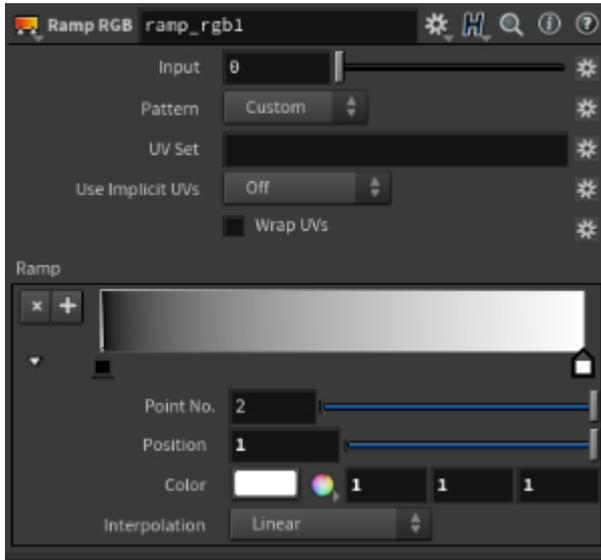
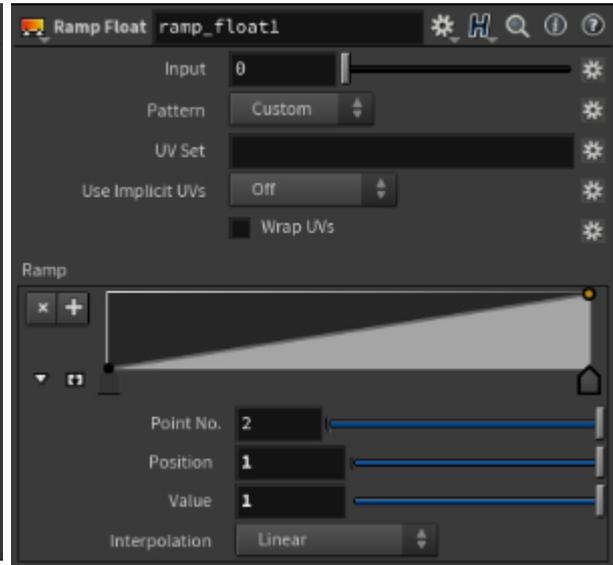


Ramp Shaders

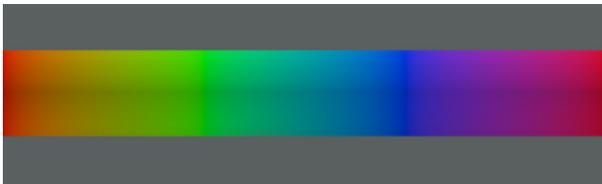


Ramp RGB



Ramp Float

These shaders provide a gradient ramp for RGB output and a spline ramp for float output. As points are added, edited or deleted on the curve or gradient, corresponding inputs are created dynamically for the *position*, *color* (or *value*) and *interpolation*. These inputs are then available to link upstream shaders so that noises and textures can be plugged in. Effects can be created by using a *ramp_float* shader to drive the displacement and a *ramp_rgb* shader to drive the color. Internally, the shaders use lazy caching of the parameters of the curves and give intermediate results. Therefore both ramp shaders are faster when not textured or when only some of the parameters are textured.



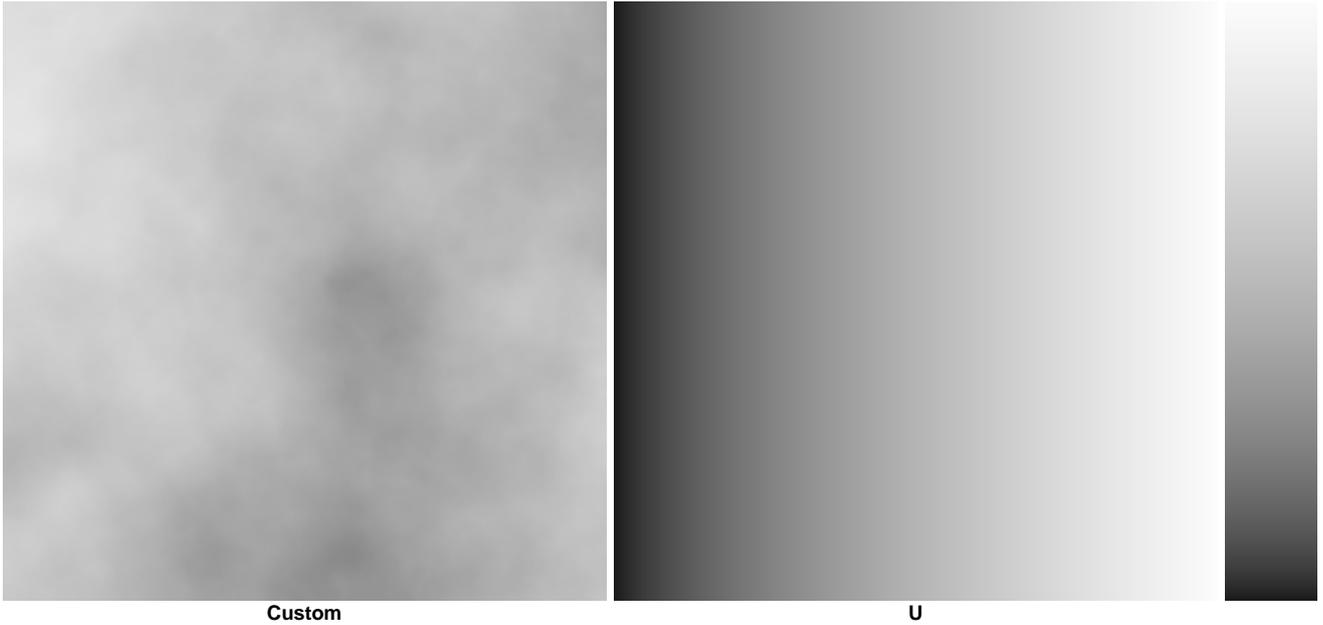
Ramp RGB applied using the V coordinates as input (Type)



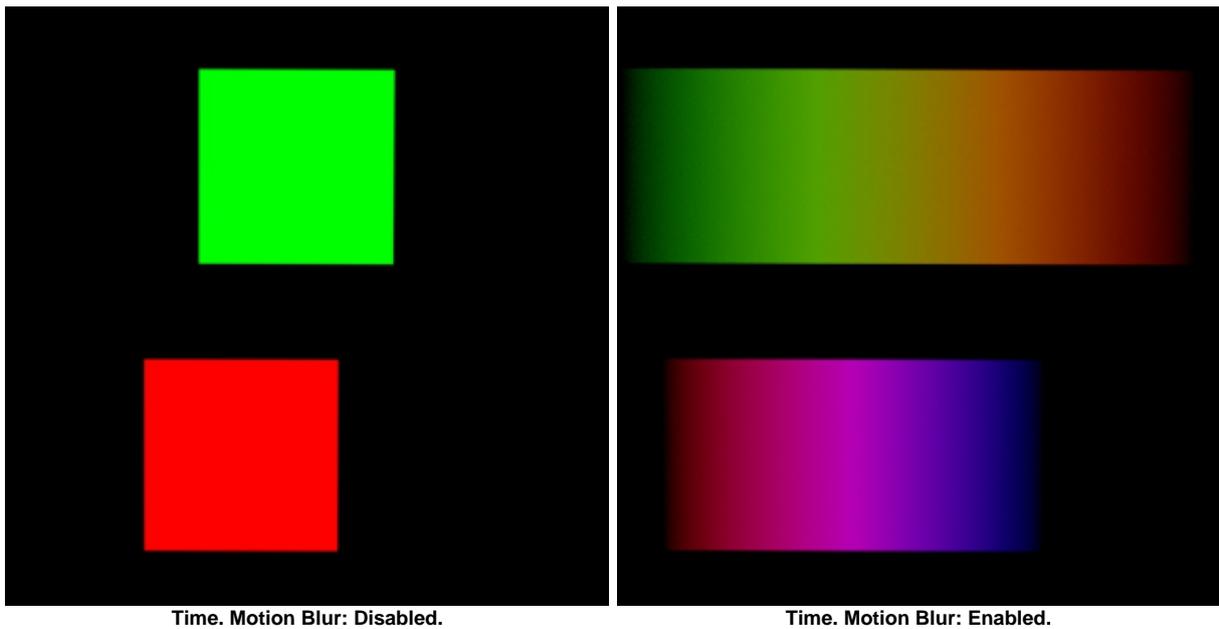
Ramp Float used as displacement showing Catmull-Rom, constant and linear interpolation

Type

Allows you to select from built-in ramp modes (like u, v, circular, etc.) or a custom mode where the mapping is controlled by the *input* parameter.



Time computes the input based on the current time and the camera's start and end shutter interval. In the images below, the motion-blurred planes have a flat shader that changes colors through the shutter time.



Input

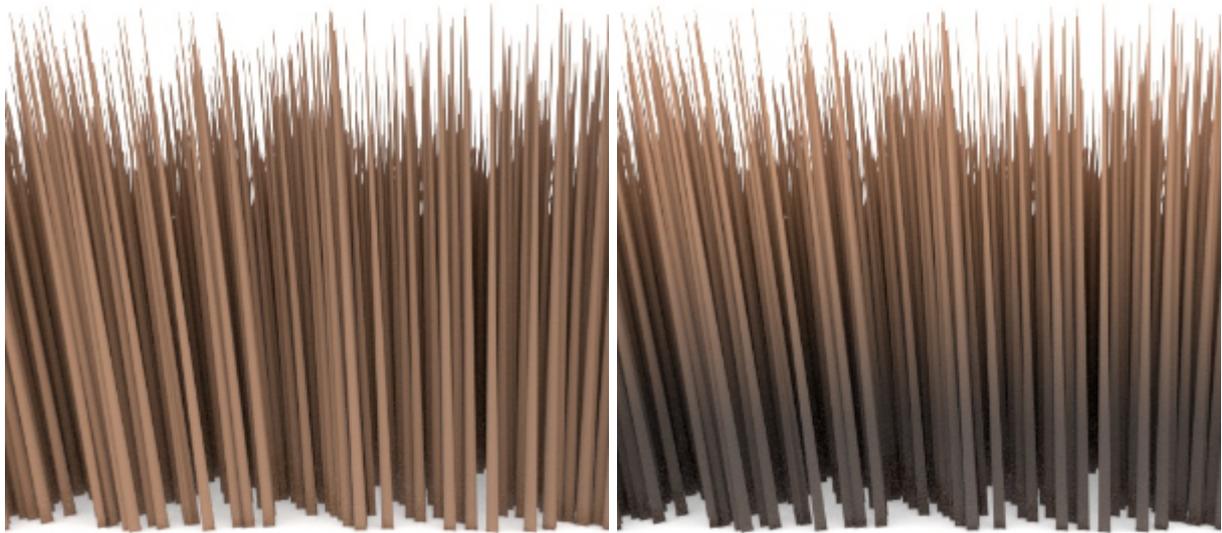
Allows the value/color of an incoming shader to be remapped.

UV set

UV set to use for input coordinates. 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".

Use Implicit UVs

Use the implicit (barycentric) per-primitive coordinates instead of the UVs. This is mostly useful with curves where it gives coordinates varying along each hair strand.



Disabled (default)

Enabled

Wrap UVs

Wraps the input UV coordinates between [0,1] so that it applies to different UV ranges or UDIMs.

Ramp

Gradient (ramp_rgb) and spline (ramp_float) controls to define control points. Colors can be added by clicking on the desired position on the ramp.

Colors or values can be added the ramp by clicking on the + or on the desired position on the ramp. The curve view can be expanded by clicking on the small down arrow.

Point No.

The number of the selected color point.

Position

The location of the selected color point along the ramp from 0-1.

Color/Value

Color/Value at the given point on the curve or gradient.

Interpolation

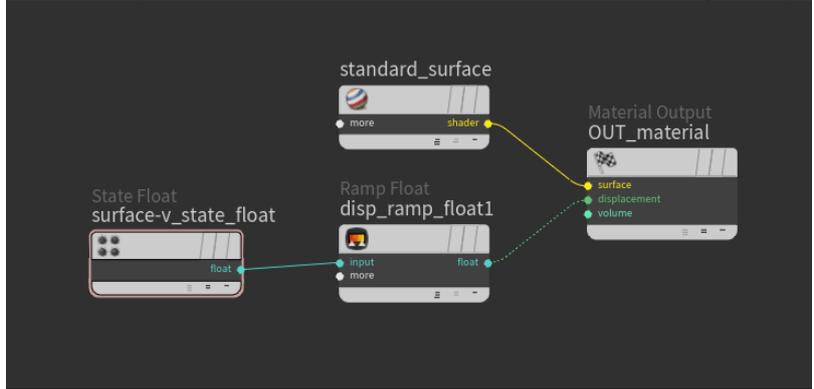
Integer array of interpolation types for each curve point. The available types are:

- 0: Constant
- 1: Linear
- 2: Catmull-Rom
- 3: Monotone Cubic

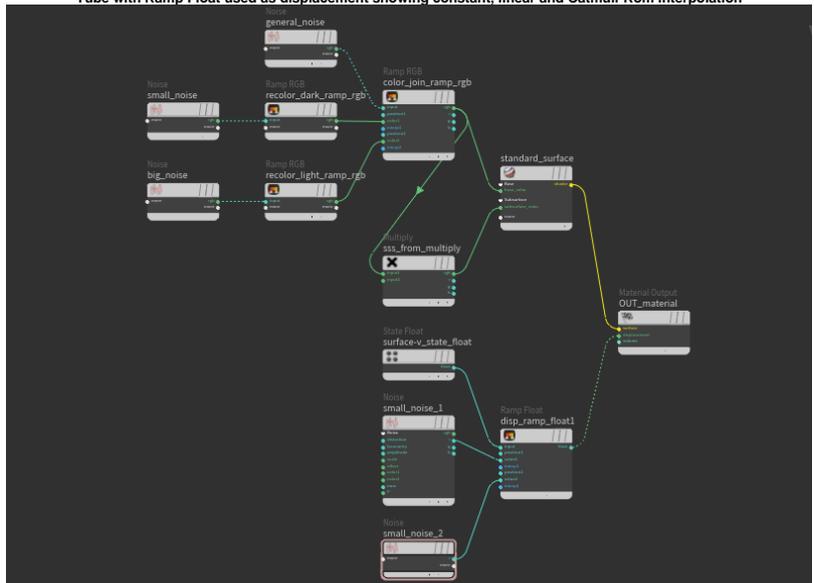
Above examples



Tube with a ramp RGB applied. Note the state_float used as the input because the ramp shader has no knowledge of the objects UVs.



Tube with Ramp Float used as displacement showing constant, linear and Catmull-Rom interpolation



Ramp RGB and Ramp Float combined with some noises