Autodesk Softimage Entertainment Creation Suites Standard 2012 Release Notes

This document describes known limitations, issues and fixes in Autodesk Softimage Entertainment Creation Suites Standard 2012. It is strongly recommended that you read this document before you install this release. For reference, you should save this readme to your hard drive or print a copy.

Contents

Click the following links to view the Release Notes for this product:

- Softimage 2012 Release Notes
- MotionBuilder 2012 Release Notes
- Mudbox 2012 Release Notes

Additional Resources

For complete instructions about uninstalling and installing Autodesk Entertainment Creation Suites Standard 2012, see:

www.autodesk.com/me-faq-2012-enu

www.autodesk.com/me-licensing-2012-enu

For system requirements, see: www.autodesk.com/systemrequirements

For more resources, see: http://www.autodesk.com/entertainmentcreationsuites-documentation.

What's New

The following describes the new features and enhancements in the Autodesk® Entertainment Creation Suite Standard 2012. The Release Note information for each of the products in this Suite – Softimage, MotionBuilder and Mudbox – is also included immediately after.

Single-Step Mudbox Interoperability Workflows

Iterative workflows between Softimage and Mudbox can now be handled by clicking new options found in the application main menus. In Softimage, you will find a Send to Mudbox menu item that expands to allow you to Send as New [Mudbox] Scene, Update Current [Mudbox] Scene, and Add to Current [Mudbox] Scene. In Mudbox, you will find similar options to send to and update Softimage. These workflows are facilitated by FBX 2012 technology, allowing for the exchange of 3D data (meshes, UVs, character rigs, etc.) and new features such as Vector Displacement Maps, between Softimage and Mudbox. Vector Displacement Maps are variations on regular displacement maps, allowing surfaces to be displaced in any direction, rather than solely along a surface's normal. It allows you to use displacement mapping to model far more sophisticated shapes with features like overhangs and undercuts; i.e. a human ear. Mudbox can extract Vector Displacement Maps like standard displacement maps, and can use them as stamps and stencils for instant sculpting.

Consistent FCurve Editor

Animation editors in Autodesk Digital Content Creation packages (Maya, 3ds Max, Softimage, etc.) are now more consistent with regards to the way in which function curves are manipulated by the user. Working between Autodesk Media & Entertainment packages is now a more consistent experience. Tangent types between applications have also been aligned, to allow for a higher fidelity in interoperability with FBX technology.

Supported Operating Systems

The 32-bit version of the Autodesk® Entertainment Creation Suite Standard 2012 software is supported by the following operating systems:

- Microsoft® Windows® XP Professional Service Pack 3

The 64-bit version of the Autodesk® Entertainment Creation Suite Standard 2012 software is supported by the following operating systems:

- Microsoft® Windows® 7 Professional
- Microsoft Windows Vista Business Service Pack 1
- Microsoft Windows XP x64 Edition Service Pack 2

Hardware Minimum Requirements

Note: The system requirements below are for users running several of the following products on the same system:

- Autodesk® 3ds Max® 2012 software
- Autodesk® Maya® 2012 software
- Autodesk® MotionBuilder® 2012 software

- Autodesk® Mudbox™ 2012 software
- Autodesk® Softimage® 2012 software

Note: The system requirements for individual products may differ from those in this document.

At a minimum, the Autodesk® Entertainment Creation Suite Standard 2012 software requires a system with the following hardware:

- Minimum processor
    - Intel® Core™ two Quad 64-bit processor
    - Dual-Core Intel® Xeon® 64-bit processor
    - Dual-Core AMD Opteron™ 64-bit processor
- Recommended processor
- Intel® Core™ i7 64-bit processor
- Dual Quad-Core Intel® Xeon® 64-bit processor
- Quad-Core AMD Opteron™ 64-bit processor
    - 2 GB RAM minimum, 4 GB RAM recommended for the 32-bit version
    - 4 GB RAM minimum, 8 GB RAM recommended for the 64-bit version
    - 8 GB free hard drive space is required to install all commercial applications on the same system
    - The Education Suite for Entertainment Creation will require a minimum of 10 GB free disk space
- 512 MB hardware-accelerated OpenGL® 2.0 (and higher) professional graphics cards with recommended driver from Autodesk hardware certification pages. Three-button mouse with mouse driver software.
    - DirectX 9.0c application programming interface or higher
- Three-button mouse with mouse driver software or certified Wacom® tablet
- DVD-ROM drive
- Ethernet adapter or wireless internet card
- 1280 x 1024 screen resolution

Installing the Autodesk Entertainment Creation Suite Standard

Load your USB key or navigate to the folder where you downloaded the Autodesk® Entertainment Creation Suite Standard 2012 executable file and double-click on the file.

Note: During the Suite 2012 installation process, you are requested to enter the software serial number and product key. Make sure you have the suite serial number and product key handy.

Note for Linux users: Given that the USB is read-only and using NTFS file system, these are what need to be done in order to make it work:

1. Install NTFS file system libraries and utilities, if they are not installed.

2. Become super user or sudo
3. mkdir /mnt/myusb
4. mount -r -t ntfs /dev/sdb1 /mnt/myusb
5. cd to /mnt/myusb/Linux-64/…/ and launch the setup program

Install and activate your products by following the on-screen installation instructions.

Microsoft .NET Framework 4.0 requires Windows Imaging Component

If the Autodesk Installer prompts you to install the Microsoft .NET 4.0 Framework, the .NET 4.0 Framework installer may prompt you to first install the Windows Imaging Component (WIC). This can occur if you do not have the latest Microsoft Windows updates or service packs. You are most likely to need WIC if you are running Windows XP SP2 without certain Windows Updates installed. If required, the Microsoft WIC installers are available at the following locations:

- 32-bit installer

http://www.microsoft.com/downloads/en/details.aspx?FamilyID=8e011506-6307-445b-b950-215def45ddd8&displaylang=en

- 64-bit installer

http://www.microsoft.com/downloads/en/details.aspx?FamilyID=f64654ac-6e26-41d9-a90a-0e7783b864ee

Uninstalling the Autodesk Entertainment Creation Suite Standard

Windows XP

1. Open the Add/Remove Programs dialog in Start > Settings > Control Panel.
2. Select the program to remove
3. Click on the Remove button.
4. Click Yes to confirm the Uninstall.

Windows Vista and Windows 7

1. Open Start > Control Panel > Programs > Programs and Features.
2. Select the program to remove:
3. Click Uninstall.

Known issues and limitations

Network licensing

- Suites licenses that are installed on the network can only be checked out by one system at a time (refer to the Network Licensing section in the Autodesk Suites Licensing Guide. You can view the PDF here.)

  For another user to be able to run any of the products on another machine using the same Suite license, all products must be closed on the first system.

- Cascading issue with Softimage ECS, ESEC, 3ds Max ECSP and Maya ECSP suites.

Autodesk Softimage 2012 Release Notes

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Contents

Additional Resources

For complete instructions about uninstalling and installing Softimage 2012, see: http://www.autodesk.com/softimage-faq-2012-enu

For hardware qualifications, see: www.autodesk.com/softimage-hardware

To report issues with this release, see: www.autodesk.com/softimage-support

For more resources, see: www.autodesk.com/softimage-learningpath

For the most up-to-date release notes for Softimage 2012: www.autodesk.com/softimage-readme-2012-enu

What's New

UI & General

New Web-based Help and user preference for setting online or offline Help locations.

Added a STOP button to the playback control panel.

The Schematic View now shows links for custom and scripted operators and more hotkey options. See also the Schematic View API changes in the SDK.

Syflex and Polygonizer plug-ins are now fully translated into Japanese.

Added Primitive > Polygon Mesh > Empty for ICE Trees.

You can now use 32-bit Quicktime on 64-bit Windows.

Added Preferences > Display > Image Clip Thumbnail Size.

You can now load progressive JPEG in Windows XP with a limited account or on Windows with UAC enabled.

ICE

New Simulation Settings property added to ICE simulated scene elements for controlling sub-frame calculations.

Lagoa scenes and compounds updated to comply with sub-frame interpolation.

Blast compound v.2.1 changed to properly respect end duration.

New ICE Nodes:

Get Orthogonal Basis

Build Array from Set

Reference To String

New FrameStep

New GetSetMedian

Create Strand From Curves

Modified ICE Nodes:

Cache On File

- New input port that can use a string node to define the path
- New input port to control the caching mode
- New Subframe Mode to cache all simulation samples
- New PPG logic to keep the path visible in all modes

Modifier Deformation > Modulate by Null

Modifier Deformation > Turbulize Around Value

Modifier Deformation > Turbulize Value by Range

New ICE Attributes:

Intrinsic Attributes

```
EdgeID, EdgeToCCWPolygon, EdgeToCWPolygon, EdgeToNextEdgeCCW,
EdgeToNodes, EdgeToVertices,
MaterialID, Materials, NodeID, NodeToEdges, NodeToPolygon, NodeToVertex,
NodeUserNormal,
PointUserMotions, PolygonalDescription, PolygonID, PolygonToEdges,
PolygonToNodes, PolygonToVertices,
Topology, VertexID, VertexIsBorder, VertexIsCorner, VertexToEdges,
VertexToNodes, VertexToPolygons
```

Custom Attributes Exposed by Compounds

```
Display_StrandToMesh_PackedPolygons,
Display_StrandToMesh_PositionsPerObject
IsOnSlicePlane, SlicePolyMesh_PlaneNormal, SlicePolyMesh_PlaneOrigin
StrandToMesh_ExtrusionID, StrandToMesh_IsCapEnd
StrandToMesh_IsCapStart, StrandToMesh_LastIDFirstExtrusion
StrandToMesh_NbExtrudedSide, StrandToMesh_NbSections
StrandToMesh_NbSides, StrandToMesh_PackedPolygons
StrandToMesh_Polygon_U, StrandToMesh_Polygon_V
StrandToMesh_SpacingRatio_U, StrandToMesh_SpacingRatio_V
StrandToMesh_Texture_Projection
```

Topology Task tab in the Preset Manager now has a set of high-level compounds to help you quickly get to work with ICE Modeling:

```
Topology/Conditionals/Test Edge Index
Topology/Conditionals/Test Index Is Valid
Topology/Conditionals/Test Polygon Index
Topology/Conditionals/Test PolyNode Index
Topology/Conditionals/Test Polygon Inside Null
Topology/Conditionals/Test Vertex Index
Topology/Copy and Merge/Build Topology Array
Topology/Copy and Merge/Copy Default Rendering Attributes
Topology/Copy and Merge/Copy Edge Data from Source
Topology/Copy and Merge/Copy Material Attributes
Topology/Copy and Merge/Copy Polygon Data from Source
Topology/Copy and Merge/Copy PolyNode Data from Source
Topology/Copy and Merge/Copy Texture Projection from Source
Topology/Copy and Merge/Copy Vertex Data from Source
Topology/Copy and Merge/Merge Data Sets to Array
Topology/Copy and Merge/Merge Edge Data
Topology/Copy and Merge/Merge Material ID
Topology/Copy and Merge/Merge Polygon Data
Topology/Copy and Merge/Merge PolyNode Data
Topology/Copy and Merge/Merge Texture Projections
Topology/Copy and Merge/Merge Vertex Data
Topology/Copy and Merge/Random Material ID per Copy
Topology/Copy and Merge/Transform per Copy
Topology/Generators/Clone Polygon Mesh
Topology/Generators/Create Copies from Polygon Mesh
Topology/Generators/Create Extrusion Along Strands
Topology/Generators/Merge Polygon Meshes
Topology/Getters/Get Closest Edge Index from Null
Topology/Getters/Get Copy Index
Topology/Getters/Get Edge Index from Test
```

```
Topology/Getters/Get Edge Index
Topology/Getters/Get Edge is on Edge Loop
Topology/Getters/Get Edge Loop
Topology/Getters/Get Invalid Index
Topology/Getters/Get Material ID
Topology/Getters/Get Materials
Topology/Getters/Get Polygon Index from Test
Topology/Getters/Get Polygon Index
Topology/Getters/Get Polygon is on Edge Loop
Topology/Getters/Get Polygons Inside Null
Topology/Getters/Get PolyNode Index from Test
Topology/Getters/Get PolyNode Index
Topology/Getters/Get Topology
Topology/Getters/Get Vertex Index from Test
Topology/Getters/Get Vertex Index
Topology/Getters/Get Vertex is on Edge Loop
Topology/Getters/Get Vertices Index from Edge
Topology/Modifiers/Apply Collapse Edge
Topology/Modifiers/Apply Delete Polygon
Topology/Modifiers/Apply Delete Vertex
Topology/Modifiers/Apply Disconnect Component
Topology/Modifiers/Apply Extrude Polygon Along Axis
Topology/Modifiers/Apply Invert Polygon
Topology/Modifiers/Apply Merge Polygon
Topology/Modifiers/Apply Merge Vertices
Topology/Modifiers/Apply Slice PolyMesh
Topology/Modifiers/Apply Split Edge
Topology/Modifiers/Apply Subdivide Locally
Topology/Modifiers/Apply Triangulate Polygon
Topology/Setters/Set Material ID from Cluster
Topology/Setters/Set Material ID
Topology/Setters/Set Materials from Library
Topology/Setters/Set Materials from Strings
Topology/Setters/Set Texture Projection Camera
Topology/Setters/Set Texture Projection Planar
Topology/Setters/Set Texture Projection Spatial
Topology/Setters/Set Topology
Topology/Setters/Set Vertex Position on Edge Loop
Topology/Shattering/Build Slice Planes
Topology/Shattering/Create Basic Shatter from Point Cloud
Topology/Shattering/Set Data from Chunk
```

New ICE Modeling Nodes

Merge Topo (takes any number of topology inputs and will output a merged topology command list of all inputs)

Merge Topo Array (Merges an array of topologies together)

Slice Polygon (includes Delete and Cap options)

Apply Slice Polymesh compound (now much faster and can do multiple slices, deletes, and caps using array inputs)

Extrude Polygon Island (uses a Transform input instead of a vector)

Apply Extrude Polygon Along Axis compound (supports cluster, filter, or string inputs to define the components to extrude)

Create Topo (generates polygon meshes from arrays)

Topo Transform

Apply Extrusion along Strand

Create Strand from Curve compound (generates strands from several curves)

Get Topology compound (gets topology similar to what GetPointPosition does)

Get Topology (can be used to grab the current topology state of a mesh and clone it with a Set Topology)

Set Topology

Apply Slice Polymesh

Add Edge

Add Polygon

Add Vertex

Delete Polygon

Delete Vertex

Disconnect Component

Extrude Polygon

Invert Polygon

Local Subdivide

Merge Disjoint Vertices

Merge Polygon

Primitive Mesh

Slice Polygon

Split Edge

Triangulate Polygon

For a complete list, see the Topology category in ICE > Tools tab.

String > String To Array (for example, used in the "Apply Extrude Along Axis" compound)

```
        Builds a 2D array of values given an input string formatted as
a comma or whitespace separated list of values.
        The output array type is inferred at connection-time from the
output port type. The types supported are:

        Type Note
        siICENodeDataBool
        siICENodeDataColor4 Input string must contain groups of 4
float values.
        siICENodeDataFloat
        siICENodeDataLong Values can be specified with a range syntax.
        Example 1 Value: 1,2,3-5,6 Result:1 2 3 4 5 6
        Example 2 Value: -3-1 2-4 7-5 8-10 -1 Result:-3 -2 -1 0 1 2 3
4 7 6 5 8 9 10 -1
        Example 3 Value: -3--1 -5--3 Result:-3 -2 -1 -5 -4 -3
        siICENodeDataMatrix33 Input string must contain groups of 9
float values.
        siICENodeDataMatrix44 Input string must contain groups of 16
float values.
        siICENodeDataQuaternion Input string must contain groups of 4
float values.
        siICENodeDataVector2 Input string must contain groups of 2
float values.
        siICENodeDataVector3 Input string must contain groups of 3
float values.
        siICENodeDataVector4 Input string must contain groups of 4
float values.
        siICENodeDataRotation Input string must contain groups of 3
float values.
        Note: For complex types arrays such as siICENodeDataVector3 or
siICENodeDataMatrix33, if the number
        of items in the value string is wrong (for example, missing
the Z coordinate), the output list will be empty.
```

Basic Math > Clamp

Statistics Math > Get Set And

New “Topology” attributes (for example, Self.Topology)

New Sample Scenes

XSI_SAMPLES/Scenes/ICE/Modeling_Basic_Shattering.scn

XSI_SAMPLES/Scenes/ICE/Modeling_Columns_From_Strands.scn

XSI_SAMPLES/Scenes/ICE/Modeling_Delete_Along_Edge_Loop.scn

XSI_SAMPLES/Scenes/ICE/Modeling_Desks.scn"

"Data/XSI_SAMPLES/Scenes/ICE/Modeling_Desks.scn

XSI_SAMPLES/Scenes/ICE/Modeling_Road.scn"

"Data/XSI_SAMPLES/Scenes/ICE/Modeling_Road.scn

Syflex on ICE

ICE >Task Tab > Syflex

New sample scenes

Syflex Curve compound

Syflex Curve Springs compound

ICE Flow and Suite Interoperability

Now supports:

Starting in Softimage and sending to Maya

3ds Max workflow, starting from 3ds Max

Mudbox workflow, including Vector Displacement Maps rendering

Linux (for Maya and Mudbox)

Animation

New shadow icons for bone primitives.

Animation Editor

New simplified “Suites” mode (return to Classic from View menu)

Updated icons

New Isolate F-Curve (View menu and Icon)

Cache Manager

Button to dump icecache header and attributes description into xml format.

Option to reset all transforms before applying caches to objects (useful when cache is in global space)

Cache ICE sub-sampling attributes (scale with the same factor when loading into the mixer)

Scene Layers

Scene layer groups allow you to make a layer the child of another layer, so that you can, for example, toggle the visibility from the parent. This replaces the previous implementation of layer groups, but old scenes won't be upgraded. A script could be written to convert the old layer groups to the new layer structure. Previously, "layer groups" were only a way to toggle the check box of all layers of a group at the same time. The new implementation works like groups-within-groups so that making a parent visible lets the child control its own visibility instead of forcing it on.

Layer groups now retain their settings

A single click on a row no longer sets current layer

User interface changed for Explorer > Layers

Only one level of hierarchy is supported (for example, a child layer cannot itself have a child)

Scene Layer Manager > Check/Uncheck All Menu

Texture Editor (TE)

UV pinning

UV pinning is not used within the TE for operations such as Heal, Collapse, etc. Only operations launched from the TE are supported. Commands such as Translate and Rotate will not take UV pinning into consideration. Other TE commands related to projections such as the ones in Planar and Cubic Subprojections are also not considered.

New selection mode for selecting pinned UV components. Pinned UV components cannot be selected in the TE unless the UV pinning selection mode is on. When turned off, UV components are ignored by the selection. UV pinning is supported by Heal, Island Heal, Flip, Relax, Match, Cycle, Paste UVW, Transform tools and Move Component.

Weight Editor

The weight editor can now be used to edit any weight map or color-at-vertices map, and not just envelop weight maps.

Rendering

mental ray 3.9.1.38 integration

New User Motion Cluster Property: A new vertex cluster property, named User Motion, allows you to control the motion vectors of each vertex of a polymesh object. When the User Motion cluster property is applied to an object, the motion blur is no longer computed and instead uses the motion data from this property. The simpler way to write on the User Motion cluster property is by using ICE.

Unified Sampling: The unified sampling is a vast improvement on the previous sampling algorithm. You can select the exact number of samples, rather than in increments of power-of-four. It also does away with the generic QMC sampler, and uses a new computation that doesn't suffer from the same diagonal artifacts as before. This only applies to scanline/raytracing however. For rasterizer, the unified sampling controls are just mapped into the existing rasterizer settings. Unified Sampling is turned off by default.

ICE attributes on meshes can now be accessed in the Render Tree by using the texture/weightmap/CAV shaders or the Get Attribute shaders. This is very useful when

doing procedural modelling, because you don't have to create clusters in advance for all the attributes that you want to access from the Render Tree.

Ability to choose the Vertex Color Display property from the Brush properties property editor.

Control UV Wrapping and UV Smoothing when using ICE attribute as UV: Added a mechanism to look for specific constant ICE attributes based on name. If you have a vector3 per sample named "MyUV1" doing a set data on "MyUV1_u_wrap" will enable you to control the texture wrapping mode used by the projection in the same way you do in the texture projection property editor.

Versioning support in contextual menus of shader compounds

Ability to set default file format for saved Preview image (last used format is remembered in a user preference)

Added a compression slider for .jpg in Viewport Capture. Also set default JPG quality to 100%.

FBX

Stereo camera I/O

Importing of Vector Displacement Maps from Mudbox

Support FBX SDK 2012

Added "Import Fbx..." under "File > Import" menu and "Export Fbx..." under "File > Export" menu

Added scripting commands to create the import/export options

Import *.3ds, *.dxf, *obj, *.dae formats

Ability to select target .fbx version such as 2010 (Motion Builder compatible), 2011, and 2012

Multiple UVs supported in the FBX Importer/Exporter

Supports the import of CgFX materials

Supports neutral poses

FBX Single-step workflow to Mudbox

- Materials: Phong, Lambert and Blinn are supported
- Textures: normal, displacement, vector displacement map, ambient, specular, shiny, incandescence, bump, reflectivity and diffuse are supported

SDK

New Features

Getting and Setting Size and Position for PPGs: New methods and functions were added to PPGLayout in the Object Model and the C++ API to allow for setting and getting the size and position of a modal property editor (also known as a PPG). See SetViewSize , SetViewPosition, ViewSize, and GetViewPosition in Object Model and C++ API.

Undo API: New methods and functions were added to Application in the Object Model and the C++ API to allow for opening and closing undo complexes and return true if a command is undoing or redoing. See OpenUndo, EndUndo, and IsUndoing in Object Model and C++ API.

UVProperty Pinning API: New C++ and Object Model API for marking cluster components as pinned or unpinned. This API is mainly used by the UVUnfold feature. See UVProperty in Object Model and C++ API.

Schematic View and Nodes API:

- New C++ and Object Model API for manipulating the schematic view nodes. See Schematic and SchematicNode in Object Model and C++ API.
- New menu anchor points: siMenuSchematicViewID, siMenuSchematicViewContextID, and siMenuSchematicNodeContextID.
- New SchematicDemo example added to the SDK Examples Workgroup.

Scene Layer Manager API:

- New menu anchor points: siMenuSceneLayerManagerLayersID and siMenuSceneLayerManagerContextID.
- New view attribute selectedlayer. Available for View.GetAttributeValue only.

New Events:

- siOnBeginCommand: Fired when a command is about to be executed. The event can be used to abort the command execution, modify the command argument values or launch other commands.
- siOnEndCommand: Fired when a command has been executed. The event can be used to access the command return value or output argument values. Contrary to other event types, this event is always fired when the current command has been aborted by a previous event.

- siOnRenderAbort: Fired when a render sequence has been aborted by the user. The event can also be sent when a render region job is re-executed as a result of a scene change.
- Added ActionSource support for siFileTypeAction to siOnBeginFileImport and siOnEndFileImport events. Now siOnBeginFileExport/siOnEndFileExport and siOnBeginFileImport/siOnEndFileImport events support Action and Shape actions.

Interactive Tool SDK:

- New ToolContext class added to the C++ API for building plug-in tools that can be used in 3D views.
- New Math classes CLine and CPlane used by the Tool SDK.
- Tool Wizard in the Plug-in Manager.
- New CustomTool example added to the SDK Examples Workgroup.

Image Clip and Bitmap Controls:

- New Image Clip Control in PPGLayout (siControlImageClip): A control that shows an Image Clip. A string parameter sets the Image Clip full name. Supported attribute is siUIShowClip Set to True to show the thumbnail of the Image Clip control. The control toolbar is always displayed, regardless of this attribute value.
- Static Bitmap control (siControlBitmap): Use siUIFilePath to set the bitmap to show.
- For an example of both, see PSetUIDemo in the SDK Examples Workgroup.

Support for Menu Checkmarks: A new method and two functions where added to MenuItem in the Object Model and the C++ API to support menu checkmarks. See MenuItem.Checked, MenuItem::IsChecked, and MenuItem::PutChecked in Object Model and C++ API.

Scripting Shortcuts for Python: New Object Model shortcuts were added to siutils.py to facilitate python scripting.

Behavior Changes in the SDK:

- The Layout.CreateView method and the Layout::CreateView function now display the name (in the titlebar) of the created view.
- Scripts can no longer change the number of undo levels permanently. This prevents problems that occured when scripts set the number of undo levels to 0 to increase performance, and then failed to set it back or terminated abnormally.

Object Model Changes

- New Objects
  - Schematic
  - SchematicNode
  - UVProperty
- New Methods
  - Application.OpenUndo
  - Application.EndUndo
  - Application.IsUndoing
  - MenuItem.Checked
  - PPGLayout.SetViewSize
  - PPGLayout.SetViewPosition
  - PPGLayout.ViewSize
  - PPGLayout.GetViewPosition
- New Constants
  - siControlImageClip
  - siControlBitmap

C++ API Changes

- New Classes
  - CLine
  - CPlane
  - Schematic
  - SchematicNode
  - ToolContext
  - UVProperty
- New Functions
  - Application::EndUndo
  - MenuItem::IsChecked
  - Application::IsUndoing
  - Application::OpenUndo
  - PPGLayout::GetViewPosition
  - MenuItem::PutChecked

PPGLayout::SetViewSize

PPGLayout::SetViewPosition

PPGLayout::ViewSize

Scripting Command Changes

New Commands

CreateLayerGroup

FBXGetPluginVersion

FBXGetSDKVersion

PinAllUVComponents

PinUVComponents

UnpinAllUVComponents

UnpinUVComponents

What's Fixed

These are the fixes that were made during the development of Softimage 2012.

User Interface	
FELX-1392	file browsers defaulting to desktop
FELX-1198	Weight editor does not refresh on object selection on newly duplicated objects
FELX-788	Grow Selection command buttons on custom toolbars doesn't work
FELX-605	Regression | Key properties have disapeared from the Profile curves PPG
FELX-799	Flipbook doesn't make LZW compressed Tiff files
ACSO-25	Animation Editor | Freeze with an animated boolean parameter
ACSO-213	Animation Editor | Freeze with an animated boolean parameter
ACSO-55	Crash with TortoiseSVN on File Browser
ACSO-65	Hiding the Netview toolbar twice through scripting crashes Softimage
ACSO-73	A preference for Help Language Japanese is not kept
ACSO-105	Draggin some workgroup shaders in the render tree can create a different one
ACSO-126	Save scene without RedrawUI kills collapse info of schematic.
ACSO-121	A radius of 0.01 is not small enough during paint brushing
FELX-1259	Exporer | Operators no more shown under Camera Primitive
FELX-991	Loading a scene not in a project will create an invalid entry in the Recent Scenes menu
FELX-142	Request for a STOP button in playback

Texturing	
FELX-953	ACSO-166 - TextureSpaceWidget does not differenciate objects under Models
FELX-992	one-click interop: Softimage should respect TIFF tag to avoid upside down images
FELX-1493	UV Pinning undo problem
ACSO-64	Multiple Image Properties cannot edit at a time
Modeling	
ACSO-22	Crash when transferring in a single step all properties between meshes
ACSO-58	Camera-view display is corrupt when using Tweak User Normals Tool and Add Edge Tool
Realtime Shaders	
ACSO-21	RTS | Annotations with indices (e.g."sas.directionallight[2].color") are not supported properly
ACSO-74	PPGLayout update problem in 2011 RT shader
ACSO-75	siNotInspectable flag update problem in 2011 RT shader
ACSO-77	Crash setting camera mode to OpenGL with ultimaper scene
FELX-1624	artifacts when painting vertex colors in realtime shader opengl viewport on meshes using custom realtime shaders.
Reference Models	
FELX-1670	FELX-1386 (Expressions on a material lost when you rename a reference model) not fully fixed
FELX-1506	Texture map in reference models breaks upon delta creation
FELX-1778	Import Reference Rig and Import REferenced Skinned mesh causes Softimage to Crash
FELX-1883	Crash persisting scenes
FELX-1813	Shaders don't always connect or display properly upon loading scene
FELX-1558	RefModel : Setting resolution and apply constraint child objects will not update correctly
FELX-1555	RefModel : Expression is not updated when merge scene
FELX-1289	RefModel : Primitive is shifted incorrectly to another layer after applying MoveObjectToLayer
FELX-1750	Scene Material Corruption with Ref Models - Continued
FELX-1702	Disconnected shaders when importing Referenced Model
FELX-1686	Expression on Material of a Model is lost after Importing the Model
FELX-1651	Scene Corruption in Felix due to Material
Caching	
FELX-749	Cache - Load shape attribute (that reference object in the scene) might be bound to the wrong object

FELX-726	Caching - Load cache doesn't create attributes definitions if the first frame in the timeline isn't cached
FELX-718	Cache manager - Read -> Apply All should load the cache in the mixer with a scale corresponding to the subframe sampling
FELX-1365	ICE Cache: Can't read all Lagoa attributes (crash)
FELX-1361	Cache Manager: Start End Frames never persisted
FELX-1360	Cache Manager: Two caches loaded instead of one
FBX	
FELX-1836	FBX warnings shouldn't pop UI when imports occcur at cmd line.
FELX-1772	objects sent from 3ds Max do not update
FELX-1064	FBX: Node conecting to the reflectivity port of Lambert is missing during export
FELX-1024	FBX scriptings commands missing in Help and softimage.wiki.softimage.com
FELX-1884	OneClick Maya: Need a Send Entire Scene Option
FELX-1842	Mudbox OneClick: Different updates from Mudbox have the same results in Softimage.
FELX-316	Ability to import and export stereo camera rigs in FBX plug-in and ICEFLOW.
FELX-1576	ICEFLOW - Need better warning when sending stuff from XSI to Max without having sent nothing from Max first.
ICE	
FELX-1142	Corrupt frame numbers with "String File Path Sequence" ICE node
FELX-363	SDK ICE: Multi-Phase Node fails to pull Data
FELX-373	ICE 'Cache on File' node: File Name & co parameters not visible when 'Read Cache'
FELX-1148	setdata to envelope map problem
FELX-1209	ICE | New node to get per element data into a singleton array
FELX-1771	Lagoa Crash | Rotating Object that has a child emitter
FELX-996	Lagoa scenes and compounds should be updated to comply with sub-frame interpolation.
FELX-377	Lagoa Collision Add Passive Body
FELX-364	Lagoa Preset images path is wrong
FELX-1323	ICE and lights: "Get data" node the "This." statement doesn't always work.
FELX-1283	ICE | Get Data with self.kine.global works no more on Camera Primitive (compared to Softimage 2010)
FELX-1112	crash connecting stuff up that shouldn't be
FELX-959	ICE | GetSetAnd acts like GetSetOr
Rendering	
FELX-1741	Frame token padding behaves differently than documented. Docs are inconsistent.
FELX-1358	More than one dash (-) in a frame set, crashes Softimage
FELX-1838	Saving a rendered frame from the Preview Window without setting a file format results in .avi file
FELX-1634	Texture projections do not render correctly if named "color"

ACSO-110	Add the possibility to choose the Vertex Color Display Property from the Brush Properties PPG
FELX-1649	PPG Logic OnChanged can't be use for Color parameters.
FELX-183	Ability to set default fileformat for saved Preview image
FELX-1803	Texture Editor: Add UV pinning to TE operations
FELX-677	Allow users to set maximum OpenGL texture width to values greater than 2048
FELX-1419	Problem loading scene if rendertree Node name and ports are the same
FELX-1545	MR Notification Problem | render region refreshes but does not render is not updated
FELX-1430	Discrepancy between OGL and Mental ray display of ICE Color Attribute
FELX-549	Using Geometry based Area Lights Dampens other lights
FELX-792	CRASH Rendering With Irradiance Particles
FELX-1239	Notification filtering through connections is missing scalar ouptut nodes in the renderer process callback
FELX-1235	Scene render options reports wrong frame range with getValue()
ACSO-31	Invalid render region dimensions after being resized interactively
ACSO-35	3rd party renderers (e.g. Arnold) crash on Linux
ACSO-44	Custom renderer DirtyList isn't cleared properly
ACSO-45	AbortEvent breaks 3rd party renderers
ACSO-46	libsiutilityshaders shader dependency
Capture and Compositing	
FELX-190	Default value for preferences.Compositing.MaxCPUThreads to 8
FELX-1441	Missing compression slider for .jpg in Viewport Capture. Also set default JPG quality to 100%
SDK	
FELX-1719	SDK Doc: OneClick commands not documented
FELX-1776	SDK Example: New python TCP server example
FELX-1463	SDK: Csharp plugin items stop working after NewScene
FELX-1654	BoxTransformTool example manipulator fails on objects without geometry (lights, nulls, ...)
FELX-1284	Crash when opening a Scintilla instance once the PythonWin Debugger has been opened
FELX-1903	Can't set GUID_PropertyMappingAttribute with the ShaderParamDef API.
FELX-562	More Menu anchor Points and Access to View Attributes
FELX-1562	Custom Property Wizard is buggy
FELX-1596	When uninstalling Softimage XSIPython removes python from all previous Softimage installations
ACSO-130	PlotConstrainedTransforms command always popup dialog.
ACSO-175	FCurve.RemoveKeys and FCurve.RemoveKeysAtIndex don't refresh the FCurve Editor and the timeline

ACSO-72	SDK: "ClassName" of assigned material does not get expected class.

Autodesk MotionBuilder 2012 Release Notes

This document describes known limitations, issues and fixes in Autodesk MotionBuilder 2012. It is strongly recommended that you read this document before you install this release. For reference, you should save this readme to your hard drive or print a copy.

Contents

Additional Resources

For complete instructions about uninstalling and installing MotionBuilder 2012 see: www.autodesk.com/motionbuilder-faq-2012-enu

For complete documentation and resources, see: www.autodesk.com/motionbuilder2012-documentation

For hardware qualifications, see: www.autodesk.com/MotionBuilder2012-hardware

To report issues with this release, see: www.autodesk.com/MotionBuilder2012-support

For more resources, see: www.autodesk.com/MotionBuilder2012-learningpath

What's New

This section briefly describes new features in this release. Please refer to the What's New in the MotionBuilder Help for more detailed descriptions: www.autodesk.com/motionbuilder2012-documentation.

Time Code Property

A time code property has been added which allows users to associate time code to animation.

Dark Look and Qt Dockable UI

MotionBuilder has adopted a dark look UI. As well as the update of many icons, you now have the ability to dock and float tool windows.

New Layouts

Preset layouts have been updated to the following: Editing, Scripting, and Preview.

Custom Layouts Menu Options

New options have been added to the Layout menu relating to custom layouts. “Create custom” allows you to save any new layout. Enable the “Auto-update Layout” if you wish to automatically save all custom layout modifications.

New Marker Types

Additional types have been added to the properties list for markers. Users can choose to display a marker as any of the following marker types: cube, hard or light cross, sphere, capsule, box, bone, circle, square, or stick.

Use Image Sequence

An “Image Sequence” option has been added to the Video settings pane.

Visibility Inheritance

Visibility of a parent node can now be inherited by all children. A property has been added so that it can be enabled for each object as needed. New objects created in MotionBuilder 2012 have this property set on by default to help keep performance optimal.

Recording and Storing Vertex Animation/Point Cache

MotionBuilder now supports the recording and playback of point cache data on models. Point cache can boost performance on animation intensive scenes or to transfer animation based on complex constraint or physics set-ups into other applications using FBX.

A python sample script is provided for recording and playing back point cache animation on characters. The script can be found here: Asset Browser > Scripts > Samples > PointCache > CharacterPointCache.py

New classes:

- FBPointCacheManager
- FBDeformer
- FBDeformerType
- FBPoint-CacheFile

Added to FBCharacter class:

- GetSkinModelList(FBModelList& pSkinModelList)

Added to FBModel class:

- NoFrustumCullingRequire()
- NoFrustumCullingRelease()
- UseFrustumCulling()

Deformers:

- SkeletonDeformable
- BlendShapeDeformable
- ConstrainDeformable
- PointCacheDeformable

Nurbs Curves:

- Nurbs Curves from Maya are now supported in MotionBuilder

Stereo Camera Rig

A stereo camera is now available in Motionbuilder.

New classes: FBCameraStereo, FBCameraStereoType, FBStereoDisplayMode

Extended classes: FBVideoGrabOptions

Auto Key Type

Auto key type behavior has changed. To prevent overshooting or undershooting of fcurves caused by the Bezier Auto and User interpolation, a new clamp functionality with ease in and ease out has been added.

Update to HIK 4.5

The default character solver in MotionBuilder has been changed to HIK 4.5. HIK 3.6 and 4.0 have been removed from this version.

New Characterization Tool

MotionBuilder has implemented the new HIK Characterization Tool. This tool gives users access to bone mapping templates for HIK, Biped, and CAT skeletons, as well as mirroring functions, and instant notification when a characterization process is incomplete.

New Character Controls

The Character Controls window has also been updated with a new look and some additional controls.

Vertex Color Display

Vertex color shading of models is now supported in MotionBuilder.

The following parameters have been changed in FBGeometry class:

- VertexInit(int pSize, bool pResize, bool pInitUV = true, bool pInitVertexColor = false)
- VertexAdd(FBVertex pVertex, FBNormal pNormal, FBUV pUV, FBColorF pVertexColor)

The following additions have been made to FBGeometry Class:

- VertexColorSet(FBColorF pColor, int pIndex=-1)
- VertexColorSet(float pRed, float pGreen, float pBlue, float pAlpha, int pIndex=-1)
- VertexColorGet(int pIndex=-1)
- VertexColorMappingMode
- VertexColorReferenceMode
- GetVertexColorsIndexArray(int& pOutArrayCount)
- GetVertexColorsDirectArray(int& pOutArrayCount)

A new sample has been created to demonstrate simple geometry creation and vertex color display setting, and be found here: Asset Browser > Scripts > Samples > Geometry > VertexColor.py

Consistent F-Curve Editor

The f-curve editor has been improved to be more consistent with other Autodesk applications.

Frustum Culling

Frustum culling will prevent the rendering of anything outside the current camera viewport. This option is turned on by default, but users can press CTRL+Shift+P to toggle the setting on and off. Press Shift+F to display the frame and evaluation rates, and the on/off state of the Frustum Culling; all are listed in the Evaluation line.

GPU Skinning

GPU skinning is now disabled by default on machines with 4 or more cores. Use the CTRL+Shift+D shortcut to enable GPU skinning if required.

Profiling Tools

Profiling tools are available to allow users to monitor scene performance as well as pinpoint where performance cost is highest.

Profiling is available for:

- Evaluation: Models, Constraints, Characters, Story Tracks,
- Devices: Device Input, DevicesNotify, Devices Output
- Rendering: Renderer, RenderPassGroup(Translucent, TranslucentZSort, Selected, OtherPrimitive, SelectiveLighting, etc), ShadeModelPass
- New classes: FBProfiler, FBProfileDutyCycle, FBProfileTimeEvent, FBProfileHelper

Synchronization of Animation with Physics

A new physics solver property has been added. Enable ForceAnimationSync when the computation of the physics takes longer than animation. Note that this means animation will only play when physics is live, and animation playback could be slower.

Live Video Input Capabilities

Configure a webcam on your system and launch MotionBuilder. The device appears in the Navigator > Videos folder. Click Online and view and record live video directly inside MotionBuilder.

Up-Vector Settings Have Been Added to the Path Constraint

Path constraints now have an option to set an up-vector. Enable “Follow Path” option in the constraint properties to access these options.

Real-Time Relation Constraint Filter

This filter applies a low-pass filter to incoming live data.

Audio Link to Take

You can now assign an audio file to a particular scene take. This option is located in the Audio Settings.

Displacement Box for Use in Relation Constraint with Devices

This box has been created to eliminate the dependency on display frame rates when using Relation Constraints with Physics.

New Python Classes

The following new classes have been exposed in Python:

- FBOpticalGap
- FBModelOpticalAdvanced
- FBOpticalSegment
- FBRigidBody
- FBModelMarkerOptical
- FBPropertyListMarkerSegment
- FBPropertyListOpticalSegment
- FBPropertyListOpticalGap
- FBModelOpticalAdvanced
- FBPropertyEnumBase

Exposure of Simple Math Functions in Python

The following simple math functions have been exposed in Python:

- Matrix
- T,R,S to Matrix
- Matrix to T,R,S
- Local/Global conversions
- Vector operations

- Quaternion operations
- Vertex operations
- Rotation utilities
- Miscellaneous utilities

Extended Classes

The following classes have been extended:

- FBVector2d
- FBVector3d
- FBVector4d
- FBSVector
- FBNormal
- FBVertex
- FBUV
- FBColor
- FBColorAndAlpha
- FBMatrix.

New Samples

The following new samples can be found in the Asset Browser > Scripts > Samples > Math:

MathUtilities.py (shows the global functions for math)

Matrix.py (shows extended functions for FBMatrix)

Vectors.py (shows extended functions for Vectors)

Hybrid Motion Capture Device

The plotting requirement after plotting has been removed and users can now record both optical and bone data simultaneously.

New function for FBAnimationNode

The following new function has been added:

- WriteGlobalData(double* Data,HFBEvaluateInfo pEvaluateInfo)

New Sample Projects

The following new sample projects have been added.

- A combination of optical and skeleton device template
- deviceopticalhybrid

- Server to provide test data
- Opticalhybriddevicetester

Exposure of TimeWarp

The functionality of the TimeWarp curve has been exposed in the SDK.

New class: FBTimeWarpManager

The following new sample can be found in the Asset Browser > Scripts > Samples > FCurve > TimeWarp.py

Setting the Initial State of a Checkbox using FBTree

The class FBTreeNode has a new Boolean attribute: When checked it is used to change the state of CheckBoxes created with FBTree.

GetVertexArrayDuplicationMap added to FBModel Class

To accelerate real-time rendering, MotionBuilder will pre-process the vertex data. Those control points which have multiple attributes, such as normal, UV, etc., will be duplicated in order to have VBO (vertex buffer object) alike format. This function will return the original vertex mapping IDs for those new (duplicated) vertexes.

Distribution of Boost Library

A new chapter “Custom development with Open Reality & PYFBSDK” has been added to SDK Help. This topic focuses on exposing the Open Reality SDK to Python using a third party library called Boost.Python. This allows users to add functionality to the ORSDK object and export that to Python.

A new sample has been added in the ORSDK: pyfbsdk_template.

New Python Sample for Merging Animation Layers

Merging animation layers is now exposed through both C++ and Python. It is demonstrated in the new Python sample script MergeAnimationLayer.py

New Python Sample for FBClusterTransactions

Shows you how to access the cluster and cluster index while using the cluster transactions.

Python/SDK documentation

The Qt section has been revised with a detailed step-by-step tutorial. A new chapter "Custom development with Open Reality & PYFBSDK" has been added. This topic focuses on exposing the Open Reality SDK to Python using a third party library called Boost.Python.

Changes in Roll Bones Default Settings

Roll Bone Extraction settings in the Character properties have changed.

When no roll bones are present:

- Arm Roll Mode is set on and all Arm Roll sliders are at 100.
- Leg Roll Mode is set off and all Leg Roll sliders are at 100.

When roll bones are present:

- Arm and Leg Roll Mode is set on and all Roll sliders are at 60.

Changes When Working with Additive Reference Mode

To reduce evaluation time and therefore increase frame rate, objects will not automatically be set to animatable when loaded or imported in MotionBuilder. This saves the evaluation engine considerable time because it is not forced to loop through each object's transformation fcurves n times per second. A substantial savings will be found with scenes containing larger numbers of static meshes.

Users will see similar behavior and will be able to key objects as usual. Additive rotation, however, will require the user to manually set the rotation property to animatable in order to see values larger than 180.

New Clip Art Location

Clip Art files are now located in:

- C:\Autodesk\MotionBuilder 2012 64bit\Content\ClipArt
- C:\Autodesk\MotionBuilder 2012 32bit\Content\ClipArt

Samples folder has been moved inside the ClipArt folder.

New Characters

New characters have been added to the ClipArt\Characters folder.

Configuration Files Relocation

MotionBuilder configuration files are now written in a folder outside the Program File in order to be more compatible with Vista and Windows 7. The new location is: *C:\My Documents\MB*.

MB_CONFIG_DIR

Use MB_CONFIG_DIR environment variable to override the default location of the MotionBuilder configuration files.

MotionBuilder Help and SDK on Autodesk.com

Starting this release the MotionBuilder Help and SDK Help is being published to the Autodesk.com website as browser-based help systems. By default, MotionBuilder 2012 will not include documentation and learning materials with the software installation.

Instead, MotionBuilder calls the help and other resources from a web location to provide you with the latest documentation available. This shift to publishing directly to the web means we can provide regular updates and additions to content in an ongoing manner. This change also significantly reduces the footprint of locally installed data to your machine and makes the install and uninstall of MotionBuilder quicker.

View the MotionBuilder Help: www.autodesk.com/motionbuilder2012-documentation

View the MotionBuilder SDK Help: www.autodesk.com/motionbuilder-sdkdoc-2012-enu

What's Fixed?

The following list contains bug numbers and corresponding descriptions for issues fixed in this release.

Bug Number	Description
365168	Broken ORSDK and Python Samples
371719	Constraints folders lose settings on reload
366139	Voice device relation connections not automatically created
360198	Asset details no longer shows link to textures
351810	Cannot reset destinations in assign sources to destinations
313677	Import options not remembered
360428	Save selection discards skinning information
360417	Sphere maps cause instability
366553	Keying on reach properties when keying in body part mode
354748	Changes to Templates folder causes instability
305032	Align control rig has problems with HIK 4.5
375586	Control rig sync problems with HIK 4.5
304209	Instability caused by setting FBSpreadCell::Style to kFBCellStle View
310174	Selecting models from ORSDK is too slow when scene has more than 1000 models
371035	Property references not saved
376188	Custom Local View is not saved with scene
363335	Saving scenes with many takes causes instability
368194	Expression constraints lose connection to blend shapes after saving
366131	Merge Append of characters breaks connections with characters in Story
367556	Shader properties are not animated on subtracks with 'insert current take'
367265	Full screen viewport tiles vertically instead of horizontally
360934	Hips translation in character definition is not saved
368611	Pop-up still requires user input for batch processes
361014	Crash with copy/paste of video track
379518	Cannot trim video on a track after a save/open - crash when deleting
361001	Cannot see video file when trying to open through Story > Insert Video File
379849	Story Video Track- Clips duplicated on Save/Re-open
378259	AMC import – Dummy bones lost on import
378257	AMC import – Motion not merged on import

Bug Number	Description
376527	ASF import – File>Import without AMC not possible
234683	Load Character Animation not supporting plotting for Skeletons
339057	HIK 4.5 rig effectors flip when manipulated with handles
378257	AMC import not merging motion on entire hierarchy – only on root
371311	PythonStartup folder not loading in correct order
342950	Bone size reset after merging .htr data on skeleton
344297	Drop down menu problems on dual monitor
360052	Handles manipulation broken on reload
358797	SaveSelected.py not saving in correct location
374761	Local custom view for properties not saved
377317	Global lighting fog colors reset when layouts change
377487	Macros with namespaces do not merge append correctly
362904	Extrapolate animation curves is not saving with file
360683	Tabs not working for pop-ups
360687	Python window always has focus for shortcuts

Feature Limitations and Notes

The following section describes limitations and other notes about this release.

Bug Number	Description
359926	Video and audio not synched when recorded with Slave Audio to Video option
359464	Instability can occur when recording video input to a take
380182	CG Shader is not supported with stereo camera views
380331	Human limits not working with HIK 4.5
381784	Dynamic Lighting shader is not working with Transparency maps
382027	Override in animation layer has no effect until keyframe is created
380405	Namespace - Relation macro connection reference
380516	Namespace not maintained on animation layers
380818	FBX Export from Python tools menu creates unstable files when they contain new features from 2012
374138	File > Append breaks relation macros with namespace
359588	MinSize not working in FBTool
378305	Image sequence does not support layer texture
380722	Drop down menus in Character Settings are offset using custom layout
378561	DeviceSyncAnimationNodeNotify only triggers if device is selected internally
380995	Cannot add elements to sets with animated visibility
381784	Dynamic lighting shader is not working with transparency maps
382027	Override in animation layers has no effect until a keyframe is created

Notes

Recording Live Video

Certain camera drivers seem to cause problems while recording. We found removing the driver resolved the issue.

Video recorded with some cameras will be compressed by default despite setting compression to None in MotionBuilder. This could affect playback on 64 bit since Quicktime is not supported.

Vertices on a 3d Curve

Vertices cannot be selected until user selects the first vertex and offsets it slightly, and then all vertices appear and can be manipulated normally.

Cannot Adding Elements to Sets with Animated Visibility

Scenes will have to be saved and reopened for visibility to be applied to new elements.

Image Sequence

Image Sequences are currently not embedded in scene files.

Path Constraints

Path constraints are not supported by FBX. Bake the animation onto the constrained object before importing into other software.

Renaming Characters can remove definition

Character definition could be removed when creating characters if Character is renamed before locking initial characterization.

Autodesk Mudbox 2012 Release Notes

Autodesk® Mudbox™ digital sculpting and texture painting software gives modelers and texture artists the freedom to create production-ready 3D digital artwork without worrying about the technical details. Designed by professional artists from the game, film, television, and design industries, Mudbox combines an intuitive user interface with a powerful creative toolset of stencils and brushes for ultra-realistic 3D character modeling, engaging environments, and stylized props.

This document describes known limitations, issues and fixes in Autodesk Mudbox 2012. It is strongly recommended that you read this document before you install this release.

Contents

What's New

This list provides a summary of new features in this release of Mudbox. Find complete new feature information in the "What's New" section of the Mudbox Help at: http://www.autodesk.com/mudbox-help-2012-enu-whatsnew

- UV-less painting
- Large texture datasets
- Paint layer masks and blend modes
- Editable stencils
- Single step suites interoperability
- Performance improvements
- New brushes and brush options
- Multiple joints
- Pose presets

What's Fixed?

The following table contains bug numbers and corresponding descriptions for issues fixed in this release.

Bug Number	Description
301892	Import As Layer should create layer with the name of the imported mesh.
305342	Texture extraction when using limit surface sometimes wrong, because of valence.
309936	Deselecting mesh in Object List does not deselect it in 3D View.
312581	Subdividing a mesh where multiple polys share single edge crashes Mudbox.
314428	Slider interaction slow when 2k 32-bit stamp image loaded.
320264	Lock on layers is lost when file is saved and reopened.
324439	When painting, wireframe disappears until the 3D View is refreshed (by rotating, for example).
336327	Can't set topological axis with FBX file. Workaround by subdividing once.
343947	Blur and Clone tools don't work properly with blend modes.
344786	Falloffs don't update in Paint Tools.
346565	Crash selecting selection set in Object List after extracting normal map.
351055	Vector Displacement Map should be added in Map extraction results dialog box.
354109	Joints stop displaying but are still there when Create Joint is unsuccessful.
359643	Transfer Details crashes Mudbox when the Subdivide target is Highest source level.
363155	Deselecting objects in the Object List sometimes doesn't work.
363203	Painting is not correct when using the Projection brush with stencils derived from a 16bit tiff, 32bit tiff, 16bit exr and 32bit exr.
363273	"Opacity" column in the Layers window has been renamed to "Strength". This is meant to prevent confusion with opacity paint layers.
363294	Fix UV View drawing performance and quality.
364064	Black spots in extracted displacement map, with large distance of 24.
364660	Placement and orientation of stamps is not along brush direction on dense meshes with more than 2.5k base level.
364665	Linux: If you use the "Send to Mudbox..." option in Maya when Mudbox is closed, the Mudbox splash screen appears briefly, then Mudbox crashes and an FBX file is created in the /usr/tmp folder. On Linux, you must have Mudbox already open for the "Send to Mudbox..." option in Maya to work.
364858	Extracted map is empty when the target mesh is n-sided, source is an upper subdivision level, and subdivision method is selected.
364901	Set the Max Texture Size preference to be greater than the resolution being imported if the image is greater than 4096x4096. This must be done before importing the image otherwise painting will be slow and areas of the texture will be missing.
366522	Duplicate paint layer does not keep blend mode, opacity, visibility, lock status.
366522	Duplicate paint layer should remember blend mode, opacity, visibility, lock.

366733	Blurring transparent areas of a bump map (or even a fully transparent bump map) will produce dark grey semi-opaque pixels on the map.
366949	The Color Chooser and Eyedropper select only 8 bit values which is not accurate. (Now selects 16 bit values.)
368386	Incorrect display when undo posing joints with mirror joints.
369079	Enable Direction property for Contrast, Fill, Scrape, and Wax.
371393	Paint is lost on inactive Materials.
301204	Stencil is offset from brush stroke after stencil is scaled.
336123	FBX: Negatively scaled objects are ignored on import.
358608	Freeze brush and undo not working for multiple objects.
362454	Rebuild Subdivision Levels does not unsubdivide back to original mesh with n-sided faces.
362806	Rebuilding subdivision levels fails on certain objects that have been subdivided in other programs and imported into Mudbox.
364254	Create New Paint Layer doesn't remember Size property.
364280	Rebuild Subdivision Levels changes the Vertex IDs of the high-level mesh.
366513	Create Paint Layers with UV tiles gets wrong result, causes black layer.
367856	Wrong extraction of Transfer Paint Layer when there are two targets.
	Hidden geometry becomes visible when stepping down a subdivision level.
	Paint undo is currently limited to 19 actions. (Changed to 50.)
	Brush Size/Strength doesn't update in Properties if hotkey is used.

Feature Limitations and Notes

This section lists known limitations and workarounds for Mudbox 2012.
Please report any additional issues using the online bug reporting form at:
www.autodesk.com/mudbox-bugreport or from the Help > Report a Problem menu item in Mudbox.

Bug Number	Description
355804	Creating a joint may be difficult if the mesh has a lot of detail. Workaround: Create the joint at a lower subdivision level.
355918	Installation: Error that says the product key may be invalid and to re-enter it. Workaround: Click OK on this dialog, click Next button again, and if product key is valid the installation continues.
357041	Mudbox on Linux does not get pressure events from Wacom tablets with Fedora 12/Redhat 6, QT 4.5. You can find more details in the bug report here: https://bugzilla.redhat.com/show_bug.cgi?id=569132 There is a patch for Qt here: http://koji.fedoraproject.org/koji/buildinfo?buildID=160252
358312	Files that include 16 bit TIF maps will show errors with "Send to Maya..." operation.
360224	Mudbox crashes if the extraction map output file name contains %S in string (for example: AO_(%S).bmp).
361565	Tumbling in the 3D View while importing a paint layer may cause Mudbox to

Bug Number	Description
	exit unexpectedly. Workaround: Wait until the load is complete.
362133	Creating a joint with Topology Weights doesn't work properly with non-4-sided meshes. Workaround: Use alternative Weights method.
362857	If the level of the source model is not the current level when extracting a map, the detail of lower sculpt layers will be missing. Workaround: Ensure you display the required subdivision level before extracting the map, or select the current level in the Extract Texture Maps window to get the correct result.
363366	Transfer paint layer works incorrectly if target and source have overlapping UVs.
366007	The Transfer Details function works best on objects that are the same size, or larger, than the default Mudbox meshes. If the transfer produces artifacts on the target mesh, try scaling up the source and target meshes to the same size as the default head mesh.
374126	When using a non US-English standard keyboard, some of the hotkeys may not work. Workaround: Set your IME to "English - United States" while using Mudbox. For more information see your operating system documentation.
376624	Installation (Windows). Mudbox does not start from Japanese/multi-byte path. If you install Mudbox to a custom location containing Japanese/multi-byte characters and then attempt to open Mudbox, Windows returns an error. Workaround: Do not install Mudbox to a custom location containing Japanese/multi-byte characters.
377770	Send to 3ds Max: Changing units between Max and Mudbox causes unpredictable results.
381451	Due to recent changes made to the common shader, scenes that contain models using the older default material from 2010 are no longer supported in 2012. Possible side effects: shadows may not display correctly and posing will not work. Workaround: Assign the 2012 materials.
381496	When painting or sculpting with symmetry ON, sometimes the result will not appear on the opposite side. Verify that you have the "Falloff based on Facing Angle" checkbox turned off. This is a known limitation with a combination of symmetry with the "Falloff based on Facing Angle" option.

- To run Mudbox 2012 you must have a processor which is SSE3 compliant. Mudbox uses SSE3-specific code, which does not allow Mudbox to run on hardware which is SSE2 or previous.
- Sculpting with the Stamp Spacing property turned on will cause the brush stamp to be offset to the cursor location when using a Wacom Cintiq or a Wacom tablet when the pen setting is set to Mouse mode. To correct this, add the environment variable "MUDBOX_USE_LOWRES_TABLET_DATA".
- With ATi graphics cards, if you are seeing texture painting corruption such as painting black and artifacts, adding the environment variable "MUDBOX_PAINT_CONTEXT_FLUSH" may fix the problem.
- Some users may be seeing incorrect GPU RAM reporting causing many warnings to pop up every time they create, merge, or change the visibility of layers. The environment variable "MUDBOX_FORCE_GPU_RAM" (on Windows only) lets you override the amount of GPU memory in megabytes that Mudbox sees. If you have an Nvidia Quadro 5600 and it reports 1 MB of GPU RAM (the hardware has 1.5GB), set the variable to 1536 (which is 1.5 * 1024) for that card. Values which

are not numbers will be ignored, and values will be clamped to the range 256 to 4096.
Note: For more information on these environment variables, see the Environment Variables topic in the Mudbox Help.

- On Mac OS X, release configurations may not build correctly. User must set the Active Architecture to x86_64 in Xcode.
  To do this:
  1. Open example project using Xcode.
  2. In menu bar, select Project > Edit Project Settings.
  3. Select the Build tab.
  4. Under Architectures in the Setting window, make sure the Architectures value is set to 64-bit Intel.
  5. Close window and build using the Release configuration.
  PtexImporter example requires PtexExtractor example to be built and copied into PtexImporter's build directory for linking.
  To build Turntable example, install Qt and run moc on the example header files. See readme in example.
- If you experience any difficulty launching the Mudbox Help using Internet Explorer, use an alternative browser such as Firefox, or download and install the Help locally from http://www.autodesk.com/mudbox-helpdownload-enu
- If you previously installed any beta version (including Release Candidate versions) of Autodesk Mudbox 2012, you must uninstall and delete all system folders pertaining to the pre-release versions before you can install the commercial version.

Additional Resources

For complete **installation and licensing instructions** refer to the *Installation Overview and FAQ* and the *Licensing Guide*. Access these guides from the Installation Help link of the Mudbox installer or find them here:

http://www.autodesk.com/mudbox-faq-2012-enu

http://www.autodesk.com/me-licensing-2012-enu

Find **new feature information** in the "What's New" section of the Mudbox Help at:

http://www.autodesk.com/mudbox-help-2012-enu-whatsnew

Find **learning resources** for Mudbox at:

http://www.autodesk.com/mudbox-learningpath

Watch **videos** to learn how to use Mudbox at:

http://www.autodesk.com/mudbox-trainingvideos

Find **support** resources at:

http://www.autodesk.com/mudbox-support

For the latest list of **certified hardware** to run Mudbox 2012, including graphics cards, refer to the Mudbox 2012 certification chart located at:

www.autodesk.com/mudbox-hardware

Find the Mudbox 2012 minimum **system requirements** at:

http://www.autodesk.com/mudbox-systemreq-2012-enu

Find documentation and examples for the Mudbox **SDK** with your installed version of Mudbox here: \Mudbox2012 \SDK\doc or online here:

http://www.autodesk.com/mudbox-sdkdoc-2012-enu

Customer Involvement Program (CIP)

The first time you start Mudbox, the Customer Involvement Program dialog box appears. If you choose to participate in the Customer Involvement Program, Mudbox will automatically send Autodesk information about system configuration, what features you use most, any problems that you encounter, and other information helpful to the future direction of the product. For further information, see http://www.autodesk.com/cip.

Customer Error Reports (CERs)

We are able to improve the stability of Mudbox largely because of the Customer Error Reports (CERs) that users of our products submit. We thank you for taking the time to fill out these reports and ask that you include as much information as possible about what actions you were performing at the time the error occurred. These details raise the value of the report immensely and are very much appreciated by the Autodesk Mudbox Engineering team.

For further information about CERs refer to http://www.autodesk.com/cer.