



nVIDIA®

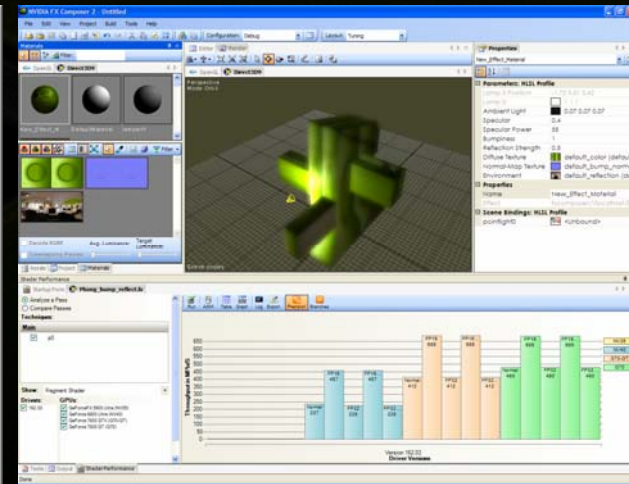
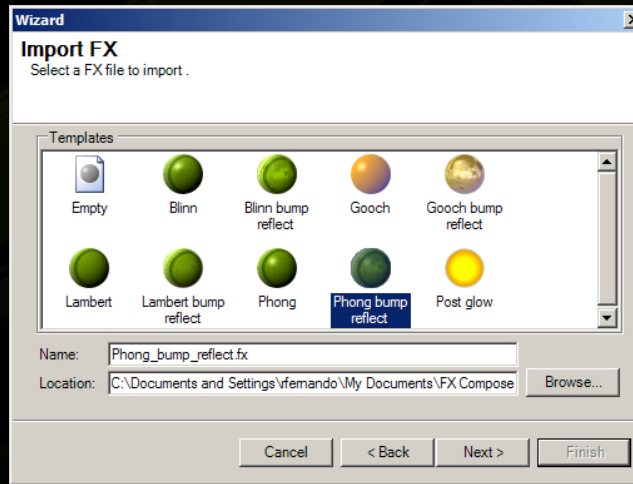
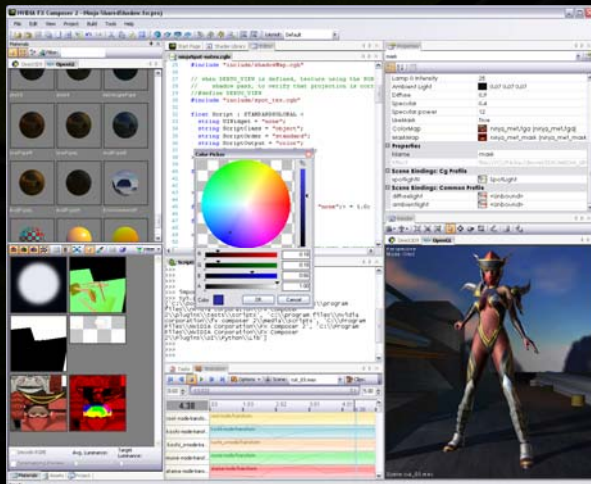
FX Composer 2

NVIDIA FX Composer 2

The World's Most Advanced Shader Authoring Environment



- All-New Extensible Plug-In Architecture
- User-Friendly Shader Authoring
- Shader Performance Analysis
- Deep Content Pipeline Integration



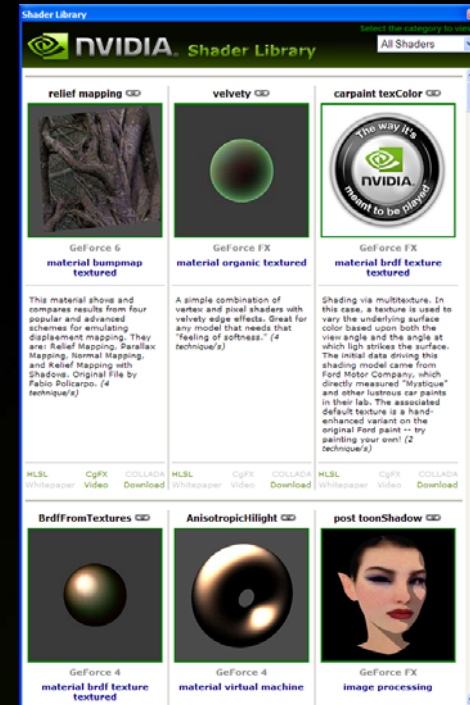
New Architecture



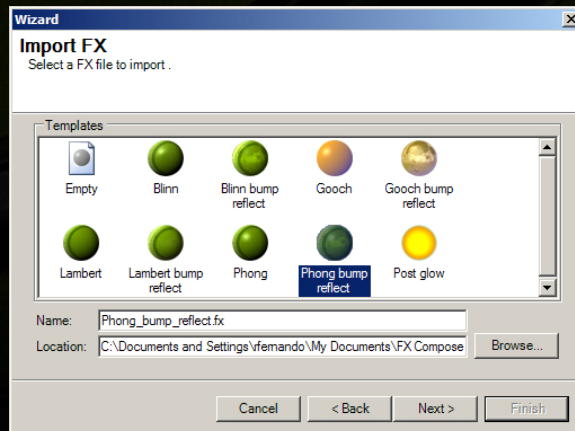
- **Rewritten from the ground up in C#**
- **Support for OpenGL and DirectX 9**
- **Supports HLSL, COLLADA FX Cg, CgFX**
- **Powerful plug-in architecture**
- **Python scripting engine**
- **Unlimited Undo/Redo support**

User-Friendly Shader Authoring: Creating Shaders

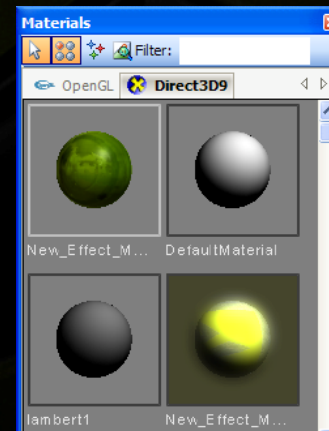
- Start Page
- Shader creation wizard with templates
- Integration with online Shader Library
 - Hundreds of sample shaders
 - Drag-and-drop directly onto objects
- Full-featured code editor
- Materials panel to organize materials
- Tone mapping for per-material textures



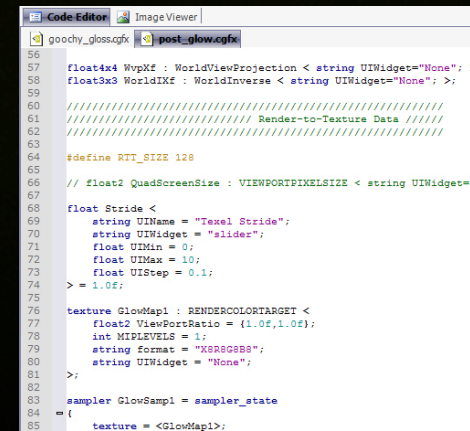
Shader Library



Shader Creation Wizard



Materials Panel

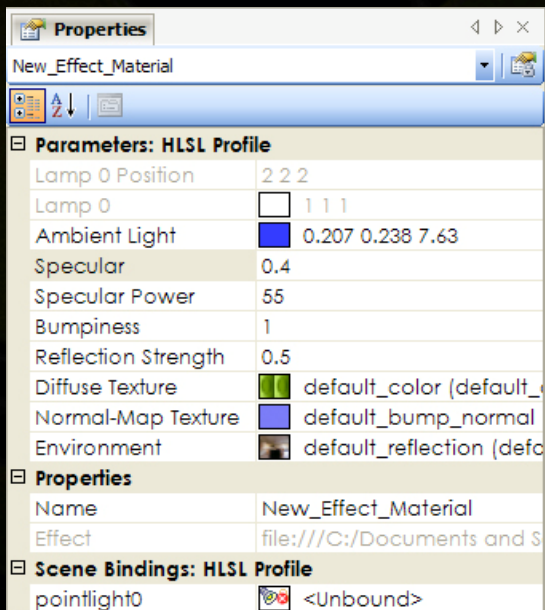


Code Editor

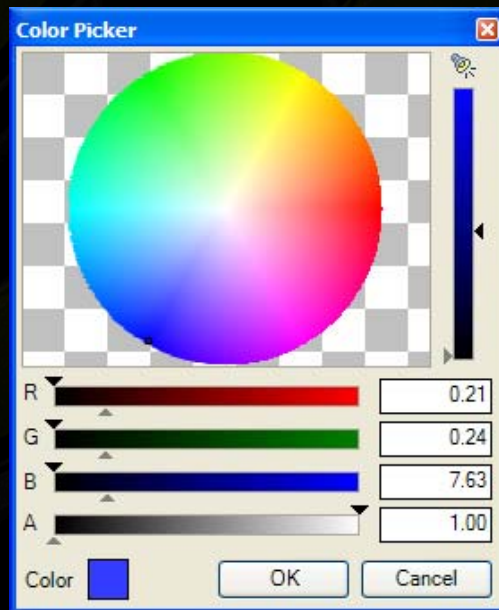
User-Friendly Shader Authoring: Modifying Shader Parameters



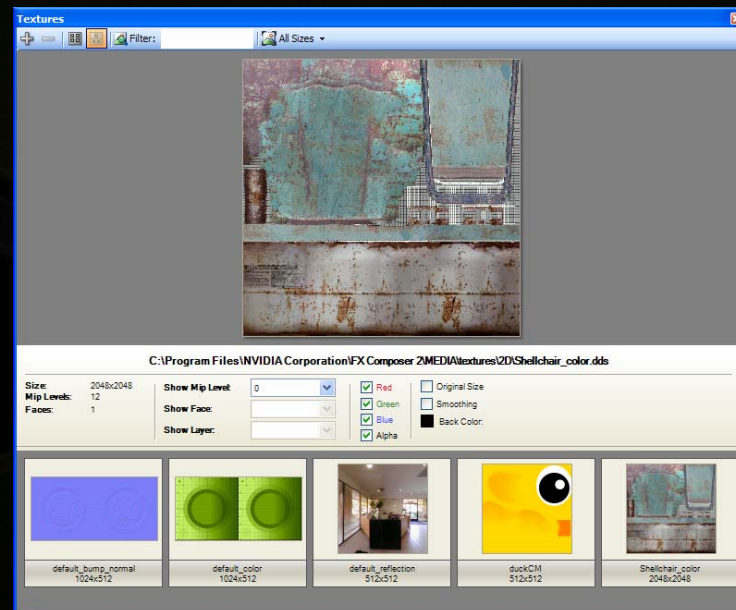
- Properties panel
- High dynamic range color picker
- Texture viewer (supports numerous texture formats)



Properties Panel



HDR Color Picker



Texture Viewer

User-Friendly Shader Authoring: Drag-and-Drop Works Everywhere

- Drag lights onto materials to bind them
- Drag textures onto materials to assign them
- Drag materials onto objects to apply them
- Drag Shader Library effects onto scene objects

User-Friendly Shader Authoring: Advanced Scene Manipulation



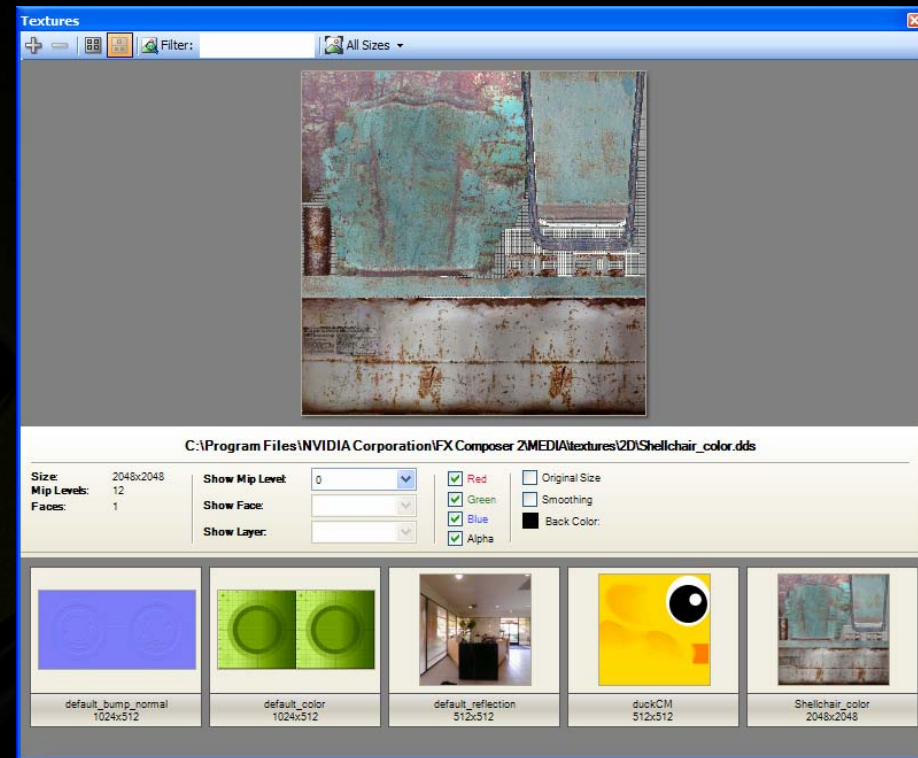
- Create and manipulate basic geometric objects, lights, and cameras
- Import .3ds, .fbx, .dae, .x, .obj files
- Drag-and-drop light binding
- Drag-and-drop texture binding
- Skinning and animation



User-Friendly Shader Authoring: Texture Viewer



- Support for .dds, .jpg, .gif, .bmp, .png, .tif, .tga, .hdr, .exr
- Support for mipmapping, cube maps, 1D, 2D, 3D, rectangle textures
- Drag-and-drop textures onto object materials
- Drag-and-drop textures from Windows explorer into Texture Viewer
- Search textures
- View thumbnails in different sizes
- Open images in associated viewer or editor

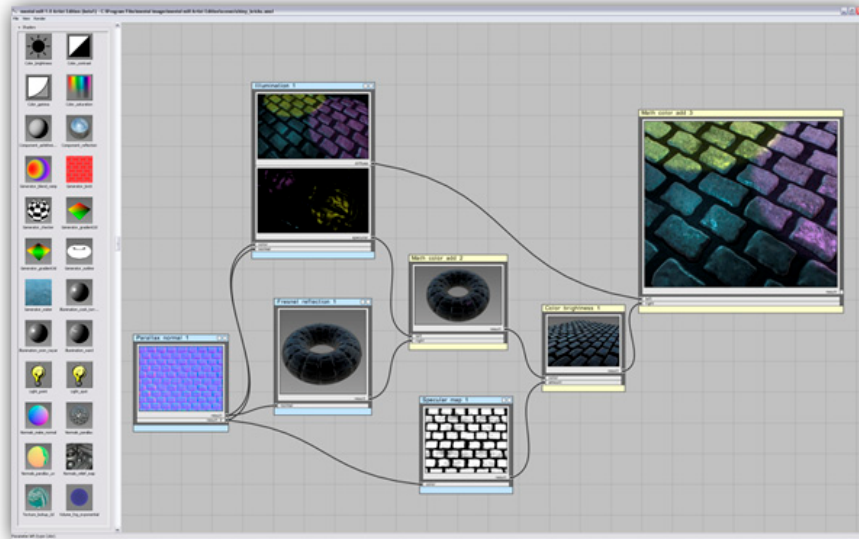


User-Friendly Shader Authoring: mental mill™ Artist Edition

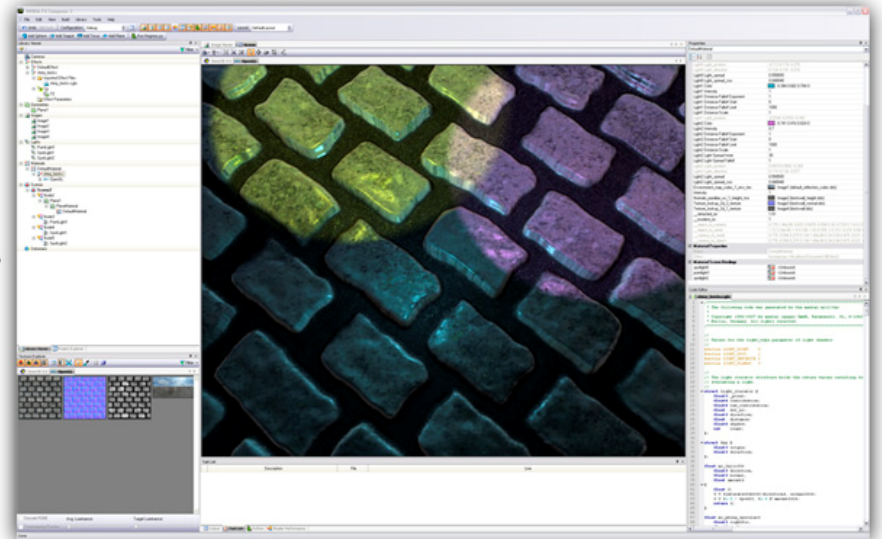


- **Bundled with FX Composer 2**
- **Visually author shaders**
- **Export to FX Composer via CgFX or HLSL**

mental mill Artist Edition



FX Composer 2

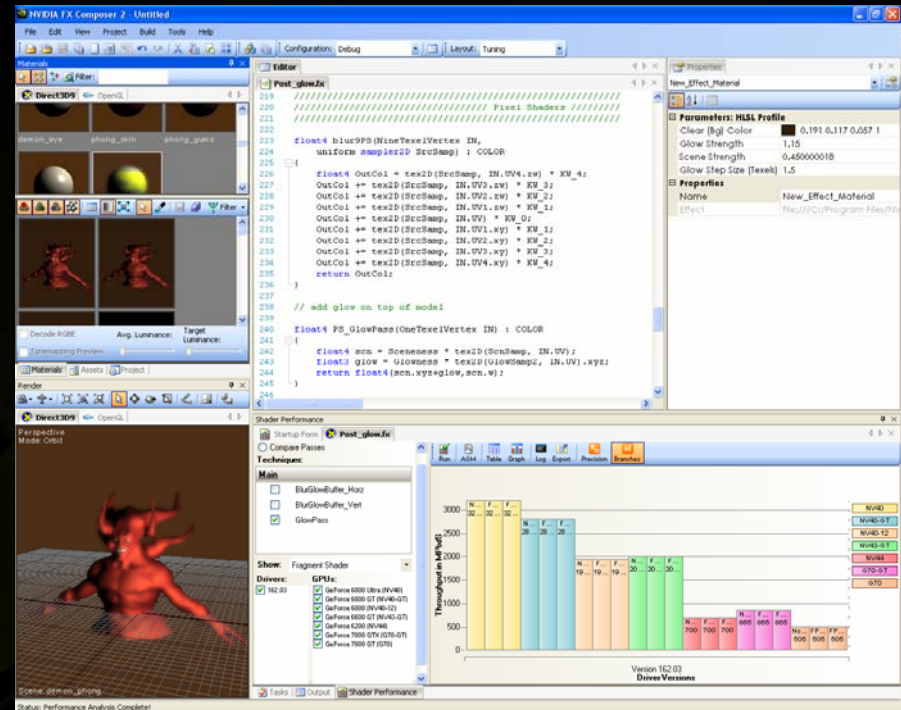


Exporting a Shader from mental mill Artist Edition to FX Composer 2

Shader Performance Analysis



- NVIDIA ShaderPerf 2.0 integration
- Support for CgFX, COLLADA FX Cg, and HLSL shaders
- Compare shader techniques across multiple GPUs
- View data in tables or graphs
- See shader throughput, register usage, instruction counts, and branching performance



Deep Content Pipeline Integration

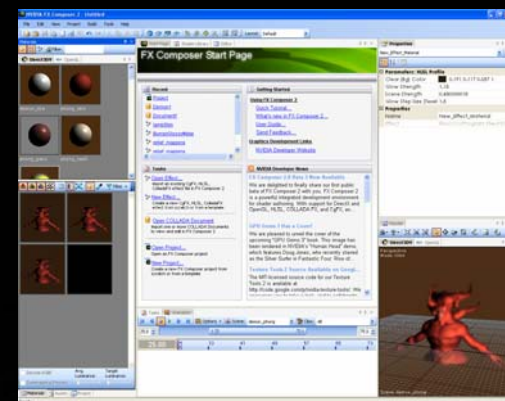


- **Semantic and Annotation remapping**
- **Vertex Attribute Packing**
- **Advanced Scripting Support**
 - Full Python scripting
 - Access every aspect of FX Composer in scripts
 - Automate any process
 - Console for writing and running scripts
 - Run scripts from the Windows command line (i.e., "FXComposer2.exe myscript.py")
 - Customizable, scriptable toolbars
- **Extensible plug-in Architecture with SDK**

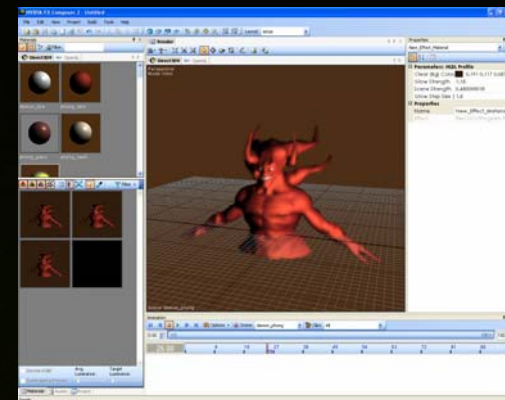
Deep Content Pipeline Integration

Customizable User Interface

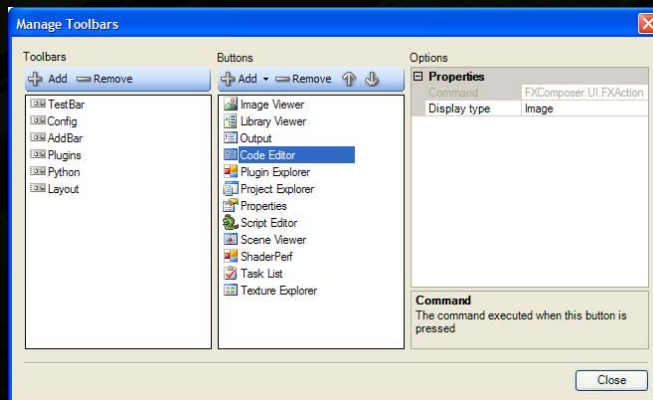
- Versatile panel docking system
- Customizable toolbars
- Pre-defined layouts for artists, shader authoring, and performance tuning
- Define your own layouts



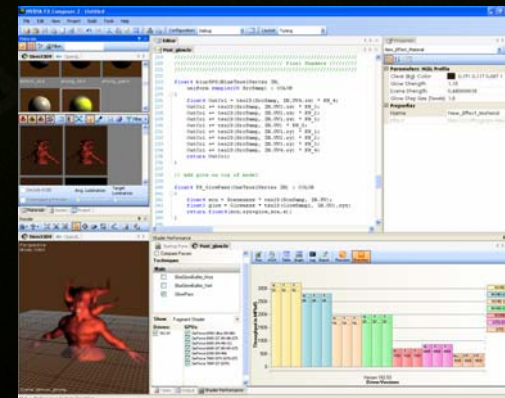
Default Layout



Parameter Tweaking



Toolbar Customization



Performance Tuning

Deep Content Pipeline Integration: Complete COLLADA Support

- **Project and Asset Management (Project Explorer and Library Viewer)**
 - Author COLLADA assets
 - Create and remove COLLADA documents
 - Move, delete, and copy COLLADA assets across COLLADA documents
 - View COLLADA assets by category
- **COLLADA format support and extras**
 - Material Instance Scene Binding
 - Material Instance Vertex Binding
 - Skinning
 - Support for rendering COMMON Profiles
 - Vertex Stream Remapper
 - Full-Scene Effects
- **Conversion of CgFX to COLLADA FX Cg**
- **Conversion of HLSL .fx to CgFX**



Trying Out FX Composer 2



- Available on public developer site:
<http://developer.nvidia.com/FXComposer>
- Read the Quick Tutorial
 - This will guide you through the key new features quickly
- Please send us your feedback:
<http://surveys.nvidia.com/index.jsp?pi=65e78406e2d49c8f72b793e59de54874>