



NVIDIA CAPTURE SDK 7.0 (WINDOWS)

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Release Notes

DOCUMENT CHANGE HISTORY

RN-07010-070_v02

Version	Date	Authors	Description of Change
01	January 23, 2018	SD	Initial draft
04	March 01, 2018	KS	Updated HW support and Known Issues/Limitations.

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NVIDIA CAPTURE SDK 7.0 (WINDOWS) RELEASE NOTES

1.1 SUPPORT

1.1.1 NVIDIA Capture SDK 7.0 Package Contents

- ▶ NVIDIA Capture SDK 7.0 installer
- ▶ **Debugging on GRID System.doc** : Guidelines for debugging on GRID Systems
- ▶ **DXG Kernel Memory Limit.zip**: Registry settings for increasing DXGKernel memory limit used by Windows runtime
- ▶ **NUMADXDemo.zip**: Sample code to illustrate how to detect and configure NUMA node settings for more efficient system usage

1.1.2 GPU Driver Support

The NVIDIA Capture SDK 7.0 is supported beginning with NVIDIA GPU driver version 391.03, referred to as the NVIDIA Capture SDK 7.0 RC driver in this document.

1.1.3 Backward Compatibility

- ▶ Applications built with GRID SDK versions 1.3 and later will work with NVIDIA Capture SDK 7.0 RC and later drivers.
- ▶ Applications built with NVIDIA Capture SDK 7.0 may not work with GPU drivers older than the NVIDIA Capture SDK 7.0 RC driver.

1.2 NVIDIA CAPTURE SDK 7.0 UPDATES

These are the changes to the GPU driver and SDK, with respect to the previous NVIDIA Capture SDK release.

- ▶ NVIDIA Capture SDK 7.0 adds support for the Image Area Classification feature. This feature is available in the NvFBCToSys and NvFBCToDx9Vid interfaces. This feature helps classify the input image to regions of low and high frequency. Please refer the feature's whitepaper that comes with the Capture SDK 7.0 installation for more details.
- ▶ New samples to demonstrate Image Area Classification are added,
 1. NvFBCDX9ClassificationMap Sample
 2. NVFBCToSysClassificationMap Sample
- ▶ NvFBCDX9NvEnc sample now demonstrates how to use Image Area Classification output for emphasis encoding.
- ▶ NVIDIA Capture SDK 7.0 removes Microsoft Visual Studio 2010 solution files for its samples.

1.3 KNOWN ISSUES AND LIMITATIONS

- ▶ The NVIDIA Capture SDK package contains Visual Studio solutions for Visual Studio 2008 and Visual Studio 2013.

Compilation of NVIDIA Capture SDK samples requires downloading and installing the CUDA SDK from the NVIDIA web site. However, due to certain dependencies, the Visual Studio 2008 solution can work only with CUDA SDK 6.0, whereas the Visual Studio 2013 solutions will work with CUDA SDK 6.5.

- ▶ On Windows 10, NVFBC_SOURCEMODE_FULL always results in a frame grab corresponding to the native resolution of the display.

Consequently, for NvFBC applications that run on Windows 10, it is recommended to always use SDC_NO_OPTIMIZATIONS flag when calling SetDisplayConfig() OS API to set the desktop resolution.

- ▶ Using NVFBC_SOURCEMODE_CROP with the same target dimensions as the current display dimensions reported by the OS may not work well under Windows 10 Fall Creators Update.

A previous recommendation to use NVFBC_SOURCEMODE_CROP in this way works well for Windows 10 Creators Update but may result in incorrect crop RECT on Windows 10 Fall Creators Update due to OS-introduced virtual mode display scaling.

- ▶ There is a remote probability of a single corrupt image returned by NvFBC when initiating an NvFBC Capture session configured for 10-bit ARGB capture.
- ▶ NVFBC does not support display topologies that include displays attached to a display-only driver or a KMDOD.

The NVFBC output may contain images grabbed from the KMDOD display in such cases.

- ▶ NvIFRHWEnc interface does not support propagating input time stamps to the encoder bit stream.

1.4 NVIFR: DEPRECATION NOTICE

- ▶ The NVIFR Interface will be frozen in NVIDIA Capture SDK 7.0. There will be no further feature additions or enhancements to the interface.
- ▶ The NVIFR interface definitions and sample applications will be dropped from future distributions of the NVIDIA Capture SDK.
- ▶ Existing applications that use NVIFR will continue to work on supported GPUs. Please refer to section 1.5 of the NVIDIA Capture SDK 7.0 Release notes.
- ▶ The NVIFR interface will not be supported on future GPU architectures .

1.5 SUPPORTED HARDWARE

- ▶ Capture SDK can be only used on GRID, Tesla, or Quadro 2000+ hardware products. Other configurations are not permitted under the end user license agreement terms and conditions.
- ▶ NVIDIA Capture SDK 7.0 RC driver adds support for Tesla V100 and Quadro GV100 series of GPUs.

Supported GPUs are listed below:

QUADRO DESKTOP	QUADRO MOBILE	TESLA
Quadro K2000	Quadro K2000M	Tesla K10
Quadro K2000D	Quadro K2100M	Tesla K20X
Quadro K4000	Quadro K2200M	Tesla K40
Quadro K4200	Quadro K3000M	Tesla K80
Quadro K5000	Quadro K3100M	Tesla M4
Quadro K5200	Quadro K4000M	Tesla M40
Quadro K6000	Quadro K4100M	Tesla M6
Quadro K2200	Quadro K5000M	Tesla M60
Quadro M4000	Quadro K5100M	Tesla M10
Quadro M5000		Tesla P4
Quadro M6000		Tesla P6
Quadro M2000		Tesla P40
Quadro P2000		Tesla P100 SXM2
Quadro P4000		Tesla P100 PCIe
Quadro P5000		Tesla V100 SXM2

QUADRO DESKTOP	QUADRO MOBILE	TESLA
Quadro P6000		Tesla V100 PCIe (16GB)
Quadro GP100		Tesla V100 PCIe (32GB)
Quadro GV100		Tesla V100 FHHL

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