Sharing .ass Files Between Plugins

This tutorial will show you how to export .ass files from Houdini and import them into other Arnold plugins.

Exporting From Houdini

Creating the Metaballs

A common workflow is going to be creating dynamics in Houdini to be rendered along with other elements in Maya or Softimage. To illustrate this, let’s create some blobby metaballs in Houdini.

- Create a plane and click Source Particles From Geometry from the toolbar.
- Create a pointwrangle and add a Random Point Color VEXpression.

![Pointwrangle with Random Point Color VEXpression](image)

- Create a copy node and connect a metaball node to input 1 and the pointwrangle to input 2.
- Tweak the metaball settings as desired and then add a convert node to output the metaballs as polygons.
- Add a uvproject node and initialize to the XY plane.
Create A Shader With HtoA Nodes

Let's add some color to the geometry using some HtoA specific nodes.

- Create a **Standard Surface** shader and connect it to the surface output.
- Connect a **ramp_rgb** to the diffuse color of the standard shader. This example goes from yellow - red - blue.
- Connect a **state_float** set to surface V to the input of the ramp_rgb.
- Create a **camera** and Arnold **light** and check the geometry renders colored with the ramp.

Export .ass Sequence

Now, let's export this geometry as a sequence of .ass files for use in Maya or Softimage.

- Create an **Arnold ROP** and go to the **Archive** tab.
- Enter the path to save the .ass files using **$F** and **Render Frame Range** to output the whole sequence.
- Disable export for Options, Cameras, Lights, Overrides, Output Drivers and Pixel Filters as these will not be needed.
- **Render!**
Importing To Maya

Creating An Animated Stand-In

Now switch over to Maya to import the geometry we've created.

- In Maya create a new scene and add a ground plane and **skydome**.
- Create a **Stand In** node from the Arnold Menu.
- Change to the path to point to the .ass sequence inserting a # (Maya should automatically insert it if there is a frame sequence).
Stand-in attributes

In order to use a frame sequence, the Maya time node needs to be connected to the frame parameter.

- Drag the time node from the outliner or node editor on the Frame field. The connection editor will appear.
- In the Outputs (left), select `outTime` and in the Inputs (right) select `frameNumber`.

A `timeToUnitConversion` node will automatically be added.

- Switch the Standin mode to `polywire` and now the animated geometry should be visible in the scene.
Adding Shader Searchpaths

If the scene is rendered at this point, the geometry will appear white.

A look at the logs for errors will show that the Arnold for Houdini nodes have not been found and therefore cannot be used.

In order for Arnold for Maya to use these shaders, the location of the HtoA shaders needs to be added to the Shader Search Path. The Search Paths are in the Render Settings under the System tab.
Gamma Settings

Now it should render with the colors from the ramp_rgb node. However, it may be too dark.

Now we have geometry created from particles and metaballs in Houdini using HtoA shaders rendering in Arnold for Maya.

Importing To Houdini

Search Paths

If an .ass file containing specific shaders was imported into Houdini then the Search Path would need to be filled in.