

Key Features and Benefits

mental ray® Standalone 2012 software delivers new features and enhancements designed to help studios produce high-volume, high-quality renderings for today's complex film, television, and design visualization productions in less time. With accelerated performance and enhanced quality; support for advanced shaders; and extended use of open file formats, mental ray Standalone 2012 offers a professional solution to artists and developers seeking to get more from their renderer. Furthermore, mental ray Standalone 2012 continues to take advantage of hardware advances to power its innovative iray® interactive rendering technology, with support for new GPUs.

Top Features and Benefits

Unified Sampling

A new single sampling mechanism in mental ray Standalone 2012 offers a unified control for the ray tracing, rasterizer, and progressive rendering engines. Finer control of sampling quality together with adaptive oversampling help artists achieve their desired rendering quality in less time, while the ability to set one primary sampling control to tune final accuracy resulting from any secondary effect enhances ease of use.

Performance and Quality Enhancements

Enjoy accelerated performance and improved memory usage, especially when ray tracing instanced geometry with motion blur using the BSP2 algorithm and when ray tracing hair and 3D point clouds. Moreover, these performance enhancements remove the requirement to create approximations when rendering with motion blur, resulting in higher quality imagery with fewer artifacts.

Native Particle Rendering

Natively render 3D particles as spheres, tubes, or certain other pre-defined shapes. Shading can be customized through shader API extensions; base shaders, along with their source code, are provided for shader writers. An open file format enables particle data to be more easily exchanged with simulation engines and certain other third-party applications.

Unified Caching

The open format 3d Map container in mental ray is now more stable and offers improved performance. As a result it is now used for caching of finalgather maps that were previously stored in proprietary files. The open file format specification enables data stored in 3d Map caches to be more easily published to certain third-party applications.

iray 2.0

New support in iray for advanced lighting and shading models enables artists to render layered materials and Bidirectional Scattering Distribution Functions (BSDFs)—for example, coating for car paints. Moreover, new GPU (Graphical Processing Units) are now supported, featuring more memory and advanced computational capabilities; case in point: NVIDIA Fermi architecture.

MetaSL 1.2 Features Support

Take advantage of new features in the MetaSL 1.2 shading language, for example 'Techniques' and 'Programmable BSDFs'. Furthermore, with major enhancements to its performance and reliability, the Low Level Virtual Machine (LLVM) back-end technology is now enabled as the default MetaSL shader engine on supported operating systems.

Progressive Rendering Enhancements

Enjoy faster feedback, with accelerated handling of scene manipulations during interactive rendering in mental ray progressive or iray mode.

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