PxrVary

This node creates controlled random variations. The variation source can be attribute- or primvar-based. Primvars should have a constant detail (a single value per object). Only non-zero id/primvar/attribute values will create a variation. If the source can not be read, there will be no variation. Being able to lookup an arbitrary float or int attribute is a good way to debug a scene. For examples, if you are wondering which objects are single-sided, you can enter 'Ri:Sides' in varName.

Input Parameters

Input Color

The color that you would like to vary.

Vary Source

The source of the variation. One of:

- 0: Identifier Id
- 1: Identifier Name
- 2: Primvar
- 3: Attribute

Variable Name

If varySource is 1 or 2, the name of the primvar or user attribute. If using a primvar, it should be either constant; per-vertex/face primvars are not supported. For user attributes, type `user:myattribute`.

Variable Type

The type of the primvar or user attribute used to seed variation. If using a primvar, it should be either uniform or constant; per-vertex/face primvars are not supported.

- 0: Float
- 1: Integer

Hue

Limit random hue shift. Ranges from 0 (no variation) to 1 (full variation).

Saturation

Limit random saturation scale. Ranges from 0 (no variation) to 1 (full variation).

Luminance

Limit random luminance scale. Ranges from 0 (no variation) to 1 (full variation).

Gamma

Limit random gamma variation. Ranges from 0 (no variation) to 1 (full variation).

Advanced

Probability

Range from 0 to 1 specifies the possibility of applying the variation.

Hue Mode

How the color hue will be varied:

- 0: Centered -- the variation will be centered around the current value.
- 1: Additive -- the variation will be added to the current value.
- 2: Subtractive -- the variation will be subtracted from the current value.

Saturation Mode

How the color saturation will be varied:

- 0: Centered -- the variation will be centered around the current value.
- 1: Additive -- the variation will be added to the current value.
- 2: Substractive -- the variation will be substracted from the current value.

Luminance Mode

How the color luminance will be varied:

- 0: Centered -- the variation will be centered around the current value.
- 1: Additive -- the variation will be added to the current value.
- 2: Substractive -- the variation will be substracted from the current value.

Gamma Mode

How the color gamma will be varied:

- 0: Centered -- the variation will be centered around the current value.
- 1: Additive -- the variation will be added to the current value.
- 2: Substractive -- the variation will be substracted from the current value.

Seed

Allows the variations to be changed without altering the set primvar

Scale Normalized Primvar

Will take the set primvars and scale them to an expected 0-1 range used in the pattern for items that the primvar scale is beyond the normalized range

Verbosity

Outputs various infos to help you debug your scenes.

- 0: Silent -- only error messages will be output.
- 1: Warnings -- errors and missing attributes will be reported.
- 2: Infos -- like above, plus the value of attributes.

Output Parameters

resultRGB

The clamped color result.

resultR

The R channel from the *resultRGB* output.

resultG

The G channel from the *resultRGB* output.

resultB

The B channel from the *resultRGB* output.