

PxrProjectionLayer

A specialized version of PxrTexture to project textures, designed to work with PxrProjectionStack.

It has additional functionalities to optimize texturing and apply multiple textures at once.

Input Parameters

Filename

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



This parameters shouldn't be left empty, otherwise the [missing color](#) will be projected instead.

First Channel Offset

First channel offset to be looked up for filename.

Filter

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

Value	Filter
0	Closest
1	Smart cubic
2	Linear

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.

PreMultiply

Enable this if you want the final color to be multiplied by the alpha.

Mask

A black and white mask can be used to avoid reading texture on points that won't be visible. PxrProjectionLayer is providing such an output (resultMask) to avoid reading texels that are either occluded or outside of the projection window.

Manifold

Provides the range over which to apply the texture. Plug a PxrProjector here to provide mapping coordinates to the texture function. Defaults to s,t.

Channels

The channel section allows you to project up to 16 additional textures, that can be passed to a PxrProjectionStack node for compositing and output to separate AOVs or outputs.

Premultiply Channels

Multiply the channels color by resultA. This is useful if the channels are not already premultiplied by the main texture's alpha and the mask input.

Channels Filenames

The filename of up to 16 additional color textures.

Channels Linearize

Apply sRGB linearization to the texture.

Channels Missing Color

The color used when the texture can not be read.

Channels Input Black

Tweak the texture's black point. Similar to Photoshop's "Levels".

Channels Input Gamma

Tweak the texture's gamma. Similar to Photoshop's "Levels".

Channels input White

Tweak the texture's white point. Similar to Photoshop's "Levels".

Channels Output Black

Set the texture's maximum black value. Similar to Photoshop's "Levels".

Channels Output White

Set the texture's minimum white value. Similar to Photoshop's "Levels".

Advanced Texture Settings

MipBias

Bias mip selection 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.

Output Parameters

resultRGB

The filtered color result. Note 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

The Alpha channel, which takes into account the mask provided through the mask input.

outChannelsRGB

The RGB channel data, packed in a single struct output. PxrProjectionStack will get the number of available layers from the struct's numChannels member.