

# 1.1

## Release Date

July 11 2014

This version uses the Arnold 4.2.0.5 core.

## HIGHLIGHTED NEW FEATURES

- Many rendering optimizations in Arnold 4.2 including faster ray accel build, subdivision, displacement, polymesh processing, rendering of many-light scenes, backlighting, SSS, image shader and deep output.
- Improved quality in motion blur sampling and indirect specular sampling.
- Smoother bump near shadow terminator and reduced edge darkening in Cook-Torrance BRDF.
- The Standard shader can now output refraction opacity as an AOV. It is advised to write the complete RGBA set of channels, since the alpha component will constitute a mask that can be used to mix it in with the regular opacity, multiplying in refraction opacity to regular opacity based on the mask.
- Support for Custom shutter shapes.
- Support for Rolling shutter.
- Add support for custom light filters. The light types a filter can be applied to are now defined in the light filter metadata, which will be read by MtoA.
- Support for motion blur for fluids.
- Initial support for Maya viewport 2.0.
- Maya Luminance shader.
- Make Pref usage an option for MayaProjection shader.

## HIGHLIGHTED IMPROVEMENTS

- Motion blur support for XGen (now included as an extension).
- Motion blur support for meshes with changing topology.
- It is now possible to use Pref in the MayaProjection shader.

## NOTES

- There are still some limitations in the Maya viewport 2.0 support.
- Added a global option to disable StandIn display.
- skin\_sss shader has been removed.
- Bifrost is not officially supported yet.

## INCOMPATIBLE CHANGES

- Removed cubic projection map.

- Removed specular\_brdf from standard shader: since the Cook-Torrance is similar in performance to the Ward-Duer BRDF yet superior in quality due to its reduced edge darkening and higher energy conservation, the specular\_brdf parameter has been removed from standard, leaving Cook-Torrance as the default (and only!) BRDF of the standard shader. Therefore, the look of existing standard shader-based materials that use the anisotropic Ward-Duer BRDF might change a little bit for the better.
- Maya Displacement zero value no longer depends on the Scale attribute.
- The conversion of SpotLight cone-angle and penumbra-angle from Maya to Arnold has changed to make it compatible with other renderers.