



Autodesk® Mudbox™ 2010 Features and Benefits

Interoperability

New workflows make using Autodesk® Mudbox™ software in conjunction with Adobe® Photoshop®, Autodesk® 3ds Max®, Autodesk® Maya® and Autodesk® Softimage® software easier than ever.

Photoshop

PSD File Support

Round-tripping of Mudbox paint layers (converting to and from Photoshop) is now possible through added support for PSD import and export.

Mudbox/Photoshop Map Workflows

Mudbox artists can now transfer Mudbox paint layers into Photoshop, for touch up, and bring them back into Mudbox—while working in either UV space or in 3D screen space.

- *UV Space Texture Transfer Workflow* — A new workflow is available for moving maps to and from Photoshop in UV space. An artist can export a Mudbox paint layer as a PSD file to Photoshop. After touch up, that PSD file can be seamlessly re-imported to Mudbox.
- *Screen Space Texture Transfer Workflow* — Mudbox artists also have a more efficient means of initiating a map transfer to Photoshop while in screen space. They can, in essence, take a screen capture of their Mudbox scene, which is converted into a PSD file and then exported to Photoshop. After touch up, the PSD file can be re-imported back into Mudbox with the camera automatically positioned.

FBX

Overview

Newly added support for the Autodesk® FBX® software file transfer technology helps make it possible for artists to transfer 3D scenes built in 3ds Max, Maya and Softimage into Mudbox with greater portability and more data retained than was previously possible using the .obj file format. This means greater productivity as artists no longer have to redo as much work.

Import Camera and Image Plane Data

A key new scene element that is retained through FBX file transfers to Mudbox is camera data, e.g. image planes. Many users choose to create base meshes in another package using reference images. Being able to bring camera and image plane data into Mudbox means artists can now have their shot cameras for shot sculpting and matte painting/environment workflows.

Export Paint Maps

In the previous versions of Mudbox, users had to export their paint maps and re-assemble them in the target application. The ability to export paint maps in FBX saves users a great deal of time.



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Creative Tools and Workflows

Mudbox 2010 offers a number of new productivity-enhancing and/or quality-enhancing tools.

Dry Brush

The addition of a new dry brush helps enable artists to create an effect similar to what can be achieved by painting only on the raised details of a model. For example, if an artist were painting on a reptile model with scales, they would be able to apply paint to the tops of the scale, but paint would not be applied to the cracks.

Clone Brush

The Clone brush allows artists to quickly and easily copy existing paint on a model from one area to another, for your retouching needs.

Paint Layer Undo

Mudbox artists now have the ability to undo any paint layer operation: helping to bolster productivity and the ability to experiment.

Reordering Paint Layers

Mudbox artists can now duplicate and change the order of their paint layers and assign paint layers to other paint channels: a more efficient way to experiment with and preview paint effects.

Ambient Occlusion Map Baking

Mudbox users can create ambient occlusion maps for extremely high resolution models, baking the soft shadows and details of a model out to an image which can be re-used without expensive recalculations.

New UV Smoothing

Mudbox 2010 provides a new UV smoothing compatible with Pixar's RenderMan[®] renderer. This further contributes to the ease of integrating Mudbox into production pipelines.

Render From Viewport

The ability to render a scene directly from the Mudbox viewport gives artists faster access to high-quality images for design reviews.

Enhanced UV Tile Management

Mudbox now enables users to manage the display of textures when using models with multiple UV tiles: helping them to manage how graphical processing unit (GPU) memory is used in order to improve performance.

Display Textures without Filtering

This new display option makes it easier for artists to evaluate the pixel boundary and color of each pixel in an image.

Merge Paint Layers

The ability to combine paint layers reduces the number of texture files an artist requires: helping to augment performance when working with high-resolution maps.



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Additional Viewport Filters

New viewport filters, such as the non-photorealistic render (NPR) filter and the normal map filter, help extend the ways in which the user can view models. Artists can find viewport filters valuable for previewing how a model will look when rendered in another application, for presentation purposes, or as part of efficient sculpting and painting workflows.

Software Developer Kit (SDK)

The addition to Mudbox of a software developer kit (SDK) opens up the software as never before, giving developers the ability to customize Mudbox and integrate it with their production pipeline. This is the launch of the Mudbox SDK and it is anticipated to be expanded with future releases.

Overview

The exposure of a C++ application programming interface (API) enables Mudbox users to extend and customize Mudbox for easier integration into a new or existing pipeline. The SDK includes built-in classes for meshes, cameras and geometric math; as well as interfaces for writing importers and exporters; integrating with existing revision control systems; creating Qt-based user interfaces; and for writing custom Mudbox tools and plug-ins that automate repetitive or time-consuming tasks.

Support for Sampling

The Mudbox SDK supports sampling of color, texture, normal and displacement values on the surface of a mesh: necessary for surface evaluation and manipulation.

Enhanced Support for Interoperability

The Mudbox SDK can also be used to make Mudbox interoperate better with other packages in a given pipeline. Support is available for customizing some of the low-level algorithms with others that match those used by a project's proprietary software. Algorithms that can be customized include those that handle calculation of the limit surface, ray-mesh intersection for mesh extraction, and tangent space calculation; it is expected that more will come.

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