FAQ

These issues are specific to the use of the SItoA plug-in, and do not relate to features of the Arnold renderer itself. For issues to do with rendering with Arnold in general, see the Arnold Rendering FAQ.

Sometimes the render-region doesn't update when I change various settings in my scene, how can I force it to refresh?

You can adjust the Scene Rebuild Mode from Auto to Always. There is also a command to flush the scene SITOA_DestroyScene() and textures SITOA_FlushTextures(). For more information about SitoA-specific commands please see the SItoACommands.

Can I use the Architectural shader?

No, the Architectural shader isn't supported yet but Arnold comes with its own general-purpose shader called "Standard" which is quite similar. For a list of supported Softimage shaders please see the Shaders section.

Where can I find Arnold specific shaders?

All the shaders SItoA comes with are accessible from the bottom of the "Nodes" menu in the rendertree, they are also available by going to Get > Material > Arnold Shaders. See also the Shaders section.

How can I hide polygons from the render

Currently, SItoA only supports clusters with visibility property (which you can create from Get > Property > Polygon Cluster Visibility).

How can I do glossy reflections using the Arnold standard shader?

In the specular section, increase the "Scale" parameter. The "Roughness" parameter will control how blurry your reflections are. The lower the value the sharper the reflection. In the limit, a value of 0 will give you perfectly sharp mirror reflection. You also have separate controls to adjust the intensity of the direct and indirect specular reflections. Direct specular are reflections coming from regular light sources (spot/point/area/distant lights), and indirect specular are reflections coming from another object or an environment map.

How can I setup Image Based Lighting

The skydome_light will be most of the time the best and fastest way of achieving IBL, in both speed and noise than other methods like using a sky shader.

For a more detailed description of the subject please see the IBL page.

Can I use the normal visibility properties on my objects?

Yes, Arnold will read the visibility options Softimage already has. Take into account the checkbox for "Reflection Visible" controls normal/sharp reflections, and "Reflection Caster" controls glossy visibility. It's a bit of a hack but it's as good as it can be done. In any case, you can also apply an Arnold visibility property to an object, partition or group which has all the visibility options that Arnold natively supports in it. Keep in mind that doing this will override your objects normal visibility settings.

How can I avoid my procedural textures from swimming?

There are a few ways in which 3D procedural textures can "swim" in animation:

1. Your object is undergoing a rigid SRT matrix transformation
2. Your object is deforming, the vertices moving around freely - for example, a walk cycle
3. Your object is neither moving nor deforming, but it has displacement mapping (a lesser form of deformation), and for whatever reason, you'd like to texture based on the un-displaced position

Can I use Softimages' built-in color management for linear workflow?

The color management in Softimage will at the moment only affect the display in SItoA, for textures the only supported workflow is to have your linear images stored in an HDR format (.exr, .tiff-32, .hdr) and your non-linear, sRGB images in a LDR format (.jpg, .tif-8, .png etc). Then, in the global render options, set your Input Gamma values in the Gamma Correction tab to 2.2. Arnold will consider floating point images as linear and will only apply the de-gamma calculations to LDR images.

Why do my shadows stay solid black even when they are cast by a transparent object?

For optimal render speed, Arnold flags all objects "opaque" by default. To get shadows to respect transparency you need to disable the "Opaque" flag on the object(s) in question, you can do so by applying the "Arnold Parameters" property from the menu: Property->Arnold Properties->Geometry->Arnold Parameters.

Do I need to disable opaque on a point cloud if I want the instanced particles to be transparent, or only on the "master" object?

You only need to put the Arnold properties in the point cloud if you want the instanced particles to be transparent. If you apply to the "master" object, it will only apply the properties to that copy.

Why does DOF work in Preview but not in Render Region?

At the moment, SItoA is ignoring the [multi] : Render Region Options, so if you want to have DOF in your Render Region you need to use the [Per View] : Render Region Options available from the Down Arrow of the Render Region Window. It's advised that one define its Render Options at the Pass level and tick the Use Current Pass Options checkbox in the Render Region Options.

How to do lookups in a shader to different UV shells

Arnold does support mapping out of the usual 0,1 range. You can use this behavior to apply different mapping shells and do lookups to different image nodes (one per shell) composited with a mix shader in additive mode. The Idea is that for each shading point only one lookup to the different images will give the expected value (the one associated with the shell the face that is being shaded is in) and the others will return black (so they won't add to the final result).

To specify for each image the shell it belongs to, you can use the UV remap fields of the advanced tab from image node. What you want to do is to "offset" the corresponding shell to 0,1, adding or subtracting the needed value, both in U and V. If you want to offset a shell located in the range U=2, 3 and V=1,2, then in UV remap you need to set U to -2,-1 and V to -1,0 . With a shell in the negative ranges then you need to put positive numbers in the remap. To remap a shell that is in the range U=-3,-2 and U=-1,0 the remap values would be U=3,4 and V=1,2. You can download an example here Download.

Render Region freezes when changing values in Pass shaders

This is a known problem. The PPG logic inside the Pass spdl is doing a lot of scene changes that cause unnecessary render calls. When the user does changes in the PPG, the scene will be rendered more than once while the UI doesn't respond. It's not really crashing, and eventually, the render appears and the UI responds. This has been improved in Softimage 2012 (but it is still not 100% fixed).

What's the best way of handling ICE Instances in Arnold?

You can use the InstanceShape node on particles, or you can try instancing Arnold Standins.

Does SItoA support Object and Children Hierarchy Mode for ICE instances?

Yes, if you put them in a model. If you want several models, put them inside a group in branch mode.

Can't see the Arnold specific render channels in the Pass Options Menu

If the default renderer in the preferences is set to Arnold, the standard Arnold Channels will be automatically created when creating a new scene. But you can always manually call the SITOA_CreateRenderChannels() command.

Bump mapping is not working when connecting images to a Bump2D node

Bump2D need a consistent uv set applied.

Bump mapping is not working when connecting images to a Bump3D node

Bump3D works by evaluating the bump shader (an image in this case) at three different points: P + epsilonx, P + epsilony, P + epsilonz. Since the only thing displaced is the point, the UV coordinates will be the same in the three different lookups. These will give the same texel in the image and result in no perturbation of the normal. You should instead use the Bump2D shader for images.

How do I load .tx files made by maketx? Softimage doesn't recognize them.

There is an option called "Use Existing Tiled Textures" in the Tiling Group of the Texture System tab from the renderer options, which lets you automatically use .tx files if they exist on disk. So, if your scene has one .jpg and one .tx in the same directory, with the same filename, you can use the .jpg in Softimage and SItoA will automatically swap it out for the .tx at rendertime. This issue has been reported to the Softimage team (so it understands tiled+mipmapped tx files natively).

I have a mesh that subdivides and renders fine in mental ray, but Arnold refuses to render it subdivided - what's going on?

Arnold is a little more particular about mesh integrity than Mental Ray. What you probably have is a bit of bad geometry somewhere that needs to be cleaned up before Arnold can subdivide the mesh for rendering. When you draw a render region or render a preview, you will probably see a yellow warning pop up at the bottom of your viewport that says something like:

[subdiv] Face 3707 Edge 402, 1552 used more than twice

You will also get a warning in your log (assuming you're using Detailed logging) that says something to the effect of:

WARNING : [arnold] 00:00:00 377mb   [subdiv] polymesh (no_subdividey.map_marker_1000) is not manifold, skipping subdivision

To find the offending polygons/edges, just type their Face/Edge numbers into the search box in the MCP (while in the appropriate selection mode - face/edge) and SI will select them for you. Realize that Arnold will only give the warning once per scene refresh - so if you missed the Face number, you'll need to do a SceneDestroy and another render region to get the error to show up again. Once you know where the problems are, just correct the bad geometry (do a SceneDestroy for good measure), and the mesh should render.

## My scene that looks fine in Softimage's default rendering is too dark in Arnold

It's important to remember that Arnold uses the inverse square law for light decay (quadratic decay) by default. The approach taken in Arnold is to be physically accurate whenever possible as this makes many things simpler and better - the approach we recommend is to light and model everything using accurate real world values whenever possible. You can if you wish change the light decay to be "constant" (no decay) by altering the Arnold light node's settings, but in the long term it will be better to embrace a physically based approach.
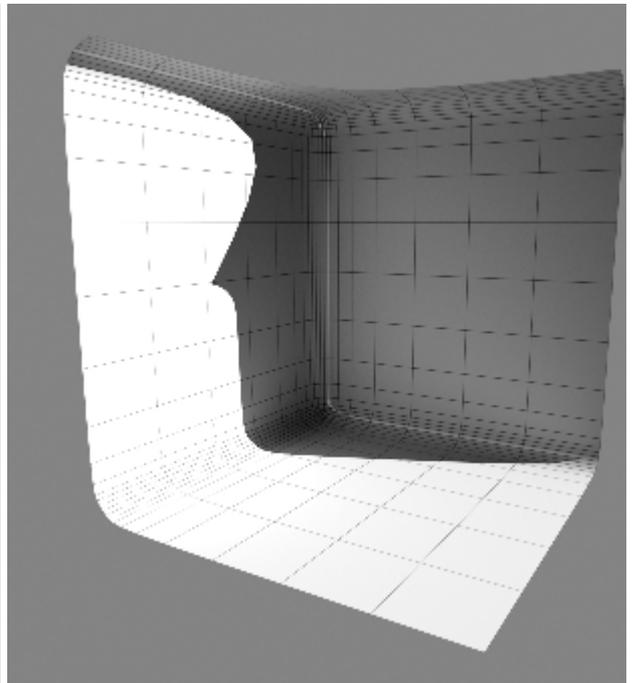
Shadow terminator effect

This is a self-shadowing error that can result from low tessellation or when objects do not have thickness. It usually occurs in concave areas or when the light is behind the polygon mesh. In these situations, it can introduce light leaking.

There are some workarounds:

1. Increase the number of subdivided polygons (the artifacts will become smaller).
2. Give the object some thickness so that it is not a single sheet of polygons.
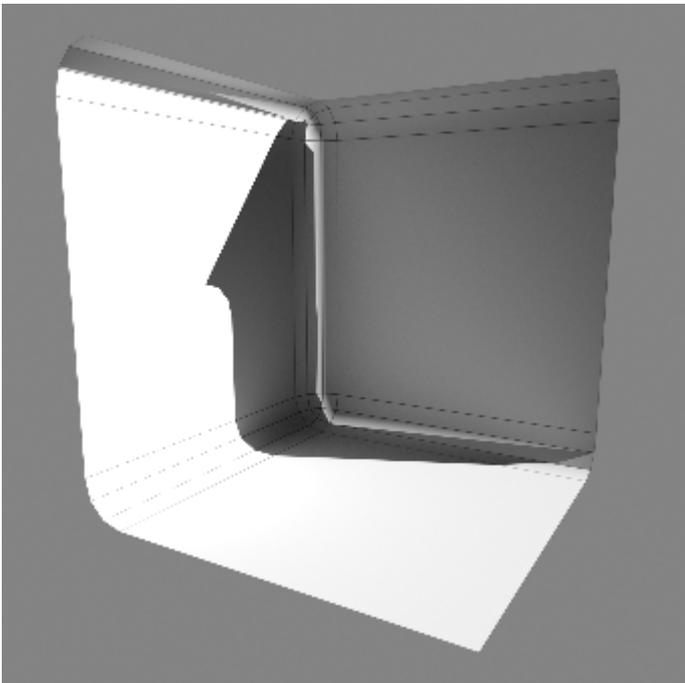
Low poly model - Shadow terminator effect is visible   **Increasing the polygon subdivisions reduces the problem**