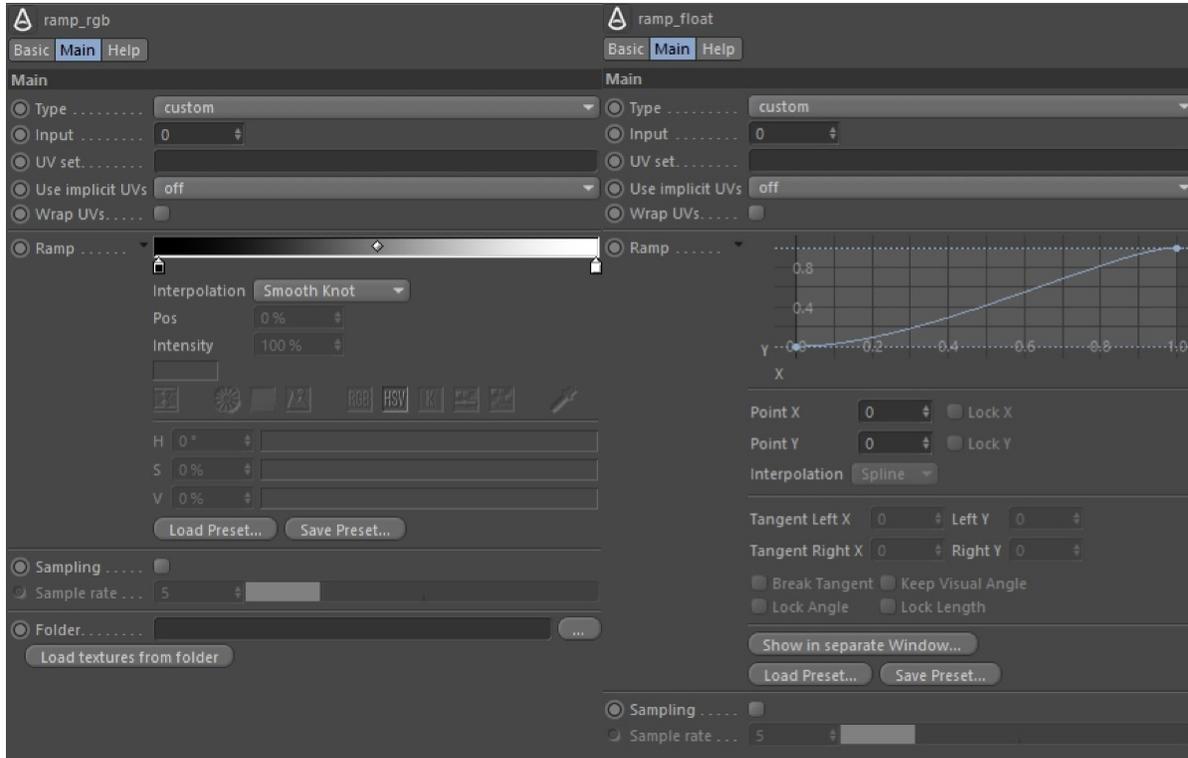
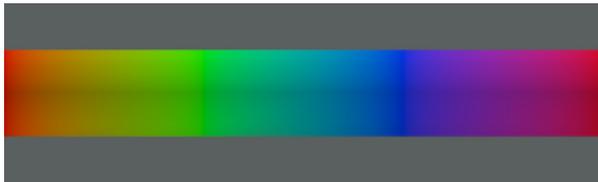


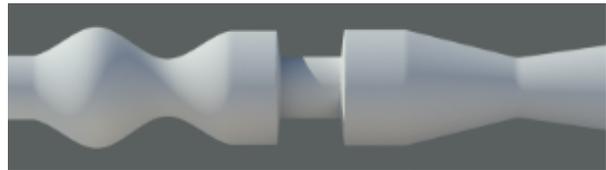
Ramp



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

An example of a *ramp* shader used to create a fake fresnel effect can be downloaded [here](#).

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.

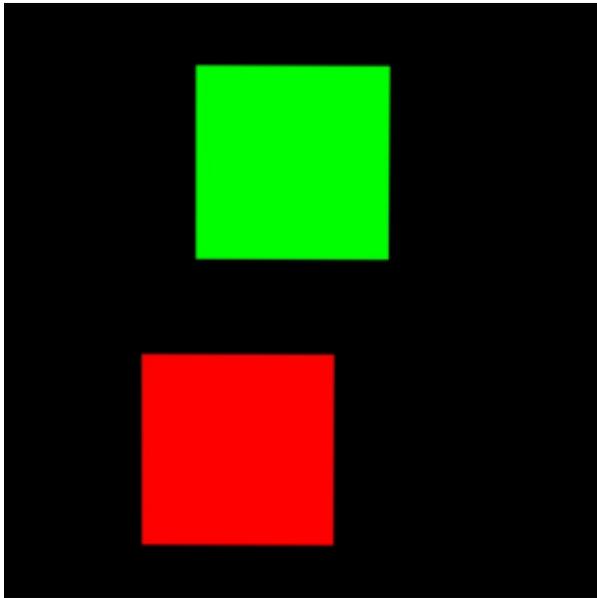


Custom

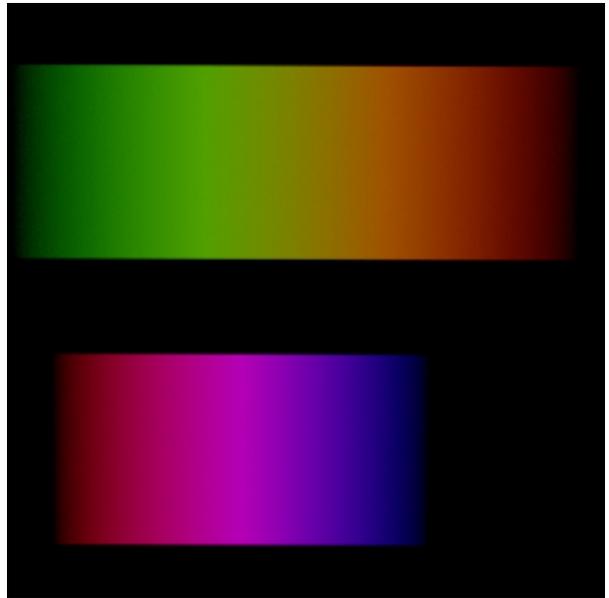


U

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.



Time. Motion Blur: Disabled.



Time. Motion Blur: Enabled.

Input

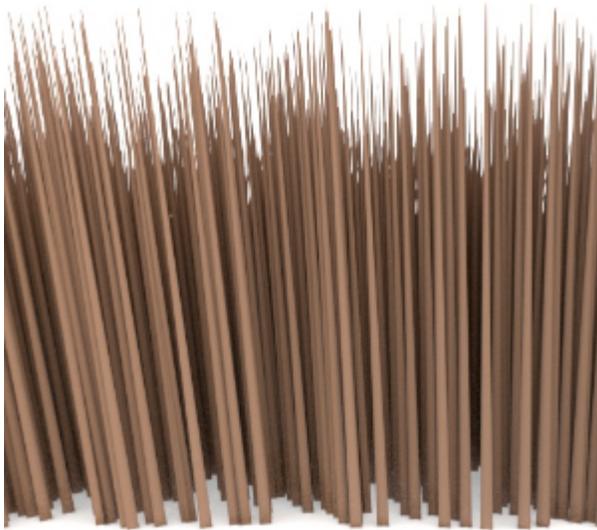
Allows the value/color of an incoming shader to be remapped.

UV Set

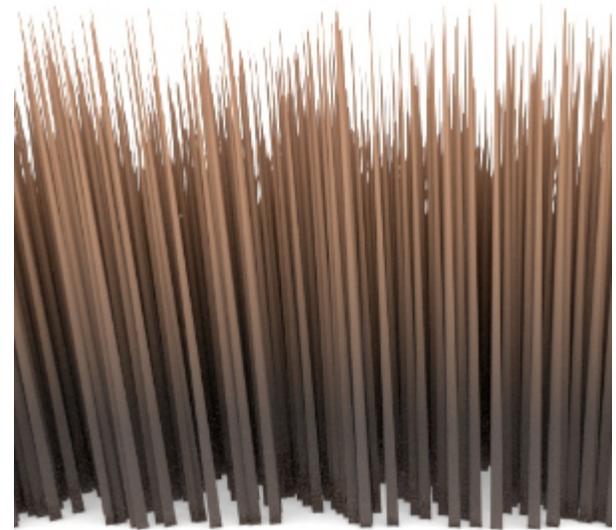
UV set to use for input coordinates. A string with the name of the UV set to use to sample the image. By default, when the uvset parameter is empty, the primary UV set in the polymesh will be used. Example: If you have created a UV set in a polymesh node called "UVset2", then you can use it by setting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

You can add new control points to the spline by pressing CTRL + click on the desired position. The ramp can be expanded by clicking on the small down arrow.

Interpolation

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

- 0: Constant
- 1: [Linear](#)
- 2: [Catmull-Rom](#)
- 3: [Monotone Cubic](#)

This is how C4D interpolation is translated:

Gradient Control

C4D interpolation	Arnold interpolation
Smooth Knot	Catmull-rom
Cubic Knot	Monotone cubic
Cubic Bias	Monotone cubic
Linear Knot	Linear
Linear	Linear
None	Constant
Exponent Up	Monotone cubic
Exponent Down	Monotone cubic

Spline Control

C4D interpolation	Arnold interpolation
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Spline	Catmull-rom
Cubic	Monotone cubic
Linear	Linear

Sampling

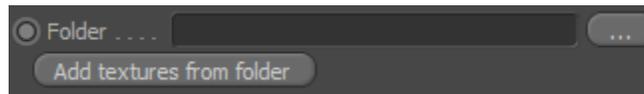
C4D's gradient and spline controls offer more interpolation methods and different options than supported in the ramp shaders. If enabled, color and curve values will be sampled, and Catmull-rom interpolation will be used in the shaders resulting in a closer look defined by the controls.

Sample Rate

The number of samples taken when sampling is enabled.

Load Textures From Folder

The ramp RGB shader can load images from a folder to each color (similar to the MoGraph Multi Shader's 'Add from Folder' feature). Images are loaded in alphanumerical order. If there are more textures in the folder than the color inputs defined on the ramp shader, then the plugin asks to create an input for all textures or load textures only for the available colors.



Linking

The ramp shader node allows you to link shaders to different components of the gradient or spline giving maximum flexibility, e.g. connect a noise shader to the first color index, etc. Components are listed in the input port menu of the ramp shader. A number of available components defined by the gradient or spline control.

