

Realize your creative ambitions with 3ds Max

3ds Max brings modern solutions so you can realize your creative ambitions. The new Array modifier allows for easy customization of assets, and Editable Poly retriangulation updates give you better topology results. 3ds Max also continues to build on its animation capabilities so you can iterate faster.

Capabilities in 3ds Max

Modern Modeling Tools

New Array Modifier

Duplicate and distribute mesh data procedurally with a new object-based Array modifier. Create robust and highly art-directable content with control over distribution and randomization transforms, randomization of material IDs, UV offset, and more. The following distribution types are available through the Array modifier:

- **Grid:** Distribute arrayed mesh data in a uniform grid pattern based on X, Y, and Z duplication counts, or by utilizing a dimensional size to duplicate within.
- **Radial:** Distribute arrayed mesh data along a radial arc with control on duplication count, radius length, start and end angle, number of rows, and rings.
- **Spline:** Distribute arrayed mesh data along the length of a Spline with options for distribution count from start to end; relative offset spaces that distribute from first to last spline knot; fill distribution; and at all or specified spline knots or segment centers.

- **Surface:** Distribute mesh data using Surface distribution at the position of all or specified vertices, edge centers, or face centers of a target mesh.

Enhanced Editable Poly Retriangulation

Enhancements to the Editable Poly object retriangulation algorithm enable you to generate improved topological results when producing new faces, moving vertices, or using the retriangulate function.

MeshSmooth Modifier Performance

Enhanced performance when loading or applying the MeshSmooth, Edit and Editable Mesh, and Edit and Editable modifiers.

Chamfer Limits Update

When performing a chamfer operation with the Chamfer modifier or an Editable Poly object, the Chamfer Limit Effect output will prevent self-intersections in the chamfered surface, while also avoiding over limiting. The Chamfer modifier will also generate improved surface normals when working with non-explicit normals.

Improved Animation Workflows

Trackview Updates

Various improvements have been made to Trackview based on user feedback to bring better reliability and ease of access to your animation data so you can iterate and refine your animations faster and more easily.

Delta Mush Computation

The Delta Mush operator found in the Data Channel modifier has been updated to bring enhanced symmetrical results across the mesh to complement your Skin modifier deformation.

PFlow

PFlow object settings have been updated to be more consistent between viewport and rendering quality and sampling. Additionally, various PFlow presets have been updated with new settings for Viewport Quality and Integration Steps.

Other capabilities

gLTF Updates

You can now use the Scene Converter with a new gLTF Preset to convert Physical Materials to gLTF Materials. Additionally, the gLTF exporter can now export all map channels on your mesh data instead of being limited only to Map Channel 1.

MAXtoA 5.4.0.37

This update comes with MAXtoA 5.4.0.37 which includes improvements to the V-Ray scene converter, volume shading, and added support for pinned curves and nested instancers.

- **Improved V-Ray scene converter:** The V-Ray scene converter now has been improved and supports many new features.
- **Dual-lobe phase function for `standard_volume`:** A new phase function model has been implemented for the `standard_volume` shader to bring a more realistic approximation to the physical phase function of scattering media such as clouds.
- **Physically correct volume emission scaling:** The `standard_volume` shader supports scaling of volumetric emission in a more physically correct manner (via the `emission_scaling` option).
- **Other volume emission improvements:** The `blackbody_intensity` control can now be dialed above 1 for convenience.
- **Cryptomatte 1.2.0:** The version of Cryptomatte bundled with Arnold is upgraded to [1.2.0](#)
- **Upgrade OpenImageIO 2.4.1:** The OIIO used by Arnold has been upgraded to 2.4.1