufferHostSize_16u_AC4R, 1759
nppiNormDiffL1GetBufferHostSize_16u_C1MR, 1759
nppiNormDiffL1GetBufferHostSize_16u_C1R, 1760
nppiNormDiffL1GetBufferHostSize_16u_C3CMR, 1760
nppiNormDiffL1GetBufferHostSize_16u_C3R, 1760
nppiNormDiffL1GetBufferHostSize_16u_C4R, 1760
nppiNormDiffL1GetBufferHostSize_32f_AC4R, 1761
nppiNormDiffL1GetBufferHostSize_32f_C1MR, 1761
nppiNormDiffL1GetBufferHostSize_32f_C1R, 1761
nppiNormDiffL1GetBufferHostSize_32f_C3CMR, 1762
nppiNormDiffL1GetBufferHostSize_32f_C3R, 1762
nppiNormDiffL1GetBufferHostSize_32f_C4R, 1762
nppiNormDiffL1GetBufferHostSize_8s_C1MR, 1762
nppiNormDiffL1GetBufferHostSize_8s_C3CMR, 1763
nppiNormDiffL1GetBufferHostSize_8u_AC4R, 1763
nppiNormDiffL1GetBufferHostSize_8u_C1MR, 1763
nppiNormDiffL1GetBufferHostSize_8u_C1R, 1764
nppiNormDiffL1GetBufferHostSize_8u_C3CMR, 1764
nppiNormDiffL1GetBufferHostSize_8u_C3R, 1764
nppiNormDiffL1GetBufferHostSize_8u_C4R, 1764

image_L1_normrel
nppiNormRel_L1_16s_AC4R, 1816
nppiNormRel_L1_16s_C1R, 1816
nppiNormRel_L1_16s_C3R, 1817
nppiNormRel_L1_16s_C4R, 1817
nppiNormRel_L1_16u_AC4R, 1818
nppiNormRel_L1_16u_C1MR, 1818
nppiNormRel_L1_16u_C1R, 1819
nppiNormRel_L1_16u_C3CMR, 1819
nppiNormRel_L1_16u_C3R, 1819
nppiNormRel_L1_16u_C4R, 1820
nppiNormRel_L1_32f_AC4R, 1820
nppiNormRel_L1_32f_C1MR, 1821
nppiNormRel_L1_32f_C1R, 1821
nppiNormRel_L1_32f_C3CMR, 1822
nppiNormRel_L1_32f_C3R, 1822
nppiNormRel_L1_32f_C4R, 1823
nppiNormRel_L1_8s_C1MR, 1823
nppiNormRel_L1_8s_C3CMR, 1824
nppiNormRel_L1_8u_AC4R, 1824
nppiNormRel_L1_8u_C1MR, 1825
nppiNormRel_L1_8u_C1R, 1825
nppiNormRel_L1_8u_C3CMR, 1826
nppiNormRel_L1_8u_C3R, 1826
nppiNormRel_L1_8u_C4R, 1827
nppiNormRelL1GetBufferHostSize_16s_AC4R, 1827
nppiNormRelL1GetBufferHostSize_16s_C1R, 1827
nppiNormRelL1GetBufferHostSize_16s_C3R, 1828
nppiNormRelL1GetBufferHostSize_16s_C4R, 1828
nppiNormRelL1GetBufferHostSize_16u_AC4R, 1828
nppiNormRelL1GetBufferHostSize_16u_C1MR, 1829
nppiNormRelL1GetBufferHostSize_16u_C1R, 1829
nppiNormRelL1GetBufferHostSize_16u_C3CMR, 1829
nppiNormRelL1GetBufferHostSize_16u_C3R, 1829
nppiNormRelL1GetBufferHostSize_16u_C4R, 1830
nppiNormRelL1GetBufferHostSize_32f_AC4R, 1830
nppiNormRelL1GetBufferHostSize_32f_C1MR, 1830
nppiNormRelL1GetBufferHostSize_32f_C1R, 1831
nppiNormRelL1GetBufferHostSize_32f_C3CMR, 1831
nppiNormRelL1GetBufferHostSize_32f_C3R, 1831
nppiNormRelL1GetBufferHostSize_32f_C4R, 1831
nppiNormRelL1GetBufferHostSize_8s_C1MR, 1832
nppiNormRelL1GetBufferHostSize_8s_C3CMR, 1832

nppiNormRelL1GetBufferHostSize_8u_AC4R, 1832
nppiNormRelL1GetBufferHostSize_8u_C1MR, 1833
nppiNormRelL1GetBufferHostSize_8u_C1R, 1833
nppiNormRelL1GetBufferHostSize_8u_C3CMR, 1833
nppiNormRelL1GetBufferHostSize_8u_C3R, 1833
nppiNormRelL1GetBufferHostSize_8u_C4R, 1834

image_L2_norm
nppiNorm_L2_16s_AC4R, 1703
nppiNorm_L2_16s_C1R, 1703
nppiNorm_L2_16s_C3R, 1703
nppiNorm_L2_16s_C4R, 1704
nppiNorm_L2_16u_AC4R, 1704
nppiNorm_L2_16u_C1MR, 1704
nppiNorm_L2_16u_C1R, 1705
nppiNorm_L2_16u_C3CMR, 1705
nppiNorm_L2_16u_C3R, 1706
nppiNorm_L2_16u_C4R, 1706
nppiNorm_L2_32f_AC4R, 1706
nppiNorm_L2_32f_C1MR, 1707
nppiNorm_L2_32f_C1R, 1707
nppiNorm_L2_32f_C3CMR, 1707
nppiNorm_L2_32f_C3R, 1708
nppiNorm_L2_32f_C4R, 1708
nppiNorm_L2_8s_C1MR, 1709
nppiNorm_L2_8s_C3CMR, 1709
nppiNorm_L2_8u_AC4R, 1709
nppiNorm_L2_8u_C1MR, 1710
nppiNorm_L2_8u_C1R, 1710
nppiNorm_L2_8u_C3CMR, 1711
nppiNorm_L2_8u_C3R, 1711
nppiNorm_L2_8u_C4R, 1711
nppiNormL2GetBufferHostSize_16s_AC4R, 1712
nppiNormL2GetBufferHostSize_16s_C1R, 1712
nppiNormL2GetBufferHostSize_16s_C3R, 1712
nppiNormL2GetBufferHostSize_16s_C4R, 1713
nppiNormL2GetBufferHostSize_16u_AC4R, 1713
nppiNormL2GetBufferHostSize_16u_C1MR, 1713
nppiNormL2GetBufferHostSize_16u_C1R, 1714
nppiNormL2GetBufferHostSize_16u_C3CMR, 1714
nppiNormL2GetBufferHostSize_16u_C3R, 1714
nppiNormL2GetBufferHostSize_16u_C4R, 1714
nppiNormL2GetBufferHostSize_32f_AC4R, 1715
nppiNormL2GetBufferHostSize_32f_C1MR, 1715
nppiNormL2GetBufferHostSize_32f_C1R, 1715
nppiNormL2GetBufferHostSize_32f_C3CMR, 1716
nppiNormL2GetBufferHostSize_32f_C3R, 1716
nppiNormL2GetBufferHostSize_32f_C4R, 1716
nppiNormL2GetBufferHostSize_8s_C1MR, 1716
nppiNormL2GetBufferHostSize_8s_C3CMR, 1717
nppiNormL2GetBufferHostSize_8u_AC4R, 1717
nppiNormL2GetBufferHostSize_8u_C1MR, 1717
nppiNormL2GetBufferHostSize_8u_C1R, 1718
nppiNormL2GetBufferHostSize_8u_C3CMR, 1718
nppiNormL2GetBufferHostSize_8u_C3R, 1718
nppiNormL2GetBufferHostSize_8u_C4R, 1718

image_L2_normdiff
nppiNormDiff_L2_16s_AC4R, 1770
nppiNormDiff_L2_16s_C1R, 1770
nppiNormDiff_L2_16s_C3R, 1771
nppiNormDiff_L2_16s_C4R, 1771
nppiNormDiff_L2_16u_AC4R, 1772
nppiNormDiff_L2_16u_C1MR, 1772
nppiNormDiff_L2_16u_C1R, 1772
nppiNormDiff_L2_16u_C3CMR, 1773
nppiNormDiff_L2_16u_C3R, 1773
nppiNormDiff_L2_16u_C4R, 1774
nppiNormDiff_L2_32f_AC4R, 1774
nppiNormDiff_L2_32f_C1MR, 1775
nppiNormDiff_L2_32f_C1R, 1775
nppiNormDiff_L2_32f_C3CMR, 1776
nppiNormDiff_L2_32f_C3R, 1776
nppiNormDiff_L2_32f_C4R, 1777
nppiNormDiff_L2_8s_C1MR, 1777
nppiNormDiff_L2_8s_C3CMR, 1778
nppiNormDiff_L2_8u_AC4R, 1778
nppiNormDiff_L2_8u_C1MR, 1779
nppiNormDiff_L2_8u_C1R, 1779

nppiNormDiff_L2_8u_C3CMR, 1779
nppiNormDiff_L2_8u_C3R, 1780
nppiNormDiff_L2_8u_C4R, 1780
nppiNormDiffL2GetBufferHostSize_16s_AC4R, 1781
nppiNormDiffL2GetBufferHostSize_16s_C1R, 1781
nppiNormDiffL2GetBufferHostSize_16s_C3R, 1781
nppiNormDiffL2GetBufferHostSize_16s_C4R, 1782
nppiNormDiffL2GetBufferHostSize_16u_AC4R, 1782
nppiNormDiffL2GetBufferHostSize_16u_C1MR, 1782
nppiNormDiffL2GetBufferHostSize_16u_C1R, 1783
nppiNormDiffL2GetBufferHostSize_16u_C3CMR, 1783
nppiNormDiffL2GetBufferHostSize_16u_C3R, 1783
nppiNormDiffL2GetBufferHostSize_16u_C4R, 1783
nppiNormDiffL2GetBufferHostSize_32f_AC4R, 1784
nppiNormDiffL2GetBufferHostSize_32f_C1MR, 1784
nppiNormDiffL2GetBufferHostSize_32f_C1R, 1784
nppiNormDiffL2GetBufferHostSize_32f_C3CMR, 1785
nppiNormDiffL2GetBufferHostSize_32f_C3R, 1785
nppiNormDiffL2GetBufferHostSize_32f_C4R, 1785
nppiNormDiffL2GetBufferHostSize_8s_C1MR, 1785
nppiNormDiffL2GetBufferHostSize_8s_C3CMR, 1786
nppiNormDiffL2GetBufferHostSize_8u_AC4R, 1786
nppiNormDiffL2GetBufferHostSize_8u_C1MR, 1786
nppiNormDiffL2GetBufferHostSize_8u_C1R, 1787
nppiNormDiffL2GetBufferHostSize_8u_C3CMR, 1787
nppiNormDiffL2GetBufferHostSize_8u_C3R, 1787
nppiNormDiffL2GetBufferHostSize_8u_C4R, 1787

image_L2_normrel
nppiNormRel_L2_16s_AC4R, 1839
nppiNormRel_L2_16s_C1R, 1839
nppiNormRel_L2_16s_C3R, 1840
nppiNormRel_L2_16s_C4R, 1840
nppiNormRel_L2_16u_AC4R, 1841
nppiNormRel_L2_16u_C1MR, 1841
nppiNormRel_L2_16u_C1R, 1842
nppiNormRel_L2_16u_C3CMR, 1842
nppiNormRel_L2_16u_C3R, 1842
nppiNormRel_L2_16u_C4R, 1843
nppiNormRel_L2_32f_AC4R, 1843
nppiNormRel_L2_32f_C1MR, 1844
nppiNormRel_L2_32f_C1R, 1844
nppiNormRel_L2_32f_C3CMR, 1845
nppiNormRel_L2_32f_C3R, 1845
nppiNormRel_L2_32f_C4R, 1846
nppiNormRel_L2_8s_C1MR, 1846
nppiNormRel_L2_8s_C3CMR, 1847
nppiNormRel_L2_8u_AC4R, 1847
nppiNormRel_L2_8u_C1MR, 1848
nppiNormRel_L2_8u_C1R, 1848
nppiNormRel_L2_8u_C3CMR, 1849
nppiNormRel_L2_8u_C3R, 1849
nppiNormRel_L2_8u_C4R, 1850
nppiNormRelL2GetBufferHostSize_16s_AC4R, 1850
nppiNormRelL2GetBufferHostSize_16s_C1R, 1850
nppiNormRelL2GetBufferHostSize_16s_C3R, 1851
nppiNormRelL2GetBufferHostSize_16s_C4R, 1851
nppiNormRelL2GetBufferHostSize_16u_AC4R, 1851
nppiNormRelL2GetBufferHostSize_16u_C1MR, 1852
nppiNormRelL2GetBufferHostSize_16u_C1R, 1852
nppiNormRelL2GetBufferHostSize_16u_C3CMR, 1852
nppiNormRelL2GetBufferHostSize_16u_C3R, 1852
nppiNormRelL2GetBufferHostSize_16u_C4R, 1853
nppiNormRelL2GetBufferHostSize_32f_AC4R, 1853
nppiNormRelL2GetBufferHostSize_32f_C1MR, 1853
nppiNormRelL2GetBufferHostSize_32f_C1R, 1854
nppiNormRelL2GetBufferHostSize_32f_C3CMR, 1854
nppiNormRelL2GetBufferHostSize_32f_C3R, 1854
nppiNormRelL2GetBufferHostSize_32f_C4R, 1854

nppiNormRelL2GetBufferHostSize_8s_C1MR, 1855
nppiNormRelL2GetBufferHostSize_8s_C3CMR, 1855
nppiNormRelL2GetBufferHostSize_8u_AC4R, 1855
nppiNormRelL2GetBufferHostSize_8u_C1MR, 1856
nppiNormRelL2GetBufferHostSize_8u_C1R, 1856
nppiNormRelL2GetBufferHostSize_8u_C3CMR, 1856
nppiNormRelL2GetBufferHostSize_8u_C3R, 1856
nppiNormRelL2GetBufferHostSize_8u_C4R, 1857
image_labeling_and_segmentation
NppiGraphcutState, 724
image_ln
nppiLn_16s_C1IRSfs, 357
nppiLn_16s_C1RSfs, 357
nppiLn_16s_C3IRSfs, 358
nppiLn_16s_C3RSfs, 358
nppiLn_16u_C1IRSfs, 358
nppiLn_16u_C1RSfs, 359
nppiLn_16u_C3IRSfs, 359
nppiLn_16u_C3RSfs, 359
nppiLn_32f_C1IR, 360
nppiLn_32f_C1R, 360
nppiLn_32f_C3IR, 360
nppiLn_32f_C3R, 361
nppiLn_8u_C1IRSfs, 361
nppiLn_8u_C1RSfs, 361
nppiLn_8u_C3IRSfs, 362
nppiLn_8u_C3RSfs, 362
image_lshiftc
nppiLShiftC_16u_AC4IR, 423
nppiLShiftC_16u_AC4R, 423
nppiLShiftC_16u_C1IR, 423
nppiLShiftC_16u_C1R, 424
nppiLShiftC_16u_C3IR, 424
nppiLShiftC_16u_C3R, 424
nppiLShiftC_16u_C4IR, 425
nppiLShiftC_16u_C4R, 425
nppiLShiftC_32s_AC4IR, 425
nppiLShiftC_32s_AC4R, 426
nppiLShiftC_32s_C1IR, 426
nppiLShiftC_32s_C1R, 426
nppiLShiftC_32s_C3IR, 427
nppiLShiftC_32s_C3R, 427
nppiLShiftC_32s_C4IR, 427
nppiLShiftC_32s_C4R, 428
nppiLShiftC_8u_AC4IR, 428
nppiLShiftC_8u_AC4R, 428
nppiLShiftC_8u_C1IR, 429
nppiLShiftC_8u_C1R, 429
nppiLShiftC_8u_C3IR, 429
nppiLShiftC_8u_C3R, 430
nppiLShiftC_8u_C4IR, 430
nppiLShiftC_8u_C4R, 430
image_max
nppiMax_16s_AC4R, 1561
nppiMax_16s_C1R, 1561
nppiMax_16s_C3R, 1562
nppiMax_16s_C4R, 1562
nppiMax_16u_AC4R, 1562
nppiMax_16u_C1R, 1563
nppiMax_16u_C3R, 1563
nppiMax_16u_C4R, 1564
nppiMax_32f_AC4R, 1564
nppiMax_32f_C1R, 1564
nppiMax_32f_C3R, 1565
nppiMax_32f_C4R, 1565
nppiMax_8u_AC4R, 1565
nppiMax_8u_C1R, 1566
nppiMax_8u_C3R, 1566
nppiMax_8u_C4R, 1567
nppiMaxGetBufferHostSize_16s_AC4R, 1567
nppiMaxGetBufferHostSize_16s_C1R, 1567
nppiMaxGetBufferHostSize_16s_C3R, 1567
nppiMaxGetBufferHostSize_16s_C4R, 1568
nppiMaxGetBufferHostSize_16u_AC4R, 1568
nppiMaxGetBufferHostSize_16u_C1R, 1568
nppiMaxGetBufferHostSize_16u_C3R, 1569
nppiMaxGetBufferHostSize_16u_C4R, 1569
nppiMaxGetBufferHostSize_32f_AC4R, 1569
nppiMaxGetBufferHostSize_32f_C1R, 1569
nppiMaxGetBufferHostSize_32f_C3R, 1570
nppiMaxGetBufferHostSize_32f_C4R, 1570
nppiMaxGetBufferHostSize_8u_AC4R, 1570
nppiMaxGetBufferHostSize_8u_C1R, 1571
nppiMaxGetBufferHostSize_8u_C3R, 1571
nppiMaxGetBufferHostSize_8u_C4R, 1571
image_max_index
nppiMaxIndx_16s_AC4R, 1574
nppiMaxIndx_16s_C1R, 1575
nppiMaxIndx_16s_C3R, 1575
nppiMaxIndx_16s_C4R, 1575
nppiMaxIndx_16u_AC4R, 1576
nppiMaxIndx_16u_C1R, 1576
nppiMaxIndx_16u_C3R, 1577
nppiMaxIndx_16u_C4R, 1577
nppiMaxIndx_32f_AC4R, 1577
nppiMaxIndx_32f_C1R, 1578
nppiMaxIndx_32f_C3R, 1578
nppiMaxIndx_32f_C4R, 1579
nppiMaxIndx_8u_AC4R, 1579
nppiMaxIndx_8u_C1R, 1579

nppiMaxIndx_8u_C3R, 1580
nppiMaxIndx_8u_C4R, 1580
nppiMaxIndxGetBufferHostSize_16s_AC4R, 1581
nppiMaxIndxGetBufferHostSize_16s_C1R, 1581
nppiMaxIndxGetBufferHostSize_16s_C3R, 1581
nppiMaxIndxGetBufferHostSize_16s_C4R, 1582
nppiMaxIndxGetBufferHostSize_16u_AC4R, 1582
nppiMaxIndxGetBufferHostSize_16u_C1R, 1582
nppiMaxIndxGetBufferHostSize_16u_C3R, 1582
nppiMaxIndxGetBufferHostSize_16u_C4R, 1583
nppiMaxIndxGetBufferHostSize_32f_AC4R, 1583
nppiMaxIndxGetBufferHostSize_32f_C1R, 1583
nppiMaxIndxGetBufferHostSize_32f_C3R, 1584
nppiMaxIndxGetBufferHostSize_32f_C4R, 1584
nppiMaxIndxGetBufferHostSize_8u_AC4R, 1584
nppiMaxIndxGetBufferHostSize_8u_C1R, 1584
nppiMaxIndxGetBufferHostSize_8u_C3R, 1585
nppiMaxIndxGetBufferHostSize_8u_C4R, 1585

image_maxevery
nppiMaxEvery_16s_AC4IR, 1890
nppiMaxEvery_16s_C1IR, 1890
nppiMaxEvery_16s_C3IR, 1891
nppiMaxEvery_16s_C4IR, 1891
nppiMaxEvery_16u_AC4IR, 1891
nppiMaxEvery_16u_C1IR, 1892
nppiMaxEvery_16u_C3IR, 1892
nppiMaxEvery_16u_C4IR, 1892
nppiMaxEvery_32f_AC4IR, 1893
nppiMaxEvery_32f_C1IR, 1893
nppiMaxEvery_32f_C3IR, 1893
nppiMaxEvery_32f_C4IR, 1894
nppiMaxEvery_8u_AC4IR, 1894
nppiMaxEvery_8u_C1IR, 1894
nppiMaxEvery_8u_C3IR, 1895
nppiMaxEvery_8u_C4IR, 1895

image_maximum_error
nppiMaximumError_16s_C1R, 2084
nppiMaximumError_16s_C2R, 2085
nppiMaximumError_16s_C3R, 2085
nppiMaximumError_16s_C4R, 2085
nppiMaximumError_16sc_C1R, 2086
nppiMaximumError_16sc_C2R, 2086
nppiMaximumError_16sc_C3R, 2087
nppiMaximumError_16sc_C4R, 2087
nppiMaximumError_16u_C1R, 2088
nppiMaximumError_16u_C2R, 2088
nppiMaximumError_16u_C3R, 2088
nppiMaximumError_16u_C4R, 2089
nppiMaximumError_32f_C1R, 2089
nppiMaximumError_32f_C2R, 2090
nppiMaximumError_32f_C3R, 2090
nppiMaximumError_32f_C4R, 2091
nppiMaximumError_32fc_C1R, 2091
nppiMaximumError_32fc_C2R, 2092
nppiMaximumError_32fc_C3R, 2092
nppiMaximumError_32fc_C4R, 2092
nppiMaximumError_32s_C1R, 2093
nppiMaximumError_32s_C2R, 2093
nppiMaximumError_32s_C3R, 2094
nppiMaximumError_32s_C4R, 2094
nppiMaximumError_32sc_C1R, 2095
nppiMaximumError_32sc_C2R, 2095
nppiMaximumError_32sc_C3R, 2095
nppiMaximumError_32sc_C4R, 2096
nppiMaximumError_32u_C1R, 2096
nppiMaximumError_32u_C2R, 2097
nppiMaximumError_32u_C3R, 2097
nppiMaximumError_32u_C4R, 2098
nppiMaximumError_64f_C1R, 2098
nppiMaximumError_64f_C2R, 2098
nppiMaximumError_64f_C3R, 2099
nppiMaximumError_64f_C4R, 2099
nppiMaximumError_8s_C1R, 2100
nppiMaximumError_8s_C2R, 2100
nppiMaximumError_8s_C3R, 2101
nppiMaximumError_8s_C4R, 2101
nppiMaximumError_8u_C1R, 2101
nppiMaximumError_8u_C2R, 2102
nppiMaximumError_8u_C3R, 2102
nppiMaximumError_8u_C4R, 2103

image_maximum_relative_error
nppiMaximumRelativeError_16s_C1R, 2130
nppiMaximumRelativeError_16s_C2R, 2131
nppiMaximumRelativeError_16s_C3R, 2131
nppiMaximumRelativeError_16s_C4R, 2132
nppiMaximumRelativeError_16sc_C1R, 2132
nppiMaximumRelativeError_16sc_C2R, 2133
nppiMaximumRelativeError_16sc_C3R, 2133
nppiMaximumRelativeError_16sc_C4R, 2133
nppiMaximumRelativeError_16u_C1R, 2134
nppiMaximumRelativeError_16u_C2R, 2134
nppiMaximumRelativeError_16u_C3R, 2135

nppiMaximumRelativeError_16u_C4R, 2135
nppiMaximumRelativeError_32f_C1R, 2136
nppiMaximumRelativeError_32f_C2R, 2136
nppiMaximumRelativeError_32f_C3R, 2137
nppiMaximumRelativeError_32f_C4R, 2137
nppiMaximumRelativeError_32fc_C1R, 2138
nppiMaximumRelativeError_32fc_C2R, 2138
nppiMaximumRelativeError_32fc_C3R, 2138
nppiMaximumRelativeError_32fc_C4R, 2139
nppiMaximumRelativeError_32s_C1R, 2139
nppiMaximumRelativeError_32s_C2R, 2140
nppiMaximumRelativeError_32s_C3R, 2140
nppiMaximumRelativeError_32s_C4R, 2141
nppiMaximumRelativeError_32sc_C1R, 2141
nppiMaximumRelativeError_32sc_C2R, 2142
nppiMaximumRelativeError_32sc_C3R, 2142
nppiMaximumRelativeError_32sc_C4R, 2143
nppiMaximumRelativeError_32u_C1R, 2143
nppiMaximumRelativeError_32u_C2R, 2143
nppiMaximumRelativeError_32u_C3R, 2144
nppiMaximumRelativeError_32u_C4R, 2144
nppiMaximumRelativeError_64f_C1R, 2145
nppiMaximumRelativeError_64f_C2R, 2145
nppiMaximumRelativeError_64f_C3R, 2146
nppiMaximumRelativeError_64f_C4R, 2146
nppiMaximumRelativeError_8s_C1R, 2147
nppiMaximumRelativeError_8s_C2R, 2147
nppiMaximumRelativeError_8s_C3R, 2148
nppiMaximumRelativeError_8s_C4R, 2148
nppiMaximumRelativeError_8u_C1R, 2148
nppiMaximumRelativeError_8u_C2R, 2149
nppiMaximumRelativeError_8u_C3R, 2149
nppiMaximumRelativeError_8u_C4R, 2150
image_mean
nppiMean_16s_AC4R, 1621
nppiMean_16s_C1R, 1621
nppiMean_16s_C3R, 1621
nppiMean_16s_C4R, 1622
nppiMean_16u_AC4R, 1622
nppiMean_16u_C1MR, 1622
nppiMean_16u_C1R, 1623
nppiMean_16u_C3CMR, 1623
nppiMean_16u_C3R, 1623
nppiMean_16u_C4R, 1624
nppiMean_32f_AC4R, 1624
nppiMean_32f_C1MR, 1625
nppiMean_32f_C1R, 1625
nppiMean_32f_C3CMR, 1625
nppiMean_32f_C3R, 1626
nppiMean_32f_C4R, 1626
nppiMean_8s_C1MR, 1627
nppiMean_8s_C3CMR, 1627
nppiMean_8u_AC4R, 1628
nppiMean_8u_C1MR, 1628
nppiMean_8u_C1R, 1628
nppiMean_8u_C3CMR, 1629
nppiMean_8u_C3R, 1629
nppiMean_8u_C4R, 1630
nppiMeanGetBufferHostSize_16s_AC4R, 1630
nppiMeanGetBufferHostSize_16s_C1R, 1630
nppiMeanGetBufferHostSize_16s_C3R, 1631
nppiMeanGetBufferHostSize_16s_C4R, 1631
nppiMeanGetBufferHostSize_16u_AC4R, 1631
nppiMeanGetBufferHostSize_16u_C1MR, 1631
nppiMeanGetBufferHostSize_16u_C1R, 1632
nppiMeanGetBufferHostSize_16u_C3CMR, 1632
nppiMeanGetBufferHostSize_16u_C3R, 1632
nppiMeanGetBufferHostSize_16u_C4R, 1633
nppiMeanGetBufferHostSize_32f_AC4R, 1633
nppiMeanGetBufferHostSize_32f_C1MR, 1633
nppiMeanGetBufferHostSize_32f_C1R, 1633
nppiMeanGetBufferHostSize_32f_C3CMR, 1634
nppiMeanGetBufferHostSize_32f_C3R, 1634
nppiMeanGetBufferHostSize_32f_C4R, 1634
nppiMeanGetBufferHostSize_8s_C1MR, 1635
nppiMeanGetBufferHostSize_8s_C3CMR, 1635
nppiMeanGetBufferHostSize_8u_AC4R, 1635
nppiMeanGetBufferHostSize_8u_C1MR, 1635
nppiMeanGetBufferHostSize_8u_C1R, 1636
nppiMeanGetBufferHostSize_8u_C3CMR, 1636
nppiMeanGetBufferHostSize_8u_C3R, 1636
nppiMeanGetBufferHostSize_8u_C4R, 1637
image_mean_stddev
nppiMean_StdDev_16u_C1MR, 1641
nppiMean_StdDev_16u_C1R, 1641
nppiMean_StdDev_16u_C3CMR, 1642
nppiMean_StdDev_16u_C3CR, 1642
nppiMean_StdDev_32f_C1MR, 1643
nppiMean_StdDev_32f_C1R, 1643
nppiMean_StdDev_32f_C3CMR, 1644
nppiMean_StdDev_32f_C3CR, 1644
nppiMean_StdDev_8s_C1MR, 1645
nppiMean_StdDev_8s_C1R, 1645
nppiMean_StdDev_8s_C3CMR, 1646
nppiMean_StdDev_8s_C3CR, 1646
nppiMean_StdDev_8u_C1MR, 1647
nppiMean_StdDev_8u_C1R, 1647

- nppiMean_StdDev_8u_C3CMR, 1648
- nppiMean_StdDev_8u_C3CR, 1648
- nppiMeanStdDevGetBufferHostSize_16u_C1MR, 1649
- nppiMeanStdDevGetBufferHostSize_16u_C1R, 1649
- nppiMeanStdDevGetBufferHostSize_16u_C3CMR, 1649
- nppiMeanStdDevGetBufferHostSize_16u_C3CR, 1650
- nppiMeanStdDevGetBufferHostSize_32f_C1MR, 1650
- nppiMeanStdDevGetBufferHostSize_32f_C1R, 1650
- nppiMeanStdDevGetBufferHostSize_32f_C3CMR, 1651
- nppiMeanStdDevGetBufferHostSize_32f_C3CR, 1651
- nppiMeanStdDevGetBufferHostSize_8s_C1MR, 1651
- nppiMeanStdDevGetBufferHostSize_8s_C1R, 1651
- nppiMeanStdDevGetBufferHostSize_8s_C3CMR, 1652
- nppiMeanStdDevGetBufferHostSize_8s_C3CR, 1652
- nppiMeanStdDevGetBufferHostSize_8u_C1MR, 1652
- nppiMeanStdDevGetBufferHostSize_8u_C1R, 1653
- nppiMeanStdDevGetBufferHostSize_8u_C3CMR, 1653
- nppiMeanStdDevGetBufferHostSize_8u_C3CR, 1653

image_memory_management

- nppiFree, 2177
- nppiMalloc_16s_C1, 2177
- nppiMalloc_16s_C2, 2177
- nppiMalloc_16s_C4, 2178
- nppiMalloc_16sc_C1, 2178
- nppiMalloc_16sc_C2, 2178
- nppiMalloc_16sc_C3, 2179
- nppiMalloc_16sc_C4, 2179
- nppiMalloc_16u_C1, 2179
- nppiMalloc_16u_C2, 2179
- nppiMalloc_16u_C3, 2180
- nppiMalloc_16u_C4, 2180
- nppiMalloc_32f_C1, 2180
- nppiMalloc_32f_C2, 2181
- nppiMalloc_32f_C3, 2181
- nppiMalloc_32f_C4, 2181
- nppiMalloc_32fc_C1, 2181
- nppiMalloc_32fc_C2, 2182
- nppiMalloc_32fc_C3, 2182
- nppiMalloc_32fc_C4, 2182
- nppiMalloc_32s_C1, 2183
- nppiMalloc_32s_C3, 2183
- nppiMalloc_32s_C4, 2183
- nppiMalloc_32sc_C1, 2183
- nppiMalloc_32sc_C2, 2184
- nppiMalloc_32sc_C3, 2184
- nppiMalloc_32sc_C4, 2184
- nppiMalloc_8u_C1, 2185
- nppiMalloc_8u_C2, 2185
- nppiMalloc_8u_C3, 2185
- nppiMalloc_8u_C4, 2185

image_min

- nppiMin_16s_AC4R, 1534
- nppiMin_16s_C1R, 1534
- nppiMin_16s_C3R, 1535
- nppiMin_16s_C4R, 1535
- nppiMin_16u_AC4R, 1535
- nppiMin_16u_C1R, 1536
- nppiMin_16u_C3R, 1536
- nppiMin_16u_C4R, 1537
- nppiMin_32f_AC4R, 1537
- nppiMin_32f_C1R, 1537
- nppiMin_32f_C3R, 1538
- nppiMin_32f_C4R, 1538
- nppiMin_8u_AC4R, 1538
- nppiMin_8u_C1R, 1539
- nppiMin_8u_C3R, 1539
- nppiMin_8u_C4R, 1540
- nppiMinGetBufferHostSize_16s_AC4R, 1540
- nppiMinGetBufferHostSize_16s_C1R, 1540
- nppiMinGetBufferHostSize_16s_C3R, 1540
- nppiMinGetBufferHostSize_16s_C4R, 1541
- nppiMinGetBufferHostSize_16u_AC4R, 1541
- nppiMinGetBufferHostSize_16u_C1R, 1541
- nppiMinGetBufferHostSize_16u_C3R, 1542
- nppiMinGetBufferHostSize_16u_C4R, 1542
- nppiMinGetBufferHostSize_32f_AC4R, 1542
- nppiMinGetBufferHostSize_32f_C1R, 1542
- nppiMinGetBufferHostSize_32f_C3R, 1543
- nppiMinGetBufferHostSize_32f_C4R, 1543
- nppiMinGetBufferHostSize_8u_AC4R, 1543
- nppiMinGetBufferHostSize_8u_C1R, 1544
- nppiMinGetBufferHostSize_8u_C3R, 1544
- nppiMinGetBufferHostSize_8u_C4R, 1544

image_min_index

- nppiMinIndx_16s_AC4R, 1547
- nppiMinIndx_16s_C1R, 1548
- nppiMinIndx_16s_C3R, 1548
- nppiMinIndx_16s_C4R, 1548
- nppiMinIndx_16u_AC4R, 1549
- nppiMinIndx_16u_C1R, 1549
- nppiMinIndx_16u_C3R, 1550
- nppiMinIndx_16u_C4R, 1550

nppiMinIndx_32f_AC4R, 1550
nppiMinIndx_32f_C1R, 1551
nppiMinIndx_32f_C3R, 1551
nppiMinIndx_32f_C4R, 1552
nppiMinIndx_8u_AC4R, 1552
nppiMinIndx_8u_C1R, 1552
nppiMinIndx_8u_C3R, 1553
nppiMinIndx_8u_C4R, 1553
nppiMinIndxGetBufferHostSize_16s_AC4R, 1554
nppiMinIndxGetBufferHostSize_16s_C1R, 1554
nppiMinIndxGetBufferHostSize_16s_C3R, 1554
nppiMinIndxGetBufferHostSize_16s_C4R, 1555
nppiMinIndxGetBufferHostSize_16u_AC4R, 1555
nppiMinIndxGetBufferHostSize_16u_C1R, 1555
nppiMinIndxGetBufferHostSize_16u_C3R, 1555
nppiMinIndxGetBufferHostSize_16u_C4R, 1556
nppiMinIndxGetBufferHostSize_32f_AC4R, 1556
nppiMinIndxGetBufferHostSize_32f_C1R, 1556
nppiMinIndxGetBufferHostSize_32f_C3R, 1557
nppiMinIndxGetBufferHostSize_32f_C4R, 1557
nppiMinIndxGetBufferHostSize_8u_AC4R, 1557
nppiMinIndxGetBufferHostSize_8u_C1R, 1557
nppiMinIndxGetBufferHostSize_8u_C3R, 1558
nppiMinIndxGetBufferHostSize_8u_C4R, 1558
image_min_max
nppiMinMax_16s_AC4R, 1588
nppiMinMax_16s_C1R, 1588
nppiMinMax_16s_C3R, 1589
nppiMinMax_16s_C4R, 1589
nppiMinMax_16u_AC4R, 1590
nppiMinMax_16u_C1R, 1590
nppiMinMax_16u_C3R, 1590
nppiMinMax_16u_C4R, 1591
nppiMinMax_32f_AC4R, 1591
nppiMinMax_32f_C1R, 1592
nppiMinMax_32f_C3R, 1592
nppiMinMax_32f_C4R, 1592
nppiMinMax_8u_AC4R, 1593
nppiMinMax_8u_C1R, 1593
nppiMinMax_8u_C3R, 1594
nppiMinMax_8u_C4R, 1594
nppiMinMaxGetBufferHostSize_16s_AC4R, 1594
nppiMinMaxGetBufferHostSize_16s_C1R, 1595
nppiMinMaxGetBufferHostSize_16s_C3R, 1595
nppiMinMaxGetBufferHostSize_16s_C4R, 1595
nppiMinMaxGetBufferHostSize_16u_AC4R, 1596
nppiMinMaxGetBufferHostSize_16u_C1R, 1596
nppiMinMaxGetBufferHostSize_16u_C3R, 1596
nppiMinMaxGetBufferHostSize_16u_C4R, 1596
nppiMinMaxGetBufferHostSize_32f_AC4R, 1597
nppiMinMaxGetBufferHostSize_32f_C1R, 1597
nppiMinMaxGetBufferHostSize_32f_C3R, 1597
nppiMinMaxGetBufferHostSize_32f_C4R, 1598
nppiMinMaxGetBufferHostSize_8u_AC4R, 1598
nppiMinMaxGetBufferHostSize_8u_C1R, 1598
nppiMinMaxGetBufferHostSize_8u_C3R, 1598
nppiMinMaxGetBufferHostSize_8u_C4R, 1599
image_min_max_index
nppiMinMaxIndx_16u_C1MR, 1603
nppiMinMaxIndx_16u_C1R, 1604
nppiMinMaxIndx_16u_C3CMR, 1604
nppiMinMaxIndx_16u_C3CR, 1605
nppiMinMaxIndx_32f_C1MR, 1605
nppiMinMaxIndx_32f_C1R, 1606
nppiMinMaxIndx_32f_C3CMR, 1606
nppiMinMaxIndx_32f_C3CR, 1607
nppiMinMaxIndx_8s_C1MR, 1608
nppiMinMaxIndx_8s_C1R, 1608
nppiMinMaxIndx_8s_C3CMR, 1609
nppiMinMaxIndx_8s_C3CR, 1609
nppiMinMaxIndx_8u_C1MR, 1610
nppiMinMaxIndx_8u_C1R, 1610
nppiMinMaxIndx_8u_C3CMR, 1611
nppiMinMaxIndx_8u_C3CR, 1611
nppiMinMaxIndxGetBufferHostSize_16u_C1MR, 1612

- nppiMinMaxIndxGetBufferHostSize_16u_C1R, 1612
- nppiMinMaxIndxGetBufferHostSize_16u_C3CMR, 1612
- nppiMinMaxIndxGetBufferHostSize_16u_C3CR, 1613
- nppiMinMaxIndxGetBufferHostSize_32f_C1MR, 1613
- nppiMinMaxIndxGetBufferHostSize_32f_C1R, 1613
- nppiMinMaxIndxGetBufferHostSize_32f_C3CMR, 1614
- nppiMinMaxIndxGetBufferHostSize_32f_C3CR, 1614
- nppiMinMaxIndxGetBufferHostSize_8s_C1MR, 1614
- nppiMinMaxIndxGetBufferHostSize_8s_C1R, 1614
- nppiMinMaxIndxGetBufferHostSize_8s_C3CMR, 1615
- nppiMinMaxIndxGetBufferHostSize_8s_C3CR, 1615
- nppiMinMaxIndxGetBufferHostSize_8u_C1MR, 1615
- nppiMinMaxIndxGetBufferHostSize_8u_C1R, 1616
- nppiMinMaxIndxGetBufferHostSize_8u_C3CMR, 1616
- nppiMinMaxIndxGetBufferHostSize_8u_C3CR, 1616

image_minevery

- nppiMinEvery_16s_AC4IR, 1897
- nppiMinEvery_16s_C1IR, 1897
- nppiMinEvery_16s_C3IR, 1898
- nppiMinEvery_16s_C4IR, 1898
- nppiMinEvery_16u_AC4IR, 1898
- nppiMinEvery_16u_C1IR, 1899
- nppiMinEvery_16u_C3IR, 1899
- nppiMinEvery_16u_C4IR, 1899
- nppiMinEvery_32f_AC4IR, 1900
- nppiMinEvery_32f_C1IR, 1900
- nppiMinEvery_32f_C3IR, 1900
- nppiMinEvery_32f_C4IR, 1901
- nppiMinEvery_8u_AC4IR, 1901
- nppiMinEvery_8u_C1IR, 1901
- nppiMinEvery_8u_C3IR, 1902
- nppiMinEvery_8u_C4IR, 1902

image_mirror

- nppiMirror_16s_AC4IR, 1280
- nppiMirror_16s_AC4R, 1280
- nppiMirror_16s_C1IR, 1281
- nppiMirror_16s_C1R, 1281
- nppiMirror_16s_C3IR, 1281
- nppiMirror_16s_C3R, 1282
- nppiMirror_16s_C4IR, 1282
- nppiMirror_16s_C4R, 1282
- nppiMirror_16u_AC4IR, 1283
- nppiMirror_16u_AC4R, 1283
- nppiMirror_16u_C1IR, 1283
- nppiMirror_16u_C1R, 1284
- nppiMirror_16u_C3IR, 1284
- nppiMirror_16u_C3R, 1284
- nppiMirror_16u_C4IR, 1285
- nppiMirror_16u_C4R, 1285
- nppiMirror_32f_AC4IR, 1285
- nppiMirror_32f_AC4R, 1286
- nppiMirror_32f_C1IR, 1286
- nppiMirror_32f_C1R, 1286
- nppiMirror_32f_C3IR, 1287
- nppiMirror_32f_C3R, 1287
- nppiMirror_32f_C4IR, 1287
- nppiMirror_32f_C4R, 1288
- nppiMirror_32s_AC4IR, 1288
- nppiMirror_32s_AC4R, 1288
- nppiMirror_32s_C1IR, 1289
- nppiMirror_32s_C1R, 1289
- nppiMirror_32s_C3IR, 1289
- nppiMirror_32s_C3R, 1290
- nppiMirror_32s_C4IR, 1290
- nppiMirror_32s_C4R, 1290
- nppiMirror_8u_AC4IR, 1291
- nppiMirror_8u_AC4R, 1291
- nppiMirror_8u_C1IR, 1291
- nppiMirror_8u_C1R, 1292
- nppiMirror_8u_C3IR, 1292
- nppiMirror_8u_C3R, 1292
- nppiMirror_8u_C4IR, 1293
- nppiMirror_8u_C4R, 1293

image_mul

- nppiMul_16s_AC4IRSfs, 213
- nppiMul_16s_AC4RSfs, 213
- nppiMul_16s_C1IRSfs, 214
- nppiMul_16s_C1RSfs, 214
- nppiMul_16s_C3IRSfs, 215
- nppiMul_16s_C3RSfs, 215
- nppiMul_16s_C4IRSfs, 215
- nppiMul_16s_C4RSfs, 216
- nppiMul_16sc_AC4IRSfs, 216
- nppiMul_16sc_AC4RSfs, 217
- nppiMul_16sc_C1IRSfs, 217
- nppiMul_16sc_C1RSfs, 217
- nppiMul_16sc_C3IRSfs, 218
- nppiMul_16sc_C3RSfs, 218
- nppiMul_16u_AC4IRSfs, 219
- nppiMul_16u_AC4RSfs, 219
- nppiMul_16u_C1IRSfs, 220
- nppiMul_16u_C1RSfs, 220
- nppiMul_16u_C3IRSfs, 220

nppiMul_16u_C3RSfs, 221
nppiMul_16u_C4IRSfs, 221
nppiMul_16u_C4RSfs, 222
nppiMul_32f_AC4IR, 222
nppiMul_32f_AC4R, 222
nppiMul_32f_C1IR, 223
nppiMul_32f_C1R, 223
nppiMul_32f_C3IR, 224
nppiMul_32f_C3R, 224
nppiMul_32f_C4IR, 224
nppiMul_32f_C4R, 225
nppiMul_32fc_AC4IR, 225
nppiMul_32fc_AC4R, 225
nppiMul_32fc_C1IR, 226
nppiMul_32fc_C1R, 226
nppiMul_32fc_C3IR, 227
nppiMul_32fc_C3R, 227
nppiMul_32fc_C4IR, 227
nppiMul_32fc_C4R, 228
nppiMul_32s_C1IRSfs, 228
nppiMul_32s_C1R, 229
nppiMul_32s_C1RSfs, 229
nppiMul_32s_C3IRSfs, 229
nppiMul_32s_C3RSfs, 230
nppiMul_32sc_AC4IRSfs, 230
nppiMul_32sc_AC4RSfs, 231
nppiMul_32sc_C1IRSfs, 231
nppiMul_32sc_C1RSfs, 231
nppiMul_32sc_C3IRSfs, 232
nppiMul_32sc_C3RSfs, 232
nppiMul_8u_AC4IRSfs, 233
nppiMul_8u_AC4RSfs, 233
nppiMul_8u_C1IRSfs, 234
nppiMul_8u_C1RSfs, 234
nppiMul_8u_C3IRSfs, 234
nppiMul_8u_C3RSfs, 235
nppiMul_8u_C4IRSfs, 235
nppiMul_8u_C4RSfs, 236
image_mulc
nppiMulC_16s_AC4IRSfs, 86
nppiMulC_16s_AC4RSfs, 86
nppiMulC_16s_C1IRSfs, 86
nppiMulC_16s_C1RSfs, 87
nppiMulC_16s_C3IRSfs, 87
nppiMulC_16s_C3RSfs, 87
nppiMulC_16s_C4IRSfs, 88
nppiMulC_16s_C4RSfs, 88
nppiMulC_16sc_AC4IRSfs, 89
nppiMulC_16sc_AC4RSfs, 89
nppiMulC_16sc_C1IRSfs, 89
nppiMulC_16sc_C1RSfs, 90
nppiMulC_16sc_C3IRSfs, 90
nppiMulC_16sc_C3RSfs, 91
nppiMulC_16u_AC4IRSfs, 91
nppiMulC_16u_AC4RSfs, 91
nppiMulC_16u_C1IRSfs, 92
nppiMulC_16u_C1RSfs, 92
nppiMulC_16u_C3IRSfs, 93
nppiMulC_16u_C3RSfs, 93
nppiMulC_16u_C4IRSfs, 93
nppiMulC_16u_C4RSfs, 94
nppiMulC_32f_AC4IR, 94
nppiMulC_32f_AC4R, 94
nppiMulC_32f_C1IR, 95
nppiMulC_32f_C1R, 95
nppiMulC_32f_C3IR, 95
nppiMulC_32f_C3R, 96
nppiMulC_32f_C4IR, 96
nppiMulC_32f_C4R, 96
nppiMulC_32fc_AC4IR, 97
nppiMulC_32fc_AC4R, 97
nppiMulC_32fc_C1IR, 97
nppiMulC_32fc_C1R, 98
nppiMulC_32fc_C3IR, 98
nppiMulC_32fc_C3R, 98
nppiMulC_32fc_C4IR, 99
nppiMulC_32fc_C4R, 99
nppiMulC_32s_C1IRSfs, 100
nppiMulC_32s_C1RSfs, 100
nppiMulC_32s_C3IRSfs, 100
nppiMulC_32s_C3RSfs, 101
nppiMulC_32sc_AC4IRSfs, 101
nppiMulC_32sc_AC4RSfs, 101
nppiMulC_32sc_C1IRSfs, 102
nppiMulC_32sc_C1RSfs, 102
nppiMulC_32sc_C3IRSfs, 103
nppiMulC_32sc_C3RSfs, 103
nppiMulC_8u_AC4IRSfs, 103
nppiMulC_8u_AC4RSfs, 104
nppiMulC_8u_C1IRSfs, 104
nppiMulC_8u_C1RSfs, 105
nppiMulC_8u_C3IRSfs, 105
nppiMulC_8u_C3RSfs, 105
nppiMulC_8u_C4IRSfs, 106
nppiMulC_8u_C4RSfs, 106
image_mulcscale
nppiMulCScale_16u_AC4IR, 108
nppiMulCScale_16u_AC4R, 108
nppiMulCScale_16u_C1IR, 109
nppiMulCScale_16u_C1R, 109
nppiMulCScale_16u_C3IR, 109
nppiMulCScale_16u_C3R, 110
nppiMulCScale_16u_C4IR, 110
nppiMulCScale_16u_C4R, 110
nppiMulCScale_8u_AC4IR, 111
nppiMulCScale_8u_AC4R, 111
nppiMulCScale_8u_C1IR, 111
nppiMulCScale_8u_C1R, 112

nppiMulCScale_8u_C3IR, 112
nppiMulCScale_8u_C3R, 112
nppiMulCScale_8u_C4IR, 113
nppiMulCScale_8u_C4R, 113
image_mulscale
nppiMulScale_16u_AC4IR, 238
nppiMulScale_16u_AC4R, 239
nppiMulScale_16u_C1IR, 239
nppiMulScale_16u_C1R, 239
nppiMulScale_16u_C3IR, 240
nppiMulScale_16u_C3R, 240
nppiMulScale_16u_C4IR, 241
nppiMulScale_16u_C4R, 241
nppiMulScale_8u_AC4IR, 241
nppiMulScale_8u_AC4R, 242
nppiMulScale_8u_C1IR, 242
nppiMulScale_8u_C1R, 243
nppiMulScale_8u_C3IR, 243
nppiMulScale_8u_C3R, 243
nppiMulScale_8u_C4IR, 244
nppiMulScale_8u_C4R, 244
image_not
nppiNot_8u_AC4IR, 468
nppiNot_8u_AC4R, 469
nppiNot_8u_C1IR, 469
nppiNot_8u_C1R, 469
nppiNot_8u_C3IR, 469
nppiNot_8u_C3R, 470
nppiNot_8u_C4IR, 470
nppiNot_8u_C4R, 470
image_or
nppiOr_16u_AC4IR, 446
nppiOr_16u_AC4R, 446
nppiOr_16u_C1IR, 446
nppiOr_16u_C1R, 447
nppiOr_16u_C3IR, 447
nppiOr_16u_C3R, 447
nppiOr_16u_C4IR, 448
nppiOr_16u_C4R, 448
nppiOr_32s_AC4IR, 449
nppiOr_32s_AC4R, 449
nppiOr_32s_C1IR, 449
nppiOr_32s_C1R, 450
nppiOr_32s_C3IR, 450
nppiOr_32s_C3R, 450
nppiOr_32s_C4IR, 451
nppiOr_32s_C4R, 451
nppiOr_8u_AC4IR, 452
nppiOr_8u_AC4R, 452
nppiOr_8u_C1IR, 452
nppiOr_8u_C1R, 453
nppiOr_8u_C3IR, 453
nppiOr_8u_C3R, 453
nppiOr_8u_C4IR, 454
nppiOr_8u_C4R, 454
image_orc
nppiOrC_16u_AC4IR, 384
nppiOrC_16u_AC4R, 384
nppiOrC_16u_C1IR, 384
nppiOrC_16u_C1R, 385
nppiOrC_16u_C3IR, 385
nppiOrC_16u_C3R, 385
nppiOrC_16u_C4IR, 386
nppiOrC_16u_C4R, 386
nppiOrC_32s_AC4IR, 386
nppiOrC_32s_AC4R, 387
nppiOrC_32s_C1IR, 387
nppiOrC_32s_C1R, 387
nppiOrC_32s_C3IR, 388
nppiOrC_32s_C3R, 388
nppiOrC_32s_C4IR, 388
nppiOrC_32s_C4R, 389
nppiOrC_8u_AC4IR, 389
nppiOrC_8u_AC4R, 389
nppiOrC_8u_C1IR, 390
nppiOrC_8u_C1R, 390
nppiOrC_8u_C3IR, 390
nppiOrC_8u_C3R, 391
nppiOrC_8u_C4IR, 391
nppiOrC_8u_C4R, 391
image_perspective_transforms
nppiGetPerspectiveBound, 1352
nppiGetPerspectiveQuad, 1352
nppiGetPerspectiveTransform, 1353
nppiWarpPerspective_16u_AC4R, 1353
nppiWarpPerspective_16u_C1R, 1354
nppiWarpPerspective_16u_C3R, 1354
nppiWarpPerspective_16u_C4R, 1355
nppiWarpPerspective_16u_P3R, 1355
nppiWarpPerspective_16u_P4R, 1356
nppiWarpPerspective_32f_AC4R, 1356
nppiWarpPerspective_32f_C1R, 1357
nppiWarpPerspective_32f_C3R, 1357
nppiWarpPerspective_32f_C4R, 1358
nppiWarpPerspective_32f_P3R, 1358
nppiWarpPerspective_32f_P4R, 1359
nppiWarpPerspective_32s_AC4R, 1359
nppiWarpPerspective_32s_C1R, 1360
nppiWarpPerspective_32s_C3R, 1360
nppiWarpPerspective_32s_C4R, 1361
nppiWarpPerspective_32s_P3R, 1361
nppiWarpPerspective_32s_P4R, 1361
nppiWarpPerspective_8u_AC4R, 1362
nppiWarpPerspective_8u_C1R, 1362
nppiWarpPerspective_8u_C3R, 1363
nppiWarpPerspective_8u_C4R, 1363
nppiWarpPerspective_8u_P3R, 1364
nppiWarpPerspective_8u_P4R, 1364

nppiWarpPerspectiveBack_16u_AC4R, 1365
nppiWarpPerspectiveBack_16u_C1R, 1365
nppiWarpPerspectiveBack_16u_C3R, 1366
nppiWarpPerspectiveBack_16u_C4R, 1366
nppiWarpPerspectiveBack_16u_P3R, 1367
nppiWarpPerspectiveBack_16u_P4R, 1367
nppiWarpPerspectiveBack_32f_AC4R, 1368
nppiWarpPerspectiveBack_32f_C1R, 1368
nppiWarpPerspectiveBack_32f_C3R, 1369
nppiWarpPerspectiveBack_32f_C4R, 1369
nppiWarpPerspectiveBack_32f_P3R, 1370
nppiWarpPerspectiveBack_32f_P4R, 1370
nppiWarpPerspectiveBack_32s_AC4R, 1371
nppiWarpPerspectiveBack_32s_C1R, 1371
nppiWarpPerspectiveBack_32s_C3R, 1372
nppiWarpPerspectiveBack_32s_C4R, 1372
nppiWarpPerspectiveBack_32s_P3R, 1373
nppiWarpPerspectiveBack_32s_P4R, 1373
nppiWarpPerspectiveBack_8u_AC4R, 1374
nppiWarpPerspectiveBack_8u_C1R, 1374
nppiWarpPerspectiveBack_8u_C3R, 1375
nppiWarpPerspectiveBack_8u_C4R, 1375
nppiWarpPerspectiveBack_8u_P3R, 1376
nppiWarpPerspectiveBack_8u_P4R, 1376
nppiWarpPerspectiveQuad_16u_AC4R, 1377
nppiWarpPerspectiveQuad_16u_C1R, 1377
nppiWarpPerspectiveQuad_16u_C3R, 1378
nppiWarpPerspectiveQuad_16u_C4R, 1378
nppiWarpPerspectiveQuad_16u_P3R, 1379
nppiWarpPerspectiveQuad_16u_P4R, 1379
nppiWarpPerspectiveQuad_32f_AC4R, 1380
nppiWarpPerspectiveQuad_32f_C1R, 1380
nppiWarpPerspectiveQuad_32f_C3R, 1381
nppiWarpPerspectiveQuad_32f_C4R, 1381
nppiWarpPerspectiveQuad_32f_P3R, 1382
nppiWarpPerspectiveQuad_32f_P4R, 1382
nppiWarpPerspectiveQuad_32s_AC4R, 1383
nppiWarpPerspectiveQuad_32s_C1R, 1383
nppiWarpPerspectiveQuad_32s_C3R, 1384
nppiWarpPerspectiveQuad_32s_C4R, 1384
nppiWarpPerspectiveQuad_32s_P3R, 1385
nppiWarpPerspectiveQuad_32s_P4R, 1385
nppiWarpPerspectiveQuad_8u_AC4R, 1386
nppiWarpPerspectiveQuad_8u_C1R, 1386
nppiWarpPerspectiveQuad_8u_C3R, 1387
nppiWarpPerspectiveQuad_8u_C4R, 1387
nppiWarpPerspectiveQuad_8u_P3R, 1388
nppiWarpPerspectiveQuad_8u_P4R, 1388
image_quality_index
nppiQualityIndex_16u32f_AC4R, 2074
nppiQualityIndex_16u32f_C1R, 2074
nppiQualityIndex_16u32f_C3R, 2075
nppiQualityIndex_32f_AC4R, 2075
nppiQualityIndex_32f_C1R, 2076
nppiQualityIndex_32f_C3R, 2076
nppiQualityIndex_8u32f_AC4R, 2076
nppiQualityIndex_8u32f_C1R, 2077
nppiQualityIndex_8u32f_C3R, 2077
nppiQualityIndexGetBufferHostSize_16u32f_AC4R, 2078
nppiQualityIndexGetBufferHostSize_16u32f_C1R, 2078
nppiQualityIndexGetBufferHostSize_16u32f_C3R, 2078
nppiQualityIndexGetBufferHostSize_32f_AC4R, 2079
nppiQualityIndexGetBufferHostSize_32f_C1R, 2079
nppiQualityIndexGetBufferHostSize_32f_C3R, 2079
nppiQualityIndexGetBufferHostSize_8u32f_AC4R, 2080
nppiQualityIndexGetBufferHostSize_8u32f_C1R, 2080
nppiQualityIndexGetBufferHostSize_8u32f_C3R, 2080
image_quantization
nppiDCTFree, 719
nppiDCTInitAlloc, 719
nppiDCTQuantFwd8x8LS_JPEG_8u16s_C1R, 719
nppiDCTQuantFwd8x8LS_JPEG_8u16s_C1R_NEW, 720
nppiDCTQuantInv8x8LS_JPEG_16s8u_C1R, 720
nppiDCTQuantInv8x8LS_JPEG_16s8u_C1R_NEW, 721
NppiDCTState, 719
nppiQuantFwdRawTableInit_JPEG_8u, 721
nppiQuantFwdTableInit_JPEG_8u16u, 722
nppiQuantInvTableInit_JPEG_8u16u, 722
image_rank_filters
nppiFilterMax_16s_AC4R, 1153
nppiFilterMax_16s_C1R, 1154
nppiFilterMax_16s_C3R, 1154
nppiFilterMax_16s_C4R, 1154
nppiFilterMax_16u_AC4R, 1155
nppiFilterMax_16u_C1R, 1155
nppiFilterMax_16u_C3R, 1155
nppiFilterMax_16u_C4R, 1156
nppiFilterMax_32f_AC4R, 1156
nppiFilterMax_32f_C1R, 1157
nppiFilterMax_32f_C3R, 1157
nppiFilterMax_32f_C4R, 1157
nppiFilterMax_8u_AC4R, 1158
nppiFilterMax_8u_C1R, 1158
nppiFilterMax_8u_C3R, 1159
nppiFilterMax_8u_C4R, 1159

nppiFilterMedian_16s_AC4R, 1159
nppiFilterMedian_16s_C1R, 1160
nppiFilterMedian_16s_C3R, 1160
nppiFilterMedian_16s_C4R, 1161
nppiFilterMedian_16u_AC4R, 1161
nppiFilterMedian_16u_C1R, 1162
nppiFilterMedian_16u_C3R, 1162
nppiFilterMedian_16u_C4R, 1162
nppiFilterMedian_32f_AC4R, 1163
nppiFilterMedian_32f_C1R, 1163
nppiFilterMedian_32f_C3R, 1164
nppiFilterMedian_32f_C4R, 1164
nppiFilterMedian_8u_AC4R, 1165
nppiFilterMedian_8u_C1R, 1165
nppiFilterMedian_8u_C3R, 1165
nppiFilterMedian_8u_C4R, 1166
nppiFilterMedianGetBufferSize_16s_AC4R, 1166
nppiFilterMedianGetBufferSize_16s_C1R, 1167
nppiFilterMedianGetBufferSize_16s_C3R, 1167
nppiFilterMedianGetBufferSize_16s_C4R, 1167
nppiFilterMedianGetBufferSize_16u_AC4R, 1167
nppiFilterMedianGetBufferSize_16u_C1R, 1168
nppiFilterMedianGetBufferSize_16u_C3R, 1168
nppiFilterMedianGetBufferSize_16u_C4R, 1168
nppiFilterMedianGetBufferSize_32f_AC4R, 1169
nppiFilterMedianGetBufferSize_32f_C1R, 1169
nppiFilterMedianGetBufferSize_32f_C3R, 1169
nppiFilterMedianGetBufferSize_32f_C4R, 1169
nppiFilterMedianGetBufferSize_8u_AC4R, 1170
nppiFilterMedianGetBufferSize_8u_C1R, 1170
nppiFilterMedianGetBufferSize_8u_C3R, 1170
nppiFilterMedianGetBufferSize_8u_C4R, 1171
nppiFilterMin_16s_AC4R, 1171
nppiFilterMin_16s_C1R, 1171
nppiFilterMin_16s_C3R, 1172
nppiFilterMin_16s_C4R, 1172
nppiFilterMin_16u_AC4R, 1173
nppiFilterMin_16u_C1R, 1173
nppiFilterMin_16u_C3R, 1173
nppiFilterMin_16u_C4R, 1174
nppiFilterMin_32f_AC4R, 1174
nppiFilterMin_32f_C1R, 1175
nppiFilterMin_32f_C3R, 1175
nppiFilterMin_32f_C4R, 1175
nppiFilterMin_8u_AC4R, 1176
nppiFilterMin_8u_C1R, 1176
nppiFilterMin_8u_C3R, 1177
nppiFilterMin_8u_C4R, 1177
image_rectstddev
nppiRectStdDev_32f_C1R, 1908
nppiRectStdDev_32s32f_C1R, 1909
nppiRectStdDev_32s_C1RSfs, 1909
image_remap
nppiRemap_16s_AC4R, 1249
nppiRemap_16s_C1R, 1250
nppiRemap_16s_C3R, 1250
nppiRemap_16s_C4R, 1251
nppiRemap_16s_P3R, 1252
nppiRemap_16s_P4R, 1252
nppiRemap_16u_AC4R, 1253
nppiRemap_16u_C1R, 1253
nppiRemap_16u_C3R, 1254
nppiRemap_16u_C4R, 1255
nppiRemap_16u_P3R, 1255
nppiRemap_16u_P4R, 1256
nppiRemap_32f_AC4R, 1256
nppiRemap_32f_C1R, 1257
nppiRemap_32f_C3R, 1258
nppiRemap_32f_C4R, 1258
nppiRemap_32f_P3R, 1259
nppiRemap_32f_P4R, 1259
nppiRemap_64f_AC4R, 1260
nppiRemap_64f_C1R, 1261
nppiRemap_64f_C3R, 1261
nppiRemap_64f_C4R, 1262
nppiRemap_64f_P3R, 1262
nppiRemap_64f_P4R, 1263
nppiRemap_8u_AC4R, 1264
nppiRemap_8u_C1R, 1264
nppiRemap_8u_C3R, 1265
nppiRemap_8u_C4R, 1265
nppiRemap_8u_P3R, 1266
nppiRemap_8u_P4R, 1267
image_resize
nppiResize_16u_AC4R, 1236
nppiResize_16u_C1R, 1237
nppiResize_16u_C3R, 1237
nppiResize_16u_C4R, 1238
nppiResize_16u_P3R, 1238
nppiResize_16u_P4R, 1239
nppiResize_32f_AC4R, 1239
nppiResize_32f_C1R, 1240

nppiResize_32f_C3R, 1240
nppiResize_32f_C4R, 1241
nppiResize_32f_P3R, 1241
nppiResize_32f_P4R, 1242
nppiResize_8u_AC4R, 1242
nppiResize_8u_C1R, 1243
nppiResize_8u_C3R, 1243
nppiResize_8u_C4R, 1244
nppiResize_8u_P3R, 1244
nppiResize_8u_P4R, 1245
image_resize_square_pixel
nppiGetResizeRect, 1216
nppiResizeSqrPixel_16s_AC4R, 1216
nppiResizeSqrPixel_16s_C1R, 1217
nppiResizeSqrPixel_16s_C3R, 1217
nppiResizeSqrPixel_16s_C4R, 1218
nppiResizeSqrPixel_16s_P3R, 1218
nppiResizeSqrPixel_16s_P4R, 1219
nppiResizeSqrPixel_16u_AC4R, 1219
nppiResizeSqrPixel_16u_C1R, 1220
nppiResizeSqrPixel_16u_C3R, 1220
nppiResizeSqrPixel_16u_C4R, 1221
nppiResizeSqrPixel_16u_P3R, 1221
nppiResizeSqrPixel_16u_P4R, 1222
nppiResizeSqrPixel_32f_AC4R, 1223
nppiResizeSqrPixel_32f_C1R, 1223
nppiResizeSqrPixel_32f_C3R, 1224
nppiResizeSqrPixel_32f_C4R, 1224
nppiResizeSqrPixel_32f_P3R, 1225
nppiResizeSqrPixel_32f_P4R, 1225
nppiResizeSqrPixel_64f_AC4R, 1226
nppiResizeSqrPixel_64f_C1R, 1227
nppiResizeSqrPixel_64f_C3R, 1227
nppiResizeSqrPixel_64f_C4R, 1228
nppiResizeSqrPixel_64f_P3R, 1228
nppiResizeSqrPixel_64f_P4R, 1229
nppiResizeSqrPixel_8u_AC4R, 1229
nppiResizeSqrPixel_8u_C1R, 1230
nppiResizeSqrPixel_8u_C3R, 1230
nppiResizeSqrPixel_8u_C4R, 1231
nppiResizeSqrPixel_8u_P3R, 1231
nppiResizeSqrPixel_8u_P4R, 1232
image_rotate
nppiGetRotateBound, 1269
nppiGetRotateQuad, 1270
nppiRotate_16u_AC4R, 1270
nppiRotate_16u_C1R, 1271
nppiRotate_16u_C3R, 1271
nppiRotate_16u_C4R, 1272
nppiRotate_32f_AC4R, 1272
nppiRotate_32f_C1R, 1273
nppiRotate_32f_C3R, 1273
nppiRotate_32f_C4R, 1274
nppiRotate_8u_AC4R, 1274
nppiRotate_8u_C1R, 1275
nppiRotate_8u_C3R, 1275
nppiRotate_8u_C4R, 1276
image_rshiftc
nppiRShiftC_16s_AC4IR, 407
nppiRShiftC_16s_AC4R, 407
nppiRShiftC_16s_C1IR, 408
nppiRShiftC_16s_C1R, 408
nppiRShiftC_16s_C3IR, 408
nppiRShiftC_16s_C3R, 409
nppiRShiftC_16s_C4IR, 409
nppiRShiftC_16s_C4R, 409
nppiRShiftC_16u_AC4IR, 410
nppiRShiftC_16u_AC4R, 410
nppiRShiftC_16u_C1IR, 410
nppiRShiftC_16u_C1R, 411
nppiRShiftC_16u_C3IR, 411
nppiRShiftC_16u_C3R, 411
nppiRShiftC_16u_C4IR, 412
nppiRShiftC_16u_C4R, 412
nppiRShiftC_32s_AC4IR, 412
nppiRShiftC_32s_AC4R, 413
nppiRShiftC_32s_C1IR, 413
nppiRShiftC_32s_C1R, 413
nppiRShiftC_32s_C3IR, 414
nppiRShiftC_32s_C3R, 414
nppiRShiftC_32s_C4IR, 414
nppiRShiftC_32s_C4R, 415
nppiRShiftC_8s_AC4IR, 415
nppiRShiftC_8s_AC4R, 415
nppiRShiftC_8s_C1IR, 416
nppiRShiftC_8s_C1R, 416
nppiRShiftC_8s_C3IR, 416
nppiRShiftC_8s_C3R, 417
nppiRShiftC_8s_C4IR, 417
nppiRShiftC_8s_C4R, 417
nppiRShiftC_8u_AC4IR, 418
nppiRShiftC_8u_AC4R, 418
nppiRShiftC_8u_C1IR, 418
nppiRShiftC_8u_C1R, 419
nppiRShiftC_8u_C3IR, 419
nppiRShiftC_8u_C3R, 419
nppiRShiftC_8u_C4IR, 420
nppiRShiftC_8u_C4R, 420
image_scale
nppiScale_16s8u_AC4R, 861
nppiScale_16s8u_C1R, 861
nppiScale_16s8u_C3R, 861
nppiScale_16s8u_C4R, 862
nppiScale_16u8u_AC4R, 862
nppiScale_16u8u_C1R, 862
nppiScale_16u8u_C3R, 863
nppiScale_16u8u_C4R, 863
nppiScale_32f8u_AC4R, 863

nppiScale_32f8u_C1R, 864
nppiScale_32f8u_C3R, 864
nppiScale_32f8u_C4R, 865
nppiScale_32s8u_AC4R, 865
nppiScale_32s8u_C1R, 865
nppiScale_32s8u_C3R, 866
nppiScale_32s8u_C4R, 866
nppiScale_8u16s_AC4R, 866
nppiScale_8u16s_C1R, 867
nppiScale_8u16s_C3R, 867
nppiScale_8u16s_C4R, 867
nppiScale_8u16u_AC4R, 868
nppiScale_8u16u_C1R, 868
nppiScale_8u16u_C3R, 868
nppiScale_8u16u_C4R, 869
nppiScale_8u32f_AC4R, 869
nppiScale_8u32f_C1R, 869
nppiScale_8u32f_C3R, 870
nppiScale_8u32f_C4R, 870
nppiScale_8u32s_AC4R, 871
nppiScale_8u32s_C1R, 871
nppiScale_8u32s_C3R, 871
nppiScale_8u32s_C4R, 872
image_set
nppiSet_16s_AC4MR, 739
nppiSet_16s_AC4R, 740
nppiSet_16s_C1MR, 740
nppiSet_16s_C1R, 740
nppiSet_16s_C2R, 741
nppiSet_16s_C3CR, 741
nppiSet_16s_C3MR, 741
nppiSet_16s_C3R, 742
nppiSet_16s_C4CR, 742
nppiSet_16s_C4MR, 742
nppiSet_16s_C4R, 743
nppiSet_16sc_AC4R, 743
nppiSet_16sc_C1R, 743
nppiSet_16sc_C2R, 744
nppiSet_16sc_C3R, 744
nppiSet_16sc_C4R, 744
nppiSet_16u_AC4MR, 745
nppiSet_16u_AC4R, 745
nppiSet_16u_C1MR, 745
nppiSet_16u_C1R, 746
nppiSet_16u_C2R, 746
nppiSet_16u_C3CR, 746
nppiSet_16u_C3MR, 747
nppiSet_16u_C3R, 747
nppiSet_16u_C4CR, 747
nppiSet_16u_C4MR, 748
nppiSet_16u_C4R, 748
nppiSet_32f_AC4MR, 748
nppiSet_32f_AC4R, 749
nppiSet_32f_C1MR, 749
nppiSet_32f_C1R, 749
nppiSet_32f_C2R, 750
nppiSet_32f_C3CR, 750
nppiSet_32f_C3MR, 750
nppiSet_32f_C3R, 751
nppiSet_32f_C4CR, 751
nppiSet_32f_C4MR, 751
nppiSet_32f_C4R, 752
nppiSet_32fc_AC4R, 752
nppiSet_32fc_C1R, 752
nppiSet_32fc_C2R, 753
nppiSet_32fc_C3R, 753
nppiSet_32fc_C4R, 753
nppiSet_32s_AC4MR, 754
nppiSet_32s_AC4R, 754
nppiSet_32s_C1MR, 754
nppiSet_32s_C1R, 755
nppiSet_32s_C2R, 755
nppiSet_32s_C3CR, 755
nppiSet_32s_C3MR, 756
nppiSet_32s_C3R, 756
nppiSet_32s_C4CR, 756
nppiSet_32s_C4MR, 757
nppiSet_32s_C4R, 757
nppiSet_32sc_AC4R, 757
nppiSet_32sc_C1R, 758
nppiSet_32sc_C2R, 758
nppiSet_32sc_C3R, 758
nppiSet_32sc_C4R, 759
nppiSet_32u_AC4R, 759
nppiSet_32u_C1R, 759
nppiSet_32u_C2R, 760
nppiSet_32u_C3R, 760
nppiSet_32u_C4R, 760
nppiSet_8s_AC4R, 761
nppiSet_8s_C1R, 761
nppiSet_8s_C2R, 761
nppiSet_8s_C3R, 762
nppiSet_8s_C4R, 762
nppiSet_8u_AC4MR, 762
nppiSet_8u_AC4R, 763
nppiSet_8u_C1MR, 763
nppiSet_8u_C1R, 763
nppiSet_8u_C2R, 764
nppiSet_8u_C3CR, 764
nppiSet_8u_C3MR, 764
nppiSet_8u_C3R, 765
nppiSet_8u_C4CR, 765
nppiSet_8u_C4MR, 765
nppiSet_8u_C4R, 766
image_sqr
nppiSqr_16s_AC4IRSfs, 333
nppiSqr_16s_AC4RSfs, 333
nppiSqr_16s_C1IRSfs, 333

- nppiSqr_16s_C1RSfs, 333
- nppiSqr_16s_C3IRSfs, 334
- nppiSqr_16s_C3RSfs, 334
- nppiSqr_16s_C4IRSfs, 334
- nppiSqr_16s_C4RSfs, 335
- nppiSqr_16u_AC4IRSfs, 335
- nppiSqr_16u_AC4RSfs, 335
- nppiSqr_16u_C1IRSfs, 336
- nppiSqr_16u_C1RSfs, 336
- nppiSqr_16u_C3IRSfs, 337
- nppiSqr_16u_C3RSfs, 337
- nppiSqr_16u_C4IRSfs, 337
- nppiSqr_16u_C4RSfs, 338
- nppiSqr_32f_AC4IR, 338
- nppiSqr_32f_AC4R, 338
- nppiSqr_32f_C1IR, 339
- nppiSqr_32f_C1R, 339
- nppiSqr_32f_C3IR, 339
- nppiSqr_32f_C3R, 339
- nppiSqr_32f_C4IR, 340
- nppiSqr_32f_C4R, 340
- nppiSqr_8u_AC4IRSfs, 340
- nppiSqr_8u_AC4RSfs, 341
- nppiSqr_8u_C1IRSfs, 341
- nppiSqr_8u_C1RSfs, 341
- nppiSqr_8u_C3IRSfs, 342
- nppiSqr_8u_C3RSfs, 342
- nppiSqr_8u_C4IRSfs, 342
- nppiSqr_8u_C4RSfs, 343

image_sqrintegral
- nppiSqrIntegral_8u32f64f_C1R, 1905
- nppiSqrIntegral_8u32s64f_C1R, 1906
- nppiSqrIntegral_8u32s_C1R, 1906

image_sqrt
- nppiSqrt_16s_AC4IRSfs, 346
- nppiSqrt_16s_AC4RSfs, 346
- nppiSqrt_16s_C1IRSfs, 347
- nppiSqrt_16s_C1RSfs, 347
- nppiSqrt_16s_C3IRSfs, 348
- nppiSqrt_16s_C3RSfs, 348
- nppiSqrt_16u_AC4IRSfs, 348
- nppiSqrt_16u_AC4RSfs, 349
- nppiSqrt_16u_C1IRSfs, 349
- nppiSqrt_16u_C1RSfs, 349
- nppiSqrt_16u_C3IRSfs, 350
- nppiSqrt_16u_C3RSfs, 350
- nppiSqrt_32f_AC4IR, 350
- nppiSqrt_32f_AC4R, 351
- nppiSqrt_32f_C1IR, 351
- nppiSqrt_32f_C1R, 351
- nppiSqrt_32f_C3IR, 352
- nppiSqrt_32f_C3R, 352
- nppiSqrt_32f_C4IR, 352
- nppiSqrt_32f_C4R, 353
- nppiSqrt_8u_AC4IRSfs, 353
- nppiSqrt_8u_AC4RSfs, 353
- nppiSqrt_8u_C1IRSfs, 354
- nppiSqrt_8u_C1RSfs, 354
- nppiSqrt_8u_C3IRSfs, 355
- nppiSqrt_8u_C3RSfs, 355

image_statistics_functions
- nppiAverageErrorGetBufferHostSize_16s_C1R, 1466
- nppiAverageErrorGetBufferHostSize_16s_C2R, 1466
- nppiAverageErrorGetBufferHostSize_16s_C3R, 1466
- nppiAverageErrorGetBufferHostSize_16s_C4R, 1466
- nppiAverageErrorGetBufferHostSize_16sc_C1R, 1467
- nppiAverageErrorGetBufferHostSize_16sc_C2R, 1467
- nppiAverageErrorGetBufferHostSize_16sc_C3R, 1467
- nppiAverageErrorGetBufferHostSize_16sc_C4R, 1468
- nppiAverageErrorGetBufferHostSize_16u_C1R, 1468
- nppiAverageErrorGetBufferHostSize_16u_C2R, 1468
- nppiAverageErrorGetBufferHostSize_16u_C3R, 1468
- nppiAverageErrorGetBufferHostSize_16u_C4R, 1469
- nppiAverageErrorGetBufferHostSize_32f_C1R, 1469
- nppiAverageErrorGetBufferHostSize_32f_C2R, 1469
- nppiAverageErrorGetBufferHostSize_32f_C3R, 1470
- nppiAverageErrorGetBufferHostSize_32f_C4R, 1470
- nppiAverageErrorGetBufferHostSize_32fc_C1R, 1470
- nppiAverageErrorGetBufferHostSize_32fc_C2R, 1470
- nppiAverageErrorGetBufferHostSize_32fc_C3R, 1471
- nppiAverageErrorGetBufferHostSize_32fc_C4R, 1471
- nppiAverageErrorGetBufferHostSize_32s_C1R, 1471
- nppiAverageErrorGetBufferHostSize_32s_C2R, 1472
- nppiAverageErrorGetBufferHostSize_32s_C3R, 1472

nppiAverageErrorGetBufferHostSize_32s_C4R, 1472
nppiAverageErrorGetBufferHostSize_32sc_C1R, 1472
nppiAverageErrorGetBufferHostSize_32sc_C2R, 1473
nppiAverageErrorGetBufferHostSize_32sc_C3R, 1473
nppiAverageErrorGetBufferHostSize_32sc_C4R, 1473
nppiAverageErrorGetBufferHostSize_32u_C1R, 1474
nppiAverageErrorGetBufferHostSize_32u_C2R, 1474
nppiAverageErrorGetBufferHostSize_32u_C3R, 1474
nppiAverageErrorGetBufferHostSize_32u_C4R, 1474
nppiAverageErrorGetBufferHostSize_64f_C1R, 1475
nppiAverageErrorGetBufferHostSize_64f_C2R, 1475
nppiAverageErrorGetBufferHostSize_64f_C3R, 1475
nppiAverageErrorGetBufferHostSize_64f_C4R, 1476
nppiAverageErrorGetBufferHostSize_8s_C1R, 1476
nppiAverageErrorGetBufferHostSize_8s_C2R, 1476
nppiAverageErrorGetBufferHostSize_8s_C3R, 1476
nppiAverageErrorGetBufferHostSize_8s_C4R, 1477
nppiAverageErrorGetBufferHostSize_8u_C1R, 1477
nppiAverageErrorGetBufferHostSize_8u_C2R, 1477
nppiAverageErrorGetBufferHostSize_8u_C3R, 1478
nppiAverageErrorGetBufferHostSize_8u_C4R, 1478
nppiAverageRelativeErrorGetBufferHostSize_16s_C1R, 1478
nppiAverageRelativeErrorGetBufferHostSize_16s_C2R, 1478
nppiAverageRelativeErrorGetBufferHostSize_16s_C3R, 1479
nppiAverageRelativeErrorGetBufferHostSize_16s_C4R, 1479
nppiAverageRelativeErrorGetBufferHostSize_16sc_C1R, 1479
nppiAverageRelativeErrorGetBufferHostSize_16sc_C2R, 1480
nppiAverageRelativeErrorGetBufferHostSize_16sc_C3R, 1480
nppiAverageRelativeErrorGetBufferHostSize_16sc_C4R, 1480
nppiAverageRelativeErrorGetBufferHostSize_16u_C1R, 1480
nppiAverageRelativeErrorGetBufferHostSize_16u_C2R, 1481
nppiAverageRelativeErrorGetBufferHostSize_16u_C3R, 1481
nppiAverageRelativeErrorGetBufferHostSize_16u_C4R, 1481
nppiAverageRelativeErrorGetBufferHostSize_32f_C1R, 1482
nppiAverageRelativeErrorGetBufferHostSize_32f_C2R, 1482
nppiAverageRelativeErrorGetBufferHostSize_32f_C3R, 1482
nppiAverageRelativeErrorGetBufferHostSize_32f_C4R, 1482
nppiAverageRelativeErrorGetBufferHostSize_32fc_C1R, 1483
nppiAverageRelativeErrorGetBufferHostSize_32fc_C2R, 1483
nppiAverageRelativeErrorGetBufferHostSize_32fc_C3R, 1483
nppiAverageRelativeErrorGetBufferHostSize_32fc_C4R, 1484
nppiAverageRelativeErrorGetBufferHostSize_32s_C1R, 1484
nppiAverageRelativeErrorGetBufferHostSize_32s_C2R, 1484
nppiAverageRelativeErrorGetBufferHostSize_32s_C3R, 1484
nppiAverageRelativeErrorGetBufferHostSize_32s_C4R, 1485
nppiAverageRelativeErrorGetBufferHostSize_32sc_C1R, 1485
nppiAverageRelativeErrorGetBufferHostSize_32sc_C2R, 1485
nppiAverageRelativeErrorGetBufferHostSize_32sc_C3R, 1486
nppiAverageRelativeErrorGetBufferHostSize_32sc_C4R, 1486
nppiAverageRelativeErrorGetBufferHostSize_32u_C1R, 1486
nppiAverageRelativeErrorGetBufferHostSize_32u_C2R, 1486
nppiAverageRelativeErrorGetBufferHostSize_32u_C3R, 1487
nppiAverageRelativeErrorGetBufferHostSize_32u_C4R, 1487
nppiAverageRelativeErrorGetBufferHostSize_64f_C1R, 1487

nppiAverageRelativeErrorGetBufferHostSize_64f_C2R, 1488
nppiAverageRelativeErrorGetBufferHostSize_64f_C3R, 1488
nppiAverageRelativeErrorGetBufferHostSize_64f_C4R, 1488
nppiAverageRelativeErrorGetBufferHostSize_8s_C1R, 1488
nppiAverageRelativeErrorGetBufferHostSize_8s_C2R, 1489
nppiAverageRelativeErrorGetBufferHostSize_8s_C3R, 1489
nppiAverageRelativeErrorGetBufferHostSize_8s_C4R, 1489
nppiAverageRelativeErrorGetBufferHostSize_8u_C1R, 1490
nppiAverageRelativeErrorGetBufferHostSize_8u_C2R, 1490
nppiAverageRelativeErrorGetBufferHostSize_8u_C3R, 1490
nppiAverageRelativeErrorGetBufferHostSize_8u_C4R, 1490
nppiMaximumErrorGetBufferHostSize_16s_C1R, 1491
nppiMaximumErrorGetBufferHostSize_16s_C2R, 1491
nppiMaximumErrorGetBufferHostSize_16s_C3R, 1491
nppiMaximumErrorGetBufferHostSize_16s_C4R, 1492
nppiMaximumErrorGetBufferHostSize_16sc_C1R, 1492
nppiMaximumErrorGetBufferHostSize_16sc_C2R, 1492
nppiMaximumErrorGetBufferHostSize_16sc_C3R, 1492
nppiMaximumErrorGetBufferHostSize_16sc_C4R, 1493
nppiMaximumErrorGetBufferHostSize_16u_C1R, 1493
nppiMaximumErrorGetBufferHostSize_16u_C2R, 1493
nppiMaximumErrorGetBufferHostSize_16u_C3R, 1494
nppiMaximumErrorGetBufferHostSize_16u_C4R, 1494
nppiMaximumErrorGetBufferHostSize_32f_C1R, 1494
nppiMaximumErrorGetBufferHostSize_32f_C2R, 1494
nppiMaximumErrorGetBufferHostSize_32f_C3R, 1495
nppiMaximumErrorGetBufferHostSize_32f_C4R, 1495
nppiMaximumErrorGetBufferHostSize_32fc_C1R, 1495
nppiMaximumErrorGetBufferHostSize_32fc_C2R, 1496
nppiMaximumErrorGetBufferHostSize_32fc_C3R, 1496
nppiMaximumErrorGetBufferHostSize_32fc_C4R, 1496
nppiMaximumErrorGetBufferHostSize_32s_C1R, 1496
nppiMaximumErrorGetBufferHostSize_32s_C2R, 1497
nppiMaximumErrorGetBufferHostSize_32s_C3R, 1497
nppiMaximumErrorGetBufferHostSize_32s_C4R, 1497
nppiMaximumErrorGetBufferHostSize_32sc_C1R, 1498
nppiMaximumErrorGetBufferHostSize_32sc_C2R, 1498
nppiMaximumErrorGetBufferHostSize_32sc_C3R, 1498
nppiMaximumErrorGetBufferHostSize_32sc_C4R, 1498
nppiMaximumErrorGetBufferHostSize_32u_C1R, 1499
nppiMaximumErrorGetBufferHostSize_32u_C2R, 1499
nppiMaximumErrorGetBufferHostSize_32u_C3R, 1499
nppiMaximumErrorGetBufferHostSize_32u_C4R, 1500
nppiMaximumErrorGetBufferHostSize_64f_C1R, 1500
nppiMaximumErrorGetBufferHostSize_64f_C2R, 1500
nppiMaximumErrorGetBufferHostSize_64f_C3R, 1500
nppiMaximumErrorGetBufferHostSize_64f_C4R, 1501
nppiMaximumErrorGetBufferHostSize_8s_C1R, 1501
nppiMaximumErrorGetBufferHostSize_8s_C2R, 1501
nppiMaximumErrorGetBufferHostSize_8s_C3R, 1502
nppiMaximumErrorGetBufferHostSize_8s_C4R, 1502
nppiMaximumErrorGetBufferHostSize_8u_C1R, 1502
nppiMaximumErrorGetBufferHostSize_8u_C2R, 1502
nppiMaximumErrorGetBufferHostSize_8u_C3R, 1503

nppiMaximumErrorGetBufferHostSize_8u_C4R, 1503
nppiMaximumRelativeErrorGetBufferHostSize_16s_C1R, 1503
nppiMaximumRelativeErrorGetBufferHostSize_16s_C2R, 1504
nppiMaximumRelativeErrorGetBufferHostSize_16s_C3R, 1504
nppiMaximumRelativeErrorGetBufferHostSize_16s_C4R, 1504
nppiMaximumRelativeErrorGetBufferHostSize_16sc_C1R, 1504
nppiMaximumRelativeErrorGetBufferHostSize_16sc_C2R, 1505
nppiMaximumRelativeErrorGetBufferHostSize_16sc_C3R, 1505
nppiMaximumRelativeErrorGetBufferHostSize_16sc_C4R, 1505
nppiMaximumRelativeErrorGetBufferHostSize_16u_C1R, 1506
nppiMaximumRelativeErrorGetBufferHostSize_16u_C2R, 1506
nppiMaximumRelativeErrorGetBufferHostSize_16u_C3R, 1506
nppiMaximumRelativeErrorGetBufferHostSize_16u_C4R, 1506
nppiMaximumRelativeErrorGetBufferHostSize_32f_C1R, 1507
nppiMaximumRelativeErrorGetBufferHostSize_32f_C2R, 1507
nppiMaximumRelativeErrorGetBufferHostSize_32f_C3R, 1507
nppiMaximumRelativeErrorGetBufferHostSize_32f_C4R, 1508
nppiMaximumRelativeErrorGetBufferHostSize_32fc_C1R, 1508
nppiMaximumRelativeErrorGetBufferHostSize_32fc_C2R, 1508
nppiMaximumRelativeErrorGetBufferHostSize_32fc_C3R, 1508
nppiMaximumRelativeErrorGetBufferHostSize_32fc_C4R, 1509
nppiMaximumRelativeErrorGetBufferHostSize_32s_C1R, 1509
nppiMaximumRelativeErrorGetBufferHostSize_32s_C2R, 1509
nppiMaximumRelativeErrorGetBufferHostSize_32s_C3R, 1510
nppiMaximumRelativeErrorGetBufferHostSize_32s_C4R, 1510
nppiMaximumRelativeErrorGetBufferHostSize_32sc_C1R, 1510
nppiMaximumRelativeErrorGetBufferHostSize_32sc_C2R, 1510
nppiMaximumRelativeErrorGetBufferHostSize_32sc_C3R, 1511
nppiMaximumRelativeErrorGetBufferHostSize_32sc_C4R, 1511
nppiMaximumRelativeErrorGetBufferHostSize_32u_C1R, 1511
nppiMaximumRelativeErrorGetBufferHostSize_32u_C2R, 1512
nppiMaximumRelativeErrorGetBufferHostSize_32u_C3R, 1512
nppiMaximumRelativeErrorGetBufferHostSize_32u_C4R, 1512
nppiMaximumRelativeErrorGetBufferHostSize_64f_C1R, 1512
nppiMaximumRelativeErrorGetBufferHostSize_64f_C2R, 1513
nppiMaximumRelativeErrorGetBufferHostSize_64f_C3R, 1513
nppiMaximumRelativeErrorGetBufferHostSize_64f_C4R, 1513
nppiMaximumRelativeErrorGetBufferHostSize_8s_C1R, 1514
nppiMaximumRelativeErrorGetBufferHostSize_8s_C2R, 1514
nppiMaximumRelativeErrorGetBufferHostSize_8s_C3R, 1514
nppiMaximumRelativeErrorGetBufferHostSize_8s_C4R, 1514
nppiMaximumRelativeErrorGetBufferHostSize_8u_C1R, 1515
nppiMaximumRelativeErrorGetBufferHostSize_8u_C2R, 1515
nppiMaximumRelativeErrorGetBufferHostSize_8u_C3R, 1515
nppiMaximumRelativeErrorGetBufferHostSize_8u_C4R, 1516

image_sub
nppiSub_16s_AC4IRSfs, 251
nppiSub_16s_AC4RSfs, 252
nppiSub_16s_C1IRSfs, 252
nppiSub_16s_C1RSfs, 252
nppiSub_16s_C3IRSfs, 253
nppiSub_16s_C3RSfs, 253
nppiSub_16s_C4IRSfs, 254
nppiSub_16s_C4RSfs, 254
nppiSub_16sc_AC4IRSfs, 254
nppiSub_16sc_AC4RSfs, 255
nppiSub_16sc_C1IRSfs, 255
nppiSub_16sc_C1RSfs, 256
nppiSub_16sc_C3IRSfs, 256
nppiSub_16sc_C3RSfs, 256
nppiSub_16u_AC4IRSfs, 257
nppiSub_16u_AC4RSfs, 257
nppiSub_16u_C1IRSfs, 258

nppiSub_16u_C1RSfs, 258
nppiSub_16u_C3IRSfs, 259
nppiSub_16u_C3RSfs, 259
nppiSub_16u_C4IRSfs, 259
nppiSub_16u_C4RSfs, 260
nppiSub_32f_AC4IR, 260
nppiSub_32f_AC4R, 261
nppiSub_32f_C1IR, 261
nppiSub_32f_C1R, 261
nppiSub_32f_C3IR, 262
nppiSub_32f_C3R, 262
nppiSub_32f_C4IR, 263
nppiSub_32f_C4R, 263
nppiSub_32fc_AC4IR, 263
nppiSub_32fc_AC4R, 264
nppiSub_32fc_C1IR, 264
nppiSub_32fc_C1R, 265
nppiSub_32fc_C3IR, 265
nppiSub_32fc_C3R, 265
nppiSub_32fc_C4IR, 266
nppiSub_32fc_C4R, 266
nppiSub_32s_C1IRSfs, 267
nppiSub_32s_C1R, 267
nppiSub_32s_C1RSfs, 267
nppiSub_32s_C3IRSfs, 268
nppiSub_32s_C3RSfs, 268
nppiSub_32s_C4IRSfs, 269
nppiSub_32s_C4RSfs, 269
nppiSub_32sc_AC4IRSfs, 270
nppiSub_32sc_AC4RSfs, 270
nppiSub_32sc_C1IRSfs, 270
nppiSub_32sc_C1RSfs, 271
nppiSub_32sc_C3IRSfs, 271
nppiSub_32sc_C3RSfs, 272
nppiSub_8u_AC4IRSfs, 272
nppiSub_8u_AC4RSfs, 272
nppiSub_8u_C1IRSfs, 273
nppiSub_8u_C1RSfs, 273
nppiSub_8u_C3IRSfs, 274
nppiSub_8u_C3RSfs, 274
nppiSub_8u_C4IRSfs, 274
nppiSub_8u_C4RSfs, 275

image_subc
nppiSubC_16s_AC4IRSfs, 119
nppiSubC_16s_AC4RSfs, 119
nppiSubC_16s_C1IRSfs, 119
nppiSubC_16s_C1RSfs, 120
nppiSubC_16s_C3IRSfs, 120
nppiSubC_16s_C3RSfs, 120
nppiSubC_16s_C4IRSfs, 121
nppiSubC_16s_C4RSfs, 121
nppiSubC_16sc_AC4IRSfs, 122
nppiSubC_16sc_AC4RSfs, 122
nppiSubC_16sc_C1IRSfs, 122
nppiSubC_16sc_C1RSfs, 123
nppiSubC_16sc_C3IRSfs, 123
nppiSubC_16sc_C3RSfs, 124
nppiSubC_16u_AC4IRSfs, 124
nppiSubC_16u_AC4RSfs, 124
nppiSubC_16u_C1IRSfs, 125
nppiSubC_16u_C1RSfs, 125
nppiSubC_16u_C3IRSfs, 126
nppiSubC_16u_C3RSfs, 126
nppiSubC_16u_C4IRSfs, 126
nppiSubC_16u_C4RSfs, 127
nppiSubC_32f_AC4IR, 127
nppiSubC_32f_AC4R, 127
nppiSubC_32f_C1IR, 128
nppiSubC_32f_C1R, 128
nppiSubC_32f_C3IR, 128
nppiSubC_32f_C3R, 129
nppiSubC_32f_C4IR, 129
nppiSubC_32f_C4R, 129
nppiSubC_32fc_AC4IR, 130
nppiSubC_32fc_AC4R, 130
nppiSubC_32fc_C1IR, 130
nppiSubC_32fc_C1R, 131
nppiSubC_32fc_C3IR, 131
nppiSubC_32fc_C3R, 131
nppiSubC_32fc_C4IR, 132
nppiSubC_32fc_C4R, 132
nppiSubC_32s_C1IRSfs, 133
nppiSubC_32s_C1RSfs, 133
nppiSubC_32s_C3IRSfs, 133
nppiSubC_32s_C3RSfs, 134
nppiSubC_32sc_AC4IRSfs, 134
nppiSubC_32sc_AC4RSfs, 134
nppiSubC_32sc_C1IRSfs, 135
nppiSubC_32sc_C1RSfs, 135
nppiSubC_32sc_C3IRSfs, 136
nppiSubC_32sc_C3RSfs, 136
nppiSubC_8u_AC4IRSfs, 136
nppiSubC_8u_AC4RSfs, 137
nppiSubC_8u_C1IRSfs, 137
nppiSubC_8u_C1RSfs, 138
nppiSubC_8u_C3IRSfs, 138
nppiSubC_8u_C3RSfs, 138
nppiSubC_8u_C4IRSfs, 139
nppiSubC_8u_C4RSfs, 139

image_sum
nppiSum_16s_AC4R, 1520
nppiSum_16s_C1R, 1520
nppiSum_16s_C3R, 1520
nppiSum_16s_C4R, 1521
nppiSum_16u_AC4R, 1521
nppiSum_16u_C1R, 1521
nppiSum_16u_C3R, 1522
nppiSum_16u_C4R, 1522

nppiSum_32f_AC4R, 1522
nppiSum_32f_C1R, 1523
nppiSum_32f_C3R, 1523
nppiSum_32f_C4R, 1523
nppiSum_8u64s_C1R, 1524
nppiSum_8u64s_C4R, 1524
nppiSum_8u_AC4R, 1525
nppiSum_8u_C1R, 1525
nppiSum_8u_C3R, 1525
nppiSum_8u_C4R, 1526
nppiSumGetBufferHostSize_16s_AC4R, 1526
nppiSumGetBufferHostSize_16s_C1R, 1526
nppiSumGetBufferHostSize_16s_C3R, 1527
nppiSumGetBufferHostSize_16s_C4R, 1527
nppiSumGetBufferHostSize_16u_AC4R, 1527
nppiSumGetBufferHostSize_16u_C1R, 1528
nppiSumGetBufferHostSize_16u_C3R, 1528
nppiSumGetBufferHostSize_16u_C4R, 1528
nppiSumGetBufferHostSize_32f_AC4R, 1528
nppiSumGetBufferHostSize_32f_C1R, 1529
nppiSumGetBufferHostSize_32f_C3R, 1529
nppiSumGetBufferHostSize_32f_C4R, 1529
nppiSumGetBufferHostSize_8u64s_C1R, 1530
nppiSumGetBufferHostSize_8u64s_C4R, 1530
nppiSumGetBufferHostSize_8u_AC4R, 1530
nppiSumGetBufferHostSize_8u_C1R, 1530
nppiSumGetBufferHostSize_8u_C3R, 1531
nppiSumGetBufferHostSize_8u_C4R, 1531
image_swap_channels
nppiSwapChannels_16s_AC4R, 939
nppiSwapChannels_16s_C3C4R, 939
nppiSwapChannels_16s_C3IR, 939
nppiSwapChannels_16s_C3R, 940
nppiSwapChannels_16s_C4C3R, 940
nppiSwapChannels_16s_C4IR, 941
nppiSwapChannels_16s_C4R, 941
nppiSwapChannels_16u_AC4R, 941
nppiSwapChannels_16u_C3C4R, 942
nppiSwapChannels_16u_C3IR, 942
nppiSwapChannels_16u_C3R, 943
nppiSwapChannels_16u_C4C3R, 943
nppiSwapChannels_16u_C4IR, 944
nppiSwapChannels_16u_C4R, 944
nppiSwapChannels_32f_AC4R, 944
nppiSwapChannels_32f_C3C4R, 945
nppiSwapChannels_32f_C3IR, 945
nppiSwapChannels_32f_C3R, 946
nppiSwapChannels_32f_C4C3R, 946
nppiSwapChannels_32f_C4IR, 947
nppiSwapChannels_32f_C4R, 947
nppiSwapChannels_32s_AC4R, 947
nppiSwapChannels_32s_C3C4R, 948
nppiSwapChannels_32s_C3IR, 948
nppiSwapChannels_32s_C3R, 949
nppiSwapChannels_32s_C4C3R, 949
nppiSwapChannels_32s_C4IR, 950
nppiSwapChannels_32s_C4R, 950
nppiSwapChannels_8u_AC4R, 950
nppiSwapChannels_8u_C3C4R, 951
nppiSwapChannels_8u_C3IR, 951
nppiSwapChannels_8u_C3R, 952
nppiSwapChannels_8u_C4C3R, 952
nppiSwapChannels_8u_C4IR, 953
nppiSwapChannels_8u_C4R, 953
image_threshold_operations
nppiThreshold_16s_AC4IR, 2202
nppiThreshold_16s_AC4R, 2202
nppiThreshold_16s_C1IR, 2203
nppiThreshold_16s_C1R, 2203
nppiThreshold_16s_C3IR, 2204
nppiThreshold_16s_C3R, 2204
nppiThreshold_16u_AC4IR, 2205
nppiThreshold_16u_AC4R, 2205
nppiThreshold_16u_C1IR, 2205
nppiThreshold_16u_C1R, 2206
nppiThreshold_16u_C3IR, 2206
nppiThreshold_16u_C3R, 2207
nppiThreshold_32f_AC4IR, 2207
nppiThreshold_32f_AC4R, 2208
nppiThreshold_32f_C1IR, 2208
nppiThreshold_32f_C1R, 2209
nppiThreshold_32f_C3IR, 2209
nppiThreshold_32f_C3R, 2209
nppiThreshold_8u_AC4IR, 2210
nppiThreshold_8u_AC4R, 2210
nppiThreshold_8u_C1IR, 2211
nppiThreshold_8u_C1R, 2211
nppiThreshold_8u_C3IR, 2212
nppiThreshold_8u_C3R, 2212
nppiThreshold_GT_16s_AC4IR, 2213
nppiThreshold_GT_16s_AC4R, 2213
nppiThreshold_GT_16s_C1IR, 2214
nppiThreshold_GT_16s_C1R, 2214
nppiThreshold_GT_16s_C3IR, 2214
nppiThreshold_GT_16s_C3R, 2215
nppiThreshold_GT_16u_AC4IR, 2215
nppiThreshold_GT_16u_AC4R, 2216
nppiThreshold_GT_16u_C1IR, 2216
nppiThreshold_GT_16u_C1R, 2216
nppiThreshold_GT_16u_C3IR, 2217
nppiThreshold_GT_16u_C3R, 2217
nppiThreshold_GT_32f_AC4IR, 2218
nppiThreshold_GT_32f_AC4R, 2218
nppiThreshold_GT_32f_C1IR, 2218
nppiThreshold_GT_32f_C1R, 2219
nppiThreshold_GT_32f_C3IR, 2219

nppiThreshold_GT_32f_C3R, 2220
nppiThreshold_GT_8u_AC4IR, 2220
nppiThreshold_GT_8u_AC4R, 2220
nppiThreshold_GT_8u_C1IR, 2221
nppiThreshold_GT_8u_C1R, 2221
nppiThreshold_GT_8u_C3IR, 2222
nppiThreshold_GT_8u_C3R, 2222
nppiThreshold_GTVal_16s_AC4IR, 2222
nppiThreshold_GTVal_16s_AC4R, 2223
nppiThreshold_GTVal_16s_C1IR, 2223
nppiThreshold_GTVal_16s_C1R, 2224
nppiThreshold_GTVal_16s_C3IR, 2224
nppiThreshold_GTVal_16s_C3R, 2224
nppiThreshold_GTVal_16u_AC4IR, 2225
nppiThreshold_GTVal_16u_AC4R, 2225
nppiThreshold_GTVal_16u_C1IR, 2226
nppiThreshold_GTVal_16u_C1R, 2226
nppiThreshold_GTVal_16u_C3IR, 2227
nppiThreshold_GTVal_16u_C3R, 2227
nppiThreshold_GTVal_32f_AC4IR, 2227
nppiThreshold_GTVal_32f_AC4R, 2228
nppiThreshold_GTVal_32f_C1IR, 2228
nppiThreshold_GTVal_32f_C1R, 2229
nppiThreshold_GTVal_32f_C3IR, 2229
nppiThreshold_GTVal_32f_C3R, 2229
nppiThreshold_GTVal_8u_AC4IR, 2230
nppiThreshold_GTVal_8u_AC4R, 2230
nppiThreshold_GTVal_8u_C1IR, 2231
nppiThreshold_GTVal_8u_C1R, 2231
nppiThreshold_GTVal_8u_C3IR, 2232
nppiThreshold_GTVal_8u_C3R, 2232
nppiThreshold_LT_16s_AC4IR, 2232
nppiThreshold_LT_16s_AC4R, 2233
nppiThreshold_LT_16s_C1IR, 2233
nppiThreshold_LT_16s_C1R, 2234
nppiThreshold_LT_16s_C3IR, 2234
nppiThreshold_LT_16s_C3R, 2234
nppiThreshold_LT_16u_AC4IR, 2235
nppiThreshold_LT_16u_AC4R, 2235
nppiThreshold_LT_16u_C1IR, 2236
nppiThreshold_LT_16u_C1R, 2236
nppiThreshold_LT_16u_C3IR, 2236
nppiThreshold_LT_16u_C3R, 2237
nppiThreshold_LT_32f_AC4IR, 2237
nppiThreshold_LT_32f_AC4R, 2238
nppiThreshold_LT_32f_C1IR, 2238
nppiThreshold_LT_32f_C1R, 2238
nppiThreshold_LT_32f_C3IR, 2239
nppiThreshold_LT_32f_C3R, 2239
nppiThreshold_LT_8u_AC4IR, 2240
nppiThreshold_LT_8u_AC4R, 2240
nppiThreshold_LT_8u_C1IR, 2240
nppiThreshold_LT_8u_C1R, 2241
nppiThreshold_LT_8u_C3IR, 2241
nppiThreshold_LT_8u_C3R, 2242
nppiThreshold_LTVal_16s_AC4IR, 2242
nppiThreshold_LTVal_16s_AC4R, 2242
nppiThreshold_LTVal_16s_C1IR, 2243
nppiThreshold_LTVal_16s_C1R, 2243
nppiThreshold_LTVal_16s_C3IR, 2244
nppiThreshold_LTVal_16s_C3R, 2244
nppiThreshold_LTVal_16u_AC4IR, 2245
nppiThreshold_LTVal_16u_AC4R, 2245
nppiThreshold_LTVal_16u_C1IR, 2245
nppiThreshold_LTVal_16u_C1R, 2246
nppiThreshold_LTVal_16u_C3IR, 2246
nppiThreshold_LTVal_16u_C3R, 2247
nppiThreshold_LTVal_32f_AC4IR, 2247
nppiThreshold_LTVal_32f_AC4R, 2247
nppiThreshold_LTVal_32f_C1IR, 2248
nppiThreshold_LTVal_32f_C1R, 2248
nppiThreshold_LTVal_32f_C3IR, 2249
nppiThreshold_LTVal_32f_C3R, 2249
nppiThreshold_LTVal_8u_AC4IR, 2250
nppiThreshold_LTVal_8u_AC4R, 2250
nppiThreshold_LTVal_8u_C1IR, 2250
nppiThreshold_LTVal_8u_C1R, 2251
nppiThreshold_LTVal_8u_C3IR, 2251
nppiThreshold_LTVal_8u_C3R, 2252
nppiThreshold_LTValGTVal_16s_AC4IR, 2252
nppiThreshold_LTValGTVal_16s_AC4R, 2253
nppiThreshold_LTValGTVal_16s_C1IR, 2253
nppiThreshold_LTValGTVal_16s_C1R, 2254
nppiThreshold_LTValGTVal_16s_C3IR, 2254
nppiThreshold_LTValGTVal_16s_C3R, 2255
nppiThreshold_LTValGTVal_16u_AC4IR, 2255
nppiThreshold_LTValGTVal_16u_AC4R, 2256
nppiThreshold_LTValGTVal_16u_C1IR, 2256
nppiThreshold_LTValGTVal_16u_C1R, 2257
nppiThreshold_LTValGTVal_16u_C3IR, 2257
nppiThreshold_LTValGTVal_16u_C3R, 2258
nppiThreshold_LTValGTVal_32f_AC4IR, 2258
nppiThreshold_LTValGTVal_32f_AC4R, 2259
nppiThreshold_LTValGTVal_32f_C1IR, 2259
nppiThreshold_LTValGTVal_32f_C1R, 2260
nppiThreshold_LTValGTVal_32f_C3IR, 2260
nppiThreshold_LTValGTVal_32f_C3R, 2261
nppiThreshold_LTValGTVal_8u_AC4IR, 2261
nppiThreshold_LTValGTVal_8u_AC4R, 2262
nppiThreshold_LTValGTVal_8u_C1IR, 2262
nppiThreshold_LTValGTVal_8u_C1R, 2263

- nppiThreshold_LTValGTVal_8u_C3IR, 2263
- nppiThreshold_LTValGTVal_8u_C3R, 2264
- nppiThreshold_Val_16s_AC4IR, 2264
- nppiThreshold_Val_16s_AC4R, 2265
- nppiThreshold_Val_16s_C1IR, 2265
- nppiThreshold_Val_16s_C1R, 2266
- nppiThreshold_Val_16s_C3IR, 2266
- nppiThreshold_Val_16s_C3R, 2267
- nppiThreshold_Val_16u_AC4IR, 2267
- nppiThreshold_Val_16u_AC4R, 2268
- nppiThreshold_Val_16u_C1IR, 2268
- nppiThreshold_Val_16u_C1R, 2269
- nppiThreshold_Val_16u_C3IR, 2269
- nppiThreshold_Val_16u_C3R, 2270
- nppiThreshold_Val_32f_AC4IR, 2270
- nppiThreshold_Val_32f_AC4R, 2271
- nppiThreshold_Val_32f_C1IR, 2271
- nppiThreshold_Val_32f_C1R, 2272
- nppiThreshold_Val_32f_C3IR, 2272
- nppiThreshold_Val_32f_C3R, 2273
- nppiThreshold_Val_8u_AC4IR, 2273
- nppiThreshold_Val_8u_AC4R, 2274
- nppiThreshold_Val_8u_C1IR, 2274
- nppiThreshold_Val_8u_C1R, 2275
- nppiThreshold_Val_8u_C3IR, 2275
- nppiThreshold_Val_8u_C3R, 2276

image_transpose
- nppiTranspose_16s_C1R, 930
- nppiTranspose_16s_C3R, 930
- nppiTranspose_16s_C4R, 931
- nppiTranspose_16u_C1R, 931
- nppiTranspose_16u_C3R, 931
- nppiTranspose_16u_C4R, 932
- nppiTranspose_32f_C1R, 932
- nppiTranspose_32f_C3R, 932
- nppiTranspose_32f_C4R, 933
- nppiTranspose_32s_C1R, 933
- nppiTranspose_32s_C3R, 933
- nppiTranspose_32s_C4R, 934
- nppiTranspose_8u_C1R, 934
- nppiTranspose_8u_C3R, 934
- nppiTranspose_8u_C4R, 935

image_xor
- nppiXor_16u_AC4IR, 458
- nppiXor_16u_AC4R, 458
- nppiXor_16u_C1IR, 458
- nppiXor_16u_C1R, 459
- nppiXor_16u_C3IR, 459
- nppiXor_16u_C3R, 459
- nppiXor_16u_C4IR, 460
- nppiXor_16u_C4R, 460
- nppiXor_32s_AC4IR, 461
- nppiXor_32s_AC4R, 461
- nppiXor_32s_C1IR, 461
- nppiXor_32s_C1R, 462
- nppiXor_32s_C3IR, 462
- nppiXor_32s_C3R, 462
- nppiXor_32s_C4IR, 463
- nppiXor_32s_C4R, 463
- nppiXor_8u_AC4IR, 464
- nppiXor_8u_AC4R, 464
- nppiXor_8u_C1IR, 464
- nppiXor_8u_C1R, 465
- nppiXor_8u_C3IR, 465
- nppiXor_8u_C3R, 465
- nppiXor_8u_C4IR, 466
- nppiXor_8u_C4R, 466

image_xorc
- nppiXorC_16u_AC4IR, 395
- nppiXorC_16u_AC4R, 395
- nppiXorC_16u_C1IR, 395
- nppiXorC_16u_C1R, 396
- nppiXorC_16u_C3IR, 396
- nppiXorC_16u_C3R, 396
- nppiXorC_16u_C4IR, 397
- nppiXorC_16u_C4R, 397
- nppiXorC_32s_AC4IR, 397
- nppiXorC_32s_AC4R, 398
- nppiXorC_32s_C1IR, 398
- nppiXorC_32s_C1R, 398
- nppiXorC_32s_C3IR, 399
- nppiXorC_32s_C3R, 399
- nppiXorC_32s_C4IR, 399
- nppiXorC_32s_C4R, 400
- nppiXorC_8u_AC4IR, 400
- nppiXorC_8u_AC4R, 400
- nppiXorC_8u_C1IR, 401
- nppiXorC_8u_C1R, 401
- nppiXorC_8u_C3IR, 401
- nppiXorC_8u_C3R, 402
- nppiXorC_8u_C4IR, 402
- nppiXorC_8u_C4R, 402

Infinity Norm, 2571

Infinity Norm Diff, 2588

Initialization, 2500

Integral, 1903, 2499

L1 Norm, 2576

L1 Norm Diff, 2593

L2 Norm, 2582

L2 Norm Diff, 2599

Labeling and Segmentation, 724

Linear Transforms, 1390

Ln, 356, 2423

Logical And Shift Operations, 2439

Logical Operations, 370

LShiftC, 421, 2461

major
NppLibraryVersion, 2690
Malloc, 2675
Max, 1559
MaxEvery, 1889
Maximum, 2526
MaximumError, 2081, 2628
MaximumRelativeError, 2127, 2650
MaxIndx, 1572
Mean, 1617, 2546
Mean And Standard Deviation, 2555
Mean_StdDev, 1638
Memory Management, 2175, 2674
Min, 1532
MinEvery, 1896
MinEvery And MaxEvery Functions, 2515
Minimum, 2536
Minimum_Maximum, 2559
MinIndx, 1545
MinMax, 1586
MinMaxIndx, 1600
minor
NppLibraryVersion, 2690
Mirror, 1277
Morphological Operations, 1393
Mul, 208, 2367
MulC, 81, 2314
MulCScale, 107
MulScale, 237

Norm_Inf, 1656
Norm_L1, 1678
Norm_L2, 1699
Normalize, 2434
NormDiff_Inf, 1720
NormDiff_L1, 1743
NormDiff_L2, 1766
NormRel_Inf, 1789
NormRel_L1, 1812
NormRel_L2, 1835
Not, 468, 2458
NPP Core, 31
NPP Image Processing, 51
NPP Signal Processing, 2300
NPP Type Definitions and Constants, 34
Npp16s
npp_basic_types, 48
Npp16sc
npp_basic_types, 50
Npp16u
npp_basic_types, 48
Npp16uc
npp_basic_types, 50
Npp32f
npp_basic_types, 48
Npp32fc
npp_basic_types, 48
Npp32s
npp_basic_types, 48
Npp32sc
npp_basic_types, 48
Npp32u
npp_basic_types, 49
Npp32uc
npp_basic_types, 49
Npp64f
npp_basic_types, 49
Npp64fc
npp_basic_types, 49
Npp64s
npp_basic_types, 49
Npp64sc
npp_basic_types, 49
Npp64u
npp_basic_types, 49
Npp8s
npp_basic_types, 49
Npp8u
npp_basic_types, 49
Npp8uc
npp_basic_types, 50
NPP_AFFINE_QUAD_INCORRECT_WARNING
typedefs_npp, 46
NPP_ALG_HINT_ACCURATE
typedefs_npp, 41
NPP_ALG_HINT_FAST
typedefs_npp, 41
NPP_ALG_HINT_NONE
typedefs_npp, 41
NPP_ALIGNMENT_ERROR
typedefs_npp, 44
NPP_ANCHOR_ERROR
typedefs_npp, 45
NPP_BAD_ARGUMENT_ERROR
typedefs_npp, 45
NPP_BORDER_CONSTANT
typedefs_npp, 42
NPP_BORDER_NONE
typedefs_npp, 42
NPP_BORDER_REPLICATE
typedefs_npp, 42
NPP_BORDER_UNDEFINED
typedefs_npp, 42
NPP_BORDER_WRAP
typedefs_npp, 42
NPP_BOTH_AXIS
typedefs_npp, 42
NPP_CHANNEL_ERROR

typedefs_npp, 45
NPP_CHANNEL_ORDER_ERROR
typedefs_npp, 45
NPP_CMP_EQ
typedefs_npp, 41
NPP_CMP_GREATER
typedefs_npp, 41
NPP_CMP_GREATER_EQ
typedefs_npp, 41
NPP_CMP_LESS
typedefs_npp, 41
NPP_CMP_LESS_EQ
typedefs_npp, 41
NPP_COEFFICIENT_ERROR
typedefs_npp, 45
NPP_COI_ERROR
typedefs_npp, 45
NPP_CONTEXT_MATCH_ERROR
typedefs_npp, 45
NPP_CUDA_1_0
typedefs_npp, 41
NPP_CUDA_1_1
typedefs_npp, 41
NPP_CUDA_1_2
typedefs_npp, 41
NPP_CUDA_1_3
typedefs_npp, 41
NPP_CUDA_2_0
typedefs_npp, 41
NPP_CUDA_2_1
typedefs_npp, 41
NPP_CUDA_3_0
typedefs_npp, 41
NPP_CUDA_3_2
typedefs_npp, 41
NPP_CUDA_3_5
typedefs_npp, 41
NPP_CUDA_5_0
typedefs_npp, 41
NPP_CUDA_KERNEL_EXECUTION_ERROR
typedefs_npp, 44
NPP_CUDA_NOT_CAPABLE
typedefs_npp, 41
NPP_CUDA_UNKNOWN_VERSION
typedefs_npp, 41
NPP_DATA_TYPE_ERROR
typedefs_npp, 45
NPP_DIVIDE_BY_ZERO_ERROR
typedefs_npp, 45
NPP_DIVIDE_BY_ZERO_WARNING
typedefs_npp, 46
NPP_DIVISOR_ERROR
typedefs_npp, 45
NPP_DOUBLE_SIZE_WARNING
typedefs_npp, 46
NPP_ERROR
typedefs_npp, 45
NPP_ERROR_RESERVED
typedefs_npp, 45
NPP_FFT_FLAG_ERROR
typedefs_npp, 45
NPP_FFT_ORDER_ERROR
typedefs_npp, 45
NPP_HAAR_CLASSIFIER_PIXEL_MATCH_-ERROR
typedefs_npp, 44
NPP_HISTOGRAM_NUMBER_OF_LEVELS_-ERROR
typedefs_npp, 45
NPP_HORIZONTAL_AXIS
typedefs_npp, 42
NPP_INTERPOLATION_ERROR
typedefs_npp, 45
NPP_INVALID_DEVICE_POINTER_ERROR
typedefs_npp, 44
NPP_INVALID_HOST_POINTER_ERROR
typedefs_npp, 44
NPP_LUT_NUMBER_OF_LEVELS_ERROR
typedefs_npp, 45
NPP_LUT_PALETTE_BITSIZE_ERROR
typedefs_npp, 44
NPP_MASK_SIZE_1_X_3
typedefs_npp, 43
NPP_MASK_SIZE_1_X_5
typedefs_npp, 43
NPP_MASK_SIZE_3_X_1
typedefs_npp, 43
NPP_MASK_SIZE_3_X_3
typedefs_npp, 43
NPP_MASK_SIZE_5_X_1
typedefs_npp, 43
NPP_MASK_SIZE_5_X_5
typedefs_npp, 43
NPP_MASK_SIZE_ERROR
typedefs_npp, 45
NPP_MEMCPY_ERROR
typedefs_npp, 44
NPP_MEMFREE_ERROR
typedefs_npp, 44
NPP_MEMORY_ALLOCATION_ERR
typedefs_npp, 45
NPP_MEMSET_ERROR
typedefs_npp, 44
NPP_MIRROR_FLIP_ERROR
typedefs_npp, 45
NPP_MISALIGNED_DST_ROI_WARNING
typedefs_npp, 46
NPP_MOMENT_00_ZERO_ERROR

typedefs_npp, 45
NPP_NO_ERROR
typedefs_npp, 46
NPP_NO_MEMORY_ERROR
typedefs_npp, 45
NPP_NO_OPERATION_WARNING
typedefs_npp, 46
NPP_NOT_EVEN_STEP_ERROR
typedefs_npp, 45
NPP_NOT_IMPLEMENTED_ERROR
typedefs_npp, 45
NPP_NOT_SUFFICIENT_COMPUTE_CAPABILITY
typedefs_npp, 44
NPP_NOT_SUPPORTED_MODE_ERROR
typedefs_npp, 44
NPP_NULL_POINTER_ERROR
typedefs_npp, 45
NPP_NUMBER_OF_CHANNELS_ERROR
typedefs_npp, 45
NPP_OUT_OFF_RANGE_ERROR
typedefs_npp, 45
NPP_OVERFLOW_ERROR
typedefs_npp, 45
NPP_QUADRANGLE_ERROR
typedefs_npp, 45
NPP_QUALITY_INDEX_ERROR
typedefs_npp, 44
NPP_RANGE_ERROR
typedefs_npp, 45
NPP_RECTANGLE_ERROR
typedefs_npp, 45
NPP_RESIZE_FACTOR_ERROR
typedefs_npp, 45
NPP_RESIZE_NO_OPERATION_ERROR
typedefs_npp, 44
NPP_RND_FINANCIAL
typedefs_npp, 44
NPP_RND_NEAR
typedefs_npp, 43
NPP_RND_ZERO
typedefs_npp, 44
NPP_ROUND_MODE_NOT_SUPPORTED_ERROR
typedefs_npp, 44
NPP_ROUND_NEAREST_TIES_AWAY_FROM_ZERO
typedefs_npp, 44
NPP_ROUND_NEAREST_TIES_TO_EVEN
typedefs_npp, 44
NPP_ROUND_TOWARD_ZERO
typedefs_npp, 44
NPP_SCALE_RANGE_ERROR
typedefs_npp, 45
NPP_SIZE_ERROR
typedefs_npp, 45
NPP_STEP_ERROR
typedefs_npp, 45
NPP_STRIDE_ERROR
typedefs_npp, 45
NPP_SUCCESS
typedefs_npp, 46
NPP_TEXTURE_BIND_ERROR
typedefs_npp, 44
NPP_THRESHOLD_ERROR
typedefs_npp, 45
NPP_THRESHOLD_NEGATIVE_LEVEL_ERROR
typedefs_npp, 45
NPP_VERTICAL_AXIS
typedefs_npp, 42
NPP_WRONG_INTERSECTION_QUAD_WARNING
typedefs_npp, 46
NPP_WRONG_INTERSECTION_ROI_ERROR
typedefs_npp, 44
NPP_WRONG_INTERSECTION_ROI_WARNING
typedefs_npp, 46
NPP_ZC_MODE_NOT_SUPPORTED_ERROR
typedefs_npp, 44
NPP_ZERO_MASK_VALUE_ERROR
typedefs_npp, 45
NPP_ALIGN_16, 2681
im, 2681
re, 2682
NPP_ALIGN_8, 2683
im, 2683
re, 2683, 2684
npp_basic_types
__align__, 49, 50
Npp16s, 48
Npp16sc, 50
Npp16u, 48
Npp16uc, 50
Npp32f, 48
Npp32fc, 48
Npp32s, 48
Npp32sc, 48
Npp32u, 49
Npp32uc, 49
Npp64f, 49
Npp64fc, 49
Npp64s, 49
Npp64sc, 49
Npp64u, 49
Npp8s, 49
Npp8u, 49

Npp8uc, 50
NPP_MAX_16S
typedefs_npp, 39
NPP_MAX_16U
typedefs_npp, 39
NPP_MAX_32S
typedefs_npp, 39
NPP_MAX_32U
typedefs_npp, 39
NPP_MAX_64S
typedefs_npp, 39
NPP_MAX_64U
typedefs_npp, 39
NPP_MAX_8S
typedefs_npp, 39
NPP_MAX_8U
typedefs_npp, 40
NPP_MAXABS_32F
typedefs_npp, 40
NPP_MAXABS_64F
typedefs_npp, 40
NPP_MIN_16S
typedefs_npp, 40
NPP_MIN_16U
typedefs_npp, 40
NPP_MIN_32S
typedefs_npp, 40
NPP_MIN_32U
typedefs_npp, 40
NPP_MIN_64S
typedefs_npp, 40
NPP_MIN_64U
typedefs_npp, 40
NPP_MIN_8S
typedefs_npp, 40
NPP_MIN_8U
typedefs_npp, 40
NPP_MINABS_32F
typedefs_npp, 41
NPP_MINABS_64F
typedefs_npp, 41
NppCmpOp
typedefs_npp, 41
nppGetGpuComputeCapability
core_npp, 32
nppGetGpuName
core_npp, 32
nppGetGpuNumSMs
core_npp, 32
nppGetLibVersion
core_npp, 32
nppGetMaxThreadsPerBlock
core_npp, 32
nppGetMaxThreadsPerSM
core_npp, 32
nppGetStream
core_npp, 33
NppGpuComputeCapability
typedefs_npp, 41
NppHintAlgorithm
typedefs_npp, 41
NPPI_INTER_CUBIC
typedefs_npp, 43
NPPI_INTER_CUBIC2P_B05C03
typedefs_npp, 43
NPPI_INTER_CUBIC2P_BSPLINE
typedefs_npp, 43
NPPI_INTER_CUBIC2P_CATMULLROM
typedefs_npp, 43
NPPI_INTER_LANCZOS
typedefs_npp, 43
NPPI_INTER_LINEAR
typedefs_npp, 43
NPPI_INTER_NN
typedefs_npp, 43
NPPI_INTER_SUPER
typedefs_npp, 43
NPPI_INTER_UNDEFINED
typedefs_npp, 43
NPPI_OP_ALPHA_ATOP
typedefs_npp, 42
NPPI_OP_ALPHA_ATOP_PREMUL
typedefs_npp, 42
NPPI_OP_ALPHA_IN
typedefs_npp, 42
NPPI_OP_ALPHA_IN_PREMUL
typedefs_npp, 42
NPPI_OP_ALPHA_OUT
typedefs_npp, 42
NPPI_OP_ALPHA_OUT_PREMUL
typedefs_npp, 42
NPPI_OP_ALPHA_OVER
typedefs_npp, 42
NPPI_OP_ALPHA_OVER_PREMUL
typedefs_npp, 42
NPPI_OP_ALPHA_PLUS
typedefs_npp, 42
NPPI_OP_ALPHA_PLUS_PREMUL
typedefs_npp, 42
NPPI_OP_ALPHA_PREMUL
typedefs_npp, 42
NPPI_OP_ALPHA_XOR
typedefs_npp, 42
NPPI_OP_ALPHA_XOR_PREMUL
typedefs_npp, 42
NPPI_SMOOTH_EDGE
typedefs_npp, 43
nppiAbs_16s_AC4IR

image_abs, 321
nppiAbs_16s_AC4R
image_abs, 321
nppiAbs_16s_C1IR
image_abs, 321
nppiAbs_16s_C1R
image_abs, 322
nppiAbs_16s_C3IR
image_abs, 322
nppiAbs_16s_C3R
image_abs, 322
nppiAbs_16s_C4IR
image_abs, 323
nppiAbs_16s_C4R
image_abs, 323
nppiAbs_32f_AC4IR
image_abs, 323
nppiAbs_32f_AC4R
image_abs, 324
nppiAbs_32f_C1IR
image_abs, 324
nppiAbs_32f_C1R
image_abs, 324
nppiAbs_32f_C3IR
image_abs, 325
nppiAbs_32f_C3R
image_abs, 325
nppiAbs_32f_C4IR
image_abs, 325
nppiAbs_32f_C4R
image_abs, 326
nppiAbsDiff_16u_C1R
image_absdiff, 327
nppiAbsDiff_32f_C1R
image_absdiff, 328
nppiAbsDiff_8u_C1R
image_absdiff, 328
nppiAbsDiff_8u_C3R
image_absdiff, 328
nppiAbsDiff_8u_C4R
image_absdiff, 329
nppiAbsDiffC_16u_C1R
image_absdiffc, 166
nppiAbsDiffC_32f_C1R
image_absdiffc, 166
nppiAbsDiffC_8u_C1R
image_absdiffc, 167
nppiACTable
typedefs_npp, 42
nppiAdd_16s_AC4IRSfs
image_add, 173
nppiAdd_16s_AC4RSfs
image_add, 173
nppiAdd_16s_C1IRSfs
image_add, 174
nppiAdd_16s_C1RSfs
image_add, 174
nppiAdd_16s_C3IRSfs
image_add, 175
nppiAdd_16s_C3RSfs
image_add, 175
nppiAdd_16s_C4IRSfs
image_add, 175
nppiAdd_16s_C4RSfs
image_add, 176
nppiAdd_16sc_AC4IRSfs
image_add, 176
nppiAdd_16sc_AC4RSfs
image_add, 177
nppiAdd_16sc_C1IRSfs
image_add, 177
nppiAdd_16sc_C1RSfs
image_add, 177
nppiAdd_16sc_C3IRSfs
image_add, 178
nppiAdd_16sc_C3RSfs
image_add, 178
nppiAdd_16u_AC4IRSfs
image_add, 179
nppiAdd_16u_AC4RSfs
image_add, 179
nppiAdd_16u_C1IRSfs
image_add, 180
nppiAdd_16u_C1RSfs
image_add, 180
nppiAdd_16u_C3IRSfs
image_add, 180
nppiAdd_16u_C3RSfs
image_add, 181
nppiAdd_16u_C4IRSfs
image_add, 181
nppiAdd_16u_C4RSfs
image_add, 182
nppiAdd_32f_AC4IR
image_add, 182
nppiAdd_32f_AC4R
image_add, 182
nppiAdd_32f_C1IR
image_add, 183
nppiAdd_32f_C1R
image_add, 183
nppiAdd_32f_C3IR
image_add, 184
nppiAdd_32f_C3R
image_add, 184
nppiAdd_32f_C4IR
image_add, 184
nppiAdd_32f_C4R

image_add, 185
nppiAdd_32fc_AC4IR
image_add, 185
nppiAdd_32fc_AC4R
image_add, 185
nppiAdd_32fc_C1IR
image_add, 186
nppiAdd_32fc_C1R
image_add, 186
nppiAdd_32fc_C3IR
image_add, 187
nppiAdd_32fc_C3R
image_add, 187
nppiAdd_32fc_C4IR
image_add, 187
nppiAdd_32fc_C4R
image_add, 188
nppiAdd_32s_C1IRSfs
image_add, 188
nppiAdd_32s_C1R
image_add, 189
nppiAdd_32s_C1RSfs
image_add, 189
nppiAdd_32s_C3IRSfs
image_add, 189
nppiAdd_32s_C3RSfs
image_add, 190
nppiAdd_32sc_AC4IRSfs
image_add, 190
nppiAdd_32sc_AC4RSfs
image_add, 191
nppiAdd_32sc_C1IRSfs
image_add, 191
nppiAdd_32sc_C1RSfs
image_add, 191
nppiAdd_32sc_C3IRSfs
image_add, 192
nppiAdd_32sc_C3RSfs
image_add, 192
nppiAdd_8u_AC4IRSfs
image_add, 193
nppiAdd_8u_AC4RSfs
image_add, 193
nppiAdd_8u_C1IRSfs
image_add, 194
nppiAdd_8u_C1RSfs
image_add, 194
nppiAdd_8u_C3IRSfs
image_add, 194
nppiAdd_8u_C3RSfs
image_add, 195
nppiAdd_8u_C4IRSfs
image_add, 195
nppiAdd_8u_C4RSfs
image_add, 196
nppiAddC_16s_AC4IRSfs
image_addc, 60
nppiAddC_16s_AC4RSfs
image_addc, 60
nppiAddC_16s_C1IRSfs
image_addc, 60
nppiAddC_16s_C1RSfs
image_addc, 61
nppiAddC_16s_C3IRSfs
image_addc, 61
nppiAddC_16s_C3RSfs
image_addc, 61
nppiAddC_16s_C4IRSfs
image_addc, 62
nppiAddC_16s_C4RSfs
image_addc, 62
nppiAddC_16sc_AC4IRSfs
image_addc, 63
nppiAddC_16sc_AC4RSfs
image_addc, 63
nppiAddC_16sc_C1IRSfs
image_addc, 63
nppiAddC_16sc_C1RSfs
image_addc, 64
nppiAddC_16sc_C3IRSfs
image_addc, 64
nppiAddC_16sc_C3RSfs
image_addc, 65
nppiAddC_16u_AC4IRSfs
image_addc, 65
nppiAddC_16u_AC4RSfs
image_addc, 65
nppiAddC_16u_C1IRSfs
image_addc, 66
nppiAddC_16u_C1RSfs
image_addc, 66
nppiAddC_16u_C3IRSfs
image_addc, 67
nppiAddC_16u_C3RSfs
image_addc, 67
nppiAddC_16u_C4IRSfs
image_addc, 67
nppiAddC_16u_C4RSfs
image_addc, 68
nppiAddC_32f_AC4IR
image_addc, 68
nppiAddC_32f_AC4R
image_addc, 68
nppiAddC_32f_C1IR
image_addc, 69
nppiAddC_32f_C1R
image_addc, 69
nppiAddC_32f_C3IR

image_addc, 69
nppiAddC_32f_C3R
image_addc, 70
nppiAddC_32f_C4IR
image_addc, 70
nppiAddC_32f_C4R
image_addc, 70
nppiAddC_32fc_AC4IR
image_addc, 71
nppiAddC_32fc_AC4R
image_addc, 71
nppiAddC_32fc_C1IR
image_addc, 71
nppiAddC_32fc_C1R
image_addc, 72
nppiAddC_32fc_C3IR
image_addc, 72
nppiAddC_32fc_C3R
image_addc, 72
nppiAddC_32fc_C4IR
image_addc, 73
nppiAddC_32fc_C4R
image_addc, 73
nppiAddC_32s_C1IRSfs
image_addc, 74
nppiAddC_32s_C1RSfs
image_addc, 74
nppiAddC_32s_C3IRSfs
image_addc, 74
nppiAddC_32s_C3RSfs
image_addc, 75
nppiAddC_32sc_AC4IRSfs
image_addc, 75
nppiAddC_32sc_AC4RSfs
image_addc, 75
nppiAddC_32sc_C1IRSfs
image_addc, 76
nppiAddC_32sc_C1RSfs
image_addc, 76
nppiAddC_32sc_C3IRSfs
image_addc, 77
nppiAddC_32sc_C3RSfs
image_addc, 77
nppiAddC_8u_AC4IRSfs
image_addc, 77
nppiAddC_8u_AC4RSfs
image_addc, 78
nppiAddC_8u_C1IRSfs
image_addc, 78
nppiAddC_8u_C1RSfs
image_addc, 79
nppiAddC_8u_C3IRSfs
image_addc, 79
nppiAddC_8u_C3RSfs
image_addc, 79
nppiAddC_8u_C4IRSfs
image_addc, 80
nppiAddC_8u_C4RSfs
image_addc, 80
nppiAddProduct_16u32f_C1IMR
image_addproduct, 200
nppiAddProduct_16u32f_C1IR
image_addproduct, 201
nppiAddProduct_32f_C1IMR
image_addproduct, 201
nppiAddProduct_32f_C1IR
image_addproduct, 202
nppiAddProduct_8u32f_C1IMR
image_addproduct, 202
nppiAddProduct_8u32f_C1IR
image_addproduct, 202
nppiAddSquare_16u32f_C1IMR
image_addsquare, 197
nppiAddSquare_16u32f_C1IR
image_addsquare, 198
nppiAddSquare_32f_C1IMR
image_addsquare, 198
nppiAddSquare_32f_C1IR
image_addsquare, 198
nppiAddSquare_8u32f_C1IMR
image_addsquare, 199
nppiAddSquare_8u32f_C1IR
image_addsquare, 199
nppiAddWeighted_16u32f_C1IMR
image_addweighted, 204
nppiAddWeighted_16u32f_C1IR
image_addweighted, 205
nppiAddWeighted_32f_C1IMR
image_addweighted, 205
nppiAddWeighted_32f_C1IR
image_addweighted, 206
nppiAddWeighted_8u32f_C1IMR
image_addweighted, 206
nppiAddWeighted_8u32f_C1IR
image_addweighted, 206
nppiAlphaComp_16s_AC1R
image_alphacomp, 489
nppiAlphaComp_16u_AC1R
image_alphacomp, 489
nppiAlphaComp_16u_AC4R
image_alphacomp, 490
nppiAlphaComp_32f_AC1R
image_alphacomp, 490
nppiAlphaComp_32f_AC4R
image_alphacomp, 491
nppiAlphaComp_32s_AC1R
image_alphacomp, 491
nppiAlphaComp_32s_AC4R

image_alphacomp, 491
nppiAlphaComp_32u_AC1R
image_alphacomp, 492
nppiAlphaComp_32u_AC4R
image_alphacomp, 492
nppiAlphaComp_8s_AC1R
image_alphacomp, 493
nppiAlphaComp_8u_AC1R
image_alphacomp, 493
nppiAlphaComp_8u_AC4R
image_alphacomp, 494
nppiAlphaCompC_16s_C1R
image_alphacompc, 474
nppiAlphaCompC_16u_AC4R
image_alphacompc, 474
nppiAlphaCompC_16u_C1R
image_alphacompc, 475
nppiAlphaCompC_16u_C3R
image_alphacompc, 475
nppiAlphaCompC_16u_C4R
image_alphacompc, 476
nppiAlphaCompC_32f_C1R
image_alphacompc, 476
nppiAlphaCompC_32s_C1R
image_alphacompc, 477
nppiAlphaCompC_32u_C1R
image_alphacompc, 477
nppiAlphaCompC_8s_C1R
image_alphacompc, 478
nppiAlphaCompC_8u_AC4R
image_alphacompc, 478
nppiAlphaCompC_8u_C1R
image_alphacompc, 479
nppiAlphaCompC_8u_C3R
image_alphacompc, 479
nppiAlphaCompC_8u_C4R
image_alphacompc, 480
nppiAlphaCompColorKey_8u_AC4R
image_complement_color_key, 614
NppiAlphaOp
typedefs_npp, 41
nppiAlphaPremul_16u_AC4IR
image_alphapremul, 495
nppiAlphaPremul_16u_AC4R
image_alphapremul, 495
nppiAlphaPremul_8u_AC4IR
image_alphapremul, 496
nppiAlphaPremul_8u_AC4R
image_alphapremul, 496
nppiAlphaPremulC_16u_AC4IR
image_alphapremulc, 482
nppiAlphaPremulC_16u_AC4R
image_alphapremulc, 482
nppiAlphaPremulC_16u_C1IR
image_alphapremulc, 483
nppiAlphaPremulC_16u_C1R
image_alphapremulc, 483
nppiAlphaPremulC_16u_C3IR
image_alphapremulc, 483
nppiAlphaPremulC_16u_C3R
image_alphapremulc, 484
nppiAlphaPremulC_16u_C4IR
image_alphapremulc, 484
nppiAlphaPremulC_16u_C4R
image_alphapremulc, 484
nppiAlphaPremulC_8u_AC4IR
image_alphapremulc, 485
nppiAlphaPremulC_8u_AC4R
image_alphapremulc, 485
nppiAlphaPremulC_8u_C1IR
image_alphapremulc, 485
nppiAlphaPremulC_8u_C1R
image_alphapremulc, 486
nppiAlphaPremulC_8u_C3IR
image_alphapremulc, 486
nppiAlphaPremulC_8u_C3R
image_alphapremulc, 486
nppiAlphaPremulC_8u_C4IR
image_alphapremulc, 487
nppiAlphaPremulC_8u_C4R
image_alphapremulc, 487
nppiAnd_16u_AC4IR
image_and, 434
nppiAnd_16u_AC4R
image_and, 434
nppiAnd_16u_C1IR
image_and, 434
nppiAnd_16u_C1R
image_and, 435
nppiAnd_16u_C3IR
image_and, 435
nppiAnd_16u_C3R
image_and, 435
nppiAnd_16u_C4IR
image_and, 436
nppiAnd_16u_C4R
image_and, 436
nppiAnd_32s_AC4IR
image_and, 437
nppiAnd_32s_AC4R
image_and, 437
nppiAnd_32s_C1IR
image_and, 437
nppiAnd_32s_C1R
image_and, 438
nppiAnd_32s_C3IR
image_and, 438
nppiAnd_32s_C3R

image_and, 438
nppiAnd_32s_C4IR
image_and, 439
nppiAnd_32s_C4R
image_and, 439
nppiAnd_8u_AC4IR
image_and, 440
nppiAnd_8u_AC4R
image_and, 440
nppiAnd_8u_C1IR
image_and, 440
nppiAnd_8u_C1R
image_and, 441
nppiAnd_8u_C3IR
image_and, 441
nppiAnd_8u_C3R
image_and, 441
nppiAnd_8u_C4IR
image_and, 442
nppiAnd_8u_C4R
image_and, 442
nppiAndC_16u_AC4IR
image_andc, 373
nppiAndC_16u_AC4R
image_andc, 373
nppiAndC_16u_C1IR
image_andc, 373
nppiAndC_16u_C1R
image_andc, 374
nppiAndC_16u_C3IR
image_andc, 374
nppiAndC_16u_C3R
image_andc, 374
nppiAndC_16u_C4IR
image_andc, 375
nppiAndC_16u_C4R
image_andc, 375
nppiAndC_32s_AC4IR
image_andc, 375
nppiAndC_32s_AC4R
image_andc, 376
nppiAndC_32s_C1IR
image_andc, 376
nppiAndC_32s_C1R
image_andc, 376
nppiAndC_32s_C3IR
image_andc, 377
nppiAndC_32s_C3R
image_andc, 377
nppiAndC_32s_C4IR
image_andc, 377
nppiAndC_32s_C4R
image_andc, 378
nppiAndC_8u_AC4IR
image_andc, 378
nppiAndC_8u_AC4R
image_andc, 378
nppiAndC_8u_C1IR
image_andc, 379
nppiAndC_8u_C1R
image_andc, 379
nppiAndC_8u_C3IR
image_andc, 379
nppiAndC_8u_C3R
image_andc, 380
nppiAndC_8u_C4IR
image_andc, 380
nppiAndC_8u_C4R
image_andc, 380
nppiAverageError_16s_C1R
image_average_error, 2107
nppiAverageError_16s_C2R
image_average_error, 2108
nppiAverageError_16s_C3R
image_average_error, 2108
nppiAverageError_16s_C4R
image_average_error, 2109
nppiAverageError_16sc_C1R
image_average_error, 2109
nppiAverageError_16sc_C2R
image_average_error, 2109
nppiAverageError_16sc_C3R
image_average_error, 2110
nppiAverageError_16sc_C4R
image_average_error, 2110
nppiAverageError_16u_C1R
image_average_error, 2111
nppiAverageError_16u_C2R
image_average_error, 2111
nppiAverageError_16u_C3R
image_average_error, 2112
nppiAverageError_16u_C4R
image_average_error, 2112
nppiAverageError_32f_C1R
image_average_error, 2112
nppiAverageError_32f_C2R
image_average_error, 2113
nppiAverageError_32f_C3R
image_average_error, 2113
nppiAverageError_32f_C4R
image_average_error, 2114
nppiAverageError_32fc_C1R
image_average_error, 2114
nppiAverageError_32fc_C2R
image_average_error, 2115
nppiAverageError_32fc_C3R
image_average_error, 2115
nppiAverageError_32fc_C4R

image_average_error, 2116
nppiAverageError_32s_C1R
image_average_error, 2116
nppiAverageError_32s_C2R
image_average_error, 2116
nppiAverageError_32s_C3R
image_average_error, 2117
nppiAverageError_32s_C4R
image_average_error, 2117
nppiAverageError_32sc_C1R
image_average_error, 2118
nppiAverageError_32sc_C2R
image_average_error, 2118
nppiAverageError_32sc_C3R
image_average_error, 2119
nppiAverageError_32sc_C4R
image_average_error, 2119
nppiAverageError_32u_C1R
image_average_error, 2119
nppiAverageError_32u_C2R
image_average_error, 2120
nppiAverageError_32u_C3R
image_average_error, 2120
nppiAverageError_32u_C4R
image_average_error, 2121
nppiAverageError_64f_C1R
image_average_error, 2121
nppiAverageError_64f_C2R
image_average_error, 2122
nppiAverageError_64f_C3R
image_average_error, 2122
nppiAverageError_64f_C4R
image_average_error, 2123
nppiAverageError_8s_C1R
image_average_error, 2123
nppiAverageError_8s_C2R
image_average_error, 2123
nppiAverageError_8s_C3R
image_average_error, 2124
nppiAverageError_8s_C4R
image_average_error, 2124
nppiAverageError_8u_C1R
image_average_error, 2125
nppiAverageError_8u_C2R
image_average_error, 2125
nppiAverageError_8u_C3R
image_average_error, 2126
nppiAverageError_8u_C4R
image_average_error, 2126
nppiAverageErrorGetBufferHostSize_16s_C1R
image_statistics_functions, 1466
nppiAverageErrorGetBufferHostSize_16s_C2R
image_statistics_functions, 1466
nppiAverageErrorGetBufferHostSize_16s_C3R
image_statistics_functions, 1466
nppiAverageErrorGetBufferHostSize_16s_C4R
image_statistics_functions, 1466
nppiAverageErrorGetBufferHostSize_16sc_C1R
image_statistics_functions, 1467
nppiAverageErrorGetBufferHostSize_16sc_C2R
image_statistics_functions, 1467
nppiAverageErrorGetBufferHostSize_16sc_C3R
image_statistics_functions, 1467
nppiAverageErrorGetBufferHostSize_16sc_C4R
image_statistics_functions, 1468
nppiAverageErrorGetBufferHostSize_16u_C1R
image_statistics_functions, 1468
nppiAverageErrorGetBufferHostSize_16u_C2R
image_statistics_functions, 1468
nppiAverageErrorGetBufferHostSize_16u_C3R
image_statistics_functions, 1468
nppiAverageErrorGetBufferHostSize_16u_C4R
image_statistics_functions, 1469
nppiAverageErrorGetBufferHostSize_32f_C1R
image_statistics_functions, 1469
nppiAverageErrorGetBufferHostSize_32f_C2R
image_statistics_functions, 1469
nppiAverageErrorGetBufferHostSize_32f_C3R
image_statistics_functions, 1470
nppiAverageErrorGetBufferHostSize_32f_C4R
image_statistics_functions, 1470
nppiAverageErrorGetBufferHostSize_32fc_C1R
image_statistics_functions, 1470
nppiAverageErrorGetBufferHostSize_32fc_C2R
image_statistics_functions, 1470
nppiAverageErrorGetBufferHostSize_32fc_C3R
image_statistics_functions, 1471
nppiAverageErrorGetBufferHostSize_32fc_C4R
image_statistics_functions, 1471
nppiAverageErrorGetBufferHostSize_32s_C1R
image_statistics_functions, 1471
nppiAverageErrorGetBufferHostSize_32s_C2R
image_statistics_functions, 1472
nppiAverageErrorGetBufferHostSize_32s_C3R
image_statistics_functions, 1472
nppiAverageErrorGetBufferHostSize_32s_C4R
image_statistics_functions, 1472
nppiAverageErrorGetBufferHostSize_32sc_C1R
image_statistics_functions, 1472
nppiAverageErrorGetBufferHostSize_32sc_C2R
image_statistics_functions, 1473
nppiAverageErrorGetBufferHostSize_32sc_C3R
image_statistics_functions, 1473
nppiAverageErrorGetBufferHostSize_32sc_C4R
image_statistics_functions, 1473
nppiAverageErrorGetBufferHostSize_32u_C1R
image_statistics_functions, 1474
nppiAverageErrorGetBufferHostSize_32u_C2R

image_statistics_functions, 1474
nppiAverageErrorGetBufferHostSize_32u_C3R
image_statistics_functions, 1474
nppiAverageErrorGetBufferHostSize_32u_C4R
image_statistics_functions, 1474
nppiAverageErrorGetBufferHostSize_64f_C1R
image_statistics_functions, 1475
nppiAverageErrorGetBufferHostSize_64f_C2R
image_statistics_functions, 1475
nppiAverageErrorGetBufferHostSize_64f_C3R
image_statistics_functions, 1475
nppiAverageErrorGetBufferHostSize_64f_C4R
image_statistics_functions, 1476
nppiAverageErrorGetBufferHostSize_8s_C1R
image_statistics_functions, 1476
nppiAverageErrorGetBufferHostSize_8s_C2R
image_statistics_functions, 1476
nppiAverageErrorGetBufferHostSize_8s_C3R
image_statistics_functions, 1476
nppiAverageErrorGetBufferHostSize_8s_C4R
image_statistics_functions, 1477
nppiAverageErrorGetBufferHostSize_8u_C1R
image_statistics_functions, 1477
nppiAverageErrorGetBufferHostSize_8u_C2R
image_statistics_functions, 1477
nppiAverageErrorGetBufferHostSize_8u_C3R
image_statistics_functions, 1478
nppiAverageErrorGetBufferHostSize_8u_C4R
image_statistics_functions, 1478
nppiAverageRelativeError_16s_C1R
image_average_relative_error, 2154
nppiAverageRelativeError_16s_C2R
image_average_relative_error, 2155
nppiAverageRelativeError_16s_C3R
image_average_relative_error, 2155
nppiAverageRelativeError_16s_C4R
image_average_relative_error, 2156
nppiAverageRelativeError_16sc_C1R
image_average_relative_error, 2156
nppiAverageRelativeError_16sc_C2R
image_average_relative_error, 2157
nppiAverageRelativeError_16sc_C3R
image_average_relative_error, 2157
nppiAverageRelativeError_16sc_C4R
image_average_relative_error, 2157
nppiAverageRelativeError_16u_C1R
image_average_relative_error, 2158
nppiAverageRelativeError_16u_C2R
image_average_relative_error, 2158
nppiAverageRelativeError_16u_C3R
image_average_relative_error, 2159
nppiAverageRelativeError_16u_C4R
image_average_relative_error, 2159
nppiAverageRelativeError_32f_C1R
image_average_relative_error, 2160
nppiAverageRelativeError_32f_C2R
image_average_relative_error, 2160
nppiAverageRelativeError_32f_C3R
image_average_relative_error, 2161
nppiAverageRelativeError_32f_C4R
image_average_relative_error, 2161
nppiAverageRelativeError_32fc_C1R
image_average_relative_error, 2162
nppiAverageRelativeError_32fc_C2R
image_average_relative_error, 2162
nppiAverageRelativeError_32fc_C3R
image_average_relative_error, 2162
nppiAverageRelativeError_32fc_C4R
image_average_relative_error, 2163
nppiAverageRelativeError_32s_C1R
image_average_relative_error, 2163
nppiAverageRelativeError_32s_C2R
image_average_relative_error, 2164
nppiAverageRelativeError_32s_C3R
image_average_relative_error, 2164
nppiAverageRelativeError_32s_C4R
image_average_relative_error, 2165
nppiAverageRelativeError_32sc_C1R
image_average_relative_error, 2165
nppiAverageRelativeError_32sc_C2R
image_average_relative_error, 2166
nppiAverageRelativeError_32sc_C3R
image_average_relative_error, 2166
nppiAverageRelativeError_32sc_C4R
image_average_relative_error, 2167
nppiAverageRelativeError_32u_C1R
image_average_relative_error, 2167
nppiAverageRelativeError_32u_C2R
image_average_relative_error, 2167
nppiAverageRelativeError_32u_C3R
image_average_relative_error, 2168
nppiAverageRelativeError_32u_C4R
image_average_relative_error, 2168
nppiAverageRelativeError_64f_C1R
image_average_relative_error, 2169
nppiAverageRelativeError_64f_C2R
image_average_relative_error, 2169
nppiAverageRelativeError_64f_C3R
image_average_relative_error, 2170
nppiAverageRelativeError_64f_C4R
image_average_relative_error, 2170
nppiAverageRelativeError_8s_C1R
image_average_relative_error, 2171
nppiAverageRelativeError_8s_C2R
image_average_relative_error, 2171
nppiAverageRelativeError_8s_C3R
image_average_relative_error, 2172
nppiAverageRelativeError_8s_C4R

image_average_relative_error, 2172
nppiAverageRelativeError_8u_C1R
image_average_relative_error, 2172
nppiAverageRelativeError_8u_C2R
image_average_relative_error, 2173
nppiAverageRelativeError_8u_C3R
image_average_relative_error, 2173
nppiAverageRelativeError_8u_C4R
image_average_relative_error, 2174
nppiAverageRelativeErrorGetBufferHostSize_16s_C1R
image_statistics_functions, 1478
nppiAverageRelativeErrorGetBufferHostSize_16s_C2R
image_statistics_functions, 1478
nppiAverageRelativeErrorGetBufferHostSize_16s_C3R
image_statistics_functions, 1479
nppiAverageRelativeErrorGetBufferHostSize_16s_C4R
image_statistics_functions, 1479
nppiAverageRelativeErrorGetBufferHostSize_16sc_C1R
image_statistics_functions, 1479
nppiAverageRelativeErrorGetBufferHostSize_16sc_C2R
image_statistics_functions, 1480
nppiAverageRelativeErrorGetBufferHostSize_16sc_C3R
image_statistics_functions, 1480
nppiAverageRelativeErrorGetBufferHostSize_16sc_C4R
image_statistics_functions, 1480
nppiAverageRelativeErrorGetBufferHostSize_16u_C1R
image_statistics_functions, 1480
nppiAverageRelativeErrorGetBufferHostSize_16u_C2R
image_statistics_functions, 1481
nppiAverageRelativeErrorGetBufferHostSize_16u_C3R
image_statistics_functions, 1481
nppiAverageRelativeErrorGetBufferHostSize_16u_C4R
image_statistics_functions, 1481
nppiAverageRelativeErrorGetBufferHostSize_32f_C1R
image_statistics_functions, 1482
nppiAverageRelativeErrorGetBufferHostSize_32f_C2R
image_statistics_functions, 1482
nppiAverageRelativeErrorGetBufferHostSize_32f_C3R
image_statistics_functions, 1482
nppiAverageRelativeErrorGetBufferHostSize_32f_C4R
image_statistics_functions, 1482
nppiAverageRelativeErrorGetBufferHostSize_32fc_C1R
image_statistics_functions, 1483
nppiAverageRelativeErrorGetBufferHostSize_32fc_C2R
image_statistics_functions, 1483
nppiAverageRelativeErrorGetBufferHostSize_32fc_C3R
image_statistics_functions, 1483
nppiAverageRelativeErrorGetBufferHostSize_32fc_C4R
image_statistics_functions, 1484
nppiAverageRelativeErrorGetBufferHostSize_32s_C1R
image_statistics_functions, 1484
nppiAverageRelativeErrorGetBufferHostSize_32s_C2R
image_statistics_functions, 1484
nppiAverageRelativeErrorGetBufferHostSize_32s_C3R
image_statistics_functions, 1484
nppiAverageRelativeErrorGetBufferHostSize_32s_C4R
image_statistics_functions, 1485
nppiAverageRelativeErrorGetBufferHostSize_32sc_C1R
image_statistics_functions, 1485
nppiAverageRelativeErrorGetBufferHostSize_32sc_C2R
image_statistics_functions, 1485
nppiAverageRelativeErrorGetBufferHostSize_32sc_C3R
image_statistics_functions, 1486
nppiAverageRelativeErrorGetBufferHostSize_32sc_C4R
image_statistics_functions, 1486
nppiAverageRelativeErrorGetBufferHostSize_32u_C1R
image_statistics_functions, 1486
nppiAverageRelativeErrorGetBufferHostSize_32u_C2R
image_statistics_functions, 1486
nppiAverageRelativeErrorGetBufferHostSize_32u_C3R
image_statistics_functions, 1487
nppiAverageRelativeErrorGetBufferHostSize_32u_C4R
image_statistics_functions, 1487
nppiAverageRelativeErrorGetBufferHostSize_64f_C1R
image_statistics_functions, 1487

nppiAverageRelativeErrorGetBufferHostSize_64f_C2R
image_statistics_functions, 1488
nppiAverageRelativeErrorGetBufferHostSize_64f_C3R
image_statistics_functions, 1488
nppiAverageRelativeErrorGetBufferHostSize_64f_C4R
image_statistics_functions, 1488
nppiAverageRelativeErrorGetBufferHostSize_8s_C1R
image_statistics_functions, 1488
nppiAverageRelativeErrorGetBufferHostSize_8s_C2R
image_statistics_functions, 1489
nppiAverageRelativeErrorGetBufferHostSize_8s_C3R
image_statistics_functions, 1489
nppiAverageRelativeErrorGetBufferHostSize_8s_C4R
image_statistics_functions, 1489
nppiAverageRelativeErrorGetBufferHostSize_8u_C1R
image_statistics_functions, 1490
nppiAverageRelativeErrorGetBufferHostSize_8u_C2R
image_statistics_functions, 1490
nppiAverageRelativeErrorGetBufferHostSize_8u_C3R
image_statistics_functions, 1490
nppiAverageRelativeErrorGetBufferHostSize_8u_C4R
image_statistics_functions, 1490
NppiAxis
typedefs_npp, 42
nppiBGRToCbYCr422_709HDTV_8u_AC4C2R
image_color_model_conversion, 525
nppiBGRToCbYCr422_709HDTV_8u_C3C2R
image_color_model_conversion, 525
nppiBGRToCbYCr422_8u_AC4C2R
image_color_model_conversion, 526
nppiBGRToHLS_8u_AC4P4R
image_color_model_conversion, 526
nppiBGRToHLS_8u_AC4R
image_color_model_conversion, 526
nppiBGRToHLS_8u_AP4C4R
image_color_model_conversion, 527
nppiBGRToHLS_8u_AP4R
image_color_model_conversion, 527
nppiBGRToHLS_8u_C3P3R
image_color_model_conversion, 527
nppiBGRToHLS_8u_P3C3R
image_color_model_conversion, 528
nppiBGRToHLS_8u_P3R
image_color_model_conversion, 528
nppiBGRToLab_8u_C3R
image_color_model_conversion, 528
nppiBGRToYCbCr411_8u_AC4P3R
image_color_model_conversion, 529
nppiBGRToYCbCr411_8u_C3P3R
image_color_model_conversion, 529
nppiBGRToYCbCr420_709CSC_8u_AC4P3R
image_color_model_conversion, 530
nppiBGRToYCbCr420_709CSC_8u_C3P3R
image_color_model_conversion, 530
nppiBGRToYCbCr420_709HDTV_8u_AC4P3R
image_color_model_conversion, 530
nppiBGRToYCbCr420_8u_AC4P3R
image_color_model_conversion, 531
nppiBGRToYCbCr420_8u_C3P3R
image_color_model_conversion, 531
nppiBGRToYCbCr422_8u_AC4C2R
image_color_model_conversion, 532
nppiBGRToYCbCr422_8u_AC4P3R
image_color_model_conversion, 532
nppiBGRToYCbCr422_8u_C3C2R
image_color_model_conversion, 532
nppiBGRToYCbCr422_8u_C3P3R
image_color_model_conversion, 533
nppiBGRToYCbCr_8u_AC4P3R
image_color_model_conversion, 533
nppiBGRToYCbCr_8u_AC4P4R
image_color_model_conversion, 534
nppiBGRToYCbCr_8u_C3P3R
image_color_model_conversion, 534
nppiBGRToYCrCb420_709CSC_8u_AC4P3R
image_color_model_conversion, 534
nppiBGRToYCrCb420_709CSC_8u_C3P3R
image_color_model_conversion, 535
nppiBGRToYCrCb420_8u_AC4P3R
image_color_model_conversion, 535
nppiBGRToYCrCb420_8u_C3P3R
image_color_model_conversion, 536
nppiBGRToYUV420_8u_AC4P3R
image_color_model_conversion, 536
nppiBGRToYUV_8u_AC4P4R
image_color_model_conversion, 536
nppiBGRToYUV_8u_AC4R
image_color_model_conversion, 537
nppiBGRToYUV_8u_C3P3R
image_color_model_conversion, 537
nppiBGRToYUV_8u_C3R
image_color_model_conversion, 538
nppiBGRToYUV_8u_P3R
image_color_model_conversion, 538
NppiBorderType
typedefs_npp, 42
nppiCbYCr422ToBGR_709HDTV_8u_C2C3R

image_color_model_conversion, 538
nppiCbYCr422ToBGR_709HDTV_8u_C2C4R
image_color_model_conversion, 539
nppiCbYCr422ToBGR_8u_C2C4R
image_color_model_conversion, 539
nppiCbYCr422ToRGB_8u_C2C3R
image_color_model_conversion, 539
nppiCbYCr422ToYCbCr411_8u_C2P3R
image_color_sampling_format_conversion, 587
nppiCbYCr422ToYCbCr420_8u_C2P2R
image_color_sampling_format_conversion, 588
nppiCbYCr422ToYCbCr420_8u_C2P3R
image_color_sampling_format_conversion, 588
nppiCbYCr422ToYCbCr422_8u_C2P3R
image_color_sampling_format_conversion, 588
nppiCbYCr422ToYCbCr422_8u_C2R
image_color_sampling_format_conversion, 589
nppiCbYCr422ToYCrCb420_8u_C2P3R
image_color_sampling_format_conversion, 589
nppiColorToGray_16s_AC4C1R
image_color_model_conversion, 540
nppiColorToGray_16s_C3C1R
image_color_model_conversion, 540
nppiColorToGray_16u_AC4C1R
image_color_model_conversion, 541
nppiColorToGray_16u_C3C1R
image_color_model_conversion, 541
nppiColorToGray_32f_AC4C1R
image_color_model_conversion, 541
nppiColorToGray_32f_C3C1R
image_color_model_conversion, 542
nppiColorToGray_8u_AC4C1R
image_color_model_conversion, 542
nppiColorToGray_8u_C3C1R
image_color_model_conversion, 542
nppiColorTwist32f_16s_AC4IR
image_color_processing, 631
nppiColorTwist32f_16s_AC4R
image_color_processing, 632
nppiColorTwist32f_16s_C1IR
image_color_processing, 632
nppiColorTwist32f_16s_C1R
image_color_processing, 632
nppiColorTwist32f_16s_C2IR
image_color_processing, 633
nppiColorTwist32f_16s_C2R
image_color_processing, 633
nppiColorTwist32f_16s_C3IR
image_color_processing, 634
nppiColorTwist32f_16s_C3R
image_color_processing, 634
nppiColorTwist32f_16s_IP3R
image_color_processing, 634
nppiColorTwist32f_16s_P3R
image_color_processing, 635
nppiColorTwist32f_16u_AC4IR
image_color_processing, 635
nppiColorTwist32f_16u_AC4R
image_color_processing, 636
nppiColorTwist32f_16u_C1IR
image_color_processing, 636
nppiColorTwist32f_16u_C1R
image_color_processing, 636
nppiColorTwist32f_16u_C2IR
image_color_processing, 637
nppiColorTwist32f_16u_C2R
image_color_processing, 637
nppiColorTwist32f_16u_C3IR
image_color_processing, 637
nppiColorTwist32f_16u_C3R
image_color_processing, 638
nppiColorTwist32f_16u_IP3R
image_color_processing, 638
nppiColorTwist32f_16u_P3R
image_color_processing, 638
nppiColorTwist32f_8s_AC4IR
image_color_processing, 639
nppiColorTwist32f_8s_AC4R
image_color_processing, 639
nppiColorTwist32f_8s_C1IR
image_color_processing, 640
nppiColorTwist32f_8s_C1R
image_color_processing, 640
nppiColorTwist32f_8s_C2IR
image_color_processing, 640
nppiColorTwist32f_8s_C2R
image_color_processing, 641
nppiColorTwist32f_8s_C3IR
image_color_processing, 641
nppiColorTwist32f_8s_C3R
image_color_processing, 641
nppiColorTwist32f_8s_C4IR
image_color_processing, 642
nppiColorTwist32f_8s_C4R
image_color_processing, 642
nppiColorTwist32f_8s_IP3R
image_color_processing, 643
nppiColorTwist32f_8s_P3R
image_color_processing, 643
nppiColorTwist32f_8u_AC4IR
image_color_processing, 643
nppiColorTwist32f_8u_AC4R

image_color_processing, 644
nppiColorTwist32f_8u_C1IR
image_color_processing, 644
nppiColorTwist32f_8u_C1R
image_color_processing, 645
nppiColorTwist32f_8u_C2IR
image_color_processing, 645
nppiColorTwist32f_8u_C2R
image_color_processing, 645
nppiColorTwist32f_8u_C3IR
image_color_processing, 646
nppiColorTwist32f_8u_C3R
image_color_processing, 646
nppiColorTwist32f_8u_C4IR
image_color_processing, 647
nppiColorTwist32f_8u_C4R
image_color_processing, 647
nppiColorTwist32f_8u_IP3R
image_color_processing, 647
nppiColorTwist32f_8u_P3R
image_color_processing, 648
nppiColorTwist32fC_8u_C4IR
image_color_processing, 648
nppiColorTwist32fC_8u_C4R
image_color_processing, 649
nppiColorTwist_32f_AC4IR
image_color_processing, 649
nppiColorTwist_32f_AC4R
image_color_processing, 650
nppiColorTwist_32f_C1IR
image_color_processing, 650
nppiColorTwist_32f_C1R
image_color_processing, 650
nppiColorTwist_32f_C2IR
image_color_processing, 651
nppiColorTwist_32f_C2R
image_color_processing, 651
nppiColorTwist_32f_C3IR
image_color_processing, 652
nppiColorTwist_32f_C3R
image_color_processing, 652
nppiColorTwist_32f_C4IR
image_color_processing, 652
nppiColorTwist_32f_C4R
image_color_processing, 653
nppiColorTwist_32f_IP3R
image_color_processing, 653
nppiColorTwist_32f_P3R
image_color_processing, 654
nppiColorTwist_32fC_C4IR
image_color_processing, 654
nppiColorTwist_32fC_C4R
image_color_processing, 654
nppiCompare_16s_AC4R
image_compare_operations, 2280
nppiCompare_16s_C1R
image_compare_operations, 2281
nppiCompare_16s_C3R
image_compare_operations, 2281
nppiCompare_16s_C4R
image_compare_operations, 2281
nppiCompare_16u_AC4R
image_compare_operations, 2282
nppiCompare_16u_C1R
image_compare_operations, 2282
nppiCompare_16u_C3R
image_compare_operations, 2283
nppiCompare_16u_C4R
image_compare_operations, 2283
nppiCompare_32f_AC4R
image_compare_operations, 2284
nppiCompare_32f_C1R
image_compare_operations, 2284
nppiCompare_32f_C3R
image_compare_operations, 2285
nppiCompare_32f_C4R
image_compare_operations, 2285
nppiCompare_8u_AC4R
image_compare_operations, 2286
nppiCompare_8u_C1R
image_compare_operations, 2286
nppiCompare_8u_C3R
image_compare_operations, 2287
nppiCompare_8u_C4R
image_compare_operations, 2287
nppiCompareC_16s_AC4R
image_compare_operations, 2288
nppiCompareC_16s_C1R
image_compare_operations, 2288
nppiCompareC_16s_C3R
image_compare_operations, 2289
nppiCompareC_16s_C4R
image_compare_operations, 2289
nppiCompareC_16u_AC4R
image_compare_operations, 2290
nppiCompareC_16u_C1R
image_compare_operations, 2290
nppiCompareC_16u_C3R
image_compare_operations, 2290
nppiCompareC_16u_C4R
image_compare_operations, 2291
nppiCompareC_32f_AC4R
image_compare_operations, 2291
nppiCompareC_32f_C1R
image_compare_operations, 2292
nppiCompareC_32f_C3R
image_compare_operations, 2292
nppiCompareC_32f_C4R

image_compare_operations, 2293
nppiCompareC_8u_AC4R
image_compare_operations, 2293
nppiCompareC_8u_C1R
image_compare_operations, 2293
nppiCompareC_8u_C3R
image_compare_operations, 2294
nppiCompareC_8u_C4R
image_compare_operations, 2294
nppiCompareEqualEps_32f_AC4R
image_compare_operations, 2295
nppiCompareEqualEps_32f_C1R
image_compare_operations, 2295
nppiCompareEqualEps_32f_C3R
image_compare_operations, 2296
nppiCompareEqualEps_32f_C4R
image_compare_operations, 2296
nppiCompareEqualEpsC_32f_AC4R
image_compare_operations, 2297
nppiCompareEqualEpsC_32f_C1R
image_compare_operations, 2297
nppiCompareEqualEpsC_32f_C3R
image_compare_operations, 2298
nppiCompareEqualEpsC_32f_C4R
image_compare_operations, 2298
nppiCompColorKey_8u_C1R
image_complement_color_key, 615
nppiCompColorKey_8u_C3R
image_complement_color_key, 615
nppiCompColorKey_8u_C4R
image_complement_color_key, 616
nppiConvert_16s16u_C1Rs
image_convert, 822
nppiConvert_16s32f_AC4R
image_convert, 822
nppiConvert_16s32f_C1R
image_convert, 823
nppiConvert_16s32f_C3R
image_convert, 823
nppiConvert_16s32f_C4R
image_convert, 823
nppiConvert_16s32s_AC4R
image_convert, 824
nppiConvert_16s32s_C1R
image_convert, 824
nppiConvert_16s32s_C3R
image_convert, 824
nppiConvert_16s32s_C4R
image_convert, 825
nppiConvert_16s32u_C1Rs
image_convert, 825
nppiConvert_16s8s_C1RSfs
image_convert, 825
nppiConvert_16s8u_AC4R
image_convert, 826
nppiConvert_16s8u_C1R
image_convert, 826
nppiConvert_16s8u_C3R
image_convert, 826
nppiConvert_16s8u_C4R
image_convert, 827
nppiConvert_16u16s_C1RSfs
image_convert, 827
nppiConvert_16u32f_AC4R
image_convert, 827
nppiConvert_16u32f_C1R
image_convert, 828
nppiConvert_16u32f_C3R
image_convert, 828
nppiConvert_16u32f_C4R
image_convert, 828
nppiConvert_16u32s_AC4R
image_convert, 829
nppiConvert_16u32s_C1R
image_convert, 829
nppiConvert_16u32s_C3R
image_convert, 829
nppiConvert_16u32s_C4R
image_convert, 830
nppiConvert_16u32u_C1R
image_convert, 830
nppiConvert_16u8s_C1RSfs
image_convert, 830
nppiConvert_16u8u_AC4R
image_convert, 831
nppiConvert_16u8u_C1R
image_convert, 831
nppiConvert_16u8u_C3R
image_convert, 831
nppiConvert_16u8u_C4R
image_convert, 832
nppiConvert_32f16s_AC4R
image_convert, 832
nppiConvert_32f16s_C1R
image_convert, 832
nppiConvert_32f16s_C1RSfs
image_convert, 833
nppiConvert_32f16s_C3R
image_convert, 833
nppiConvert_32f16s_C4R
image_convert, 834
nppiConvert_32f16u_AC4R
image_convert, 834
nppiConvert_32f16u_C1R
image_convert, 834
nppiConvert_32f16u_C1RSfs
image_convert, 835
nppiConvert_32f16u_C3R

image_convert, 835
nppiConvert_32f16u_C4R
image_convert, 836
nppiConvert_32f32s_C1RSfs
image_convert, 836
nppiConvert_32f32u_C1RSfs
image_convert, 836
nppiConvert_32f8s_AC4R
image_convert, 837
nppiConvert_32f8s_C1R
image_convert, 837
nppiConvert_32f8s_C1RSfs
image_convert, 838
nppiConvert_32f8s_C3R
image_convert, 838
nppiConvert_32f8s_C4R
image_convert, 838
nppiConvert_32f8u_AC4R
image_convert, 839
nppiConvert_32f8u_C1R
image_convert, 839
nppiConvert_32f8u_C1RSfs
image_convert, 839
nppiConvert_32f8u_C3R
image_convert, 840
nppiConvert_32f8u_C4R
image_convert, 840
nppiConvert_32s16s_C1RSfs
image_convert, 841
nppiConvert_32s16u_C1RSfs
image_convert, 841
nppiConvert_32s32f_C1R
image_convert, 841
nppiConvert_32s32u_C1Rs
image_convert, 842
nppiConvert_32s8s_AC4R
image_convert, 842
nppiConvert_32s8s_C1R
image_convert, 842
nppiConvert_32s8s_C3R
image_convert, 843
nppiConvert_32s8s_C4R
image_convert, 843
nppiConvert_32s8u_AC4R
image_convert, 843
nppiConvert_32s8u_C1R
image_convert, 844
nppiConvert_32s8u_C3R
image_convert, 844
nppiConvert_32s8u_C4R
image_convert, 844
nppiConvert_32u16s_C1RSfs
image_convert, 845
nppiConvert_32u16u_C1RSfs
image_convert, 845
nppiConvert_32u32f_C1R
image_convert, 846
nppiConvert_32u32s_C1RSfs
image_convert, 846
nppiConvert_32u8s_C1RSfs
image_convert, 846
nppiConvert_32u8u_C1RSfs
image_convert, 847
nppiConvert_8s16s_C1R
image_convert, 847
nppiConvert_8s16u_C1Rs
image_convert, 848
nppiConvert_8s32f_AC4R
image_convert, 848
nppiConvert_8s32f_C1R
image_convert, 848
nppiConvert_8s32f_C3R
image_convert, 849
nppiConvert_8s32f_C4R
image_convert, 849
nppiConvert_8s32s_AC4R
image_convert, 849
nppiConvert_8s32s_C1R
image_convert, 850
nppiConvert_8s32s_C3R
image_convert, 850
nppiConvert_8s32s_C4R
image_convert, 850
nppiConvert_8s32u_C1Rs
image_convert, 851
nppiConvert_8s8u_C1Rs
image_convert, 851
nppiConvert_8u16s_AC4R
image_convert, 851
nppiConvert_8u16s_C1R
image_convert, 852
nppiConvert_8u16s_C3R
image_convert, 852
nppiConvert_8u16s_C4R
image_convert, 852
nppiConvert_8u16u_AC4R
image_convert, 853
nppiConvert_8u16u_C1R
image_convert, 853
nppiConvert_8u16u_C3R
image_convert, 853
nppiConvert_8u16u_C4R
image_convert, 854
nppiConvert_8u32f_AC4R
image_convert, 854
nppiConvert_8u32f_C1R
image_convert, 854
nppiConvert_8u32f_C3R

image_convert, 855
nppiConvert_8u32f_C4R
image_convert, 855
nppiConvert_8u32s_AC4R
image_convert, 855
nppiConvert_8u32s_C1R
image_convert, 856
nppiConvert_8u32s_C3R
image_convert, 856
nppiConvert_8u32s_C4R
image_convert, 856
nppiConvert_8u8s_C1RSfs
image_convert, 857
nppiCopy_16s_AC4MR
image_copy, 776
nppiCopy_16s_AC4R
image_copy, 777
nppiCopy_16s_C1C3R
image_copy, 777
nppiCopy_16s_C1C4R
image_copy, 777
nppiCopy_16s_C1MR
image_copy, 778
nppiCopy_16s_C1R
image_copy, 778
nppiCopy_16s_C3C1R
image_copy, 778
nppiCopy_16s_C3CR
image_copy, 779
nppiCopy_16s_C3MR
image_copy, 779
nppiCopy_16s_C3P3R
image_copy, 779
nppiCopy_16s_C3R
image_copy, 780
nppiCopy_16s_C4C1R
image_copy, 780
nppiCopy_16s_C4CR
image_copy, 780
nppiCopy_16s_C4MR
image_copy, 781
nppiCopy_16s_C4P4R
image_copy, 781
nppiCopy_16s_C4R
image_copy, 781
nppiCopy_16s_P3C3R
image_copy, 782
nppiCopy_16s_P4C4R
image_copy, 782
nppiCopy_16sc_AC4R
image_copy, 782
nppiCopy_16sc_C1R
image_copy, 783
nppiCopy_16sc_C2R
image_copy, 783
nppiCopy_16sc_C3R
image_copy, 783
nppiCopy_16sc_C4R
image_copy, 784
nppiCopy_16u_AC4MR
image_copy, 784
nppiCopy_16u_AC4R
image_copy, 784
nppiCopy_16u_C1C3R
image_copy, 785
nppiCopy_16u_C1C4R
image_copy, 785
nppiCopy_16u_C1MR
image_copy, 785
nppiCopy_16u_C1R
image_copy, 786
nppiCopy_16u_C3C1R
image_copy, 786
nppiCopy_16u_C3CR
image_copy, 786
nppiCopy_16u_C3MR
image_copy, 787
nppiCopy_16u_C3P3R
image_copy, 787
nppiCopy_16u_C3R
image_copy, 787
nppiCopy_16u_C4C1R
image_copy, 788
nppiCopy_16u_C4CR
image_copy, 788
nppiCopy_16u_C4MR
image_copy, 788
nppiCopy_16u_C4P4R
image_copy, 789
nppiCopy_16u_C4R
image_copy, 789
nppiCopy_16u_P3C3R
image_copy, 789
nppiCopy_16u_P4C4R
image_copy, 790
nppiCopy_32f_AC4MR
image_copy, 790
nppiCopy_32f_AC4R
image_copy, 790
nppiCopy_32f_C1C3R
image_copy, 791
nppiCopy_32f_C1C4R
image_copy, 791
nppiCopy_32f_C1MR
image_copy, 791
nppiCopy_32f_C1R
image_copy, 792
nppiCopy_32f_C3C1R

image_copy, 792
nppiCopy_32f_C3CR
image_copy, 792
nppiCopy_32f_C3MR
image_copy, 793
nppiCopy_32f_C3P3R
image_copy, 793
nppiCopy_32f_C3R
image_copy, 793
nppiCopy_32f_C4C1R
image_copy, 794
nppiCopy_32f_C4CR
image_copy, 794
nppiCopy_32f_C4MR
image_copy, 794
nppiCopy_32f_C4P4R
image_copy, 795
nppiCopy_32f_C4R
image_copy, 795
nppiCopy_32f_P3C3R
image_copy, 795
nppiCopy_32f_P4C4R
image_copy, 796
nppiCopy_32fc_AC4R
image_copy, 796
nppiCopy_32fc_C1R
image_copy, 796
nppiCopy_32fc_C2R
image_copy, 797
nppiCopy_32fc_C3R
image_copy, 797
nppiCopy_32fc_C4R
image_copy, 797
nppiCopy_32s_AC4MR
image_copy, 798
nppiCopy_32s_AC4R
image_copy, 798
nppiCopy_32s_C1C3R
image_copy, 798
nppiCopy_32s_C1C4R
image_copy, 799
nppiCopy_32s_C1MR
image_copy, 799
nppiCopy_32s_C1R
image_copy, 799
nppiCopy_32s_C3C1R
image_copy, 800
nppiCopy_32s_C3CR
image_copy, 800
nppiCopy_32s_C3MR
image_copy, 800
nppiCopy_32s_C3P3R
image_copy, 801
nppiCopy_32s_C3R
image_copy, 801
nppiCopy_32s_C4C1R
image_copy, 801
nppiCopy_32s_C4CR
image_copy, 802
nppiCopy_32s_C4MR
image_copy, 802
nppiCopy_32s_C4P4R
image_copy, 802
nppiCopy_32s_C4R
image_copy, 803
nppiCopy_32s_P3C3R
image_copy, 803
nppiCopy_32s_P4C4R
image_copy, 803
nppiCopy_32sc_AC4R
image_copy, 804
nppiCopy_32sc_C1R
image_copy, 804
nppiCopy_32sc_C2R
image_copy, 804
nppiCopy_32sc_C3R
image_copy, 805
nppiCopy_32sc_C4R
image_copy, 805
nppiCopy_8s_AC4R
image_copy, 805
nppiCopy_8s_C1R
image_copy, 806
nppiCopy_8s_C2R
image_copy, 806
nppiCopy_8s_C3R
image_copy, 806
nppiCopy_8s_C4R
image_copy, 807
nppiCopy_8u_AC4MR
image_copy, 807
nppiCopy_8u_AC4R
image_copy, 807
nppiCopy_8u_C1C3R
image_copy, 808
nppiCopy_8u_C1C4R
image_copy, 808
nppiCopy_8u_C1MR
image_copy, 808
nppiCopy_8u_C1R
image_copy, 809
nppiCopy_8u_C3C1R
image_copy, 809
nppiCopy_8u_C3CR
image_copy, 809
nppiCopy_8u_C3MR
image_copy, 810
nppiCopy_8u_C3P3R

image_copy, 810
nppiCopy_8u_C3R
image_copy, 810
nppiCopy_8u_C4C1R
image_copy, 811
nppiCopy_8u_C4CR
image_copy, 811
nppiCopy_8u_C4MR
image_copy, 811
nppiCopy_8u_C4P4R
image_copy, 812
nppiCopy_8u_C4R
image_copy, 812
nppiCopy_8u_P3C3R
image_copy, 812
nppiCopy_8u_P4C4R
image_copy, 813
nppiCopyConstBorder_16s_AC4R
image_copy_constant_border, 875
nppiCopyConstBorder_16s_C1R
image_copy_constant_border, 875
nppiCopyConstBorder_16s_C3R
image_copy_constant_border, 876
nppiCopyConstBorder_16s_C4R
image_copy_constant_border, 876
nppiCopyConstBorder_16u_AC4R
image_copy_constant_border, 877
nppiCopyConstBorder_16u_C1R
image_copy_constant_border, 877
nppiCopyConstBorder_16u_C3R
image_copy_constant_border, 878
nppiCopyConstBorder_16u_C4R
image_copy_constant_border, 878
nppiCopyConstBorder_32f_AC4R
image_copy_constant_border, 879
nppiCopyConstBorder_32f_C1R
image_copy_constant_border, 879
nppiCopyConstBorder_32f_C3R
image_copy_constant_border, 880
nppiCopyConstBorder_32f_C4R
image_copy_constant_border, 880
nppiCopyConstBorder_32s_AC4R
image_copy_constant_border, 881
nppiCopyConstBorder_32s_C1R
image_copy_constant_border, 881
nppiCopyConstBorder_32s_C3R
image_copy_constant_border, 882
nppiCopyConstBorder_32s_C4R
image_copy_constant_border, 882
nppiCopyConstBorder_8u_AC4R
image_copy_constant_border, 883
nppiCopyConstBorder_8u_C1R
image_copy_constant_border, 883
nppiCopyConstBorder_8u_C3R
image_copy_constant_border, 884
nppiCopyConstBorder_8u_C4R
image_copy_constant_border, 884
nppiCopyReplicateBorder_16s_AC4R
image_copy_replicate_border, 888
nppiCopyReplicateBorder_16s_C1R
image_copy_replicate_border, 888
nppiCopyReplicateBorder_16s_C3R
image_copy_replicate_border, 889
nppiCopyReplicateBorder_16s_C4R
image_copy_replicate_border, 889
nppiCopyReplicateBorder_16u_AC4R
image_copy_replicate_border, 890
nppiCopyReplicateBorder_16u_C1R
image_copy_replicate_border, 890
nppiCopyReplicateBorder_16u_C3R
image_copy_replicate_border, 891
nppiCopyReplicateBorder_16u_C4R
image_copy_replicate_border, 891
nppiCopyReplicateBorder_32f_AC4R
image_copy_replicate_border, 891
nppiCopyReplicateBorder_32f_C1R
image_copy_replicate_border, 892
nppiCopyReplicateBorder_32f_C3R
image_copy_replicate_border, 892
nppiCopyReplicateBorder_32f_C4R
image_copy_replicate_border, 893
nppiCopyReplicateBorder_32s_AC4R
image_copy_replicate_border, 893
nppiCopyReplicateBorder_32s_C1R
image_copy_replicate_border, 894
nppiCopyReplicateBorder_32s_C3R
image_copy_replicate_border, 894
nppiCopyReplicateBorder_32s_C4R
image_copy_replicate_border, 895
nppiCopyReplicateBorder_8u_AC4R
image_copy_replicate_border, 895
nppiCopyReplicateBorder_8u_C1R
image_copy_replicate_border, 896
nppiCopyReplicateBorder_8u_C3R
image_copy_replicate_border, 896
nppiCopyReplicateBorder_8u_C4R
image_copy_replicate_border, 897
nppiCopySubpix_16s_AC4R
image_copy_sub_pixel, 912
nppiCopySubpix_16s_C1R
image_copy_sub_pixel, 913
nppiCopySubpix_16s_C3R
image_copy_sub_pixel, 913
nppiCopySubpix_16s_C4R
image_copy_sub_pixel, 914
nppiCopySubpix_16u_AC4R
image_copy_sub_pixel, 914
nppiCopySubpix_16u_C1R

image_copy_sub_pixel, 914
nppiCopySubpix_16u_C3R
image_copy_sub_pixel, 915
nppiCopySubpix_16u_C4R
image_copy_sub_pixel, 915
nppiCopySubpix_32f_AC4R
image_copy_sub_pixel, 916
nppiCopySubpix_32f_C1R
image_copy_sub_pixel, 916
nppiCopySubpix_32f_C3R
image_copy_sub_pixel, 916
nppiCopySubpix_32f_C4R
image_copy_sub_pixel, 917
nppiCopySubpix_32s_AC4R
image_copy_sub_pixel, 917
nppiCopySubpix_32s_C1R
image_copy_sub_pixel, 918
nppiCopySubpix_32s_C3R
image_copy_sub_pixel, 918
nppiCopySubpix_32s_C4R
image_copy_sub_pixel, 919
nppiCopySubpix_8u_AC4R
image_copy_sub_pixel, 919
nppiCopySubpix_8u_C1R
image_copy_sub_pixel, 919
nppiCopySubpix_8u_C3R
image_copy_sub_pixel, 920
nppiCopySubpix_8u_C4R
image_copy_sub_pixel, 920
nppiCopyWrapBorder_16s_AC4R
image_copy_wrap_border, 900
nppiCopyWrapBorder_16s_C1R
image_copy_wrap_border, 900
nppiCopyWrapBorder_16s_C3R
image_copy_wrap_border, 901
nppiCopyWrapBorder_16s_C4R
image_copy_wrap_border, 901
nppiCopyWrapBorder_16u_AC4R
image_copy_wrap_border, 902
nppiCopyWrapBorder_16u_C1R
image_copy_wrap_border, 902
nppiCopyWrapBorder_16u_C3R
image_copy_wrap_border, 903
nppiCopyWrapBorder_16u_C4R
image_copy_wrap_border, 903
nppiCopyWrapBorder_32f_AC4R
image_copy_wrap_border, 904
nppiCopyWrapBorder_32f_C1R
image_copy_wrap_border, 904
nppiCopyWrapBorder_32f_C3R
image_copy_wrap_border, 905
nppiCopyWrapBorder_32f_C4R
image_copy_wrap_border, 905
nppiCopyWrapBorder_32s_AC4R
image_copy_wrap_border, 906
nppiCopyWrapBorder_32s_C1R
image_copy_wrap_border, 906
nppiCopyWrapBorder_32s_C3R
image_copy_wrap_border, 907
nppiCopyWrapBorder_32s_C4R
image_copy_wrap_border, 907
nppiCopyWrapBorder_8u_AC4R
image_copy_wrap_border, 908
nppiCopyWrapBorder_8u_C1R
image_copy_wrap_border, 908
nppiCopyWrapBorder_8u_C3R
image_copy_wrap_border, 909
nppiCopyWrapBorder_8u_C4R
image_copy_wrap_border, 909
nppiCountInRange_32f_AC4R
image_count_in_range, 1884
nppiCountInRange_32f_C1R
image_count_in_range, 1884
nppiCountInRange_32f_C3R
image_count_in_range, 1885
nppiCountInRange_8u_AC4R
image_count_in_range, 1885
nppiCountInRange_8u_C1R
image_count_in_range, 1886
nppiCountInRange_8u_C3R
image_count_in_range, 1886
nppiCountInRangeGetBufferHostSize_32f_AC4R
image_count_in_range, 1887
nppiCountInRangeGetBufferHostSize_32f_C1R
image_count_in_range, 1887
nppiCountInRangeGetBufferHostSize_32f_C3R
image_count_in_range, 1887
nppiCountInRangeGetBufferHostSize_8u_AC4R
image_count_in_range, 1887
nppiCountInRangeGetBufferHostSize_8u_C1R
image_count_in_range, 1888
nppiCountInRangeGetBufferHostSize_8u_C3R
image_count_in_range, 1888
nppiCrossCorrFull_Norm_16u32f_AC4R
crosscorrfullnorm, 1978
nppiCrossCorrFull_Norm_16u32f_C1R
crosscorrfullnorm, 1978
nppiCrossCorrFull_Norm_16u32f_C3R
crosscorrfullnorm, 1978
nppiCrossCorrFull_Norm_16u32f_C4R
crosscorrfullnorm, 1979
nppiCrossCorrFull_Norm_32f_AC4R
crosscorrfullnorm, 1979
nppiCrossCorrFull_Norm_32f_C1R
crosscorrfullnorm, 1980
nppiCrossCorrFull_Norm_32f_C3R
crosscorrfullnorm, 1980
nppiCrossCorrFull_Norm_32f_C4R

crosscorrfullnorm, 1981
nppiCrossCorrFull_Norm_8s32f_AC4R
crosscorrfullnorm, 1981
nppiCrossCorrFull_Norm_8s32f_C1R
crosscorrfullnorm, 1981
nppiCrossCorrFull_Norm_8s32f_C3R
crosscorrfullnorm, 1982
nppiCrossCorrFull_Norm_8s32f_C4R
crosscorrfullnorm, 1982
nppiCrossCorrFull_Norm_8u32f_AC4R
crosscorrfullnorm, 1983
nppiCrossCorrFull_Norm_8u32f_C1R
crosscorrfullnorm, 1983
nppiCrossCorrFull_Norm_8u32f_C3R
crosscorrfullnorm, 1984
nppiCrossCorrFull_Norm_8u32f_C4R
crosscorrfullnorm, 1984
nppiCrossCorrFull_Norm_8u_AC4RSfs
crosscorrfullnorm, 1984
nppiCrossCorrFull_Norm_8u_C1RSfs
crosscorrfullnorm, 1985
nppiCrossCorrFull_Norm_8u_C3RSfs
crosscorrfullnorm, 1985
nppiCrossCorrFull_Norm_8u_C4RSfs
crosscorrfullnorm, 1986
nppiCrossCorrFull_NormLevel_16u32f_AC4R
crosscorrfullnormlevel, 2016
nppiCrossCorrFull_NormLevel_16u32f_C1R
crosscorrfullnormlevel, 2016
nppiCrossCorrFull_NormLevel_16u32f_C3R
crosscorrfullnormlevel, 2016
nppiCrossCorrFull_NormLevel_16u32f_C4R
crosscorrfullnormlevel, 2017
nppiCrossCorrFull_NormLevel_32f_AC4R
crosscorrfullnormlevel, 2017
nppiCrossCorrFull_NormLevel_32f_C1R
crosscorrfullnormlevel, 2018
nppiCrossCorrFull_NormLevel_32f_C3R
crosscorrfullnormlevel, 2018
nppiCrossCorrFull_NormLevel_32f_C4R
crosscorrfullnormlevel, 2019
nppiCrossCorrFull_NormLevel_8s32f_AC4R
crosscorrfullnormlevel, 2019
nppiCrossCorrFull_NormLevel_8s32f_C1R
crosscorrfullnormlevel, 2020
nppiCrossCorrFull_NormLevel_8s32f_C3R
crosscorrfullnormlevel, 2020
nppiCrossCorrFull_NormLevel_8s32f_C4R
crosscorrfullnormlevel, 2021
nppiCrossCorrFull_NormLevel_8u32f_AC4R
crosscorrfullnormlevel, 2021
nppiCrossCorrFull_NormLevel_8u32f_C1R
crosscorrfullnormlevel, 2022
nppiCrossCorrFull_NormLevel_8u32f_C3R
crosscorrfullnormlevel, 2022
nppiCrossCorrFull_NormLevel_8u32f_C4R
crosscorrfullnormlevel, 2023
nppiCrossCorrFull_NormLevel_8u_AC4RSfs
crosscorrfullnormlevel, 2023
nppiCrossCorrFull_NormLevel_8u_C1RSfs
crosscorrfullnormlevel, 2024
nppiCrossCorrFull_NormLevel_8u_C3RSfs
crosscorrfullnormlevel, 2024
nppiCrossCorrFull_NormLevel_8u_C4RSfs
crosscorrfullnormlevel, 2025
nppiCrossCorrSame_Norm_16u32f_AC4R
crosscorrsamenorm, 1989
nppiCrossCorrSame_Norm_16u32f_C1R
crosscorrsamenorm, 1989
nppiCrossCorrSame_Norm_16u32f_C3R
crosscorrsamenorm, 1989
nppiCrossCorrSame_Norm_16u32f_C4R
crosscorrsamenorm, 1990
nppiCrossCorrSame_Norm_32f_AC4R
crosscorrsamenorm, 1990
nppiCrossCorrSame_Norm_32f_C1R
crosscorrsamenorm, 1991
nppiCrossCorrSame_Norm_32f_C3R
crosscorrsamenorm, 1991
nppiCrossCorrSame_Norm_32f_C4R
crosscorrsamenorm, 1992
nppiCrossCorrSame_Norm_8s32f_AC4R
crosscorrsamenorm, 1992
nppiCrossCorrSame_Norm_8s32f_C1R
crosscorrsamenorm, 1992
nppiCrossCorrSame_Norm_8s32f_C3R
crosscorrsamenorm, 1993
nppiCrossCorrSame_Norm_8s32f_C4R
crosscorrsamenorm, 1993
nppiCrossCorrSame_Norm_8u32f_AC4R
crosscorrsamenorm, 1994
nppiCrossCorrSame_Norm_8u32f_C1R
crosscorrsamenorm, 1994
nppiCrossCorrSame_Norm_8u32f_C3R
crosscorrsamenorm, 1995
nppiCrossCorrSame_Norm_8u32f_C4R
crosscorrsamenorm, 1995
nppiCrossCorrSame_Norm_8u_AC4RSfs
crosscorrsamenorm, 1995
nppiCrossCorrSame_Norm_8u_C1RSfs
crosscorrsamenorm, 1996
nppiCrossCorrSame_Norm_8u_C3RSfs
crosscorrsamenorm, 1996
nppiCrossCorrSame_Norm_8u_C4RSfs
crosscorrsamenorm, 1997
nppiCrossCorrSame_NormLevel_16u32f_AC4R
crosscorrsamenormlevel, 2036
nppiCrossCorrSame_NormLevel_16u32f_C1R

crosscorrsamenormlevel, 2036
nppiCrossCorrSame_NormLevel_16u32f_C3R
crosscorrsamenormlevel, 2036
nppiCrossCorrSame_NormLevel_16u32f_C4R
crosscorrsamenormlevel, 2037
nppiCrossCorrSame_NormLevel_32f_AC4R
crosscorrsamenormlevel, 2037
nppiCrossCorrSame_NormLevel_32f_C1R
crosscorrsamenormlevel, 2038
nppiCrossCorrSame_NormLevel_32f_C3R
crosscorrsamenormlevel, 2038
nppiCrossCorrSame_NormLevel_32f_C4R
crosscorrsamenormlevel, 2039
nppiCrossCorrSame_NormLevel_8s32f_AC4R
crosscorrsamenormlevel, 2039
nppiCrossCorrSame_NormLevel_8s32f_C1R
crosscorrsamenormlevel, 2040
nppiCrossCorrSame_NormLevel_8s32f_C3R
crosscorrsamenormlevel, 2040
nppiCrossCorrSame_NormLevel_8s32f_C4R
crosscorrsamenormlevel, 2041
nppiCrossCorrSame_NormLevel_8u32f_AC4R
crosscorrsamenormlevel, 2041
nppiCrossCorrSame_NormLevel_8u32f_C1R
crosscorrsamenormlevel, 2042
nppiCrossCorrSame_NormLevel_8u32f_C3R
crosscorrsamenormlevel, 2042
nppiCrossCorrSame_NormLevel_8u32f_C4R
crosscorrsamenormlevel, 2043
nppiCrossCorrSame_NormLevel_8u_AC4RSfs
crosscorrsamenormlevel, 2043
nppiCrossCorrSame_NormLevel_8u_C1RSfs
crosscorrsamenormlevel, 2044
nppiCrossCorrSame_NormLevel_8u_C3RSfs
crosscorrsamenormlevel, 2044
nppiCrossCorrSame_NormLevel_8u_C4RSfs
crosscorrsamenormlevel, 2045
nppiCrossCorrValid_16u32f_C1R
crosscorrvalid, 2009
nppiCrossCorrValid_32f_C1R
crosscorrvalid, 2010
nppiCrossCorrValid_8s32f_C1R
crosscorrvalid, 2010
nppiCrossCorrValid_8u32f_C1R
crosscorrvalid, 2010
nppiCrossCorrValid_Norm_16u32f_AC4R
crosscorrvalidnorm, 2000
nppiCrossCorrValid_Norm_16u32f_C1R
crosscorrvalidnorm, 2000
nppiCrossCorrValid_Norm_16u32f_C3R
crosscorrvalidnorm, 2000
nppiCrossCorrValid_Norm_16u32f_C4R
crosscorrvalidnorm, 2001
nppiCrossCorrValid_Norm_32f_AC4R
crosscorrvalidnorm, 2001
nppiCrossCorrValid_Norm_32f_C1R
crosscorrvalidnorm, 2002
nppiCrossCorrValid_Norm_32f_C3R
crosscorrvalidnorm, 2002
nppiCrossCorrValid_Norm_32f_C4R
crosscorrvalidnorm, 2003
nppiCrossCorrValid_Norm_8s32f_AC4R
crosscorrvalidnorm, 2003
nppiCrossCorrValid_Norm_8s32f_C1R
crosscorrvalidnorm, 2003
nppiCrossCorrValid_Norm_8s32f_C3R
crosscorrvalidnorm, 2004
nppiCrossCorrValid_Norm_8s32f_C4R
crosscorrvalidnorm, 2004
nppiCrossCorrValid_Norm_8u32f_AC4R
crosscorrvalidnorm, 2005
nppiCrossCorrValid_Norm_8u32f_C1R
crosscorrvalidnorm, 2005
nppiCrossCorrValid_Norm_8u32f_C3R
crosscorrvalidnorm, 2006
nppiCrossCorrValid_Norm_8u32f_C4R
crosscorrvalidnorm, 2006
nppiCrossCorrValid_Norm_8u_AC4RSfs
crosscorrvalidnorm, 2006
nppiCrossCorrValid_Norm_8u_C1RSfs
crosscorrvalidnorm, 2007
nppiCrossCorrValid_Norm_8u_C3RSfs
crosscorrvalidnorm, 2007
nppiCrossCorrValid_Norm_8u_C4RSfs
crosscorrvalidnorm, 2008
nppiCrossCorrValid_NormLevel_16u32f_AC4R
crosscorrvalidnormlevel, 2056
nppiCrossCorrValid_NormLevel_16u32f_C1R
crosscorrvalidnormlevel, 2056
nppiCrossCorrValid_NormLevel_16u32f_C3R
crosscorrvalidnormlevel, 2056
nppiCrossCorrValid_NormLevel_16u32f_C4R
crosscorrvalidnormlevel, 2057
nppiCrossCorrValid_NormLevel_32f_AC4R
crosscorrvalidnormlevel, 2057
nppiCrossCorrValid_NormLevel_32f_C1R
crosscorrvalidnormlevel, 2058
nppiCrossCorrValid_NormLevel_32f_C3R
crosscorrvalidnormlevel, 2058
nppiCrossCorrValid_NormLevel_32f_C4R
crosscorrvalidnormlevel, 2059
nppiCrossCorrValid_NormLevel_8s32f_AC4R
crosscorrvalidnormlevel, 2059
nppiCrossCorrValid_NormLevel_8s32f_C1R
crosscorrvalidnormlevel, 2060
nppiCrossCorrValid_NormLevel_8s32f_C3R
crosscorrvalidnormlevel, 2060
nppiCrossCorrValid_NormLevel_8s32f_C4R

crosscorrvalidnormlevel, 2061
nppiCrossCorrValid_NormLevel_8u32f_AC4R
crosscorrvalidnormlevel, 2061
nppiCrossCorrValid_NormLevel_8u32f_C1R
crosscorrvalidnormlevel, 2062
nppiCrossCorrValid_NormLevel_8u32f_C3R
crosscorrvalidnormlevel, 2062
nppiCrossCorrValid_NormLevel_8u32f_C4R
crosscorrvalidnormlevel, 2063
nppiCrossCorrValid_NormLevel_8u_AC4RSfs
crosscorrvalidnormlevel, 2063
nppiCrossCorrValid_NormLevel_8u_C1RSfs
crosscorrvalidnormlevel, 2064
nppiCrossCorrValid_NormLevel_8u_C3RSfs
crosscorrvalidnormlevel, 2064
nppiCrossCorrValid_NormLevel_8u_C4RSfs
crosscorrvalidnormlevel, 2065
nppiDCTable
typedefs_npp, 42
nppiDCTFree
image_quantization, 719
nppiDCTInitAlloc
image_quantization, 719
nppiDCTQuantFwd8x8LS_JPEG_8u16s_C1R
image_quantization, 719
nppiDCTQuantFwd8x8LS_JPEG_8u16s_C1R_-NEW
image_quantization, 720
nppiDCTQuantInv8x8LS_JPEG_16s8u_C1R
image_quantization, 720
nppiDCTQuantInv8x8LS_JPEG_16s8u_C1R_-NEW
image_quantization, 721
NppiDCTState
image_quantization, 719
nppiDecodeHuffmanScanHost_JPEG_8u16s_P1R
image_compression, 715
nppiDecodeHuffmanScanHost_JPEG_8u16s_P3R
image_compression, 715
NppiDecodeHuffmanSpec
image_compression, 715
nppiDecodeHuffmanSpecFreeHost_JPEG
image_compression, 716
nppiDecodeHuffmanSpecGetBufSize_JPEG
image_compression, 716
nppiDecodeHuffmanSpecInitAllocHost_JPEG
image_compression, 716
nppiDecodeHuffmanSpecInitHost_JPEG
image_compression, 717
nppiDilate3x3_16u_AC4R
image_dilate_3x3, 1410
nppiDilate3x3_16u_C1R
image_dilate_3x3, 1410
nppiDilate3x3_16u_C3R
image_dilate_3x3, 1410
nppiDilate3x3_16u_C4R
image_dilate_3x3, 1411
nppiDilate3x3_32f_AC4R
image_dilate_3x3, 1411
nppiDilate3x3_32f_C1R
image_dilate_3x3, 1411
nppiDilate3x3_32f_C3R
image_dilate_3x3, 1412
nppiDilate3x3_32f_C4R
image_dilate_3x3, 1412
nppiDilate3x3_64f_C1R
image_dilate_3x3, 1412
nppiDilate3x3_8u_AC4R
image_dilate_3x3, 1413
nppiDilate3x3_8u_C1R
image_dilate_3x3, 1413
nppiDilate3x3_8u_C3R
image_dilate_3x3, 1413
nppiDilate3x3_8u_C4R
image_dilate_3x3, 1414
nppiDilate3x3Border_16u_AC4R
image_dilate_3x3_border, 1416
nppiDilate3x3Border_16u_C1R
image_dilate_3x3_border, 1416
nppiDilate3x3Border_16u_C3R
image_dilate_3x3_border, 1417
nppiDilate3x3Border_16u_C4R
image_dilate_3x3_border, 1417
nppiDilate3x3Border_32f_AC4R
image_dilate_3x3_border, 1418
nppiDilate3x3Border_32f_C1R
image_dilate_3x3_border, 1418
nppiDilate3x3Border_32f_C3R
image_dilate_3x3_border, 1419
nppiDilate3x3Border_32f_C4R
image_dilate_3x3_border, 1419
nppiDilate3x3Border_8u_AC4R
image_dilate_3x3_border, 1419
nppiDilate3x3Border_8u_C1R
image_dilate_3x3_border, 1420
nppiDilate3x3Border_8u_C3R
image_dilate_3x3_border, 1420
nppiDilate3x3Border_8u_C4R
image_dilate_3x3_border, 1421
nppiDilate_16u_AC4R
image_dilate, 1395
nppiDilate_16u_C1R
image_dilate, 1395
nppiDilate_16u_C3R
image_dilate, 1396
nppiDilate_16u_C4R
image_dilate, 1396
nppiDilate_32f_AC4R

image_dilate, 1396
nppiDilate_32f_C1R
image_dilate, 1397
nppiDilate_32f_C3R
image_dilate, 1397
nppiDilate_32f_C4R
image_dilate, 1398
nppiDilate_8u_AC4R
image_dilate, 1398
nppiDilate_8u_C1R
image_dilate, 1399
nppiDilate_8u_C3R
image_dilate, 1399
nppiDilate_8u_C4R
image_dilate, 1399
nppiDilateBorder_16u_AC4R
image_dilate_border, 1402
nppiDilateBorder_16u_C1R
image_dilate_border, 1403
nppiDilateBorder_16u_C3R
image_dilate_border, 1403
nppiDilateBorder_16u_C4R
image_dilate_border, 1404
nppiDilateBorder_32f_AC4R
image_dilate_border, 1404
nppiDilateBorder_32f_C1R
image_dilate_border, 1405
nppiDilateBorder_32f_C3R
image_dilate_border, 1405
nppiDilateBorder_32f_C4R
image_dilate_border, 1406
nppiDilateBorder_8u_AC4R
image_dilate_border, 1406
nppiDilateBorder_8u_C1R
image_dilate_border, 1407
nppiDilateBorder_8u_C3R
image_dilate_border, 1407
nppiDilateBorder_8u_C4R
image_dilate_border, 1408
nppiDiv_16s_AC4IRSfs
image_div, 281
nppiDiv_16s_AC4RSfs
image_div, 281
nppiDiv_16s_C1IRSfs
image_div, 282
nppiDiv_16s_C1RSfs
image_div, 282
nppiDiv_16s_C3IRSfs
image_div, 282
nppiDiv_16s_C3RSfs
image_div, 283
nppiDiv_16s_C4IRSfs
image_div, 283
nppiDiv_16s_C4RSfs
image_div, 284
nppiDiv_16sc_AC4IRSfs
image_div, 284
nppiDiv_16sc_AC4RSfs
image_div, 284
nppiDiv_16sc_C1IRSfs
image_div, 285
nppiDiv_16sc_C1RSfs
image_div, 285
nppiDiv_16sc_C3IRSfs
image_div, 286
nppiDiv_16sc_C3RSfs
image_div, 286
nppiDiv_16u_AC4IRSfs
image_div, 287
nppiDiv_16u_AC4RSfs
image_div, 287
nppiDiv_16u_C1IRSfs
image_div, 287
nppiDiv_16u_C1RSfs
image_div, 288
nppiDiv_16u_C3IRSfs
image_div, 288
nppiDiv_16u_C3RSfs
image_div, 289
nppiDiv_16u_C4IRSfs
image_div, 289
nppiDiv_16u_C4RSfs
image_div, 289
nppiDiv_32f_AC4IR
image_div, 290
nppiDiv_32f_AC4R
image_div, 290
nppiDiv_32f_C1IR
image_div, 291
nppiDiv_32f_C1R
image_div, 291
nppiDiv_32f_C3IR
image_div, 291
nppiDiv_32f_C3R
image_div, 292
nppiDiv_32f_C4IR
image_div, 292
nppiDiv_32f_C4R
image_div, 292
nppiDiv_32fc_AC4IR
image_div, 293
nppiDiv_32fc_AC4R
image_div, 293
nppiDiv_32fc_C1IR
image_div, 294
nppiDiv_32fc_C1R
image_div, 294
nppiDiv_32fc_C3IR

image_div, 294
nppiDiv_32fc_C3R
image_div, 295
nppiDiv_32fc_C4IR
image_div, 295
nppiDiv_32fc_C4R
image_div, 295
nppiDiv_32s_C1IRSfs
image_div, 296
nppiDiv_32s_C1R
image_div, 296
nppiDiv_32s_C1RSfs
image_div, 297
nppiDiv_32s_C3IRSfs
image_div, 297
nppiDiv_32s_C3RSfs
image_div, 297
nppiDiv_32sc_AC4IRSfs
image_div, 298
nppiDiv_32sc_AC4RSfs
image_div, 298
nppiDiv_32sc_C1IRSfs
image_div, 299
nppiDiv_32sc_C1RSfs
image_div, 299
nppiDiv_32sc_C3IRSfs
image_div, 300
nppiDiv_32sc_C3RSfs
image_div, 300
nppiDiv_8u_AC4IRSfs
image_div, 300
nppiDiv_8u_AC4RSfs
image_div, 301
nppiDiv_8u_C1IRSfs
image_div, 301
nppiDiv_8u_C1RSfs
image_div, 302
nppiDiv_8u_C3IRSfs
image_div, 302
nppiDiv_8u_C3RSfs
image_div, 302
nppiDiv_8u_C4IRSfs
image_div, 303
nppiDiv_8u_C4RSfs
image_div, 303
nppiDiv_Round_16s_AC4IRSfs
image_divround, 307
nppiDiv_Round_16s_AC4RSfs
image_divround, 308
nppiDiv_Round_16s_C1IRSfs
image_divround, 308
nppiDiv_Round_16s_C1RSfs
image_divround, 309
nppiDiv_Round_16s_C3IRSfs
image_divround, 309
nppiDiv_Round_16s_C3RSfs
image_divround, 309
nppiDiv_Round_16s_C4IRSfs
image_divround, 310
nppiDiv_Round_16s_C4RSfs
image_divround, 310
nppiDiv_Round_16u_AC4IRSfs
image_divround, 311
nppiDiv_Round_16u_AC4RSfs
image_divround, 311
nppiDiv_Round_16u_C1IRSfs
image_divround, 312
nppiDiv_Round_16u_C1RSfs
image_divround, 312
nppiDiv_Round_16u_C3IRSfs
image_divround, 313
nppiDiv_Round_16u_C3RSfs
image_divround, 313
nppiDiv_Round_16u_C4IRSfs
image_divround, 314
nppiDiv_Round_16u_C4RSfs
image_divround, 314
nppiDiv_Round_8u_AC4IRSfs
image_divround, 315
nppiDiv_Round_8u_AC4RSfs
image_divround, 315
nppiDiv_Round_8u_C1IRSfs
image_divround, 316
nppiDiv_Round_8u_C1RSfs
image_divround, 316
nppiDiv_Round_8u_C3IRSfs
image_divround, 317
nppiDiv_Round_8u_C3RSfs
image_divround, 317
nppiDiv_Round_8u_C4IRSfs
image_divround, 318
nppiDiv_Round_8u_C4RSfs
image_divround, 318
nppiDivC_16s_AC4IRSfs
image_divc, 145
nppiDivC_16s_AC4RSfs
image_divc, 145
nppiDivC_16s_C1IRSfs
image_divc, 145
nppiDivC_16s_C1RSfs
image_divc, 146
nppiDivC_16s_C3IRSfs
image_divc, 146
nppiDivC_16s_C3RSfs
image_divc, 146
nppiDivC_16s_C4IRSfs
image_divc, 147
nppiDivC_16s_C4RSfs

image_divc, 147
nppiDivC_16sc_AC4IRSfs
image_divc, 148
nppiDivC_16sc_AC4RSfs
image_divc, 148
nppiDivC_16sc_C1IRSfs
image_divc, 148
nppiDivC_16sc_C1RSfs
image_divc, 149
nppiDivC_16sc_C3IRSfs
image_divc, 149
nppiDivC_16sc_C3RSfs
image_divc, 150
nppiDivC_16u_AC4IRSfs
image_divc, 150
nppiDivC_16u_AC4RSfs
image_divc, 150
nppiDivC_16u_C1IRSfs
image_divc, 151
nppiDivC_16u_C1RSfs
image_divc, 151
nppiDivC_16u_C3IRSfs
image_divc, 152
nppiDivC_16u_C3RSfs
image_divc, 152
nppiDivC_16u_C4IRSfs
image_divc, 152
nppiDivC_16u_C4RSfs
image_divc, 153
nppiDivC_32f_AC4IR
image_divc, 153
nppiDivC_32f_AC4R
image_divc, 153
nppiDivC_32f_C1IR
image_divc, 154
nppiDivC_32f_C1R
image_divc, 154
nppiDivC_32f_C3IR
image_divc, 154
nppiDivC_32f_C3R
image_divc, 155
nppiDivC_32f_C4IR
image_divc, 155
nppiDivC_32f_C4R
image_divc, 155
nppiDivC_32fc_AC4IR
image_divc, 156
nppiDivC_32fc_AC4R
image_divc, 156
nppiDivC_32fc_C1IR
image_divc, 156
nppiDivC_32fc_C1R
image_divc, 157
nppiDivC_32fc_C3IR
image_divc, 157
nppiDivC_32fc_C3R
image_divc, 157
nppiDivC_32fc_C4IR
image_divc, 158
nppiDivC_32fc_C4R
image_divc, 158
nppiDivC_32s_C1IRSfs
image_divc, 159
nppiDivC_32s_C1RSfs
image_divc, 159
nppiDivC_32s_C3IRSfs
image_divc, 159
nppiDivC_32s_C3RSfs
image_divc, 160
nppiDivC_32sc_AC4IRSfs
image_divc, 160
nppiDivC_32sc_AC4RSfs
image_divc, 160
nppiDivC_32sc_C1IRSfs
image_divc, 161
nppiDivC_32sc_C1RSfs
image_divc, 161
nppiDivC_32sc_C3IRSfs
image_divc, 162
nppiDivC_32sc_C3RSfs
image_divc, 162
nppiDivC_8u_AC4IRSfs
image_divc, 162
nppiDivC_8u_AC4RSfs
image_divc, 163
nppiDivC_8u_C1IRSfs
image_divc, 163
nppiDivC_8u_C1RSfs
image_divc, 164
nppiDivC_8u_C3IRSfs
image_divc, 164
nppiDivC_8u_C3RSfs
image_divc, 164
nppiDivC_8u_C4IRSfs
image_divc, 165
nppiDivC_8u_C4RSfs
image_divc, 165
nppiDotProd_16s64f_AC4R
image_dot_prod, 1862
nppiDotProd_16s64f_C1R
image_dot_prod, 1862
nppiDotProd_16s64f_C3R
image_dot_prod, 1863
nppiDotProd_16s64f_C4R
image_dot_prod, 1863
nppiDotProd_16u64f_AC4R
image_dot_prod, 1864
nppiDotProd_16u64f_C1R

image_dot_prod, 1864
nppiDotProd_16u64f_C3R
image_dot_prod, 1865
nppiDotProd_16u64f_C4R
image_dot_prod, 1865
nppiDotProd_32f64f_AC4R
image_dot_prod, 1865
nppiDotProd_32f64f_C1R
image_dot_prod, 1866
nppiDotProd_32f64f_C3R
image_dot_prod, 1866
nppiDotProd_32f64f_C4R
image_dot_prod, 1867
nppiDotProd_32s64f_AC4R
image_dot_prod, 1867
nppiDotProd_32s64f_C1R
image_dot_prod, 1868
nppiDotProd_32s64f_C3R
image_dot_prod, 1868
nppiDotProd_32s64f_C4R
image_dot_prod, 1868
nppiDotProd_32u64f_AC4R
image_dot_prod, 1869
nppiDotProd_32u64f_C1R
image_dot_prod, 1869
nppiDotProd_32u64f_C3R
image_dot_prod, 1870
nppiDotProd_32u64f_C4R
image_dot_prod, 1870
nppiDotProd_8s64f_AC4R
image_dot_prod, 1871
nppiDotProd_8s64f_C1R
image_dot_prod, 1871
nppiDotProd_8s64f_C3R
image_dot_prod, 1871
nppiDotProd_8s64f_C4R
image_dot_prod, 1872
nppiDotProd_8u64f_AC4R
image_dot_prod, 1872
nppiDotProd_8u64f_C1R
image_dot_prod, 1873
nppiDotProd_8u64f_C3R
image_dot_prod, 1873
nppiDotProd_8u64f_C4R
image_dot_prod, 1874
nppiDotProdGetBufferHostSize_16s64f_AC4R
image_dot_prod, 1874
nppiDotProdGetBufferHostSize_16s64f_C1R
image_dot_prod, 1874
nppiDotProdGetBufferHostSize_16s64f_C3R
image_dot_prod, 1875
nppiDotProdGetBufferHostSize_16s64f_C4R
image_dot_prod, 1875
nppiDotProdGetBufferHostSize_16u64f_AC4R
image_dot_prod, 1875
nppiDotProdGetBufferHostSize_16u64f_C1R
image_dot_prod, 1875
nppiDotProdGetBufferHostSize_16u64f_C3R
image_dot_prod, 1876
nppiDotProdGetBufferHostSize_16u64f_C4R
image_dot_prod, 1876
nppiDotProdGetBufferHostSize_32f64f_AC4R
image_dot_prod, 1876
nppiDotProdGetBufferHostSize_32f64f_C1R
image_dot_prod, 1877
nppiDotProdGetBufferHostSize_32f64f_C3R
image_dot_prod, 1877
nppiDotProdGetBufferHostSize_32f64f_C4R
image_dot_prod, 1877
nppiDotProdGetBufferHostSize_32s64f_AC4R
image_dot_prod, 1877
nppiDotProdGetBufferHostSize_32s64f_C1R
image_dot_prod, 1878
nppiDotProdGetBufferHostSize_32s64f_C3R
image_dot_prod, 1878
nppiDotProdGetBufferHostSize_32s64f_C4R
image_dot_prod, 1878
nppiDotProdGetBufferHostSize_32u64f_AC4R
image_dot_prod, 1879
nppiDotProdGetBufferHostSize_32u64f_C1R
image_dot_prod, 1879
nppiDotProdGetBufferHostSize_32u64f_C3R
image_dot_prod, 1879
nppiDotProdGetBufferHostSize_32u64f_C4R
image_dot_prod, 1879
nppiDotProdGetBufferHostSize_8s64f_AC4R
image_dot_prod, 1880
nppiDotProdGetBufferHostSize_8s64f_C1R
image_dot_prod, 1880
nppiDotProdGetBufferHostSize_8s64f_C3R
image_dot_prod, 1880
nppiDotProdGetBufferHostSize_8s64f_C4R
image_dot_prod, 1881
nppiDotProdGetBufferHostSize_8u64f_AC4R
image_dot_prod, 1881
nppiDotProdGetBufferHostSize_8u64f_C1R
image_dot_prod, 1881
nppiDotProdGetBufferHostSize_8u64f_C3R
image_dot_prod, 1881
nppiDotProdGetBufferHostSize_8u64f_C4R
image_dot_prod, 1882
nppiDup_16s_C1AC4R
image_duplicate_channel, 923
nppiDup_16s_C1C3R
image_duplicate_channel, 923
nppiDup_16s_C1C4R
image_duplicate_channel, 924
nppiDup_16u_C1AC4R

image_duplicate_channel, 924
nppiDup_16u_C1C3R
image_duplicate_channel, 924
nppiDup_16u_C1C4R
image_duplicate_channel, 925
nppiDup_32f_C1AC4R
image_duplicate_channel, 925
nppiDup_32f_C1C3R
image_duplicate_channel, 925
nppiDup_32f_C1C4R
image_duplicate_channel, 926
nppiDup_32s_C1AC4R
image_duplicate_channel, 926
nppiDup_32s_C1C3R
image_duplicate_channel, 926
nppiDup_32s_C1C4R
image_duplicate_channel, 927
nppiDup_8u_C1AC4R
image_duplicate_channel, 927
nppiDup_8u_C1C3R
image_duplicate_channel, 927
nppiDup_8u_C1C4R
image_duplicate_channel, 928
nppiErode3x3_16u_AC4R
image_erode_3x3, 1438
nppiErode3x3_16u_C1R
image_erode_3x3, 1438
nppiErode3x3_16u_C3R
image_erode_3x3, 1438
nppiErode3x3_16u_C4R
image_erode_3x3, 1439
nppiErode3x3_32f_AC4R
image_erode_3x3, 1439
nppiErode3x3_32f_C1R
image_erode_3x3, 1439
nppiErode3x3_32f_C3R
image_erode_3x3, 1440
nppiErode3x3_32f_C4R
image_erode_3x3, 1440
nppiErode3x3_64f_C1R
image_erode_3x3, 1440
nppiErode3x3_8u_AC4R
image_erode_3x3, 1441
nppiErode3x3_8u_C1R
image_erode_3x3, 1441
nppiErode3x3_8u_C3R
image_erode_3x3, 1441
nppiErode3x3_8u_C4R
image_erode_3x3, 1442
nppiErode3x3Border_16u_AC4R
image_erode_3x3_border, 1444
nppiErode3x3Border_16u_C1R
image_erode_3x3_border, 1444
nppiErode3x3Border_16u_C3R
image_erode_3x3_border, 1445
nppiErode3x3Border_16u_C4R
image_erode_3x3_border, 1445
nppiErode3x3Border_32f_AC4R
image_erode_3x3_border, 1446
nppiErode3x3Border_32f_C1R
image_erode_3x3_border, 1446
nppiErode3x3Border_32f_C3R
image_erode_3x3_border, 1447
nppiErode3x3Border_32f_C4R
image_erode_3x3_border, 1447
nppiErode3x3Border_8u_AC4R
image_erode_3x3_border, 1447
nppiErode3x3Border_8u_C1R
image_erode_3x3_border, 1448
nppiErode3x3Border_8u_C3R
image_erode_3x3_border, 1448
nppiErode3x3Border_8u_C4R
image_erode_3x3_border, 1449
nppiErode_16u_AC4R
image_erode, 1423
nppiErode_16u_C1R
image_erode, 1423
nppiErode_16u_C3R
image_erode, 1424
nppiErode_16u_C4R
image_erode, 1424
nppiErode_32f_AC4R
image_erode, 1424
nppiErode_32f_C1R
image_erode, 1425
nppiErode_32f_C3R
image_erode, 1425
nppiErode_32f_C4R
image_erode, 1426
nppiErode_8u_AC4R
image_erode, 1426
nppiErode_8u_C1R
image_erode, 1427
nppiErode_8u_C3R
image_erode, 1427
nppiErode_8u_C4R
image_erode, 1427
nppiErodeBorder_16u_AC4R
image_erode_border, 1430
nppiErodeBorder_16u_C1R
image_erode_border, 1431
nppiErodeBorder_16u_C3R
image_erode_border, 1431
nppiErodeBorder_16u_C4R
image_erode_border, 1432
nppiErodeBorder_32f_AC4R
image_erode_border, 1432
nppiErodeBorder_32f_C1R

image_erode_border, 1433
nppiErodeBorder_32f_C3R
image_erode_border, 1433
nppiErodeBorder_32f_C4R
image_erode_border, 1434
nppiErodeBorder_8u_AC4R
image_erode_border, 1434
nppiErodeBorder_8u_C1R
image_erode_border, 1435
nppiErodeBorder_8u_C3R
image_erode_border, 1435
nppiErodeBorder_8u_C4R
image_erode_border, 1436
nppiEvenLevelsHost_32s
image_histogrameven, 1913
nppiExp_16s_C1IRSfs
image_exp, 364
nppiExp_16s_C1RSfs
image_exp, 364
nppiExp_16s_C3IRSfs
image_exp, 365
nppiExp_16s_C3RSfs
image_exp, 365
nppiExp_16u_C1IRSfs
image_exp, 365
nppiExp_16u_C1RSfs
image_exp, 366
nppiExp_16u_C3IRSfs
image_exp, 366
nppiExp_16u_C3RSfs
image_exp, 366
nppiExp_32f_C1IR
image_exp, 367
nppiExp_32f_C1R
image_exp, 367
nppiExp_32f_C3IR
image_exp, 367
nppiExp_32f_C3R
image_exp, 368
nppiExp_8u_C1IRSfs
image_exp, 368
nppiExp_8u_C1RSfs
image_exp, 368
nppiExp_8u_C3IRSfs
image_exp, 369
nppiExp_8u_C3RSfs
image_exp, 369
nppiFilter32f_16s_AC4R
image_convolution, 1089
nppiFilter32f_16s_C1R
image_convolution, 1090
nppiFilter32f_16s_C3R
image_convolution, 1090
nppiFilter32f_16s_C4R
image_convolution, 1090
nppiFilter32f_16u_AC4R
image_convolution, 1091
nppiFilter32f_16u_C1R
image_convolution, 1091
nppiFilter32f_16u_C3R
image_convolution, 1092
nppiFilter32f_16u_C4R
image_convolution, 1092
nppiFilter32f_32s_AC4R
image_convolution, 1093
nppiFilter32f_32s_C1R
image_convolution, 1093
nppiFilter32f_32s_C3R
image_convolution, 1094
nppiFilter32f_32s_C4R
image_convolution, 1094
nppiFilter32f_8s16s_AC4R
image_convolution, 1095
nppiFilter32f_8s16s_C1R
image_convolution, 1095
nppiFilter32f_8s16s_C3R
image_convolution, 1096
nppiFilter32f_8s16s_C4R
image_convolution, 1096
nppiFilter32f_8s_AC4R
image_convolution, 1097
nppiFilter32f_8s_C1R
image_convolution, 1097
nppiFilter32f_8s_C2R
image_convolution, 1098
nppiFilter32f_8s_C3R
image_convolution, 1098
nppiFilter32f_8s_C4R
image_convolution, 1099
nppiFilter32f_8u16s_AC4R
image_convolution, 1099
nppiFilter32f_8u16s_C1R
image_convolution, 1100
nppiFilter32f_8u16s_C3R
image_convolution, 1100
nppiFilter32f_8u16s_C4R
image_convolution, 1101
nppiFilter32f_8u_AC4R
image_convolution, 1101
nppiFilter32f_8u_C1R
image_convolution, 1102
nppiFilter32f_8u_C2R
image_convolution, 1102
nppiFilter32f_8u_C3R
image_convolution, 1103
nppiFilter32f_8u_C4R
image_convolution, 1103
nppiFilter_16s_AC4R

image_convolution, 1104
nppiFilter_16s_C1R
image_convolution, 1104
nppiFilter_16s_C3R
image_convolution, 1105
nppiFilter_16s_C4R
image_convolution, 1105
nppiFilter_16u_AC4R
image_convolution, 1106
nppiFilter_16u_C1R
image_convolution, 1106
nppiFilter_16u_C3R
image_convolution, 1107
nppiFilter_16u_C4R
image_convolution, 1107
nppiFilter_32f_AC4R
image_convolution, 1108
nppiFilter_32f_C1R
image_convolution, 1108
nppiFilter_32f_C2R
image_convolution, 1109
nppiFilter_32f_C3R
image_convolution, 1109
nppiFilter_32f_C4R
image_convolution, 1110
nppiFilter_64f_C1R
image_convolution, 1110
nppiFilter_8u_AC4R
image_convolution, 1111
nppiFilter_8u_C1R
image_convolution, 1111
nppiFilter_8u_C3R
image_convolution, 1112
nppiFilter_8u_C4R
image_convolution, 1112
nppiFilterBorder32f_16s_AC4R
image_convolution, 1113
nppiFilterBorder32f_16s_C1R
image_convolution, 1113
nppiFilterBorder32f_16s_C3R
image_convolution, 1114
nppiFilterBorder32f_16s_C4R
image_convolution, 1114
nppiFilterBorder32f_16u_AC4R
image_convolution, 1115
nppiFilterBorder32f_16u_C1R
image_convolution, 1115
nppiFilterBorder32f_16u_C3R
image_convolution, 1116
nppiFilterBorder32f_16u_C4R
image_convolution, 1116
nppiFilterBorder32f_32s_AC4R
image_convolution, 1117
nppiFilterBorder32f_32s_C1R
image_convolution, 1117
nppiFilterBorder32f_32s_C3R
image_convolution, 1118
nppiFilterBorder32f_32s_C4R
image_convolution, 1118
nppiFilterBorder32f_8s16s_AC4R
image_convolution, 1119
nppiFilterBorder32f_8s16s_C1R
image_convolution, 1119
nppiFilterBorder32f_8s16s_C3R
image_convolution, 1120
nppiFilterBorder32f_8s16s_C4R
image_convolution, 1120
nppiFilterBorder32f_8s_AC4R
image_convolution, 1121
nppiFilterBorder32f_8s_C1R
image_convolution, 1121
nppiFilterBorder32f_8s_C2R
image_convolution, 1122
nppiFilterBorder32f_8s_C3R
image_convolution, 1122
nppiFilterBorder32f_8s_C4R
image_convolution, 1123
nppiFilterBorder32f_8u16s_AC4R
image_convolution, 1123
nppiFilterBorder32f_8u16s_C1R
image_convolution, 1124
nppiFilterBorder32f_8u16s_C3R
image_convolution, 1124
nppiFilterBorder32f_8u16s_C4R
image_convolution, 1125
nppiFilterBorder32f_8u_AC4R
image_convolution, 1125
nppiFilterBorder32f_8u_C1R
image_convolution, 1126
nppiFilterBorder32f_8u_C2R
image_convolution, 1126
nppiFilterBorder32f_8u_C3R
image_convolution, 1127
nppiFilterBorder32f_8u_C4R
image_convolution, 1127
nppiFilterBorder_16s_AC4R
image_convolution, 1128
nppiFilterBorder_16s_C1R
image_convolution, 1129
nppiFilterBorder_16s_C3R
image_convolution, 1129
nppiFilterBorder_16s_C4R
image_convolution, 1130
nppiFilterBorder_16u_AC4R
image_convolution, 1130
nppiFilterBorder_16u_C1R
image_convolution, 1131
nppiFilterBorder_16u_C3R

image_convolution, 1132
nppiFilterBorder_16u_C4R
image_convolution, 1132
nppiFilterBorder_32f_AC4R
image_convolution, 1133
nppiFilterBorder_32f_C1R
image_convolution, 1133
nppiFilterBorder_32f_C2R
image_convolution, 1134
nppiFilterBorder_32f_C3R
image_convolution, 1134
nppiFilterBorder_32f_C4R
image_convolution, 1135
nppiFilterBorder_8u_AC4R
image_convolution, 1135
nppiFilterBorder_8u_C1R
image_convolution, 1136
nppiFilterBorder_8u_C3R
image_convolution, 1137
nppiFilterBorder_8u_C4R
image_convolution, 1137
nppiFilterBox_16s_AC4R
image_2D_fixed_linear_filters, 1140
nppiFilterBox_16s_C1R
image_2D_fixed_linear_filters, 1140
nppiFilterBox_16s_C3R
image_2D_fixed_linear_filters, 1141
nppiFilterBox_16s_C4R
image_2D_fixed_linear_filters, 1141
nppiFilterBox_16u_AC4R
image_2D_fixed_linear_filters, 1142
nppiFilterBox_16u_C1R
image_2D_fixed_linear_filters, 1142
nppiFilterBox_16u_C3R
image_2D_fixed_linear_filters, 1142
nppiFilterBox_16u_C4R
image_2D_fixed_linear_filters, 1143
nppiFilterBox_32f_AC4R
image_2D_fixed_linear_filters, 1143
nppiFilterBox_32f_C1R
image_2D_fixed_linear_filters, 1144
nppiFilterBox_32f_C3R
image_2D_fixed_linear_filters, 1144
nppiFilterBox_32f_C4R
image_2D_fixed_linear_filters, 1144
nppiFilterBox_64f_C1R
image_2D_fixed_linear_filters, 1145
nppiFilterBox_8u_AC4R
image_2D_fixed_linear_filters, 1145
nppiFilterBox_8u_C1R
image_2D_fixed_linear_filters, 1146
nppiFilterBox_8u_C3R
image_2D_fixed_linear_filters, 1146
nppiFilterBox_8u_C4R
image_2D_fixed_linear_filters, 1146
nppiFilterColumn32f_16s_AC4R
image_1D_linear_filter, 1022
nppiFilterColumn32f_16s_C1R
image_1D_linear_filter, 1023
nppiFilterColumn32f_16s_C3R
image_1D_linear_filter, 1023
nppiFilterColumn32f_16s_C4R
image_1D_linear_filter, 1023
nppiFilterColumn32f_16u_AC4R
image_1D_linear_filter, 1024
nppiFilterColumn32f_16u_C1R
image_1D_linear_filter, 1024
nppiFilterColumn32f_16u_C3R
image_1D_linear_filter, 1025
nppiFilterColumn32f_16u_C4R
image_1D_linear_filter, 1025
nppiFilterColumn32f_8u_AC4R
image_1D_linear_filter, 1026
nppiFilterColumn32f_8u_C1R
image_1D_linear_filter, 1026
nppiFilterColumn32f_8u_C3R
image_1D_linear_filter, 1027
nppiFilterColumn32f_8u_C4R
image_1D_linear_filter, 1027
nppiFilterColumn_16s_AC4R
image_1D_linear_filter, 1028
nppiFilterColumn_16s_C1R
image_1D_linear_filter, 1028
nppiFilterColumn_16s_C3R
image_1D_linear_filter, 1029
nppiFilterColumn_16s_C4R
image_1D_linear_filter, 1029
nppiFilterColumn_16u_AC4R
image_1D_linear_filter, 1030
nppiFilterColumn_16u_C1R
image_1D_linear_filter, 1030
nppiFilterColumn_16u_C3R
image_1D_linear_filter, 1031
nppiFilterColumn_16u_C4R
image_1D_linear_filter, 1031
nppiFilterColumn_32f_AC4R
image_1D_linear_filter, 1032
nppiFilterColumn_32f_C1R
image_1D_linear_filter, 1032
nppiFilterColumn_32f_C3R
image_1D_linear_filter, 1033
nppiFilterColumn_32f_C4R
image_1D_linear_filter, 1033
nppiFilterColumn_64f_C1R
image_1D_linear_filter, 1034
nppiFilterColumn_8u_AC4R
image_1D_linear_filter, 1034
nppiFilterColumn_8u_C1R

image_1D_linear_filter, 1035
nppiFilterColumn_8u_C3R
image_1D_linear_filter, 1035
nppiFilterColumn_8u_C4R
image_1D_linear_filter, 1036
nppiFilterGauss_16s_AC4R
image_filtering_functions, 966
nppiFilterGauss_16s_C1R
image_filtering_functions, 967
nppiFilterGauss_16s_C3R
image_filtering_functions, 967
nppiFilterGauss_16s_C4R
image_filtering_functions, 967
nppiFilterGauss_16u_AC4R
image_filtering_functions, 968
nppiFilterGauss_16u_C1R
image_filtering_functions, 968
nppiFilterGauss_16u_C3R
image_filtering_functions, 968
nppiFilterGauss_16u_C4R
image_filtering_functions, 969
nppiFilterGauss_32f_AC4R
image_filtering_functions, 969
nppiFilterGauss_32f_C1R
image_filtering_functions, 969
nppiFilterGauss_32f_C3R
image_filtering_functions, 970
nppiFilterGauss_32f_C4R
image_filtering_functions, 970
nppiFilterGauss_8u_AC4R
image_filtering_functions, 970
nppiFilterGauss_8u_C1R
image_filtering_functions, 971
nppiFilterGauss_8u_C3R
image_filtering_functions, 971
nppiFilterGauss_8u_C4R
image_filtering_functions, 971
nppiFilterGaussBorder_16s_AC4R
image_filtering_functions, 972
nppiFilterGaussBorder_16s_C1R
image_filtering_functions, 972
nppiFilterGaussBorder_16s_C3R
image_filtering_functions, 973
nppiFilterGaussBorder_16s_C4R
image_filtering_functions, 973
nppiFilterGaussBorder_16u_AC4R
image_filtering_functions, 974
nppiFilterGaussBorder_16u_C1R
image_filtering_functions, 974
nppiFilterGaussBorder_16u_C3R
image_filtering_functions, 975
nppiFilterGaussBorder_16u_C4R
image_filtering_functions, 975
nppiFilterGaussBorder_32f_AC4R
image_filtering_functions, 975
nppiFilterGaussBorder_32f_C1R
image_filtering_functions, 976
nppiFilterGaussBorder_32f_C3R
image_filtering_functions, 976
nppiFilterGaussBorder_32f_C4R
image_filtering_functions, 977
nppiFilterGaussBorder_8u_AC4R
image_filtering_functions, 977
nppiFilterGaussBorder_8u_C1R
image_filtering_functions, 978
nppiFilterGaussBorder_8u_C3R
image_filtering_functions, 978
nppiFilterGaussBorder_8u_C4R
image_filtering_functions, 979
nppiFilterHighPass_16s_AC4R
image_filtering_functions, 979
nppiFilterHighPass_16s_C1R
image_filtering_functions, 980
nppiFilterHighPass_16s_C3R
image_filtering_functions, 980
nppiFilterHighPass_16s_C4R
image_filtering_functions, 980
nppiFilterHighPass_16u_AC4R
image_filtering_functions, 981
nppiFilterHighPass_16u_C1R
image_filtering_functions, 981
nppiFilterHighPass_16u_C3R
image_filtering_functions, 981
nppiFilterHighPass_16u_C4R
image_filtering_functions, 982
nppiFilterHighPass_32f_AC4R
image_filtering_functions, 982
nppiFilterHighPass_32f_C1R
image_filtering_functions, 982
nppiFilterHighPass_32f_C3R
image_filtering_functions, 983
nppiFilterHighPass_32f_C4R
image_filtering_functions, 983
nppiFilterHighPass_8u_AC4R
image_filtering_functions, 983
nppiFilterHighPass_8u_C1R
image_filtering_functions, 984
nppiFilterHighPass_8u_C3R
image_filtering_functions, 984
nppiFilterHighPass_8u_C4R
image_filtering_functions, 984
nppiFilterLaplace_16s_AC4R
image_filtering_functions, 985
nppiFilterLaplace_16s_C1R
image_filtering_functions, 985
nppiFilterLaplace_16s_C3R
image_filtering_functions, 985
nppiFilterLaplace_16s_C4R

image_filtering_functions, 986
nppiFilterLaplace_32f_AC4R
image_filtering_functions, 986
nppiFilterLaplace_32f_C1R
image_filtering_functions, 986
nppiFilterLaplace_32f_C3R
image_filtering_functions, 987
nppiFilterLaplace_32f_C4R
image_filtering_functions, 987
nppiFilterLaplace_8s16s_C1R
image_filtering_functions, 987
nppiFilterLaplace_8u16s_C1R
image_filtering_functions, 988
nppiFilterLaplace_8u_AC4R
image_filtering_functions, 988
nppiFilterLaplace_8u_C1R
image_filtering_functions, 988
nppiFilterLaplace_8u_C3R
image_filtering_functions, 989
nppiFilterLaplace_8u_C4R
image_filtering_functions, 989
nppiFilterLowPass_16s_AC4R
image_filtering_functions, 989
nppiFilterLowPass_16s_C1R
image_filtering_functions, 990
nppiFilterLowPass_16s_C3R
image_filtering_functions, 990
nppiFilterLowPass_16s_C4R
image_filtering_functions, 990
nppiFilterLowPass_16u_AC4R
image_filtering_functions, 991
nppiFilterLowPass_16u_C1R
image_filtering_functions, 991
nppiFilterLowPass_16u_C3R
image_filtering_functions, 991
nppiFilterLowPass_16u_C4R
image_filtering_functions, 992
nppiFilterLowPass_32f_AC4R
image_filtering_functions, 992
nppiFilterLowPass_32f_C1R
image_filtering_functions, 992
nppiFilterLowPass_32f_C3R
image_filtering_functions, 993
nppiFilterLowPass_32f_C4R
image_filtering_functions, 993
nppiFilterLowPass_8u_AC4R
image_filtering_functions, 993
nppiFilterLowPass_8u_C1R
image_filtering_functions, 994
nppiFilterLowPass_8u_C3R
image_filtering_functions, 994
nppiFilterLowPass_8u_C4R
image_filtering_functions, 994
nppiFilterMax_16s_AC4R
image_rank_filters, 1153
nppiFilterMax_16s_C1R
image_rank_filters, 1154
nppiFilterMax_16s_C3R
image_rank_filters, 1154
nppiFilterMax_16s_C4R
image_rank_filters, 1154
nppiFilterMax_16u_AC4R
image_rank_filters, 1155
nppiFilterMax_16u_C1R
image_rank_filters, 1155
nppiFilterMax_16u_C3R
image_rank_filters, 1155
nppiFilterMax_16u_C4R
image_rank_filters, 1156
nppiFilterMax_32f_AC4R
image_rank_filters, 1156
nppiFilterMax_32f_C1R
image_rank_filters, 1157
nppiFilterMax_32f_C3R
image_rank_filters, 1157
nppiFilterMax_32f_C4R
image_rank_filters, 1157
nppiFilterMax_8u_AC4R
image_rank_filters, 1158
nppiFilterMax_8u_C1R
image_rank_filters, 1158
nppiFilterMax_8u_C3R
image_rank_filters, 1159
nppiFilterMax_8u_C4R
image_rank_filters, 1159
nppiFilterMedian_16s_AC4R
image_rank_filters, 1159
nppiFilterMedian_16s_C1R
image_rank_filters, 1160
nppiFilterMedian_16s_C3R
image_rank_filters, 1160
nppiFilterMedian_16s_C4R
image_rank_filters, 1161
nppiFilterMedian_16u_AC4R
image_rank_filters, 1161
nppiFilterMedian_16u_C1R
image_rank_filters, 1162
nppiFilterMedian_16u_C3R
image_rank_filters, 1162
nppiFilterMedian_16u_C4R
image_rank_filters, 1162
nppiFilterMedian_32f_AC4R
image_rank_filters, 1163
nppiFilterMedian_32f_C1R
image_rank_filters, 1163
nppiFilterMedian_32f_C3R
image_rank_filters, 1164
nppiFilterMedian_32f_C4R

image_rank_filters, 1164
nppiFilterMedian_8u_AC4R
image_rank_filters, 1165
nppiFilterMedian_8u_C1R
image_rank_filters, 1165
nppiFilterMedian_8u_C3R
image_rank_filters, 1165
nppiFilterMedian_8u_C4R
image_rank_filters, 1166
nppiFilterMedianGetBufferSize_16s_AC4R
image_rank_filters, 1166
nppiFilterMedianGetBufferSize_16s_C1R
image_rank_filters, 1167
nppiFilterMedianGetBufferSize_16s_C3R
image_rank_filters, 1167
nppiFilterMedianGetBufferSize_16s_C4R
image_rank_filters, 1167
nppiFilterMedianGetBufferSize_16u_AC4R
image_rank_filters, 1167
nppiFilterMedianGetBufferSize_16u_C1R
image_rank_filters, 1168
nppiFilterMedianGetBufferSize_16u_C3R
image_rank_filters, 1168
nppiFilterMedianGetBufferSize_16u_C4R
image_rank_filters, 1168
nppiFilterMedianGetBufferSize_32f_AC4R
image_rank_filters, 1169
nppiFilterMedianGetBufferSize_32f_C1R
image_rank_filters, 1169
nppiFilterMedianGetBufferSize_32f_C3R
image_rank_filters, 1169
nppiFilterMedianGetBufferSize_32f_C4R
image_rank_filters, 1169
nppiFilterMedianGetBufferSize_8u_AC4R
image_rank_filters, 1170
nppiFilterMedianGetBufferSize_8u_C1R
image_rank_filters, 1170
nppiFilterMedianGetBufferSize_8u_C3R
image_rank_filters, 1170
nppiFilterMedianGetBufferSize_8u_C4R
image_rank_filters, 1171
nppiFilterMin_16s_AC4R
image_rank_filters, 1171
nppiFilterMin_16s_C1R
image_rank_filters, 1171
nppiFilterMin_16s_C3R
image_rank_filters, 1172
nppiFilterMin_16s_C4R
image_rank_filters, 1172
nppiFilterMin_16u_AC4R
image_rank_filters, 1173
nppiFilterMin_16u_C1R
image_rank_filters, 1173
nppiFilterMin_16u_C3R
image_rank_filters, 1173
nppiFilterMin_16u_C4R
image_rank_filters, 1174
nppiFilterMin_32f_AC4R
image_rank_filters, 1174
nppiFilterMin_32f_C1R
image_rank_filters, 1175
nppiFilterMin_32f_C3R
image_rank_filters, 1175
nppiFilterMin_32f_C4R
image_rank_filters, 1175
nppiFilterMin_8u_AC4R
image_rank_filters, 1176
nppiFilterMin_8u_C1R
image_rank_filters, 1176
nppiFilterMin_8u_C3R
image_rank_filters, 1177
nppiFilterMin_8u_C4R
image_rank_filters, 1177
nppiFilterPrewittHoriz_16s_AC4R
fixed_filters, 1185
nppiFilterPrewittHoriz_16s_C1R
fixed_filters, 1185
nppiFilterPrewittHoriz_16s_C3R
fixed_filters, 1186
nppiFilterPrewittHoriz_16s_C4R
fixed_filters, 1186
nppiFilterPrewittHoriz_32f_AC4R
fixed_filters, 1186
nppiFilterPrewittHoriz_32f_C1R
fixed_filters, 1187
nppiFilterPrewittHoriz_32f_C3R
fixed_filters, 1187
nppiFilterPrewittHoriz_32f_C4R
fixed_filters, 1187
nppiFilterPrewittHoriz_8u_AC4R
fixed_filters, 1188
nppiFilterPrewittHoriz_8u_C1R
fixed_filters, 1188
nppiFilterPrewittHoriz_8u_C3R
fixed_filters, 1188
nppiFilterPrewittHoriz_8u_C4R
fixed_filters, 1189
nppiFilterPrewittVert_16s_AC4R
fixed_filters, 1189
nppiFilterPrewittVert_16s_C1R
fixed_filters, 1189
nppiFilterPrewittVert_16s_C3R
fixed_filters, 1190
nppiFilterPrewittVert_16s_C4R
fixed_filters, 1190
nppiFilterPrewittVert_32f_AC4R
fixed_filters, 1190
nppiFilterPrewittVert_32f_C1R

fixed_filters, 1191
nppiFilterPrewittVert_32f_C3R
fixed_filters, 1191
nppiFilterPrewittVert_32f_C4R
fixed_filters, 1191
nppiFilterPrewittVert_8u_AC4R
fixed_filters, 1192
nppiFilterPrewittVert_8u_C1R
fixed_filters, 1192
nppiFilterPrewittVert_8u_C3R
fixed_filters, 1192
nppiFilterPrewittVert_8u_C4R
fixed_filters, 1193
nppiFilterRobertsDown_16s_AC4R
image_filtering_functions, 995
nppiFilterRobertsDown_16s_C1R
image_filtering_functions, 995
nppiFilterRobertsDown_16s_C3R
image_filtering_functions, 995
nppiFilterRobertsDown_16s_C4R
image_filtering_functions, 996
nppiFilterRobertsDown_32f_AC4R
image_filtering_functions, 996
nppiFilterRobertsDown_32f_C1R
image_filtering_functions, 996
nppiFilterRobertsDown_32f_C3R
image_filtering_functions, 997
nppiFilterRobertsDown_32f_C4R
image_filtering_functions, 997
nppiFilterRobertsDown_8u_AC4R
image_filtering_functions, 997
nppiFilterRobertsDown_8u_C1R
image_filtering_functions, 998
nppiFilterRobertsDown_8u_C3R
image_filtering_functions, 998
nppiFilterRobertsDown_8u_C4R
image_filtering_functions, 998
nppiFilterRobertsUp_16s_AC4R
image_filtering_functions, 999
nppiFilterRobertsUp_16s_C1R
image_filtering_functions, 999
nppiFilterRobertsUp_16s_C3R
image_filtering_functions, 999
nppiFilterRobertsUp_16s_C4R
image_filtering_functions, 1000
nppiFilterRobertsUp_32f_AC4R
image_filtering_functions, 1000
nppiFilterRobertsUp_32f_C1R
image_filtering_functions, 1000
nppiFilterRobertsUp_32f_C3R
image_filtering_functions, 1001
nppiFilterRobertsUp_32f_C4R
image_filtering_functions, 1001
nppiFilterRobertsUp_8u_AC4R
image_filtering_functions, 1001
nppiFilterRobertsUp_8u_C1R
image_filtering_functions, 1002
nppiFilterRobertsUp_8u_C3R
image_filtering_functions, 1002
nppiFilterRobertsUp_8u_C4R
image_filtering_functions, 1002
nppiFilterRow32f_16s_AC4R
image_1D_linear_filter, 1036
nppiFilterRow32f_16s_C1R
image_1D_linear_filter, 1037
nppiFilterRow32f_16s_C3R
image_1D_linear_filter, 1037
nppiFilterRow32f_16s_C4R
image_1D_linear_filter, 1038
nppiFilterRow32f_16u_AC4R
image_1D_linear_filter, 1038
nppiFilterRow32f_16u_C1R
image_1D_linear_filter, 1039
nppiFilterRow32f_16u_C3R
image_1D_linear_filter, 1039
nppiFilterRow32f_16u_C4R
image_1D_linear_filter, 1040
nppiFilterRow32f_8u_AC4R
image_1D_linear_filter, 1040
nppiFilterRow32f_8u_C1R
image_1D_linear_filter, 1041
nppiFilterRow32f_8u_C3R
image_1D_linear_filter, 1041
nppiFilterRow32f_8u_C4R
image_1D_linear_filter, 1042
nppiFilterRow_16s_AC4R
image_1D_linear_filter, 1042
nppiFilterRow_16s_C1R
image_1D_linear_filter, 1043
nppiFilterRow_16s_C3R
image_1D_linear_filter, 1043
nppiFilterRow_16s_C4R
image_1D_linear_filter, 1044
nppiFilterRow_16u_AC4R
image_1D_linear_filter, 1044
nppiFilterRow_16u_C1R
image_1D_linear_filter, 1045
nppiFilterRow_16u_C3R
image_1D_linear_filter, 1045
nppiFilterRow_16u_C4R
image_1D_linear_filter, 1046
nppiFilterRow_32f_AC4R
image_1D_linear_filter, 1046
nppiFilterRow_32f_C1R
image_1D_linear_filter, 1047
nppiFilterRow_32f_C3R
image_1D_linear_filter, 1047
nppiFilterRow_32f_C4R

image_1D_linear_filter, 1048
nppiFilterRow_64f_C1R
image_1D_linear_filter, 1048
nppiFilterRow_8u_AC4R
image_1D_linear_filter, 1049
nppiFilterRow_8u_C1R
image_1D_linear_filter, 1049
nppiFilterRow_8u_C3R
image_1D_linear_filter, 1050
nppiFilterRow_8u_C4R
image_1D_linear_filter, 1050
nppiFilterScharrHoriz_32f_C1R
fixed_filters, 1193
nppiFilterScharrHoriz_8s16s_C1R
fixed_filters, 1193
nppiFilterScharrHoriz_8u16s_C1R
fixed_filters, 1194
nppiFilterScharrHorizBorder_32f_C1R
fixed_filters, 1194
nppiFilterScharrHorizBorder_8s16s_C1R
fixed_filters, 1195
nppiFilterScharrHorizBorder_8u16s_C1R
fixed_filters, 1195
nppiFilterScharrVert_32f_C1R
fixed_filters, 1195
nppiFilterScharrVert_8s16s_C1R
fixed_filters, 1196
nppiFilterScharrVert_8u16s_C1R
fixed_filters, 1196
nppiFilterScharrVertBorder_32f_C1R
fixed_filters, 1196
nppiFilterScharrVertBorder_8s16s_C1R
fixed_filters, 1197
nppiFilterScharrVertBorder_8u16s_C1R
fixed_filters, 1197
nppiFilterSharpen_16s_AC4R
image_filtering_functions, 1003
nppiFilterSharpen_16s_C1R
image_filtering_functions, 1003
nppiFilterSharpen_16s_C3R
image_filtering_functions, 1003
nppiFilterSharpen_16s_C4R
image_filtering_functions, 1004
nppiFilterSharpen_16u_AC4R
image_filtering_functions, 1004
nppiFilterSharpen_16u_C1R
image_filtering_functions, 1004
nppiFilterSharpen_16u_C3R
image_filtering_functions, 1005
nppiFilterSharpen_16u_C4R
image_filtering_functions, 1005
nppiFilterSharpen_32f_AC4R
image_filtering_functions, 1005
nppiFilterSharpen_32f_C1R
image_filtering_functions, 1006
nppiFilterSharpen_32f_C3R
image_filtering_functions, 1006
nppiFilterSharpen_32f_C4R
image_filtering_functions, 1006
nppiFilterSharpen_8u_AC4R
image_filtering_functions, 1007
nppiFilterSharpen_8u_C1R
image_filtering_functions, 1007
nppiFilterSharpen_8u_C3R
image_filtering_functions, 1007
nppiFilterSharpen_8u_C4R
image_filtering_functions, 1008
nppiFilterSobelCross_32f_C1R
image_1D_linear_filter, 1051
nppiFilterSobelCross_8s16s_C1R
image_1D_linear_filter, 1051
nppiFilterSobelCross_8u16s_C1R
image_1D_linear_filter, 1052
nppiFilterSobelCrossBorder_32f_C1R
image_filtering_functions, 1008
nppiFilterSobelCrossBorder_8s16s_C1R
image_filtering_functions, 1009
nppiFilterSobelCrossBorder_8u16s_C1R
image_filtering_functions, 1009
nppiFilterSobelHoriz_16s_AC4R
fixed_filters, 1198
nppiFilterSobelHoriz_16s_C1R
fixed_filters, 1198
nppiFilterSobelHoriz_16s_C3R
fixed_filters, 1198
nppiFilterSobelHoriz_16s_C4R
fixed_filters, 1199
nppiFilterSobelHoriz_32f_AC4R
fixed_filters, 1199
nppiFilterSobelHoriz_32f_C1R
fixed_filters, 1199
nppiFilterSobelHoriz_32f_C3R
fixed_filters, 1200
nppiFilterSobelHoriz_32f_C4R
fixed_filters, 1200
nppiFilterSobelHoriz_8s16s_C1R
fixed_filters, 1200
nppiFilterSobelHoriz_8u16s_C1R
fixed_filters, 1201
nppiFilterSobelHoriz_8u_AC4R
fixed_filters, 1201
nppiFilterSobelHoriz_8u_C1R
fixed_filters, 1201
nppiFilterSobelHoriz_8u_C3R
fixed_filters, 1202
nppiFilterSobelHoriz_8u_C4R
fixed_filters, 1202
nppiFilterSobelHorizBorder_16s_AC4R

image_1D_linear_filter, 1052
nppiFilterSobelHorizBorder_16s_C1R
image_1D_linear_filter, 1052
nppiFilterSobelHorizBorder_16s_C3R
image_1D_linear_filter, 1053
nppiFilterSobelHorizBorder_16s_C4R
image_1D_linear_filter, 1053
nppiFilterSobelHorizBorder_32f_AC4R
image_1D_linear_filter, 1054
nppiFilterSobelHorizBorder_32f_C1R
image_1D_linear_filter, 1054
nppiFilterSobelHorizBorder_32f_C3R
image_1D_linear_filter, 1055
nppiFilterSobelHorizBorder_32f_C4R
image_1D_linear_filter, 1055
nppiFilterSobelHorizBorder_8s16s_C1R
image_1D_linear_filter, 1055
nppiFilterSobelHorizBorder_8u16s_C1R
image_1D_linear_filter, 1056
nppiFilterSobelHorizBorder_8u_AC4R
image_1D_linear_filter, 1056
nppiFilterSobelHorizBorder_8u_C1R
image_1D_linear_filter, 1057
nppiFilterSobelHorizBorder_8u_C3R
image_1D_linear_filter, 1057
nppiFilterSobelHorizBorder_8u_C4R
image_1D_linear_filter, 1058
nppiFilterSobelHorizMask_32f_C1R
fixed_filters, 1202
nppiFilterSobelHorizMaskBorder_32f_C1R
image_1D_linear_filter, 1058
nppiFilterSobelHorizSecond_32f_C1R
fixed_filters, 1203
nppiFilterSobelHorizSecond_8s16s_C1R
fixed_filters, 1203
nppiFilterSobelHorizSecond_8u16s_C1R
fixed_filters, 1204
nppiFilterSobelHorizSecondBorder_32f_C1R
image_1D_linear_filter, 1059
nppiFilterSobelHorizSecondBorder_8s16s_C1R
image_1D_linear_filter, 1059
nppiFilterSobelHorizSecondBorder_8u16s_C1R
image_1D_linear_filter, 1060
nppiFilterSobelVert_16s_AC4R
fixed_filters, 1204
nppiFilterSobelVert_16s_C1R
fixed_filters, 1204
nppiFilterSobelVert_16s_C3R
fixed_filters, 1205
nppiFilterSobelVert_16s_C4R
fixed_filters, 1205
nppiFilterSobelVert_32f_AC4R
fixed_filters, 1205
nppiFilterSobelVert_32f_C1R
fixed_filters, 1206
nppiFilterSobelVert_32f_C3R
fixed_filters, 1206
nppiFilterSobelVert_32f_C4R
fixed_filters, 1206
nppiFilterSobelVert_8s16s_C1R
fixed_filters, 1207
nppiFilterSobelVert_8u16s_C1R
fixed_filters, 1207
nppiFilterSobelVert_8u_AC4R
fixed_filters, 1207
nppiFilterSobelVert_8u_C1R
fixed_filters, 1208
nppiFilterSobelVert_8u_C3R
fixed_filters, 1208
nppiFilterSobelVert_8u_C4R
fixed_filters, 1208
nppiFilterSobelVertBorder_16s_AC4R
image_1D_linear_filter, 1060
nppiFilterSobelVertBorder_16s_C1R
image_1D_linear_filter, 1060
nppiFilterSobelVertBorder_16s_C3R
image_1D_linear_filter, 1061
nppiFilterSobelVertBorder_16s_C4R
image_1D_linear_filter, 1061
nppiFilterSobelVertBorder_32f_AC4R
image_1D_linear_filter, 1062
nppiFilterSobelVertBorder_32f_C1R
image_1D_linear_filter, 1062
nppiFilterSobelVertBorder_32f_C3R
image_1D_linear_filter, 1063
nppiFilterSobelVertBorder_32f_C4R
image_1D_linear_filter, 1063
nppiFilterSobelVertBorder_8s16s_C1R
image_1D_linear_filter, 1063
nppiFilterSobelVertBorder_8u16s_C1R
image_1D_linear_filter, 1064
nppiFilterSobelVertBorder_8u_AC4R
image_1D_linear_filter, 1064
nppiFilterSobelVertBorder_8u_C1R
image_1D_linear_filter, 1065
nppiFilterSobelVertBorder_8u_C3R
image_1D_linear_filter, 1065
nppiFilterSobelVertBorder_8u_C4R
image_1D_linear_filter, 1066
nppiFilterSobelVertMask_32f_C1R
fixed_filters, 1209
nppiFilterSobelVertMaskBorder_32f_C1R
image_1D_linear_filter, 1066
nppiFilterSobelVertSecond_32f_C1R
image_1D_linear_filter, 1067
nppiFilterSobelVertSecond_8s16s_C1R
image_1D_linear_filter, 1067
nppiFilterSobelVertSecond_8u16s_C1R

image_1D_linear_filter, 1067
nppiFilterSobelVertSecondBorder_32f_C1R
image_filtering_functions, 1009
nppiFilterSobelVertSecondBorder_8s16s_C1R
image_filtering_functions, 1010
nppiFilterSobelVertSecondBorder_8u16s_C1R
image_filtering_functions, 1010
nppiFree
image_memory_management, 2177
nppiFullNormLevelGetBufferHostSize_16u32f_AC4R
crosscorrfullnormlevel, 2025
nppiFullNormLevelGetBufferHostSize_16u32f_C1R
crosscorrfullnormlevel, 2026
nppiFullNormLevelGetBufferHostSize_16u32f_C3R
crosscorrfullnormlevel, 2026
nppiFullNormLevelGetBufferHostSize_16u32f_C4R
crosscorrfullnormlevel, 2026
nppiFullNormLevelGetBufferHostSize_32f_AC4R
crosscorrfullnormlevel, 2027
nppiFullNormLevelGetBufferHostSize_32f_C1R
crosscorrfullnormlevel, 2027
nppiFullNormLevelGetBufferHostSize_32f_C3R
crosscorrfullnormlevel, 2027
nppiFullNormLevelGetBufferHostSize_32f_C4R
crosscorrfullnormlevel, 2027
nppiFullNormLevelGetBufferHostSize_8s32f_AC4R
crosscorrfullnormlevel, 2028
nppiFullNormLevelGetBufferHostSize_8s32f_C1R
crosscorrfullnormlevel, 2028
nppiFullNormLevelGetBufferHostSize_8s32f_C3R
crosscorrfullnormlevel, 2028
nppiFullNormLevelGetBufferHostSize_8s32f_C4R
crosscorrfullnormlevel, 2029
nppiFullNormLevelGetBufferHostSize_8u32f_AC4R
crosscorrfullnormlevel, 2029
nppiFullNormLevelGetBufferHostSize_8u32f_C1R
crosscorrfullnormlevel, 2029
nppiFullNormLevelGetBufferHostSize_8u32f_C3R
crosscorrfullnormlevel, 2029
nppiFullNormLevelGetBufferHostSize_8u32f_C4R
crosscorrfullnormlevel, 2030
nppiFullNormLevelGetBufferHostSize_8u_AC4RSfs
crosscorrfullnormlevel, 2030
nppiFullNormLevelGetBufferHostSize_8u_C1RSfs
crosscorrfullnormlevel, 2030
nppiFullNormLevelGetBufferHostSize_8u_C3RSfs
crosscorrfullnormlevel, 2031
nppiFullNormLevelGetBufferHostSize_8u_C4RSfs
crosscorrfullnormlevel, 2031
nppiGammaFwd_8u_AC4IR
image_color_gamma_correction, 609
nppiGammaFwd_8u_AC4R
image_color_gamma_correction, 609
nppiGammaFwd_8u_C3IR
image_color_gamma_correction, 609
nppiGammaFwd_8u_C3R
image_color_gamma_correction, 610
nppiGammaFwd_8u_IP3R
image_color_gamma_correction, 610
nppiGammaFwd_8u_P3R
image_color_gamma_correction, 610
nppiGammaInv_8u_AC4IR
image_color_gamma_correction, 611
nppiGammaInv_8u_AC4R
image_color_gamma_correction, 611
nppiGammaInv_8u_C3IR
image_color_gamma_correction, 611
nppiGammaInv_8u_C3R
image_color_gamma_correction, 612
nppiGammaInv_8u_IP3R
image_color_gamma_correction, 612
nppiGammaInv_8u_P3R
image_color_gamma_correction, 612
nppiGetAffineBound
image_affine_transform, 1303
nppiGetAffineQuad
image_affine_transform, 1303
nppiGetAffineTransform
image_affine_transform, 1304
nppiGetPerspectiveBound
image_perspective_transforms, 1352
nppiGetPerspectiveQuad
image_perspective_transforms, 1352
nppiGetPerspectiveTransform
image_perspective_transforms, 1353
nppiGetResizeRect
image_resize_square_pixel, 1216
nppiGetRotateBound
image_rotate, 1269
nppiGetRotateQuad
image_rotate, 1270
nppiGraphcut8_32f8u
image_graphcut, 726
nppiGraphcut8_32s8u
image_graphcut, 726
nppiGraphcut8GetSize
image_graphcut, 727
nppiGraphcut8InitAlloc

image_graphcut, 728
nppiGraphcut_32f8u
image_graphcut, 728
nppiGraphcut_32s8u
image_graphcut, 729
nppiGraphcutFree
image_graphcut, 730
nppiGraphcutGetSize
image_graphcut, 730
nppiGraphcutInitAlloc
image_graphcut, 730
NppiGraphcutState
image_labeling_and_segmentation, 724
NppiHaarBuffer, 2685
haarBuffer, 2685
haarBufferSize, 2685
NppiHaarClassifier_32f, 2686
classifiers, 2686
classifierSize, 2686
classifierStep, 2686
counterDevice, 2686
numClassifiers, 2686
nppiHistogramEven_16s_AC4R
image_histogrameven, 1914
nppiHistogramEven_16s_C1R
image_histogrameven, 1914
nppiHistogramEven_16s_C3R
image_histogrameven, 1914
nppiHistogramEven_16s_C4R
image_histogrameven, 1915
nppiHistogramEven_16u_AC4R
image_histogrameven, 1915
nppiHistogramEven_16u_C1R
image_histogrameven, 1916
nppiHistogramEven_16u_C3R
image_histogrameven, 1916
nppiHistogramEven_16u_C4R
image_histogrameven, 1917
nppiHistogramEven_8u_AC4R
image_histogrameven, 1917
nppiHistogramEven_8u_C1R
image_histogrameven, 1918
nppiHistogramEven_8u_C3R
image_histogrameven, 1918
nppiHistogramEven_8u_C4R
image_histogrameven, 1919
nppiHistogramEvenGetBufferSize_16s_AC4R
image_histogrameven, 1919
nppiHistogramEvenGetBufferSize_16s_C1R
image_histogrameven, 1919
nppiHistogramEvenGetBufferSize_16s_C3R
image_histogrameven, 1920
nppiHistogramEvenGetBufferSize_16s_C4R
image_histogrameven, 1920
nppiHistogramEvenGetBufferSize_16u_AC4R
image_histogrameven, 1920
nppiHistogramEvenGetBufferSize_16u_C1R
image_histogrameven, 1921
nppiHistogramEvenGetBufferSize_16u_C3R
image_histogrameven, 1921
nppiHistogramEvenGetBufferSize_16u_C4R
image_histogrameven, 1921
nppiHistogramEvenGetBufferSize_8u_AC4R
image_histogrameven, 1922
nppiHistogramEvenGetBufferSize_8u_C1R
image_histogrameven, 1922
nppiHistogramEvenGetBufferSize_8u_C3R
image_histogrameven, 1922
nppiHistogramEvenGetBufferSize_8u_C4R
image_histogrameven, 1923
nppiHistogramRange_16s_AC4R
image_histogramrange, 1927
nppiHistogramRange_16s_C1R
image_histogramrange, 1927
nppiHistogramRange_16s_C3R
image_histogramrange, 1927
nppiHistogramRange_16s_C4R
image_histogramrange, 1928
nppiHistogramRange_16u_AC4R
image_histogramrange, 1928
nppiHistogramRange_16u_C1R
image_histogramrange, 1929
nppiHistogramRange_16u_C3R
image_histogramrange, 1929
nppiHistogramRange_16u_C4R
image_histogramrange, 1930
nppiHistogramRange_32f_AC4R
image_histogramrange, 1930
nppiHistogramRange_32f_C1R
image_histogramrange, 1931
nppiHistogramRange_32f_C3R
image_histogramrange, 1931
nppiHistogramRange_32f_C4R
image_histogramrange, 1931
nppiHistogramRange_8u_AC4R
image_histogramrange, 1932
nppiHistogramRange_8u_C1R
image_histogramrange, 1932
nppiHistogramRange_8u_C3R
image_histogramrange, 1933
nppiHistogramRange_8u_C4R
image_histogramrange, 1933
nppiHistogramRangeGetBufferSize_16s_AC4R
image_histogramrange, 1934
nppiHistogramRangeGetBufferSize_16s_C1R
image_histogramrange, 1934
nppiHistogramRangeGetBufferSize_16s_C3R
image_histogramrange, 1934

nppiHistogramRangeGetBufferSize_16s_C4R
image_histogramrange, 1935
nppiHistogramRangeGetBufferSize_16u_AC4R
image_histogramrange, 1935
nppiHistogramRangeGetBufferSize_16u_C1R
image_histogramrange, 1935
nppiHistogramRangeGetBufferSize_16u_C3R
image_histogramrange, 1936
nppiHistogramRangeGetBufferSize_16u_C4R
image_histogramrange, 1936
nppiHistogramRangeGetBufferSize_32f_AC4R
image_histogramrange, 1936
nppiHistogramRangeGetBufferSize_32f_C1R
image_histogramrange, 1937
nppiHistogramRangeGetBufferSize_32f_C3R
image_histogramrange, 1937
nppiHistogramRangeGetBufferSize_32f_C4R
image_histogramrange, 1937
nppiHistogramRangeGetBufferSize_8u_AC4R
image_histogramrange, 1938
nppiHistogramRangeGetBufferSize_8u_C1R
image_histogramrange, 1938
nppiHistogramRangeGetBufferSize_8u_C3R
image_histogramrange, 1938
nppiHistogramRangeGetBufferSize_8u_C4R
image_histogramrange, 1939
nppiHLSToBGR_8u_AC4P4R
image_color_model_conversion, 543
nppiHLSToBGR_8u_AC4R
image_color_model_conversion, 543
nppiHLSToBGR_8u_AP4C4R
image_color_model_conversion, 543
nppiHLSToBGR_8u_AP4R
image_color_model_conversion, 544
nppiHLSToBGR_8u_C3P3R
image_color_model_conversion, 544
nppiHLSToBGR_8u_P3C3R
image_color_model_conversion, 544
nppiHLSToBGR_8u_P3R
image_color_model_conversion, 545
nppiHLSToRGB_8u_AC4R
image_color_model_conversion, 545
nppiHLSToRGB_8u_C3R
image_color_model_conversion, 545
nppiHSVToRGB_8u_AC4R
image_color_model_conversion, 546
nppiHSVToRGB_8u_C3R
image_color_model_conversion, 546
NppiHuffmanTableType
typedefs_npp, 42
nppiIntegral_8u32f_C1R
image_integral, 1903
nppiIntegral_8u32s_C1R
image_integral, 1903
NppiInterpolationMode
typedefs_npp, 42
nppiLabToBGR_8u_C3R
image_color_model_conversion, 546
nppiLn_16s_C1IRSfs
image_ln, 357
nppiLn_16s_C1RSfs
image_ln, 357
nppiLn_16s_C3IRSfs
image_ln, 358
nppiLn_16s_C3RSfs
image_ln, 358
nppiLn_16u_C1IRSfs
image_ln, 358
nppiLn_16u_C1RSfs
image_ln, 359
nppiLn_16u_C3IRSfs
image_ln, 359
nppiLn_16u_C3RSfs
image_ln, 359
nppiLn_32f_C1IR
image_ln, 360
nppiLn_32f_C1R
image_ln, 360
nppiLn_32f_C3IR
image_ln, 360
nppiLn_32f_C3R
image_ln, 361
nppiLn_8u_C1IRSfs
image_ln, 361
nppiLn_8u_C1RSfs
image_ln, 361
nppiLn_8u_C3IRSfs
image_ln, 362
nppiLn_8u_C3RSfs
image_ln, 362
nppiLShiftC_16u_AC4IR
image_lshiftc, 423
nppiLShiftC_16u_AC4R
image_lshiftc, 423
nppiLShiftC_16u_C1IR
image_lshiftc, 423
nppiLShiftC_16u_C1R
image_lshiftc, 424
nppiLShiftC_16u_C3IR
image_lshiftc, 424
nppiLShiftC_16u_C3R
image_lshiftc, 424
nppiLShiftC_16u_C4IR
image_lshiftc, 425
nppiLShiftC_16u_C4R
image_lshiftc, 425
nppiLShiftC_32s_AC4IR
image_lshiftc, 425

nppiLShiftC_32s_AC4R
image_lshiftc, 426
nppiLShiftC_32s_C1IR
image_lshiftc, 426
nppiLShiftC_32s_C1R
image_lshiftc, 426
nppiLShiftC_32s_C3IR
image_lshiftc, 427
nppiLShiftC_32s_C3R
image_lshiftc, 427
nppiLShiftC_32s_C4IR
image_lshiftc, 427
nppiLShiftC_32s_C4R
image_lshiftc, 428
nppiLShiftC_8u_AC4IR
image_lshiftc, 428
nppiLShiftC_8u_AC4R
image_lshiftc, 428
nppiLShiftC_8u_C1IR
image_lshiftc, 429
nppiLShiftC_8u_C1R
image_lshiftc, 429
nppiLShiftC_8u_C3IR
image_lshiftc, 429
nppiLShiftC_8u_C3R
image_lshiftc, 430
nppiLShiftC_8u_C4IR
image_lshiftc, 430
nppiLShiftC_8u_C4R
image_lshiftc, 430
nppiLUT_16s_AC4IR
image_color_processing, 655
nppiLUT_16s_AC4R
image_color_processing, 655
nppiLUT_16s_C1IR
image_color_processing, 656
nppiLUT_16s_C1R
image_color_processing, 656
nppiLUT_16s_C3IR
image_color_processing, 657
nppiLUT_16s_C3R
image_color_processing, 657
nppiLUT_16s_C4IR
image_color_processing, 658
nppiLUT_16s_C4R
image_color_processing, 658
nppiLUT_16u_AC4IR
image_color_processing, 659
nppiLUT_16u_AC4R
image_color_processing, 659
nppiLUT_16u_C1IR
image_color_processing, 660
nppiLUT_16u_C1R
image_color_processing, 660
nppiLUT_16u_C3IR
image_color_processing, 661
nppiLUT_16u_C3R
image_color_processing, 661
nppiLUT_16u_C4IR
image_color_processing, 662
nppiLUT_16u_C4R
image_color_processing, 662
nppiLUT_32f_AC4IR
image_color_processing, 663
nppiLUT_32f_AC4R
image_color_processing, 663
nppiLUT_32f_C1IR
image_color_processing, 664
nppiLUT_32f_C1R
image_color_processing, 664
nppiLUT_32f_C3IR
image_color_processing, 665
nppiLUT_32f_C3R
image_color_processing, 665
nppiLUT_32f_C4IR
image_color_processing, 666
nppiLUT_32f_C4R
image_color_processing, 666
nppiLUT_8u_AC4IR
image_color_processing, 667
nppiLUT_8u_AC4R
image_color_processing, 667
nppiLUT_8u_C1IR
image_color_processing, 668
nppiLUT_8u_C1R
image_color_processing, 668
nppiLUT_8u_C3IR
image_color_processing, 669
nppiLUT_8u_C3R
image_color_processing, 669
nppiLUT_8u_C4IR
image_color_processing, 670
nppiLUT_8u_C4R
image_color_processing, 670
nppiLUT_Cubic_16s_AC4IR
image_color_processing, 671
nppiLUT_Cubic_16s_AC4R
image_color_processing, 671
nppiLUT_Cubic_16s_C1IR
image_color_processing, 672
nppiLUT_Cubic_16s_C1R
image_color_processing, 672
nppiLUT_Cubic_16s_C3IR
image_color_processing, 673
nppiLUT_Cubic_16s_C3R
image_color_processing, 673
nppiLUT_Cubic_16s_C4IR
image_color_processing, 674

nppiLUT_Cubic_16s_C4R
image_color_processing, 674
nppiLUT_Cubic_16u_AC4IR
image_color_processing, 675
nppiLUT_Cubic_16u_AC4R
image_color_processing, 675
nppiLUT_Cubic_16u_C1IR
image_color_processing, 676
nppiLUT_Cubic_16u_C1R
image_color_processing, 676
nppiLUT_Cubic_16u_C3IR
image_color_processing, 677
nppiLUT_Cubic_16u_C3R
image_color_processing, 677
nppiLUT_Cubic_16u_C4IR
image_color_processing, 678
nppiLUT_Cubic_16u_C4R
image_color_processing, 678
nppiLUT_Cubic_32f_AC4IR
image_color_processing, 679
nppiLUT_Cubic_32f_AC4R
image_color_processing, 679
nppiLUT_Cubic_32f_C1IR
image_color_processing, 680
nppiLUT_Cubic_32f_C1R
image_color_processing, 680
nppiLUT_Cubic_32f_C3IR
image_color_processing, 681
nppiLUT_Cubic_32f_C3R
image_color_processing, 681
nppiLUT_Cubic_32f_C4IR
image_color_processing, 682
nppiLUT_Cubic_32f_C4R
image_color_processing, 682
nppiLUT_Cubic_8u_AC4IR
image_color_processing, 683
nppiLUT_Cubic_8u_AC4R
image_color_processing, 683
nppiLUT_Cubic_8u_C1IR
image_color_processing, 684
nppiLUT_Cubic_8u_C1R
image_color_processing, 684
nppiLUT_Cubic_8u_C3IR
image_color_processing, 685
nppiLUT_Cubic_8u_C3R
image_color_processing, 685
nppiLUT_Cubic_8u_C4IR
image_color_processing, 686
nppiLUT_Cubic_8u_C4R
image_color_processing, 686
nppiLUT_Linear_16s_AC4IR
image_color_processing, 687
nppiLUT_Linear_16s_AC4R
image_color_processing, 687
nppiLUT_Linear_16s_C1IR
image_color_processing, 688
nppiLUT_Linear_16s_C1R
image_color_processing, 688
nppiLUT_Linear_16s_C3IR
image_color_processing, 689
nppiLUT_Linear_16s_C3R
image_color_processing, 689
nppiLUT_Linear_16s_C4IR
image_color_processing, 690
nppiLUT_Linear_16s_C4R
image_color_processing, 690
nppiLUT_Linear_16u_AC4IR
image_color_processing, 691
nppiLUT_Linear_16u_AC4R
image_color_processing, 691
nppiLUT_Linear_16u_C1IR
image_color_processing, 692
nppiLUT_Linear_16u_C1R
image_color_processing, 692
nppiLUT_Linear_16u_C3IR
image_color_processing, 693
nppiLUT_Linear_16u_C3R
image_color_processing, 693
nppiLUT_Linear_16u_C4IR
image_color_processing, 694
nppiLUT_Linear_16u_C4R
image_color_processing, 694
nppiLUT_Linear_32f_AC4IR
image_color_processing, 695
nppiLUT_Linear_32f_AC4R
image_color_processing, 695
nppiLUT_Linear_32f_C1IR
image_color_processing, 696
nppiLUT_Linear_32f_C1R
image_color_processing, 696
nppiLUT_Linear_32f_C3IR
image_color_processing, 697
nppiLUT_Linear_32f_C3R
image_color_processing, 697
nppiLUT_Linear_32f_C4IR
image_color_processing, 698
nppiLUT_Linear_32f_C4R
image_color_processing, 698
nppiLUT_Linear_8u_AC4IR
image_color_processing, 699
nppiLUT_Linear_8u_AC4R
image_color_processing, 699
nppiLUT_Linear_8u_C1IR
image_color_processing, 700
nppiLUT_Linear_8u_C1R
image_color_processing, 701
nppiLUT_Linear_8u_C3IR
image_color_processing, 701

nppiLUT_Linear_8u_C3R
image_color_processing, 702
nppiLUT_Linear_8u_C4IR
image_color_processing, 702
nppiLUT_Linear_8u_C4R
image_color_processing, 703
nppiLUT_Trilinear_8u_AC4IR
image_color_processing, 703
nppiLUT_Trilinear_8u_AC4R
image_color_processing, 704
nppiLUT_Trilinear_8u_C4R
image_color_processing, 705
nppiLUTPalette_16u24u_C1R
image_color_processing, 705
nppiLUTPalette_16u32u_C1R
image_color_processing, 706
nppiLUTPalette_16u8u_C1R
image_color_processing, 706
nppiLUTPalette_16u_AC4R
image_color_processing, 707
nppiLUTPalette_16u_C1R
image_color_processing, 707
nppiLUTPalette_16u_C3R
image_color_processing, 708
nppiLUTPalette_16u_C4R
image_color_processing, 708
nppiLUTPalette_8u24u_C1R
image_color_processing, 709
nppiLUTPalette_8u32u_C1R
image_color_processing, 709
nppiLUTPalette_8u_AC4R
image_color_processing, 710
nppiLUTPalette_8u_C1R
image_color_processing, 710
nppiLUTPalette_8u_C3R
image_color_processing, 711
nppiLUTPalette_8u_C4R
image_color_processing, 711
nppiLUTPaletteSwap_16u_C3A0C4R
image_color_processing, 712
nppiLUTPaletteSwap_8u_C3A0C4R
image_color_processing, 712
nppiLUVToRGB_8u_AC4R
image_color_model_conversion, 547
nppiLUVToRGB_8u_C3R
image_color_model_conversion, 547
nppiMagnitude_32fc32f_C1R
image_fourier_transforms, 1391
nppiMagnitudeSqr_32fc32f_C1R
image_fourier_transforms, 1391
nppiMalloc_16s_C1
image_memory_management, 2177
nppiMalloc_16s_C2
image_memory_management, 2177
nppiMalloc_16s_C4
image_memory_management, 2178
nppiMalloc_16sc_C1
image_memory_management, 2178
nppiMalloc_16sc_C2
image_memory_management, 2178
nppiMalloc_16sc_C3
image_memory_management, 2179
nppiMalloc_16sc_C4
image_memory_management, 2179
nppiMalloc_16u_C1
image_memory_management, 2179
nppiMalloc_16u_C2
image_memory_management, 2179
nppiMalloc_16u_C3
image_memory_management, 2180
nppiMalloc_16u_C4
image_memory_management, 2180
nppiMalloc_32f_C1
image_memory_management, 2180
nppiMalloc_32f_C2
image_memory_management, 2181
nppiMalloc_32f_C3
image_memory_management, 2181
nppiMalloc_32f_C4
image_memory_management, 2181
nppiMalloc_32fc_C1
image_memory_management, 2181
nppiMalloc_32fc_C2
image_memory_management, 2182
nppiMalloc_32fc_C3
image_memory_management, 2182
nppiMalloc_32fc_C4
image_memory_management, 2182
nppiMalloc_32s_C1
image_memory_management, 2183
nppiMalloc_32s_C3
image_memory_management, 2183
nppiMalloc_32s_C4
image_memory_management, 2183
nppiMalloc_32sc_C1
image_memory_management, 2183
nppiMalloc_32sc_C2
image_memory_management, 2184
nppiMalloc_32sc_C3
image_memory_management, 2184
nppiMalloc_32sc_C4
image_memory_management, 2184
nppiMalloc_8u_C1
image_memory_management, 2185
nppiMalloc_8u_C2
image_memory_management, 2185
nppiMalloc_8u_C3
image_memory_management, 2185

nppiMalloc_8u_C4
image_memory_management, 2185
NppiMaskSize
typedefs_npp, 43
nppiMax_16s_AC4R
image_max, 1561
nppiMax_16s_C1R
image_max, 1561
nppiMax_16s_C3R
image_max, 1562
nppiMax_16s_C4R
image_max, 1562
nppiMax_16u_AC4R
image_max, 1562
nppiMax_16u_C1R
image_max, 1563
nppiMax_16u_C3R
image_max, 1563
nppiMax_16u_C4R
image_max, 1564
nppiMax_32f_AC4R
image_max, 1564
nppiMax_32f_C1R
image_max, 1564
nppiMax_32f_C3R
image_max, 1565
nppiMax_32f_C4R
image_max, 1565
nppiMax_8u_AC4R
image_max, 1565
nppiMax_8u_C1R
image_max, 1566
nppiMax_8u_C3R
image_max, 1566
nppiMax_8u_C4R
image_max, 1567
nppiMaxEvery_16s_AC4IR
image_maxevery, 1890
nppiMaxEvery_16s_C1IR
image_maxevery, 1890
nppiMaxEvery_16s_C3IR
image_maxevery, 1891
nppiMaxEvery_16s_C4IR
image_maxevery, 1891
nppiMaxEvery_16u_AC4IR
image_maxevery, 1891
nppiMaxEvery_16u_C1IR
image_maxevery, 1892
nppiMaxEvery_16u_C3IR
image_maxevery, 1892
nppiMaxEvery_16u_C4IR
image_maxevery, 1892
nppiMaxEvery_32f_AC4IR
image_maxevery, 1893
nppiMaxEvery_32f_C1IR
image_maxevery, 1893
nppiMaxEvery_32f_C3IR
image_maxevery, 1893
nppiMaxEvery_32f_C4IR
image_maxevery, 1894
nppiMaxEvery_8u_AC4IR
image_maxevery, 1894
nppiMaxEvery_8u_C1IR
image_maxevery, 1894
nppiMaxEvery_8u_C3IR
image_maxevery, 1895
nppiMaxEvery_8u_C4IR
image_maxevery, 1895
nppiMaxGetBufferHostSize_16s_AC4R
image_max, 1567
nppiMaxGetBufferHostSize_16s_C1R
image_max, 1567
nppiMaxGetBufferHostSize_16s_C3R
image_max, 1567
nppiMaxGetBufferHostSize_16s_C4R
image_max, 1568
nppiMaxGetBufferHostSize_16u_AC4R
image_max, 1568
nppiMaxGetBufferHostSize_16u_C1R
image_max, 1568
nppiMaxGetBufferHostSize_16u_C3R
image_max, 1569
nppiMaxGetBufferHostSize_16u_C4R
image_max, 1569
nppiMaxGetBufferHostSize_32f_AC4R
image_max, 1569
nppiMaxGetBufferHostSize_32f_C1R
image_max, 1569
nppiMaxGetBufferHostSize_32f_C3R
image_max, 1570
nppiMaxGetBufferHostSize_32f_C4R
image_max, 1570
nppiMaxGetBufferHostSize_8u_AC4R
image_max, 1570
nppiMaxGetBufferHostSize_8u_C1R
image_max, 1571
nppiMaxGetBufferHostSize_8u_C3R
image_max, 1571
nppiMaxGetBufferHostSize_8u_C4R
image_max, 1571
nppiMaximumError_16s_C1R
image_maximum_error, 2084
nppiMaximumError_16s_C2R
image_maximum_error, 2085
nppiMaximumError_16s_C3R
image_maximum_error, 2085
nppiMaximumError_16s_C4R
image_maximum_error, 2085

nppiMaximumError_16sc_C1R
image_maximum_error, 2086
nppiMaximumError_16sc_C2R
image_maximum_error, 2086
nppiMaximumError_16sc_C3R
image_maximum_error, 2087
nppiMaximumError_16sc_C4R
image_maximum_error, 2087
nppiMaximumError_16u_C1R
image_maximum_error, 2088
nppiMaximumError_16u_C2R
image_maximum_error, 2088
nppiMaximumError_16u_C3R
image_maximum_error, 2088
nppiMaximumError_16u_C4R
image_maximum_error, 2089
nppiMaximumError_32f_C1R
image_maximum_error, 2089
nppiMaximumError_32f_C2R
image_maximum_error, 2090
nppiMaximumError_32f_C3R
image_maximum_error, 2090
nppiMaximumError_32f_C4R
image_maximum_error, 2091
nppiMaximumError_32fc_C1R
image_maximum_error, 2091
nppiMaximumError_32fc_C2R
image_maximum_error, 2092
nppiMaximumError_32fc_C3R
image_maximum_error, 2092
nppiMaximumError_32fc_C4R
image_maximum_error, 2092
nppiMaximumError_32s_C1R
image_maximum_error, 2093
nppiMaximumError_32s_C2R
image_maximum_error, 2093
nppiMaximumError_32s_C3R
image_maximum_error, 2094
nppiMaximumError_32s_C4R
image_maximum_error, 2094
nppiMaximumError_32sc_C1R
image_maximum_error, 2095
nppiMaximumError_32sc_C2R
image_maximum_error, 2095
nppiMaximumError_32sc_C3R
image_maximum_error, 2095
nppiMaximumError_32sc_C4R
image_maximum_error, 2096
nppiMaximumError_32u_C1R
image_maximum_error, 2096
nppiMaximumError_32u_C2R
image_maximum_error, 2097
nppiMaximumError_32u_C3R
image_maximum_error, 2097
nppiMaximumError_32u_C4R
image_maximum_error, 2098
nppiMaximumError_64f_C1R
image_maximum_error, 2098
nppiMaximumError_64f_C2R
image_maximum_error, 2098
nppiMaximumError_64f_C3R
image_maximum_error, 2099
nppiMaximumError_64f_C4R
image_maximum_error, 2099
nppiMaximumError_8s_C1R
image_maximum_error, 2100
nppiMaximumError_8s_C2R
image_maximum_error, 2100
nppiMaximumError_8s_C3R
image_maximum_error, 2101
nppiMaximumError_8s_C4R
image_maximum_error, 2101
nppiMaximumError_8u_C1R
image_maximum_error, 2101
nppiMaximumError_8u_C2R
image_maximum_error, 2102
nppiMaximumError_8u_C3R
image_maximum_error, 2102
nppiMaximumError_8u_C4R
image_maximum_error, 2103
nppiMaximumErrorGetBufferHostSize_16s_C1R
image_statistics_functions, 1491
nppiMaximumErrorGetBufferHostSize_16s_C2R
image_statistics_functions, 1491
nppiMaximumErrorGetBufferHostSize_16s_C3R
image_statistics_functions, 1491
nppiMaximumErrorGetBufferHostSize_16s_C4R
image_statistics_functions, 1492
nppiMaximumErrorGetBufferHostSize_16sc_C1R
image_statistics_functions, 1492
nppiMaximumErrorGetBufferHostSize_16sc_C2R
image_statistics_functions, 1492
nppiMaximumErrorGetBufferHostSize_16sc_C3R
image_statistics_functions, 1492
nppiMaximumErrorGetBufferHostSize_16sc_C4R
image_statistics_functions, 1493
nppiMaximumErrorGetBufferHostSize_16u_C1R
image_statistics_functions, 1493
nppiMaximumErrorGetBufferHostSize_16u_C2R
image_statistics_functions, 1493
nppiMaximumErrorGetBufferHostSize_16u_C3R
image_statistics_functions, 1494
nppiMaximumErrorGetBufferHostSize_16u_C4R
image_statistics_functions, 1494
nppiMaximumErrorGetBufferHostSize_32f_C1R
image_statistics_functions, 1494
nppiMaximumErrorGetBufferHostSize_32f_C2R
image_statistics_functions, 1494

nppiMaximumErrorGetBufferHostSize_32f_C3R
image_statistics_functions, 1495
nppiMaximumErrorGetBufferHostSize_32f_C4R
image_statistics_functions, 1495
nppiMaximumErrorGetBufferHostSize_32fc_C1R
image_statistics_functions, 1495
nppiMaximumErrorGetBufferHostSize_32fc_C2R
image_statistics_functions, 1496
nppiMaximumErrorGetBufferHostSize_32fc_C3R
image_statistics_functions, 1496
nppiMaximumErrorGetBufferHostSize_32fc_C4R
image_statistics_functions, 1496
nppiMaximumErrorGetBufferHostSize_32s_C1R
image_statistics_functions, 1496
nppiMaximumErrorGetBufferHostSize_32s_C2R
image_statistics_functions, 1497
nppiMaximumErrorGetBufferHostSize_32s_C3R
image_statistics_functions, 1497
nppiMaximumErrorGetBufferHostSize_32s_C4R
image_statistics_functions, 1497
nppiMaximumErrorGetBufferHostSize_32sc_C1R
image_statistics_functions, 1498
nppiMaximumErrorGetBufferHostSize_32sc_C2R
image_statistics_functions, 1498
nppiMaximumErrorGetBufferHostSize_32sc_C3R
image_statistics_functions, 1498
nppiMaximumErrorGetBufferHostSize_32sc_C4R
image_statistics_functions, 1498
nppiMaximumErrorGetBufferHostSize_32u_C1R
image_statistics_functions, 1499
nppiMaximumErrorGetBufferHostSize_32u_C2R
image_statistics_functions, 1499
nppiMaximumErrorGetBufferHostSize_32u_C3R
image_statistics_functions, 1499
nppiMaximumErrorGetBufferHostSize_32u_C4R
image_statistics_functions, 1500
nppiMaximumErrorGetBufferHostSize_64f_C1R
image_statistics_functions, 1500
nppiMaximumErrorGetBufferHostSize_64f_C2R
image_statistics_functions, 1500
nppiMaximumErrorGetBufferHostSize_64f_C3R
image_statistics_functions, 1500
nppiMaximumErrorGetBufferHostSize_64f_C4R
image_statistics_functions, 1501
nppiMaximumErrorGetBufferHostSize_8s_C1R
image_statistics_functions, 1501
nppiMaximumErrorGetBufferHostSize_8s_C2R
image_statistics_functions, 1501
nppiMaximumErrorGetBufferHostSize_8s_C3R
image_statistics_functions, 1502
nppiMaximumErrorGetBufferHostSize_8s_C4R
image_statistics_functions, 1502
nppiMaximumErrorGetBufferHostSize_8u_C1R
image_statistics_functions, 1502
nppiMaximumErrorGetBufferHostSize_8u_C2R
image_statistics_functions, 1502
nppiMaximumErrorGetBufferHostSize_8u_C3R
image_statistics_functions, 1503
nppiMaximumErrorGetBufferHostSize_8u_C4R
image_statistics_functions, 1503
nppiMaximumRelativeError_16s_C1R
image_maximum_relative_error, 2130
nppiMaximumRelativeError_16s_C2R
image_maximum_relative_error, 2131
nppiMaximumRelativeError_16s_C3R
image_maximum_relative_error, 2131
nppiMaximumRelativeError_16s_C4R
image_maximum_relative_error, 2132
nppiMaximumRelativeError_16sc_C1R
image_maximum_relative_error, 2132
nppiMaximumRelativeError_16sc_C2R
image_maximum_relative_error, 2133
nppiMaximumRelativeError_16sc_C3R
image_maximum_relative_error, 2133
nppiMaximumRelativeError_16sc_C4R
image_maximum_relative_error, 2133
nppiMaximumRelativeError_16u_C1R
image_maximum_relative_error, 2134
nppiMaximumRelativeError_16u_C2R
image_maximum_relative_error, 2134
nppiMaximumRelativeError_16u_C3R
image_maximum_relative_error, 2135
nppiMaximumRelativeError_16u_C4R
image_maximum_relative_error, 2135
nppiMaximumRelativeError_32f_C1R
image_maximum_relative_error, 2136
nppiMaximumRelativeError_32f_C2R
image_maximum_relative_error, 2136
nppiMaximumRelativeError_32f_C3R
image_maximum_relative_error, 2137
nppiMaximumRelativeError_32f_C4R
image_maximum_relative_error, 2137
nppiMaximumRelativeError_32fc_C1R
image_maximum_relative_error, 2138
nppiMaximumRelativeError_32fc_C2R
image_maximum_relative_error, 2138
nppiMaximumRelativeError_32fc_C3R
image_maximum_relative_error, 2138
nppiMaximumRelativeError_32fc_C4R
image_maximum_relative_error, 2139
nppiMaximumRelativeError_32s_C1R
image_maximum_relative_error, 2139
nppiMaximumRelativeError_32s_C2R
image_maximum_relative_error, 2140
nppiMaximumRelativeError_32s_C3R
image_maximum_relative_error, 2140
nppiMaximumRelativeError_32s_C4R
image_maximum_relative_error, 2141

nppiMaximumRelativeError_32sc_C1R
image_maximum_relative_error, 2141
nppiMaximumRelativeError_32sc_C2R
image_maximum_relative_error, 2142
nppiMaximumRelativeError_32sc_C3R
image_maximum_relative_error, 2142
nppiMaximumRelativeError_32sc_C4R
image_maximum_relative_error, 2143
nppiMaximumRelativeError_32u_C1R
image_maximum_relative_error, 2143
nppiMaximumRelativeError_32u_C2R
image_maximum_relative_error, 2143
nppiMaximumRelativeError_32u_C3R
image_maximum_relative_error, 2144
nppiMaximumRelativeError_32u_C4R
image_maximum_relative_error, 2144
nppiMaximumRelativeError_64f_C1R
image_maximum_relative_error, 2145
nppiMaximumRelativeError_64f_C2R
image_maximum_relative_error, 2145
nppiMaximumRelativeError_64f_C3R
image_maximum_relative_error, 2146
nppiMaximumRelativeError_64f_C4R
image_maximum_relative_error, 2146
nppiMaximumRelativeError_8s_C1R
image_maximum_relative_error, 2147
nppiMaximumRelativeError_8s_C2R
image_maximum_relative_error, 2147
nppiMaximumRelativeError_8s_C3R
image_maximum_relative_error, 2148
nppiMaximumRelativeError_8s_C4R
image_maximum_relative_error, 2148
nppiMaximumRelativeError_8u_C1R
image_maximum_relative_error, 2148
nppiMaximumRelativeError_8u_C2R
image_maximum_relative_error, 2149
nppiMaximumRelativeError_8u_C3R
image_maximum_relative_error, 2149
nppiMaximumRelativeError_8u_C4R
image_maximum_relative_error, 2150
nppiMaximumRelativeErrorGetBufferHostSize_-16s_C1R
image_statistics_functions, 1503
nppiMaximumRelativeErrorGetBufferHostSize_-16s_C2R
image_statistics_functions, 1504
nppiMaximumRelativeErrorGetBufferHostSize_-16s_C3R
image_statistics_functions, 1504
nppiMaximumRelativeErrorGetBufferHostSize_-16s_C4R
image_statistics_functions, 1504
nppiMaximumRelativeErrorGetBufferHostSize_-16sc_C1R
image_statistics_functions, 1504
nppiMaximumRelativeErrorGetBufferHostSize_-16sc_C2R
image_statistics_functions, 1505
nppiMaximumRelativeErrorGetBufferHostSize_-16sc_C3R
image_statistics_functions, 1505
nppiMaximumRelativeErrorGetBufferHostSize_-16sc_C4R
image_statistics_functions, 1505
nppiMaximumRelativeErrorGetBufferHostSize_-16u_C1R
image_statistics_functions, 1506
nppiMaximumRelativeErrorGetBufferHostSize_-16u_C2R
image_statistics_functions, 1506
nppiMaximumRelativeErrorGetBufferHostSize_-16u_C3R
image_statistics_functions, 1506
nppiMaximumRelativeErrorGetBufferHostSize_-16u_C4R
image_statistics_functions, 1506
nppiMaximumRelativeErrorGetBufferHostSize_-32f_C1R
image_statistics_functions, 1507
nppiMaximumRelativeErrorGetBufferHostSize_-32f_C2R
image_statistics_functions, 1507
nppiMaximumRelativeErrorGetBufferHostSize_-32f_C3R
image_statistics_functions, 1507
nppiMaximumRelativeErrorGetBufferHostSize_-32f_C4R
image_statistics_functions, 1508
nppiMaximumRelativeErrorGetBufferHostSize_-32fc_C1R
image_statistics_functions, 1508
nppiMaximumRelativeErrorGetBufferHostSize_-32fc_C2R
image_statistics_functions, 1508
nppiMaximumRelativeErrorGetBufferHostSize_-32fc_C3R
image_statistics_functions, 1508
nppiMaximumRelativeErrorGetBufferHostSize_-32fc_C4R
image_statistics_functions, 1509
nppiMaximumRelativeErrorGetBufferHostSize_-32s_C1R
image_statistics_functions, 1509
nppiMaximumRelativeErrorGetBufferHostSize_-32s_C2R
image_statistics_functions, 1509
nppiMaximumRelativeErrorGetBufferHostSize_-32s_C3R

image_statistics_functions, 1510
nppiMaximumRelativeErrorGetBufferHostSize_-32s_C4R
image_statistics_functions, 1510
nppiMaximumRelativeErrorGetBufferHostSize_-32sc_C1R
image_statistics_functions, 1510
nppiMaximumRelativeErrorGetBufferHostSize_-32sc_C2R
image_statistics_functions, 1510
nppiMaximumRelativeErrorGetBufferHostSize_-32sc_C3R
image_statistics_functions, 1511
nppiMaximumRelativeErrorGetBufferHostSize_-32sc_C4R
image_statistics_functions, 1511
nppiMaximumRelativeErrorGetBufferHostSize_-32u_C1R
image_statistics_functions, 1511
nppiMaximumRelativeErrorGetBufferHostSize_-32u_C2R
image_statistics_functions, 1512
nppiMaximumRelativeErrorGetBufferHostSize_-32u_C3R
image_statistics_functions, 1512
nppiMaximumRelativeErrorGetBufferHostSize_-32u_C4R
image_statistics_functions, 1512
nppiMaximumRelativeErrorGetBufferHostSize_-64f_C1R
image_statistics_functions, 1512
nppiMaximumRelativeErrorGetBufferHostSize_-64f_C2R
image_statistics_functions, 1513
nppiMaximumRelativeErrorGetBufferHostSize_-64f_C3R
image_statistics_functions, 1513
nppiMaximumRelativeErrorGetBufferHostSize_-64f_C4R
image_statistics_functions, 1513
nppiMaximumRelativeErrorGetBufferHostSize_-8s_C1R
image_statistics_functions, 1514
nppiMaximumRelativeErrorGetBufferHostSize_-8s_C2R
image_statistics_functions, 1514
nppiMaximumRelativeErrorGetBufferHostSize_-8s_C3R
image_statistics_functions, 1514
nppiMaximumRelativeErrorGetBufferHostSize_-8s_C4R
image_statistics_functions, 1514
nppiMaximumRelativeErrorGetBufferHostSize_-8u_C1R
image_statistics_functions, 1515
nppiMaximumRelativeErrorGetBufferHostSize_-8u_C2R
image_statistics_functions, 1515
nppiMaximumRelativeErrorGetBufferHostSize_-8u_C3R
image_statistics_functions, 1515
nppiMaximumRelativeErrorGetBufferHostSize_-8u_C4R
image_statistics_functions, 1516
nppiMaxIndx_16s_AC4R
image_max_index, 1574
nppiMaxIndx_16s_C1R
image_max_index, 1575
nppiMaxIndx_16s_C3R
image_max_index, 1575
nppiMaxIndx_16s_C4R
image_max_index, 1575
nppiMaxIndx_16u_AC4R
image_max_index, 1576
nppiMaxIndx_16u_C1R
image_max_index, 1576
nppiMaxIndx_16u_C3R
image_max_index, 1577
nppiMaxIndx_16u_C4R
image_max_index, 1577
nppiMaxIndx_32f_AC4R
image_max_index, 1577
nppiMaxIndx_32f_C1R
image_max_index, 1578
nppiMaxIndx_32f_C3R
image_max_index, 1578
nppiMaxIndx_32f_C4R
image_max_index, 1579
nppiMaxIndx_8u_AC4R
image_max_index, 1579
nppiMaxIndx_8u_C1R
image_max_index, 1579
nppiMaxIndx_8u_C3R
image_max_index, 1580
nppiMaxIndx_8u_C4R
image_max_index, 1580
nppiMaxIndxGetBufferHostSize_16s_AC4R
image_max_index, 1581
nppiMaxIndxGetBufferHostSize_16s_C1R
image_max_index, 1581
nppiMaxIndxGetBufferHostSize_16s_C3R
image_max_index, 1581
nppiMaxIndxGetBufferHostSize_16s_C4R
image_max_index, 1582
nppiMaxIndxGetBufferHostSize_16u_AC4R
image_max_index, 1582
nppiMaxIndxGetBufferHostSize_16u_C1R
image_max_index, 1582

nppiMaxIndxGetBufferHostSize_16u_C3R
image_max_index, 1582
nppiMaxIndxGetBufferHostSize_16u_C4R
image_max_index, 1583
nppiMaxIndxGetBufferHostSize_32f_AC4R
image_max_index, 1583
nppiMaxIndxGetBufferHostSize_32f_C1R
image_max_index, 1583
nppiMaxIndxGetBufferHostSize_32f_C3R
image_max_index, 1584
nppiMaxIndxGetBufferHostSize_32f_C4R
image_max_index, 1584
nppiMaxIndxGetBufferHostSize_8u_AC4R
image_max_index, 1584
nppiMaxIndxGetBufferHostSize_8u_C1R
image_max_index, 1584
nppiMaxIndxGetBufferHostSize_8u_C3R
image_max_index, 1585
nppiMaxIndxGetBufferHostSize_8u_C4R
image_max_index, 1585
nppiMean_16s_AC4R
image_mean, 1621
nppiMean_16s_C1R
image_mean, 1621
nppiMean_16s_C3R
image_mean, 1621
nppiMean_16s_C4R
image_mean, 1622
nppiMean_16u_AC4R
image_mean, 1622
nppiMean_16u_C1MR
image_mean, 1622
nppiMean_16u_C1R
image_mean, 1623
nppiMean_16u_C3CMR
image_mean, 1623
nppiMean_16u_C3R
image_mean, 1623
nppiMean_16u_C4R
image_mean, 1624
nppiMean_32f_AC4R
image_mean, 1624
nppiMean_32f_C1MR
image_mean, 1625
nppiMean_32f_C1R
image_mean, 1625
nppiMean_32f_C3CMR
image_mean, 1625
nppiMean_32f_C3R
image_mean, 1626
nppiMean_32f_C4R
image_mean, 1626
nppiMean_8s_C1MR
image_mean, 1627
nppiMean_8s_C3CMR
image_mean, 1627
nppiMean_8u_AC4R
image_mean, 1628
nppiMean_8u_C1MR
image_mean, 1628
nppiMean_8u_C1R
image_mean, 1628
nppiMean_8u_C3CMR
image_mean, 1629
nppiMean_8u_C3R
image_mean, 1629
nppiMean_8u_C4R
image_mean, 1630
nppiMean_StdDev_16u_C1MR
image_mean_stddev, 1641
nppiMean_StdDev_16u_C1R
image_mean_stddev, 1641
nppiMean_StdDev_16u_C3CMR
image_mean_stddev, 1642
nppiMean_StdDev_16u_C3CR
image_mean_stddev, 1642
nppiMean_StdDev_32f_C1MR
image_mean_stddev, 1643
nppiMean_StdDev_32f_C1R
image_mean_stddev, 1643
nppiMean_StdDev_32f_C3CMR
image_mean_stddev, 1644
nppiMean_StdDev_32f_C3CR
image_mean_stddev, 1644
nppiMean_StdDev_8s_C1MR
image_mean_stddev, 1645
nppiMean_StdDev_8s_C1R
image_mean_stddev, 1645
nppiMean_StdDev_8s_C3CMR
image_mean_stddev, 1646
nppiMean_StdDev_8s_C3CR
image_mean_stddev, 1646
nppiMean_StdDev_8u_C1MR
image_mean_stddev, 1647
nppiMean_StdDev_8u_C1R
image_mean_stddev, 1647
nppiMean_StdDev_8u_C3CMR
image_mean_stddev, 1648
nppiMean_StdDev_8u_C3CR
image_mean_stddev, 1648
nppiMeanGetBufferHostSize_16s_AC4R
image_mean, 1630
nppiMeanGetBufferHostSize_16s_C1R
image_mean, 1630
nppiMeanGetBufferHostSize_16s_C3R
image_mean, 1631
nppiMeanGetBufferHostSize_16s_C4R
image_mean, 1631

nppiMeanGetBufferHostSize_16u_AC4R
image_mean, 1631
nppiMeanGetBufferHostSize_16u_C1MR
image_mean, 1631
nppiMeanGetBufferHostSize_16u_C1R
image_mean, 1632
nppiMeanGetBufferHostSize_16u_C3CMR
image_mean, 1632
nppiMeanGetBufferHostSize_16u_C3R
image_mean, 1632
nppiMeanGetBufferHostSize_16u_C4R
image_mean, 1633
nppiMeanGetBufferHostSize_32f_AC4R
image_mean, 1633
nppiMeanGetBufferHostSize_32f_C1MR
image_mean, 1633
nppiMeanGetBufferHostSize_32f_C1R
image_mean, 1633
nppiMeanGetBufferHostSize_32f_C3CMR
image_mean, 1634
nppiMeanGetBufferHostSize_32f_C3R
image_mean, 1634
nppiMeanGetBufferHostSize_32f_C4R
image_mean, 1634
nppiMeanGetBufferHostSize_8s_C1MR
image_mean, 1635
nppiMeanGetBufferHostSize_8s_C3CMR
image_mean, 1635
nppiMeanGetBufferHostSize_8u_AC4R
image_mean, 1635
nppiMeanGetBufferHostSize_8u_C1MR
image_mean, 1635
nppiMeanGetBufferHostSize_8u_C1R
image_mean, 1636
nppiMeanGetBufferHostSize_8u_C3CMR
image_mean, 1636
nppiMeanGetBufferHostSize_8u_C3R
image_mean, 1636
nppiMeanGetBufferHostSize_8u_C4R
image_mean, 1637
nppiMeanStdDevGetBufferHostSize_16u_C1MR
image_mean_stddev, 1649
nppiMeanStdDevGetBufferHostSize_16u_C1R
image_mean_stddev, 1649
nppiMeanStdDevGetBufferHostSize_16u_C3CMR
image_mean_stddev, 1649
nppiMeanStdDevGetBufferHostSize_16u_C3CR
image_mean_stddev, 1650
nppiMeanStdDevGetBufferHostSize_32f_C1MR
image_mean_stddev, 1650
nppiMeanStdDevGetBufferHostSize_32f_C1R
image_mean_stddev, 1650
nppiMeanStdDevGetBufferHostSize_32f_C3CMR
image_mean_stddev, 1651
nppiMeanStdDevGetBufferHostSize_32f_C3CR
image_mean_stddev, 1651
nppiMeanStdDevGetBufferHostSize_8s_C1MR
image_mean_stddev, 1651
nppiMeanStdDevGetBufferHostSize_8s_C1R
image_mean_stddev, 1651
nppiMeanStdDevGetBufferHostSize_8s_C3CMR
image_mean_stddev, 1652
nppiMeanStdDevGetBufferHostSize_8s_C3CR
image_mean_stddev, 1652
nppiMeanStdDevGetBufferHostSize_8u_C1MR
image_mean_stddev, 1652
nppiMeanStdDevGetBufferHostSize_8u_C1R
image_mean_stddev, 1653
nppiMeanStdDevGetBufferHostSize_8u_C3CMR
image_mean_stddev, 1653
nppiMeanStdDevGetBufferHostSize_8u_C3CR
image_mean_stddev, 1653
nppiMin_16s_AC4R
image_min, 1534
nppiMin_16s_C1R
image_min, 1534
nppiMin_16s_C3R
image_min, 1535
nppiMin_16s_C4R
image_min, 1535
nppiMin_16u_AC4R
image_min, 1535
nppiMin_16u_C1R
image_min, 1536
nppiMin_16u_C3R
image_min, 1536
nppiMin_16u_C4R
image_min, 1537
nppiMin_32f_AC4R
image_min, 1537
nppiMin_32f_C1R
image_min, 1537
nppiMin_32f_C3R
image_min, 1538
nppiMin_32f_C4R
image_min, 1538
nppiMin_8u_AC4R
image_min, 1538
nppiMin_8u_C1R
image_min, 1539
nppiMin_8u_C3R
image_min, 1539
nppiMin_8u_C4R
image_min, 1540
nppiMinEvery_16s_AC4IR
image_minevery, 1897
nppiMinEvery_16s_C1IR
image_minevery, 1897

nppiMinEvery_16s_C3IR
image_minevery, 1898
nppiMinEvery_16s_C4IR
image_minevery, 1898
nppiMinEvery_16u_AC4IR
image_minevery, 1898
nppiMinEvery_16u_C1IR
image_minevery, 1899
nppiMinEvery_16u_C3IR
image_minevery, 1899
nppiMinEvery_16u_C4IR
image_minevery, 1899
nppiMinEvery_32f_AC4IR
image_minevery, 1900
nppiMinEvery_32f_C1IR
image_minevery, 1900
nppiMinEvery_32f_C3IR
image_minevery, 1900
nppiMinEvery_32f_C4IR
image_minevery, 1901
nppiMinEvery_8u_AC4IR
image_minevery, 1901
nppiMinEvery_8u_C1IR
image_minevery, 1901
nppiMinEvery_8u_C3IR
image_minevery, 1902
nppiMinEvery_8u_C4IR
image_minevery, 1902
nppiMinGetBufferHostSize_16s_AC4R
image_min, 1540
nppiMinGetBufferHostSize_16s_C1R
image_min, 1540
nppiMinGetBufferHostSize_16s_C3R
image_min, 1540
nppiMinGetBufferHostSize_16s_C4R
image_min, 1541
nppiMinGetBufferHostSize_16u_AC4R
image_min, 1541
nppiMinGetBufferHostSize_16u_C1R
image_min, 1541
nppiMinGetBufferHostSize_16u_C3R
image_min, 1542
nppiMinGetBufferHostSize_16u_C4R
image_min, 1542
nppiMinGetBufferHostSize_32f_AC4R
image_min, 1542
nppiMinGetBufferHostSize_32f_C1R
image_min, 1542
nppiMinGetBufferHostSize_32f_C3R
image_min, 1543
nppiMinGetBufferHostSize_32f_C4R
image_min, 1543
nppiMinGetBufferHostSize_8u_AC4R
image_min, 1543
nppiMinGetBufferHostSize_8u_C1R
image_min, 1544
nppiMinGetBufferHostSize_8u_C3R
image_min, 1544
nppiMinGetBufferHostSize_8u_C4R
image_min, 1544
nppiMinIndx_16s_AC4R
image_min_index, 1547
nppiMinIndx_16s_C1R
image_min_index, 1548
nppiMinIndx_16s_C3R
image_min_index, 1548
nppiMinIndx_16s_C4R
image_min_index, 1548
nppiMinIndx_16u_AC4R
image_min_index, 1549
nppiMinIndx_16u_C1R
image_min_index, 1549
nppiMinIndx_16u_C3R
image_min_index, 1550
nppiMinIndx_16u_C4R
image_min_index, 1550
nppiMinIndx_32f_AC4R
image_min_index, 1550
nppiMinIndx_32f_C1R
image_min_index, 1551
nppiMinIndx_32f_C3R
image_min_index, 1551
nppiMinIndx_32f_C4R
image_min_index, 1552
nppiMinIndx_8u_AC4R
image_min_index, 1552
nppiMinIndx_8u_C1R
image_min_index, 1552
nppiMinIndx_8u_C3R
image_min_index, 1553
nppiMinIndx_8u_C4R
image_min_index, 1553
nppiMinIndxGetBufferHostSize_16s_AC4R
image_min_index, 1554
nppiMinIndxGetBufferHostSize_16s_C1R
image_min_index, 1554
nppiMinIndxGetBufferHostSize_16s_C3R
image_min_index, 1554
nppiMinIndxGetBufferHostSize_16s_C4R
image_min_index, 1555
nppiMinIndxGetBufferHostSize_16u_AC4R
image_min_index, 1555
nppiMinIndxGetBufferHostSize_16u_C1R
image_min_index, 1555
nppiMinIndxGetBufferHostSize_16u_C3R
image_min_index, 1555
nppiMinIndxGetBufferHostSize_16u_C4R
image_min_index, 1556

nppiMinIndxGetBufferHostSize_32f_AC4R
image_min_index, 1556
nppiMinIndxGetBufferHostSize_32f_C1R
image_min_index, 1556
nppiMinIndxGetBufferHostSize_32f_C3R
image_min_index, 1557
nppiMinIndxGetBufferHostSize_32f_C4R
image_min_index, 1557
nppiMinIndxGetBufferHostSize_8u_AC4R
image_min_index, 1557
nppiMinIndxGetBufferHostSize_8u_C1R
image_min_index, 1557
nppiMinIndxGetBufferHostSize_8u_C3R
image_min_index, 1558
nppiMinIndxGetBufferHostSize_8u_C4R
image_min_index, 1558
nppiMinMax_16s_AC4R
image_min_max, 1588
nppiMinMax_16s_C1R
image_min_max, 1588
nppiMinMax_16s_C3R
image_min_max, 1589
nppiMinMax_16s_C4R
image_min_max, 1589
nppiMinMax_16u_AC4R
image_min_max, 1590
nppiMinMax_16u_C1R
image_min_max, 1590
nppiMinMax_16u_C3R
image_min_max, 1590
nppiMinMax_16u_C4R
image_min_max, 1591
nppiMinMax_32f_AC4R
image_min_max, 1591
nppiMinMax_32f_C1R
image_min_max, 1592
nppiMinMax_32f_C3R
image_min_max, 1592
nppiMinMax_32f_C4R
image_min_max, 1592
nppiMinMax_8u_AC4R
image_min_max, 1593
nppiMinMax_8u_C1R
image_min_max, 1593
nppiMinMax_8u_C3R
image_min_max, 1594
nppiMinMax_8u_C4R
image_min_max, 1594
nppiMinMaxGetBufferHostSize_16s_AC4R
image_min_max, 1594
nppiMinMaxGetBufferHostSize_16s_C1R
image_min_max, 1595
nppiMinMaxGetBufferHostSize_16s_C3R
image_min_max, 1595
nppiMinMaxGetBufferHostSize_16s_C4R
image_min_max, 1595
nppiMinMaxGetBufferHostSize_16u_AC4R
image_min_max, 1596
nppiMinMaxGetBufferHostSize_16u_C1R
image_min_max, 1596
nppiMinMaxGetBufferHostSize_16u_C3R
image_min_max, 1596
nppiMinMaxGetBufferHostSize_16u_C4R
image_min_max, 1596
nppiMinMaxGetBufferHostSize_32f_AC4R
image_min_max, 1597
nppiMinMaxGetBufferHostSize_32f_C1R
image_min_max, 1597
nppiMinMaxGetBufferHostSize_32f_C3R
image_min_max, 1597
nppiMinMaxGetBufferHostSize_32f_C4R
image_min_max, 1598
nppiMinMaxGetBufferHostSize_8u_AC4R
image_min_max, 1598
nppiMinMaxGetBufferHostSize_8u_C1R
image_min_max, 1598
nppiMinMaxGetBufferHostSize_8u_C3R
image_min_max, 1598
nppiMinMaxGetBufferHostSize_8u_C4R
image_min_max, 1599
nppiMinMaxIndx_16u_C1MR
image_min_max_index, 1603
nppiMinMaxIndx_16u_C1R
image_min_max_index, 1604
nppiMinMaxIndx_16u_C3CMR
image_min_max_index, 1604
nppiMinMaxIndx_16u_C3CR
image_min_max_index, 1605
nppiMinMaxIndx_32f_C1MR
image_min_max_index, 1605
nppiMinMaxIndx_32f_C1R
image_min_max_index, 1606
nppiMinMaxIndx_32f_C3CMR
image_min_max_index, 1606
nppiMinMaxIndx_32f_C3CR
image_min_max_index, 1607
nppiMinMaxIndx_8s_C1MR
image_min_max_index, 1608
nppiMinMaxIndx_8s_C1R
image_min_max_index, 1608
nppiMinMaxIndx_8s_C3CMR
image_min_max_index, 1609
nppiMinMaxIndx_8s_C3CR
image_min_max_index, 1609
nppiMinMaxIndx_8u_C1MR
image_min_max_index, 1610
nppiMinMaxIndx_8u_C1R
image_min_max_index, 1610

nppiMinMaxIndx_8u_C3CMR
image_min_max_index, 1611
nppiMinMaxIndx_8u_C3CR
image_min_max_index, 1611
nppiMinMaxIndxGetBufferHostSize_16u_C1MR
image_min_max_index, 1612
nppiMinMaxIndxGetBufferHostSize_16u_C1R
image_min_max_index, 1612
nppiMinMaxIndxGetBufferHostSize_16u_C3CMR
image_min_max_index, 1612
nppiMinMaxIndxGetBufferHostSize_16u_C3CR
image_min_max_index, 1613
nppiMinMaxIndxGetBufferHostSize_32f_C1MR
image_min_max_index, 1613
nppiMinMaxIndxGetBufferHostSize_32f_C1R
image_min_max_index, 1613
nppiMinMaxIndxGetBufferHostSize_32f_C3CMR
image_min_max_index, 1614
nppiMinMaxIndxGetBufferHostSize_32f_C3CR
image_min_max_index, 1614
nppiMinMaxIndxGetBufferHostSize_8s_C1MR
image_min_max_index, 1614
nppiMinMaxIndxGetBufferHostSize_8s_C1R
image_min_max_index, 1614
nppiMinMaxIndxGetBufferHostSize_8s_C3CMR
image_min_max_index, 1615
nppiMinMaxIndxGetBufferHostSize_8s_C3CR
image_min_max_index, 1615
nppiMinMaxIndxGetBufferHostSize_8u_C1MR
image_min_max_index, 1615
nppiMinMaxIndxGetBufferHostSize_8u_C1R
image_min_max_index, 1616
nppiMinMaxIndxGetBufferHostSize_8u_C3CMR
image_min_max_index, 1616
nppiMinMaxIndxGetBufferHostSize_8u_C3CR
image_min_max_index, 1616
nppiMirror_16s_AC4IR
image_mirror, 1280
nppiMirror_16s_AC4R
image_mirror, 1280
nppiMirror_16s_C1IR
image_mirror, 1281
nppiMirror_16s_C1R
image_mirror, 1281
nppiMirror_16s_C3IR
image_mirror, 1281
nppiMirror_16s_C3R
image_mirror, 1282
nppiMirror_16s_C4IR
image_mirror, 1282
nppiMirror_16s_C4R
image_mirror, 1282
nppiMirror_16u_AC4IR
image_mirror, 1283
nppiMirror_16u_AC4R
image_mirror, 1283
nppiMirror_16u_C1IR
image_mirror, 1283
nppiMirror_16u_C1R
image_mirror, 1284
nppiMirror_16u_C3IR
image_mirror, 1284
nppiMirror_16u_C3R
image_mirror, 1284
nppiMirror_16u_C4IR
image_mirror, 1285
nppiMirror_16u_C4R
image_mirror, 1285
nppiMirror_32f_AC4IR
image_mirror, 1285
nppiMirror_32f_AC4R
image_mirror, 1286
nppiMirror_32f_C1IR
image_mirror, 1286
nppiMirror_32f_C1R
image_mirror, 1286
nppiMirror_32f_C3IR
image_mirror, 1287
nppiMirror_32f_C3R
image_mirror, 1287
nppiMirror_32f_C4IR
image_mirror, 1287
nppiMirror_32f_C4R
image_mirror, 1288
nppiMirror_32s_AC4IR
image_mirror, 1288
nppiMirror_32s_AC4R
image_mirror, 1288
nppiMirror_32s_C1IR
image_mirror, 1289
nppiMirror_32s_C1R
image_mirror, 1289
nppiMirror_32s_C3IR
image_mirror, 1289
nppiMirror_32s_C3R
image_mirror, 1290
nppiMirror_32s_C4IR
image_mirror, 1290
nppiMirror_32s_C4R
image_mirror, 1290
nppiMirror_8u_AC4IR
image_mirror, 1291
nppiMirror_8u_AC4R
image_mirror, 1291
nppiMirror_8u_C1IR
image_mirror, 1291
nppiMirror_8u_C1R
image_mirror, 1292

nppiMirror_8u_C3IR
image_mirror, 1292
nppiMirror_8u_C3R
image_mirror, 1292
nppiMirror_8u_C4IR
image_mirror, 1293
nppiMirror_8u_C4R
image_mirror, 1293
nppiMul_16s_AC4IRSfs
image_mul, 213
nppiMul_16s_AC4RSfs
image_mul, 213
nppiMul_16s_C1IRSfs
image_mul, 214
nppiMul_16s_C1RSfs
image_mul, 214
nppiMul_16s_C3IRSfs
image_mul, 215
nppiMul_16s_C3RSfs
image_mul, 215
nppiMul_16s_C4IRSfs
image_mul, 215
nppiMul_16s_C4RSfs
image_mul, 216
nppiMul_16sc_AC4IRSfs
image_mul, 216
nppiMul_16sc_AC4RSfs
image_mul, 217
nppiMul_16sc_C1IRSfs
image_mul, 217
nppiMul_16sc_C1RSfs
image_mul, 217
nppiMul_16sc_C3IRSfs
image_mul, 218
nppiMul_16sc_C3RSfs
image_mul, 218
nppiMul_16u_AC4IRSfs
image_mul, 219
nppiMul_16u_AC4RSfs
image_mul, 219
nppiMul_16u_C1IRSfs
image_mul, 220
nppiMul_16u_C1RSfs
image_mul, 220
nppiMul_16u_C3IRSfs
image_mul, 220
nppiMul_16u_C3RSfs
image_mul, 221
nppiMul_16u_C4IRSfs
image_mul, 221
nppiMul_16u_C4RSfs
image_mul, 222
nppiMul_32f_AC4IR
image_mul, 222
nppiMul_32f_AC4R
image_mul, 222
nppiMul_32f_C1IR
image_mul, 223
nppiMul_32f_C1R
image_mul, 223
nppiMul_32f_C3IR
image_mul, 224
nppiMul_32f_C3R
image_mul, 224
nppiMul_32f_C4IR
image_mul, 224
nppiMul_32f_C4R
image_mul, 225
nppiMul_32fc_AC4IR
image_mul, 225
nppiMul_32fc_AC4R
image_mul, 225
nppiMul_32fc_C1IR
image_mul, 226
nppiMul_32fc_C1R
image_mul, 226
nppiMul_32fc_C3IR
image_mul, 227
nppiMul_32fc_C3R
image_mul, 227
nppiMul_32fc_C4IR
image_mul, 227
nppiMul_32fc_C4R
image_mul, 228
nppiMul_32s_C1IRSfs
image_mul, 228
nppiMul_32s_C1R
image_mul, 229
nppiMul_32s_C1RSfs
image_mul, 229
nppiMul_32s_C3IRSfs
image_mul, 229
nppiMul_32s_C3RSfs
image_mul, 230
nppiMul_32sc_AC4IRSfs
image_mul, 230
nppiMul_32sc_AC4RSfs
image_mul, 231
nppiMul_32sc_C1IRSfs
image_mul, 231
nppiMul_32sc_C1RSfs
image_mul, 231
nppiMul_32sc_C3IRSfs
image_mul, 232
nppiMul_32sc_C3RSfs
image_mul, 232
nppiMul_8u_AC4IRSfs
image_mul, 233

nppiMul_8u_AC4RSfs
image_mul, 233
nppiMul_8u_C1IRSfs
image_mul, 234
nppiMul_8u_C1RSfs
image_mul, 234
nppiMul_8u_C3IRSfs
image_mul, 234
nppiMul_8u_C3RSfs
image_mul, 235
nppiMul_8u_C4IRSfs
image_mul, 235
nppiMul_8u_C4RSfs
image_mul, 236
nppiMulC_16s_AC4IRSfs
image_mulc, 86
nppiMulC_16s_AC4RSfs
image_mulc, 86
nppiMulC_16s_C1IRSfs
image_mulc, 86
nppiMulC_16s_C1RSfs
image_mulc, 87
nppiMulC_16s_C3IRSfs
image_mulc, 87
nppiMulC_16s_C3RSfs
image_mulc, 87
nppiMulC_16s_C4IRSfs
image_mulc, 88
nppiMulC_16s_C4RSfs
image_mulc, 88
nppiMulC_16sc_AC4IRSfs
image_mulc, 89
nppiMulC_16sc_AC4RSfs
image_mulc, 89
nppiMulC_16sc_C1IRSfs
image_mulc, 89
nppiMulC_16sc_C1RSfs
image_mulc, 90
nppiMulC_16sc_C3IRSfs
image_mulc, 90
nppiMulC_16sc_C3RSfs
image_mulc, 91
nppiMulC_16u_AC4IRSfs
image_mulc, 91
nppiMulC_16u_AC4RSfs
image_mulc, 91
nppiMulC_16u_C1IRSfs
image_mulc, 92
nppiMulC_16u_C1RSfs
image_mulc, 92
nppiMulC_16u_C3IRSfs
image_mulc, 93
nppiMulC_16u_C3RSfs
image_mulc, 93
nppiMulC_16u_C4IRSfs
image_mulc, 93
nppiMulC_16u_C4RSfs
image_mulc, 94
nppiMulC_32f_AC4IR
image_mulc, 94
nppiMulC_32f_AC4R
image_mulc, 94
nppiMulC_32f_C1IR
image_mulc, 95
nppiMulC_32f_C1R
image_mulc, 95
nppiMulC_32f_C3IR
image_mulc, 95
nppiMulC_32f_C3R
image_mulc, 96
nppiMulC_32f_C4IR
image_mulc, 96
nppiMulC_32f_C4R
image_mulc, 96
nppiMulC_32fc_AC4IR
image_mulc, 97
nppiMulC_32fc_AC4R
image_mulc, 97
nppiMulC_32fc_C1IR
image_mulc, 97
nppiMulC_32fc_C1R
image_mulc, 98
nppiMulC_32fc_C3IR
image_mulc, 98
nppiMulC_32fc_C3R
image_mulc, 98
nppiMulC_32fc_C4IR
image_mulc, 99
nppiMulC_32fc_C4R
image_mulc, 99
nppiMulC_32s_C1IRSfs
image_mulc, 100
nppiMulC_32s_C1RSfs
image_mulc, 100
nppiMulC_32s_C3IRSfs
image_mulc, 100
nppiMulC_32s_C3RSfs
image_mulc, 101
nppiMulC_32sc_AC4IRSfs
image_mulc, 101
nppiMulC_32sc_AC4RSfs
image_mulc, 101
nppiMulC_32sc_C1IRSfs
image_mulc, 102
nppiMulC_32sc_C1RSfs
image_mulc, 102
nppiMulC_32sc_C3IRSfs
image_mulc, 103

nppiMulC_32sc_C3RSfs
image_mulc, 103
nppiMulC_8u_AC4IRSfs
image_mulc, 103
nppiMulC_8u_AC4RSfs
image_mulc, 104
nppiMulC_8u_C1IRSfs
image_mulc, 104
nppiMulC_8u_C1RSfs
image_mulc, 105
nppiMulC_8u_C3IRSfs
image_mulc, 105
nppiMulC_8u_C3RSfs
image_mulc, 105
nppiMulC_8u_C4IRSfs
image_mulc, 106
nppiMulC_8u_C4RSfs
image_mulc, 106
nppiMulCScale_16u_AC4IR
image_mulcscale, 108
nppiMulCScale_16u_AC4R
image_mulcscale, 108
nppiMulCScale_16u_C1IR
image_mulcscale, 109
nppiMulCScale_16u_C1R
image_mulcscale, 109
nppiMulCScale_16u_C3IR
image_mulcscale, 109
nppiMulCScale_16u_C3R
image_mulcscale, 110
nppiMulCScale_16u_C4IR
image_mulcscale, 110
nppiMulCScale_16u_C4R
image_mulcscale, 110
nppiMulCScale_8u_AC4IR
image_mulcscale, 111
nppiMulCScale_8u_AC4R
image_mulcscale, 111
nppiMulCScale_8u_C1IR
image_mulcscale, 111
nppiMulCScale_8u_C1R
image_mulcscale, 112
nppiMulCScale_8u_C3IR
image_mulcscale, 112
nppiMulCScale_8u_C3R
image_mulcscale, 112
nppiMulCScale_8u_C4IR
image_mulcscale, 113
nppiMulCScale_8u_C4R
image_mulcscale, 113
nppiMulScale_16u_AC4IR
image_mulscale, 238
nppiMulScale_16u_AC4R
image_mulscale, 239
nppiMulScale_16u_C1IR
image_mulscale, 239
nppiMulScale_16u_C1R
image_mulscale, 239
nppiMulScale_16u_C3IR
image_mulscale, 240
nppiMulScale_16u_C3R
image_mulscale, 240
nppiMulScale_16u_C4IR
image_mulscale, 241
nppiMulScale_16u_C4R
image_mulscale, 241
nppiMulScale_8u_AC4IR
image_mulscale, 241
nppiMulScale_8u_AC4R
image_mulscale, 242
nppiMulScale_8u_C1IR
image_mulscale, 242
nppiMulScale_8u_C1R
image_mulscale, 243
nppiMulScale_8u_C3IR
image_mulscale, 243
nppiMulScale_8u_C3R
image_mulscale, 243
nppiMulScale_8u_C4IR
image_mulscale, 244
nppiMulScale_8u_C4R
image_mulscale, 244
nppiNorm_Inf_16s_AC4R
image_inf_norm, 1660
nppiNorm_Inf_16s_C1R
image_inf_norm, 1660
nppiNorm_Inf_16s_C3R
image_inf_norm, 1660
nppiNorm_Inf_16s_C4R
image_inf_norm, 1661
nppiNorm_Inf_16u_AC4R
image_inf_norm, 1661
nppiNorm_Inf_16u_C1MR
image_inf_norm, 1661
nppiNorm_Inf_16u_C1R
image_inf_norm, 1662
nppiNorm_Inf_16u_C3CMR
image_inf_norm, 1662
nppiNorm_Inf_16u_C3R
image_inf_norm, 1663
nppiNorm_Inf_16u_C4R
image_inf_norm, 1663
nppiNorm_Inf_32f_AC4R
image_inf_norm, 1663
nppiNorm_Inf_32f_C1MR
image_inf_norm, 1664
nppiNorm_Inf_32f_C1R
image_inf_norm, 1664

nppiNorm_Inf_32f_C3CMR
image_inf_norm, 1665
nppiNorm_Inf_32f_C3R
image_inf_norm, 1665
nppiNorm_Inf_32f_C4R
image_inf_norm, 1665
nppiNorm_Inf_32s_C1R
image_inf_norm, 1666
nppiNorm_Inf_8s_C1MR
image_inf_norm, 1666
nppiNorm_Inf_8s_C3CMR
image_inf_norm, 1667
nppiNorm_Inf_8u_AC4R
image_inf_norm, 1667
nppiNorm_Inf_8u_C1MR
image_inf_norm, 1667
nppiNorm_Inf_8u_C1R
image_inf_norm, 1668
nppiNorm_Inf_8u_C3CMR
image_inf_norm, 1668
nppiNorm_Inf_8u_C3R
image_inf_norm, 1669
nppiNorm_Inf_8u_C4R
image_inf_norm, 1669
nppiNorm_L1_16s_AC4R
image_L1_norm, 1682
nppiNorm_L1_16s_C1R
image_L1_norm, 1682
nppiNorm_L1_16s_C3R
image_L1_norm, 1682
nppiNorm_L1_16s_C4R
image_L1_norm, 1683
nppiNorm_L1_16u_AC4R
image_L1_norm, 1683
nppiNorm_L1_16u_C1MR
image_L1_norm, 1683
nppiNorm_L1_16u_C1R
image_L1_norm, 1684
nppiNorm_L1_16u_C3CMR
image_L1_norm, 1684
nppiNorm_L1_16u_C3R
image_L1_norm, 1685
nppiNorm_L1_16u_C4R
image_L1_norm, 1685
nppiNorm_L1_32f_AC4R
image_L1_norm, 1685
nppiNorm_L1_32f_C1MR
image_L1_norm, 1686
nppiNorm_L1_32f_C1R
image_L1_norm, 1686
nppiNorm_L1_32f_C3CMR
image_L1_norm, 1686
nppiNorm_L1_32f_C3R
image_L1_norm, 1687
nppiNorm_L1_32f_C4R
image_L1_norm, 1687
nppiNorm_L1_8s_C1MR
image_L1_norm, 1688
nppiNorm_L1_8s_C3CMR
image_L1_norm, 1688
nppiNorm_L1_8u_AC4R
image_L1_norm, 1688
nppiNorm_L1_8u_C1MR
image_L1_norm, 1689
nppiNorm_L1_8u_C1R
image_L1_norm, 1689
nppiNorm_L1_8u_C3CMR
image_L1_norm, 1690
nppiNorm_L1_8u_C3R
image_L1_norm, 1690
nppiNorm_L1_8u_C4R
image_L1_norm, 1690
nppiNorm_L2_16s_AC4R
image_L2_norm, 1703
nppiNorm_L2_16s_C1R
image_L2_norm, 1703
nppiNorm_L2_16s_C3R
image_L2_norm, 1703
nppiNorm_L2_16s_C4R
image_L2_norm, 1704
nppiNorm_L2_16u_AC4R
image_L2_norm, 1704
nppiNorm_L2_16u_C1MR
image_L2_norm, 1704
nppiNorm_L2_16u_C1R
image_L2_norm, 1705
nppiNorm_L2_16u_C3CMR
image_L2_norm, 1705
nppiNorm_L2_16u_C3R
image_L2_norm, 1706
nppiNorm_L2_16u_C4R
image_L2_norm, 1706
nppiNorm_L2_32f_AC4R
image_L2_norm, 1706
nppiNorm_L2_32f_C1MR
image_L2_norm, 1707
nppiNorm_L2_32f_C1R
image_L2_norm, 1707
nppiNorm_L2_32f_C3CMR
image_L2_norm, 1707
nppiNorm_L2_32f_C3R
image_L2_norm, 1708
nppiNorm_L2_32f_C4R
image_L2_norm, 1708
nppiNorm_L2_8s_C1MR
image_L2_norm, 1709
nppiNorm_L2_8s_C3CMR
image_L2_norm, 1709

nppiNorm_L2_8u_AC4R
image_L2_norm, 1709
nppiNorm_L2_8u_C1MR
image_L2_norm, 1710
nppiNorm_L2_8u_C1R
image_L2_norm, 1710
nppiNorm_L2_8u_C3CMR
image_L2_norm, 1711
nppiNorm_L2_8u_C3R
image_L2_norm, 1711
nppiNorm_L2_8u_C4R
image_L2_norm, 1711
nppiNormDiff_Inf_16s_AC4R
image_inf_normdiff, 1724
nppiNormDiff_Inf_16s_C1R
image_inf_normdiff, 1724
nppiNormDiff_Inf_16s_C3R
image_inf_normdiff, 1725
nppiNormDiff_Inf_16s_C4R
image_inf_normdiff, 1725
nppiNormDiff_Inf_16u_AC4R
image_inf_normdiff, 1726
nppiNormDiff_Inf_16u_C1MR
image_inf_normdiff, 1726
nppiNormDiff_Inf_16u_C1R
image_inf_normdiff, 1727
nppiNormDiff_Inf_16u_C3CMR
image_inf_normdiff, 1727
nppiNormDiff_Inf_16u_C3R
image_inf_normdiff, 1728
nppiNormDiff_Inf_16u_C4R
image_inf_normdiff, 1728
nppiNormDiff_Inf_32f_AC4R
image_inf_normdiff, 1728
nppiNormDiff_Inf_32f_C1MR
image_inf_normdiff, 1729
nppiNormDiff_Inf_32f_C1R
image_inf_normdiff, 1729
nppiNormDiff_Inf_32f_C3CMR
image_inf_normdiff, 1730
nppiNormDiff_Inf_32f_C3R
image_inf_normdiff, 1730
nppiNormDiff_Inf_32f_C4R
image_inf_normdiff, 1731
nppiNormDiff_Inf_8s_C1MR
image_inf_normdiff, 1731
nppiNormDiff_Inf_8s_C3CMR
image_inf_normdiff, 1732
nppiNormDiff_Inf_8u_AC4R
image_inf_normdiff, 1732
nppiNormDiff_Inf_8u_C1MR
image_inf_normdiff, 1733
nppiNormDiff_Inf_8u_C1R
image_inf_normdiff, 1733
nppiNormDiff_Inf_8u_C3CMR
image_inf_normdiff, 1734
nppiNormDiff_Inf_8u_C3R
image_inf_normdiff, 1734
nppiNormDiff_Inf_8u_C4R
image_inf_normdiff, 1735
nppiNormDiff_L1_16s_AC4R
image_L1_normdiff, 1747
nppiNormDiff_L1_16s_C1R
image_L1_normdiff, 1747
nppiNormDiff_L1_16s_C3R
image_L1_normdiff, 1748
nppiNormDiff_L1_16s_C4R
image_L1_normdiff, 1748
nppiNormDiff_L1_16u_AC4R
image_L1_normdiff, 1749
nppiNormDiff_L1_16u_C1MR
image_L1_normdiff, 1749
nppiNormDiff_L1_16u_C1R
image_L1_normdiff, 1749
nppiNormDiff_L1_16u_C3CMR
image_L1_normdiff, 1750
nppiNormDiff_L1_16u_C3R
image_L1_normdiff, 1750
nppiNormDiff_L1_16u_C4R
image_L1_normdiff, 1751
nppiNormDiff_L1_32f_AC4R
image_L1_normdiff, 1751
nppiNormDiff_L1_32f_C1MR
image_L1_normdiff, 1752
nppiNormDiff_L1_32f_C1R
image_L1_normdiff, 1752
nppiNormDiff_L1_32f_C3CMR
image_L1_normdiff, 1753
nppiNormDiff_L1_32f_C3R
image_L1_normdiff, 1753
nppiNormDiff_L1_32f_C4R
image_L1_normdiff, 1754
nppiNormDiff_L1_8s_C1MR
image_L1_normdiff, 1754
nppiNormDiff_L1_8s_C3CMR
image_L1_normdiff, 1755
nppiNormDiff_L1_8u_AC4R
image_L1_normdiff, 1755
nppiNormDiff_L1_8u_C1MR
image_L1_normdiff, 1756
nppiNormDiff_L1_8u_C1R
image_L1_normdiff, 1756
nppiNormDiff_L1_8u_C3CMR
image_L1_normdiff, 1756
nppiNormDiff_L1_8u_C3R
image_L1_normdiff, 1757
nppiNormDiff_L1_8u_C4R
image_L1_normdiff, 1757

nppiNormDiff_L2_16s_AC4R
image_L2_normdiff, 1770
nppiNormDiff_L2_16s_C1R
image_L2_normdiff, 1770
nppiNormDiff_L2_16s_C3R
image_L2_normdiff, 1771
nppiNormDiff_L2_16s_C4R
image_L2_normdiff, 1771
nppiNormDiff_L2_16u_AC4R
image_L2_normdiff, 1772
nppiNormDiff_L2_16u_C1MR
image_L2_normdiff, 1772
nppiNormDiff_L2_16u_C1R
image_L2_normdiff, 1772
nppiNormDiff_L2_16u_C3CMR
image_L2_normdiff, 1773
nppiNormDiff_L2_16u_C3R
image_L2_normdiff, 1773
nppiNormDiff_L2_16u_C4R
image_L2_normdiff, 1774
nppiNormDiff_L2_32f_AC4R
image_L2_normdiff, 1774
nppiNormDiff_L2_32f_C1MR
image_L2_normdiff, 1775
nppiNormDiff_L2_32f_C1R
image_L2_normdiff, 1775
nppiNormDiff_L2_32f_C3CMR
image_L2_normdiff, 1776
nppiNormDiff_L2_32f_C3R
image_L2_normdiff, 1776
nppiNormDiff_L2_32f_C4R
image_L2_normdiff, 1777
nppiNormDiff_L2_8s_C1MR
image_L2_normdiff, 1777
nppiNormDiff_L2_8s_C3CMR
image_L2_normdiff, 1778
nppiNormDiff_L2_8u_AC4R
image_L2_normdiff, 1778
nppiNormDiff_L2_8u_C1MR
image_L2_normdiff, 1779
nppiNormDiff_L2_8u_C1R
image_L2_normdiff, 1779
nppiNormDiff_L2_8u_C3CMR
image_L2_normdiff, 1779
nppiNormDiff_L2_8u_C3R
image_L2_normdiff, 1780
nppiNormDiff_L2_8u_C4R
image_L2_normdiff, 1780
nppiNormDiffInfGetBufferHostSize_16s_AC4R
image_inf_normdiff, 1735
nppiNormDiffInfGetBufferHostSize_16s_C1R
image_inf_normdiff, 1735
nppiNormDiffInfGetBufferHostSize_16s_C3R
image_inf_normdiff, 1736
nppiNormDiffInfGetBufferHostSize_16s_C4R
image_inf_normdiff, 1736
nppiNormDiffInfGetBufferHostSize_16u_AC4R
image_inf_normdiff, 1736
nppiNormDiffInfGetBufferHostSize_16u_C1MR
image_inf_normdiff, 1737
nppiNormDiffInfGetBufferHostSize_16u_C1R
image_inf_normdiff, 1737
nppiNormDiffInfGetBufferHostSize_16u_C3CMR
image_inf_normdiff, 1737
nppiNormDiffInfGetBufferHostSize_16u_C3R
image_inf_normdiff, 1737
nppiNormDiffInfGetBufferHostSize_16u_C4R
image_inf_normdiff, 1738
nppiNormDiffInfGetBufferHostSize_32f_AC4R
image_inf_normdiff, 1738
nppiNormDiffInfGetBufferHostSize_32f_C1MR
image_inf_normdiff, 1738
nppiNormDiffInfGetBufferHostSize_32f_C1R
image_inf_normdiff, 1739
nppiNormDiffInfGetBufferHostSize_32f_C3CMR
image_inf_normdiff, 1739
nppiNormDiffInfGetBufferHostSize_32f_C3R
image_inf_normdiff, 1739
nppiNormDiffInfGetBufferHostSize_32f_C4R
image_inf_normdiff, 1739
nppiNormDiffInfGetBufferHostSize_8s_C1MR
image_inf_normdiff, 1740
nppiNormDiffInfGetBufferHostSize_8s_C3CMR
image_inf_normdiff, 1740
nppiNormDiffInfGetBufferHostSize_8u_AC4R
image_inf_normdiff, 1740
nppiNormDiffInfGetBufferHostSize_8u_C1MR
image_inf_normdiff, 1741
nppiNormDiffInfGetBufferHostSize_8u_C1R
image_inf_normdiff, 1741
nppiNormDiffInfGetBufferHostSize_8u_C3CMR
image_inf_normdiff, 1741
nppiNormDiffInfGetBufferHostSize_8u_C3R
image_inf_normdiff, 1741
nppiNormDiffInfGetBufferHostSize_8u_C4R
image_inf_normdiff, 1742
nppiNormDiffL1GetBufferHostSize_16s_AC4R
image_L1_normdiff, 1758
nppiNormDiffL1GetBufferHostSize_16s_C1R
image_L1_normdiff, 1758
nppiNormDiffL1GetBufferHostSize_16s_C3R
image_L1_normdiff, 1758
nppiNormDiffL1GetBufferHostSize_16s_C4R
image_L1_normdiff, 1759
nppiNormDiffL1GetBufferHostSize_16u_AC4R
image_L1_normdiff, 1759
nppiNormDiffL1GetBufferHostSize_16u_C1MR
image_L1_normdiff, 1759

nppiNormDiffL1GetBufferHostSize_16u_C1R
image_L1_normdiff, 1760
nppiNormDiffL1GetBufferHostSize_16u_C3CMR
image_L1_normdiff, 1760
nppiNormDiffL1GetBufferHostSize_16u_C3R
image_L1_normdiff, 1760
nppiNormDiffL1GetBufferHostSize_16u_C4R
image_L1_normdiff, 1760
nppiNormDiffL1GetBufferHostSize_32f_AC4R
image_L1_normdiff, 1761
nppiNormDiffL1GetBufferHostSize_32f_C1MR
image_L1_normdiff, 1761
nppiNormDiffL1GetBufferHostSize_32f_C1R
image_L1_normdiff, 1761
nppiNormDiffL1GetBufferHostSize_32f_C3CMR
image_L1_normdiff, 1762
nppiNormDiffL1GetBufferHostSize_32f_C3R
image_L1_normdiff, 1762
nppiNormDiffL1GetBufferHostSize_32f_C4R
image_L1_normdiff, 1762
nppiNormDiffL1GetBufferHostSize_8s_C1MR
image_L1_normdiff, 1762
nppiNormDiffL1GetBufferHostSize_8s_C3CMR
image_L1_normdiff, 1763
nppiNormDiffL1GetBufferHostSize_8u_AC4R
image_L1_normdiff, 1763
nppiNormDiffL1GetBufferHostSize_8u_C1MR
image_L1_normdiff, 1763
nppiNormDiffL1GetBufferHostSize_8u_C1R
image_L1_normdiff, 1764
nppiNormDiffL1GetBufferHostSize_8u_C3CMR
image_L1_normdiff, 1764
nppiNormDiffL1GetBufferHostSize_8u_C3R
image_L1_normdiff, 1764
nppiNormDiffL1GetBufferHostSize_8u_C4R
image_L1_normdiff, 1764
nppiNormDiffL2GetBufferHostSize_16s_AC4R
image_L2_normdiff, 1781
nppiNormDiffL2GetBufferHostSize_16s_C1R
image_L2_normdiff, 1781
nppiNormDiffL2GetBufferHostSize_16s_C3R
image_L2_normdiff, 1781
nppiNormDiffL2GetBufferHostSize_16s_C4R
image_L2_normdiff, 1782
nppiNormDiffL2GetBufferHostSize_16u_AC4R
image_L2_normdiff, 1782
nppiNormDiffL2GetBufferHostSize_16u_C1MR
image_L2_normdiff, 1782
nppiNormDiffL2GetBufferHostSize_16u_C1R
image_L2_normdiff, 1783
nppiNormDiffL2GetBufferHostSize_16u_C3CMR
image_L2_normdiff, 1783
nppiNormDiffL2GetBufferHostSize_16u_C3R
image_L2_normdiff, 1783
nppiNormDiffL2GetBufferHostSize_16u_C4R
image_L2_normdiff, 1783
nppiNormDiffL2GetBufferHostSize_32f_AC4R
image_L2_normdiff, 1784
nppiNormDiffL2GetBufferHostSize_32f_C1MR
image_L2_normdiff, 1784
nppiNormDiffL2GetBufferHostSize_32f_C1R
image_L2_normdiff, 1784
nppiNormDiffL2GetBufferHostSize_32f_C3CMR
image_L2_normdiff, 1785
nppiNormDiffL2GetBufferHostSize_32f_C3R
image_L2_normdiff, 1785
nppiNormDiffL2GetBufferHostSize_32f_C4R
image_L2_normdiff, 1785
nppiNormDiffL2GetBufferHostSize_8s_C1MR
image_L2_normdiff, 1785
nppiNormDiffL2GetBufferHostSize_8s_C3CMR
image_L2_normdiff, 1786
nppiNormDiffL2GetBufferHostSize_8u_AC4R
image_L2_normdiff, 1786
nppiNormDiffL2GetBufferHostSize_8u_C1MR
image_L2_normdiff, 1786
nppiNormDiffL2GetBufferHostSize_8u_C1R
image_L2_normdiff, 1787
nppiNormDiffL2GetBufferHostSize_8u_C3CMR
image_L2_normdiff, 1787
nppiNormDiffL2GetBufferHostSize_8u_C3R
image_L2_normdiff, 1787
nppiNormDiffL2GetBufferHostSize_8u_C4R
image_L2_normdiff, 1787
nppiNormInfGetBufferHostSize_16s_AC4R
image_inf_norm, 1669
nppiNormInfGetBufferHostSize_16s_C1R
image_inf_norm, 1670
nppiNormInfGetBufferHostSize_16s_C3R
image_inf_norm, 1670
nppiNormInfGetBufferHostSize_16s_C4R
image_inf_norm, 1670
nppiNormInfGetBufferHostSize_16u_AC4R
image_inf_norm, 1671
nppiNormInfGetBufferHostSize_16u_C1MR
image_inf_norm, 1671
nppiNormInfGetBufferHostSize_16u_C1R
image_inf_norm, 1671
nppiNormInfGetBufferHostSize_16u_C3CMR
image_inf_norm, 1671
nppiNormInfGetBufferHostSize_16u_C3R
image_inf_norm, 1672
nppiNormInfGetBufferHostSize_16u_C4R
image_inf_norm, 1672
nppiNormInfGetBufferHostSize_32f_AC4R
image_inf_norm, 1672
nppiNormInfGetBufferHostSize_32f_C1MR
image_inf_norm, 1673

nppiNormInfGetBufferHostSize_32f_C1R
image_inf_norm, 1673
nppiNormInfGetBufferHostSize_32f_C3CMR
image_inf_norm, 1673
nppiNormInfGetBufferHostSize_32f_C3R
image_inf_norm, 1673
nppiNormInfGetBufferHostSize_32f_C4R
image_inf_norm, 1674
nppiNormInfGetBufferHostSize_32s_C1R
image_inf_norm, 1674
nppiNormInfGetBufferHostSize_8s_C1MR
image_inf_norm, 1674
nppiNormInfGetBufferHostSize_8s_C3CMR
image_inf_norm, 1675
nppiNormInfGetBufferHostSize_8u_AC4R
image_inf_norm, 1675
nppiNormInfGetBufferHostSize_8u_C1MR
image_inf_norm, 1675
nppiNormInfGetBufferHostSize_8u_C1R
image_inf_norm, 1675
nppiNormInfGetBufferHostSize_8u_C3CMR
image_inf_norm, 1676
nppiNormInfGetBufferHostSize_8u_C3R
image_inf_norm, 1676
nppiNormInfGetBufferHostSize_8u_C4R
image_inf_norm, 1676
nppiNormL1GetBufferHostSize_16s_AC4R
image_L1_norm, 1691
nppiNormL1GetBufferHostSize_16s_C1R
image_L1_norm, 1691
nppiNormL1GetBufferHostSize_16s_C3R
image_L1_norm, 1691
nppiNormL1GetBufferHostSize_16s_C4R
image_L1_norm, 1692
nppiNormL1GetBufferHostSize_16u_AC4R
image_L1_norm, 1692
nppiNormL1GetBufferHostSize_16u_C1MR
image_L1_norm, 1692
nppiNormL1GetBufferHostSize_16u_C1R
image_L1_norm, 1693
nppiNormL1GetBufferHostSize_16u_C3CMR
image_L1_norm, 1693
nppiNormL1GetBufferHostSize_16u_C3R
image_L1_norm, 1693
nppiNormL1GetBufferHostSize_16u_C4R
image_L1_norm, 1693
nppiNormL1GetBufferHostSize_32f_AC4R
image_L1_norm, 1694
nppiNormL1GetBufferHostSize_32f_C1MR
image_L1_norm, 1694
nppiNormL1GetBufferHostSize_32f_C1R
image_L1_norm, 1694
nppiNormL1GetBufferHostSize_32f_C3CMR
image_L1_norm, 1695
nppiNormL1GetBufferHostSize_32f_C3R
image_L1_norm, 1695
nppiNormL1GetBufferHostSize_32f_C4R
image_L1_norm, 1695
nppiNormL1GetBufferHostSize_8s_C1MR
image_L1_norm, 1695
nppiNormL1GetBufferHostSize_8s_C3CMR
image_L1_norm, 1696
nppiNormL1GetBufferHostSize_8u_AC4R
image_L1_norm, 1696
nppiNormL1GetBufferHostSize_8u_C1MR
image_L1_norm, 1696
nppiNormL1GetBufferHostSize_8u_C1R
image_L1_norm, 1697
nppiNormL1GetBufferHostSize_8u_C3CMR
image_L1_norm, 1697
nppiNormL1GetBufferHostSize_8u_C3R
image_L1_norm, 1697
nppiNormL1GetBufferHostSize_8u_C4R
image_L1_norm, 1697
nppiNormL2GetBufferHostSize_16s_AC4R
image_L2_norm, 1712
nppiNormL2GetBufferHostSize_16s_C1R
image_L2_norm, 1712
nppiNormL2GetBufferHostSize_16s_C3R
image_L2_norm, 1712
nppiNormL2GetBufferHostSize_16s_C4R
image_L2_norm, 1713
nppiNormL2GetBufferHostSize_16u_AC4R
image_L2_norm, 1713
nppiNormL2GetBufferHostSize_16u_C1MR
image_L2_norm, 1713
nppiNormL2GetBufferHostSize_16u_C1R
image_L2_norm, 1714
nppiNormL2GetBufferHostSize_16u_C3CMR
image_L2_norm, 1714
nppiNormL2GetBufferHostSize_16u_C3R
image_L2_norm, 1714
nppiNormL2GetBufferHostSize_16u_C4R
image_L2_norm, 1714
nppiNormL2GetBufferHostSize_32f_AC4R
image_L2_norm, 1715
nppiNormL2GetBufferHostSize_32f_C1MR
image_L2_norm, 1715
nppiNormL2GetBufferHostSize_32f_C1R
image_L2_norm, 1715
nppiNormL2GetBufferHostSize_32f_C3CMR
image_L2_norm, 1716
nppiNormL2GetBufferHostSize_32f_C3R
image_L2_norm, 1716
nppiNormL2GetBufferHostSize_32f_C4R
image_L2_norm, 1716
nppiNormL2GetBufferHostSize_8s_C1MR
image_L2_norm, 1716

nppiNormL2GetBufferHostSize_8s_C3CMR
image_L2_norm, 1717
nppiNormL2GetBufferHostSize_8u_AC4R
image_L2_norm, 1717
nppiNormL2GetBufferHostSize_8u_C1MR
image_L2_norm, 1717
nppiNormL2GetBufferHostSize_8u_C1R
image_L2_norm, 1718
nppiNormL2GetBufferHostSize_8u_C3CMR
image_L2_norm, 1718
nppiNormL2GetBufferHostSize_8u_C3R
image_L2_norm, 1718
nppiNormL2GetBufferHostSize_8u_C4R
image_L2_norm, 1718
nppiNormRel_Inf_16s_AC4R
image_inf_normrel, 1793
nppiNormRel_Inf_16s_C1R
image_inf_normrel, 1793
nppiNormRel_Inf_16s_C3R
image_inf_normrel, 1794
nppiNormRel_Inf_16s_C4R
image_inf_normrel, 1794
nppiNormRel_Inf_16u_AC4R
image_inf_normrel, 1795
nppiNormRel_Inf_16u_C1MR
image_inf_normrel, 1795
nppiNormRel_Inf_16u_C1R
image_inf_normrel, 1796
nppiNormRel_Inf_16u_C3CMR
image_inf_normrel, 1796
nppiNormRel_Inf_16u_C3R
image_inf_normrel, 1797
nppiNormRel_Inf_16u_C4R
image_inf_normrel, 1797
nppiNormRel_Inf_32f_AC4R
image_inf_normrel, 1797
nppiNormRel_Inf_32f_C1MR
image_inf_normrel, 1798
nppiNormRel_Inf_32f_C1R
image_inf_normrel, 1798
nppiNormRel_Inf_32f_C3CMR
image_inf_normrel, 1799
nppiNormRel_Inf_32f_C3R
image_inf_normrel, 1799
nppiNormRel_Inf_32f_C4R
image_inf_normrel, 1800
nppiNormRel_Inf_8s_C1MR
image_inf_normrel, 1800
nppiNormRel_Inf_8s_C3CMR
image_inf_normrel, 1801
nppiNormRel_Inf_8u_AC4R
image_inf_normrel, 1801
nppiNormRel_Inf_8u_C1MR
image_inf_normrel, 1802
nppiNormRel_Inf_8u_C1R
image_inf_normrel, 1802
nppiNormRel_Inf_8u_C3CMR
image_inf_normrel, 1803
nppiNormRel_Inf_8u_C3R
image_inf_normrel, 1803
nppiNormRel_Inf_8u_C4R
image_inf_normrel, 1804
nppiNormRel_L1_16s_AC4R
image_L1_normrel, 1816
nppiNormRel_L1_16s_C1R
image_L1_normrel, 1816
nppiNormRel_L1_16s_C3R
image_L1_normrel, 1817
nppiNormRel_L1_16s_C4R
image_L1_normrel, 1817
nppiNormRel_L1_16u_AC4R
image_L1_normrel, 1818
nppiNormRel_L1_16u_C1MR
image_L1_normrel, 1818
nppiNormRel_L1_16u_C1R
image_L1_normrel, 1819
nppiNormRel_L1_16u_C3CMR
image_L1_normrel, 1819
nppiNormRel_L1_16u_C3R
image_L1_normrel, 1819
nppiNormRel_L1_16u_C4R
image_L1_normrel, 1820
nppiNormRel_L1_32f_AC4R
image_L1_normrel, 1820
nppiNormRel_L1_32f_C1MR
image_L1_normrel, 1821
nppiNormRel_L1_32f_C1R
image_L1_normrel, 1821
nppiNormRel_L1_32f_C3CMR
image_L1_normrel, 1822
nppiNormRel_L1_32f_C3R
image_L1_normrel, 1822
nppiNormRel_L1_32f_C4R
image_L1_normrel, 1823
nppiNormRel_L1_8s_C1MR
image_L1_normrel, 1823
nppiNormRel_L1_8s_C3CMR
image_L1_normrel, 1824
nppiNormRel_L1_8u_AC4R
image_L1_normrel, 1824
nppiNormRel_L1_8u_C1MR
image_L1_normrel, 1825
nppiNormRel_L1_8u_C1R
image_L1_normrel, 1825
nppiNormRel_L1_8u_C3CMR
image_L1_normrel, 1826
nppiNormRel_L1_8u_C3R
image_L1_normrel, 1826

nppiNormRel_L1_8u_C4R
image_L1_normrel, 1827
nppiNormRel_L2_16s_AC4R
image_L2_normrel, 1839
nppiNormRel_L2_16s_C1R
image_L2_normrel, 1839
nppiNormRel_L2_16s_C3R
image_L2_normrel, 1840
nppiNormRel_L2_16s_C4R
image_L2_normrel, 1840
nppiNormRel_L2_16u_AC4R
image_L2_normrel, 1841
nppiNormRel_L2_16u_C1MR
image_L2_normrel, 1841
nppiNormRel_L2_16u_C1R
image_L2_normrel, 1842
nppiNormRel_L2_16u_C3CMR
image_L2_normrel, 1842
nppiNormRel_L2_16u_C3R
image_L2_normrel, 1842
nppiNormRel_L2_16u_C4R
image_L2_normrel, 1843
nppiNormRel_L2_32f_AC4R
image_L2_normrel, 1843
nppiNormRel_L2_32f_C1MR
image_L2_normrel, 1844
nppiNormRel_L2_32f_C1R
image_L2_normrel, 1844
nppiNormRel_L2_32f_C3CMR
image_L2_normrel, 1845
nppiNormRel_L2_32f_C3R
image_L2_normrel, 1845
nppiNormRel_L2_32f_C4R
image_L2_normrel, 1846
nppiNormRel_L2_8s_C1MR
image_L2_normrel, 1846
nppiNormRel_L2_8s_C3CMR
image_L2_normrel, 1847
nppiNormRel_L2_8u_AC4R
image_L2_normrel, 1847
nppiNormRel_L2_8u_C1MR
image_L2_normrel, 1848
nppiNormRel_L2_8u_C1R
image_L2_normrel, 1848
nppiNormRel_L2_8u_C3CMR
image_L2_normrel, 1849
nppiNormRel_L2_8u_C3R
image_L2_normrel, 1849
nppiNormRel_L2_8u_C4R
image_L2_normrel, 1850
nppiNormRelInfGetBufferHostSize_16s_AC4R
image_inf_normrel, 1804
nppiNormRelInfGetBufferHostSize_16s_C1R
image_inf_normrel, 1805
nppiNormRelInfGetBufferHostSize_16s_C3R
image_inf_normrel, 1805
nppiNormRelInfGetBufferHostSize_16s_C4R
image_inf_normrel, 1805
nppiNormRelInfGetBufferHostSize_16u_AC4R
image_inf_normrel, 1805
nppiNormRelInfGetBufferHostSize_16u_C1MR
image_inf_normrel, 1806
nppiNormRelInfGetBufferHostSize_16u_C1R
image_inf_normrel, 1806
nppiNormRelInfGetBufferHostSize_16u_C3CMR
image_inf_normrel, 1806
nppiNormRelInfGetBufferHostSize_16u_C3R
image_inf_normrel, 1807
nppiNormRelInfGetBufferHostSize_16u_C4R
image_inf_normrel, 1807
nppiNormRelInfGetBufferHostSize_32f_AC4R
image_inf_normrel, 1807
nppiNormRelInfGetBufferHostSize_32f_C1MR
image_inf_normrel, 1807
nppiNormRelInfGetBufferHostSize_32f_C1R
image_inf_normrel, 1808
nppiNormRelInfGetBufferHostSize_32f_C3CMR
image_inf_normrel, 1808
nppiNormRelInfGetBufferHostSize_32f_C3R
image_inf_normrel, 1808
nppiNormRelInfGetBufferHostSize_32f_C4R
image_inf_normrel, 1809
nppiNormRelInfGetBufferHostSize_32s_C1R
image_inf_normrel, 1809
nppiNormRelInfGetBufferHostSize_8s_C1MR
image_inf_normrel, 1809
nppiNormRelInfGetBufferHostSize_8s_C3CMR
image_inf_normrel, 1809
nppiNormRelInfGetBufferHostSize_8u_AC4R
image_inf_normrel, 1810
nppiNormRelInfGetBufferHostSize_8u_C1MR
image_inf_normrel, 1810
nppiNormRelInfGetBufferHostSize_8u_C1R
image_inf_normrel, 1810
nppiNormRelInfGetBufferHostSize_8u_C3CMR
image_inf_normrel, 1811
nppiNormRelInfGetBufferHostSize_8u_C3R
image_inf_normrel, 1811
nppiNormRelInfGetBufferHostSize_8u_C4R
image_inf_normrel, 1811
nppiNormRelL1GetBufferHostSize_16s_AC4R
image_L1_normrel, 1827
nppiNormRelL1GetBufferHostSize_16s_C1R
image_L1_normrel, 1827
nppiNormRelL1GetBufferHostSize_16s_C3R
image_L1_normrel, 1828
nppiNormRelL1GetBufferHostSize_16s_C4R
image_L1_normrel, 1828

nppiNormRelL1GetBufferHostSize_16u_AC4R
image_L1_normrel, 1828
nppiNormRelL1GetBufferHostSize_16u_C1MR
image_L1_normrel, 1829
nppiNormRelL1GetBufferHostSize_16u_C1R
image_L1_normrel, 1829
nppiNormRelL1GetBufferHostSize_16u_C3CMR
image_L1_normrel, 1829
nppiNormRelL1GetBufferHostSize_16u_C3R
image_L1_normrel, 1829
nppiNormRelL1GetBufferHostSize_16u_C4R
image_L1_normrel, 1830
nppiNormRelL1GetBufferHostSize_32f_AC4R
image_L1_normrel, 1830
nppiNormRelL1GetBufferHostSize_32f_C1MR
image_L1_normrel, 1830
nppiNormRelL1GetBufferHostSize_32f_C1R
image_L1_normrel, 1831
nppiNormRelL1GetBufferHostSize_32f_C3CMR
image_L1_normrel, 1831
nppiNormRelL1GetBufferHostSize_32f_C3R
image_L1_normrel, 1831
nppiNormRelL1GetBufferHostSize_32f_C4R
image_L1_normrel, 1831
nppiNormRelL1GetBufferHostSize_8s_C1MR
image_L1_normrel, 1832
nppiNormRelL1GetBufferHostSize_8s_C3CMR
image_L1_normrel, 1832
nppiNormRelL1GetBufferHostSize_8u_AC4R
image_L1_normrel, 1832
nppiNormRelL1GetBufferHostSize_8u_C1MR
image_L1_normrel, 1833
nppiNormRelL1GetBufferHostSize_8u_C1R
image_L1_normrel, 1833
nppiNormRelL1GetBufferHostSize_8u_C3CMR
image_L1_normrel, 1833
nppiNormRelL1GetBufferHostSize_8u_C3R
image_L1_normrel, 1833
nppiNormRelL1GetBufferHostSize_8u_C4R
image_L1_normrel, 1834
nppiNormRelL2GetBufferHostSize_16s_AC4R
image_L2_normrel, 1850
nppiNormRelL2GetBufferHostSize_16s_C1R
image_L2_normrel, 1850
nppiNormRelL2GetBufferHostSize_16s_C3R
image_L2_normrel, 1851
nppiNormRelL2GetBufferHostSize_16s_C4R
image_L2_normrel, 1851
nppiNormRelL2GetBufferHostSize_16u_AC4R
image_L2_normrel, 1851
nppiNormRelL2GetBufferHostSize_16u_C1MR
image_L2_normrel, 1852
nppiNormRelL2GetBufferHostSize_16u_C1R
image_L2_normrel, 1852
nppiNormRelL2GetBufferHostSize_16u_C3CMR
image_L2_normrel, 1852
nppiNormRelL2GetBufferHostSize_16u_C3R
image_L2_normrel, 1852
nppiNormRelL2GetBufferHostSize_16u_C4R
image_L2_normrel, 1853
nppiNormRelL2GetBufferHostSize_32f_AC4R
image_L2_normrel, 1853
nppiNormRelL2GetBufferHostSize_32f_C1MR
image_L2_normrel, 1853
nppiNormRelL2GetBufferHostSize_32f_C1R
image_L2_normrel, 1854
nppiNormRelL2GetBufferHostSize_32f_C3CMR
image_L2_normrel, 1854
nppiNormRelL2GetBufferHostSize_32f_C3R
image_L2_normrel, 1854
nppiNormRelL2GetBufferHostSize_32f_C4R
image_L2_normrel, 1854
nppiNormRelL2GetBufferHostSize_8s_C1MR
image_L2_normrel, 1855
nppiNormRelL2GetBufferHostSize_8s_C3CMR
image_L2_normrel, 1855
nppiNormRelL2GetBufferHostSize_8u_AC4R
image_L2_normrel, 1855
nppiNormRelL2GetBufferHostSize_8u_C1MR
image_L2_normrel, 1856
nppiNormRelL2GetBufferHostSize_8u_C1R
image_L2_normrel, 1856
nppiNormRelL2GetBufferHostSize_8u_C3CMR
image_L2_normrel, 1856
nppiNormRelL2GetBufferHostSize_8u_C3R
image_L2_normrel, 1856
nppiNormRelL2GetBufferHostSize_8u_C4R
image_L2_normrel, 1857
nppiNot_8u_AC4IR
image_not, 468
nppiNot_8u_AC4R
image_not, 469
nppiNot_8u_C1IR
image_not, 469
nppiNot_8u_C1R
image_not, 469
nppiNot_8u_C3IR
image_not, 469
nppiNot_8u_C3R
image_not, 470
nppiNot_8u_C4IR
image_not, 470
nppiNot_8u_C4R
image_not, 470
nppiNV21ToBGR_8u_P2C4R
image_color_model_conversion, 547
nppiNV21ToRGB_8u_P2C4R
image_color_model_conversion, 548

nppiOr_16u_AC4IR
image_or, 446
nppiOr_16u_AC4R
image_or, 446
nppiOr_16u_C1IR
image_or, 446
nppiOr_16u_C1R
image_or, 447
nppiOr_16u_C3IR
image_or, 447
nppiOr_16u_C3R
image_or, 447
nppiOr_16u_C4IR
image_or, 448
nppiOr_16u_C4R
image_or, 448
nppiOr_32s_AC4IR
image_or, 449
nppiOr_32s_AC4R
image_or, 449
nppiOr_32s_C1IR
image_or, 449
nppiOr_32s_C1R
image_or, 450
nppiOr_32s_C3IR
image_or, 450
nppiOr_32s_C3R
image_or, 450
nppiOr_32s_C4IR
image_or, 451
nppiOr_32s_C4R
image_or, 451
nppiOr_8u_AC4IR
image_or, 452
nppiOr_8u_AC4R
image_or, 452
nppiOr_8u_C1IR
image_or, 452
nppiOr_8u_C1R
image_or, 453
nppiOr_8u_C3IR
image_or, 453
nppiOr_8u_C3R
image_or, 453
nppiOr_8u_C4IR
image_or, 454
nppiOr_8u_C4R
image_or, 454
nppiOrC_16u_AC4IR
image_orc, 384
nppiOrC_16u_AC4R
image_orc, 384
nppiOrC_16u_C1IR
image_orc, 384
nppiOrC_16u_C1R
image_orc, 385
nppiOrC_16u_C3IR
image_orc, 385
nppiOrC_16u_C3R
image_orc, 385
nppiOrC_16u_C4IR
image_orc, 386
nppiOrC_16u_C4R
image_orc, 386
nppiOrC_32s_AC4IR
image_orc, 386
nppiOrC_32s_AC4R
image_orc, 387
nppiOrC_32s_C1IR
image_orc, 387
nppiOrC_32s_C1R
image_orc, 387
nppiOrC_32s_C3IR
image_orc, 388
nppiOrC_32s_C3R
image_orc, 388
nppiOrC_32s_C4IR
image_orc, 388
nppiOrC_32s_C4R
image_orc, 389
nppiOrC_8u_AC4IR
image_orc, 389
nppiOrC_8u_AC4R
image_orc, 389
nppiOrC_8u_C1IR
image_orc, 390
nppiOrC_8u_C1R
image_orc, 390
nppiOrC_8u_C3IR
image_orc, 390
nppiOrC_8u_C3R
image_orc, 391
nppiOrC_8u_C4IR
image_orc, 391
nppiOrC_8u_C4R
image_orc, 391
NppiPoint, 2687
x, 2687
y, 2687
nppiQualityIndex_16u32f_AC4R
image_quality_index, 2074
nppiQualityIndex_16u32f_C1R
image_quality_index, 2074
nppiQualityIndex_16u32f_C3R
image_quality_index, 2075
nppiQualityIndex_32f_AC4R
image_quality_index, 2075
nppiQualityIndex_32f_C1R

image_quality_index, 2076
nppiQualityIndex_32f_C3R
image_quality_index, 2076
nppiQualityIndex_8u32f_AC4R
image_quality_index, 2076
nppiQualityIndex_8u32f_C1R
image_quality_index, 2077
nppiQualityIndex_8u32f_C3R
image_quality_index, 2077
nppiQualityIndexGetBufferHostSize_16u32f_AC4R
image_quality_index, 2078
nppiQualityIndexGetBufferHostSize_16u32f_C1R
image_quality_index, 2078
nppiQualityIndexGetBufferHostSize_16u32f_C3R
image_quality_index, 2078
nppiQualityIndexGetBufferHostSize_32f_AC4R
image_quality_index, 2079
nppiQualityIndexGetBufferHostSize_32f_C1R
image_quality_index, 2079
nppiQualityIndexGetBufferHostSize_32f_C3R
image_quality_index, 2079
nppiQualityIndexGetBufferHostSize_8u32f_AC4R
image_quality_index, 2080
nppiQualityIndexGetBufferHostSize_8u32f_C1R
image_quality_index, 2080
nppiQualityIndexGetBufferHostSize_8u32f_C3R
image_quality_index, 2080
nppiQuantFwdRawTableInit_JPEG_8u
image_quantization, 721
nppiQuantFwdTableInit_JPEG_8u16u
image_quantization, 722
nppiQuantInvTableInit_JPEG_8u16u
image_quantization, 722
NppiRect, 2688
height, 2688
width, 2688
x, 2688
y, 2688
nppiRectStdDev_32f_C1R
image_rectstddev, 1908
nppiRectStdDev_32s32f_C1R
image_rectstddev, 1909
nppiRectStdDev_32s_C1RSfs
image_rectstddev, 1909
nppiRemap_16s_AC4R
image_remap, 1249
nppiRemap_16s_C1R
image_remap, 1250
nppiRemap_16s_C3R
image_remap, 1250
nppiRemap_16s_C4R
image_remap, 1251
nppiRemap_16s_P3R
image_remap, 1252
nppiRemap_16s_P4R
image_remap, 1252
nppiRemap_16u_AC4R
image_remap, 1253
nppiRemap_16u_C1R
image_remap, 1253
nppiRemap_16u_C3R
image_remap, 1254
nppiRemap_16u_C4R
image_remap, 1255
nppiRemap_16u_P3R
image_remap, 1255
nppiRemap_16u_P4R
image_remap, 1256
nppiRemap_32f_AC4R
image_remap, 1256
nppiRemap_32f_C1R
image_remap, 1257
nppiRemap_32f_C3R
image_remap, 1258
nppiRemap_32f_C4R
image_remap, 1258
nppiRemap_32f_P3R
image_remap, 1259
nppiRemap_32f_P4R
image_remap, 1259
nppiRemap_64f_AC4R
image_remap, 1260
nppiRemap_64f_C1R
image_remap, 1261
nppiRemap_64f_C3R
image_remap, 1261
nppiRemap_64f_C4R
image_remap, 1262
nppiRemap_64f_P3R
image_remap, 1262
nppiRemap_64f_P4R
image_remap, 1263
nppiRemap_8u_AC4R
image_remap, 1264
nppiRemap_8u_C1R
image_remap, 1264
nppiRemap_8u_C3R
image_remap, 1265
nppiRemap_8u_C4R
image_remap, 1265
nppiRemap_8u_P3R
image_remap, 1266
nppiRemap_8u_P4R
image_remap, 1267
nppiResize_16u_AC4R
image_resize, 1236
nppiResize_16u_C1R

image_resize, 1237
nppiResize_16u_C3R
image_resize, 1237
nppiResize_16u_C4R
image_resize, 1238
nppiResize_16u_P3R
image_resize, 1238
nppiResize_16u_P4R
image_resize, 1239
nppiResize_32f_AC4R
image_resize, 1239
nppiResize_32f_C1R
image_resize, 1240
nppiResize_32f_C3R
image_resize, 1240
nppiResize_32f_C4R
image_resize, 1241
nppiResize_32f_P3R
image_resize, 1241
nppiResize_32f_P4R
image_resize, 1242
nppiResize_8u_AC4R
image_resize, 1242
nppiResize_8u_C1R
image_resize, 1243
nppiResize_8u_C3R
image_resize, 1243
nppiResize_8u_C4R
image_resize, 1244
nppiResize_8u_P3R
image_resize, 1244
nppiResize_8u_P4R
image_resize, 1245
nppiResizeSqrPixel_16s_AC4R
image_resize_square_pixel, 1216
nppiResizeSqrPixel_16s_C1R
image_resize_square_pixel, 1217
nppiResizeSqrPixel_16s_C3R
image_resize_square_pixel, 1217
nppiResizeSqrPixel_16s_C4R
image_resize_square_pixel, 1218
nppiResizeSqrPixel_16s_P3R
image_resize_square_pixel, 1218
nppiResizeSqrPixel_16s_P4R
image_resize_square_pixel, 1219
nppiResizeSqrPixel_16u_AC4R
image_resize_square_pixel, 1219
nppiResizeSqrPixel_16u_C1R
image_resize_square_pixel, 1220
nppiResizeSqrPixel_16u_C3R
image_resize_square_pixel, 1220
nppiResizeSqrPixel_16u_C4R
image_resize_square_pixel, 1221
nppiResizeSqrPixel_16u_P3R
image_resize_square_pixel, 1221
nppiResizeSqrPixel_16u_P4R
image_resize_square_pixel, 1222
nppiResizeSqrPixel_32f_AC4R
image_resize_square_pixel, 1223
nppiResizeSqrPixel_32f_C1R
image_resize_square_pixel, 1223
nppiResizeSqrPixel_32f_C3R
image_resize_square_pixel, 1224
nppiResizeSqrPixel_32f_C4R
image_resize_square_pixel, 1224
nppiResizeSqrPixel_32f_P3R
image_resize_square_pixel, 1225
nppiResizeSqrPixel_32f_P4R
image_resize_square_pixel, 1225
nppiResizeSqrPixel_64f_AC4R
image_resize_square_pixel, 1226
nppiResizeSqrPixel_64f_C1R
image_resize_square_pixel, 1227
nppiResizeSqrPixel_64f_C3R
image_resize_square_pixel, 1227
nppiResizeSqrPixel_64f_C4R
image_resize_square_pixel, 1228
nppiResizeSqrPixel_64f_P3R
image_resize_square_pixel, 1228
nppiResizeSqrPixel_64f_P4R
image_resize_square_pixel, 1229
nppiResizeSqrPixel_8u_AC4R
image_resize_square_pixel, 1229
nppiResizeSqrPixel_8u_C1R
image_resize_square_pixel, 1230
nppiResizeSqrPixel_8u_C3R
image_resize_square_pixel, 1230
nppiResizeSqrPixel_8u_C4R
image_resize_square_pixel, 1231
nppiResizeSqrPixel_8u_P3R
image_resize_square_pixel, 1231
nppiResizeSqrPixel_8u_P4R
image_resize_square_pixel, 1232
nppiRGBToCbYCr422_8u_C3C2R
image_color_model_conversion, 548
nppiRGBToCbYCr422Gamma_8u_C3C2R
image_color_model_conversion, 548
nppiRGBToGray_16s_AC4C1R
image_color_model_conversion, 549
nppiRGBToGray_16s_C3C1R
image_color_model_conversion, 549
nppiRGBToGray_16u_AC4C1R
image_color_model_conversion, 549
nppiRGBToGray_16u_C3C1R
image_color_model_conversion, 550
nppiRGBToGray_32f_AC4C1R
image_color_model_conversion, 550
nppiRGBToGray_32f_C3C1R

image_color_model_conversion, 550
nppiRGBToGray_8u_AC4C1R
image_color_model_conversion, 551
nppiRGBToGray_8u_C3C1R
image_color_model_conversion, 551
nppiRGBToHLS_8u_AC4R
image_color_model_conversion, 551
nppiRGBToHLS_8u_C3R
image_color_model_conversion, 552
nppiRGBToHSV_8u_AC4R
image_color_model_conversion, 552
nppiRGBToHSV_8u_C3R
image_color_model_conversion, 552
nppiRGBToLUV_8u_AC4R
image_color_model_conversion, 553
nppiRGBToLUV_8u_C3R
image_color_model_conversion, 553
nppiRGBToXYZ_8u_AC4R
image_color_model_conversion, 553
nppiRGBToXYZ_8u_C3R
image_color_model_conversion, 554
nppiRGBToYCbCr420_8u_C3P3R
image_color_model_conversion, 554
nppiRGBToYCbCr422_8u_C3C2R
image_color_model_conversion, 554
nppiRGBToYCbCr422_8u_C3P3R
image_color_model_conversion, 555
nppiRGBToYCbCr422_8u_P3C2R
image_color_model_conversion, 555
nppiRGBToYCbCr_8u_AC4P3R
image_color_model_conversion, 556
nppiRGBToYCbCr_8u_AC4R
image_color_model_conversion, 556
nppiRGBToYCbCr_8u_C3P3R
image_color_model_conversion, 556
nppiRGBToYCbCr_8u_C3R
image_color_model_conversion, 557
nppiRGBToYCbCr_8u_P3R
image_color_model_conversion, 557
nppiRGBToYCC_8u_AC4R
image_color_model_conversion, 557
nppiRGBToYCC_8u_C3R
image_color_model_conversion, 558
nppiRGBToYCrCb420_8u_AC4P3R
image_color_model_conversion, 558
nppiRGBToYCrCb422_8u_C3C2R
image_color_model_conversion, 558
nppiRGBToYCrCb422_8u_P3C2R
image_color_model_conversion, 559
nppiRGBToYUV420_8u_C3P3R
image_color_model_conversion, 559
nppiRGBToYUV420_8u_P3R
image_color_model_conversion, 559
nppiRGBToYUV422_8u_C3C2R
image_color_model_conversion, 560
nppiRGBToYUV422_8u_C3P3R
image_color_model_conversion, 560
nppiRGBToYUV422_8u_P3R
image_color_model_conversion, 560
nppiRGBToYUV_8u_AC4P4R
image_color_model_conversion, 561
nppiRGBToYUV_8u_AC4R
image_color_model_conversion, 561
nppiRGBToYUV_8u_C3P3R
image_color_model_conversion, 562
nppiRGBToYUV_8u_C3R
image_color_model_conversion, 562
nppiRGBToYUV_8u_P3R
image_color_model_conversion, 562
nppiRotate_16u_AC4R
image_rotate, 1270
nppiRotate_16u_C1R
image_rotate, 1271
nppiRotate_16u_C3R
image_rotate, 1271
nppiRotate_16u_C4R
image_rotate, 1272
nppiRotate_32f_AC4R
image_rotate, 1272
nppiRotate_32f_C1R
image_rotate, 1273
nppiRotate_32f_C3R
image_rotate, 1273
nppiRotate_32f_C4R
image_rotate, 1274
nppiRotate_8u_AC4R
image_rotate, 1274
nppiRotate_8u_C1R
image_rotate, 1275
nppiRotate_8u_C3R
image_rotate, 1275
nppiRotate_8u_C4R
image_rotate, 1276
nppiRShiftC_16s_AC4IR
image_rshiftc, 407
nppiRShiftC_16s_AC4R
image_rshiftc, 407
nppiRShiftC_16s_C1IR
image_rshiftc, 408
nppiRShiftC_16s_C1R
image_rshiftc, 408
nppiRShiftC_16s_C3IR
image_rshiftc, 408
nppiRShiftC_16s_C3R
image_rshiftc, 409
nppiRShiftC_16s_C4IR
image_rshiftc, 409
nppiRShiftC_16s_C4R

image_rshiftc, 409
nppiRShiftC_16u_AC4IR
image_rshiftc, 410
nppiRShiftC_16u_AC4R
image_rshiftc, 410
nppiRShiftC_16u_C1IR
image_rshiftc, 410
nppiRShiftC_16u_C1R
image_rshiftc, 411
nppiRShiftC_16u_C3IR
image_rshiftc, 411
nppiRShiftC_16u_C3R
image_rshiftc, 411
nppiRShiftC_16u_C4IR
image_rshiftc, 412
nppiRShiftC_16u_C4R
image_rshiftc, 412
nppiRShiftC_32s_AC4IR
image_rshiftc, 412
nppiRShiftC_32s_AC4R
image_rshiftc, 413
nppiRShiftC_32s_C1IR
image_rshiftc, 413
nppiRShiftC_32s_C1R
image_rshiftc, 413
nppiRShiftC_32s_C3IR
image_rshiftc, 414
nppiRShiftC_32s_C3R
image_rshiftc, 414
nppiRShiftC_32s_C4IR
image_rshiftc, 414
nppiRShiftC_32s_C4R
image_rshiftc, 415
nppiRShiftC_8s_AC4IR
image_rshiftc, 415
nppiRShiftC_8s_AC4R
image_rshiftc, 415
nppiRShiftC_8s_C1IR
image_rshiftc, 416
nppiRShiftC_8s_C1R
image_rshiftc, 416
nppiRShiftC_8s_C3IR
image_rshiftc, 416
nppiRShiftC_8s_C3R
image_rshiftc, 417
nppiRShiftC_8s_C4IR
image_rshiftc, 417
nppiRShiftC_8s_C4R
image_rshiftc, 417
nppiRShiftC_8u_AC4IR
image_rshiftc, 418
nppiRShiftC_8u_AC4R
image_rshiftc, 418
nppiRShiftC_8u_C1IR
image_rshiftc, 418
nppiRShiftC_8u_C1R
image_rshiftc, 419
nppiRShiftC_8u_C3IR
image_rshiftc, 419
nppiRShiftC_8u_C3R
image_rshiftc, 419
nppiRShiftC_8u_C4IR
image_rshiftc, 420
nppiRShiftC_8u_C4R
image_rshiftc, 420
nppiSameNormLevelGetBufferHostSize_16u32f_AC4R
crosscorrsamenormlevel, 2045
nppiSameNormLevelGetBufferHostSize_16u32f_C1R
crosscorrsamenormlevel, 2046
nppiSameNormLevelGetBufferHostSize_16u32f_C3R
crosscorrsamenormlevel, 2046
nppiSameNormLevelGetBufferHostSize_16u32f_C4R
crosscorrsamenormlevel, 2046
nppiSameNormLevelGetBufferHostSize_32f_AC4R
crosscorrsamenormlevel, 2047
nppiSameNormLevelGetBufferHostSize_32f_C1R
crosscorrsamenormlevel, 2047
nppiSameNormLevelGetBufferHostSize_32f_C3R
crosscorrsamenormlevel, 2047
nppiSameNormLevelGetBufferHostSize_32f_C4R
crosscorrsamenormlevel, 2047
nppiSameNormLevelGetBufferHostSize_8s32f_AC4R
crosscorrsamenormlevel, 2048
nppiSameNormLevelGetBufferHostSize_8s32f_C1R
crosscorrsamenormlevel, 2048
nppiSameNormLevelGetBufferHostSize_8s32f_C3R
crosscorrsamenormlevel, 2048
nppiSameNormLevelGetBufferHostSize_8s32f_C4R
crosscorrsamenormlevel, 2049
nppiSameNormLevelGetBufferHostSize_8u32f_AC4R
crosscorrsamenormlevel, 2049
nppiSameNormLevelGetBufferHostSize_8u32f_C1R
crosscorrsamenormlevel, 2049
nppiSameNormLevelGetBufferHostSize_8u32f_C3R
crosscorrsamenormlevel, 2049

nppiSameNormLevelGetBufferHostSize_8u32f_C4R
crosscorrsamenormlevel, 2050
nppiSameNormLevelGetBufferHostSize_8u_AC4RSfs
crosscorrsamenormlevel, 2050
nppiSameNormLevelGetBufferHostSize_8u_C1RSfs
crosscorrsamenormlevel, 2050
nppiSameNormLevelGetBufferHostSize_8u_C3RSfs
crosscorrsamenormlevel, 2051
nppiSameNormLevelGetBufferHostSize_8u_C4RSfs
crosscorrsamenormlevel, 2051
nppiScale_16s8u_AC4R
image_scale, 861
nppiScale_16s8u_C1R
image_scale, 861
nppiScale_16s8u_C3R
image_scale, 861
nppiScale_16s8u_C4R
image_scale, 862
nppiScale_16u8u_AC4R
image_scale, 862
nppiScale_16u8u_C1R
image_scale, 862
nppiScale_16u8u_C3R
image_scale, 863
nppiScale_16u8u_C4R
image_scale, 863
nppiScale_32f8u_AC4R
image_scale, 863
nppiScale_32f8u_C1R
image_scale, 864
nppiScale_32f8u_C3R
image_scale, 864
nppiScale_32f8u_C4R
image_scale, 865
nppiScale_32s8u_AC4R
image_scale, 865
nppiScale_32s8u_C1R
image_scale, 865
nppiScale_32s8u_C3R
image_scale, 866
nppiScale_32s8u_C4R
image_scale, 866
nppiScale_8u16s_AC4R
image_scale, 866
nppiScale_8u16s_C1R
image_scale, 867
nppiScale_8u16s_C3R
image_scale, 867
nppiScale_8u16s_C4R
image_scale, 867
nppiScale_8u16u_AC4R
image_scale, 868
nppiScale_8u16u_C1R
image_scale, 868
nppiScale_8u16u_C3R
image_scale, 868
nppiScale_8u16u_C4R
image_scale, 869
nppiScale_8u32f_AC4R
image_scale, 869
nppiScale_8u32f_C1R
image_scale, 869
nppiScale_8u32f_C3R
image_scale, 870
nppiScale_8u32f_C4R
image_scale, 870
nppiScale_8u32s_AC4R
image_scale, 871
nppiScale_8u32s_C1R
image_scale, 871
nppiScale_8u32s_C3R
image_scale, 871
nppiScale_8u32s_C4R
image_scale, 872
nppiSet_16s_AC4MR
image_set, 739
nppiSet_16s_AC4R
image_set, 740
nppiSet_16s_C1MR
image_set, 740
nppiSet_16s_C1R
image_set, 740
nppiSet_16s_C2R
image_set, 741
nppiSet_16s_C3CR
image_set, 741
nppiSet_16s_C3MR
image_set, 741
nppiSet_16s_C3R
image_set, 742
nppiSet_16s_C4CR
image_set, 742
nppiSet_16s_C4MR
image_set, 742
nppiSet_16s_C4R
image_set, 743
nppiSet_16sc_AC4R
image_set, 743
nppiSet_16sc_C1R
image_set, 743
nppiSet_16sc_C2R
image_set, 744
nppiSet_16sc_C3R

image_set, 744
nppiSet_16sc_C4R
image_set, 744
nppiSet_16u_AC4MR
image_set, 745
nppiSet_16u_AC4R
image_set, 745
nppiSet_16u_C1MR
image_set, 745
nppiSet_16u_C1R
image_set, 746
nppiSet_16u_C2R
image_set, 746
nppiSet_16u_C3CR
image_set, 746
nppiSet_16u_C3MR
image_set, 747
nppiSet_16u_C3R
image_set, 747
nppiSet_16u_C4CR
image_set, 747
nppiSet_16u_C4MR
image_set, 748
nppiSet_16u_C4R
image_set, 748
nppiSet_32f_AC4MR
image_set, 748
nppiSet_32f_AC4R
image_set, 749
nppiSet_32f_C1MR
image_set, 749
nppiSet_32f_C1R
image_set, 749
nppiSet_32f_C2R
image_set, 750
nppiSet_32f_C3CR
image_set, 750
nppiSet_32f_C3MR
image_set, 750
nppiSet_32f_C3R
image_set, 751
nppiSet_32f_C4CR
image_set, 751
nppiSet_32f_C4MR
image_set, 751
nppiSet_32f_C4R
image_set, 752
nppiSet_32fc_AC4R
image_set, 752
nppiSet_32fc_C1R
image_set, 752
nppiSet_32fc_C2R
image_set, 753
nppiSet_32fc_C3R
image_set, 753
nppiSet_32fc_C4R
image_set, 753
nppiSet_32s_AC4MR
image_set, 754
nppiSet_32s_AC4R
image_set, 754
nppiSet_32s_C1MR
image_set, 754
nppiSet_32s_C1R
image_set, 755
nppiSet_32s_C2R
image_set, 755
nppiSet_32s_C3CR
image_set, 755
nppiSet_32s_C3MR
image_set, 756
nppiSet_32s_C3R
image_set, 756
nppiSet_32s_C4CR
image_set, 756
nppiSet_32s_C4MR
image_set, 757
nppiSet_32s_C4R
image_set, 757
nppiSet_32sc_AC4R
image_set, 757
nppiSet_32sc_C1R
image_set, 758
nppiSet_32sc_C2R
image_set, 758
nppiSet_32sc_C3R
image_set, 758
nppiSet_32sc_C4R
image_set, 759
nppiSet_32u_AC4R
image_set, 759
nppiSet_32u_C1R
image_set, 759
nppiSet_32u_C2R
image_set, 760
nppiSet_32u_C3R
image_set, 760
nppiSet_32u_C4R
image_set, 760
nppiSet_8s_AC4R
image_set, 761
nppiSet_8s_C1R
image_set, 761
nppiSet_8s_C2R
image_set, 761
nppiSet_8s_C3R
image_set, 762
nppiSet_8s_C4R

image_set, 762
nppiSet_8u_AC4MR
image_set, 762
nppiSet_8u_AC4R
image_set, 763
nppiSet_8u_C1MR
image_set, 763
nppiSet_8u_C1R
image_set, 763
nppiSet_8u_C2R
image_set, 764
nppiSet_8u_C3CR
image_set, 764
nppiSet_8u_C3MR
image_set, 764
nppiSet_8u_C3R
image_set, 765
nppiSet_8u_C4CR
image_set, 765
nppiSet_8u_C4MR
image_set, 765
nppiSet_8u_C4R
image_set, 766
NppiSize, 2689
height, 2689
width, 2689
nppiSqr_16s_AC4IRSfs
image_sqr, 333
nppiSqr_16s_AC4RSfs
image_sqr, 333
nppiSqr_16s_C1IRSfs
image_sqr, 333
nppiSqr_16s_C1RSfs
image_sqr, 333
nppiSqr_16s_C3IRSfs
image_sqr, 334
nppiSqr_16s_C3RSfs
image_sqr, 334
nppiSqr_16s_C4IRSfs
image_sqr, 334
nppiSqr_16s_C4RSfs
image_sqr, 335
nppiSqr_16u_AC4IRSfs
image_sqr, 335
nppiSqr_16u_AC4RSfs
image_sqr, 335
nppiSqr_16u_C1IRSfs
image_sqr, 336
nppiSqr_16u_C1RSfs
image_sqr, 336
nppiSqr_16u_C3IRSfs
image_sqr, 337
nppiSqr_16u_C3RSfs
image_sqr, 337
nppiSqr_16u_C4IRSfs
image_sqr, 337
nppiSqr_16u_C4RSfs
image_sqr, 338
nppiSqr_32f_AC4IR
image_sqr, 338
nppiSqr_32f_AC4R
image_sqr, 338
nppiSqr_32f_C1IR
image_sqr, 339
nppiSqr_32f_C1R
image_sqr, 339
nppiSqr_32f_C3IR
image_sqr, 339
nppiSqr_32f_C3R
image_sqr, 339
nppiSqr_32f_C4IR
image_sqr, 340
nppiSqr_32f_C4R
image_sqr, 340
nppiSqr_8u_AC4IRSfs
image_sqr, 340
nppiSqr_8u_AC4RSfs
image_sqr, 341
nppiSqr_8u_C1IRSfs
image_sqr, 341
nppiSqr_8u_C1RSfs
image_sqr, 341
nppiSqr_8u_C3IRSfs
image_sqr, 342
nppiSqr_8u_C3RSfs
image_sqr, 342
nppiSqr_8u_C4IRSfs
image_sqr, 342
nppiSqr_8u_C4RSfs
image_sqr, 343
nppiSqrDistanceFull_Norm_16u32f_AC4R
sqrdistancefullnorm, 1945
nppiSqrDistanceFull_Norm_16u32f_C1R
sqrdistancefullnorm, 1945
nppiSqrDistanceFull_Norm_16u32f_C3R
sqrdistancefullnorm, 1945
nppiSqrDistanceFull_Norm_16u32f_C4R
sqrdistancefullnorm, 1946
nppiSqrDistanceFull_Norm_32f_AC4R
sqrdistancefullnorm, 1946
nppiSqrDistanceFull_Norm_32f_C1R
sqrdistancefullnorm, 1947
nppiSqrDistanceFull_Norm_32f_C3R
sqrdistancefullnorm, 1947
nppiSqrDistanceFull_Norm_32f_C4R
sqrdistancefullnorm, 1948
nppiSqrDistanceFull_Norm_8s32f_AC4R
sqrdistancefullnorm, 1948

nppiSqrDistanceFull_Norm_8s32f_C1R
sqrdistancefullnorm, 1948
nppiSqrDistanceFull_Norm_8s32f_C3R
sqrdistancefullnorm, 1949
nppiSqrDistanceFull_Norm_8s32f_C4R
sqrdistancefullnorm, 1949
nppiSqrDistanceFull_Norm_8u32f_AC4R
sqrdistancefullnorm, 1950
nppiSqrDistanceFull_Norm_8u32f_C1R
sqrdistancefullnorm, 1950
nppiSqrDistanceFull_Norm_8u32f_C3R
sqrdistancefullnorm, 1951
nppiSqrDistanceFull_Norm_8u32f_C4R
sqrdistancefullnorm, 1951
nppiSqrDistanceFull_Norm_8u_AC4RSfs
sqrdistancefullnorm, 1951
nppiSqrDistanceFull_Norm_8u_C1RSfs
sqrdistancefullnorm, 1952
nppiSqrDistanceFull_Norm_8u_C3RSfs
sqrdistancefullnorm, 1952
nppiSqrDistanceFull_Norm_8u_C4RSfs
sqrdistancefullnorm, 1953
nppiSqrDistanceSame_Norm_16u32f_AC4R
sqrdistancesamenorm, 1956
nppiSqrDistanceSame_Norm_16u32f_C1R
sqrdistancesamenorm, 1956
nppiSqrDistanceSame_Norm_16u32f_C3R
sqrdistancesamenorm, 1957
nppiSqrDistanceSame_Norm_16u32f_C4R
sqrdistancesamenorm, 1957
nppiSqrDistanceSame_Norm_32f_AC4R
sqrdistancesamenorm, 1957
nppiSqrDistanceSame_Norm_32f_C1R
sqrdistancesamenorm, 1958
nppiSqrDistanceSame_Norm_32f_C3R
sqrdistancesamenorm, 1958
nppiSqrDistanceSame_Norm_32f_C4R
sqrdistancesamenorm, 1959
nppiSqrDistanceSame_Norm_8s32f_AC4R
sqrdistancesamenorm, 1959
nppiSqrDistanceSame_Norm_8s32f_C1R
sqrdistancesamenorm, 1960
nppiSqrDistanceSame_Norm_8s32f_C3R
sqrdistancesamenorm, 1960
nppiSqrDistanceSame_Norm_8s32f_C4R
sqrdistancesamenorm, 1960
nppiSqrDistanceSame_Norm_8u32f_AC4R
sqrdistancesamenorm, 1961
nppiSqrDistanceSame_Norm_8u32f_C1R
sqrdistancesamenorm, 1961
nppiSqrDistanceSame_Norm_8u32f_C3R
sqrdistancesamenorm, 1962
nppiSqrDistanceSame_Norm_8u32f_C4R
sqrdistancesamenorm, 1962
nppiSqrDistanceSame_Norm_8u_AC4RSfs
sqrdistancesamenorm, 1963
nppiSqrDistanceSame_Norm_8u_C1RSfs
sqrdistancesamenorm, 1963
nppiSqrDistanceSame_Norm_8u_C3RSfs
sqrdistancesamenorm, 1964
nppiSqrDistanceSame_Norm_8u_C4RSfs
sqrdistancesamenorm, 1964
nppiSqrDistanceValid_Norm_16u32f_AC4R
sqrdistancevalidnorm, 1967
nppiSqrDistanceValid_Norm_16u32f_C1R
sqrdistancevalidnorm, 1967
nppiSqrDistanceValid_Norm_16u32f_C3R
sqrdistancevalidnorm, 1968
nppiSqrDistanceValid_Norm_16u32f_C4R
sqrdistancevalidnorm, 1968
nppiSqrDistanceValid_Norm_32f_AC4R
sqrdistancevalidnorm, 1968
nppiSqrDistanceValid_Norm_32f_C1R
sqrdistancevalidnorm, 1969
nppiSqrDistanceValid_Norm_32f_C3R
sqrdistancevalidnorm, 1969
nppiSqrDistanceValid_Norm_32f_C4R
sqrdistancevalidnorm, 1970
nppiSqrDistanceValid_Norm_8s32f_AC4R
sqrdistancevalidnorm, 1970
nppiSqrDistanceValid_Norm_8s32f_C1R
sqrdistancevalidnorm, 1971
nppiSqrDistanceValid_Norm_8s32f_C3R
sqrdistancevalidnorm, 1971
nppiSqrDistanceValid_Norm_8s32f_C4R
sqrdistancevalidnorm, 1971
nppiSqrDistanceValid_Norm_8u32f_AC4R
sqrdistancevalidnorm, 1972
nppiSqrDistanceValid_Norm_8u32f_C1R
sqrdistancevalidnorm, 1972
nppiSqrDistanceValid_Norm_8u32f_C3R
sqrdistancevalidnorm, 1973
nppiSqrDistanceValid_Norm_8u32f_C4R
sqrdistancevalidnorm, 1973
nppiSqrDistanceValid_Norm_8u_AC4RSfs
sqrdistancevalidnorm, 1974
nppiSqrDistanceValid_Norm_8u_C1RSfs
sqrdistancevalidnorm, 1974
nppiSqrDistanceValid_Norm_8u_C3RSfs
sqrdistancevalidnorm, 1975
nppiSqrDistanceValid_Norm_8u_C4RSfs
sqrdistancevalidnorm, 1975
nppiSqrIntegral_8u32f64f_C1R
image_sqrintegral, 1905
nppiSqrIntegral_8u32s64f_C1R
image_sqrintegral, 1906
nppiSqrIntegral_8u32s_C1R
image_sqrintegral, 1906

nppiSqrt_16s_AC4IRSfs
image_sqrt, 346
nppiSqrt_16s_AC4RSfs
image_sqrt, 346
nppiSqrt_16s_C1IRSfs
image_sqrt, 347
nppiSqrt_16s_C1RSfs
image_sqrt, 347
nppiSqrt_16s_C3IRSfs
image_sqrt, 348
nppiSqrt_16s_C3RSfs
image_sqrt, 348
nppiSqrt_16u_AC4IRSfs
image_sqrt, 348
nppiSqrt_16u_AC4RSfs
image_sqrt, 349
nppiSqrt_16u_C1IRSfs
image_sqrt, 349
nppiSqrt_16u_C1RSfs
image_sqrt, 349
nppiSqrt_16u_C3IRSfs
image_sqrt, 350
nppiSqrt_16u_C3RSfs
image_sqrt, 350
nppiSqrt_32f_AC4IR
image_sqrt, 350
nppiSqrt_32f_AC4R
image_sqrt, 351
nppiSqrt_32f_C1IR
image_sqrt, 351
nppiSqrt_32f_C1R
image_sqrt, 351
nppiSqrt_32f_C3IR
image_sqrt, 352
nppiSqrt_32f_C3R
image_sqrt, 352
nppiSqrt_32f_C4IR
image_sqrt, 352
nppiSqrt_32f_C4R
image_sqrt, 353
nppiSqrt_8u_AC4IRSfs
image_sqrt, 353
nppiSqrt_8u_AC4RSfs
image_sqrt, 353
nppiSqrt_8u_C1IRSfs
image_sqrt, 354
nppiSqrt_8u_C1RSfs
image_sqrt, 354
nppiSqrt_8u_C3IRSfs
image_sqrt, 355
nppiSqrt_8u_C3RSfs
image_sqrt, 355
nppiSub_16s_AC4IRSfs
image_sub, 251
nppiSub_16s_AC4RSfs
image_sub, 252
nppiSub_16s_C1IRSfs
image_sub, 252
nppiSub_16s_C1RSfs
image_sub, 252
nppiSub_16s_C3IRSfs
image_sub, 253
nppiSub_16s_C3RSfs
image_sub, 253
nppiSub_16s_C4IRSfs
image_sub, 254
nppiSub_16s_C4RSfs
image_sub, 254
nppiSub_16sc_AC4IRSfs
image_sub, 254
nppiSub_16sc_AC4RSfs
image_sub, 255
nppiSub_16sc_C1IRSfs
image_sub, 255
nppiSub_16sc_C1RSfs
image_sub, 256
nppiSub_16sc_C3IRSfs
image_sub, 256
nppiSub_16sc_C3RSfs
image_sub, 256
nppiSub_16u_AC4IRSfs
image_sub, 257
nppiSub_16u_AC4RSfs
image_sub, 257
nppiSub_16u_C1IRSfs
image_sub, 258
nppiSub_16u_C1RSfs
image_sub, 258
nppiSub_16u_C3IRSfs
image_sub, 259
nppiSub_16u_C3RSfs
image_sub, 259
nppiSub_16u_C4IRSfs
image_sub, 259
nppiSub_16u_C4RSfs
image_sub, 260
nppiSub_32f_AC4IR
image_sub, 260
nppiSub_32f_AC4R
image_sub, 261
nppiSub_32f_C1IR
image_sub, 261
nppiSub_32f_C1R
image_sub, 261
nppiSub_32f_C3IR
image_sub, 262
nppiSub_32f_C3R
image_sub, 262

nppiSub_32f_C4IR
image_sub, 263
nppiSub_32f_C4R
image_sub, 263
nppiSub_32fc_AC4IR
image_sub, 263
nppiSub_32fc_AC4R
image_sub, 264
nppiSub_32fc_C1IR
image_sub, 264
nppiSub_32fc_C1R
image_sub, 265
nppiSub_32fc_C3IR
image_sub, 265
nppiSub_32fc_C3R
image_sub, 265
nppiSub_32fc_C4IR
image_sub, 266
nppiSub_32fc_C4R
image_sub, 266
nppiSub_32s_C1IRSfs
image_sub, 267
nppiSub_32s_C1R
image_sub, 267
nppiSub_32s_C1RSfs
image_sub, 267
nppiSub_32s_C3IRSfs
image_sub, 268
nppiSub_32s_C3RSfs
image_sub, 268
nppiSub_32s_C4IRSfs
image_sub, 269
nppiSub_32s_C4RSfs
image_sub, 269
nppiSub_32sc_AC4IRSfs
image_sub, 270
nppiSub_32sc_AC4RSfs
image_sub, 270
nppiSub_32sc_C1IRSfs
image_sub, 270
nppiSub_32sc_C1RSfs
image_sub, 271
nppiSub_32sc_C3IRSfs
image_sub, 271
nppiSub_32sc_C3RSfs
image_sub, 272
nppiSub_8u_AC4IRSfs
image_sub, 272
nppiSub_8u_AC4RSfs
image_sub, 272
nppiSub_8u_C1IRSfs
image_sub, 273
nppiSub_8u_C1RSfs
image_sub, 273
nppiSub_8u_C3IRSfs
image_sub, 274
nppiSub_8u_C3RSfs
image_sub, 274
nppiSub_8u_C4IRSfs
image_sub, 274
nppiSub_8u_C4RSfs
image_sub, 275
nppiSubC_16s_AC4IRSfs
image_subc, 119
nppiSubC_16s_AC4RSfs
image_subc, 119
nppiSubC_16s_C1IRSfs
image_subc, 119
nppiSubC_16s_C1RSfs
image_subc, 120
nppiSubC_16s_C3IRSfs
image_subc, 120
nppiSubC_16s_C3RSfs
image_subc, 120
nppiSubC_16s_C4IRSfs
image_subc, 121
nppiSubC_16s_C4RSfs
image_subc, 121
nppiSubC_16sc_AC4IRSfs
image_subc, 122
nppiSubC_16sc_AC4RSfs
image_subc, 122
nppiSubC_16sc_C1IRSfs
image_subc, 122
nppiSubC_16sc_C1RSfs
image_subc, 123
nppiSubC_16sc_C3IRSfs
image_subc, 123
nppiSubC_16sc_C3RSfs
image_subc, 124
nppiSubC_16u_AC4IRSfs
image_subc, 124
nppiSubC_16u_AC4RSfs
image_subc, 124
nppiSubC_16u_C1IRSfs
image_subc, 125
nppiSubC_16u_C1RSfs
image_subc, 125
nppiSubC_16u_C3IRSfs
image_subc, 126
nppiSubC_16u_C3RSfs
image_subc, 126
nppiSubC_16u_C4IRSfs
image_subc, 126
nppiSubC_16u_C4RSfs
image_subc, 127
nppiSubC_32f_AC4IR
image_subc, 127

nppiSubC_32f_AC4R
image_subc, 127
nppiSubC_32f_C1IR
image_subc, 128
nppiSubC_32f_C1R
image_subc, 128
nppiSubC_32f_C3IR
image_subc, 128
nppiSubC_32f_C3R
image_subc, 129
nppiSubC_32f_C4IR
image_subc, 129
nppiSubC_32f_C4R
image_subc, 129
nppiSubC_32fc_AC4IR
image_subc, 130
nppiSubC_32fc_AC4R
image_subc, 130
nppiSubC_32fc_C1IR
image_subc, 130
nppiSubC_32fc_C1R
image_subc, 131
nppiSubC_32fc_C3IR
image_subc, 131
nppiSubC_32fc_C3R
image_subc, 131
nppiSubC_32fc_C4IR
image_subc, 132
nppiSubC_32fc_C4R
image_subc, 132
nppiSubC_32s_C1IRSfs
image_subc, 133
nppiSubC_32s_C1RSfs
image_subc, 133
nppiSubC_32s_C3IRSfs
image_subc, 133
nppiSubC_32s_C3RSfs
image_subc, 134
nppiSubC_32sc_AC4IRSfs
image_subc, 134
nppiSubC_32sc_AC4RSfs
image_subc, 134
nppiSubC_32sc_C1IRSfs
image_subc, 135
nppiSubC_32sc_C1RSfs
image_subc, 135
nppiSubC_32sc_C3IRSfs
image_subc, 136
nppiSubC_32sc_C3RSfs
image_subc, 136
nppiSubC_8u_AC4IRSfs
image_subc, 136
nppiSubC_8u_AC4RSfs
image_subc, 137
nppiSubC_8u_C1IRSfs
image_subc, 137
nppiSubC_8u_C1RSfs
image_subc, 138
nppiSubC_8u_C3IRSfs
image_subc, 138
nppiSubC_8u_C3RSfs
image_subc, 138
nppiSubC_8u_C4IRSfs
image_subc, 139
nppiSubC_8u_C4RSfs
image_subc, 139
nppiSum_16s_AC4R
image_sum, 1520
nppiSum_16s_C1R
image_sum, 1520
nppiSum_16s_C3R
image_sum, 1520
nppiSum_16s_C4R
image_sum, 1521
nppiSum_16u_AC4R
image_sum, 1521
nppiSum_16u_C1R
image_sum, 1521
nppiSum_16u_C3R
image_sum, 1522
nppiSum_16u_C4R
image_sum, 1522
nppiSum_32f_AC4R
image_sum, 1522
nppiSum_32f_C1R
image_sum, 1523
nppiSum_32f_C3R
image_sum, 1523
nppiSum_32f_C4R
image_sum, 1523
nppiSum_8u64s_C1R
image_sum, 1524
nppiSum_8u64s_C4R
image_sum, 1524
nppiSum_8u_AC4R
image_sum, 1525
nppiSum_8u_C1R
image_sum, 1525
nppiSum_8u_C3R
image_sum, 1525
nppiSum_8u_C4R
image_sum, 1526
nppiSumGetBufferHostSize_16s_AC4R
image_sum, 1526
nppiSumGetBufferHostSize_16s_C1R
image_sum, 1526
nppiSumGetBufferHostSize_16s_C3R
image_sum, 1527

nppiSumGetBufferHostSize_16s_C4R
image_sum, 1527
nppiSumGetBufferHostSize_16u_AC4R
image_sum, 1527
nppiSumGetBufferHostSize_16u_C1R
image_sum, 1528
nppiSumGetBufferHostSize_16u_C3R
image_sum, 1528
nppiSumGetBufferHostSize_16u_C4R
image_sum, 1528
nppiSumGetBufferHostSize_32f_AC4R
image_sum, 1528
nppiSumGetBufferHostSize_32f_C1R
image_sum, 1529
nppiSumGetBufferHostSize_32f_C3R
image_sum, 1529
nppiSumGetBufferHostSize_32f_C4R
image_sum, 1529
nppiSumGetBufferHostSize_8u64s_C1R
image_sum, 1530
nppiSumGetBufferHostSize_8u64s_C4R
image_sum, 1530
nppiSumGetBufferHostSize_8u_AC4R
image_sum, 1530
nppiSumGetBufferHostSize_8u_C1R
image_sum, 1530
nppiSumGetBufferHostSize_8u_C3R
image_sum, 1531
nppiSumGetBufferHostSize_8u_C4R
image_sum, 1531
nppiSumWindowColumn_16s32f_C1R
image_1D_window_sum, 1070
nppiSumWindowColumn_16s32f_C3R
image_1D_window_sum, 1071
nppiSumWindowColumn_16s32f_C4R
image_1D_window_sum, 1071
nppiSumWindowColumn_16u32f_C1R
image_1D_window_sum, 1072
nppiSumWindowColumn_16u32f_C3R
image_1D_window_sum, 1072
nppiSumWindowColumn_16u32f_C4R
image_1D_window_sum, 1073
nppiSumWindowColumn_8u32f_C1R
image_1D_window_sum, 1073
nppiSumWindowColumn_8u32f_C3R
image_1D_window_sum, 1073
nppiSumWindowColumn_8u32f_C4R
image_1D_window_sum, 1074
nppiSumWindowRow_16s32f_C1R
image_1D_window_sum, 1074
nppiSumWindowRow_16s32f_C3R
image_1D_window_sum, 1075
nppiSumWindowRow_16s32f_C4R
image_1D_window_sum, 1075
nppiSumWindowRow_16u32f_C1R
image_1D_window_sum, 1076
nppiSumWindowRow_16u32f_C3R
image_1D_window_sum, 1076
nppiSumWindowRow_16u32f_C4R
image_1D_window_sum, 1077
nppiSumWindowRow_8u32f_C1R
image_1D_window_sum, 1077
nppiSumWindowRow_8u32f_C3R
image_1D_window_sum, 1078
nppiSumWindowRow_8u32f_C4R
image_1D_window_sum, 1078
nppiSwapChannels_16s_AC4R
image_swap_channels, 939
nppiSwapChannels_16s_C3C4R
image_swap_channels, 939
nppiSwapChannels_16s_C3IR
image_swap_channels, 939
nppiSwapChannels_16s_C3R
image_swap_channels, 940
nppiSwapChannels_16s_C4C3R
image_swap_channels, 940
nppiSwapChannels_16s_C4IR
image_swap_channels, 941
nppiSwapChannels_16s_C4R
image_swap_channels, 941
nppiSwapChannels_16u_AC4R
image_swap_channels, 941
nppiSwapChannels_16u_C3C4R
image_swap_channels, 942
nppiSwapChannels_16u_C3IR
image_swap_channels, 942
nppiSwapChannels_16u_C3R
image_swap_channels, 943
nppiSwapChannels_16u_C4C3R
image_swap_channels, 943
nppiSwapChannels_16u_C4IR
image_swap_channels, 944
nppiSwapChannels_16u_C4R
image_swap_channels, 944
nppiSwapChannels_32f_AC4R
image_swap_channels, 944
nppiSwapChannels_32f_C3C4R
image_swap_channels, 945
nppiSwapChannels_32f_C3IR
image_swap_channels, 945
nppiSwapChannels_32f_C3R
image_swap_channels, 946
nppiSwapChannels_32f_C4C3R
image_swap_channels, 946
nppiSwapChannels_32f_C4IR
image_swap_channels, 947
nppiSwapChannels_32f_C4R
image_swap_channels, 947

nppiSwapChannels_32s_AC4R
image_swap_channels, 947
nppiSwapChannels_32s_C3C4R
image_swap_channels, 948
nppiSwapChannels_32s_C3IR
image_swap_channels, 948
nppiSwapChannels_32s_C3R
image_swap_channels, 949
nppiSwapChannels_32s_C4C3R
image_swap_channels, 949
nppiSwapChannels_32s_C4IR
image_swap_channels, 950
nppiSwapChannels_32s_C4R
image_swap_channels, 950
nppiSwapChannels_8u_AC4R
image_swap_channels, 950
nppiSwapChannels_8u_C3C4R
image_swap_channels, 951
nppiSwapChannels_8u_C3IR
image_swap_channels, 951
nppiSwapChannels_8u_C3R
image_swap_channels, 952
nppiSwapChannels_8u_C4C3R
image_swap_channels, 952
nppiSwapChannels_8u_C4IR
image_swap_channels, 953
nppiSwapChannels_8u_C4R
image_swap_channels, 953
nppiThreshold_16s_AC4IR
image_threshold_operations, 2202
nppiThreshold_16s_AC4R
image_threshold_operations, 2202
nppiThreshold_16s_C1IR
image_threshold_operations, 2203
nppiThreshold_16s_C1R
image_threshold_operations, 2203
nppiThreshold_16s_C3IR
image_threshold_operations, 2204
nppiThreshold_16s_C3R
image_threshold_operations, 2204
nppiThreshold_16u_AC4IR
image_threshold_operations, 2205
nppiThreshold_16u_AC4R
image_threshold_operations, 2205
nppiThreshold_16u_C1IR
image_threshold_operations, 2205
nppiThreshold_16u_C1R
image_threshold_operations, 2206
nppiThreshold_16u_C3IR
image_threshold_operations, 2206
nppiThreshold_16u_C3R
image_threshold_operations, 2207
nppiThreshold_32f_AC4IR
image_threshold_operations, 2207
nppiThreshold_32f_AC4R
image_threshold_operations, 2208
nppiThreshold_32f_C1IR
image_threshold_operations, 2208
nppiThreshold_32f_C1R
image_threshold_operations, 2209
nppiThreshold_32f_C3IR
image_threshold_operations, 2209
nppiThreshold_32f_C3R
image_threshold_operations, 2209
nppiThreshold_8u_AC4IR
image_threshold_operations, 2210
nppiThreshold_8u_AC4R
image_threshold_operations, 2210
nppiThreshold_8u_C1IR
image_threshold_operations, 2211
nppiThreshold_8u_C1R
image_threshold_operations, 2211
nppiThreshold_8u_C3IR
image_threshold_operations, 2212
nppiThreshold_8u_C3R
image_threshold_operations, 2212
nppiThreshold_GT_16s_AC4IR
image_threshold_operations, 2213
nppiThreshold_GT_16s_AC4R
image_threshold_operations, 2213
nppiThreshold_GT_16s_C1IR
image_threshold_operations, 2214
nppiThreshold_GT_16s_C1R
image_threshold_operations, 2214
nppiThreshold_GT_16s_C3IR
image_threshold_operations, 2214
nppiThreshold_GT_16s_C3R
image_threshold_operations, 2215
nppiThreshold_GT_16u_AC4IR
image_threshold_operations, 2215
nppiThreshold_GT_16u_AC4R
image_threshold_operations, 2216
nppiThreshold_GT_16u_C1IR
image_threshold_operations, 2216
nppiThreshold_GT_16u_C1R
image_threshold_operations, 2216
nppiThreshold_GT_16u_C3IR
image_threshold_operations, 2217
nppiThreshold_GT_16u_C3R
image_threshold_operations, 2217
nppiThreshold_GT_32f_AC4IR
image_threshold_operations, 2218
nppiThreshold_GT_32f_AC4R
image_threshold_operations, 2218
nppiThreshold_GT_32f_C1IR
image_threshold_operations, 2218
nppiThreshold_GT_32f_C1R
image_threshold_operations, 2219

nppiThreshold_GT_32f_C3IR
image_threshold_operations, 2219
nppiThreshold_GT_32f_C3R
image_threshold_operations, 2220
nppiThreshold_GT_8u_AC4IR
image_threshold_operations, 2220
nppiThreshold_GT_8u_AC4R
image_threshold_operations, 2220
nppiThreshold_GT_8u_C1IR
image_threshold_operations, 2221
nppiThreshold_GT_8u_C1R
image_threshold_operations, 2221
nppiThreshold_GT_8u_C3IR
image_threshold_operations, 2222
nppiThreshold_GT_8u_C3R
image_threshold_operations, 2222
nppiThreshold_GTVal_16s_AC4IR
image_threshold_operations, 2222
nppiThreshold_GTVal_16s_AC4R
image_threshold_operations, 2223
nppiThreshold_GTVal_16s_C1IR
image_threshold_operations, 2223
nppiThreshold_GTVal_16s_C1R
image_threshold_operations, 2224
nppiThreshold_GTVal_16s_C3IR
image_threshold_operations, 2224
nppiThreshold_GTVal_16s_C3R
image_threshold_operations, 2224
nppiThreshold_GTVal_16u_AC4IR
image_threshold_operations, 2225
nppiThreshold_GTVal_16u_AC4R
image_threshold_operations, 2225
nppiThreshold_GTVal_16u_C1IR
image_threshold_operations, 2226
nppiThreshold_GTVal_16u_C1R
image_threshold_operations, 2226
nppiThreshold_GTVal_16u_C3IR
image_threshold_operations, 2227
nppiThreshold_GTVal_16u_C3R
image_threshold_operations, 2227
nppiThreshold_GTVal_32f_AC4IR
image_threshold_operations, 2227
nppiThreshold_GTVal_32f_AC4R
image_threshold_operations, 2228
nppiThreshold_GTVal_32f_C1IR
image_threshold_operations, 2228
nppiThreshold_GTVal_32f_C1R
image_threshold_operations, 2229
nppiThreshold_GTVal_32f_C3IR
image_threshold_operations, 2229
nppiThreshold_GTVal_32f_C3R
image_threshold_operations, 2229
nppiThreshold_GTVal_8u_AC4IR
image_threshold_operations, 2230
nppiThreshold_GTVal_8u_AC4R
image_threshold_operations, 2230
nppiThreshold_GTVal_8u_C1IR
image_threshold_operations, 2231
nppiThreshold_GTVal_8u_C1R
image_threshold_operations, 2231
nppiThreshold_GTVal_8u_C3IR
image_threshold_operations, 2232
nppiThreshold_GTVal_8u_C3R
image_threshold_operations, 2232
nppiThreshold_LT_16s_AC4IR
image_threshold_operations, 2232
nppiThreshold_LT_16s_AC4R
image_threshold_operations, 2233
nppiThreshold_LT_16s_C1IR
image_threshold_operations, 2233
nppiThreshold_LT_16s_C1R
image_threshold_operations, 2234
nppiThreshold_LT_16s_C3IR
image_threshold_operations, 2234
nppiThreshold_LT_16s_C3R
image_threshold_operations, 2234
nppiThreshold_LT_16u_AC4IR
image_threshold_operations, 2235
nppiThreshold_LT_16u_AC4R
image_threshold_operations, 2235
nppiThreshold_LT_16u_C1IR
image_threshold_operations, 2236
nppiThreshold_LT_16u_C1R
image_threshold_operations, 2236
nppiThreshold_LT_16u_C3IR
image_threshold_operations, 2236
nppiThreshold_LT_16u_C3R
image_threshold_operations, 2237
nppiThreshold_LT_32f_AC4IR
image_threshold_operations, 2237
nppiThreshold_LT_32f_AC4R
image_threshold_operations, 2238
nppiThreshold_LT_32f_C1IR
image_threshold_operations, 2238
nppiThreshold_LT_32f_C1R
image_threshold_operations, 2238
nppiThreshold_LT_32f_C3IR
image_threshold_operations, 2239
nppiThreshold_LT_32f_C3R
image_threshold_operations, 2239
nppiThreshold_LT_8u_AC4IR
image_threshold_operations, 2240
nppiThreshold_LT_8u_AC4R
image_threshold_operations, 2240
nppiThreshold_LT_8u_C1IR
image_threshold_operations, 2240
nppiThreshold_LT_8u_C1R
image_threshold_operations, 2241

nppiThreshold_LT_8u_C3IR
image_threshold_operations, 2241
nppiThreshold_LT_8u_C3R
image_threshold_operations, 2242
nppiThreshold_LTVal_16s_AC4IR
image_threshold_operations, 2242
nppiThreshold_LTVal_16s_AC4R
image_threshold_operations, 2242
nppiThreshold_LTVal_16s_C1IR
image_threshold_operations, 2243
nppiThreshold_LTVal_16s_C1R
image_threshold_operations, 2243
nppiThreshold_LTVal_16s_C3IR
image_threshold_operations, 2244
nppiThreshold_LTVal_16s_C3R
image_threshold_operations, 2244
nppiThreshold_LTVal_16u_AC4IR
image_threshold_operations, 2245
nppiThreshold_LTVal_16u_AC4R
image_threshold_operations, 2245
nppiThreshold_LTVal_16u_C1IR
image_threshold_operations, 2245
nppiThreshold_LTVal_16u_C1R
image_threshold_operations, 2246
nppiThreshold_LTVal_16u_C3IR
image_threshold_operations, 2246
nppiThreshold_LTVal_16u_C3R
image_threshold_operations, 2247
nppiThreshold_LTVal_32f_AC4IR
image_threshold_operations, 2247
nppiThreshold_LTVal_32f_AC4R
image_threshold_operations, 2247
nppiThreshold_LTVal_32f_C1IR
image_threshold_operations, 2248
nppiThreshold_LTVal_32f_C1R
image_threshold_operations, 2248
nppiThreshold_LTVal_32f_C3IR
image_threshold_operations, 2249
nppiThreshold_LTVal_32f_C3R
image_threshold_operations, 2249
nppiThreshold_LTVal_8u_AC4IR
image_threshold_operations, 2250
nppiThreshold_LTVal_8u_AC4R
image_threshold_operations, 2250
nppiThreshold_LTVal_8u_C1IR
image_threshold_operations, 2250
nppiThreshold_LTVal_8u_C1R
image_threshold_operations, 2251
nppiThreshold_LTVal_8u_C3IR
image_threshold_operations, 2251
nppiThreshold_LTVal_8u_C3R
image_threshold_operations, 2252
nppiThreshold_LTValGTVal_16s_AC4IR
image_threshold_operations, 2252
nppiThreshold_LTValGTVal_16s_AC4R
image_threshold_operations, 2253
nppiThreshold_LTValGTVal_16s_C1IR
image_threshold_operations, 2253
nppiThreshold_LTValGTVal_16s_C1R
image_threshold_operations, 2254
nppiThreshold_LTValGTVal_16s_C3IR
image_threshold_operations, 2254
nppiThreshold_LTValGTVal_16s_C3R
image_threshold_operations, 2255
nppiThreshold_LTValGTVal_16u_AC4IR
image_threshold_operations, 2255
nppiThreshold_LTValGTVal_16u_AC4R
image_threshold_operations, 2256
nppiThreshold_LTValGTVal_16u_C1IR
image_threshold_operations, 2256
nppiThreshold_LTValGTVal_16u_C1R
image_threshold_operations, 2257
nppiThreshold_LTValGTVal_16u_C3IR
image_threshold_operations, 2257
nppiThreshold_LTValGTVal_16u_C3R
image_threshold_operations, 2258
nppiThreshold_LTValGTVal_32f_AC4IR
image_threshold_operations, 2258
nppiThreshold_LTValGTVal_32f_AC4R
image_threshold_operations, 2259
nppiThreshold_LTValGTVal_32f_C1IR
image_threshold_operations, 2259
nppiThreshold_LTValGTVal_32f_C1R
image_threshold_operations, 2260
nppiThreshold_LTValGTVal_32f_C3IR
image_threshold_operations, 2260
nppiThreshold_LTValGTVal_32f_C3R
image_threshold_operations, 2261
nppiThreshold_LTValGTVal_8u_AC4IR
image_threshold_operations, 2261
nppiThreshold_LTValGTVal_8u_AC4R
image_threshold_operations, 2262
nppiThreshold_LTValGTVal_8u_C1IR
image_threshold_operations, 2262
nppiThreshold_LTValGTVal_8u_C1R
image_threshold_operations, 2263
nppiThreshold_LTValGTVal_8u_C3IR
image_threshold_operations, 2263
nppiThreshold_LTValGTVal_8u_C3R
image_threshold_operations, 2264
nppiThreshold_Val_16s_AC4IR
image_threshold_operations, 2264
nppiThreshold_Val_16s_AC4R
image_threshold_operations, 2265
nppiThreshold_Val_16s_C1IR
image_threshold_operations, 2265
nppiThreshold_Val_16s_C1R
image_threshold_operations, 2266

nppiThreshold_Val_16s_C3IR
image_threshold_operations, 2266
nppiThreshold_Val_16s_C3R
image_threshold_operations, 2267
nppiThreshold_Val_16u_AC4IR
image_threshold_operations, 2267
nppiThreshold_Val_16u_AC4R
image_threshold_operations, 2268
nppiThreshold_Val_16u_C1IR
image_threshold_operations, 2268
nppiThreshold_Val_16u_C1R
image_threshold_operations, 2269
nppiThreshold_Val_16u_C3IR
image_threshold_operations, 2269
nppiThreshold_Val_16u_C3R
image_threshold_operations, 2270
nppiThreshold_Val_32f_AC4IR
image_threshold_operations, 2270
nppiThreshold_Val_32f_AC4R
image_threshold_operations, 2271
nppiThreshold_Val_32f_C1IR
image_threshold_operations, 2271
nppiThreshold_Val_32f_C1R
image_threshold_operations, 2272
nppiThreshold_Val_32f_C3IR
image_threshold_operations, 2272
nppiThreshold_Val_32f_C3R
image_threshold_operations, 2273
nppiThreshold_Val_8u_AC4IR
image_threshold_operations, 2273
nppiThreshold_Val_8u_AC4R
image_threshold_operations, 2274
nppiThreshold_Val_8u_C1IR
image_threshold_operations, 2274
nppiThreshold_Val_8u_C1R
image_threshold_operations, 2275
nppiThreshold_Val_8u_C3IR
image_threshold_operations, 2275
nppiThreshold_Val_8u_C3R
image_threshold_operations, 2276
nppiTranspose_16s_C1R
image_transpose, 930
nppiTranspose_16s_C3R
image_transpose, 930
nppiTranspose_16s_C4R
image_transpose, 931
nppiTranspose_16u_C1R
image_transpose, 931
nppiTranspose_16u_C3R
image_transpose, 931
nppiTranspose_16u_C4R
image_transpose, 932
nppiTranspose_32f_C1R
image_transpose, 932
nppiTranspose_32f_C3R
image_transpose, 932
nppiTranspose_32f_C4R
image_transpose, 933
nppiTranspose_32s_C1R
image_transpose, 933
nppiTranspose_32s_C3R
image_transpose, 933
nppiTranspose_32s_C4R
image_transpose, 934
nppiTranspose_8u_C1R
image_transpose, 934
nppiTranspose_8u_C3R
image_transpose, 934
nppiTranspose_8u_C4R
image_transpose, 935
nppiValidNormLevelGetBufferHostSize_16u32f_AC4R
crosscorrvalidnormlevel, 2065
nppiValidNormLevelGetBufferHostSize_16u32f_C1R
crosscorrvalidnormlevel, 2066
nppiValidNormLevelGetBufferHostSize_16u32f_C3R
crosscorrvalidnormlevel, 2066
nppiValidNormLevelGetBufferHostSize_16u32f_C4R
crosscorrvalidnormlevel, 2066
nppiValidNormLevelGetBufferHostSize_32f_AC4R
crosscorrvalidnormlevel, 2067
nppiValidNormLevelGetBufferHostSize_32f_C1R
crosscorrvalidnormlevel, 2067
nppiValidNormLevelGetBufferHostSize_32f_C3R
crosscorrvalidnormlevel, 2067
nppiValidNormLevelGetBufferHostSize_32f_C4R
crosscorrvalidnormlevel, 2067
nppiValidNormLevelGetBufferHostSize_8s32f_AC4R
crosscorrvalidnormlevel, 2068
nppiValidNormLevelGetBufferHostSize_8s32f_C1R
crosscorrvalidnormlevel, 2068
nppiValidNormLevelGetBufferHostSize_8s32f_C3R
crosscorrvalidnormlevel, 2068
nppiValidNormLevelGetBufferHostSize_8s32f_C4R
crosscorrvalidnormlevel, 2069
nppiValidNormLevelGetBufferHostSize_8u32f_AC4R
crosscorrvalidnormlevel, 2069
nppiValidNormLevelGetBufferHostSize_8u32f_C1R

crosscorrvalidnormlevel, 2069
nppiValidNormLevelGetBufferHostSize_8u32f_C3R
crosscorrvalidnormlevel, 2069
nppiValidNormLevelGetBufferHostSize_8u32f_C4R
crosscorrvalidnormlevel, 2070
nppiValidNormLevelGetBufferHostSize_8u_AC4RSfs
crosscorrvalidnormlevel, 2070
nppiValidNormLevelGetBufferHostSize_8u_C1RSfs
crosscorrvalidnormlevel, 2070
nppiValidNormLevelGetBufferHostSize_8u_C3RSfs
crosscorrvalidnormlevel, 2071
nppiValidNormLevelGetBufferHostSize_8u_C4RSfs
crosscorrvalidnormlevel, 2071
nppiWarpAffine_16u_AC4R
image_affine_transform, 1304
nppiWarpAffine_16u_C1R
image_affine_transform, 1305
nppiWarpAffine_16u_C3R
image_affine_transform, 1305
nppiWarpAffine_16u_C4R
image_affine_transform, 1306
nppiWarpAffine_16u_P3R
image_affine_transform, 1306
nppiWarpAffine_16u_P4R
image_affine_transform, 1307
nppiWarpAffine_32f_AC4R
image_affine_transform, 1307
nppiWarpAffine_32f_C1R
image_affine_transform, 1308
nppiWarpAffine_32f_C3R
image_affine_transform, 1308
nppiWarpAffine_32f_C4R
image_affine_transform, 1309
nppiWarpAffine_32f_P3R
image_affine_transform, 1309
nppiWarpAffine_32f_P4R
image_affine_transform, 1310
nppiWarpAffine_32s_AC4R
image_affine_transform, 1310
nppiWarpAffine_32s_C1R
image_affine_transform, 1311
nppiWarpAffine_32s_C3R
image_affine_transform, 1311
nppiWarpAffine_32s_C4R
image_affine_transform, 1312
nppiWarpAffine_32s_P3R
image_affine_transform, 1312
nppiWarpAffine_32s_P4R
image_affine_transform, 1313
nppiWarpAffine_64f_AC4R
image_affine_transform, 1313
nppiWarpAffine_64f_C1R
image_affine_transform, 1314
nppiWarpAffine_64f_C3R
image_affine_transform, 1314
nppiWarpAffine_64f_C4R
image_affine_transform, 1315
nppiWarpAffine_64f_P3R
image_affine_transform, 1315
nppiWarpAffine_64f_P4R
image_affine_transform, 1316
nppiWarpAffine_8u_AC4R
image_affine_transform, 1316
nppiWarpAffine_8u_C1R
image_affine_transform, 1317
nppiWarpAffine_8u_C3R
image_affine_transform, 1317
nppiWarpAffine_8u_C4R
image_affine_transform, 1318
nppiWarpAffine_8u_P3R
image_affine_transform, 1318
nppiWarpAffine_8u_P4R
image_affine_transform, 1319
nppiWarpAffineBack_16u_AC4R
image_affine_transform, 1319
nppiWarpAffineBack_16u_C1R
image_affine_transform, 1320
nppiWarpAffineBack_16u_C3R
image_affine_transform, 1320
nppiWarpAffineBack_16u_C4R
image_affine_transform, 1321
nppiWarpAffineBack_16u_P3R
image_affine_transform, 1321
nppiWarpAffineBack_16u_P4R
image_affine_transform, 1322
nppiWarpAffineBack_32f_AC4R
image_affine_transform, 1322
nppiWarpAffineBack_32f_C1R
image_affine_transform, 1323
nppiWarpAffineBack_32f_C3R
image_affine_transform, 1323
nppiWarpAffineBack_32f_C4R
image_affine_transform, 1324
nppiWarpAffineBack_32f_P3R
image_affine_transform, 1324
nppiWarpAffineBack_32f_P4R
image_affine_transform, 1325
nppiWarpAffineBack_32s_AC4R
image_affine_transform, 1325
nppiWarpAffineBack_32s_C1R
image_affine_transform, 1326
nppiWarpAffineBack_32s_C3R

image_affine_transform, 1326
nppiWarpAffineBack_32s_C4R
image_affine_transform, 1327
nppiWarpAffineBack_32s_P3R
image_affine_transform, 1327
nppiWarpAffineBack_32s_P4R
image_affine_transform, 1328
nppiWarpAffineBack_8u_AC4R
image_affine_transform, 1328
nppiWarpAffineBack_8u_C1R
image_affine_transform, 1329
nppiWarpAffineBack_8u_C3R
image_affine_transform, 1329
nppiWarpAffineBack_8u_C4R
image_affine_transform, 1330
nppiWarpAffineBack_8u_P3R
image_affine_transform, 1330
nppiWarpAffineBack_8u_P4R
image_affine_transform, 1331
nppiWarpAffineQuad_16u_AC4R
image_affine_transform, 1331
nppiWarpAffineQuad_16u_C1R
image_affine_transform, 1332
nppiWarpAffineQuad_16u_C3R
image_affine_transform, 1332
nppiWarpAffineQuad_16u_C4R
image_affine_transform, 1333
nppiWarpAffineQuad_16u_P3R
image_affine_transform, 1333
nppiWarpAffineQuad_16u_P4R
image_affine_transform, 1334
nppiWarpAffineQuad_32f_AC4R
image_affine_transform, 1334
nppiWarpAffineQuad_32f_C1R
image_affine_transform, 1335
nppiWarpAffineQuad_32f_C3R
image_affine_transform, 1335
nppiWarpAffineQuad_32f_C4R
image_affine_transform, 1336
nppiWarpAffineQuad_32f_P3R
image_affine_transform, 1336
nppiWarpAffineQuad_32f_P4R
image_affine_transform, 1337
nppiWarpAffineQuad_32s_AC4R
image_affine_transform, 1337
nppiWarpAffineQuad_32s_C1R
image_affine_transform, 1338
nppiWarpAffineQuad_32s_C3R
image_affine_transform, 1338
nppiWarpAffineQuad_32s_C4R
image_affine_transform, 1339
nppiWarpAffineQuad_32s_P3R
image_affine_transform, 1339
nppiWarpAffineQuad_32s_P4R
image_affine_transform, 1340
nppiWarpAffineQuad_8u_AC4R
image_affine_transform, 1340
nppiWarpAffineQuad_8u_C1R
image_affine_transform, 1341
nppiWarpAffineQuad_8u_C3R
image_affine_transform, 1341
nppiWarpAffineQuad_8u_C4R
image_affine_transform, 1342
nppiWarpAffineQuad_8u_P3R
image_affine_transform, 1342
nppiWarpAffineQuad_8u_P4R
image_affine_transform, 1343
nppiWarpPerspective_16u_AC4R
image_perspective_transforms, 1353
nppiWarpPerspective_16u_C1R
image_perspective_transforms, 1354
nppiWarpPerspective_16u_C3R
image_perspective_transforms, 1354
nppiWarpPerspective_16u_C4R
image_perspective_transforms, 1355
nppiWarpPerspective_16u_P3R
image_perspective_transforms, 1355
nppiWarpPerspective_16u_P4R
image_perspective_transforms, 1356
nppiWarpPerspective_32f_AC4R
image_perspective_transforms, 1356
nppiWarpPerspective_32f_C1R
image_perspective_transforms, 1357
nppiWarpPerspective_32f_C3R
image_perspective_transforms, 1357
nppiWarpPerspective_32f_C4R
image_perspective_transforms, 1358
nppiWarpPerspective_32f_P3R
image_perspective_transforms, 1358
nppiWarpPerspective_32f_P4R
image_perspective_transforms, 1359
nppiWarpPerspective_32s_AC4R
image_perspective_transforms, 1359
nppiWarpPerspective_32s_C1R
image_perspective_transforms, 1360
nppiWarpPerspective_32s_C3R
image_perspective_transforms, 1360
nppiWarpPerspective_32s_C4R
image_perspective_transforms, 1361
nppiWarpPerspective_32s_P3R
image_perspective_transforms, 1361
nppiWarpPerspective_32s_P4R
image_perspective_transforms, 1361
nppiWarpPerspective_8u_AC4R
image_perspective_transforms, 1362
nppiWarpPerspective_8u_C1R
image_perspective_transforms, 1362
nppiWarpPerspective_8u_C3R

image_perspective_transforms, 1363
nppiWarpPerspective_8u_C4R
image_perspective_transforms, 1363
nppiWarpPerspective_8u_P3R
image_perspective_transforms, 1364
nppiWarpPerspective_8u_P4R
image_perspective_transforms, 1364
nppiWarpPerspectiveBack_16u_AC4R
image_perspective_transforms, 1365
nppiWarpPerspectiveBack_16u_C1R
image_perspective_transforms, 1365
nppiWarpPerspectiveBack_16u_C3R
image_perspective_transforms, 1366
nppiWarpPerspectiveBack_16u_C4R
image_perspective_transforms, 1366
nppiWarpPerspectiveBack_16u_P3R
image_perspective_transforms, 1367
nppiWarpPerspectiveBack_16u_P4R
image_perspective_transforms, 1367
nppiWarpPerspectiveBack_32f_AC4R
image_perspective_transforms, 1368
nppiWarpPerspectiveBack_32f_C1R
image_perspective_transforms, 1368
nppiWarpPerspectiveBack_32f_C3R
image_perspective_transforms, 1369
nppiWarpPerspectiveBack_32f_C4R
image_perspective_transforms, 1369
nppiWarpPerspectiveBack_32f_P3R
image_perspective_transforms, 1370
nppiWarpPerspectiveBack_32f_P4R
image_perspective_transforms, 1370
nppiWarpPerspectiveBack_32s_AC4R
image_perspective_transforms, 1371
nppiWarpPerspectiveBack_32s_C1R
image_perspective_transforms, 1371
nppiWarpPerspectiveBack_32s_C3R
image_perspective_transforms, 1372
nppiWarpPerspectiveBack_32s_C4R
image_perspective_transforms, 1372
nppiWarpPerspectiveBack_32s_P3R
image_perspective_transforms, 1373
nppiWarpPerspectiveBack_32s_P4R
image_perspective_transforms, 1373
nppiWarpPerspectiveBack_8u_AC4R
image_perspective_transforms, 1374
nppiWarpPerspectiveBack_8u_C1R
image_perspective_transforms, 1374
nppiWarpPerspectiveBack_8u_C3R
image_perspective_transforms, 1375
nppiWarpPerspectiveBack_8u_C4R
image_perspective_transforms, 1375
nppiWarpPerspectiveBack_8u_P3R
image_perspective_transforms, 1376
nppiWarpPerspectiveBack_8u_P4R
image_perspective_transforms, 1376
nppiWarpPerspectiveQuad_16u_AC4R
image_perspective_transforms, 1377
nppiWarpPerspectiveQuad_16u_C1R
image_perspective_transforms, 1377
nppiWarpPerspectiveQuad_16u_C3R
image_perspective_transforms, 1378
nppiWarpPerspectiveQuad_16u_C4R
image_perspective_transforms, 1378
nppiWarpPerspectiveQuad_16u_P3R
image_perspective_transforms, 1379
nppiWarpPerspectiveQuad_16u_P4R
image_perspective_transforms, 1379
nppiWarpPerspectiveQuad_32f_AC4R
image_perspective_transforms, 1380
nppiWarpPerspectiveQuad_32f_C1R
image_perspective_transforms, 1380
nppiWarpPerspectiveQuad_32f_C3R
image_perspective_transforms, 1381
nppiWarpPerspectiveQuad_32f_C4R
image_perspective_transforms, 1381
nppiWarpPerspectiveQuad_32f_P3R
image_perspective_transforms, 1382
nppiWarpPerspectiveQuad_32f_P4R
image_perspective_transforms, 1382
nppiWarpPerspectiveQuad_32s_AC4R
image_perspective_transforms, 1383
nppiWarpPerspectiveQuad_32s_C1R
image_perspective_transforms, 1383
nppiWarpPerspectiveQuad_32s_C3R
image_perspective_transforms, 1384
nppiWarpPerspectiveQuad_32s_C4R
image_perspective_transforms, 1384
nppiWarpPerspectiveQuad_32s_P3R
image_perspective_transforms, 1385
nppiWarpPerspectiveQuad_32s_P4R
image_perspective_transforms, 1385
nppiWarpPerspectiveQuad_8u_AC4R
image_perspective_transforms, 1386
nppiWarpPerspectiveQuad_8u_C1R
image_perspective_transforms, 1386
nppiWarpPerspectiveQuad_8u_C3R
image_perspective_transforms, 1387
nppiWarpPerspectiveQuad_8u_C4R
image_perspective_transforms, 1387
nppiWarpPerspectiveQuad_8u_P3R
image_perspective_transforms, 1388
nppiWarpPerspectiveQuad_8u_P4R
image_perspective_transforms, 1388
nppiXor_16u_AC4IR
image_xor, 458
nppiXor_16u_AC4R
image_xor, 458
nppiXor_16u_C1IR

image_xor, 458
nppiXor_16u_C1R
image_xor, 459
nppiXor_16u_C3IR
image_xor, 459
nppiXor_16u_C3R
image_xor, 459
nppiXor_16u_C4IR
image_xor, 460
nppiXor_16u_C4R
image_xor, 460
nppiXor_32s_AC4IR
image_xor, 461
nppiXor_32s_AC4R
image_xor, 461
nppiXor_32s_C1IR
image_xor, 461
nppiXor_32s_C1R
image_xor, 462
nppiXor_32s_C3IR
image_xor, 462
nppiXor_32s_C3R
image_xor, 462
nppiXor_32s_C4IR
image_xor, 463
nppiXor_32s_C4R
image_xor, 463
nppiXor_8u_AC4IR
image_xor, 464
nppiXor_8u_AC4R
image_xor, 464
nppiXor_8u_C1IR
image_xor, 464
nppiXor_8u_C1R
image_xor, 465
nppiXor_8u_C3IR
image_xor, 465
nppiXor_8u_C3R
image_xor, 465
nppiXor_8u_C4IR
image_xor, 466
nppiXor_8u_C4R
image_xor, 466
nppiXorC_16u_AC4IR
image_xorc, 395
nppiXorC_16u_AC4R
image_xorc, 395
nppiXorC_16u_C1IR
image_xorc, 395
nppiXorC_16u_C1R
image_xorc, 396
nppiXorC_16u_C3IR
image_xorc, 396
nppiXorC_16u_C3R
image_xorc, 396
nppiXorC_16u_C4IR
image_xorc, 397
nppiXorC_16u_C4R
image_xorc, 397
nppiXorC_32s_AC4IR
image_xorc, 397
nppiXorC_32s_AC4R
image_xorc, 398
nppiXorC_32s_C1IR
image_xorc, 398
nppiXorC_32s_C1R
image_xorc, 398
nppiXorC_32s_C3IR
image_xorc, 399
nppiXorC_32s_C3R
image_xorc, 399
nppiXorC_32s_C4IR
image_xorc, 399
nppiXorC_32s_C4R
image_xorc, 400
nppiXorC_8u_AC4IR
image_xorc, 400
nppiXorC_8u_AC4R
image_xorc, 400
nppiXorC_8u_C1IR
image_xorc, 401
nppiXorC_8u_C1R
image_xorc, 401
nppiXorC_8u_C3IR
image_xorc, 401
nppiXorC_8u_C3R
image_xorc, 402
nppiXorC_8u_C4IR
image_xorc, 402
nppiXorC_8u_C4R
image_xorc, 402
nppiXYZToRGB_8u_AC4R
image_color_model_conversion, 563
nppiXYZToRGB_8u_C3R
image_color_model_conversion, 563
nppiYCbCr411_8u_P2P3R
image_color_sampling_format_conversion, 590
nppiYCbCr411_8u_P3P2R
image_color_sampling_format_conversion, 590
nppiYCbCr411ToBGR_8u_P3C3R
image_color_model_conversion, 563
nppiYCbCr411ToBGR_8u_P3C4R
image_color_model_conversion, 564
nppiYCbCr411ToYCbCr420_8u_P2P3R
image_color_sampling_format_conversion, 590

nppiYCbCr411ToYCbCr420_8u_P3P2R
image_color_sampling_format_conversion, 591
nppiYCbCr411ToYCbCr420_8u_P3R
image_color_sampling_format_conversion, 591
nppiYCbCr411ToYCbCr422_8u_P2C2R
image_color_sampling_format_conversion, 592
nppiYCbCr411ToYCbCr422_8u_P2P3R
image_color_sampling_format_conversion, 592
nppiYCbCr411ToYCbCr422_8u_P3C2R
image_color_sampling_format_conversion, 592
nppiYCbCr411ToYCbCr422_8u_P3R
image_color_sampling_format_conversion, 593
nppiYCbCr411ToYCrCb420_8u_P2P3R
image_color_sampling_format_conversion, 593
nppiYCbCr411ToYCrCb422_8u_P3C2R
image_color_sampling_format_conversion, 594
nppiYCbCr411ToYCrCb422_8u_P3R
image_color_sampling_format_conversion, 594
nppiYCbCr420_8u_P2P3R
image_color_sampling_format_conversion, 594
nppiYCbCr420_8u_P3P2R
image_color_sampling_format_conversion, 595
nppiYCbCr420ToBGR_709CSC_8u_P3C3R
image_color_model_conversion, 564
nppiYCbCr420ToBGR_709HDTV_8u_P3C4R
image_color_model_conversion, 564
nppiYCbCr420ToBGR_8u_P3C3R
image_color_model_conversion, 565
nppiYCbCr420ToBGR_8u_P3C4R
image_color_model_conversion, 565
nppiYCbCr420ToCbYCr422_8u_P2C2R
image_color_sampling_format_conversion, 595
nppiYCbCr420ToRGB_8u_P3C3R
image_color_model_conversion, 566
nppiYCbCr420ToYCbCr411_8u_P2P3R
image_color_sampling_format_conversion, 596
nppiYCbCr420ToYCbCr411_8u_P3P2R
image_color_sampling_format_conversion, 596
nppiYCbCr420ToYCbCr422_8u_P2C2R
image_color_sampling_format_conversion, 597
nppiYCbCr420ToYCbCr422_8u_P2P3R
image_color_sampling_format_conversion, 597
nppiYCbCr420ToYCbCr422_8u_P3R
image_color_sampling_format_conversion, 597
nppiYCbCr420ToYCrCb420_8u_P2P3R
image_color_sampling_format_conversion, 598
nppiYCbCr422_8u_C2P3R
image_color_sampling_format_conversion, 598
nppiYCbCr422_8u_P3C2R
image_color_sampling_format_conversion, 599
nppiYCbCr422ToBGR_8u_C2C3R
image_color_model_conversion, 566
nppiYCbCr422ToBGR_8u_C2C4R
image_color_model_conversion, 566
nppiYCbCr422ToBGR_8u_P3C3R
image_color_model_conversion, 567
nppiYCbCr422ToCbYCr422_8u_C2R
image_color_sampling_format_conversion, 599
nppiYCbCr422ToRGB_8u_C2C3R
image_color_model_conversion, 567
nppiYCbCr422ToRGB_8u_C2P3R
image_color_model_conversion, 567
nppiYCbCr422ToRGB_8u_P3C3R
image_color_model_conversion, 568
nppiYCbCr422ToYCbCr411_8u_C2P2R
image_color_sampling_format_conversion, 599
nppiYCbCr422ToYCbCr411_8u_C2P3R
image_color_sampling_format_conversion, 600
nppiYCbCr422ToYCbCr411_8u_P3P2R
image_color_sampling_format_conversion, 600
nppiYCbCr422ToYCbCr411_8u_P3R
image_color_sampling_format_conversion, 601
nppiYCbCr422ToYCbCr420_8u_C2P2R
image_color_sampling_format_conversion, 601
nppiYCbCr422ToYCbCr420_8u_C2P3R
image_color_sampling_format_conversion, 602
nppiYCbCr422ToYCbCr420_8u_P3P2R
image_color_sampling_format_conversion, 602
nppiYCbCr422ToYCbCr420_8u_P3R

image_color_sampling_format_conversion, 602
nppiYCbCr422ToYCrCb420_8u_C2P3R
image_color_sampling_format_conversion, 603
nppiYCbCr422ToYCrCb422_8u_C2R
image_color_sampling_format_conversion, 603
nppiYCbCr422ToYCrCb422_8u_P3C2R
image_color_sampling_format_conversion, 604
nppiYCbCrToBGR_709CSC_8u_P3C3R
image_color_model_conversion, 568
nppiYCbCrToBGR_709CSC_8u_P3C4R
image_color_model_conversion, 568
nppiYCbCrToBGR_8u_P3C3R
image_color_model_conversion, 569
nppiYCbCrToBGR_8u_P3C4R
image_color_model_conversion, 569
nppiYCbCrToRGB_8u_AC4R
image_color_model_conversion, 570
nppiYCbCrToRGB_8u_C3R
image_color_model_conversion, 570
nppiYCbCrToRGB_8u_P3C3R
image_color_model_conversion, 570
nppiYCbCrToRGB_8u_P3C4R
image_color_model_conversion, 571
nppiYCbCrToRGB_8u_P3R
image_color_model_conversion, 571
nppiYCCToRGB_8u_AC4R
image_color_model_conversion, 571
nppiYCCToRGB_8u_C3R
image_color_model_conversion, 572
nppiYCrCb420ToCbYCr422_8u_P3C2R
image_color_sampling_format_conversion, 604
nppiYCrCb420ToRGB_8u_P3C4R
image_color_model_conversion, 572
nppiYCrCb420ToYCbCr411_8u_P3P2R
image_color_sampling_format_conversion, 604
nppiYCrCb420ToYCbCr420_8u_P3P2R
image_color_sampling_format_conversion, 605
nppiYCrCb420ToYCbCr422_8u_P3C2R
image_color_sampling_format_conversion, 605
nppiYCrCb420ToYCbCr422_8u_P3R
image_color_sampling_format_conversion, 606
nppiYCrCb422ToRGB_8u_C2C3R
image_color_model_conversion, 572
nppiYCrCb422ToRGB_8u_C2P3R
image_color_model_conversion, 573
nppiYCrCb422ToYCbCr411_8u_C2P3R
image_color_sampling_format_conversion, 606
nppiYCrCb422ToYCbCr420_8u_C2P3R
image_color_sampling_format_conversion, 607
nppiYCrCb422ToYCbCr422_8u_C2P3R
image_color_sampling_format_conversion, 607
nppiYUV420ToBGR_8u_P3C3R
image_color_model_conversion, 573
nppiYUV420ToBGR_8u_P3C4R
image_color_model_conversion, 573
nppiYUV420ToRGB_8u_P3AC4R
image_color_model_conversion, 574
nppiYUV420ToRGB_8u_P3C3R
image_color_model_conversion, 574
nppiYUV420ToRGB_8u_P3C4R
image_color_model_conversion, 574
nppiYUV420ToRGB_8u_P3R
image_color_model_conversion, 575
nppiYUV422ToRGB_8u_C2C3R
image_color_model_conversion, 575
nppiYUV422ToRGB_8u_P3AC4R
image_color_model_conversion, 575
nppiYUV422ToRGB_8u_P3C3R
image_color_model_conversion, 576
nppiYUV422ToRGB_8u_P3R
image_color_model_conversion, 576
nppiYUVToBGR_8u_AC4R
image_color_model_conversion, 576
nppiYUVToBGR_8u_C3R
image_color_model_conversion, 577
nppiYUVToBGR_8u_P3C3R
image_color_model_conversion, 577
nppiYUVToBGR_8u_P3R
image_color_model_conversion, 577
nppiYUVToRGB_8u_AC4R
image_color_model_conversion, 578
nppiYUVToRGB_8u_C3R
image_color_model_conversion, 578
nppiYUVToRGB_8u_P3C3R
image_color_model_conversion, 578
nppiYUVToRGB_8u_P3R
image_color_model_conversion, 579
NppLibraryVersion, 2690
build, 2690
major, 2690
minor, 2690
NppRoundMode
typedefs_npp, 43
npps10Log10_32s_ISfs
signal_10log10, 2427
npps10Log10_32s_Sfs

signal_10log10, 2427
nppsAbs_16s
signal_abs, 2401
nppsAbs_16s_I
signal_abs, 2401
nppsAbs_32f
signal_abs, 2402
nppsAbs_32f_I
signal_abs, 2402
nppsAbs_32s
signal_abs, 2402
nppsAbs_32s_I
signal_abs, 2402
nppsAbs_64f
signal_abs, 2403
nppsAbs_64f_I
signal_abs, 2403
nppsAdd_16s
signal_add, 2353
nppsAdd_16s32f
signal_add, 2353
nppsAdd_16s32s_I
signal_add, 2353
nppsAdd_16s_I
signal_add, 2354
nppsAdd_16s_ISfs
signal_add, 2354
nppsAdd_16s_Sfs
signal_add, 2354
nppsAdd_16sc_ISfs
signal_add, 2355
nppsAdd_16sc_Sfs
signal_add, 2355
nppsAdd_16u
signal_add, 2355
nppsAdd_16u_ISfs
signal_add, 2356
nppsAdd_16u_Sfs
signal_add, 2356
nppsAdd_32f
signal_add, 2356
nppsAdd_32f_I
signal_add, 2357
nppsAdd_32fc
signal_add, 2357
nppsAdd_32fc_I
signal_add, 2357
nppsAdd_32s_ISfs
signal_add, 2358
nppsAdd_32s_Sfs
signal_add, 2358
nppsAdd_32sc_ISfs
signal_add, 2358
nppsAdd_32sc_Sfs
signal_add, 2359
nppsAdd_32u
signal_add, 2359
nppsAdd_64f
signal_add, 2359
nppsAdd_64f_I
signal_add, 2360
nppsAdd_64fc
signal_add, 2360
nppsAdd_64fc_I
signal_add, 2360
nppsAdd_64s_Sfs
signal_add, 2361
nppsAdd_8u16u
signal_add, 2361
nppsAdd_8u_ISfs
signal_add, 2361
nppsAdd_8u_Sfs
signal_add, 2362
nppsAddC_16s_ISfs
signal_addc, 2305
nppsAddC_16s_Sfs
signal_addc, 2305
nppsAddC_16sc_ISfs
signal_addc, 2306
nppsAddC_16sc_Sfs
signal_addc, 2306
nppsAddC_16u_ISfs
signal_addc, 2306
nppsAddC_16u_Sfs
signal_addc, 2307
nppsAddC_32f
signal_addc, 2307
nppsAddC_32f_I
signal_addc, 2307
nppsAddC_32fc
signal_addc, 2308
nppsAddC_32fc_I
signal_addc, 2308
nppsAddC_32s_ISfs
signal_addc, 2308
nppsAddC_32s_Sfs
signal_addc, 2309
nppsAddC_32sc_ISfs
signal_addc, 2309
nppsAddC_32sc_Sfs
signal_addc, 2309
nppsAddC_64f
signal_addc, 2310
nppsAddC_64f_I
signal_addc, 2310
nppsAddC_64fc
signal_addc, 2310
nppsAddC_64fc_I

signal_addc, 2311
nppsAddC_8u_ISfs
signal_addc, 2311
nppsAddC_8u_Sfs
signal_addc, 2311
nppsAddProduct_16s32s_Sfs
signal_addproduct, 2364
nppsAddProduct_16s_Sfs
signal_addproduct, 2364
nppsAddProduct_32f
signal_addproduct, 2364
nppsAddProduct_32fc
signal_addproduct, 2365
nppsAddProduct_32s_Sfs
signal_addproduct, 2365
nppsAddProduct_64f
signal_addproduct, 2365
nppsAddProduct_64fc
signal_addproduct, 2366
nppsAddProductC_32f
signal_addproductc, 2313
nppsAnd_16u
signal_and, 2443
nppsAnd_16u_I
signal_and, 2443
nppsAnd_32u
signal_and, 2444
nppsAnd_32u_I
signal_and, 2444
nppsAnd_8u
signal_and, 2444
nppsAnd_8u_I
signal_and, 2445
nppsAndC_16u
signal_andc, 2440
nppsAndC_16u_I
signal_andc, 2440
nppsAndC_32u
signal_andc, 2441
nppsAndC_32u_I
signal_andc, 2441
nppsAndC_8u
signal_andc, 2441
nppsAndC_8u_I
signal_andc, 2442
nppsArctan_32f
signal_inversetan, 2432
nppsArctan_32f_I
signal_inversetan, 2432
nppsArctan_64f
signal_inversetan, 2432
nppsArctan_64f_I
signal_inversetan, 2433
nppsAverageError_16s
signal_average_error, 2641
nppsAverageError_16sc
signal_average_error, 2641
nppsAverageError_16u
signal_average_error, 2641
nppsAverageError_32f
signal_average_error, 2642
nppsAverageError_32fc
signal_average_error, 2642
nppsAverageError_32s
signal_average_error, 2642
nppsAverageError_32sc
signal_average_error, 2643
nppsAverageError_32u
signal_average_error, 2643
nppsAverageError_64f
signal_average_error, 2643
nppsAverageError_64fc
signal_average_error, 2644
nppsAverageError_64s
signal_average_error, 2644
nppsAverageError_64sc
signal_average_error, 2644
nppsAverageError_8s
signal_average_error, 2645
nppsAverageError_8u
signal_average_error, 2645
nppsAverageErrorGetBufferSize_16s
signal_average_error, 2645
nppsAverageErrorGetBufferSize_16sc
signal_average_error, 2646
nppsAverageErrorGetBufferSize_16u
signal_average_error, 2646
nppsAverageErrorGetBufferSize_32f
signal_average_error, 2646
nppsAverageErrorGetBufferSize_32fc
signal_average_error, 2646
nppsAverageErrorGetBufferSize_32s
signal_average_error, 2647
nppsAverageErrorGetBufferSize_32sc
signal_average_error, 2647
nppsAverageErrorGetBufferSize_32u
signal_average_error, 2647
nppsAverageErrorGetBufferSize_64f
signal_average_error, 2647
nppsAverageErrorGetBufferSize_64fc
signal_average_error, 2648
nppsAverageErrorGetBufferSize_64s
signal_average_error, 2648
nppsAverageErrorGetBufferSize_64sc
signal_average_error, 2648
nppsAverageErrorGetBufferSize_8s
signal_average_error, 2648
nppsAverageErrorGetBufferSize_8u

signal_average_error, 2649
nppsAverageRelativeError_16s
signal_average_relative_error, 2664
nppsAverageRelativeError_16sc
signal_average_relative_error, 2664
nppsAverageRelativeError_16u
signal_average_relative_error, 2665
nppsAverageRelativeError_32f
signal_average_relative_error, 2665
nppsAverageRelativeError_32fc
signal_average_relative_error, 2665
nppsAverageRelativeError_32s
signal_average_relative_error, 2666
nppsAverageRelativeError_32sc
signal_average_relative_error, 2666
nppsAverageRelativeError_32u
signal_average_relative_error, 2667
nppsAverageRelativeError_64f
signal_average_relative_error, 2667
nppsAverageRelativeError_64fc
signal_average_relative_error, 2667
nppsAverageRelativeError_64s
signal_average_relative_error, 2668
nppsAverageRelativeError_64sc
signal_average_relative_error, 2668
nppsAverageRelativeError_8s
signal_average_relative_error, 2669
nppsAverageRelativeError_8u
signal_average_relative_error, 2669
nppsAverageRelativeErrorGetBufferSize_16s
signal_average_relative_error, 2669
nppsAverageRelativeErrorGetBufferSize_16sc
signal_average_relative_error, 2670
nppsAverageRelativeErrorGetBufferSize_16u
signal_average_relative_error, 2670
nppsAverageRelativeErrorGetBufferSize_32f
signal_average_relative_error, 2670
nppsAverageRelativeErrorGetBufferSize_32fc
signal_average_relative_error, 2670
nppsAverageRelativeErrorGetBufferSize_32s
signal_average_relative_error, 2671
nppsAverageRelativeErrorGetBufferSize_32sc
signal_average_relative_error, 2671
nppsAverageRelativeErrorGetBufferSize_32u
signal_average_relative_error, 2671
nppsAverageRelativeErrorGetBufferSize_64f
signal_average_relative_error, 2671
nppsAverageRelativeErrorGetBufferSize_64fc
signal_average_relative_error, 2672
nppsAverageRelativeErrorGetBufferSize_64s
signal_average_relative_error, 2672
nppsAverageRelativeErrorGetBufferSize_64sc
signal_average_relative_error, 2672
nppsAverageRelativeErrorGetBufferSize_8s
signal_average_relative_error, 2672
nppsAverageRelativeErrorGetBufferSize_8u
signal_average_relative_error, 2673
nppsCauchy_32f_I
signal_cauchy, 2437
nppsCauchyD_32f_I
signal_cauchy, 2437
nppsCauchyDD2_32f_I
signal_cauchy, 2437
nppsConvert_16s32f
signal_convert, 2472
nppsConvert_16s32f_Sfs
signal_convert, 2472
nppsConvert_16s32s
signal_convert, 2472
nppsConvert_16s64f_Sfs
signal_convert, 2472
nppsConvert_16s8s_Sfs
signal_convert, 2472
nppsConvert_16u32f
signal_convert, 2472
nppsConvert_32f16s_Sfs
signal_convert, 2472
nppsConvert_32f16u_Sfs
signal_convert, 2472
nppsConvert_32f32s_Sfs
signal_convert, 2472
nppsConvert_32f64f
signal_convert, 2472
nppsConvert_32f8s_Sfs
signal_convert, 2472
nppsConvert_32f8u_Sfs
signal_convert, 2472
nppsConvert_32s16s
signal_convert, 2472
nppsConvert_32s16s_Sfs
signal_convert, 2472
nppsConvert_32s32f
signal_convert, 2472
nppsConvert_32s32f_Sfs
signal_convert, 2472
nppsConvert_32s64f
signal_convert, 2472
nppsConvert_32s64f_Sfs
signal_convert, 2472
nppsConvert_64f16s_Sfs
signal_convert, 2472
nppsConvert_64f32f
signal_convert, 2472
nppsConvert_64f32s_Sfs
signal_convert, 2472
nppsConvert_64f64s_Sfs
signal_convert, 2472
nppsConvert_64s32s_Sfs

signal_convert, 2472
nppsConvert_64s64f
signal_convert, 2472
nppsConvert_8s16s
signal_convert, 2472
nppsConvert_8s32f
signal_convert, 2472
nppsConvert_8u32f
signal_convert, 2472
nppsCopy_16s
signal_copy, 2510
nppsCopy_16sc
signal_copy, 2511
nppsCopy_32f
signal_copy, 2511
nppsCopy_32fc
signal_copy, 2511
nppsCopy_32s
signal_copy, 2511
nppsCopy_32sc
signal_copy, 2512
nppsCopy_64fc
signal_copy, 2512
nppsCopy_64s
signal_copy, 2512
nppsCopy_64sc
signal_copy, 2513
nppsCopy_8u
signal_copy, 2513
nppsCountInRange_32s
signal_count_in_range, 2625
nppsCountInRangeGetBufferSize_32s
signal_count_in_range, 2625
nppsCubrt_32f
signal_cuberoot, 2418
nppsCubrt_32s16s_Sfs
signal_cuberoot, 2418
nppsDiv_16s_ISfs
signal_div, 2391
nppsDiv_16s_Sfs
signal_div, 2391
nppsDiv_16sc_ISfs
signal_div, 2392
nppsDiv_16sc_Sfs
signal_div, 2392
nppsDiv_16u_ISfs
signal_div, 2392
nppsDiv_16u_Sfs
signal_div, 2393
nppsDiv_32f
signal_div, 2393
nppsDiv_32f_I
signal_div, 2393
nppsDiv_32fc
signal_div, 2394
nppsDiv_32fc_I
signal_div, 2394
nppsDiv_32s16s_Sfs
signal_div, 2394
nppsDiv_32s_ISfs
signal_div, 2395
nppsDiv_32s_Sfs
signal_div, 2395
nppsDiv_64f
signal_div, 2395
nppsDiv_64f_I
signal_div, 2396
nppsDiv_64fc
signal_div, 2396
nppsDiv_64fc_I
signal_div, 2396
nppsDiv_8u_ISfs
signal_div, 2397
nppsDiv_8u_Sfs
signal_div, 2397
nppsDiv_Round_16s_ISfs
signal_divround, 2398
nppsDiv_Round_16s_Sfs
signal_divround, 2399
nppsDiv_Round_16u_ISfs
signal_divround, 2399
nppsDiv_Round_16u_Sfs
signal_divround, 2399
nppsDiv_Round_8u_ISfs
signal_divround, 2400
nppsDiv_Round_8u_Sfs
signal_divround, 2400
nppsDivC_16s_ISfs
signal_divc, 2343
nppsDivC_16s_Sfs
signal_divc, 2343
nppsDivC_16sc_ISfs
signal_divc, 2343
nppsDivC_16sc_Sfs
signal_divc, 2344
nppsDivC_16u_ISfs
signal_divc, 2344
nppsDivC_16u_Sfs
signal_divc, 2344
nppsDivC_32f
signal_divc, 2345
nppsDivC_32f_I
signal_divc, 2345
nppsDivC_32fc
signal_divc, 2345
nppsDivC_32fc_I
signal_divc, 2346
nppsDivC_64f

signal_divc, 2346
nppsDivC_64f_I
signal_divc, 2346
nppsDivC_64fc
signal_divc, 2347
nppsDivC_64fc_I
signal_divc, 2347
nppsDivC_8u_ISfs
signal_divc, 2347
nppsDivC_8u_Sfs
signal_divc, 2348
nppsDivCRev_16u
signal_divcrev, 2349
nppsDivCRev_16u_I
signal_divcrev, 2349
nppsDivCRev_32f
signal_divcrev, 2350
nppsDivCRev_32f_I
signal_divcrev, 2350
nppsDotProd_16s16sc32fc
signal_dot_product, 2608
nppsDotProd_16s16sc32sc_Sfs
signal_dot_product, 2609
nppsDotProd_16s16sc64sc
signal_dot_product, 2609
nppsDotProd_16s16sc_Sfs
signal_dot_product, 2609
nppsDotProd_16s32f
signal_dot_product, 2610
nppsDotProd_16s32s32s_Sfs
signal_dot_product, 2610
nppsDotProd_16s32s_Sfs
signal_dot_product, 2611
nppsDotProd_16s64s
signal_dot_product, 2611
nppsDotProd_16s_Sfs
signal_dot_product, 2611
nppsDotProd_16sc32fc
signal_dot_product, 2612
nppsDotProd_16sc32sc_Sfs
signal_dot_product, 2612
nppsDotProd_16sc64sc
signal_dot_product, 2613
nppsDotProd_16sc_Sfs
signal_dot_product, 2613
nppsDotProd_32f
signal_dot_product, 2613
nppsDotProd_32f32fc
signal_dot_product, 2614
nppsDotProd_32f32fc64fc
signal_dot_product, 2614
nppsDotProd_32f64f
signal_dot_product, 2614
nppsDotProd_32fc
signal_dot_product, 2615
nppsDotProd_32fc64fc
signal_dot_product, 2615
nppsDotProd_32s32sc_Sfs
signal_dot_product, 2615
nppsDotProd_32s_Sfs
signal_dot_product, 2616
nppsDotProd_32sc_Sfs
signal_dot_product, 2616
nppsDotProd_64f
signal_dot_product, 2617
nppsDotProd_64f64fc
signal_dot_product, 2617
nppsDotProd_64fc
signal_dot_product, 2617
nppsDotProdGetBufferSize_16s16sc32fc
signal_dot_product, 2618
nppsDotProdGetBufferSize_16s16sc32sc_Sfs
signal_dot_product, 2618
nppsDotProdGetBufferSize_16s16sc64sc
signal_dot_product, 2618
nppsDotProdGetBufferSize_16s16sc_Sfs
signal_dot_product, 2619
nppsDotProdGetBufferSize_16s32f
signal_dot_product, 2619
nppsDotProdGetBufferSize_16s32s32s_Sfs
signal_dot_product, 2619
nppsDotProdGetBufferSize_16s32s_Sfs
signal_dot_product, 2619
nppsDotProdGetBufferSize_16s64s
signal_dot_product, 2620
nppsDotProdGetBufferSize_16s_Sfs
signal_dot_product, 2620
nppsDotProdGetBufferSize_16sc32fc
signal_dot_product, 2620
nppsDotProdGetBufferSize_16sc32sc_Sfs
signal_dot_product, 2620
nppsDotProdGetBufferSize_16sc64sc
signal_dot_product, 2621
nppsDotProdGetBufferSize_16sc_Sfs
signal_dot_product, 2621
nppsDotProdGetBufferSize_32f
signal_dot_product, 2621
nppsDotProdGetBufferSize_32f32fc
signal_dot_product, 2621
nppsDotProdGetBufferSize_32f32fc64fc
signal_dot_product, 2622
nppsDotProdGetBufferSize_32f64f
signal_dot_product, 2622
nppsDotProdGetBufferSize_32fc
signal_dot_product, 2622
nppsDotProdGetBufferSize_32fc64fc
signal_dot_product, 2622
nppsDotProdGetBufferSize_32s32sc_Sfs

signal_dot_product, 2623
nppsDotProdGetBufferSize_32s_Sfs
signal_dot_product, 2623
nppsDotProdGetBufferSize_32sc_Sfs
signal_dot_product, 2623
nppsDotProdGetBufferSize_64f
signal_dot_product, 2623
nppsDotProdGetBufferSize_64f64fc
signal_dot_product, 2624
nppsDotProdGetBufferSize_64fc
signal_dot_product, 2624
nppSetStream
core_npp, 33
nppsExp_16s_ISfs
signal_exp, 2419
nppsExp_16s_Sfs
signal_exp, 2420
nppsExp_32f
signal_exp, 2420
nppsExp_32f64f
signal_exp, 2420
nppsExp_32f_I
signal_exp, 2420
nppsExp_32s_ISfs
signal_exp, 2421
nppsExp_32s_Sfs
signal_exp, 2421
nppsExp_64f
signal_exp, 2421
nppsExp_64f_I
signal_exp, 2422
nppsExp_64s_ISfs
signal_exp, 2422
nppsExp_64s_Sfs
signal_exp, 2422
nppsFree
signal_free, 2680
nppsIntegral_32s
signal_integral, 2499
nppsIntegralGetBufferSize_32s
signal_integral, 2499
nppsLn_16s_ISfs
signal_ln, 2423
nppsLn_16s_Sfs
signal_ln, 2424
nppsLn_32f
signal_ln, 2424
nppsLn_32f_I
signal_ln, 2424
nppsLn_32s16s_Sfs
signal_ln, 2424
nppsLn_32s_ISfs
signal_ln, 2425
nppsLn_32s_Sfs
signal_ln, 2425
nppsLn_64f
signal_ln, 2425
nppsLn_64f32f
signal_ln, 2426
nppsLn_64f_I
signal_ln, 2426
nppsLShiftC_16s
signal_lshiftc, 2461
nppsLShiftC_16s_I
signal_lshiftc, 2462
nppsLShiftC_16u
signal_lshiftc, 2462
nppsLShiftC_16u_I
signal_lshiftc, 2462
nppsLShiftC_32s
signal_lshiftc, 2462
nppsLShiftC_32s_I
signal_lshiftc, 2463
nppsLShiftC_32u
signal_lshiftc, 2463
nppsLShiftC_32u_I
signal_lshiftc, 2463
nppsLShiftC_8u
signal_lshiftc, 2464
nppsLShiftC_8u_I
signal_lshiftc, 2464
nppsMalloc_16s
signal_malloc, 2676
nppsMalloc_16sc
signal_malloc, 2676
nppsMalloc_16u
signal_malloc, 2676
nppsMalloc_32f
signal_malloc, 2676
nppsMalloc_32fc
signal_malloc, 2677
nppsMalloc_32s
signal_malloc, 2677
nppsMalloc_32sc
signal_malloc, 2677
nppsMalloc_32u
signal_malloc, 2677
nppsMalloc_64f
signal_malloc, 2678
nppsMalloc_64fc
signal_malloc, 2678
nppsMalloc_64s
signal_malloc, 2678
nppsMalloc_64sc
signal_malloc, 2678
nppsMalloc_8s
signal_malloc, 2679
nppsMalloc_8u

signal_malloc, 2679
nppsMax_16s
signal_max, 2527
nppsMax_32f
signal_max, 2528
nppsMax_32s
signal_max, 2528
nppsMax_64f
signal_max, 2528
nppsMaxAbs_16s
signal_max, 2529
nppsMaxAbs_32s
signal_max, 2529
nppsMaxAbsGetBufferSize_16s
signal_max, 2529
nppsMaxAbsGetBufferSize_32s
signal_max, 2530
nppsMaxAbsIndx_16s
signal_max, 2530
nppsMaxAbsIndx_32s
signal_max, 2530
nppsMaxAbsIndxGetBufferSize_16s
signal_max, 2531
nppsMaxAbsIndxGetBufferSize_32s
signal_max, 2531
nppsMaxEvery_16s_I
signal_min_every_or_max_every, 2515
nppsMaxEvery_16u_I
signal_min_every_or_max_every, 2516
nppsMaxEvery_32f_I
signal_min_every_or_max_every, 2516
nppsMaxEvery_32s_I
signal_min_every_or_max_every, 2516
nppsMaxEvery_8u_I
signal_min_every_or_max_every, 2516
nppsMaxGetBufferSize_16s
signal_max, 2531
nppsMaxGetBufferSize_32f
signal_max, 2531
nppsMaxGetBufferSize_32s
signal_max, 2532
nppsMaxGetBufferSize_64f
signal_max, 2532
nppsMaximumError_16s
signal_maximum_error, 2630
nppsMaximumError_16sc
signal_maximum_error, 2630
nppsMaximumError_16u
signal_maximum_error, 2630
nppsMaximumError_32f
signal_maximum_error, 2631
nppsMaximumError_32fc
signal_maximum_error, 2631
nppsMaximumError_32s
signal_maximum_error, 2631
nppsMaximumError_32sc
signal_maximum_error, 2632
nppsMaximumError_32u
signal_maximum_error, 2632
nppsMaximumError_64f
signal_maximum_error, 2632
nppsMaximumError_64fc
signal_maximum_error, 2633
nppsMaximumError_64s
signal_maximum_error, 2633
nppsMaximumError_64sc
signal_maximum_error, 2633
nppsMaximumError_8s
signal_maximum_error, 2634
nppsMaximumError_8u
signal_maximum_error, 2634
nppsMaximumErrorGetBufferSize_16s
signal_maximum_error, 2634
nppsMaximumErrorGetBufferSize_16sc
signal_maximum_error, 2635
nppsMaximumErrorGetBufferSize_16u
signal_maximum_error, 2635
nppsMaximumErrorGetBufferSize_32f
signal_maximum_error, 2635
nppsMaximumErrorGetBufferSize_32fc
signal_maximum_error, 2635
nppsMaximumErrorGetBufferSize_32s
signal_maximum_error, 2636
nppsMaximumErrorGetBufferSize_32sc
signal_maximum_error, 2636
nppsMaximumErrorGetBufferSize_32u
signal_maximum_error, 2636
nppsMaximumErrorGetBufferSize_64f
signal_maximum_error, 2636
nppsMaximumErrorGetBufferSize_64fc
signal_maximum_error, 2637
nppsMaximumErrorGetBufferSize_64s
signal_maximum_error, 2637
nppsMaximumErrorGetBufferSize_64sc
signal_maximum_error, 2637
nppsMaximumErrorGetBufferSize_8s
signal_maximum_error, 2637
nppsMaximumErrorGetBufferSize_8u
signal_maximum_error, 2638
nppsMaximumRelativeError_16s
signal_maximum_relative_error, 2652
nppsMaximumRelativeError_16sc
signal_maximum_relative_error, 2652
nppsMaximumRelativeError_16u
signal_maximum_relative_error, 2653
nppsMaximumRelativeError_32f
signal_maximum_relative_error, 2653
nppsMaximumRelativeError_32fc

signal_maximum_relative_error, 2653
nppsMaximumRelativeError_32s
signal_maximum_relative_error, 2654
nppsMaximumRelativeError_32sc
signal_maximum_relative_error, 2654
nppsMaximumRelativeError_32u
signal_maximum_relative_error, 2655
nppsMaximumRelativeError_64f
signal_maximum_relative_error, 2655
nppsMaximumRelativeError_64fc
signal_maximum_relative_error, 2655
nppsMaximumRelativeError_64s
signal_maximum_relative_error, 2656
nppsMaximumRelativeError_64sc
signal_maximum_relative_error, 2656
nppsMaximumRelativeError_8s
signal_maximum_relative_error, 2657
nppsMaximumRelativeError_8u
signal_maximum_relative_error, 2657
nppsMaximumRelativeErrorGetBufferSize_16s
signal_maximum_relative_error, 2657
nppsMaximumRelativeErrorGetBufferSize_16sc
signal_maximum_relative_error, 2658
nppsMaximumRelativeErrorGetBufferSize_16u
signal_maximum_relative_error, 2658
nppsMaximumRelativeErrorGetBufferSize_32f
signal_maximum_relative_error, 2658
nppsMaximumRelativeErrorGetBufferSize_32fc
signal_maximum_relative_error, 2658
nppsMaximumRelativeErrorGetBufferSize_32s
signal_maximum_relative_error, 2659
nppsMaximumRelativeErrorGetBufferSize_32sc
signal_maximum_relative_error, 2659
nppsMaximumRelativeErrorGetBufferSize_32u
signal_maximum_relative_error, 2659
nppsMaximumRelativeErrorGetBufferSize_64f
signal_maximum_relative_error, 2659
nppsMaximumRelativeErrorGetBufferSize_64fc
signal_maximum_relative_error, 2660
nppsMaximumRelativeErrorGetBufferSize_64s
signal_maximum_relative_error, 2660
nppsMaximumRelativeErrorGetBufferSize_64sc
signal_maximum_relative_error, 2660
nppsMaximumRelativeErrorGetBufferSize_8s
signal_maximum_relative_error, 2660
nppsMaximumRelativeErrorGetBufferSize_8u
signal_maximum_relative_error, 2661
nppsMaxIndx_16s
signal_max, 2532
nppsMaxIndx_32f
signal_max, 2533
nppsMaxIndx_32s
signal_max, 2533
nppsMaxIndx_64f
signal_max, 2533
nppsMaxIndxGetBufferSize_16s
signal_max, 2534
nppsMaxIndxGetBufferSize_32f
signal_max, 2534
nppsMaxIndxGetBufferSize_32s
signal_max, 2534
nppsMaxIndxGetBufferSize_64f
signal_max, 2535
nppsMean_16s_Sfs
signal_mean, 2547
nppsMean_16sc_Sfs
signal_mean, 2547
nppsMean_32f
signal_mean, 2547
nppsMean_32fc
signal_mean, 2548
nppsMean_32s_Sfs
signal_mean, 2548
nppsMean_64f
signal_mean, 2548
nppsMean_64fc
signal_mean, 2549
nppsMeanGetBufferSize_16s_Sfs
signal_mean, 2549
nppsMeanGetBufferSize_16sc_Sfs
signal_mean, 2549
nppsMeanGetBufferSize_32f
signal_mean, 2550
nppsMeanGetBufferSize_32fc
signal_mean, 2550
nppsMeanGetBufferSize_32s_Sfs
signal_mean, 2550
nppsMeanGetBufferSize_64f
signal_mean, 2550
nppsMeanGetBufferSize_64fc
signal_mean, 2551
nppsMeanStdDev_16s32s_Sfs
signal_mean_and_standard_deviation, 2555
nppsMeanStdDev_16s_Sfs
signal_mean_and_standard_deviation, 2556
nppsMeanStdDev_32f
signal_mean_and_standard_deviation, 2556
nppsMeanStdDev_64f
signal_mean_and_standard_deviation, 2556
nppsMeanStdDevGetBufferSize_16s32s_Sfs
signal_mean_and_standard_deviation, 2557
nppsMeanStdDevGetBufferSize_16s_Sfs
signal_mean_and_standard_deviation, 2557
nppsMeanStdDevGetBufferSize_32f
signal_mean_and_standard_deviation, 2557
nppsMeanStdDevGetBufferSize_64f
signal_mean_and_standard_deviation, 2557
nppsMin_16s

signal_min, 2537
nppsMin_32f
signal_min, 2538
nppsMin_32s
signal_min, 2538
nppsMin_64f
signal_min, 2538
nppsMinAbs_16s
signal_min, 2539
nppsMinAbs_32s
signal_min, 2539
nppsMinAbsGetBufferSize_16s
signal_min, 2539
nppsMinAbsGetBufferSize_32s
signal_min, 2540
nppsMinAbsIndx_16s
signal_min, 2540
nppsMinAbsIndx_32s
signal_min, 2540
nppsMinAbsIndxGetBufferSize_16s
signal_min, 2541
nppsMinAbsIndxGetBufferSize_32s
signal_min, 2541
nppsMinEvery_16s_I
signal_min_every_or_max_every, 2517
nppsMinEvery_16u_I
signal_min_every_or_max_every, 2517
nppsMinEvery_32f_I
signal_min_every_or_max_every, 2517
nppsMinEvery_32s_I
signal_min_every_or_max_every, 2518
nppsMinEvery_64f_I
signal_min_every_or_max_every, 2518
nppsMinEvery_8u_I
signal_min_every_or_max_every, 2518
nppsMinGetBufferSize_16s
signal_min, 2541
nppsMinGetBufferSize_32f
signal_min, 2541
nppsMinGetBufferSize_32s
signal_min, 2542
nppsMinGetBufferSize_64f
signal_min, 2542
nppsMinIndx_16s
signal_min, 2542
nppsMinIndx_32f
signal_min, 2543
nppsMinIndx_32s
signal_min, 2543
nppsMinIndx_64f
signal_min, 2543
nppsMinIndxGetBufferSize_16s
signal_min, 2544
nppsMinIndxGetBufferSize_32f
signal_min, 2544
nppsMinIndxGetBufferSize_32s
signal_min, 2544
nppsMinIndxGetBufferSize_64f
signal_min, 2545
nppsMinMax_16s
signal_min_max, 2561
nppsMinMax_16u
signal_min_max, 2561
nppsMinMax_32f
signal_min_max, 2561
nppsMinMax_32s
signal_min_max, 2562
nppsMinMax_32u
signal_min_max, 2562
nppsMinMax_64f
signal_min_max, 2562
nppsMinMax_8u
signal_min_max, 2563
nppsMinMaxGetBufferSize_16s
signal_min_max, 2563
nppsMinMaxGetBufferSize_16u
signal_min_max, 2563
nppsMinMaxGetBufferSize_32f
signal_min_max, 2564
nppsMinMaxGetBufferSize_32s
signal_min_max, 2564
nppsMinMaxGetBufferSize_32u
signal_min_max, 2564
nppsMinMaxGetBufferSize_64f
signal_min_max, 2564
nppsMinMaxGetBufferSize_8u
signal_min_max, 2565
nppsMinMaxIndx_16s
signal_min_max, 2565
nppsMinMaxIndx_16u
signal_min_max, 2565
nppsMinMaxIndx_32f
signal_min_max, 2566
nppsMinMaxIndx_32s
signal_min_max, 2566
nppsMinMaxIndx_32u
signal_min_max, 2567
nppsMinMaxIndx_64f
signal_min_max, 2567
nppsMinMaxIndx_8u
signal_min_max, 2567
nppsMinMaxIndxGetBufferSize_16s
signal_min_max, 2568
nppsMinMaxIndxGetBufferSize_16u
signal_min_max, 2568
nppsMinMaxIndxGetBufferSize_32f
signal_min_max, 2568
nppsMinMaxIndxGetBufferSize_32s

signal_min_max, 2569
nppsMinMaxIndxGetBufferSize_32u
signal_min_max, 2569
nppsMinMaxIndxGetBufferSize_64f
signal_min_max, 2569
nppsMinMaxIndxGetBufferSize_8u
signal_min_max, 2569
nppsMul_16s
signal_mul, 2369
nppsMul_16s32f
signal_mul, 2369
nppsMul_16s32s_Sfs
signal_mul, 2370
nppsMul_16s_I
signal_mul, 2370
nppsMul_16s_ISfs
signal_mul, 2370
nppsMul_16s_Sfs
signal_mul, 2371
nppsMul_16sc_ISfs
signal_mul, 2371
nppsMul_16sc_Sfs
signal_mul, 2371
nppsMul_16u16s_Sfs
signal_mul, 2372
nppsMul_16u_ISfs
signal_mul, 2372
nppsMul_16u_Sfs
signal_mul, 2372
nppsMul_32f
signal_mul, 2373
nppsMul_32f32fc
signal_mul, 2373
nppsMul_32f32fc_I
signal_mul, 2373
nppsMul_32f_I
signal_mul, 2374
nppsMul_32fc
signal_mul, 2374
nppsMul_32fc_I
signal_mul, 2374
nppsMul_32s32sc_ISfs
signal_mul, 2375
nppsMul_32s32sc_Sfs
signal_mul, 2375
nppsMul_32s_ISfs
signal_mul, 2375
nppsMul_32s_Sfs
signal_mul, 2376
nppsMul_32sc_ISfs
signal_mul, 2376
nppsMul_32sc_Sfs
signal_mul, 2376
nppsMul_64f
signal_mul, 2377
nppsMul_64f_I
signal_mul, 2377
nppsMul_64fc
signal_mul, 2377
nppsMul_64fc_I
signal_mul, 2378
nppsMul_8u16u
signal_mul, 2378
nppsMul_8u_ISfs
signal_mul, 2378
nppsMul_8u_Sfs
signal_mul, 2379
nppsMul_Low_32s_Sfs
signal_mul, 2379
nppsMulC_16s_ISfs
signal_mulc, 2315
nppsMulC_16s_Sfs
signal_mulc, 2316
nppsMulC_16sc_ISfs
signal_mulc, 2316
nppsMulC_16sc_Sfs
signal_mulc, 2316
nppsMulC_16u_ISfs
signal_mulc, 2317
nppsMulC_16u_Sfs
signal_mulc, 2317
nppsMulC_32f
signal_mulc, 2317
nppsMulC_32f16s_Sfs
signal_mulc, 2318
nppsMulC_32f_I
signal_mulc, 2318
nppsMulC_32fc
signal_mulc, 2318
nppsMulC_32fc_I
signal_mulc, 2319
nppsMulC_32s_ISfs
signal_mulc, 2319
nppsMulC_32s_Sfs
signal_mulc, 2319
nppsMulC_32sc_ISfs
signal_mulc, 2320
nppsMulC_32sc_Sfs
signal_mulc, 2320
nppsMulC_64f
signal_mulc, 2320
nppsMulC_64f64s_ISfs
signal_mulc, 2321
nppsMulC_64f_I
signal_mulc, 2321
nppsMulC_64fc
signal_mulc, 2321
nppsMulC_64fc_I

signal_mulc, 2322
nppsMulC_8u_ISfs
signal_mulc, 2322
nppsMulC_8u_Sfs
signal_mulc, 2322
nppsMulC_Low_32f16s
signal_mulc, 2323
nppsNorm_Inf_16s32f
signal_infinity_norm, 2572
nppsNorm_Inf_16s32s_Sfs
signal_infinity_norm, 2572
nppsNorm_Inf_32f
signal_infinity_norm, 2572
nppsNorm_Inf_32fc32f
signal_infinity_norm, 2572
nppsNorm_Inf_64f
signal_infinity_norm, 2573
nppsNorm_Inf_64fc64f
signal_infinity_norm, 2573
nppsNorm_L1_16s32f
signal_L1_norm, 2577
nppsNorm_L1_16s32s_Sfs
signal_L1_norm, 2577
nppsNorm_L1_16s64s_Sfs
signal_L1_norm, 2577
nppsNorm_L1_32f
signal_L1_norm, 2578
nppsNorm_L1_32fc64f
signal_L1_norm, 2578
nppsNorm_L1_64f
signal_L1_norm, 2578
nppsNorm_L1_64fc64f
signal_L1_norm, 2579
nppsNorm_L2_16s32f
signal_L2_norm, 2583
nppsNorm_L2_16s32s_Sfs
signal_L2_norm, 2583
nppsNorm_L2_32f
signal_L2_norm, 2583
nppsNorm_L2_32fc64f
signal_L2_norm, 2584
nppsNorm_L2_64f
signal_L2_norm, 2584
nppsNorm_L2_64fc64f
signal_L2_norm, 2584
nppsNorm_L2Sqr_16s64s_Sfs
signal_L2_norm, 2585
nppsNormalize_16s_Sfs
signal_normalize, 2434
nppsNormalize_16sc_Sfs
signal_normalize, 2435
nppsNormalize_32f
signal_normalize, 2435
nppsNormalize_32fc
signal_normalize, 2435
nppsNormalize_64f
signal_normalize, 2436
nppsNormalize_64fc
signal_normalize, 2436
nppsNormDiff_Inf_16s32f
signal_infinity_norm_diff, 2589
nppsNormDiff_Inf_16s32s_Sfs
signal_infinity_norm_diff, 2589
nppsNormDiff_Inf_32f
signal_infinity_norm_diff, 2589
nppsNormDiff_Inf_32fc32f
signal_infinity_norm_diff, 2590
nppsNormDiff_Inf_64f
signal_infinity_norm_diff, 2590
nppsNormDiff_Inf_64fc64f
signal_infinity_norm_diff, 2590
nppsNormDiff_L1_16s32f
signal_L1_norm_diff, 2594
nppsNormDiff_L1_16s32s_Sfs
signal_L1_norm_diff, 2594
nppsNormDiff_L1_16s64s_Sfs
signal_L1_norm_diff, 2594
nppsNormDiff_L1_32f
signal_L1_norm_diff, 2595
nppsNormDiff_L1_32fc64f
signal_L1_norm_diff, 2595
nppsNormDiff_L1_64f
signal_L1_norm_diff, 2595
nppsNormDiff_L1_64fc64f
signal_L1_norm_diff, 2596
nppsNormDiff_L2_16s32f
signal_L2_norm_diff, 2600
nppsNormDiff_L2_16s32s_Sfs
signal_L2_norm_diff, 2600
nppsNormDiff_L2_32f
signal_L2_norm_diff, 2600
nppsNormDiff_L2_32fc64f
signal_L2_norm_diff, 2601
nppsNormDiff_L2_64f
signal_L2_norm_diff, 2601
nppsNormDiff_L2_64fc64f
signal_L2_norm_diff, 2601
nppsNormDiff_L2Sqr_16s64s_Sfs
signal_L2_norm_diff, 2602
nppsNormDiffInfGetBufferSize_16s32f
signal_infinity_norm_diff, 2591
nppsNormDiffInfGetBufferSize_16s32s_Sfs
signal_infinity_norm_diff, 2591
nppsNormDiffInfGetBufferSize_32f
signal_infinity_norm_diff, 2591
nppsNormDiffInfGetBufferSize_32fc32f
signal_infinity_norm_diff, 2592
nppsNormDiffInfGetBufferSize_64f

signal_infinity_norm_diff, 2592
nppsNormDiffInfGetBufferSize_64fc64f
signal_infinity_norm_diff, 2592
nppsNormDiffL1GetBufferSize_16s32f
signal_L1_norm_diff, 2596
nppsNormDiffL1GetBufferSize_16s32s_Sfs
signal_L1_norm_diff, 2596
nppsNormDiffL1GetBufferSize_16s64s_Sfs
signal_L1_norm_diff, 2597
nppsNormDiffL1GetBufferSize_32f
signal_L1_norm_diff, 2597
nppsNormDiffL1GetBufferSize_32fc64f
signal_L1_norm_diff, 2597
nppsNormDiffL1GetBufferSize_64f
signal_L1_norm_diff, 2597
nppsNormDiffL1GetBufferSize_64fc64f
signal_L1_norm_diff, 2598
nppsNormDiffL2GetBufferSize_16s32f
signal_L2_norm_diff, 2602
nppsNormDiffL2GetBufferSize_16s32s_Sfs
signal_L2_norm_diff, 2602
nppsNormDiffL2GetBufferSize_32f
signal_L2_norm_diff, 2603
nppsNormDiffL2GetBufferSize_32fc64f
signal_L2_norm_diff, 2603
nppsNormDiffL2GetBufferSize_64f
signal_L2_norm_diff, 2603
nppsNormDiffL2GetBufferSize_64fc64f
signal_L2_norm_diff, 2603
nppsNormDiffL2SqrGetBufferSize_16s64s_Sfs
signal_L2_norm_diff, 2604
nppsNormInfGetBufferSize_16s32f
signal_infinity_norm, 2573
nppsNormInfGetBufferSize_16s32s_Sfs
signal_infinity_norm, 2574
nppsNormInfGetBufferSize_32f
signal_infinity_norm, 2574
nppsNormInfGetBufferSize_32fc32f
signal_infinity_norm, 2574
nppsNormInfGetBufferSize_64f
signal_infinity_norm, 2574
nppsNormInfGetBufferSize_64fc64f
signal_infinity_norm, 2575
nppsNormL1GetBufferSize_16s32f
signal_L1_norm, 2579
nppsNormL1GetBufferSize_16s32s_Sfs
signal_L1_norm, 2579
nppsNormL1GetBufferSize_16s64s_Sfs
signal_L1_norm, 2579
nppsNormL1GetBufferSize_32f
signal_L1_norm, 2580
nppsNormL1GetBufferSize_32fc64f
signal_L1_norm, 2580
nppsNormL1GetBufferSize_64f
signal_L1_norm, 2580
nppsNormL1GetBufferSize_64fc64f
signal_L1_norm, 2580
nppsNormL2GetBufferSize_16s32f
signal_L2_norm, 2585
nppsNormL2GetBufferSize_16s32s_Sfs
signal_L2_norm, 2585
nppsNormL2GetBufferSize_32f
signal_L2_norm, 2585
nppsNormL2GetBufferSize_32fc64f
signal_L2_norm, 2586
nppsNormL2GetBufferSize_64f
signal_L2_norm, 2586
nppsNormL2GetBufferSize_64fc64f
signal_L2_norm, 2586
nppsNormL2SqrGetBufferSize_16s64s_Sfs
signal_L2_norm, 2586
nppsNot_16u
signal_not, 2458
nppsNot_16u_I
signal_not, 2458
nppsNot_32u
signal_not, 2459
nppsNot_32u_I
signal_not, 2459
nppsNot_8u
signal_not, 2459
nppsNot_8u_I
signal_not, 2459
nppsOr_16u
signal_or, 2449
nppsOr_16u_I
signal_or, 2449
nppsOr_32u
signal_or, 2450
nppsOr_32u_I
signal_or, 2450
nppsOr_8u
signal_or, 2450
nppsOr_8u_I
signal_or, 2451
nppsOrC_16u
signal_orc, 2446
nppsOrC_16u_I
signal_orc, 2446
nppsOrC_32u
signal_orc, 2447
nppsOrC_32u_I
signal_orc, 2447
nppsOrC_8u
signal_orc, 2447
nppsOrC_8u_I
signal_orc, 2448
nppsRShiftC_16s

signal_rshiftc, 2465
nppsRShiftC_16s_I
signal_rshiftc, 2466
nppsRShiftC_16u
signal_rshiftc, 2466
nppsRShiftC_16u_I
signal_rshiftc, 2466
nppsRShiftC_32s
signal_rshiftc, 2466
nppsRShiftC_32s_I
signal_rshiftc, 2467
nppsRShiftC_32u
signal_rshiftc, 2467
nppsRShiftC_32u_I
signal_rshiftc, 2467
nppsRShiftC_8u
signal_rshiftc, 2468
nppsRShiftC_8u_I
signal_rshiftc, 2468
nppsSet_16s
signal_set, 2502
nppsSet_16sc
signal_set, 2502
nppsSet_16u
signal_set, 2502
nppsSet_32f
signal_set, 2502
nppsSet_32fc
signal_set, 2503
nppsSet_32s
signal_set, 2503
nppsSet_32sc
signal_set, 2503
nppsSet_32u
signal_set, 2503
nppsSet_64f
signal_set, 2504
nppsSet_64fc
signal_set, 2504
nppsSet_64s
signal_set, 2504
nppsSet_64sc
signal_set, 2505
nppsSet_8s
signal_set, 2505
nppsSet_8u
signal_set, 2505
nppsSqr_16s_ISfs
signal_square, 2405
nppsSqr_16s_Sfs
signal_square, 2405
nppsSqr_16sc_ISfs
signal_square, 2405
nppsSqr_16sc_Sfs
signal_square, 2406
nppsSqr_16u_ISfs
signal_square, 2406
nppsSqr_16u_Sfs
signal_square, 2406
nppsSqr_32f
signal_square, 2406
nppsSqr_32f_I
signal_square, 2407
nppsSqr_32fc
signal_square, 2407
nppsSqr_32fc_I
signal_square, 2407
nppsSqr_64f
signal_square, 2407
nppsSqr_64f_I
signal_square, 2408
nppsSqr_64fc
signal_square, 2408
nppsSqr_64fc_I
signal_square, 2408
nppsSqr_8u_ISfs
signal_square, 2408
nppsSqr_8u_Sfs
signal_square, 2409
nppsSqrt_16s_ISfs
signal_sqrt, 2411
nppsSqrt_16s_Sfs
signal_sqrt, 2411
nppsSqrt_16sc_ISfs
signal_sqrt, 2412
nppsSqrt_16sc_Sfs
signal_sqrt, 2412
nppsSqrt_16u_ISfs
signal_sqrt, 2412
nppsSqrt_16u_Sfs
signal_sqrt, 2412
nppsSqrt_32f
signal_sqrt, 2413
nppsSqrt_32f_I
signal_sqrt, 2413
nppsSqrt_32fc
signal_sqrt, 2413
nppsSqrt_32fc_I
signal_sqrt, 2414
nppsSqrt_32s16s_Sfs
signal_sqrt, 2414
nppsSqrt_64f
signal_sqrt, 2414
nppsSqrt_64f_I
signal_sqrt, 2414
nppsSqrt_64fc
signal_sqrt, 2415
nppsSqrt_64fc_I

signal_sqrt, 2415
nppsSqrt_64s16s_Sfs
signal_sqrt, 2415
nppsSqrt_64s_ISfs
signal_sqrt, 2415
nppsSqrt_64s_Sfs
signal_sqrt, 2416
nppsSqrt_8u_ISfs
signal_sqrt, 2416
nppsSqrt_8u_Sfs
signal_sqrt, 2416
nppsStdDev_16s32s_Sfs
signal_standard_deviation, 2552
nppsStdDev_16s_Sfs
signal_standard_deviation, 2552
nppsStdDev_32f
signal_standard_deviation, 2553
nppsStdDev_64f
signal_standard_deviation, 2553
nppsStdDevGetBufferSize_16s32s_Sfs
signal_standard_deviation, 2553
nppsStdDevGetBufferSize_16s_Sfs
signal_standard_deviation, 2554
nppsStdDevGetBufferSize_32f
signal_standard_deviation, 2554
nppsStdDevGetBufferSize_64f
signal_standard_deviation, 2554
nppsSub_16s
signal_sub, 2381
nppsSub_16s32f
signal_sub, 2382
nppsSub_16s_I
signal_sub, 2382
nppsSub_16s_ISfs
signal_sub, 2382
nppsSub_16s_Sfs
signal_sub, 2383
nppsSub_16sc_ISfs
signal_sub, 2383
nppsSub_16sc_Sfs
signal_sub, 2383
nppsSub_16u_ISfs
signal_sub, 2384
nppsSub_16u_Sfs
signal_sub, 2384
nppsSub_32f
signal_sub, 2384
nppsSub_32f_I
signal_sub, 2385
nppsSub_32fc
signal_sub, 2385
nppsSub_32fc_I
signal_sub, 2385
nppsSub_32s_ISfs
signal_sub, 2385
nppsSub_32s_Sfs
signal_sub, 2386
nppsSub_32sc_ISfs
signal_sub, 2386
nppsSub_32sc_Sfs
signal_sub, 2386
nppsSub_64f
signal_sub, 2387
nppsSub_64f_I
signal_sub, 2387
nppsSub_64fc
signal_sub, 2387
nppsSub_64fc_I
signal_sub, 2388
nppsSub_8u_ISfs
signal_sub, 2388
nppsSub_8u_Sfs
signal_sub, 2388
nppsSubC_16s_ISfs
signal_subc, 2325
nppsSubC_16s_Sfs
signal_subc, 2325
nppsSubC_16sc_ISfs
signal_subc, 2326
nppsSubC_16sc_Sfs
signal_subc, 2326
nppsSubC_16u_ISfs
signal_subc, 2326
nppsSubC_16u_Sfs
signal_subc, 2327
nppsSubC_32f
signal_subc, 2327
nppsSubC_32f_I
signal_subc, 2327
nppsSubC_32fc
signal_subc, 2328
nppsSubC_32fc_I
signal_subc, 2328
nppsSubC_32s_ISfs
signal_subc, 2328
nppsSubC_32s_Sfs
signal_subc, 2329
nppsSubC_32sc_ISfs
signal_subc, 2329
nppsSubC_32sc_Sfs
signal_subc, 2329
nppsSubC_64f
signal_subc, 2330
nppsSubC_64f_I
signal_subc, 2330
nppsSubC_64fc
signal_subc, 2330
nppsSubC_64fc_I

signal_subc, 2331
nppsSubC_8u_ISfs
signal_subc, 2331
nppsSubC_8u_Sfs
signal_subc, 2331
nppsSubCRev_16s_ISfs
signal_subcrev, 2334
nppsSubCRev_16s_Sfs
signal_subcrev, 2335
nppsSubCRev_16sc_ISfs
signal_subcrev, 2335
nppsSubCRev_16sc_Sfs
signal_subcrev, 2335
nppsSubCRev_16u_ISfs
signal_subcrev, 2336
nppsSubCRev_16u_Sfs
signal_subcrev, 2336
nppsSubCRev_32f
signal_subcrev, 2336
nppsSubCRev_32f_I
signal_subcrev, 2337
nppsSubCRev_32fc
signal_subcrev, 2337
nppsSubCRev_32fc_I
signal_subcrev, 2337
nppsSubCRev_32s_ISfs
signal_subcrev, 2337
nppsSubCRev_32s_Sfs
signal_subcrev, 2338
nppsSubCRev_32sc_ISfs
signal_subcrev, 2338
nppsSubCRev_32sc_Sfs
signal_subcrev, 2338
nppsSubCRev_64f
signal_subcrev, 2339
nppsSubCRev_64f_I
signal_subcrev, 2339
nppsSubCRev_64fc
signal_subcrev, 2339
nppsSubCRev_64fc_I
signal_subcrev, 2340
nppsSubCRev_8u_ISfs
signal_subcrev, 2340
nppsSubCRev_8u_Sfs
signal_subcrev, 2340
nppsSum_16s32s_Sfs
signal_sum, 2520
nppsSum_16s_Sfs
signal_sum, 2520
nppsSum_16sc32sc_Sfs
signal_sum, 2521
nppsSum_16sc_Sfs
signal_sum, 2521
nppsSum_32f
signal_sum, 2521
nppsSum_32fc
signal_sum, 2522
nppsSum_32s_Sfs
signal_sum, 2522
nppsSum_64f
signal_sum, 2522
nppsSum_64fc
signal_sum, 2523
nppsSumGetBufferSize_16s32s_Sfs
signal_sum, 2523
nppsSumGetBufferSize_16s_Sfs
signal_sum, 2523
nppsSumGetBufferSize_16sc32sc_Sfs
signal_sum, 2524
nppsSumGetBufferSize_16sc_Sfs
signal_sum, 2524
nppsSumGetBufferSize_32f
signal_sum, 2524
nppsSumGetBufferSize_32fc
signal_sum, 2524
nppsSumGetBufferSize_32s_Sfs
signal_sum, 2525
nppsSumGetBufferSize_64f
signal_sum, 2525
nppsSumGetBufferSize_64fc
signal_sum, 2525
nppsSumLn_16s32f
signal_sumln, 2428
nppsSumLn_32f
signal_sumln, 2429
nppsSumLn_32f64f
signal_sumln, 2429
nppsSumLn_64f
signal_sumln, 2429
nppsSumLnGetBufferSize_16s32f
signal_sumln, 2430
nppsSumLnGetBufferSize_32f
signal_sumln, 2430
nppsSumLnGetBufferSize_32f64f
signal_sumln, 2430
nppsSumLnGetBufferSize_64f
signal_sumln, 2430
NppStatus
typedefs_npp, 44
nppsThreshold_16s
signal_threshold, 2477
nppsThreshold_16s_I
signal_threshold, 2478
nppsThreshold_16sc
signal_threshold, 2478
nppsThreshold_16sc_I
signal_threshold, 2478
nppsThreshold_32f

signal_threshold, 2479
nppsThreshold_32f_I
signal_threshold, 2479
nppsThreshold_32fc
signal_threshold, 2479
nppsThreshold_32fc_I
signal_threshold, 2480
nppsThreshold_64f
signal_threshold, 2480
nppsThreshold_64f_I
signal_threshold, 2480
nppsThreshold_64fc
signal_threshold, 2481
nppsThreshold_64fc_I
signal_threshold, 2481
nppsThreshold_GT_16s
signal_threshold, 2481
nppsThreshold_GT_16s_I
signal_threshold, 2482
nppsThreshold_GT_16sc
signal_threshold, 2482
nppsThreshold_GT_16sc_I
signal_threshold, 2482
nppsThreshold_GT_32f
signal_threshold, 2483
nppsThreshold_GT_32f_I
signal_threshold, 2483
nppsThreshold_GT_32fc
signal_threshold, 2483
nppsThreshold_GT_32fc_I
signal_threshold, 2484
nppsThreshold_GT_64f
signal_threshold, 2484
nppsThreshold_GT_64f_I
signal_threshold, 2484
nppsThreshold_GT_64fc
signal_threshold, 2485
nppsThreshold_GT_64fc_I
signal_threshold, 2485
nppsThreshold_GTVal_16s
signal_threshold, 2485
nppsThreshold_GTVal_16s_I
signal_threshold, 2486
nppsThreshold_GTVal_16sc
signal_threshold, 2486
nppsThreshold_GTVal_16sc_I
signal_threshold, 2486
nppsThreshold_GTVal_32f
signal_threshold, 2487
nppsThreshold_GTVal_32f_I
signal_threshold, 2487
nppsThreshold_GTVal_32fc
signal_threshold, 2487
nppsThreshold_GTVal_32fc_I
signal_threshold, 2488
nppsThreshold_GTVal_64f
signal_threshold, 2488
nppsThreshold_GTVal_64f_I
signal_threshold, 2488
nppsThreshold_GTVal_64fc
signal_threshold, 2489
nppsThreshold_GTVal_64fc_I
signal_threshold, 2489
nppsThreshold_LT_16s
signal_threshold, 2489
nppsThreshold_LT_16s_I
signal_threshold, 2490
nppsThreshold_LT_16sc
signal_threshold, 2490
nppsThreshold_LT_16sc_I
signal_threshold, 2490
nppsThreshold_LT_32f
signal_threshold, 2491
nppsThreshold_LT_32f_I
signal_threshold, 2491
nppsThreshold_LT_32fc
signal_threshold, 2491
nppsThreshold_LT_32fc_I
signal_threshold, 2492
nppsThreshold_LT_64f
signal_threshold, 2492
nppsThreshold_LT_64f_I
signal_threshold, 2492
nppsThreshold_LT_64fc
signal_threshold, 2493
nppsThreshold_LT_64fc_I
signal_threshold, 2493
nppsThreshold_LTVal_16s
signal_threshold, 2493
nppsThreshold_LTVal_16s_I
signal_threshold, 2494
nppsThreshold_LTVal_16sc
signal_threshold, 2494
nppsThreshold_LTVal_16sc_I
signal_threshold, 2494
nppsThreshold_LTVal_32f
signal_threshold, 2495
nppsThreshold_LTVal_32f_I
signal_threshold, 2495
nppsThreshold_LTVal_32fc
signal_threshold, 2495
nppsThreshold_LTVal_32fc_I
signal_threshold, 2496
nppsThreshold_LTVal_64f
signal_threshold, 2496
nppsThreshold_LTVal_64f_I
signal_threshold, 2496
nppsThreshold_LTVal_64fc

signal_threshold, 2497
nppsThreshold_LTVal_64fc_I
signal_threshold, 2497
nppsXor_16u
signal_xor, 2455
nppsXor_16u_I
signal_xor, 2455
nppsXor_32u
signal_xor, 2456
nppsXor_32u_I
signal_xor, 2456
nppsXor_8u
signal_xor, 2456
nppsXor_8u_I
signal_xor, 2457
nppsXorC_16u
signal_xorc, 2452
nppsXorC_16u_I
signal_xorc, 2452
nppsXorC_32u
signal_xorc, 2453
nppsXorC_32u_I
signal_xorc, 2453
nppsXorC_8u
signal_xorc, 2453
nppsXorC_8u_I
signal_xorc, 2454
NppsZCType
typedefs_npp, 46
nppsZero_16s
signal_zero, 2506
nppsZero_16sc
signal_zero, 2507
nppsZero_32f
signal_zero, 2507
nppsZero_32fc
signal_zero, 2507
nppsZero_32s
signal_zero, 2507
nppsZero_32sc
signal_zero, 2507
nppsZero_64f
signal_zero, 2508
nppsZero_64fc
signal_zero, 2508
nppsZero_64s
signal_zero, 2508
nppsZero_64sc
signal_zero, 2508
nppsZero_8u
signal_zero, 2509
nppsZeroCrossing_16s32f
signal_count_zero_crossings, 2626
nppsZeroCrossing_32f
signal_count_zero_crossings, 2626
nppsZeroCrossingGetBufferSize_16s32f
signal_count_zero_crossings, 2627
nppsZeroCrossingGetBufferSize_32f
signal_count_zero_crossings, 2627
nppZCC
typedefs_npp, 46
nppZCR
typedefs_npp, 46
nppZCXor
typedefs_npp, 46
numClassifiers
NppiHaarClassifier_32f, 2686

Or, 444, 2449
OrC, 382, 2446

Perspective Transform, 1344

Quantization Functions, 718

Rank Filters, 1148
re
NPP_ALIGN_16, 2682
NPP_ALIGN_8, 2683, 2684
RectStdDev, 1908
Remap, 1246
Resize, 1234
ResizeSqrPixel, 1212
Rotate, 1268
RShiftC, 404, 2465

Scale, 858
Set, 733, 2501
signal_10log10
npps10Log10_32s_ISfs, 2427
npps10Log10_32s_Sfs, 2427
signal_abs
nppsAbs_16s, 2401
nppsAbs_16s_I, 2401
nppsAbs_32f, 2402
nppsAbs_32f_I, 2402
nppsAbs_32s, 2402
nppsAbs_32s_I, 2402
nppsAbs_64f, 2403
nppsAbs_64f_I, 2403
signal_add
nppsAdd_16s, 2353
nppsAdd_16s32f, 2353
nppsAdd_16s32s_I, 2353
nppsAdd_16s_I, 2354
nppsAdd_16s_ISfs, 2354
nppsAdd_16s_Sfs, 2354
nppsAdd_16sc_ISfs, 2355
nppsAdd_16sc_Sfs, 2355

nppsAdd_16u, 2355
nppsAdd_16u_ISfs, 2356
nppsAdd_16u_Sfs, 2356
nppsAdd_32f, 2356
nppsAdd_32f_I, 2357
nppsAdd_32fc, 2357
nppsAdd_32fc_I, 2357
nppsAdd_32s_ISfs, 2358
nppsAdd_32s_Sfs, 2358
nppsAdd_32sc_ISfs, 2358
nppsAdd_32sc_Sfs, 2359
nppsAdd_32u, 2359
nppsAdd_64f, 2359
nppsAdd_64f_I, 2360
nppsAdd_64fc, 2360
nppsAdd_64fc_I, 2360
nppsAdd_64s_Sfs, 2361
nppsAdd_8u16u, 2361
nppsAdd_8u_ISfs, 2361
nppsAdd_8u_Sfs, 2362
signal_addc
nppsAddC_16s_ISfs, 2305
nppsAddC_16s_Sfs, 2305
nppsAddC_16sc_ISfs, 2306
nppsAddC_16sc_Sfs, 2306
nppsAddC_16u_ISfs, 2306
nppsAddC_16u_Sfs, 2307
nppsAddC_32f, 2307
nppsAddC_32f_I, 2307
nppsAddC_32fc, 2308
nppsAddC_32fc_I, 2308
nppsAddC_32s_ISfs, 2308
nppsAddC_32s_Sfs, 2309
nppsAddC_32sc_ISfs, 2309
nppsAddC_32sc_Sfs, 2309
nppsAddC_64f, 2310
nppsAddC_64f_I, 2310
nppsAddC_64fc, 2310
nppsAddC_64fc_I, 2311
nppsAddC_8u_ISfs, 2311
nppsAddC_8u_Sfs, 2311
signal_addproduct
nppsAddProduct_16s32s_Sfs, 2364
nppsAddProduct_16s_Sfs, 2364
nppsAddProduct_32f, 2364
nppsAddProduct_32fc, 2365
nppsAddProduct_32s_Sfs, 2365
nppsAddProduct_64f, 2365
nppsAddProduct_64fc, 2366
signal_addproductc
nppsAddProductC_32f, 2313
signal_and
nppsAnd_16u, 2443
nppsAnd_16u_I, 2443
nppsAnd_32u, 2444
nppsAnd_32u_I, 2444
nppsAnd_8u, 2444
nppsAnd_8u_I, 2445
signal_andc
nppsAndC_16u, 2440
nppsAndC_16u_I, 2440
nppsAndC_32u, 2441
nppsAndC_32u_I, 2441
nppsAndC_8u, 2441
nppsAndC_8u_I, 2442
signal_average_error
nppsAverageError_16s, 2641
nppsAverageError_16sc, 2641
nppsAverageError_16u, 2641
nppsAverageError_32f, 2642
nppsAverageError_32fc, 2642
nppsAverageError_32s, 2642
nppsAverageError_32sc, 2643
nppsAverageError_32u, 2643
nppsAverageError_64f, 2643
nppsAverageError_64fc, 2644
nppsAverageError_64s, 2644
nppsAverageError_64sc, 2644
nppsAverageError_8s, 2645
nppsAverageError_8u, 2645
nppsAverageErrorGetBufferSize_16s, 2645
nppsAverageErrorGetBufferSize_16sc, 2646
nppsAverageErrorGetBufferSize_16u, 2646
nppsAverageErrorGetBufferSize_32f, 2646
nppsAverageErrorGetBufferSize_32fc, 2646
nppsAverageErrorGetBufferSize_32s, 2647
nppsAverageErrorGetBufferSize_32sc, 2647
nppsAverageErrorGetBufferSize_32u, 2647
nppsAverageErrorGetBufferSize_64f, 2647
nppsAverageErrorGetBufferSize_64fc, 2648
nppsAverageErrorGetBufferSize_64s, 2648
nppsAverageErrorGetBufferSize_64sc, 2648
nppsAverageErrorGetBufferSize_8s, 2648
nppsAverageErrorGetBufferSize_8u, 2649
signal_average_relative_error
nppsAverageRelativeError_16s, 2664
nppsAverageRelativeError_16sc, 2664
nppsAverageRelativeError_16u, 2665
nppsAverageRelativeError_32f, 2665
nppsAverageRelativeError_32fc, 2665
nppsAverageRelativeError_32s, 2666
nppsAverageRelativeError_32sc, 2666
nppsAverageRelativeError_32u, 2667
nppsAverageRelativeError_64f, 2667
nppsAverageRelativeError_64fc, 2667
nppsAverageRelativeError_64s, 2668
nppsAverageRelativeError_64sc, 2668
nppsAverageRelativeError_8s, 2669

nppsAverageRelativeError_8u, 2669
nppsAverageRelativeErrorGetBufferSize_16s, 2669
nppsAverageRelativeErrorGetBufferSize_16sc, 2670
nppsAverageRelativeErrorGetBufferSize_16u, 2670
nppsAverageRelativeErrorGetBufferSize_32f, 2670
nppsAverageRelativeErrorGetBufferSize_32fc, 2670
nppsAverageRelativeErrorGetBufferSize_32s, 2671
nppsAverageRelativeErrorGetBufferSize_32sc, 2671
nppsAverageRelativeErrorGetBufferSize_32u, 2671
nppsAverageRelativeErrorGetBufferSize_64f, 2671
nppsAverageRelativeErrorGetBufferSize_64fc, 2672
nppsAverageRelativeErrorGetBufferSize_64s, 2672
nppsAverageRelativeErrorGetBufferSize_64sc, 2672
nppsAverageRelativeErrorGetBufferSize_8s, 2672
nppsAverageRelativeErrorGetBufferSize_8u, 2673

signal_cauchy
nppsCauchy_32f_I, 2437
nppsCauchyD_32f_I, 2437
nppsCauchyDD2_32f_I, 2437

signal_convert
nppsConvert_16s32f, 2472
nppsConvert_16s32f_Sfs, 2472
nppsConvert_16s32s, 2472
nppsConvert_16s64f_Sfs, 2472
nppsConvert_16s8s_Sfs, 2472
nppsConvert_16u32f, 2472
nppsConvert_32f16s_Sfs, 2472
nppsConvert_32f16u_Sfs, 2472
nppsConvert_32f32s_Sfs, 2472
nppsConvert_32f64f, 2472
nppsConvert_32f8s_Sfs, 2472
nppsConvert_32f8u_Sfs, 2472
nppsConvert_32s16s, 2472
nppsConvert_32s16s_Sfs, 2472
nppsConvert_32s32f, 2472
nppsConvert_32s32f_Sfs, 2472
nppsConvert_32s64f, 2472
nppsConvert_32s64f_Sfs, 2472
nppsConvert_64f16s_Sfs, 2472
nppsConvert_64f32f, 2472
nppsConvert_64f32s_Sfs, 2472
nppsConvert_64f64s_Sfs, 2472
nppsConvert_64s32s_Sfs, 2472
nppsConvert_64s64f, 2472
nppsConvert_8s16s, 2472
nppsConvert_8s32f, 2472
nppsConvert_8u32f, 2472

signal_copy
nppsCopy_16s, 2510
nppsCopy_16sc, 2511
nppsCopy_32f, 2511
nppsCopy_32fc, 2511
nppsCopy_32s, 2511
nppsCopy_32sc, 2512
nppsCopy_64fc, 2512
nppsCopy_64s, 2512
nppsCopy_64sc, 2513
nppsCopy_8u, 2513

signal_count_in_range
nppsCountInRange_32s, 2625
nppsCountInRangeGetBufferSize_32s, 2625

signal_count_zero_crossings
nppsZeroCrossing_16s32f, 2626
nppsZeroCrossing_32f, 2626
nppsZeroCrossingGetBufferSize_16s32f, 2627
nppsZeroCrossingGetBufferSize_32f, 2627

signal_cuberoot
nppsCubrt_32f, 2418
nppsCubrt_32s16s_Sfs, 2418

signal_div
nppsDiv_16s_ISfs, 2391
nppsDiv_16s_Sfs, 2391
nppsDiv_16sc_ISfs, 2392
nppsDiv_16sc_Sfs, 2392
nppsDiv_16u_ISfs, 2392
nppsDiv_16u_Sfs, 2393
nppsDiv_32f, 2393
nppsDiv_32f_I, 2393
nppsDiv_32fc, 2394
nppsDiv_32fc_I, 2394
nppsDiv_32s16s_Sfs, 2394
nppsDiv_32s_ISfs, 2395
nppsDiv_32s_Sfs, 2395
nppsDiv_64f, 2395
nppsDiv_64f_I, 2396
nppsDiv_64fc, 2396
nppsDiv_64fc_I, 2396
nppsDiv_8u_ISfs, 2397
nppsDiv_8u_Sfs, 2397

signal_divc
nppsDivC_16s_ISfs, 2343
nppsDivC_16s_Sfs, 2343
nppsDivC_16sc_ISfs, 2343

nppsDivC_16sc_Sfs, 2344
nppsDivC_16u_ISfs, 2344
nppsDivC_16u_Sfs, 2344
nppsDivC_32f, 2345
nppsDivC_32f_I, 2345
nppsDivC_32fc, 2345
nppsDivC_32fc_I, 2346
nppsDivC_64f, 2346
nppsDivC_64f_I, 2346
nppsDivC_64fc, 2347
nppsDivC_64fc_I, 2347
nppsDivC_8u_ISfs, 2347
nppsDivC_8u_Sfs, 2348
signal_divcrev
nppsDivCRev_16u, 2349
nppsDivCRev_16u_I, 2349
nppsDivCRev_32f, 2350
nppsDivCRev_32f_I, 2350
signal_divround
nppsDiv_Round_16s_ISfs, 2398
nppsDiv_Round_16s_Sfs, 2399
nppsDiv_Round_16u_ISfs, 2399
nppsDiv_Round_16u_Sfs, 2399
nppsDiv_Round_8u_ISfs, 2400
nppsDiv_Round_8u_Sfs, 2400
signal_dot_product
nppsDotProd_16s16sc32fc, 2608
nppsDotProd_16s16sc32sc_Sfs, 2609
nppsDotProd_16s16sc64sc, 2609
nppsDotProd_16s16sc_Sfs, 2609
nppsDotProd_16s32f, 2610
nppsDotProd_16s32s32s_Sfs, 2610
nppsDotProd_16s32s_Sfs, 2611
nppsDotProd_16s64s, 2611
nppsDotProd_16s_Sfs, 2611
nppsDotProd_16sc32fc, 2612
nppsDotProd_16sc32sc_Sfs, 2612
nppsDotProd_16sc64sc, 2613
nppsDotProd_16sc_Sfs, 2613
nppsDotProd_32f, 2613
nppsDotProd_32f32fc, 2614
nppsDotProd_32f32fc64fc, 2614
nppsDotProd_32f64f, 2614
nppsDotProd_32fc, 2615
nppsDotProd_32fc64fc, 2615
nppsDotProd_32s32sc_Sfs, 2615
nppsDotProd_32s_Sfs, 2616
nppsDotProd_32sc_Sfs, 2616
nppsDotProd_64f, 2617
nppsDotProd_64f64fc, 2617
nppsDotProd_64fc, 2617
nppsDotProdGetBufferSize_16s16sc32fc, 2618
nppsDotProdGetBufferSize_16s16sc32sc_Sfs, 2618
nppsDotProdGetBufferSize_16s16sc64sc, 2618
nppsDotProdGetBufferSize_16s16sc_Sfs, 2619
nppsDotProdGetBufferSize_16s32f, 2619
nppsDotProdGetBufferSize_16s32s32s_Sfs, 2619
nppsDotProdGetBufferSize_16s32s_Sfs, 2619
nppsDotProdGetBufferSize_16s64s, 2620
nppsDotProdGetBufferSize_16s_Sfs, 2620
nppsDotProdGetBufferSize_16sc32fc, 2620
nppsDotProdGetBufferSize_16sc32sc_Sfs, 2620
nppsDotProdGetBufferSize_16sc64sc, 2621
nppsDotProdGetBufferSize_16sc_Sfs, 2621
nppsDotProdGetBufferSize_32f, 2621
nppsDotProdGetBufferSize_32f32fc, 2621
nppsDotProdGetBufferSize_32f32fc64fc, 2622
nppsDotProdGetBufferSize_32f64f, 2622
nppsDotProdGetBufferSize_32fc, 2622
nppsDotProdGetBufferSize_32fc64fc, 2622
nppsDotProdGetBufferSize_32s32sc_Sfs, 2623
nppsDotProdGetBufferSize_32s_Sfs, 2623
nppsDotProdGetBufferSize_32sc_Sfs, 2623
nppsDotProdGetBufferSize_64f, 2623
nppsDotProdGetBufferSize_64f64fc, 2624
nppsDotProdGetBufferSize_64fc, 2624
signal_exp
nppsExp_16s_ISfs, 2419
nppsExp_16s_Sfs, 2420
nppsExp_32f, 2420
nppsExp_32f64f, 2420
nppsExp_32f_I, 2420
nppsExp_32s_ISfs, 2421
nppsExp_32s_Sfs, 2421
nppsExp_64f, 2421
nppsExp_64f_I, 2422
nppsExp_64s_ISfs, 2422
nppsExp_64s_Sfs, 2422
signal_free
nppsFree, 2680
signal_infinity_norm
nppsNorm_Inf_16s32f, 2572
nppsNorm_Inf_16s32s_Sfs, 2572
nppsNorm_Inf_32f, 2572
nppsNorm_Inf_32fc32f, 2572
nppsNorm_Inf_64f, 2573
nppsNorm_Inf_64fc64f, 2573
nppsNormInfGetBufferSize_16s32f, 2573
nppsNormInfGetBufferSize_16s32s_Sfs, 2574

nppsNormInfGetBufferSize_32f, 2574
nppsNormInfGetBufferSize_32fc32f, 2574
nppsNormInfGetBufferSize_64f, 2574
nppsNormInfGetBufferSize_64fc64f, 2575
signal_infinity_norm_diff
nppsNormDiff_Inf_16s32f, 2589
nppsNormDiff_Inf_16s32s_Sfs, 2589
nppsNormDiff_Inf_32f, 2589
nppsNormDiff_Inf_32fc32f, 2590
nppsNormDiff_Inf_64f, 2590
nppsNormDiff_Inf_64fc64f, 2590
nppsNormDiffInfGetBufferSize_16s32f, 2591
nppsNormDiffInfGetBufferSize_16s32s_Sfs, 2591
nppsNormDiffInfGetBufferSize_32f, 2591
nppsNormDiffInfGetBufferSize_32fc32f, 2592
nppsNormDiffInfGetBufferSize_64f, 2592
nppsNormDiffInfGetBufferSize_64fc64f, 2592
signal_integral
nppsIntegral_32s, 2499
nppsIntegralGetBufferSize_32s, 2499
signal_inversetan
nppsArctan_32f, 2432
nppsArctan_32f_I, 2432
nppsArctan_64f, 2432
nppsArctan_64f_I, 2433
signal_L1_norm
nppsNorm_L1_16s32f, 2577
nppsNorm_L1_16s32s_Sfs, 2577
nppsNorm_L1_16s64s_Sfs, 2577
nppsNorm_L1_32f, 2578
nppsNorm_L1_32fc64f, 2578
nppsNorm_L1_64f, 2578
nppsNorm_L1_64fc64f, 2579
nppsNormL1GetBufferSize_16s32f, 2579
nppsNormL1GetBufferSize_16s32s_Sfs, 2579
nppsNormL1GetBufferSize_16s64s_Sfs, 2579
nppsNormL1GetBufferSize_32f, 2580
nppsNormL1GetBufferSize_32fc64f, 2580
nppsNormL1GetBufferSize_64f, 2580
nppsNormL1GetBufferSize_64fc64f, 2580
signal_L1_norm_diff
nppsNormDiff_L1_16s32f, 2594
nppsNormDiff_L1_16s32s_Sfs, 2594
nppsNormDiff_L1_16s64s_Sfs, 2594
nppsNormDiff_L1_32f, 2595
nppsNormDiff_L1_32fc64f, 2595
nppsNormDiff_L1_64f, 2595
nppsNormDiff_L1_64fc64f, 2596
nppsNormDiffL1GetBufferSize_16s32f, 2596
nppsNormDiffL1GetBufferSize_16s32s_Sfs, 2596
nppsNormDiffL1GetBufferSize_16s64s_Sfs, 2597
nppsNormDiffL1GetBufferSize_32f, 2597
nppsNormDiffL1GetBufferSize_32fc64f, 2597
nppsNormDiffL1GetBufferSize_64f, 2597
nppsNormDiffL1GetBufferSize_64fc64f, 2598
signal_L2_norm
nppsNorm_L2_16s32f, 2583
nppsNorm_L2_16s32s_Sfs, 2583
nppsNorm_L2_32f, 2583
nppsNorm_L2_32fc64f, 2584
nppsNorm_L2_64f, 2584
nppsNorm_L2_64fc64f, 2584
nppsNorm_L2Sqr_16s64s_Sfs, 2585
nppsNormL2GetBufferSize_16s32f, 2585
nppsNormL2GetBufferSize_16s32s_Sfs, 2585
nppsNormL2GetBufferSize_32f, 2585
nppsNormL2GetBufferSize_32fc64f, 2586
nppsNormL2GetBufferSize_64f, 2586
nppsNormL2GetBufferSize_64fc64f, 2586
nppsNormL2SqrGetBufferSize_16s64s_Sfs, 2586
signal_L2_norm_diff
nppsNormDiff_L2_16s32f, 2600
nppsNormDiff_L2_16s32s_Sfs, 2600
nppsNormDiff_L2_32f, 2600
nppsNormDiff_L2_32fc64f, 2601
nppsNormDiff_L2_64f, 2601
nppsNormDiff_L2_64fc64f, 2601
nppsNormDiff_L2Sqr_16s64s_Sfs, 2602
nppsNormDiffL2GetBufferSize_16s32f, 2602
nppsNormDiffL2GetBufferSize_16s32s_Sfs, 2602
nppsNormDiffL2GetBufferSize_32f, 2603
nppsNormDiffL2GetBufferSize_32fc64f, 2603
nppsNormDiffL2GetBufferSize_64f, 2603
nppsNormDiffL2GetBufferSize_64fc64f, 2603
nppsNormDiffL2SqrGetBufferSize_16s64s_Sfs, 2604
signal_ln
nppsLn_16s_ISfs, 2423
nppsLn_16s_Sfs, 2424
nppsLn_32f, 2424
nppsLn_32f_I, 2424
nppsLn_32s16s_Sfs, 2424
nppsLn_32s_ISfs, 2425
nppsLn_32s_Sfs, 2425
nppsLn_64f, 2425
nppsLn_64f32f, 2426
nppsLn_64f_I, 2426

signal_lshiftc
nppsLShiftC_16s, 2461
nppsLShiftC_16s_I, 2462
nppsLShiftC_16u, 2462
nppsLShiftC_16u_I, 2462
nppsLShiftC_32s, 2462
nppsLShiftC_32s_I, 2463
nppsLShiftC_32u, 2463
nppsLShiftC_32u_I, 2463
nppsLShiftC_8u, 2464
nppsLShiftC_8u_I, 2464
signal_malloc
nppsMalloc_16s, 2676
nppsMalloc_16sc, 2676
nppsMalloc_16u, 2676
nppsMalloc_32f, 2676
nppsMalloc_32fc, 2677
nppsMalloc_32s, 2677
nppsMalloc_32sc, 2677
nppsMalloc_32u, 2677
nppsMalloc_64f, 2678
nppsMalloc_64fc, 2678
nppsMalloc_64s, 2678
nppsMalloc_64sc, 2678
nppsMalloc_8s, 2679
nppsMalloc_8u, 2679
signal_max
nppsMax_16s, 2527
nppsMax_32f, 2528
nppsMax_32s, 2528
nppsMax_64f, 2528
nppsMaxAbs_16s, 2529
nppsMaxAbs_32s, 2529
nppsMaxAbsGetBufferSize_16s, 2529
nppsMaxAbsGetBufferSize_32s, 2530
nppsMaxAbsIndx_16s, 2530
nppsMaxAbsIndx_32s, 2530
nppsMaxAbsIndxGetBufferSize_16s, 2531
nppsMaxAbsIndxGetBufferSize_32s, 2531
nppsMaxGetBufferSize_16s, 2531
nppsMaxGetBufferSize_32f, 2531
nppsMaxGetBufferSize_32s, 2532
nppsMaxGetBufferSize_64f, 2532
nppsMaxIndx_16s, 2532
nppsMaxIndx_32f, 2533
nppsMaxIndx_32s, 2533
nppsMaxIndx_64f, 2533
nppsMaxIndxGetBufferSize_16s, 2534
nppsMaxIndxGetBufferSize_32f, 2534
nppsMaxIndxGetBufferSize_32s, 2534
nppsMaxIndxGetBufferSize_64f, 2535
signal_maximum_error
nppsMaximumError_16s, 2630
nppsMaximumError_16sc, 2630
nppsMaximumError_16u, 2630
nppsMaximumError_32f, 2631
nppsMaximumError_32fc, 2631
nppsMaximumError_32s, 2631
nppsMaximumError_32sc, 2632
nppsMaximumError_32u, 2632
nppsMaximumError_64f, 2632
nppsMaximumError_64fc, 2633
nppsMaximumError_64s, 2633
nppsMaximumError_64sc, 2633
nppsMaximumError_8s, 2634
nppsMaximumError_8u, 2634
nppsMaximumErrorGetBufferSize_16s, 2634
nppsMaximumErrorGetBufferSize_16sc, 2635
nppsMaximumErrorGetBufferSize_16u, 2635
nppsMaximumErrorGetBufferSize_32f, 2635
nppsMaximumErrorGetBufferSize_32fc, 2635
nppsMaximumErrorGetBufferSize_32s, 2636
nppsMaximumErrorGetBufferSize_32sc, 2636
nppsMaximumErrorGetBufferSize_32u, 2636
nppsMaximumErrorGetBufferSize_64f, 2636
nppsMaximumErrorGetBufferSize_64fc, 2637
nppsMaximumErrorGetBufferSize_64s, 2637
nppsMaximumErrorGetBufferSize_64sc, 2637
nppsMaximumErrorGetBufferSize_8s, 2637
nppsMaximumErrorGetBufferSize_8u, 2638
signal_maximum_relative_error
nppsMaximumRelativeError_16s, 2652
nppsMaximumRelativeError_16sc, 2652
nppsMaximumRelativeError_16u, 2653
nppsMaximumRelativeError_32f, 2653
nppsMaximumRelativeError_32fc, 2653
nppsMaximumRelativeError_32s, 2654
nppsMaximumRelativeError_32sc, 2654
nppsMaximumRelativeError_32u, 2655
nppsMaximumRelativeError_64f, 2655
nppsMaximumRelativeError_64fc, 2655
nppsMaximumRelativeError_64s, 2656
nppsMaximumRelativeError_64sc, 2656
nppsMaximumRelativeError_8s, 2657
nppsMaximumRelativeError_8u, 2657
nppsMaximumRelativeErrorGetBufferSize_16s, 2657
nppsMaximumRelativeErrorGetBufferSize_16sc, 2658
nppsMaximumRelativeErrorGetBufferSize_16u, 2658
nppsMaximumRelativeErrorGetBufferSize_32f, 2658
nppsMaximumRelativeErrorGetBufferSize_32fc, 2658
nppsMaximumRelativeErrorGetBufferSize_32s, 2659

nppsMaximumRelativeErrorGetBufferSize_-32sc, 2659
nppsMaximumRelativeErrorGetBufferSize_-32u, 2659
nppsMaximumRelativeErrorGetBufferSize_-64f, 2659
nppsMaximumRelativeErrorGetBufferSize_-64fc, 2660
nppsMaximumRelativeErrorGetBufferSize_-64s, 2660
nppsMaximumRelativeErrorGetBufferSize_-64sc, 2660
nppsMaximumRelativeErrorGetBufferSize_-8s, 2660
nppsMaximumRelativeErrorGetBufferSize_-8u, 2661
signal_mean
nppsMean_16s_Sfs, 2547
nppsMean_16sc_Sfs, 2547
nppsMean_32f, 2547
nppsMean_32fc, 2548
nppsMean_32s_Sfs, 2548
nppsMean_64f, 2548
nppsMean_64fc, 2549
nppsMeanGetBufferSize_16s_Sfs, 2549
nppsMeanGetBufferSize_16sc_Sfs, 2549
nppsMeanGetBufferSize_32f, 2550
nppsMeanGetBufferSize_32fc, 2550
nppsMeanGetBufferSize_32s_Sfs, 2550
nppsMeanGetBufferSize_64f, 2550
nppsMeanGetBufferSize_64fc, 2551
signal_mean_and_standard_deviation
nppsMeanStdDev_16s32s_Sfs, 2555
nppsMeanStdDev_16s_Sfs, 2556
nppsMeanStdDev_32f, 2556
nppsMeanStdDev_64f, 2556
nppsMeanStdDevGetBufferSize_16s32s_Sfs, 2557
nppsMeanStdDevGetBufferSize_16s_Sfs, 2557
nppsMeanStdDevGetBufferSize_32f, 2557
nppsMeanStdDevGetBufferSize_64f, 2557
signal_min
nppsMin_16s, 2537
nppsMin_32f, 2538
nppsMin_32s, 2538
nppsMin_64f, 2538
nppsMinAbs_16s, 2539
nppsMinAbs_32s, 2539
nppsMinAbsGetBufferSize_16s, 2539
nppsMinAbsGetBufferSize_32s, 2540
nppsMinAbsIndx_16s, 2540
nppsMinAbsIndx_32s, 2540
nppsMinAbsIndxGetBufferSize_16s, 2541
nppsMinAbsIndxGetBufferSize_32s, 2541
nppsMinGetBufferSize_16s, 2541
nppsMinGetBufferSize_32f, 2541
nppsMinGetBufferSize_32s, 2542
nppsMinGetBufferSize_64f, 2542
nppsMinIndx_16s, 2542
nppsMinIndx_32f, 2543
nppsMinIndx_32s, 2543
nppsMinIndx_64f, 2543
nppsMinIndxGetBufferSize_16s, 2544
nppsMinIndxGetBufferSize_32f, 2544
nppsMinIndxGetBufferSize_32s, 2544
nppsMinIndxGetBufferSize_64f, 2545
signal_min_every_or_max_every
nppsMaxEvery_16s_I, 2515
nppsMaxEvery_16u_I, 2516
nppsMaxEvery_32f_I, 2516
nppsMaxEvery_32s_I, 2516
nppsMaxEvery_8u_I, 2516
nppsMinEvery_16s_I, 2517
nppsMinEvery_16u_I, 2517
nppsMinEvery_32f_I, 2517
nppsMinEvery_32s_I, 2518
nppsMinEvery_64f_I, 2518
nppsMinEvery_8u_I, 2518
signal_min_max
nppsMinMax_16s, 2561
nppsMinMax_16u, 2561
nppsMinMax_32f, 2561
nppsMinMax_32s, 2562
nppsMinMax_32u, 2562
nppsMinMax_64f, 2562
nppsMinMax_8u, 2563
nppsMinMaxGetBufferSize_16s, 2563
nppsMinMaxGetBufferSize_16u, 2563
nppsMinMaxGetBufferSize_32f, 2564
nppsMinMaxGetBufferSize_32s, 2564
nppsMinMaxGetBufferSize_32u, 2564
nppsMinMaxGetBufferSize_64f, 2564
nppsMinMaxGetBufferSize_8u, 2565
nppsMinMaxIndx_16s, 2565
nppsMinMaxIndx_16u, 2565
nppsMinMaxIndx_32f, 2566
nppsMinMaxIndx_32s, 2566
nppsMinMaxIndx_32u, 2567
nppsMinMaxIndx_64f, 2567
nppsMinMaxIndx_8u, 2567
nppsMinMaxIndxGetBufferSize_16s, 2568
nppsMinMaxIndxGetBufferSize_16u, 2568
nppsMinMaxIndxGetBufferSize_32f, 2568
nppsMinMaxIndxGetBufferSize_32s, 2569
nppsMinMaxIndxGetBufferSize_32u, 2569
nppsMinMaxIndxGetBufferSize_64f, 2569
nppsMinMaxIndxGetBufferSize_8u, 2569

signal_mul
nppsMul_16s, 2369
nppsMul_16s32f, 2369
nppsMul_16s32s_Sfs, 2370
nppsMul_16s_I, 2370
nppsMul_16s_ISfs, 2370
nppsMul_16s_Sfs, 2371
nppsMul_16sc_ISfs, 2371
nppsMul_16sc_Sfs, 2371
nppsMul_16u16s_Sfs, 2372
nppsMul_16u_ISfs, 2372
nppsMul_16u_Sfs, 2372
nppsMul_32f, 2373
nppsMul_32f32fc, 2373
nppsMul_32f32fc_I, 2373
nppsMul_32f_I, 2374
nppsMul_32fc, 2374
nppsMul_32fc_I, 2374
nppsMul_32s32sc_ISfs, 2375
nppsMul_32s32sc_Sfs, 2375
nppsMul_32s_ISfs, 2375
nppsMul_32s_Sfs, 2376
nppsMul_32sc_ISfs, 2376
nppsMul_32sc_Sfs, 2376
nppsMul_64f, 2377
nppsMul_64f_I, 2377
nppsMul_64fc, 2377
nppsMul_64fc_I, 2378
nppsMul_8u16u, 2378
nppsMul_8u_ISfs, 2378
nppsMul_8u_Sfs, 2379
nppsMul_Low_32s_Sfs, 2379
signal_mulc
nppsMulC_16s_ISfs, 2315
nppsMulC_16s_Sfs, 2316
nppsMulC_16sc_ISfs, 2316
nppsMulC_16sc_Sfs, 2316
nppsMulC_16u_ISfs, 2317
nppsMulC_16u_Sfs, 2317
nppsMulC_32f, 2317
nppsMulC_32f16s_Sfs, 2318
nppsMulC_32f_I, 2318
nppsMulC_32fc, 2318
nppsMulC_32fc_I, 2319
nppsMulC_32s_ISfs, 2319
nppsMulC_32s_Sfs, 2319
nppsMulC_32sc_ISfs, 2320
nppsMulC_32sc_Sfs, 2320
nppsMulC_64f, 2320
nppsMulC_64f64s_ISfs, 2321
nppsMulC_64f_I, 2321
nppsMulC_64fc, 2321
nppsMulC_64fc_I, 2322
nppsMulC_8u_ISfs, 2322
nppsMulC_8u_Sfs, 2322
nppsMulC_Low_32f16s, 2323
signal_normalize
nppsNormalize_16s_Sfs, 2434
nppsNormalize_16sc_Sfs, 2435
nppsNormalize_32f, 2435
nppsNormalize_32fc, 2435
nppsNormalize_64f, 2436
nppsNormalize_64fc, 2436
signal_not
nppsNot_16u, 2458
nppsNot_16u_I, 2458
nppsNot_32u, 2459
nppsNot_32u_I, 2459
nppsNot_8u, 2459
nppsNot_8u_I, 2459
signal_or
nppsOr_16u, 2449
nppsOr_16u_I, 2449
nppsOr_32u, 2450
nppsOr_32u_I, 2450
nppsOr_8u, 2450
nppsOr_8u_I, 2451
signal_orc
nppsOrC_16u, 2446
nppsOrC_16u_I, 2446
nppsOrC_32u, 2447
nppsOrC_32u_I, 2447
nppsOrC_8u, 2447
nppsOrC_8u_I, 2448
signal_rshiftc
nppsRShiftC_16s, 2465
nppsRShiftC_16s_I, 2466
nppsRShiftC_16u, 2466
nppsRShiftC_16u_I, 2466
nppsRShiftC_32s, 2466
nppsRShiftC_32s_I, 2467
nppsRShiftC_32u, 2467
nppsRShiftC_32u_I, 2467
nppsRShiftC_8u, 2468
nppsRShiftC_8u_I, 2468
signal_set
nppsSet_16s, 2502
nppsSet_16sc, 2502
nppsSet_16u, 2502
nppsSet_32f, 2502
nppsSet_32fc, 2503
nppsSet_32s, 2503
nppsSet_32sc, 2503
nppsSet_32u, 2503
nppsSet_64f, 2504
nppsSet_64fc, 2504
nppsSet_64s, 2504
nppsSet_64sc, 2505

nppsSet_8s, 2505
nppsSet_8u, 2505
signal_sqrt
nppsSqrt_16s_ISfs, 2411
nppsSqrt_16s_Sfs, 2411
nppsSqrt_16sc_ISfs, 2412
nppsSqrt_16sc_Sfs, 2412
nppsSqrt_16u_ISfs, 2412
nppsSqrt_16u_Sfs, 2412
nppsSqrt_32f, 2413
nppsSqrt_32f_I, 2413
nppsSqrt_32fc, 2413
nppsSqrt_32fc_I, 2414
nppsSqrt_32s16s_Sfs, 2414
nppsSqrt_64f, 2414
nppsSqrt_64f_I, 2414
nppsSqrt_64fc, 2415
nppsSqrt_64fc_I, 2415
nppsSqrt_64s16s_Sfs, 2415
nppsSqrt_64s_ISfs, 2415
nppsSqrt_64s_Sfs, 2416
nppsSqrt_8u_ISfs, 2416
nppsSqrt_8u_Sfs, 2416
signal_square
nppsSqr_16s_ISfs, 2405
nppsSqr_16s_Sfs, 2405
nppsSqr_16sc_ISfs, 2405
nppsSqr_16sc_Sfs, 2406
nppsSqr_16u_ISfs, 2406
nppsSqr_16u_Sfs, 2406
nppsSqr_32f, 2406
nppsSqr_32f_I, 2407
nppsSqr_32fc, 2407
nppsSqr_32fc_I, 2407
nppsSqr_64f, 2407
nppsSqr_64f_I, 2408
nppsSqr_64fc, 2408
nppsSqr_64fc_I, 2408
nppsSqr_8u_ISfs, 2408
nppsSqr_8u_Sfs, 2409
signal_standard_deviation
nppsStdDev_16s32s_Sfs, 2552
nppsStdDev_16s_Sfs, 2552
nppsStdDev_32f, 2553
nppsStdDev_64f, 2553
nppsStdDevGetBufferSize_16s32s_Sfs, 2553
nppsStdDevGetBufferSize_16s_Sfs, 2554
nppsStdDevGetBufferSize_32f, 2554
nppsStdDevGetBufferSize_64f, 2554
signal_sub
nppsSub_16s, 2381
nppsSub_16s32f, 2382
nppsSub_16s_I, 2382
nppsSub_16s_ISfs, 2382
nppsSub_16s_Sfs, 2383
nppsSub_16sc_ISfs, 2383
nppsSub_16sc_Sfs, 2383
nppsSub_16u_ISfs, 2384
nppsSub_16u_Sfs, 2384
nppsSub_32f, 2384
nppsSub_32f_I, 2385
nppsSub_32fc, 2385
nppsSub_32fc_I, 2385
nppsSub_32s_ISfs, 2385
nppsSub_32s_Sfs, 2386
nppsSub_32sc_ISfs, 2386
nppsSub_32sc_Sfs, 2386
nppsSub_64f, 2387
nppsSub_64f_I, 2387
nppsSub_64fc, 2387
nppsSub_64fc_I, 2388
nppsSub_8u_ISfs, 2388
nppsSub_8u_Sfs, 2388
signal_subc
nppsSubC_16s_ISfs, 2325
nppsSubC_16s_Sfs, 2325
nppsSubC_16sc_ISfs, 2326
nppsSubC_16sc_Sfs, 2326
nppsSubC_16u_ISfs, 2326
nppsSubC_16u_Sfs, 2327
nppsSubC_32f, 2327
nppsSubC_32f_I, 2327
nppsSubC_32fc, 2328
nppsSubC_32fc_I, 2328
nppsSubC_32s_ISfs, 2328
nppsSubC_32s_Sfs, 2329
nppsSubC_32sc_ISfs, 2329
nppsSubC_32sc_Sfs, 2329
nppsSubC_64f, 2330
nppsSubC_64f_I, 2330
nppsSubC_64fc, 2330
nppsSubC_64fc_I, 2331
nppsSubC_8u_ISfs, 2331
nppsSubC_8u_Sfs, 2331
signal_subcrev
nppsSubCRev_16s_ISfs, 2334
nppsSubCRev_16s_Sfs, 2335
nppsSubCRev_16sc_ISfs, 2335
nppsSubCRev_16sc_Sfs, 2335
nppsSubCRev_16u_ISfs, 2336
nppsSubCRev_16u_Sfs, 2336
nppsSubCRev_32f, 2336
nppsSubCRev_32f_I, 2337
nppsSubCRev_32fc, 2337
nppsSubCRev_32fc_I, 2337
nppsSubCRev_32s_ISfs, 2337
nppsSubCRev_32s_Sfs, 2338
nppsSubCRev_32sc_ISfs, 2338

nppsSubCRev_32sc_Sfs, 2338
nppsSubCRev_64f, 2339
nppsSubCRev_64f_I, 2339
nppsSubCRev_64fc, 2339
nppsSubCRev_64fc_I, 2340
nppsSubCRev_8u_ISfs, 2340
nppsSubCRev_8u_Sfs, 2340
signal_sum
nppsSum_16s32s_Sfs, 2520
nppsSum_16s_Sfs, 2520
nppsSum_16sc32sc_Sfs, 2521
nppsSum_16sc_Sfs, 2521
nppsSum_32f, 2521
nppsSum_32fc, 2522
nppsSum_32s_Sfs, 2522
nppsSum_64f, 2522
nppsSum_64fc, 2523
nppsSumGetBufferSize_16s32s_Sfs, 2523
nppsSumGetBufferSize_16s_Sfs, 2523
nppsSumGetBufferSize_16sc32sc_Sfs, 2524
nppsSumGetBufferSize_16sc_Sfs, 2524
nppsSumGetBufferSize_32f, 2524
nppsSumGetBufferSize_32fc, 2524
nppsSumGetBufferSize_32s_Sfs, 2525
nppsSumGetBufferSize_64f, 2525
nppsSumGetBufferSize_64fc, 2525
signal_sumln
nppsSumLn_16s32f, 2428
nppsSumLn_32f, 2429
nppsSumLn_32f64f, 2429
nppsSumLn_64f, 2429
nppsSumLnGetBufferSize_16s32f, 2430
nppsSumLnGetBufferSize_32f, 2430
nppsSumLnGetBufferSize_32f64f, 2430
nppsSumLnGetBufferSize_64f, 2430
signal_threshold
nppsThreshold_16s, 2477
nppsThreshold_16s_I, 2478
nppsThreshold_16sc, 2478
nppsThreshold_16sc_I, 2478
nppsThreshold_32f, 2479
nppsThreshold_32f_I, 2479
nppsThreshold_32fc, 2479
nppsThreshold_32fc_I, 2480
nppsThreshold_64f, 2480
nppsThreshold_64f_I, 2480
nppsThreshold_64fc, 2481
nppsThreshold_64fc_I, 2481
nppsThreshold_GT_16s, 2481
nppsThreshold_GT_16s_I, 2482
nppsThreshold_GT_16sc, 2482
nppsThreshold_GT_16sc_I, 2482
nppsThreshold_GT_32f, 2483
nppsThreshold_GT_32f_I, 2483
nppsThreshold_GT_32fc, 2483
nppsThreshold_GT_32fc_I, 2484
nppsThreshold_GT_64f, 2484
nppsThreshold_GT_64f_I, 2484
nppsThreshold_GT_64fc, 2485
nppsThreshold_GT_64fc_I, 2485
nppsThreshold_GTVal_16s, 2485
nppsThreshold_GTVal_16s_I, 2486
nppsThreshold_GTVal_16sc, 2486
nppsThreshold_GTVal_16sc_I, 2486
nppsThreshold_GTVal_32f, 2487
nppsThreshold_GTVal_32f_I, 2487
nppsThreshold_GTVal_32fc, 2487
nppsThreshold_GTVal_32fc_I, 2488
nppsThreshold_GTVal_64f, 2488
nppsThreshold_GTVal_64f_I, 2488
nppsThreshold_GTVal_64fc, 2489
nppsThreshold_GTVal_64fc_I, 2489
nppsThreshold_LT_16s, 2489
nppsThreshold_LT_16s_I, 2490
nppsThreshold_LT_16sc, 2490
nppsThreshold_LT_16sc_I, 2490
nppsThreshold_LT_32f, 2491
nppsThreshold_LT_32f_I, 2491
nppsThreshold_LT_32fc, 2491
nppsThreshold_LT_32fc_I, 2492
nppsThreshold_LT_64f, 2492
nppsThreshold_LT_64f_I, 2492
nppsThreshold_LT_64fc, 2493
nppsThreshold_LT_64fc_I, 2493
nppsThreshold_LTVal_16s, 2493
nppsThreshold_LTVal_16s_I, 2494
nppsThreshold_LTVal_16sc, 2494
nppsThreshold_LTVal_16sc_I, 2494
nppsThreshold_LTVal_32f, 2495
nppsThreshold_LTVal_32f_I, 2495
nppsThreshold_LTVal_32fc, 2495
nppsThreshold_LTVal_32fc_I, 2496
nppsThreshold_LTVal_64f, 2496
nppsThreshold_LTVal_64f_I, 2496
nppsThreshold_LTVal_64fc, 2497
nppsThreshold_LTVal_64fc_I, 2497
signal_xor
nppsXor_16u, 2455
nppsXor_16u_I, 2455
nppsXor_32u, 2456
nppsXor_32u_I, 2456
nppsXor_8u, 2456
nppsXor_8u_I, 2457
signal_xorc
nppsXorC_16u, 2452
nppsXorC_16u_I, 2452
nppsXorC_32u, 2453
nppsXorC_32u_I, 2453

nppsXorC_8u, 2453
nppsXorC_8u_I, 2454
signal_zero
nppsZero_16s, 2506
nppsZero_16sc, 2507
nppsZero_32f, 2507
nppsZero_32fc, 2507
nppsZero_32s, 2507
nppsZero_32sc, 2507
nppsZero_64f, 2508
nppsZero_64fc, 2508
nppsZero_64s, 2508
nppsZero_64sc, 2508
nppsZero_8u, 2509
Sqr, 330, 2404
SqrDistanceFull_Norm, 1943
sqrdistancefullnorm
nppiSqrDistanceFull_Norm_16u32f_AC4R, 1945
nppiSqrDistanceFull_Norm_16u32f_C1R, 1945
nppiSqrDistanceFull_Norm_16u32f_C3R, 1945
nppiSqrDistanceFull_Norm_16u32f_C4R, 1946
nppiSqrDistanceFull_Norm_32f_AC4R, 1946
nppiSqrDistanceFull_Norm_32f_C1R, 1947
nppiSqrDistanceFull_Norm_32f_C3R, 1947
nppiSqrDistanceFull_Norm_32f_C4R, 1948
nppiSqrDistanceFull_Norm_8s32f_AC4R, 1948
nppiSqrDistanceFull_Norm_8s32f_C1R, 1948
nppiSqrDistanceFull_Norm_8s32f_C3R, 1949
nppiSqrDistanceFull_Norm_8s32f_C4R, 1949
nppiSqrDistanceFull_Norm_8u32f_AC4R, 1950
nppiSqrDistanceFull_Norm_8u32f_C1R, 1950
nppiSqrDistanceFull_Norm_8u32f_C3R, 1951
nppiSqrDistanceFull_Norm_8u32f_C4R, 1951
nppiSqrDistanceFull_Norm_8u_AC4RSfs, 1951
nppiSqrDistanceFull_Norm_8u_C1RSfs, 1952
nppiSqrDistanceFull_Norm_8u_C3RSfs, 1952
nppiSqrDistanceFull_Norm_8u_C4RSfs, 1953
SqrDistanceSame_Norm, 1954
sqrdistancesamenorm
nppiSqrDistanceSame_Norm_16u32f_AC4R, 1956
nppiSqrDistanceSame_Norm_16u32f_C1R, 1956
nppiSqrDistanceSame_Norm_16u32f_C3R, 1957
nppiSqrDistanceSame_Norm_16u32f_C4R, 1957
nppiSqrDistanceSame_Norm_32f_AC4R, 1957
nppiSqrDistanceSame_Norm_32f_C1R, 1958
nppiSqrDistanceSame_Norm_32f_C3R, 1958
nppiSqrDistanceSame_Norm_32f_C4R, 1959
nppiSqrDistanceSame_Norm_8s32f_AC4R, 1959
nppiSqrDistanceSame_Norm_8s32f_C1R, 1960
nppiSqrDistanceSame_Norm_8s32f_C3R, 1960
nppiSqrDistanceSame_Norm_8s32f_C4R, 1960
nppiSqrDistanceSame_Norm_8u32f_AC4R, 1961
nppiSqrDistanceSame_Norm_8u32f_C1R, 1961
nppiSqrDistanceSame_Norm_8u32f_C3R, 1962
nppiSqrDistanceSame_Norm_8u32f_C4R, 1962
nppiSqrDistanceSame_Norm_8u_AC4RSfs, 1963
nppiSqrDistanceSame_Norm_8u_C1RSfs, 1963
nppiSqrDistanceSame_Norm_8u_C3RSfs, 1964
nppiSqrDistanceSame_Norm_8u_C4RSfs, 1964
SqrDistanceValid_Norm, 1965
sqrdistancevalidnorm
nppiSqrDistanceValid_Norm_16u32f_AC4R, 1967
nppiSqrDistanceValid_Norm_16u32f_C1R, 1967
nppiSqrDistanceValid_Norm_16u32f_C3R, 1968
nppiSqrDistanceValid_Norm_16u32f_C4R, 1968
nppiSqrDistanceValid_Norm_32f_AC4R, 1968
nppiSqrDistanceValid_Norm_32f_C1R, 1969
nppiSqrDistanceValid_Norm_32f_C3R, 1969
nppiSqrDistanceValid_Norm_32f_C4R, 1970
nppiSqrDistanceValid_Norm_8s32f_AC4R, 1970
nppiSqrDistanceValid_Norm_8s32f_C1R, 1971
nppiSqrDistanceValid_Norm_8s32f_C3R, 1971
nppiSqrDistanceValid_Norm_8s32f_C4R, 1971
nppiSqrDistanceValid_Norm_8u32f_AC4R, 1972

nppiSqrDistanceValid_Norm_8u32f_C1R, 1972
nppiSqrDistanceValid_Norm_8u32f_C3R, 1973
nppiSqrDistanceValid_Norm_8u32f_C4R, 1973
nppiSqrDistanceValid_Norm_8u_AC4RSfs, 1974
nppiSqrDistanceValid_Norm_8u_C1RSfs, 1974
nppiSqrDistanceValid_Norm_8u_C3RSfs, 1975
nppiSqrDistanceValid_Norm_8u_C4RSfs, 1975
SqrIntegral, 1905
Sqrt, 344, 2410
Standard Deviation, 2552
Statistical Functions, 2514
Statistical Operations, 1450
Sub, 246, 2380
SubC, 114, 2324
SubCRev, 2333
Sum, 1517, 2519
SumLn, 2428
Swap Channels, 936

Threshold, 2473
Threshold and Compare Operations, 2187
Threshold Operations, 2188
Transpose, 929
typedefs_npp
NPP_AFFINE_QUAD_INCORRECT_WARNING, 46
NPP_ALG_HINT_ACCURATE, 41
NPP_ALG_HINT_FAST, 41
NPP_ALG_HINT_NONE, 41
NPP_ALIGNMENT_ERROR, 44
NPP_ANCHOR_ERROR, 45
NPP_BAD_ARGUMENT_ERROR, 45
NPP_BORDER_CONSTANT, 42
NPP_BORDER_NONE, 42
NPP_BORDER_REPLICATE, 42
NPP_BORDER_UNDEFINED, 42
NPP_BORDER_WRAP, 42
NPP_BOTH_AXIS, 42
NPP_CHANNEL_ERROR, 45
NPP_CHANNEL_ORDER_ERROR, 45
NPP_CMP_EQ, 41
NPP_CMP_GREATER, 41
NPP_CMP_GREATER_EQ, 41
NPP_CMP_LESS, 41
NPP_CMP_LESS_EQ, 41
NPP_COEFFICIENT_ERROR, 45
NPP_COI_ERROR, 45
NPP_CONTEXT_MATCH_ERROR, 45
NPP_CUDA_1_0, 41
NPP_CUDA_1_1, 41
NPP_CUDA_1_2, 41
NPP_CUDA_1_3, 41
NPP_CUDA_2_0, 41
NPP_CUDA_2_1, 41
NPP_CUDA_3_0, 41
NPP_CUDA_3_2, 41
NPP_CUDA_3_5, 41
NPP_CUDA_5_0, 41
NPP_CUDA_KERNEL_EXECUTION_ERROR, 44
NPP_CUDA_NOT_CAPABLE, 41
NPP_CUDA_UNKNOWN_VERSION, 41
NPP_DATA_TYPE_ERROR, 45
NPP_DIVIDE_BY_ZERO_ERROR, 45
NPP_DIVIDE_BY_ZERO_WARNING, 46
NPP_DIVISOR_ERROR, 45
NPP_DOUBLE_SIZE_WARNING, 46
NPP_ERROR, 45
NPP_ERROR_RESERVED, 45
NPP_FFT_FLAG_ERROR, 45
NPP_FFT_ORDER_ERROR, 45
NPP_HAAR_CLASSIFIER_PIXEL_MATCH_ERROR, 44
NPP_HISTOGRAM_NUMBER_OF_LEVELS_ERROR, 45
NPP_HORIZONTAL_AXIS, 42
NPP_INTERPOLATION_ERROR, 45
NPP_INVALID_DEVICE_POINTER_ERROR, 44
NPP_INVALID_HOST_POINTER_ERROR, 44
NPP_LUT_NUMBER_OF_LEVELS_ERROR, 45
NPP_LUT_PALETTE_BITSIZE_ERROR, 44
NPP_MASK_SIZE_1_X_3, 43
NPP_MASK_SIZE_1_X_5, 43
NPP_MASK_SIZE_3_X_1, 43
NPP_MASK_SIZE_3_X_3, 43
NPP_MASK_SIZE_5_X_1, 43
NPP_MASK_SIZE_5_X_5, 43
NPP_MASK_SIZE_ERROR, 45
NPP_MEMCPY_ERROR, 44
NPP_MEMFREE_ERROR, 44
NPP_MEMORY_ALLOCATION_ERR, 45
NPP_MEMSET_ERROR, 44
NPP_MIRROR_FLIP_ERROR, 45
NPP_MISALIGNED_DST_ROI_WARNING, 46
NPP_MOMENT_00_ZERO_ERROR, 45
NPP_NO_ERROR, 46
NPP_NO_MEMORY_ERROR, 45

NPP_NO_OPERATION_WARNING, 46
NPP_NOT_EVEN_STEP_ERROR, 45
NPP_NOT_IMPLEMENTED_ERROR, 45
NPP_NOT_SUFFICIENT_COMPUTE_CAPABILITY, 44
NPP_NOT_SUPPORTED_MODE_ERROR, 44
NPP_NULL_POINTER_ERROR, 45
NPP_NUMBER_OF_CHANNELS_ERROR, 45
NPP_OUT_OFF_RANGE_ERROR, 45
NPP_OVERFLOW_ERROR, 45
NPP_QUADRANGLE_ERROR, 45
NPP_QUALITY_INDEX_ERROR, 44
NPP_RANGE_ERROR, 45
NPP_RECTANGLE_ERROR, 45
NPP_RESIZE_FACTOR_ERROR, 45
NPP_RESIZE_NO_OPERATION_ERROR, 44
NPP_RND_FINANCIAL, 44
NPP_RND_NEAR, 43
NPP_RND_ZERO, 44
NPP_ROUND_MODE_NOT_SUPPORTED_ERROR, 44
NPP_ROUND_NEAREST_TIES_AWAY_FROM_ZERO, 44
NPP_ROUND_NEAREST_TIES_TO_EVEN, 44
NPP_ROUND_TOWARD_ZERO, 44
NPP_SCALE_RANGE_ERROR, 45
NPP_SIZE_ERROR, 45
NPP_STEP_ERROR, 45
NPP_STRIDE_ERROR, 45
NPP_SUCCESS, 46
NPP_TEXTURE_BIND_ERROR, 44
NPP_THRESHOLD_ERROR, 45
NPP_THRESHOLD_NEGATIVE_LEVEL_ERROR, 45
NPP_VERTICAL_AXIS, 42
NPP_WRONG_INTERSECTION_QUAD_WARNING, 46
NPP_WRONG_INTERSECTION_ROI_ERROR, 44
NPP_WRONG_INTERSECTION_ROI_WARNING, 46
NPP_ZC_MODE_NOT_SUPPORTED_ERROR, 44
NPP_ZERO_MASK_VALUE_ERROR, 45
NPPI_INTER_CUBIC, 43
NPPI_INTER_CUBIC2P_B05C03, 43
NPPI_INTER_CUBIC2P_BSPLINE, 43
NPPI_INTER_CUBIC2P_CATMULLROM, 43
NPPI_INTER_LANCZOS, 43
NPPI_INTER_LINEAR, 43
NPPI_INTER_NN, 43
NPPI_INTER_SUPER, 43
NPPI_INTER_UNDEFINED, 43
NPPI_OP_ALPHA_ATOP, 42
NPPI_OP_ALPHA_ATOP_PREMUL, 42
NPPI_OP_ALPHA_IN, 42
NPPI_OP_ALPHA_IN_PREMUL, 42
NPPI_OP_ALPHA_OUT, 42
NPPI_OP_ALPHA_OUT_PREMUL, 42
NPPI_OP_ALPHA_OVER, 42
NPPI_OP_ALPHA_OVER_PREMUL, 42
NPPI_OP_ALPHA_PLUS, 42
NPPI_OP_ALPHA_PLUS_PREMUL, 42
NPPI_OP_ALPHA_PREMUL, 42
NPPI_OP_ALPHA_XOR, 42
NPPI_OP_ALPHA_XOR_PREMUL, 42
NPPI_SMOOTH_EDGE, 43
nppiACTable, 42
nppiDCTable, 42
nppZCC, 46
nppZCR, 46
nppZCXor, 46

typedefs_npp
NPP_MAX_16S, 39
NPP_MAX_16U, 39
NPP_MAX_32S, 39
NPP_MAX_32U, 39
NPP_MAX_64S, 39
NPP_MAX_64U, 39
NPP_MAX_8S, 39
NPP_MAX_8U, 40
NPP_MAXABS_32F, 40
NPP_MAXABS_64F, 40
NPP_MIN_16S, 40
NPP_MIN_16U, 40
NPP_MIN_32S, 40
NPP_MIN_32U, 40
NPP_MIN_64S, 40
NPP_MIN_64U, 40
NPP_MIN_8S, 40
NPP_MIN_8U, 40
NPP_MINABS_32F, 41
NPP_MINABS_64F, 41
NppCmpOp, 41
NppGpuComputeCapability, 41
NppHintAlgorithm, 41
NppiAlphaOp, 41
NppiAxis, 42
NppiBorderType, 42
NppiHuffmanTableType, 42
NppiInterpolationMode, 42
NppiMaskSize, 43
NppRoundMode, 43

NppStatus, 44
NppsZCType, 46

width
NppiRect, 2688
NppiSize, 2689

x
NppiPoint, 2687
NppiRect, 2688
Xor, 456, 2455
XorC, 393, 2452

y
NppiPoint, 2687
NppiRect, 2688

Zero, 2506