



## NVIDIA MENTAL RAY FOR 3DS MAX FILM-QUALITY RENDERING. ULTIMATE FLEXIBILITY.

Model courtesy of Stefan Morrell 'Stonemason' and DAZ 3D, available at DAZ3D.com

### NVIDIA® Mental Ray® for 3ds Max is a plug-in renderer for entertainment and visualization professionals who are producing stunning visuals.

Battle tested with over 20 years as the industry standard in 3D rendering, Mental Ray is now available directly from NVIDIA. It includes all of the functionality users have come to rely on plus greatly improved interactive workflow and speed.

Mental Ray uses both CPUs and GPUs for global illumination and can exchange materials with NVIDIA Iray® and Chaos Group V-Ray through the use of the NVIDIA Material Definition Language (MDL).

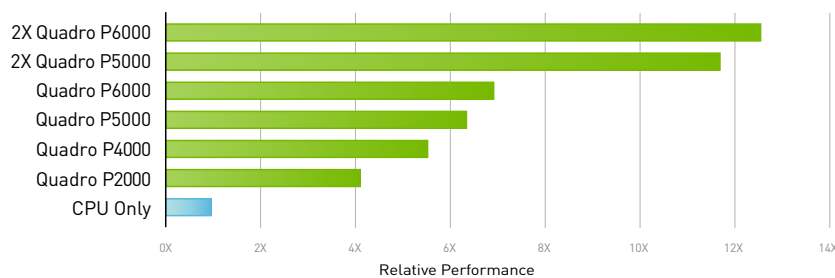
### NVIDIA MENTAL RAY FOR 3DS MAX NEW FEATURES

- > Interactive Progressive Rendering, so you quickly see final results as you edit.
- > GI Next makes high-quality global illumination easy and 2-4X faster than earlier methods.
- > GI-Next GPU acceleration delivers up to 5X more performance over the CPU alone, per GPU in the system.
- > Standalone mode is now included for production pipeline efficiency and flexibility.

### SYSTEM REQUIREMENTS

|                  |  |
|------------------|--|
| SOFTWARE         | <b>Autodesk 3ds Max 2018</b>   |
| OPERATING SYSTEM | <b>64-bit Windows 7 or 10</b>  |
| GPU ACCELERATION | <b>Optional: requires 2GB GPU memory of Fermi generation or later.<br/>Respects all GPUs and/or CPUs recognized by the operating system.</b> |

### MENTAL RAY PERFORMANCE SCALING WITH QUADRO DESKTOP GPUS



Tests run on an Intel E5 2697 V3 XEON CPU, 2.6GHz, 3.6GHz Turbo, 32GB RAM, Win 10 64-bit using internal NVIDIA Mental Ray for Maya benchmark using Mental Ray version 3.14 update 1.0.1.

### FREE WHILE WORKING WITHIN 3DS MAX

Mental Ray for 3ds Max is free to use within an interactive 3ds Max session. Unlike many competing renderers, all use cases enable all CPUs and NVIDIA GPUs within the machine. Get your copy: [www.nvidia.com/mentalrayfor3dsMax](http://www.nvidia.com/mentalrayfor3dsMax)

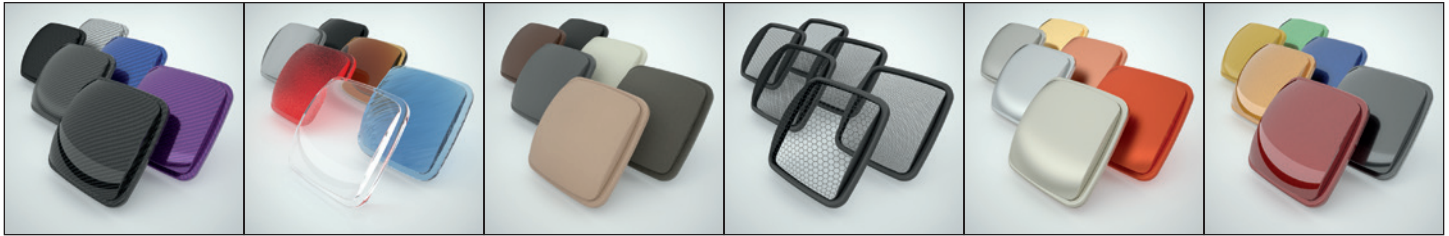
### MENTAL RAY PRODUCTION RENDERING

A Mental Ray license is only required when you render outside of a 3ds Max session. Your Mental Ray license then enables rendering with headless 3ds Max, Mental Ray Satellite, or Standalone modes on any machine at any time, as well as the separately available NVIDIA Iray for 3ds Max plug-in. Pricing options can be found here: [www.nvidia.com/object/nvidia-mental-ray-products.html](http://www.nvidia.com/object/nvidia-mental-ray-products.html)



## PHYSICALLY BASED MATERIALS—VERIFIED FOR ACCURACY

### vMaterials



Composites

Glass

Leather

Mesh

Metal

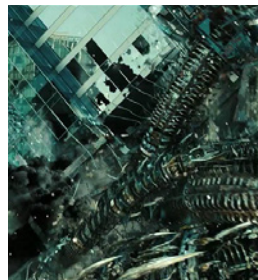
Paint

The NVIDIA vMaterials catalog for product and building design is a collection of real-world materials described in the NVIDIA Material Definition Language. Designed and verified by NVIDIA material specialists for accuracy, control, and consistency, vMaterials provide a fast, reliable way to add realistic materials

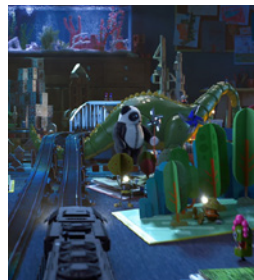
to your designs. Easily browse, change, and adjust materials to get just the look that's needed within the supported applications. While vMaterials is the perfect addition to Mental Ray, it can be used in any application that supports NVIDIA MDL.



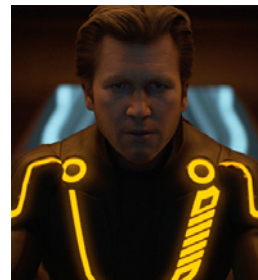
Image and scene courtesy Romain Lavoine



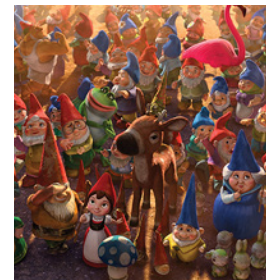
Transformers 3, ©2011 Paramount Pictures



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Tron Legacy, ©Disney Enterprise Inc.



Gnomeo and Juliet. ©Miramax Film NY, LLC. All rights reserved.

## FEATURES

### Interactive Global Illumination

GI Next is an intuitive global illumination engine requiring minimal setup and tuning that's 2-4X faster than earlier GI methods of similar quality

GI Next GPU acceleration provides an additional 5X speedup, with support for traditional shaders and effects while only loading geometry into GPU memory

Ideal for interactive lighting workflows with ActiveShade

Image Based Lighting is fast and easy-to-use including procedural environments like Sun and Sky System

Light Important Sampling enables large numbers of lights without sacrificing performance

Faster rendering of modern lighting setups with improved area lights and emissive materials

### Mental Ray Iray

Mental Ray Iray is the new name for the renderer previously called "NVIDIA Iray." While the name has changed, it is fully backwards compatible with previous 3ds Max versions

Directly supports Arch+Design materials and Photometric lights

No slowdown from adding additional light sources

Full animation support of all material and light parameters

Motion blur supported for cameras and objects

Optimized sampling for accurate caustics and indirect lighting

Photographic Exposure Control for achieving desired exposure, white balance, and contrast adjustments

Maximum system performance by using all supported GPUs and/or CPUs within the machine, with user control of resources

Texture compression for optimizing rendering memory

### Visual Effects

Supports render settings from all 3ds Max geometry and modifiers

Fast motion blur and depth-of-field camera effects with Unified Sampling

Hair primitive for efficient hair rendering with supporting plugin-ins

Memory-efficient instancing support

Photon Mapping for sharp, efficient caustics

High-quality displacement mapping including vector displacement

Contour andtoon shading for illustration, cartoon, and anime productions

### Materials and Shaders

The ability to use custom C-shaders arbitrary MDL definitions and materials

MDL materials support with Multiple Importance Sampling and improved workflow

Procedural textures for resolution independent effects and 3D color or density maps

Volumetric and scattering materials for real-world skin rendering and atmospheric effects like clouds and dust

### Batch Rendering (with License)

Standalone Satellite with easy-to-use remote tile rendering that can harness multiple machines to speed image creation

Standalone command line for efficient network rendering and pipeline integration

Improved .mi export for rendering independently of 3ds Max

### Workflow

Full support for all established 3ds Max workflows

Continuous visual feedback with progressive rendering of final results during scene interactions

Full animation support of geometry, material, and light parameters

Works with core 3ds Max features for lighting analysis and texture/light baking

Swatch rendering and real-time material preview for Mental Ray custom shaders and phenomena

Support for production techniques like Alembic geometry caches, UV tiling, and deep data

Complete color management and HDR pipeline from texture input to image output

For more information on the Mental Ray for 3ds Max, visit: [www.nvidia.com/mentalrayfor3dsMax](http://www.nvidia.com/mentalrayfor3dsMax)

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