

# PxrTexture

The PxrTexture is the main node to load in textures and like all texture style nodes, this node takes a manifold that describes either a 2D or 3D domain to apply the texture to.

If no manifold is attached, the default behavior is to apply over the s,t domain defined on the geometry.

Texture atlas format files can be read in UDIM (Mari), ZBrush, or Mudbox formats. This plugin also supports Rtx procedural texture plugins.

## Input Parameters

### Filename


The filename of the texture. This parameter must be supplied.

To use an image sequence, Typically, you'll use string substitutions to construct texture map references by embedding the frame number in your favorite representation supported by your DCC of choice. Here's an example:

```
(For Maya)    $PROJPATH/sourceimages/flapping.<f4>.tex

(For Katana)  '/images/flapping.%04d.tex' % frame

(For Houdini) use $F $F3 in the file name or Houdini expressions, `padzero(3, $F)`
```

 It's best to avoid special characters, diacritics, and spaces in your file path as these may not be resolved correctly and result in the texture failing to render.

Additionally, there are some substitutions that RenderMan will directly do in any texture filename that can be used here. If you have used Mari, Mudbox, or ZBrush to create a tile-based series of textures, put "<UDIM>" (Mari), "\_u<U>\_v<V>" (Mudbox), or "\_u<u>\_v<v>" (Zbrush) into the filename. For example, if your textures are from Mari and you have names of /path/to/my/diffuseTexture.1001.exr and /path/to/my/diffuseTexture.1002.exr, the path you should specify should be "/path/to/my/diffuseTexture.<UDIM>.exr". The Atlas Style parameter does not matter in this context.

In addition to the Atlas substitution strings we support, you can also reference a constant string primvar in your filename to make it easy to reuse a texture across different pieces of geometry, where the primvar dictates a filename convention.

- <primstr:primvarname> - will substitute the value of the named constant string primitive variable, such as the name of an asset in for example " /assets/<primstr:model>/diffuse.tex" on an apple with "const string model" ["apple"] would be expanded to "/assets/apple/diffuse.tex"

### First Channel Offset

Offsets the first channel to be looked up.

### [Deprecated] Atlas Style

The atlas style parameter is deprecated in favor of using the atlas substitution tokens directly in the filename parameter. If you specify an atlas style, the *file name* must contain \_MAPID\_ which will be substituted automatically according to the surface parameterization and *atlasStyle*.

A Mari UDIM example for the first UV tile would be [Diffuse.1001.tex](#) where "1001" replaces \_MAPID\_ in the texture filename.

Value	Filename	Atlas Style	Equivalent Use in "filename"	Alternative
0	Diffuse.1001.tex	UDIM (Mari)	Diffuse.<UDIM>.tex	Diffuse.<udim>.tex
1	Diffuse.U1_V1.tex	UV Tile Base-1 (Mudbox)	Diffuse.u<U>_u<V>.tex	
2	Diffuse.u0_v0.tex	UV Tile Base-0 (Zbrush)	Diffuse.u<u>_u<v>.tex	

So, for example.

If your textures use the Mari UDIM style and the filename is: **Diffuse.1001.tex**, you need to use **Diffuse.<UDIM>.tex** for the textures to load into their correct UDIMs.

Note : <UDIM> can be in either UPPER or lowercase <udim>



Users should avoid negative texture coordinates for all atlas texture workflows

## Invert T

Inverts the t parameter for the texture lookup.

## Filter

Selects different reconstruction filters that can be used during texture lookup. The filters available for PxrTexture are:

- 0: Nearest
- 1: Box
- 2: Bilinear
- 3: Bspline
- 6: Gaussian
- 7: Lagrangian

## Blur

Specifies how much to blur the image retrieved from the texture file.

## Mip Interpolate

Selects whether to interpolate between adjacent resolutions in the multi-resolution texture, resulting in smoother transitions between levels.

## Missing Color

If there is an error opening the texture, use this color.

## Missing Alpha

If there is an error opening the texture, use this alpha.

## Linearize

Apply the reverse sRGB transform your texture. If you are painting textures in sRGB space (default for most paint packages) but viewing your data in data linear space, your textures will look washed out. This will apply the sRGB transform to your texture, which should make it appear visually linear again.

## Manifold

Provides the domain over which to apply the texture. Defaults to s,t.

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## Adjust Output

## Color Scale

A multiplier for the color values in a texture can be used to adjust brightness or manipulate individual color channels

## Color Offset

Apply an offset to the result, shifting the colors of the result

## Saturation

Increase (greater than one) or decrease (less than one) the saturation of the texture result

## Alpha Scale

A multiplier for the alpha channel, useful when the alpha is used to drive a parameter

## Alpha Offset

An offset for the alpha channel, useful when the alpha is used to drive a parameter

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## Advanced Settings

### MipBias

Bias mip selection is chosen for rendering to either a higher (negative integers) or lower resolution (positive integers) selection.

### MaxResolution

Clamp mip selection to a preferred maximum level. This may prevent the highest resolutions from being rendered depending on your selection.

### OptimizeIndirect

Sets texture filter to Box (inexpensive) on indirect hits instead of the selected filter used for other visible effects.

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## Output Parameters

### resultRGB

The filtered color result. Note that all results are looked up starting at the *startChannel* offset.

### resultR

The R channel result

### resultG

The G channel result

### resultB

The B channel result

### resultA

If alpha is present and resultRGB is connected it returns the channel after RGB. If RGB is not connected it returns the first channel.