

# Shaders

The following Arnold shaders are available in MAXtoA.

- [Materials](#)
- [Maps](#)
- [Third Party Shaders](#)
- [Legacy Shaders](#)

✔ A guide to converting V-Ray materials to Arnold materials can be found [here](#).

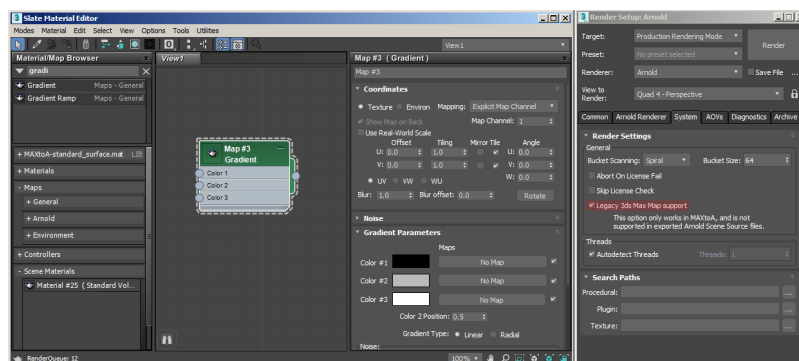
⚠ While the ActiveShade is running, material previews are not rendered because only one render session can be active in Arnold at the moment. If you stop the ActiveShade, then the material previews will be updated.

## Using Legacy 3ds Max Maps in Arnold

To facilitate the rendering of old scenes, MAXtoA includes a feature to call native C++ max Maps (not Materials!) from within a special Arnold adapter shader.

This allows the use of most legacy 3ds Max Maps with MAXtoA (such as *Gradient*, *Noise*, *Substance*, etc.).

⚠ To do this, you must enable **Legacy 3ds Max Map support** in the [System](#) of the [Render Setup](#) window.



Below are some of the **limitations** when using legacy 3ds Max Maps with MAXtoA:

- This **only** works when rendering inside of 3ds Max itself, since native 3ds Max code is being called.
- For this reason, Legacy 3ds Max Maps can **never** be exported to an [Arnold Scene Source](#) file, and cannot render outside of MAXtoA. This is important if you wish to create Procedural objects, render with [Kick](#), or use services like Zync.
- You cannot connect Arnold shaders as inputs to a 3ds Max shader. Everything up-stream to a 3ds Max shader must be a 3ds Max shader. For instance, a 3ds Max 'smoke' can connect to an Arnold shader's color, but an Arnold shader cannot connect to a Tile's color parameter.
- Not every Legacy 3ds Max Map is guaranteed to work.
- There can be certain stability issues in ActiveShade when editing certain parameters, because the legacy 3ds Max shader API is in some aspects not thread-safe for both rendering and editing at the same time.

### Viewport Shaders

If OSL maps are used together with Arnold Surface shaders, the textures displayed in the viewport will not represent what will be seen in the render. This is because Arnold surfaces do not support shader fragments, which results in textures being baked before displaying in the viewport.

### Third-Party Shader Support

Any third-party shaders compiled for the correct version of Arnold for Windows will work in MAXtoA. Simply place the dll and mtd files (or OSL files) into the Plugins/MAXtoA folder of your 3ds Max (or any folder in the Arnold plugin search path). Restarting 3ds Max should now show the new shaders in the Arnold section of the Material/Map Browser. Many Arnold shaders and all third-party shaders use an 'Auto-UI' feature. Shader developers can modify the appearance of the UI through metadata files or Qt.ui files as described here.

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