

Maya Complete 4

- Alias|Wavefront, \$7500
- 3D Modeling, Animation, and Rendering Software

Score: 4.0 ♦♦♦♦

Pros

Complete modeling, animation, and rendering in one package. Excellent integration of advanced tools. Wide industry adoption.

Cons

Initial cost is high. Miscellaneous limitations and associated workarounds can be annoying.

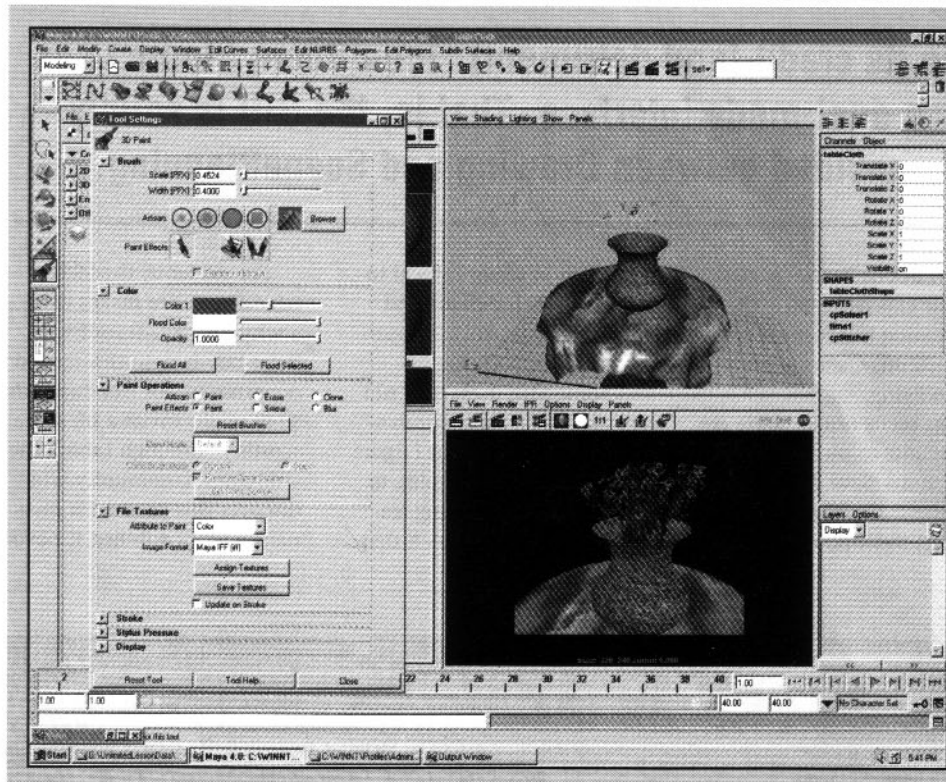
Bottom Line

Maya Complete 4 has made strides in usability and overall reliability. Combined with a huge feature list and cross-platform support, it stands apart among tough competition.

System Requirements

Maya is available on IRIX, Linux, NT, and OS X. System requirements and supported hardware can be found online at www.aliaswavefront.com/en/Community/Support/qualified_hardware/QUAL/maya_40_NT.html.

BY TODD IORIO



Alias|Wavefront (www.aliaswavefront.com) had a big goal for Maya Complete 4: Take what is arguably the industry standard for 3D modeling and animation and make it more friendly. To this end, A|W has made hundreds of little adjustments and addressed many ongoing concerns. Maya Complete 4 is not a Next Big Thing release; it's a refinement of one of the largest feature sets available.

Many of the improvements in Maya Complete 4 center around the user interface and experience. Maya Complete 4 has an improved layout and new features that improve workflow and usability. A new Lasso tool improves the speed at which you can select multiple objects, and Quick

Layout buttons provide quick access to saved Layouts. Most of the UI toolsets can be easily hidden to increase screen real estate, and menus have been reworked to provide a more intuitive structure.

As a wise 3D modeler once said, "If you build it, they will come. And they'll probably ask you to move it." The animation toolset in Maya Complete 4 improves workflow with some seemingly obvious features such as Ghosting to see frames before and after the current frame, and Motion Trail, which displays the path or trajectory of an animated object. For those users—you know who you are—with rotation issues such as gimbal lock (aligned rotation axis resulting in loss

Maya offers the ability to directly paint 3D objects within the application.

The tablecloth was painted using the 3D Paint Tool, and the flowers are from Paint Effects.

of one axis of rotation) due to the three-axis nature of object rotation when using Euler-Angle animation curves, Maya Complete 4 adds Quaternion rotation, which describes rotations in four dimensions. Quaternions are also used for blends in the Trax editor, Maya's interface for nonlinear animation editing.

Maya Complete 4 has a major upgrade to paint ►

REVIEWS

MAYA COMPLETE 4

technologies. Artisan has been completely reengineered for Maya Complete 4 and now supports subdivision surfaces. The Artisan toolset provides incredible capabilities: You can sculpt surfaces and paint selections, skin weights, attributes, and more. The overall Artisan experience is more fluid, with under-the-hood performance enhancements that make it more productive.

A|W has integrated the old Paint Textures tool with Paint Effects. The result is the impressive 3D Paint Tool. You can select either Artisan brushes (that now allow an image to define the brush profile) or Paint Effects brushes. With the 3D Paint tool, you can create precise and advanced texture maps with the same painting toolset used throughout Maya. These maps include color maps and the majority of standard texture maps.

A|W also has made substantial moves to improve its much-maligned rendering engine. A number of artifacting and filtering problems with rendering have been addressed. Filter size in general has been improved for sharper textures and bump maps, especially when viewed from a low, close angle. The limitations surrounding non-square texture files have been improved. There are also fixes for background leaks that had been noted in the Maya 3 ray-tracer, reduction of noise tiling artifacts, and improvements in speed and memory usage.

Maya Complete 4 also includes basic multipass render control to ease the difficulties setting up multiple renders. In addition to rendering layers set up in the scene, you can choose to render multiple versions of the animation, including Color, Shadow, Diffuse, and Specular passes. The ray-tracing engine features new attributes and effects such

as chromatic aberration; shadow attenuation; translucence depth; light absorbance; surface thickness; depth jitter; and raytracing volumetric materials.

It's also interesting that A|W has said that mental ray for Maya is in the works. By adding mental ray to the options for Maya, A|W is placing Maya solidly at the front of the pack when it comes to rendering options.

Maya Complete 4's node-based architecture gets applied to rendering via the improved Hypershade. The most dramatic change in Hypershade is the split view, allowing you to access details of a texture node in a separate Work Area without changing the current view above. The tabbed interface can be customized for specific projects. Simple additions, such as easier access to use a texture file's alpha channel to define transparency, round out the improvements.

Although it's impressive, Maya Complete 4 is not without flaws. First, the supported

configurations list is short, as is the list of supported graphics cards (and even among those supported there are unresolved limitations).

Some simple things can cause unnerving problems. For instance, neither Paint Effects nor Fur field render. The workaround is to render frame increments of 0.5 and then interlace in a compositing application. Although this method works, it slows down the rendering pipeline significantly. There are nagging limitations that require too-frequent head scratching and debugging. The Maya Complete 4 Release Notes helps significantly. To A|W's credit, almost any issue I had was in those notes (except for the all-too-prevalent user error). However, these persistent little problems interrupt what would otherwise be a very fluid workflow.

Maya Complete 4 is a major release for A|W, not only because of the overwhelming amount of new features, but also because it takes an already feature rich product

AIW has made a serious move by bringing Maya to the Macintosh under the new OS X. (Image courtesy Dan Pressman, Alias|Wavefront.)

and refines it. The overall Maya experience has been improved while features and fixes that artists have been asking for are implemented. The end result is a 3D application that fits the needs of many 3D animators, producers, and artists. This is not to say that Maya Complete 4 is for everyone. Its steep price and learning curve may be too much for those not requiring a feature list that reads like a book. For those users who need a little more, Maya Complete 4 may be the answer. ■

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