Autodesk® 3ds Max® 2015
Features and benefits

Overview

Autodesk® 3ds Max® 2015 software delivers efficient new tools, accelerated performance, and streamlined workflows to help increase overall productivity for artists and designers working with the complex, high-resolution assets required by today's demanding entertainment and design visualization projects.

With the ability to import, visualize, and render massive point cloud datasets; significantly enhanced viewport performance; and new scene management workflows, 3ds Max 2015 helps artists and designers handle greater complexity without slowing down. In addition, a more responsive ActiveShade interactive rendering workflow that now supports the NVIDIA® mental ray® renderer, and a new artist-friendly node-based visual shader editor for creating and previewing complex real-time shaders help increase efficiency for lighting, shading, and rendering tasks. Meanwhile, with new support for Python® scripting, 3ds Max 2015 offers a robust core toolset that is more easily extended and customized to meet each studio's unique requirements.

Top features and benefits

Point cloud support
Designers and artists can now create more precise models from real-world references, with the new ability to import and visualize massive datasets captured from reality as point clouds. Modelers can view point clouds in true color in the 3ds Max viewport, interactively adjust the extent of the cloud displayed, and create new geometry in context by snapping to point cloud vertices. In addition, point clouds can be rendered with shadows in the NVIDIA® mental ray® renderer, enabling designers and artists to visualize CG objects in real-world contexts in order to better communicate designs, or to previsualize animation shots. Support for the .rcp and .rcs file formats enables designers and artists to take advantage of a connected reality capture workflow with certain other Autodesk solutions: Autodesk® ReCap™, AutoCAD®, Autodesk® Revit®, and Autodesk® Inventor® software.

Python scripting
New support for the popular and easy-to-learn Python® scripting language helps technical directors and developers extend and customize Autodesk® 3ds Max® 2015 software, and more easily integrate it into a Python-based pipeline. Customers can execute Python scripts from MAXScript and the 3ds Max command line; in addition, they can access a subset of the 3ds Max API (application programming interface) from Python scripts, including the ability to evaluate MAXScript code.

ActiveShade rendering enhancements
The ActiveShade preview rendering window now supports mental ray, in addition to the NVIDIA® iray® renderer previously supported. With ActiveShade, artists and designers can see the effects of changing lighting or materials interactively, helping them more easily refine their work—the ability to match the final render helps artists more accurately preserve creative intent. For both iray and mental ray, interactive updates are now faster, while viewport navigation and switching, adjustments to light parameters, and certain other scene changes are captured more frequently, offering finer grain updates.

Accelerated viewport performance
Working in the 3ds Max viewport is now substantially faster; a number of improvements accelerate navigation, selection, and viewport texture baking, resulting in greater interactivity, especially with dense meshes and scenes with many texture maps. In addition, anti-aliasing can now be enabled with minimal impact on performance—so artists and designers can work in a higher fidelity environment without sacrificing speed.

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ShaderFX

Game artists and programmers can now easily create advanced HLSL viewport shaders with the ShaderFX real-time visual shader editor. Shader networks are created by connecting different nodes together using an intuitive click-drag workflow; artists can select from a powerful array of floating-point values, mathematical operations, texture maps, normal maps, and color nodes. The resulting materials, even those with animated values, can be visualized in real time in the 3ds Max viewport. An advanced mode enables more technical artists to drill down deeper into the inner workings of each basic node.

Enhanced scene management

Dealing with complex scenes is now easier, thanks to new nested layer functionality within Scene Explorers that helps artists and designers better organize data. In addition, a number of other enhancements have been made to the usability of Scene Explorers, contributing to an overall productivity improvement for scene management; highlights are support for docking and Workspaces, and customizable quad menus.

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Other key features and benefits

Placement tools

Artists and designers can now more easily position and orient content relative to other content within their scenes, with new Placement tools that feature intuitive auto-parenting and aligning behaviors. Objects can be moved along the surfaces of other meshes as though magnetically attracted and quickly rotated to the desired orientation as part of the same operation.

Stereo Camera

Artists and designers can now create more engaging entertainment content and design visualizations with the addition of a new Stereo Camera feature set. Exclusively available through the Autodesk Exchange application store (apps.exchange.autodesk.com), the Stereo Camera plug-in* enables artists and designers to create stereoscopic camera rigs. Multiple display modes offer left eye, right eye, center, or anaglyph views in the Nitrous viewport, while in-scene 3D volumes help with the adjustment of valid stereo zones. In addition to a passive stereo viewing mode, customers with a recent AMD FirePro™ graphics card and a supported HD3D Active Stereo monitor or equivalent can take advantage of Active Stereo viewing.

Available in English language only.

Populate enhancements

The powerful Populate crowd animation feature set now offers increased artistic control, better realism, and improved usability. Designers and artists can give their characters more convincing walking, jogging, passing, turning, and seated behaviors; control more aspects of how their characters are generated to influence the outcome; and save textures for reuse and customization and for network sharing and rendering. In addition, studios can customize Populate through exposure of the functionality in an SDK (software development kit).

Quad chamfer

It's now possible to create a chamfered or beveled edge between two surfaces consisting of quads, rather than triangles. This can help eliminate pinching, and produces better results when used in conjunction with the TurboSmooth modifier.

Everyday workflow improvements

3ds Max 2015 software delivers workflow improvements across several areas. Highlights are: an updated UI for the Particle Flow Graph Editor that offers a closely unified experienced with the Slate Material Editor; enhancements to State Sets for accelerated performance and enhanced usability; and more streamlined interoperability workflows between 3ds Max and Adobe® Photoshop® and Adobe® After Effects® software.

Small Annoying Things

With the understanding that small things can make a big difference, 3ds Max 2015 addresses up to 10 minor workflow obstacles identified as high priority by customers. Among these are the ability to preserve UVs for Inset Polygons; the ability to slide partials loops in Swift Loops; and adaptive viewport navigation for smarter zooming, panning, and orbiting. Customers can suggest their own workflow improvements and vote on current suggestions using the Small Annoying Things forum.

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