



Autodesk 3ds Max 2021.3 is focused on modernization, performance, and fit & finish. We have added new capabilities to the viewport, improved modeling efficiency for artists with enhancements to popular modifiers and continued to make 3ds Max robust and secure with performance improvement and new security features.

What's New in 3ds Max 2021.3

MODERNIZATION

Materials and Shaders Evolution

- **PBR Import** enables quick creation of PBR or Physical Materials by loading a range of PBR texture files.
- **Shader compilation** status: Users can now see feedback about the remaining number of shaders compiling for viewport display in the status bar.

Brilliant Viewport

- Users can enable **Bloom in the viewport** and adjust settings such as: apply on background, quality & radius, strength, tint, threshold & smoothing, and dirt map.
- Users can render in the **Active Shade viewport** with 1/8, 1/4, 1/3, 1/2 resolution, speeding up rendering previews when working with high resolution monitors.
- Enhanced viewport representation of **Point Cloud data**: We have implemented a new color/spectrum ramp, and implemented a new shader for intensity and elevation within 3ds Max. This brings the representation of point cloud data in sync with how it is displayed in ReCap.

Arnold Renderer

- Arnold 6.1 brings powerful new features and capabilities including new post-processing nodes, nested dielectrics, an even faster GPU renderer, and Random Walk 2 Sub Surface Scattering for Physical Materials.

PERFORMANCE

Path Deform

- The **Path Deform modifier** has been rebuilt from the ground up and completely refactored while remaining backwards compatible with older scenes.
- Users can now benefit from enhanced performance, and new features such as per element deformation, support for multiple curves in the path, and loopback. Several stability and quality improvements have also been made, enabling a smoother overall experience.

Selection Methods

- Improved selection on **HD monitor resolutions** (1080p through 4k): The default selection radius size in 3ds Max is no longer set to a fixed value. When you launch 2021.3 for the first time, it will automatically adjust to the monitor resolution that you are running at. This improved selection radius makes it easier to select objects and components in your scene.
- Users can choose to further adjust the **Selection Pixel Radius** distance in the Preferences > Viewport settings of 3ds Max to refine this value to their own personal usage needs.
- Building on updates in 2021.2, we have continued to **enhance our selection methods** in 3ds Max to provide improved hit detection for selection, and improved depth cycling when a component is obscured by another of the same type.

Spline Chamfer

- **Minimum Angle Threshold:** Based on user requests, we have further enhanced Spline Chamfer's functionality by adding the ability to control which knots are influenced by the chamfer/fillet through a minimum angle parameter.
- **Enhanced Calculations:** We have also improved how knot positions are calculated after a fillet or chamfer to further enhance the output results.

Enhanced Subdivide and Remesh Algorithms

- **New Remeshing Algorithms:** The Subdivide modifier has been updated to add in 3 new remeshing algorithms: Delaunay, Adaptive, and Variable Curve to the existing Subdivide algorithm.
- These 3 new algorithms greatly improve the ability to easily remesh and retriangulate your mesh data within 3ds Max based on an edge length value: Delaunay provides regularity, Adaptive provides uniformity between unconstrained edges, and Variable Curve builds upon the work of Adaptivity to provide enhanced triangulation on creases and corners.
- **Preserve Mesh Data Options:** Building upon this work, the Delaunay, Adaptive, and Variable algorithms also provide users with the ability to preserve existing mesh data on the output result.

Script Execution

- **The default initial Maxscript** heap size has been increased from 15Mb to 100 Mb, aiding performance when many scripted commands are executed, such as when the Ribbon is displayed.

FIT & FINISH

Security

- **Improved protection** in 3ds Max now blocks potentially malicious scripts based on file attributes.
- 3ds Max now **logs all scripts** that it loads. This can help users diagnose issues caused by scripts in general and can help in auditing potential security incidents.
- Users of 3ds Max 2021.3 are **protected against known malware** by the latest version of the 3ds Max Security Tools (v1.3), which is also available for free from the Autodesk App Store.

Plugin Management

- In addition to the description and location of a loaded plugin package, 3ds Max's plugin manager now **displays the author and version**.