

# Autodesk Education Suite for Entertainment Creation 2012 Release Notes

This document describes known limitations, issues and fixes in Autodesk Education Suite for Entertainment Creation 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.

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

- [Maya 2012 Release Notes](#)
- [3ds Max 2012 Release Notes](#)
- [Softimage 2012 Release Notes](#)
- [MotionBuilder 2012 Release Notes](#)
- [Mudbox 2012 Release Notes](#)
- [Sketchbook Designer Release Notes](#)

## Additional Resources

For complete instructions about uninstalling and installing Autodesk Education Suite for Entertainment Creation 2012, see:

[www.autodesk.com/me-faq-2012-enu](http://www.autodesk.com/me-faq-2012-enu)

[www.autodesk.com/me-licensing-2012-enu](http://www.autodesk.com/me-licensing-2012-enu)

For the Network Administrator's guide see: [www.autodesk.com/me-nag-2012-enu](http://www.autodesk.com/me-nag-2012-enu)

For system requirements, see: [www.autodesk.com/systemrequirements](http://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® Education Suite for Entertainment Creation 2012. The Release Note information for each of the products in this Suite – Maya, 3ds Max, Softimage, MotionBuilder, Mudbox and Sketchbook Designer – is also included immediately after.

### Single-Step Softimage Interoperability Workflows

Iterative workflows between 3ds Max and Softimage can now be handled by clicking new items found in the application main menus. In 3ds Max, you will find a Send to Softimage menu item that expands to allow you to Send as New [Softimage] Scene, Update Current [Softimage] Scene, and Add to Current [Softimage] Scene. In Softimage, you will find the option Update Current 3ds Max Scene. These workflows are facilitated by FBX 2012 technology, allowing for the exchange of 3D data (meshes, UVs, character rigs, particle simulation, etc.).

### Single-Step MotionBuilder Interoperability Workflows

Iterative workflows between Maya/3ds Max and MotionBuilder can now be handled by clicking new items found in the application main menus. In Maya/3ds Max, you will find a Send to MotionBuilder menu item that expands to allow you to Send as New [MotionBuilder] Scene, Update Current [MotionBuilder] Scene, and Add to Current [MotionBuilder] Scene. In MotionBuilder, you will find similar options to send to and update Maya/3ds Max. 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 stereoscopic cameras, between Maya and MotionBuilder. Existent merge-back animation workflows involving Biped and CAT rigs (i.e. create in 3ds Max, animate in MotionBuilder and merge back into 3ds Max) and have been optimized as well.

### Single-Step Mudbox Interoperability Workflows

Iterative workflows between Maya/3ds Max/Softimage and Mudbox can now be handled by clicking new options found in the application main menus. In Maya/3ds Max/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 Maya/3ds Max/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 Maya/3ds Max/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.

## Portable Characters

HumanIK/Character rigs can be exchanged between Maya and MotionBuilder using single-step interoperability workflows. The Portable Character feature targets inter-application animation workflows; i.e. a character is created in Maya, sent to MotionBuilder where motion capture or keyframe animation is applied and sent back to Maya.

## Supported Operating Systems

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

- Microsoft® Windows® XP Professional Service Pack 3

The 64-bit version of the Autodesk® Education Suite for Entertainment Creation 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® Education Suite for Entertainment Creation 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
  - 10 GB free hard drive space is required to install all commercial applications on the same system
- 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 Education Suite for Entertainment Creation

Load your USB key or navigate to the folder where you downloaded the Autodesk® Education Suite for Entertainment Creation 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.

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 Education Suite for Entertainment Creation

### 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.
- The Turtle installer will NOT set up the Turtle shelf when the plug-in is loaded the first time. Users will have to run a command in the Maya Script Editor.

The command is: `loadNewShelf shelf_TURTLE.mel`

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# Autodesk Maya 2012 Release Notes

This document describes known limitations, issues and fixes in Autodesk Maya 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.

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## Additional Resources

For complete instructions about uninstalling and installing Maya 2012, see: [www.autodesk.com/maya-faq-2012-enu](http://www.autodesk.com/maya-faq-2012-enu).

For complete documentation and learning resources, see: [www.autodesk.com/maya-docs](http://www.autodesk.com/maya-docs).

For hardware qualifications, see: [www.autodesk.com/maya-hardware](http://www.autodesk.com/maya-hardware).

To report issues with this release, see: [www.autodesk.com/maya-support](http://www.autodesk.com/maya-support).

For more resources, see: [www.autodesk.com/maya-learningpath](http://www.autodesk.com/maya-learningpath).

## What's New

To learn about new features in Maya 2012, see: [www.autodesk.com/maya-whatsnewdocs](http://www.autodesk.com/maya-whatsnewdocs).

## What's Fixed?

The following list contains bug numbers and corresponding descriptions for issues fixed in this release. For your convenience, the list is separated into distinct feature areas.

### API

Bug Number	Description
153122	MLibrary::initialize crashes on Windows if default project directory doesn't exist
159047	MPxToolCommand::doFinalize() fails
170988	MFnAttribute::setDisconnectBehaviour(MFnAttribute::kDelete)
172891	MPlug numElements giving different results
173501	Adding attribute to node then deleting node causes crash

Bug Number	Description
175899	Crash when script re-executes cmd from unloaded plug-in or runTimeCommand
176383	MFnNumericAttribute::create default values issues for double3/float3
180033	getFlagArgument() doesn't work properly with multi-use flags
181665	Improvement of custom shader in devkit
187354	Index parameter as a reference in some versions of MArgList::get
201702	Input attributes on custom nodes problem
205188	Cannot rewire connections to node to del in an addNodeAboutToDeleteCallback()
213373	cvColorShader crashes Linux, Windows
213497	Compound attribute array problem
227153	MObject::apiType() fails for kData4Double type
237690	loadPlugin command within userSetup.mel crashes Maya
239509	Error when invoking model editor command
244289	Plug-in using MPxGIBuffer crashing
245410	Cannot construct MRampAttribute when ramp attribute is empty
251626	Crash in Interactive Prompt/Batch mode when calling MProgressWindow
259795	Array version of MArgList::get() has different function params than others
273987	Document MMessage callback function typedefs
279601	Python: MItDependencyGraph::next() doesn't work because it refers NULL object
298231	Declaration of 'className' method in API classes is inconsistent
302127	There appears to be a memory leak in the MDGContext class
309496	Calling MFnNurbsSurface::copy with parent dagPath argument causes crash
314719	readAndWrite does not do what it advertises to do
315016	MFnDependencyNode::hasAttribute() with non-exist attribute name cause error
316438	API enums passed as reference
324634	loadPlugin behaves differently than documentation say
327647	Crash with MPxSurfaceShape tweaks
334176	MDGModifier doesn't support setting plug value on single simple attribute
336754	setCursor does not work in Python when using the default
339833	Creating constraint using MDGModifier::createNode crashed Maya
341199	MItDependencyGraph raises exception at end of iteration
348996	MFnDependencyNode::hasAttribute() fails in python
352107	MGlobal::getFunctionSetList() returns wrong types
355451	Docs for MPxConstraint attributes missing/broken
356921	objExporter crashed Maya
361657	Viewing live device data during playback is broken
364197	Import error with MotionBuilder
366614	Transmit an MDoubleArray through attributes between nodes crashes Maya
368071	Crash with PyQt GUI inside QmayaWindowEventFilterObject::eventFilter()
369543	Maya module description file should support environment variables

Bug Number	Description
369553	No documentation for custom hypergraph icons
369970	No access to MDrawRequest's matrix
370977	MLibrary::initialize has incorrect signature
371413	Failure to read compound attributes

*212181 - catchQuiet does not work properly*

catchQuiet now suppresses both MEL and Maya errors. Previously, catchQuiet would only suppress runtime errors and warnings issued by MEL. It has now been fixed to also suppress messages issued by Maya commands.

### Animation

Bug Number	Description
337159	3D motion blur causes crashes with muscles made with the muscle creator
348994	blendShape does not work well with namespaces
348998	skinCluster envelope attribute not working on Linux
360016	Wrong description in helpfile
362100	Hips translation does not work
366567	PChar: Roll bone extraction behaves opposite to what is expected
368147	HIK : ankle compensation AUTO does nothing
368148	Auto mapping does not work with namespace
369010	Painting skin weight for polygon without vertex or face causes crash
371032	Toggle xray joints not syncing between paintWeights and panel
374312	Exporting to HIK format visible in Maya GUI but does not work
375220	Key modes not functioning
375225	Autokey is not functioning on HIK
377247	weightList -> weightList connection doesn't respond to changes as expected
176266	Setting quaternion keyframes at 45 degrees in two axes issues
208651	Synchronize quaternion behavior
226110	Audio will not play or scrub backwards in Maya (Linux)
285356	Graph Editor: Key Stats fields doesn't work when Normalize curves is on
295536	Moving keys via MEL not work with normalized curve
311108	Fcurve linear spline interpolation sometimes has round off errors
317304	Set motion trail increment to zero crash
321756	Maya freezes when scrubbing animation (driver issue)
334472	Keys at high frame count may have round off error exporting to MotionBuilder
354579	Linear tangents are not precise with big number
354655	Newly created constraint nodes are incorrectly added to namespace
355037	Expression collapses when dynamic attribute of expression node is used
355905	Namespace added expression cannot open in external text editor (Windows)

Bug Number	Description
355906	External Expression Editor corrupts expression
356454	Playblast : improve error message when overwrite fails
356501	Point on poly constraint with objects in namespaces
357453	View Normalized crashes Maya when displaying angular animCurves
316090	treeView callbacks not python compatible
353238	Crash when creating animation layer
369263	Crash on Animation Layer smart Bake with addAnimCurveEdited callback
370275	Unable to use command to set keys in animation layers

## File I/O

Bug Number	Description
209041	Project problems when transferring
224452	Import no longer use scene's current namespace
232139	Documentation incorrect on workspace -dir and interaction with filebrowser
238865	Cannot delete "lightLinker" nodes
318517	Render -proj flag overwrites workspace.mel
319964	Maya fails to launch if lastLocalWS is set to a read-only directory
348379	Namespace list is not cleared by "file -f -new" after "rename" of itemFilter
352137	File command can't always find files in workspace "scene" location
356148	File -edit -modified false doesn't work correctly
360138	Plug-ins used in a scene are not saved correctly (if save panel layouts is off)
361947	Double without decimal value saved as integer in Maya ASCII format and overflows
363680	Problems with workspace.mel when rendering on a render farm
365519	Crash on file save
369753	File browser (windows style) defaults to saving files as maya ascii
371560	Maya 2011 overwrites the workspace.mel file
374798	Maya interfering with restart
375943	Intelligent error handling when Deleting 'root' namespace
380178	getAttr -expandEnvironmentVariables seems to permanently expand the value
308583	exporting as OBJ causes Maya to crash
370219	Export from Maya to Mudbox issues on Linux 64-bit

## File Referencing

Bug Number	Description
346698	Instances of grandchild reference lost when switched to proxy with shared edits
355882	Shared edits aren't getting applied to a referenced Proxy
356243	Nested proxy references : unloading/reloading in the Reference Ed. crashes Maya
356371	Crash with ref joints and python commands
360067	Namespace Editor does not refresh between scene loads
360903	Editing on objects in referenced custom file is not saved
361877	Import file problems with child reference edits
363295	"lockNode -l 1 ;" causing mesh to lose shader assignment
365154	ExportAsReference breaks render layers
370178	Selective preload window is improperly formatted so you can't expand the list

## Fluids

Bug Number	Description
304303	Fluid illuminated by multiple lights gets extra intensity for each
316282	Fluid should inherit velocity from collision object
352379	Dispatched batch rendering fluid with retimed nCache produces incorrect result
361705	Child ramp attribute of compound array attribute cannot be shown correctly

## Editors

Bug Number	Description
268706	Sluggish actions in Hypershade
276226	Component Editor cannot edit namespace added meshes
311068	Deleting color extra attribute causes crash
340891	Camera Set Relationship Editor does not refresh
359236	Writing the character number inside a string definition causes the rest of the line to appear as a comment
364163	Maya hang on file save with isolated select and Outliner window
365828	Issues with the new implementation of File Browser
365928	Cannot change multiple values at once in attribute spread sheet
366783	plusMinusAverage can only set 1 decimal for 2D inputs
366822	Dynamic Relationship Editor does not support full paths
368729	Hypershade - Toggle the create bar on / off
369440	File browser only displays predictive folder names for C:/
371299	File Browser: typing in a folder name saves a file rather than navigating
372738	Component Editor - Smooth Skin Zero Weighting update issue
375123	File Browser issues with new folders and date-sorting
376399	Component Editor: cannot paste value to multiple cells

Bug Number	Description
378119	Changing enum attribute with multiple objects selected only changes one object

## Modeling

Bug Number	Description
339327	Working with construction history off causes history to stack up
370294	Lattice crash (libPolyEngine)
374003	Poly triangulation causes loss of UVs
229834	Poly Combine/Separate don't respect multiple UV sets
275392	Split Polygon Tool cannot split multiple faces from backface
284563	MltMeshFaceVertex method normald() causes crash in Maya
296951	Split Polygon Tool cannot drag end point together with starting point
299737	Crash in TpolyEditableGeom collapseEdge
313140	Normals not correct with "Smooth Mesh" option
318532	Combine breaks UV linking
346216	Fill Hole crashes
352585	"polyColorPerVertex -q" to object with no vertex color crashes Maya
359356	Crash in conform/undo
360931	polyBridge crashes Maya (empty Color Sets)
361451	polyBridge crashes Maya
361584	Repeatable crash during polyCleanup
366936	Mesh Backface Culling crash
371226	Scale manipulator disappears from UV texture editor when zooming out

## Nucleus

Bug Number	Description
278846	nCloth mesh slips down with non-zero rigidity and high inputMeshAttract value
348226	Painting cache weights from RMB menu does not create weight connections
350296	outmesh precedes the inMesh with inputMeshAttract is set
354931	getAttr on cache node connected outCacheData crashes
369646	Instability triggered by self collision failure, e.g. at knees and elbows
371073	Adding a Damp Texture to nCloth does nothing
373920	Disable collision for nCloth problems
355179	nParticles not simulating correctly, not getting license in batch
369039	Per-particle attributes not flushed after rewind
372156	Select members on nParticles constraint gives incorrect results
373036	Particle exclusion constraint applied to wrong object
379348	Crashes when loading a scene with cached nParticles and multi object instance

## Installation and Licensing

Bug Number	Description
348715	Uninstall issues
358270	Maya does not start because d3dx9_42.dll was not found
358922	Installer installs unnecessary files and folders
360388	Log files for deployments should all go to a folder on the server
362335	Error message appears on start
364219	Uninstalling Maya 2011 Hotfix fails if it is installed by deployment
369426	Environment setup issues
372479	License Transfer Utility has incorrect shortcut target in Start Menu
377945	Transfer license utility shortcut is broken

## Rendering

Bug Number	Description
296952	Opening UV Texture Editor crashes Maya if object doesn't have material
321216	Multiple material overrides in referenced render layer breaks the render
328935	Stereo horizontal interlace mode flips when resizing
329153	stereoViewer refreshes more than it should
329154	Stereo modelPanel and RenderView give different anaglyph images/results
338715	Playblasting images performance issues
356800	Backburner Web Monitor is unable to quit server tasks in process
356688	Color management conversions between color spaces issues
363303	Maya main GUI does not appear
364497	Hypershade Bookmark crash
369851	"spotLight -name lightName" does not return light's name
360939	16-bit half float EXR output of color managed renderings result in unusable file
372487	Batch bake creates clamped color set
378585	Textures with transparency draw incorrectly
267280	Previous hardware displays cannot display correctly multiple UV and textures
352089	Hardware render doesn't recognize extension padding
355177	MGeometryManager gives wrong element count
361362	Crashes during Hardware Render Buffer render
239367	multi texture with different UV sets and alpha are not displayed in viewport
268575	Viewport rendering does not support multiple UV sets
369361	Different CPU counts combined with Tessellation Error has different results
375649	Using the -amt flag is not exiting renders
302958	mental ray crash with a CAD file
331212	BSP2 and Instances not rendering
333388	Particular framebuffer names for OpenEXR multipass are not exported correctly

Bug Number	Description
333626	Nested references problem
358514	misss_physical creating artifacts and no material
361720	Light's Photon Intensity attribute broken
362476	mib_texture_lookup returns wrong color when filter is on with rasterizer
365451	overall_bump input from empty file texture used as normal map crashes Maya
371499	Color management issues
359270	Background gradient edits ignored by Viewport 2.0
360447	Directional light shadows not working with Viewport 2.0
369255	OGS: Viewport 2.0 will not run on Radeon 5870 unless maya.exe is renamed
377014	Performance problems with custom renderer
380529	Performance problem with render target parameter on MShaderInstance

#### *Color management improvements*

Maya 2012 includes improvements made to color management accuracy and image format support. See bugs 356688 and 360939 in the What's Fixed list above for more information.

#### **Scripting**

Bug Number	Description
212181	catchQuiet does not work properly
219424	Print 1e256 causes a crash
266995	Python commands attached to menuitems produce error after restarting
267915	maya.cmds.shadingNode returns None in batch mode
269148	mayapy.exe: first object creation command doesn't echo the value.
295972	Python created scriptJobs are not listed on "listJobs"
309041	maya.cmds.menu( postMenuCommand=somethingCallable ) leaks memory
310567	Python shelfButton command cannot create MEL sourceType
317083	Memory Leaks in maya.cmds
318920	Python: scriptJob fails to handle "quitApplication" event
319438	Maya Python memory leak with strings
323126	gradientControlNoAttr doesn't list all the flags
329204	substituteAllString can cause infinite loop
331947	MFnUInt64ArrayData.create returns kIntArrayData obj, not kUInt64Array
334611	catchQuiet doesn't work on referenceQuery errors
348048	Keyframe -q incorrect if attribute is locked
349500	textField* commands -editable false and -enable false inconsistent behavior
357506	editAttrLimits.mel with wrong code
363254	Prompt mode fails to connect to sockets
366922	objectTypeUI "viewPanels"; failure

## Plug-ins

Bug Number	Description
369536	Cannot load 'Substance.so' plug-in
371530	Substance plug-in fails to load

## General UI

Bug Number	Description
177417	shelfButton -dragCallback and -dropCallback do not work
192779	setFocus not working properly from command line with quad-split model view
199419	Closing a torn off menu crashes
214835	Hotbox grabs Xserver
269968	Create a locator, keep selected and open the Channel Control crash (Mac)
278144	Wacom pen interferes with Hotbox
297039	Display iconTextButton on FormLayout (Mac)
315338	Hangs while switching panel views and clicking during redraw
316336	Limiting the redraw to single pass for each refresh
321157	Maximize window not working properly
322990	Maya child windows are not 'raised' when told to
323966	frameLayout's size does not follow its parent's size
327349	optionMenu doesn't appear when initial window size is small on 64-bit Windows
356048	Tablet pressure breaks undo
356303	Add the abolition of labelAlign option of frameLayout in the online document
356641	Unresponsive marking menu's when right clicking using Wacom pen
357484	Tweak Mode only modifies in a certain axis
361689	Font installing problems
363797	objectTypeUI does not work anymore with menuItem instances
364226	Crash: iconTextButton/iconTextCheckBox/iconTextRadioButton delete from callback
366337	Using dual screen Hotbox works on primary but not secondary monitor
368109	Hotkeys are not assigning correctly or saving
369075	Hotbox can't move torn off menus
369758	Hotbox display issues (Linux)
370084	Drag and drop to previous version problem
370342	libQtCore crash when navigating through static to dynamic attribute connection
371803	Minimizing Render View Window does not hide contents
374318	Pressing space bar in viewport shifts entire session
374399	Sticky mouse focus (Mac)
377428	Hotbox appears under active window when set to always on top
228719	Cut faces icon dithered

Bug Number	Description
243470	User Color changes not persisting
271454	The editable flag of the checkBox command does not work
286095	Display Layer's "Make New Layer's Current' and templating error
337641	Double-click to select edge loop inconsistencies
342512	Random crashing whilst clicking
349279	Trial version label error
352293	Shelf icons not loading on startup
352756	Closing Render View doesn't restore focus to model view
353503	Shelf Icon format preference does not save
353746	Image command no longer reads IFF
354067	Hypershade won't display materials
356147	Refresh error
356239	Render layer override orange text going grey when not in the Attribute Editor
356902	Help > Direct Connect Help fails
359057	getModifiers command returns incorrect values (Mac)
359266	Maya does not save preferences for View Cube Compass
360622	Change Maya foreground color (Linux)
360911	Empty tab with tabLayout
361915	Shelf icons resize to full size upon exiting and re-opening Maya
361956	Custom shelf buttons disappear upon start
362290	Preferences corrupted when ViewAxis HUD (HUDViewAxis) is removed
362566	Default Hotkeys reset themselves upon re-opening Maya
363499	Display layer move selection up and down does not work
363909	My custom shelf contains no buttons, new buttons cannot be made
364036	formLayout -attachForm doesn't work with iconTextButton and iconTextCheckBox
364377	Shortcut key defaults keep over riding user changes
364524	Renaming an item in the Shelf Editor selects the item at the top of the list
367064	UV Texture Editor snap and grid display incorrect while using "Use Image Ratio"
369415	Deferred dialog problem
370285	File dialog renames incorrect file/folder
371129	Shaders with connected transparency don't display
371964	Mouse input freezes after Hotbox or menu interaction
373806	Row not found error
374513	Extension no longer determines file type
375741	Creating lights doesn't return the name of the new light node
377467	Cannot rename button pop-up menu
222149	Maya launches a file called "C:/Program" if it exists (Windows)

*358426 - Some controls named with "#" retain it in their object names*

In previous versions of Maya, controls named using the "#" sign would retain the sign in their default labels/titles. For example, creating a button called "myButton#" with no label would create a button with an object name like myButton1 but the default label on the physical button was "myButton#". Likewise, creating a window called "myWindow#" with no title would create a window with an object name like myWindow1, but the default title in the window's title bar was "myWindow#".

With this fix, this no longer occurs. myButton1 will have a default label of "myButton1" and myWindow1 will have a default title of "myWindow1".

*369974 - Namespace UI modifications: "Create Reference" window*

Previously, the "Name clash" settings in the File > Create Reference and File > Import options were slightly different. These are now consistent.

## Miscellaneous

Bug Number	Description
362548	Organize files in Bonus tools
324638	Cloth scripts missing and/or location changed - cleanup classic cloth references
231287	Large number of connections between two nodes slows down Maya
347811	Document DIRTY PROP, CLEAN PROP & DIRTY BLOCK
349382	Slow node selection with animation layers
366589	Standard particle caching and opacity problems
372735	BMP image causes crash if it is used for iconTextButton
353517	Segmentation fault on startup
339703	HUD frame rate displays partially off screen
360131	Edit and Delete buttons in Hotkey Editor show inactive states (Mac)
276518	Symbolic linked directory path is converted to real path unexpectedly
342917	Active Directory Accounts do not work (Mac)
357550	Script Editor window is rendered unreadable on gesturing right
362006	Tool tips not working in Hypergraph heat map display
371656	Windows don't minimize, they disappear
353624	atan2 documentation incorrect
354604	splash.dll file missing
354734	splash.dll problem
355142	Unused script nodes and performance
355972	Opening Visor crash
356304	Application file has stopped working
356993	menultems created in Python do not respect arguments passed to them
357382	AutoSave with prompts
357546	More than one voice (language) talking at same time in learning movies

Bug Number	Description
358004	Load the Maya Muscle plug-in first
361646	Wacom support problems
361777	shelfLayout does not resize vertically when used in a formLayout
362024	The script editor does not open
368804	TGA support with the image() command
370122	Eyedropper color sampling freezes application
352811	Playblast does not record certain frames

## Feature Limitations and Notes

The following section describes limitations and other notes about this release. For your convenience, the list is separated into distinct feature areas.

### API and Scripting

Bug Number	Description
279601	Python: MltDependencyGraph::next() doesn't work because it refers NULL object
315016	MFnDependencyNode::hasAttribute() with non-existent attribute name causes error
348996	MFnDependencyNode::hasAttribute() fails in Python
349036	Infinite recursion if maya.utils not found
368766	MFnLightDataAttribute::setObject() does not work

### Animation

Bug Number	Description
366275	HIK: Channel Box or Attribute Editor values ignored by effectors (sync issue)
357076	Sequencer: File path still points to old location when relocating media files
359322	Get rid of Sequencer node - merge with SequenceManager
379846	Reading a 2011 file adds an additional bone between legs
381291	HIK : Pull doesn't work in context of retargetting
381927	Can't edit motion trail tangents with Soft Selection
381954	Selecting tool clears selection in the Graph Editor
382154	HIK: Shift+LMB does not allow for selection of keys on timeline if HIK in scene

## Dynamics

Bug Number	Description
361522	Problem with too many wrinkles
361361	Bend restitution has no effect when using simple bend solver
365231	Fluid and nCache both delete when deleting fluid cache
358255	Nucleus lockup during interaction (Mac)
327800	vertexColor texture fails when no color set on first frame
356574	Ramp widget handles 50 entries, but ramp attribute can have more
372111	Editing nucleus transform at start frame requires rewind
372115	Problem with solving nParticles in a moving local frame
374787	Assign solver fails when all nucleus Attribute Editor display transforms are on
375400	Particle Instancer rotation not caching with Aim direction set to force
376912	Use Polygon Shells - On/Off at start frame requires another rewind
376927	nParticles project file crashes Maya
377823	getCacheable channels still cache grids that were turned off
380245	Trying to shatter a firework hangs Maya (NURBs shatter can be VERY slow)
380797	Cache resolution mismatch
380888	Cache confusion with two or more fluid shape nodes with the same name
381961	Duplicating PhysX geometry causes Maya to freeze

## Modeling

Bug Number	Description
333874	Selection Constraint Angle does not work

## Interoperability

Bug Number	Description
382399	Default displacement scale one-click needs adjustment
380838	ICEFlow - Static deformations don't update in Maya
381203	MotionBuilder to Maya (when closed) doesn't load the file until the File menu is clicked

## Rendering and Render targets

Bug Number	Description
360939	16-bit half float EXR output of color managed renderings result in unusable file
355710	Remove time contrast settings from mental ray globals
378635	Inconsistent color output when rendering EXR and TIFF with mental ray Depth Pass
380204	Cancel Batch Render does not (Linux)

Bug Number	Description
380322	Scenes with dense final gather settings may have longer render times
382158	Warnings occurring in mental ray standalone
372275	Hide mental ray attributes in the Attribute Editor when plug-in isn't loaded
368762	Separate mental ray plug-in from Maya
380236	The SatinedMetal preset for the mia_material may have a slightly different rendered result
380520	Batch render target rendering not supported for more than one renderable camera
380993	Batch render unable to render rendertargets in SGI, PSD and ALS
380537	Aborting a render target render incorrectly displays render target name in Render View
379526	Render target recursively filter renders
382287	layeredTexture node clamping float values
381206	Render Target Aspect ratio issue
380660	RenderTarget : Aspect Ratio incorrect with orthographic cameras
379010	Incidence render pass fails to be read from EXR render to Render Target
379007	Material Incidence pass fails to read in Render Target at 16-bit integer (defaults)
381082	RenderTarget : horizontal shift when used with Stereo Camera

## General UI

Bug Number	Description
357561	Minimized windows don't appear in dock and don't stay minimized (Mac)
376551	Render View appears blank with error message
377392	Hypershade loses visual connection with projected textures
381128	Attribute Editor slow to update when selecting camera in scene with CgFX
323322	Color scheme makes UV Texture Editor resizing option obscured (Mac)
350866	Hypershade is slow to open (Mac)
353866	Files greyed out in File browser (Mac)
356339	File browser doesn't update if the window is open
359228	Opening windows (like Attribute Editor) does not bring them to the top if already open
369409	connectControl performance issue
380317	Tear off the Recent Commands menu from the Hotbox will not update
356182	Dockable Attribute Editor not refreshing after resourcing ANodeTemplate
358130	Unattached picture object in formLayout doesn't show up
376333	Scene with multi-byte name can't be transferred to Mudbox in JP version

Bug Number	Description
376955	Impossible to pick Color with pen tablet (Mac)
377236	Outliner auto-scroll bug
378069	Errors showing Attribute Editor with some custom attributes
379019	Render View sometimes empty during render (Mac)
356688	Color management conversions between color spaces are inaccurate and unable to round trip
355340	Hotbox shifted by height/width of border panels when using overlays (Linux)

## Miscellaneous

Bug Number	Description
355821	artUserPaintCtx : if Undo is off, Maya crashes after Flood is used
371917	Must use "." for numbers with LANG environment variable set
378047	Close batch render option box before changing renderers
380473	No manipulator handles in perspective view, but available in all other views
382222	Fur Paint Export Map fails
382310	Remove the -exportAsSegment flag of file command and associated methods
370985	Difficulties publishing blend shape sliders due to default published name
356665	No preferences to set Attribute Editor opening behavior
362615	Must set International > Formats > Region to see installer in Japanese (Mac)
381032	CIP: Maya sometimes won't start in Japanese mode (Mac)

## API/Scripting Notes

### *214262 - MRampAttribute::Interpolation should match internal representation*

Previously, the values of the MRampAttribute::MInterpolation enumeration did not match the corresponding values placed into the the ramp's interpolation attribute. While the MRampAttribute class itself took care to perform the correct translation whenever setting or retrieving interpolation values, problems could arise if users tried to set or or retrieve interpolation values directly, using plugs, data handles or MEL commands. To resolve this inconsistency the MRampAttribute::MInterpolation enumeration has been adjusted to match the actual values set in the attribute.

For the most part existing code should continue to work without any changes, particularly if it only accessed interpolation values through the MRampAttribute class. However, if you have code which was explicitly working around the old problem by translating MInterpolation values to/from the raw attribute values, then you may need to remove or modify that translation code.

### *362497 - MFnMesh::setFaceVertexColors doesn't work with locked dcol attribute*

Previously the MFnMesh functions which set colors (e.g. setVertexColor) would automatically turn on color display on the mesh node. This has been changed so that the methods leave the node's color

display option unchanged. If you want to turn it on then you must do so explicitly either by calling the new `setDisplayColors` method or by setting the mesh node's 'displayColors' attribute to true.

#### *366299 - Remove overlay drawing methods from M3DView*

The overlay drawing methods in `M3dView` (`beginOverlayDrawing`, `endOverlayDrawing` and `clearOverlayPlane`) haven't worked properly since hardware overlay support was removed in Maya 2011. Those methods have now been removed from API and the sample plug-ins which used them have been updated to use the XOR drawing methods instead (`beginXorDrawing`, `endXorDrawing`).

#### *368813 - MFnAttribute::setParent() doesn't add attribute to new parent*

The `MFnAttribute::setParent()` method has been removed. It was exposing an internal Maya function which, on its own, was not useful and could corrupt a node's attribute hierarchy. To properly set an attribute's parent, use `MFnCompoundAttribute::addChild()` to add it to its parent.

#### *368766 - MFnLightDataAttribute::setObject() does not work*

Light data attributes, such as those created by `MFnLightDataAttribute`, were incorrectly reporting their type as `MFn::kCompoundAttribute` rather than `kLightDataAttribute`. This has been fixed. In most cases the change will be transparent to API users but it is possible that you may have code which is explicitly checking light data attributes for `kCompoundAttribute`, in which case you will have to update your code accordingly.

#### *377401 - namespaceInfo -listOnlyDependencyNodes includes internal nodes*

`namespaceInfo -listOnlyDependencyNodes` is listing all nodes, including internal nodes and world. This behavior is not consistent with how we generally return lists like this to the user by default. Instead, by default, it should work in a similar manner to the default behavior of `ls -dependNode` where internal nodes are skipped. To support compatibility with the previous behavior, we added a new flag 'internal' which will cause the command to include all the nodes that it previously did.

## **Animation**

#### *367419 - Preserve compatibility with Maya2011 MayaHIK setups*

We made some changes that will change the compatibility with the previous files. These should be addressed at load time

- `hikFKJoint` and `hikIkeffector` are now used in place of `joints` and `hikEffectors`. While the old setups would evaluate properly, some new code may fail.
- Inputs `PinT` and `PinR` were replaced with output `pinT` and `pinR`.
- Percentages values on `property2State` node are now ranging from 0 to 1 instead of 0 to 100.

### *378677 - Animation curve different between Maya 2011 and Maya 2012*

Animation curves with tangents set to quaternion cubic and quaternion tangent-dependent have been improved to provide smoother interpolation. This means that files from previous versions with these tangent types will produce different results.

### *381276 - Setting jointOrient attributes individually badly recomputes vector*

Problem: Setting joint orient values individually on x, y or z in the attribute editor or via a command may result in a new joint orient triple. This is because the value is stored internally as a quaternion.

Workaround: Set all three joint orient values at once. For example:

```
setAttr "joint1.jo" -type "double3" 90 0 0;
```

## **HIK**

### *367419 - Preserve compatibility with Maya 2011 MayaHIK setups*

HIK retargeting rigs from Maya 2011 will play back, but do not work with the new HIK UI in Maya 2012.

## **Licensing**

### *Sentinel 1.2 breaks a Sentinel 1.1 install on Macintosh*

This will affect any product that has integrated Sentinel 1.1 for the Mac that is installed on a machine where Sentinel 1.2 has already been installed. So far Maya 2011 is the only product we have identified as having integrated Sentinel 1.1 for the Mac. Basically what is happening is that LMU.app and LTU.app are not installed on the machine for Sentinel 1.1. This will affect both network and standalone license types.

Workaround: The supported fix would be for users to copy the LMU.app and LTU.app packages manually onto the machine.

### *380146 - DMM cinematic plug-in fails to load on Linux*

Maya is not compatible with selinux enforcing settings.

### *378003 - Core dump by running setup on Fedora 14*

Fedora 14 requires one to use a fully root account to run GUI programs. Do the following:

```
su -
```

Then run the installer.

This is a "new" security feature of Fedora 14.

<http://fedoraforum.org/forum/showthread.php?p=1423295>

## Rendering/mental ray

*375080 - Render passes may exhibit poor shading quality with Adaptive Sampling*

Workaround: Select Fixed Sampling instead of Adaptive Sampling in the Render Settings: Quality tab.

*380813 - mental ray shadow map overrides does not disable 'Use Ray traced Shadows' in Light Attribute Editor*

Previously, enabling 'Use mental ray shadow map overrides' in a Light Attribute Editor disabled 'Use Ray Trace Shadows'. This is not the case in Maya 2012, and 'Use Ray Trace Shadows' must be disabled manually.

*380847 - Maya may stop unexpectedly if mental ray is used to render scenes with extra shape nodes*

If your scene contains extra shape nodes, for example, objects that are not meshes, and render with mental ray for Maya, this may cause Maya to stop unexpectedly.

## Maya File I/O

*380799 - Saving files to paths that include '.' causes files to be saved without an extension*

When saving a file, if your path includes a '.', your file may be saved without an extension. To workaround this problem, enter .ma or .mb after your file name before saving.

*352137 - File command can't always find files in workspace "scene" location*

Previously, using the workspace command to set your "scene" file rule only worked for your mayaAscii and mayaBinary files in the current session of Maya. If you re-open Maya, you must have your "mayaAscii" and "mayaBinary" workspace file rules set to this directory also; otherwise, an error appears.

In Maya 2012, your "scene", mayaAscii and mayaBinary file rules are all considered when a scene file is located. Maya first looks in the location defined by the "scene" file rule, then mayaAscii, then mayaBinary. Therefore, the default location for all scene files (.ma, .mb) is the location defined by the "scene" file rule, regardless of file type.

If you have defined different locations for your mayaAscii and mayaBinary files, you must explicitly set the file location to use these, as they do not appear at the default location.

## mental ray Satellite and Standalone

*382129 - xinetd needs to be installed on the Linux platform to allow for network rendering with mental ray Standalone and mental ray Satellite*

To install, as a super user, execute the following command:

```
yum install xinetd
```

Then reboot before installing mental ray Standalone or mental ray Satellite.

## Nucleus

*361522 - problem with too many wrinkles with previous versions*

If you load an nCloth scene file from a pre-2011 version of Maya, set bendAngleDropoff to zero to preserve the existing behavior of the cloth.

BendAngleDropoff previously had little effect on simulations; however it now has a strong effect on bend resistance. Higher values now result in less bend resistance where the cloth is flatter.

## Miscellaneous

*Link to video in Maya Help What's New page does not accept UNC-style paths*

The Camtasia video link on the 'What's New in Autodesk Maya' page of the Maya help does not show the 'What's New movies' if you access the help from a UNC-style path (for example, [\\remote-drive\](#)). In order to play the movies from this link, you must either install the Maya 2012 Help to a local hard drive (for example, C:\) or map a drive to the network location where the help is installed. These movies play properly if you access the help from the Autodesk web site.

*311729 - Comments link generates corrupted page in Japanese Safari (Mac OS X)*

If you click the "Please send us your comments about this page" link at the bottom of a topic in the Maya Help in Japanese Safari, the help system returns a corrupt page.

Workaround: Use another browser (such as Mozilla Firefox) to send comments.

*369409 - Possible connectControl slowdown*

When using a large number of controls, and issuing commands that take control names (for example, connectControl), you should follow these guidelines to increase efficiency:

- 1) Set the parent to the relevant layout or window using setParent before using a large number of commands for the same layout/windows.
- 2) Use the short name for each control.

*379816 - OGS: dynamics scenes must play back forwards first when using Vertex Animation Cache*

When using the Vertex Animation Cache attribute with a simulation, you must first play the simulation forward once in order for the Vertex Animation Cache to build its cache correctly. After doing this, you can scrub the timeline as you like. Note that rewinding the simulation to Frame 1 does not reset the cache.

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# Autodesk 3ds Max / 3ds Max Design 2012 Readme

This readme contains recent information regarding the installation and use of Autodesk® 3ds Max® 2012 and Autodesk® 3ds Max® Design 2012 software. It is strongly recommended that you read this entire document before installing the software. For future reference, you should save this readme to your hard drive. Note that the term 3ds Max refers to both 3ds Max and 3ds Max Design unless otherwise indicated.

Use the following table to locate various resources related to 3ds Max 2012 / 3ds Max Design 2012:

Resource	Location
Installation, licensing and networking instructions	<i>Installation Help</i> link in the install wizard.
System Requirements	<a href="http://www.autodesk.com/3dsmax-systemreq-2012-enu">www.autodesk.com/3dsmax-systemreq-2012-enu</a>
What's New	<a href="http://www.autodesk.com/3dsmax-help-2012-whatsnew">www.autodesk.com/3dsmax-help-2012-whatsnew</a>
Learning Resources	<a href="http://www.autodesk.com/3dsmax-learningpath">www.autodesk.com/3dsmax-learningpath</a> or <a href="http://www.autodesk.com/3dsmaxdesign-learningpath">www.autodesk.com/3dsmaxdesign-learningpath</a>
Support Resources	<a href="http://www.autodesk.com/3dsmax-support">www.autodesk.com/3dsmax-support</a> or <a href="http://www.autodesk.com/3dsmaxdesign-support">www.autodesk.com/3dsmaxdesign-support</a>
3ds Max® Composite tool set Information	<a href="http://www.autodesk.com/3dsmax-docs-2012-enu">www.autodesk.com/3dsmax-docs-2012-enu</a>
3ds Max Composite Release Notes	<a href="http://www.autodesk.com/3dsmax-releasenotes">www.autodesk.com/3dsmax-releasenotes</a>
3ds Max SDK Documentation	<a href="http://www.autodesk.com/3dsmax-sdk-docs">http://www.autodesk.com/3dsmax-sdk-docs</a>

**Note:** Autodesk is not responsible for errors or failures of Autodesk software arising from the installation of updates, extensions or new releases issued by third party hardware or software vendors for the qualified software or hardware identified in this document (or for any other third party software or hardware that you may use in connection with Autodesk products).

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## Installation Issues

### Prerequisites

Before an end-user with restricted Windows® operating system privileges can use Autodesk 3ds Max 2012 / Autodesk 3ds Max Design 2012, an administrator, with full privileges, must install and start the software one time in order to generate the Windows operating system registry information needed to complete the installation.

Before an end-user with restricted privileges can use third-party plug-ins for Autodesk 3ds Max 2012 / Autodesk 3ds Max Design 2012, an administrator, with full privileges, must install and start 3ds Max 2012 / 3ds Max Design 2012 one time in order to generate the necessary folders for these third-party plug-ins.

### ***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 might 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>

### Release Version with Beta

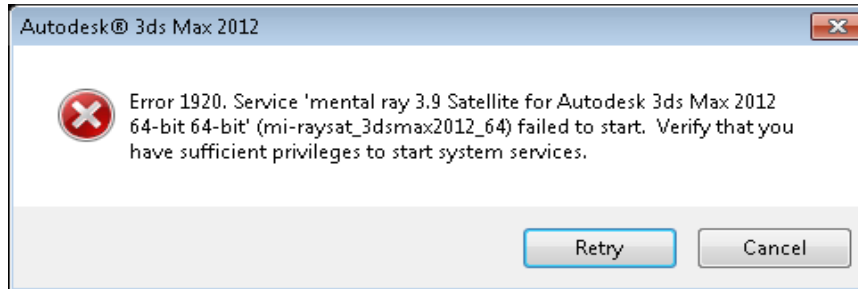
If there are previously installed versions of any beta software (including Release Candidate (RC) versions) of Autodesk 3ds Max 2012 / Autodesk 3ds Max Design 2012, uninstall and delete all system folders pertaining to these beta versions before installing the commercial version. Instructions on how to uninstall the beta versions are posted on the beta portal in the Beta and RC Readme files.

### Leaving Ports Open

Autodesk 3ds Max or Autodesk 3ds Max Design, Autodesk® Vault, Autodesk® Backburner™, and various other components of the install, require that certain ports be open in third-party firewalls. If you are having problems with your firewall, read the documentation included with your firewall.

### **Port Conflict with mental ray (When Installing Autodesk 3ds Max 2012)**

During the Autodesk 3ds Max installation process (from the install wizard) the mental ray® port is assigned automatically and cannot be changed from the install wizard. In most cases this is fine. In a rare case a conflict arises if the port is already occupied. In such a case you will receive this error message:



To fix this issue, perform the following steps:

1. Using a text editor, open the *setup.ini* file (located at the root of your install media).
2. Search for the [MAX] section.
3. You need to reassign mental ray to a different port number by adding this line under EXE\_PATH=  
EXE\_PARAM= MR\_TCP\_PORT=[YOUR PORT NUMBER]

Where [YOUR PORT NUMBER] is replaced by the port number you want to assign to mental ray.

4. Save the *setup.ini* file and run the installer again.

### **Installing the IPv4 or IPv6 Versions of Network License Manager**

You can install the IPv4 version of the Network License Manager from the Tools and Utilities tab in the 3ds Max 2012 / 3ds Max Design 2012 installer. If you need to install the IPv6 version of the Network License Manager, you can do so from Autodesk.com at the following location:

[www.autodesk.com/nlm-ipv6-windows](http://www.autodesk.com/nlm-ipv6-windows)

The IPv4 version that is on the Tools and Utilities tab is also available on Autodesk.com at:

[www.autodesk.com/nlm-ipv4-windows](http://www.autodesk.com/nlm-ipv4-windows)

### **Installing Local Help**

Starting this release, the 3ds Max Help is being published in HTML format to the Autodesk.com website. By default, 3ds Max calls the help 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 3ds Max quicker.

To download a local version of the Help:

1. In 3ds Max, go to Customize menu > Preferences > Help panel.
2. Click Download and download the Help installer from Autodesk.com. (The URL for the page is <http://www.autodesk.com/3dsmax-helpdownload-enu>.)
3. Once installed, enable Local Computer / Network.

Note: If you changed the install location from the default you will need to specify your path.

Now when you go to Help > Autodesk 3ds Max Help you will view the local version.

## Customer Involvement Program (CIP)

The first time 3ds Max / 3ds Max Design is started, the Customer Involvement Program dialog opens. If you choose to participate in the Customer Involvement Program, 3ds Max or 3ds Max Design will automatically send Autodesk information about system configuration, which features are used most frequently, problems encountered, and other information helpful to the future direction of the product. For further information, see [www.autodesk.com/cip](http://www.autodesk.com/cip).

### To enable CIP:

1. Install and start 3ds Max / 3ds Max Design.
2. If the Customer Involvement Program dialog box is not displayed automatically, then in the Help menu, click Customer Involvement Program.
3. In the Customer Involvement Program dialog box, select "Participate - with contact information."
4. Enter a valid email address and company name, if any. Click OK.

## Customer Error Reports (CERs)

We can improve the stability of Autodesk 3ds Max / Autodesk 3ds Max Design largely because of the Customer Error Reports (CERs) that end-users submit. We thank you for taking the time to fill out these reports and ask you to 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 3ds Max Quality Engineering team.

For further information about CERs refer to [www.autodesk.com/cer](http://www.autodesk.com/cer).

## Feature Limitations and Notes

The following are the major known feature limitations and notes for Autodesk 3ds Max 2012 / Autodesk 3ds Max Design 2012:

Feature	Limitations and Notes
Autodesk® Alias® Products Interoperability	<ul style="list-style-type: none"> <li>When adding modifiers to some production models, a memory error can occur and cause a program error.</li> <li>Off-Set Pivot points are not supported from .WIRE files.</li> <li>Planer surfaces created from text do not fully import in .WIRE files</li> <li>Textures Maps assigned to Alias shaders do not import from .WIRE files.</li> <li>Stitched surfaces import from .WIRE with the original surface.</li> <li>Not all Alias material/shader parameters persist in .WIRE files and might require some adjustment once imported.</li> <li>Only surfaces are supported, not curves and meshes.</li> <li><b>Scene hierarchy:</b> When surfaces are stitched together, naming might not persist.</li> </ul>
Autodesk® Civil View	<ul style="list-style-type: none"> <li>Autodesk Civil View trees display and render entirely white. <b>Workaround:</b> Turn off the material settings for Self-Illumination.</li> <li>The Civil View exporter in AutoCAD® Civil 3D® cannot locate the VSPCFG file which contains the material settings, so the exported files import into 3ds Max without the corresponding materials assigned. <b>Workaround:</b> Navigate to the Civil 3D Data folder (C:\ProgramData\Autodesk\C3D 2012\enu\Data) and manually select the VSPCFG file found there.</li> </ul>
Autodesk Consistent Materials	<ul style="list-style-type: none"> <li><b>Converting Metal:</b> Copper can cause incorrect values in the diffuse channel.</li> </ul>
Autodesk® FBX®	<ul style="list-style-type: none"> <li>There might be more recent versions of the FBX plug-ins than the ones included with both 3ds Max and 3ds Max Design. Click Web updates in the Information rollout of the FBX Exporter and Importer windows regularly so you can be sure that you are running the latest FBX plug-in version.</li> </ul> <p>You can find the latest FBX plug-ins here: <a href="http://www.autodesk.com/fbx-downloads">www.autodesk.com/fbx-downloads</a></p>
Freeform Brushes	<ul style="list-style-type: none"> <li>Using the Constrain to Spline brush can cause performance issues when used with Edit Poly modifier. <b>Workaround:</b> Converting the base object to an Editable Poly avoids these performance issues.</li> </ul>
MassFX	<ul style="list-style-type: none"> <li>Composite Physical Meshes on very small objects sometimes cause a program error when you click the Generate button.</li> <li>Having the Dynamics Explorer or Scene Explorer open while</li> </ul>

Feature	Limitations and Notes
	<p>running a simulation or while baking can cause the simulation performance to degrade.</p>
Nitrous	<ul style="list-style-type: none"> <li>• Applying Unwrap UVW after painting in 2D with Viewport Canvas and painting on top of the Unwrap UVW can sometimes cause 2D paint to fail. <b>Workaround:</b> If this occurs, apply an Edit Poly modifier on top of the Unwrap UVW modifier.</li> <li>• Civil View parameters can cause a program error when modifying surface parameters.</li> <li>• Object Color display will show the object's material color when set to object color. <b>Workaround:</b> Enable Use Environment Background and Display Background in the Viewport Background settings (<b>Alt+B</b>).</li> <li>• Locking the computer can cause the viewports to stop responding in some cases. <b>Workaround:</b> If this occurs, restart the program.</li> <li>• Mirrored or negatively scaled objects might display face edges incorrectly.</li> <li>• The Soft selection Shade Face Toggle does not always properly display the shaded faces.</li> <li>• MassFX constraints can cause Dummy objects not to display in Realistic mode.</li> <li>• Body Objects display tessellated/triangulated edges instead of the proper Body curves.</li> <li>• Back faces display as transparent.</li> <li>• Hidden Line style does not display texture maps in the viewport.</li> <li>• Tone Mapper used with a Skylight set to use the mr Physical Sky environment will display a black background when enabled.</li> <li>• Enable Gamma/LUT Correction does not work on stylized viewports.</li> <li>• Very large textures (10K x 10K) can cause a program error. <b>Workaround:</b> You can control texture sizes with MAXScript: NitrousGraphicsManager.SetTextureSizeLimit 512 true NitrousGraphicsManager.SetBackgroundTextureSizeLimit 1024 true Or by modifying the following keys in <i>3dsmax.ini</i>: [Nitrous] ViewportTextureSizeLimitEnabled=1 ViewportTextureSizeLimit=512 ViewportBackgroundTextureSizeLimitEnabled=1 <b>Note:</b> You need to restart 3ds Max after making these changes.</li> </ul>
Skin	<ul style="list-style-type: none"> <li>• Opening the Weight Tool dialog causes features in the Weight Properties rollout to fail. In addition vertex weight assignment might not work.</li> </ul>
Substance	<ul style="list-style-type: none"> <li>• If you double-click the output pane of the Substance browser, it</li> </ul>

Feature	Limitations and Notes
Unwrap UVW	<p data-bbox="651 239 987 268">fails with a MAXScript error.</p> <ul style="list-style-type: none"> <li data-bbox="605 289 1414 457"> <p>• Peel mode does not update in the UVW editor when new seams are created with the Point-to-Point tool.  <b>Workaround:</b> To update the cluster, after creating the seam, click anywhere in the Edit UVWs dialog window with Peel Mode active.</p> </li> <li data-bbox="605 468 1414 604"> <p>• Peel Mode does not update in the UVs Editor using seams with Convert Edge Selection to Seams tool.  <b>Workaround:</b> To update the cluster in the UVW Editor, toggle Peel Mode twice.</p> </li> <li data-bbox="605 615 1414 678"> <p>• Using the Reset Peel function outputs all positions of the clusters in the MAXScript listener window.</p> </li> <li data-bbox="605 688 1414 825"> <p>• Scale options do not work as intended when choosing the three different options.  <b>Workaround:</b> Pressing <b>Ctrl+Alt</b> when using uniform scale will give more predictable results.</p> </li> <li data-bbox="605 835 1414 930"> <p>• After applying Reset UVWs and functions that use GroupIDs, a program error might result. These functions include Peel, Pack, Rescale Elements, and Group Tools.</p> </li> <li data-bbox="605 940 1414 1077"> <p>• <b>(Nitrous only)</b> Applying Unwrap UVW to the object corrupts 2D View in Viewport Canvas.  <b>Workaround:</b> Apply the Edit Poly modifier on top of the Unwrap UVW or convert the object to Editable Poly format.</p> </li> <li data-bbox="605 1087 1414 1224"> <p>• Sub-Object cannot be deselected in Command panel or UVs Editor.  <b>Workaround:</b> Click an empty viewport. This will deselect Sub-Object from geometry and texture.</p> </li> <li data-bbox="605 1234 1414 1325"> <p>• Peel Mode causes faces to become unhidden when using Display Only Selected Faces. All hidden faces/clusters will be unhidden.</p> </li> </ul>
XBR Diet	<ul style="list-style-type: none"> <li data-bbox="605 1339 1414 1862"> <p>• Callbacks might not be registered with 3ds Max if a plug-in is defer loaded.  Besides action tables and core interfaces, a plug-in might need to register with 3ds Max other callbacks and objects that affect the user interface such as, but not limited to:</p> <ul style="list-style-type: none"> <li data-bbox="699 1518 1414 1623"> <p>○ <b>Action item override names:</b> See <code>IActionItemOverrideManager::ActivateActionItemOverride()</code></p> </li> <li data-bbox="699 1633 1414 1728"> <p>○ <b>Geometry Checkers:</b> See <code>IGeometryCheckerManager::RegisterGeometryChecker()</code></p> </li> <li data-bbox="699 1738 1414 1801"> <p>○ <b>Drag and drop handlers:</b> See class <code>DragAndDropHandler</code>.</p> </li> <li data-bbox="699 1812 1414 1862"> <p>○ <b>Menus other than those based on action items:</b> See <code>IEventManager::RegisterMenu()</code></p> </li> </ul> </li> </ul>

Feature	Limitations and Notes
	<ul style="list-style-type: none"> <li>○ <b>Viewport buttons:</b> See IViewportButtonManager::RegisterButton().</li> <li>○ <b>Trackbar filters:</b> See ITrackBarFilterManager::RegisterFilter()</li> <li>○ <b>Object converters and Collapse types:</b> See RegisterObjectConverter(), RegisterStaticEditTri() , RegisterEditTriObjDesc() and RegisterEditPolyObjDesc()</li> </ul> <p>At this time the plug-in loading mechanism in 3ds Max does not detect these cases and as a result, it will defer load such a plug-in DLL unless it explicitly disallows deferring.</p> <ul style="list-style-type: none"> <li>● Deferred plug-ins might miss pre-notifications such as NOTIFY_FILE_PRE_OPEN since they may only get loaded as a result of a scene, material library, or other file being loaded. If the plug-in relies on a pre-notification to initialize some of its data structures, or it registers for both pre- and post-notifications (ex: NOTIFY_FILE_POST_OPEN) and expects them to always occur as an ordered pair (NOTIFY_FILE_PRE_OPEN first, NOTIFY_FILE_POST_OPEN second), the plug-in might not work correctly if defer loaded.</li> </ul> <p><b>Workaround:</b> Force the plug-in to opt out from the defer loading mechanism in 3ds Max by implementing CanAutoDefer() as follows:</p> <pre> __declspec( dllexport ) ULONG CanAutoDefer() {     return FALSE; } </pre>

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# Autodesk Softimage 2012 Release Notes

This document describes known limitations, issues and fixes in Autodesk Softimage 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

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## 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](http://www.autodesk.com/softimage-hardware)

To report issues with this release, see: [www.autodesk.com/softimage-support](http://www.autodesk.com/softimage-support)

For more resources, see: [www.autodesk.com/softimage-learningpath](http://www.autodesk.com/softimage-learningpath)

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

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 (siControllImageClip): 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 were 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 occurred 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 disappeared 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

<b>Texturing</b>	
FELX-953	ACSO-166 - TextureSpaceWidget does not differentiate 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
<b>Modeling</b>	
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
<b>Realtime Shaders</b>	
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.
<b>Reference Models</b>	
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
<b>Caching</b>	
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
<b>FBX</b>	
FELX-1836	FBX warnings shouldn't pop UI when imports occur at cmd line.
FELX-1772	objects sent from 3ds Max do not update
FELX-1064	FBX: Node connecting 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.
<b>ICE</b>	
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
<b>Rendering</b>	
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
<b>Capture and Compositing</b>	
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%
<b>SDK</b>	
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 XSI Python 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.
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# 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.

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## Additional Resources

For complete instructions about uninstalling and installing MotionBuilder 2012 see:

[www.autodesk.com/motionbuilder-faq-2012-enu](http://www.autodesk.com/motionbuilder-faq-2012-enu)

For complete documentation and resources, see: [www.autodesk.com/motionbuilder2012-documentation](http://www.autodesk.com/motionbuilder2012-documentation)

For hardware qualifications, see: [www.autodesk.com/MotionBuilder2012-hardware](http://www.autodesk.com/MotionBuilder2012-hardware)

To report issues with this release, see: [www.autodesk.com/MotionBuilder2012-support](http://www.autodesk.com/MotionBuilder2012-support)

For more resources, see: [www.autodesk.com/MotionBuilder2012-learningpath](http://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](http://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](http://www.autodesk.com/motionbuilder2012-documentation)

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

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## 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.

<b>366733</b>	Blurring transparent areas of a bump map (or even a fully transparent bump map) will produce dark grey semi-opaque pixels on the map.
<b>366949</b>	The Color Chooser and Eyedropper select only 8 bit values which is not accurate. (Now selects 16 bit values.)
<b>368386</b>	Incorrect display when undo posing joints with mirror joints.
<b>369079</b>	Enable Direction property for Contrast, Fill, Scrape, and Wax.
<b>371393</b>	Paint is lost on inactive Materials.
<b>301204</b>	Stencil is offset from brush stroke after stencil is scaled.
<b>336123</b>	FBX: Negatively scaled objects are ignored on import.
<b>358608</b>	Freeze brush and undo not working for multiple objects.
<b>362454</b>	Rebuild Subdivision Levels does not unsubdivide back to original mesh with n-sided faces.
<b>362806</b>	Rebuilding subdivision levels fails on certain objects that have been subdivided in other programs and imported into Mudbox.
<b>364254</b>	Create New Paint Layer doesn't remember Size property.
<b>364280</b>	Rebuild Subdivision Levels changes the Vertex IDs of the high-level mesh.
<b>366513</b>	Create Paint Layers with UV tiles gets wrong result, causes black layer.
<b>367856</b>	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](http://www.autodesk.com/mudbox-bugreport) or from the Help > Report a Problem menu item in Mudbox.

Bug Number	Description
<b>355804</b>	Creating a joint may be difficult if the mesh has a lot of detail. Workaround: Create the joint at a lower subdivision level.
<b>355918</b>	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.
<b>357041</b>	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: <a href="https://bugzilla.redhat.com/show_bug.cgi?id=569132">https://bugzilla.redhat.com/show_bug.cgi?id=569132</a>  There is a patch for Qt here: <a href="http://koji.fedoraproject.org/koji/buildinfo?buildID=160252">http://koji.fedoraproject.org/koji/buildinfo?buildID=160252</a>
<b>358312</b>	Files that include 16 bit TIF maps will show errors with "Send to Maya..." operation.
<b>360224</b>	Mudbox crashes if the extraction map output file name contains %S in string (for example: AO_(%S).bmp).
<b>361565</b>	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.
<b>362133</b>	Creating a joint with Topology Weights doesn't work properly with non-4-sided meshes. Workaround: Use alternative Weights method.
<b>362857</b>	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.
<b>363366</b>	Transfer paint layer works incorrectly if target and source have overlapping UVs.
<b>366007</b>	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.
<b>374126</b>	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.
<b>376624</b>	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.
<b>377770</b>	Send to 3ds Max: Changing units between Max and Mudbox causes unpredictable results.
<b>381451</b>	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.
<b>381496</b>	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](http://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>.

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# Autodesk SketchBook Designer 2012 Release Notes

Explore design concepts and produce stunning artwork with Autodesk® SketchBook® Designer illustration software. In addition to the sketching capabilities and quality results that professionals have come to expect from Autodesk® SketchBook® Pro software, SketchBook Designer enables professional designers and artists to use a hybrid paint and vector workflow for concept design illustration and graphic design. Within the intuitive SketchBook creative environment, even new users can be productive within minutes.

This document describes known limitations, issues and fixes in Autodesk SketchBook Designer 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.

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## Additional Resources

For complete instructions about uninstalling and installing SketchBook Designer 2012, see:

[www.autodesk.com/sketchbookdesigner-faq-2012-enu](http://www.autodesk.com/sketchbookdesigner-faq-2012-enu)

For hardware qualifications, see: [www.autodesk.com/sketchbookdesigner-systemreq-2012-enu](http://www.autodesk.com/sketchbookdesigner-systemreq-2012-enu).

To report issues with this release, email: [sketchbook.help@autodesk.com](mailto:sketchbook.help@autodesk.com).

For more resources, see: [www.sketchbooknews.com](http://www.sketchbooknews.com)

## What's New

This section contains a summary of the features that have been added to **SketchBook Designer** and improvements since the last release.

### Snap lines in curve-by-point

When in **Point Curve Mode**, use *Shift-Alt* to get snap lines and create 90 degree angles.

Hover over a point or curve to get a black dot within a curve point. Press *Shift* and move your cursor to get a 90 degree snap line.

With *Shift* pressed, move your cursor to get snap lines.

Where two lines intersect, intersection snap lines appear.

## Minimum curve length

Set the minimum length in canvas pixels a curve can be. The default setting is 5 pixels. You can change this in the **Preferences**. See *Changing Curve by Stroke preferences* in the **SketchBook Designer** documentation for more information.

For 3D files that have been flattened and brought into SketchBook Designer, remove all extra pixels created during the flattening process. This will improve the speed of opening and working in the file.

When sketching, especially when using vectors, curves can be accidentally created. Having this setting on will remove any curves under the set length.

## Red dots

When trying to flood fill an area, there are times when to your eye, the region is closed. However, to the system, it isn't. The red dots appear at the end of all open curves and were added to help you find the fill gaps. These dots, along with the addition of snapping make it easy to find the problem and correct it.

## Masks

Use masks to add paint only where you want it. When creating a mask, use **black** for areas where you don't want paint. Use **white** for areas that you do. If you use a **50% grey**, 50% of the paint will bleed through the mask.

When a mask layer is selected, the options in the toolbar also appear red to remind you that you are working on a mask layer.

**Note** Masks only work on paint layers. If content is on a vector layer, use **Layer > Convert to Paint Layer** to make the content raster-based.

### Create a mask layer

Tap **Mask** access a menu with options for adding a vector or raster mask layer. Once a mask layer is created, tap it to turn mask visibility on and off.

### How do I know if a mask layer is active?

In the **Layer Manager**, mask layers are red. When one is active it is not just highlighted red, but also fill red.

When a check appears next to one, it is being used. When you remove the check from a mask layer, the mask is not in use.

### How do I access mask layer options?

Tap the flyout to access mask layer options for setting opacity and applying symmetry. See *Change the opacity of a mask or Create a symmetric mask* in the **SketchBook Designer** documentation for more information.

**Note** If you tap the flyout to the side and its properties are greyed out, the mask is not in use. Place a check next to the mask layer name to make it active and access these options.

## Mask layer marking menu

Tap the middle of a mask layer to access a menu with the following options:

- **New paint mask** - create a raster layer mask.
- **Delete mask** - delete the selected mask layer.
- **Duplicate mask** - make a copy of the selected mask layer.
- **Invert mask** - change the masked area to a paintable area and the paintable area to a mask.
- **Merge down** - combine the selected mask with the one below.
- **Clear mask** - remove all information from a mask layer without deleting the layer.
- **New vector mask** - create a vector layer mask.

For additional information on creating, deleting, duplicating, inverting, merging, clearing, hiding, transforming, and changing the opacity of a mask, see the **SketchBook Designer** documentation.

## Text

Text has been added to **SketchBook Designer** for annotation. Set the font, its size, spacing, position, and more. Text is only available for vector layers.

For additional information on adding and transforming text, see the **SketchBook Designer** documentation.

Recent file list

Select **File > Recent files** to see a list of your most recent projects and quickly access them.

Preserve transparency

Use **Preserve transparency** to lock the alpha channel of a layer. Use this to paint only where there are pixels. For more information, see *Preserve transparency*.

Customer Involvement Program

Join the **Autodesk Customer Involvement Program (CIP)** and reap the benefits. The system and usage data you provide allows Autodesk to both improve our products and build tools that can help optimize your software use. Data collected is used in accordance with our privacy policy.

For additional information on joining the Customer Improvement Program or viewing your data, see the **SketchBook Designer** documentation.

## UI pinning and W hotkey

View hidden windows with the press of a key and keep others open.

### View hidden interface

Press the **W** key to view hidden window at the touch of a button.

### Keep hidden windows up

When using the **W** hotkey to see hidden UI, tap the pin in the right window corner to keep it visible after the key is released.

### Stickers

**Stickers** are intersecting points that appear when a vector selection tool is active and you hover over an intersection. Drag a **Sticker** around to move the intersecting curves.

With nothing selected, hover over an intersection. Tap-drag the **Sticker** to drag the curves around.

When curves are selected, the **Sticker** respects its neighboring grip points. Only the segment between the **Sticker** and neighboring grips is affected.

### SVG export

Export your saved vector curves to an SVG file. Elements, such as raster images, fill regions, brush effects, and text will not appear in this file.

### Hide Inside and Hide Outside

These options were added to the layer properties flyout to turn the selected layer into an alpha channel for all layers below it.

**Hide Inside** makes everything BLACK opaque.

**Hide Outside** makes everything WHITE opaque.

## Feature Limitations and Notes

The following are a list of issues we are currently working to resolve:

**Issue:** Text is lost when you bake a symmetry layer.

**Solution:** Toggle symmetry on, once the text layer is baked.

**Issue:** Vector curves become invisible if Guide curves are transformed.

**Issue:** Cannot install the 64-bit version of SketchBook Designer on a machine running 64-bit Vista or XP.

**Solution:** Update your video card driver to the latest 64-bit version, via Intel or another website, to meet the requirements, then install the 64-bit version of SketchBook Designer.

**Issue:** Layer blend modes do not blend semi-transparent pixels correctly.

**Issue:** If the spacebar is pressed while the **Color Picker** is open (Alt key), the **Selection** tool will become permanently set to subtract mode.

**Solution:** Restart the program.

**RESOLUTION DEPENANCY** – For display resolutions other than 1600 x 1200, the brush stroke will be offset from the cursor. When possible, we recommend working at 1280 x 1024.

**Issue:** A frequency of random crashes has been recently noted.

**Solution:** Save your work as often as possible.

### Cintiq users only

**Issue:** Some users may encounter a tracking offset between the brush stroke and stylus.

**Issue:** Transforming vector fills reduces the performance of that layer. (Reduced performance only occurs if the fills are dropped while transforming them.)

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