

1.4.0

Release Date

04 November 2016

This version uses the Arnold [4.2.15.1](#) core.

DOWNLOADS

- solidangle.com/arnold/download

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IPR Enhancements

A video showing some of the IPR improvements in MtoA 1.4.0 can be found [here](#).

The following scene changes should now update properly in the **Arnold RenderView** window:

- Standins are updated in an animation. 3rd party procedurals will need some adjustments in order to support that too.
- Support frame changes with motion blur enabled (used to work badly).
- Nurbs surfaces couldn't be edited.
- Some nodes were still visible in the IPR after deletion.
- Support instance changes/ animations.
- Support particle changes/ animations.
- Support creating new shaders and connecting them in the shading tree.
- Support properly any changes in bump.
- Support parenting/unparenting of objects.
- Support changes in mesh "smoothing" parameters.
- Support changes in a Set's extra attributes (didn't work correctly in 100% situations).
- Support User data changes.
- Support changes with XGen nodes.
- Support changes with Bifrost nodes.
- "Frame" attribute is updated in the options when the frame changes.
- Matte checkbox.

- Changes in the log settings.

Preventing useless IPR refreshes.

The IPR no longer restarts when:

- A non-render camera is edited.
- The scene is saved.
- Some Maya windows are opened (hypershade / light editor).
- Shader selection in the hypershade (because of the swatch render).
- A new shader is created. Only connecting them in the shading tree will restart IPR.
- An empty render layer is created in Render Setup (Maya 2017).
- A collection is created in a non-visible layer (Maya 2017).
- We used to re-generate the skydome caches whenever any attribute was changed, but most of them (including skydome rotation) don't actually require that.
- When motion blur is enabled, the frame is switched for motion evaluation 'only' if we're editing an animated node. Editing static shaders, lights, etc.. won't trigger the motion evaluation, which is of course much faster. Therefore, we can now do IPR with motion blur enabled.

New Features

- **ARV can be docked in Maya 2017.** In Maya 2017, it is now possible to dock the Arnold RenderView to Maya workspaces.
- **New Curve Collector node.** To render Maya curves, one should now select the curves and do "Arnold -> Curve Collector". This will create a Curve Collector node in Maya, with all the curves below its hierarchy. All Arnold curve attributes will then be controlled by the collector, and the curves will be merged into a single Arnold "curves" node. This results in a much faster export/ render than previous solutions.
- **New Light Portal node.** This was introduced for interior scenes which can be very noisy when rendered with a SkyDome Light. Light Portals will force the SkyDome light rays to be bent in the portals direction, which eliminates a lot of noise.
- **New Curvature Shader.** As in other Arnold plugins. It returns a color based on the geometry's curvature, allowing you to use it for specific effects.
- **New command to update TX files.** The new menu *Arnold->Utilities->Update TX Files* allows you to update all TX files that require it. The MEL command is *arnoldUpdateTx*
- **New command to Flush cache on selected texture(s).** This allows you to only flush the cache on specific textures (for example when a texture is being painted/modified). It is now possible to flush the cache on selected textures only with the menu *Flush Cache-> Selected Textures*.
- **Added naming options for .ASS export to avoid name conflicts.** In the "Export to .ASS" options, you can now use the "Full path" option, or to specify a "Prefix". This will export the Arnold scene with a specific naming and can avoid naming conflicts when rendering the final scene.
- A new attribute called **Velocity threshold** (in Volume nodes), allows you to optimize renders by

reducing the motion bounds.

- New built-in AOVs **diffuse_albedo** and **shadow_matte**
- Improvements on Instances :
 - User attributes are now exported from instances.
 - The instancer now exports custom attributes from non-particle systems.
 - Instancers now always generate the same name when the scene is exported.

Incompatible changes

- Only renderable cameras will now be exported to .ass.
- Texture cache is now 2048 Mb by default.
- When motion blur is enabled, all static data will now be exported on the current frame, instead of the shutter start.
- 'Ignore motion blur' now renders a scene at the current frame instead of at the shutter start.
- OSX 10.9 and higher required.
- Disabling LOD Visibility now hides the objects at render time
- **Major changes in MtoA API.** MtoA's API has been refactored and simplified, removing several useless files and functions. This will allow you, in the future, to maintain binary compatibility between versions much easily than in the past, so that 3rd party extensions remain compatible. All extensions should be adapted to 1.4.0 as explained [here](#).

Fixes

Ticket	Summary
#2146	Exporting 60K curves is very slow
#2083	instancerTranslator doesn't use custom attributes coming from non particle systems
#2220	Exporting user attributes from transform and instances
#2518	Refactor Node Translators to simplify MtoA API
#1057	Don't refresh IPR, when a non active camera is used
#1209	When some features in motion blur are disabled, they are not sampled at the right time
#1440	Handle IPR refresh when Motion Blur Options change.
#1562	Matte options are not refreshed in IPR without manually restarting
#1664	Deforming a NURBS surface does not update in the IPR
#1708	Saving scene refreshes the IPR
#2045	Instances of pfxHair nodes are exported without a link to a shader
#2084	instancerTranslator doesn't track nodes created
#2104	Instancer translator generates invalid data when deforming meshes are used during IPR
#2245	Support AI_TYPE_UINT in CNodeTranslator::ProcessParameter
#2269	Curves are still visible in IPR after deletion
#2314	Allow Procedurals to be re-generated during IPR
#2472	Arnold RenderView not updating when subdiv polymesh settings change
#2500	Bifrost Foam motion blur in Arnold is constant and doesn't react to moBlur setting changes
#2524	Curvature shader
#2524	default export of top/side/front cameras
#2539	Don't clear skydome cache at every change in the skydome
#2540	IPR is refreshed when opening the hypershade / selecting a shader
#2544	Connecting bump during IPR is not updated
#2546	IPR refreshed too often when a new node is created
#2548	Parenting isn't updated in IPR
#2549	User data not updated during IPR
#2557	Fix to follow Maya's new use of display names for render layers.
#2560	Editing set's overridden attributes doesn't update IPR correctly
#2574	IPR refreshed when Light Editor is opened
#2572	Log options not updated in IPR
#2584	Particles not refreshed in IPR
#2599	Support XGen updates in IPR
#2603	Support Bifrost updates in IPR
#2604	[Windows] TX files are locked
#2645	IPR Crash when deleting a set
#2649	Add Doxygen tags in API files
#2633	Support Volume threshold in OpenVDB volumes
#2207	InstancerTranslator generates different names every time scene is exported
#2319	Frame attr is not being updated at frame change during IPR session
#2624	Increase default texture cache to 2048