2.4

What's new in Version 2.4

SItoA version 2.4 is based on version 4.0.7.0 of the Arnold core.

New features include:

- Ray traced BSSRDFs: A new alternative to point-cloud subsurface scattering has been added. This method is brute-force ray-tracing based, but produces visually identical results to the pointcloud technique. This approach removes a number of shortcomings of the pointcloud method, trading them for unbiased noise instead. The new method consumes zero extra memory, supports motion blur, supports interactive relighting, is fully multi-threaded, starts up immediately and does not degrade in performance as the scattering radius shrinks. For backwards compatibility this is provided as an option, with point clouds being the default setting. To use ray traced subsurface scattering, check the Raytraced option from the Sampling controls dialog.

- Mesh light: There is a new type of light available called mesh_light which takes a polymesh as a parameter and emits light using the polymesh's surface geometry. Read the mesh light topic for more details.

- A number of other improvements in the Arnold core are of interest:

- Improved sampling at secondary bounces: The 2D sampling patterns generated by Arnold will now be stratified even for secondary bounces instead of reverting to fully random sampling as before. This can greatly reduce the amount of noise, particularly when rendering things that are seen through near-specular effects like glossy reflections or refractions

- Improved sampling for SSS Point cloud: When baking diffuse lighting calculations into the SSS pointcloud, Arnold now uses MIS (multiple importance sampling) to reduce noise from large nearby area lights and the skydome. This may increase the number of rays slightly, but give higher quality sampling in those cases

- Improved smoothed normals: The quality of the smooth shading normals stored per-vertex in triangular tessellations has been improved by adjusting the weights used to average the triangle normals around a vertex. In addition to triangle area, the weights now factor the angle between the two triangle edges containing the shared vertex. This will be most evident for coarse meshes where the face normal and the smoothed vertex normals substantially differ.

Note:

We have finally removed support for Softimage 2010 in this release.