

**Autodesk®**  
Mudbox™ 2009

The Shape of things to come.



Autodesk®

# A Premier Digital-Sculpting and Texture-Painting Solution, Designed by Professionals Who Understand How You Work

Historically, sculpting models meant molding and shaping clay with your hands and some basic tools. Adding color required paint and brushes. With the arrival of 3D modeling applications, everything changed.



Image courtesy of Dave Cardwell

The introduction of Mudbox 2009 sparks a revolution in CG tools—bringing about a paradigm shift in how designers and artists do their work!

—Habib Zargarpour  
Senior Art Director  
Electronic Arts

The initial challenge, however, was to create new tools that could not only simulate, but improve upon the traditional sculpting and painting experience, with tools and techniques that were instantly familiar to designers and artists. The next challenges were improving interactivity and achieving a degree of detail possible only with a high polygon count.

#### **Start Sculpting and Painting. Sooner.**

Enter Autodesk® Mudbox™ 2009 software. With greater interactivity and a high level of polygon mesh control, the Mudbox creative toolset is easily accessible to digital artists of all skill levels. However, it is also intuitive for traditional sculptors so they can become productive with a software-based approach in a matter of hours, rather than weeks. Sculpting and painting tools mimic the behavior of their traditional counterparts. In short, if you can pinch clay or make a brush stroke, you can use the tools in Mudbox.

#### **Creative Freedom Without Technical Details**

Designed by professional artists in the film, games, and design industries, Autodesk Mudbox 2009 software gives 3D modelers and texture artists the freedom to create without worrying about technical details. In addition to digital sculpting, Mudbox 2009 is a texture-painting solution that combines an intuitive user interface with a powerful creative toolset for creating highly detailed 3D models. Breaking the mold of traditional 3D modeling applications, Mudbox 2009 provides organic, brush-based 3D modeling that includes 2D and 3D layers to easily manage sculpting and painting iterations on multiple meshes and maps. You can also evaluate or present your work in an on-target environment, helping to ensure accurate, realistic results.

#### **Model and Paint Easily with Advanced Technology**

In addition to an intuitive user interface, Autodesk Mudbox also provides an advanced set of tools to optimize your 3D models and streamline your 3D pipeline. Mudbox 2009 gives you unprecedented control over sculpting, multi-resolution mesh editing, and texture painting. And you can easily manage sculpting iterations with nondestructive 3D layers. Sculpt 3D models either symmetrically or asymmetrically, quickly and precisely with fast, high-quality brushes and powerful tangent

space-symmetry functionality. Using advanced subdivision technology, subdivide a mesh however you want, as much as you want. Work quickly and efficiently on even the largest 3D models and scenes, and bake high-quality normal and displacement maps between multiple arbitrary meshes with your choice of 8-, 16-, or 32-bit map detail. Store different detail passes, libraries of morph targets, and more, on multiple layers with an efficient workflow. Blend, mask, erase, mirror, and merge 3D layers as you would in a 2D image-editing package. Duplicate, merge, flatten, and reorder layers more efficiently with the help of an intuitive user interface.

With Mudbox you can quickly add a high level of detail to organic and inorganic assets. You can then easily export them to popular 3D animation applications such as Autodesk® Maya® and Autodesk® 3ds Max® software, since interoperability with these products has also been enhanced considerably.



Image courtesy of Pixelwerks.be



Image courtesy of Peter Zoppi

## Autodesk Mudbox 2009 Key Features

### Texture Painting

With Autodesk Mudbox 2009, you can simply and efficiently paint multiple diffuse, specular, reflection, and bump textures across multiple high-resolution maps on your models. Apply details precisely where required regardless of UV distortion or surface complexity with true 3D painting, which is integrated with the familiar stamps and stencils workflow. Selectively paint reference images on the model from a particular viewpoint in 2D screen space—projected with subscreen pixel accuracy by using pixel information from the reference image rather than the screen pixels—with the new Projection brush. Easily paint hero characters with support for multiple maps on multiple meshes. Create massive amounts of detail by painting and displaying a different texture for each UV square unit tile. Select, blend, and organize several images for each texture channel with layers that are easily managed. You can also take advantage of increased color depth and superior realistic detail afforded by the software's support for a wide variety of file formats.



Image courtesy of Jonas Thornqvist

### On-Target Display

With an accurate, on-target environment for real-time evaluation of your model as it is manipulated—and for more collaborative, interactive presentations—Mudbox 2009 delivers new display technologies that use the power of the OpenGL® application programming interface (API) and today's higher-performance graphics cards. Display multiple maps and texture channels per mesh, and multiple materials in the scene, with advanced, real-time graphics processing unit (GPU) rendering. Support for Cg shaders enables you to develop your model while viewing it as it will appear on a screen or on film. You can also help to ensure that a character or environment is convincing from all viewpoints by accurately casting shadows from multiple light sources, as well as evaluating your model's form and color in context by using high dynamic range images (HDRI) as light sources. You have the option to hide UI elements while working to maximize your workspace. In addition, Mudbox makes client presentations more realistic by including several viewport filters.

### Artist-Friendly User Interface and Workflow

Mudbox 2009 features a highly intuitive user interface that dramatically decreases learning time and provides artists with greater creative freedom. Traditional artists with no previous 3D experience can quickly understand the software's digital tools, whose functions closely resemble those of their traditional counterparts. Whether you are exploring forms for industrial design or creating highly detailed characters for film and game projects, Mudbox enables you to forget about the technical details and focus purely on the creative process. Based on real-world production experience, Mudbox integrates seamlessly with existing pipelines to streamline your facility's workflow.

### More Control over More Polygons

Mudbox 2009 improves upon the intuitive, high-performance toolset that defined the initial release. Now you can handle extremely high polygon counts—meshes can be subdivided into tens of millions of polygons across their entirety with virtually no delay, or resolution loss, when tumbling or moving to another part of the mesh.

A wealth of brush-based tools provides greater creative control, enabling you to work with even the densest models simply and more efficiently. Customize your tools precisely—shape your brush tips with falloff curves and stamps, or modify their response to pressure. Make unlimited nondestructive edits and work with the degree of detail most appropriate for your project. You can even collaborate with other artists on the same mesh simultaneously to enhance productivity and improve workflow.

### Multiple Cameras in Multiple Positions for Greater Interactivity

With new, accelerated camera manipulation capabilities, Mudbox 2009 delivers excellent interactive performance for even the densest meshes and supports multiple cameras within a scene. Control the cameras by using a smart focus feature that places a camera according to the cursor position or brush size, or use trackball manipulation to achieve the camera perspective you want. To streamline and simplify camera movement, Mudbox uses the same keyboard shortcuts as Autodesk Maya by default—and, like all hotkeys, you can customize them however you want.



Image courtesy of Vladimir Venkov

Time is money. A Mudbox session begins with its artist friendly, intuitive interface riding on top of a virtual rocket. This is sculpting at the speed of thought with the greatest of fidelity. And in a business where new ideas with impossible deadlines are commonplace—Mudbox never lets me down.

—Dan Platt  
Modeler  
Disney Animation Studios

#### **Learn More or Purchase**

For more information and a complete list of features and enhancements in Autodesk Mudbox 2009, visit [www.autodesk.com/mudbox](http://www.autodesk.com/mudbox).

Autodesk offers a wide range of 3D and 2D solutions to artists, production and game development facilities, as well as design studios looking to fully experience their creative ideas. These solutions include Autodesk® 3ds Max®, Autodesk® 3ds Max® Design, Autodesk® HumanIK®, Autodesk® ImageModeler™, Autodesk® Kynapse®, Autodesk® Maya®, Autodesk® MotionBuilder®, Autodesk® Mudbox™, Autodesk® Stitcher™, Autodesk® Toxik™, and Autodesk® FBX® software applications and technologies. For more information about the entire Autodesk 3D and 2D product portfolio, visit [www.autodesk.com/me](http://www.autodesk.com/me).

To purchase Autodesk Mudbox, go to the e-store [www.autodesk.com/mudbox-buy](http://www.autodesk.com/mudbox-buy) or refer to [www.autodesk.com/mudbox-howtobuy](http://www.autodesk.com/mudbox-howtobuy).

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To learn the fundamentals of Mudbox by taking a QuickStart Tutorial, visit [www.autodesk.com/mudbox-quickstart](http://www.autodesk.com/mudbox-quickstart).

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