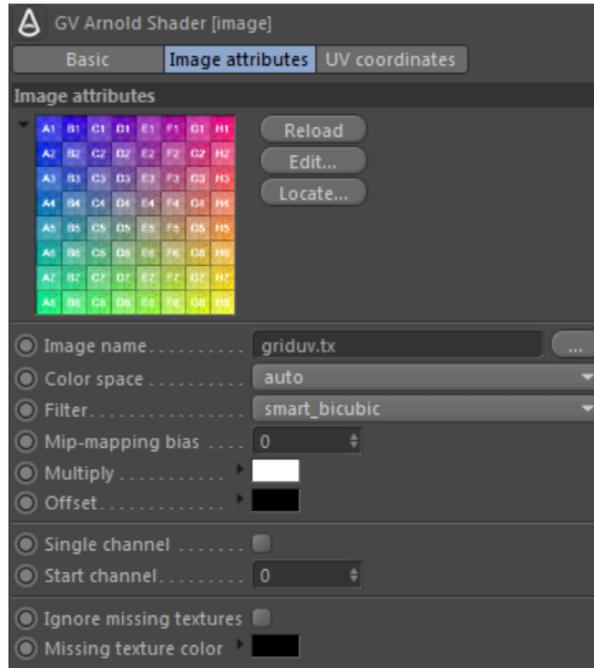


Image

The *image* node is a color shader that performs texture mapping using a specified image file. You can control the position, size, and rotation of this frame on the surface. You can control how the texture is tiled within the frame using the *scale UV*, *flip*, *wrap*, and *swap* attributes.

 You can drag & drop image file textures from an external file manager directly onto the [Arnold Shader Network editor window](#) and it will automatically generate image shaders for you.



Preview

Preview of the selected image file. Move the mouse over the preview to get more details about the image, e.g. resolution, bit depth, color space.

Reload

Forces a refresh (reload from disk) of the texture. This is recommended when a texture has been changed and needs updating.

Edit

Opens the image in the editor associated with the given image type.

Locate

Opens the system default file browser (e.g. Windows Explorer on Windows) showing the folder of the image file.

Image attributes

Image Name

The image filename. UDIM token functionality is supported.

 For efficiency reasons, UDIM substitution is not supported if *image.filename* is linked. You could, however, use `<attr:foo>.<UDIM>.tx` in the image shader filename and have the path stored as the `foo` user attribute on the mesh instead.

 More information about UDIMs can be found [here](#).

Color Space

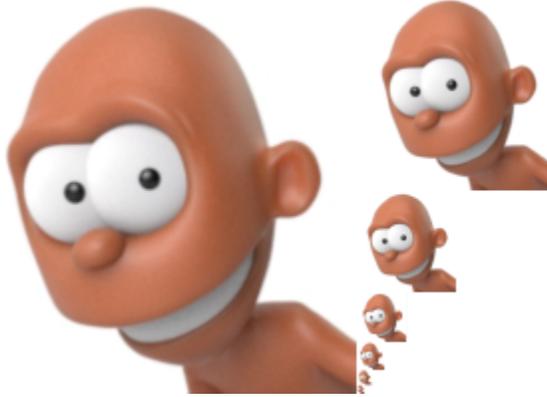
The colorspace to use for linearization when automatically generating .tx textures. You can specify which color space the texture is assumed to be in. The built-in value is ACES 1.0 SDR-video (sRGB). The default value 'auto' will use sRGB for integer (8 or 16 bit) formats and linear otherwise.

Filter

Texel interpolation method used to filter the rendered image file. The options are *closest*, *bilinear*, *bicubic*, *smart_bicubic*, and the default is *smart_bicubic*. Cubic is slower but smoother, closest is faster but looks blocky when magnified.

Mip-mapping Bias

Mip-Mapping Bias offsets the computed Mip-Map level from which the image is sampled. A negative value will force a larger Mip-Map level (clearer image); a positive value will force a smaller Mip-Map level (blurrier image).



An example of mipmap image storage.

The first image on the left is shown with filtered copies reduced in size.



0 (default)



5

Multiply

Multiplies the image by a constant.



White (default)



Blue

Offset

Uniformly darkens or lightens the texture.



0 (default)



0.75

Single Channel

Read and outputs only the first channel of the image (which is usually R). You can force other channels by defining Start Channel.



Single Channel

Start Channel

This allows you to offset the lookup channel.



0 (default)



1

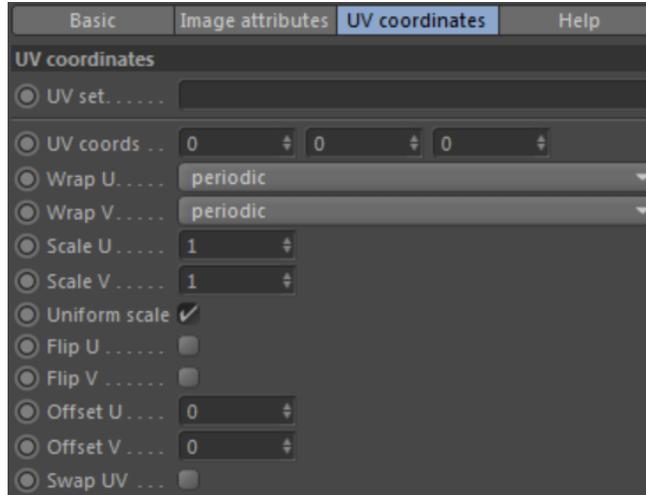
Ignore Missing Textures

If the file corresponding to a UDIM tile is not found then by default, the render will give an error and not progress. If this option is checked, then it will not give an error and display the 'missing texture color' instead.

Missing Texture Color

Returns the chosen color when the UVs are out of the [0,1] range.

UV Coordinates



UV Set

A string with the name of the UV set to use to sample the image. By default, when the uvset parameter is empty, the primary UV set in the polymesh will be used. Example: If you have created a UV set in a polymesh node called "UVset2", then you can use it by setting the uvset parameter to "UVset2".

i Only alphanumeric, underscore and dash characters are allowed in the name, any other characters are replaced with underscore. For instance 'my uvset.2' becomes 'my_uvset_2'.

UV Coords

If uv coords are linked to a shader, the evaluation of the parameter will be used as the UV coordinates to sample the image, instead of the polymesh ones. Texture derivatives are not computed in this scenario, destroying texture mapping performance, especially in scenes with many, high-resolution textures.

Wrap U

Controls how a texture repeats in the U direction on a large surface. Choose between periodic, black, clamp, mirror and file. The default wrap mode is 'periodic'. The default wrap mode for tiles (UDIM, etc) is 'mirror'. See below.

Wrap V

Controls how a texture repeats in the V direction on a large surface. Choose between *Periodic*, *Black*, *Clamp*, *Mirror* and *File*. The default wrap mode is *Periodic*. The default wrap mode for tiles (UDIM, etc) is *Mirror*. The *Missing* wrap mode works similarly to *Black*, however, lookups to the `image` shader that are outside of the texture will use the `missing_texture_color`.

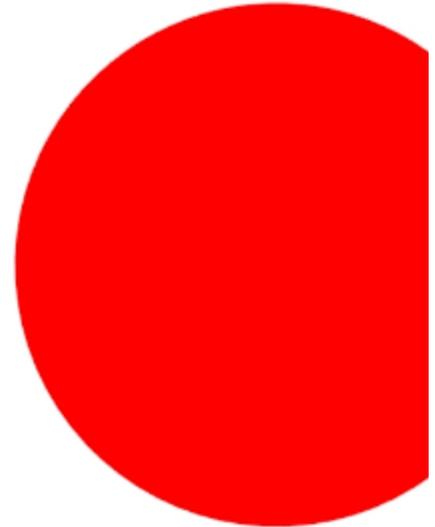
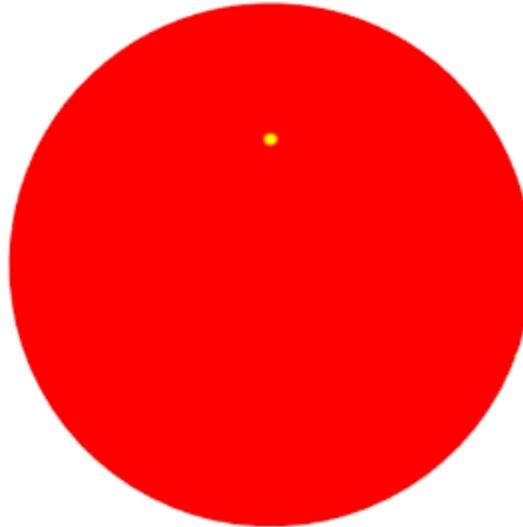
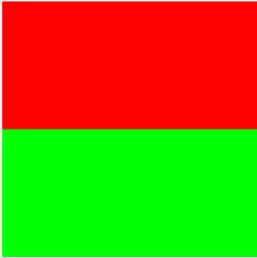


Periodic (default)

Black

File wrap mode uses the wrap setting encoded in the file itself (only applies to OpenEXR files). This is useful to preserve information about how a texture should wrap without manual correction afterward. In certain cases, 'file' mode can prevent edges. For that, to work you will need to make the correct choice when you generate mipmaps with 'maketx'.

The example below shows an OpenEXR file used as a lat-long skydome that has the file wrap modes set to 'periodic, clamp'. Generating mip maps with this mode prevents artifacts at the sphere poles. When you leave wrap modes with their default values (periodic, periodic), you can see a dot at the top of the sphere. However, if you set wrap modes to 'file' (and use a file that has the correct wrap modes in the metadata), the dot will no longer be visible.



OpenEXR file that has the file wrap modes set to 'periodic, clamp'

Wrap: Periodic (artifact visible at pole of sphere)

Wrap: File (artifact is gone)

Scale U

Scales the image.

Scale V

Scales the image.



Scale U: 1, Scale V: 1 (default)

Scale U: 2, Scale V: 2

Flip U

Flip (mirror) the image in the horizontal direction.



Disabled (default)



Enabled

Flip V

Flip (mirror) the image in the vertical direction.



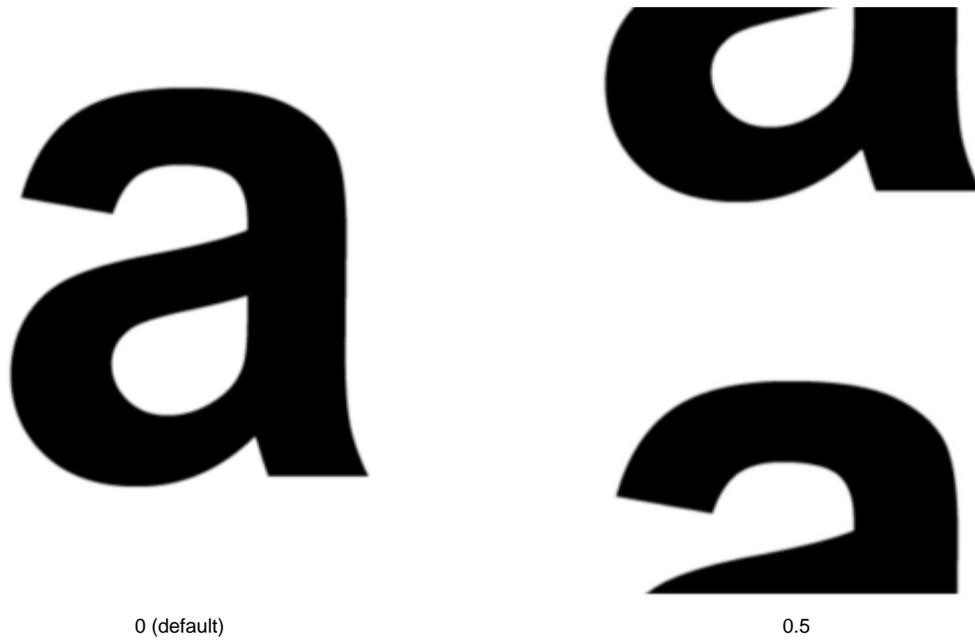
Disabled (default)



Enabled

Offset U

Offsets the image in the U direction. This offset takes place before scaling, flipping, or swapping of the S and T coordinates.

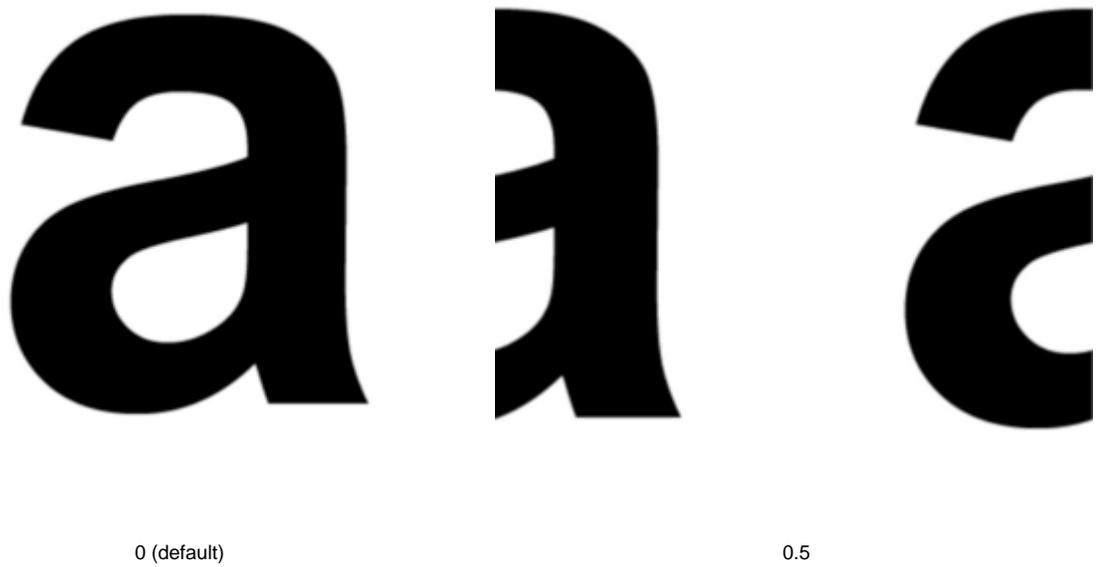


0 (default)

0.5

Offset V

Offsets the image in the V direction. This offset takes place before scaling, flipping, or swapping of the S and T coordinates.



0 (default)

0.5

Swap UV

Swaps the axes.

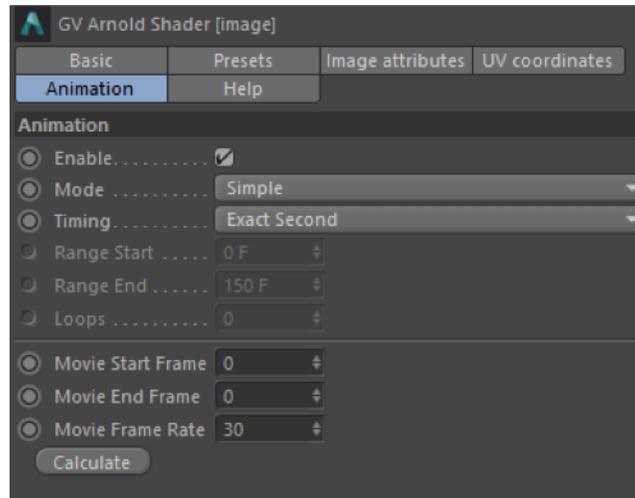


Disabled (default)

Enabled

Animation

Animation controls enable you to load textures from a sequence based on the current frame.



Mode

Sets the general playback mode:

- Simple: Play the sequence once from start to finish.
- Loop: Play the sequence from start to finish repeatedly.
- Ping-Pong: Play the sequence from start to finish to start repeatedly.

Timing

Sets the timing of the sequence:

- Exact Frame: Use one frame of the sequence per frame of your animation. No frames will be dropped.
- Exact Second: Matches each second of the sequence against each second of your animation, thus ensuring that the sequence will be played back at the original speed.
- Range: Play the sequence once over a specified frame range (Range Start and Range End) of your animation. Use this option if you do not want the texture to start playing immediately.

Loops

Repeat the sequence a finite number of times. If you set Loops to 1, the sequence will be repeated once.

Movie Start Frame / Movie End Frame / Movie Frame Rate

Use these settings to define which part of the sequence should be used with which frame rate. Use Frame Start and Frame End to define when (which frame) a sequence should begin and when it should end. If the same value is entered into both fields, only that frame of the animation will be used as a texture.

Calculate

If you click on Calculate, the plugin will automatically enter the start and end frame, based on the lowest and highest image number in specified sequence.

Pepe model by Daniel M. Lara ([Pepeland](#)).