

10.1.8 Editors - Compositor Editor - Header - Add Menu - Color

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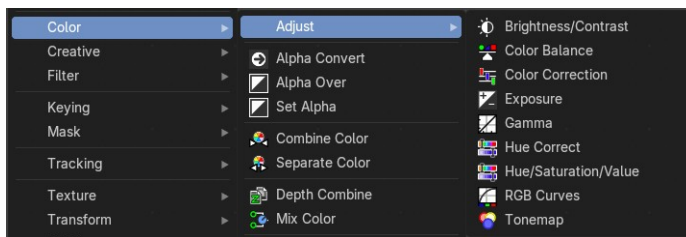
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Add menu - Color - Adjust

Here you find color related nodes.



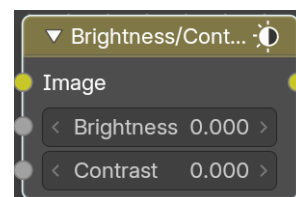
Brightness/Contrast

Adjust the brightness and contrast.

Inputs

Image

The image input



Brightness

An additive-type factor by which to increase the overall brightness of the image. Use a negative number to darken an image.

Contrast

A scaling type factor by which to make brighter pixels brighter, but keeping the darker pixels dark. Higher values make details stand out. Use a negative number to decrease the overall contrast in the image.

Outputs

Color

Standard output.

Note: *It is possible that this node will put out a value set that has values beyond the normal range, i.e. values greater than one and less than zero. If you will be using the output to mix with other images in the normal range, you should clamp the values using the Map Value node (with the Min and Max enabled), or put through a Color Ramp node (with all normal defaults).*

Color Balance

The Color Balance node can adjust the color and values of an image.

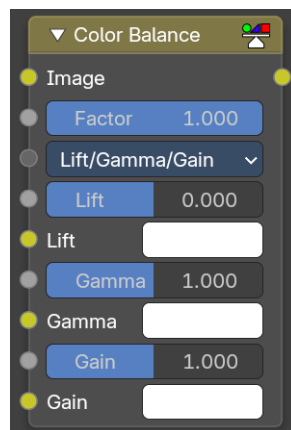
Inputs

Factor

Controls the amount of influence the node exerts on the output image.

Image

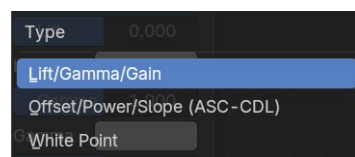
Standard image input.



Properties

Type

You can choose between different formulas.



Lift/Gamma/Gain

Lift

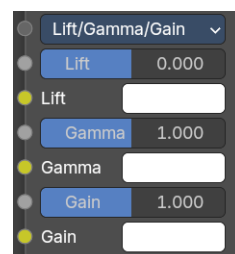
Increases the value of dark colors.

Gamma

Will adjust mid tones.

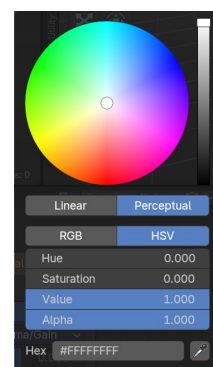
Gain

Adjusts highlights.



Color wheel

When you click at one of the colors then you will call a color wheel where you can adjust the colors.



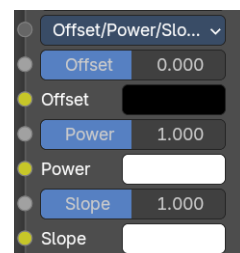
Offset/Power/Slope (ASC-CDL)

Offset

Summand. (Adjusts the overall brightness.)

Basis

Additional offset, allows to specify a negative Offset value.



Power

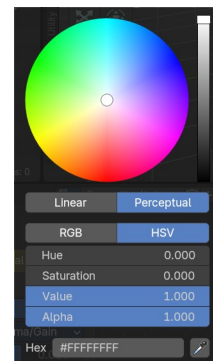
Over-all exponent. (Adjusts the mid tones.)

Slope

Multiplier. (Adjusts the highlights.)

Color wheel

When you click at one of the colors then you will call a color wheel where you can adjust the colors.



White Point

Chromatic adaption from a different white point.

Input

Temperature

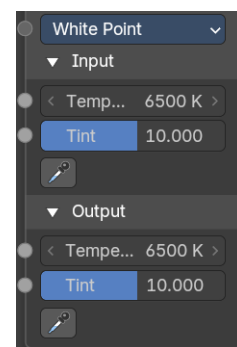
Color temperature of the inputs white point.

Tint

Color tint of the inputs white point.

Picker

Pick an input whitepoint. The color that gets mapped to white.



Output

Temperature

Color temperature of the outputs white point.

Tint

Color tint of the outputs white point.

Picker

Pick an output whitepoint. The color which gets white gets mapped to.

Outputs

Image

The output image.

Advanced

The Offset/Power/Slope Formula

$$\text{out} = (i \times s + o)^p$$

where:

out: The color graded pixel code value.

i: The input pixel code value (0 to 1) (black to white).

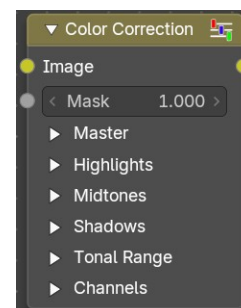
s: Slope (any number 0 or greater, nominal value is 1.0).

o: Offset (any number, the nominal value is 0).

p: Power (any number greater than 0, nominal value is 1.0).

Color Correction

With the Color Correction node you can adjust the color of an image. Separated in several tonal ranges (highlights, mid tones and shadows) and only affect the necessary RGB channels.



Input

Image

Image Input.

Mask

Input a mask to cover parts of the image so that they are affected.

Properties

Master panel

Saturation

Adjusts the image's saturation.

Contrast

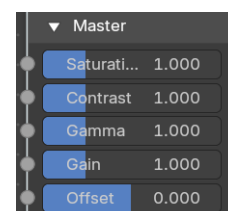
Adjust image contrast.

Gamma

Exponential gamma correction, affecting the whole image. (Works like Power in the Color Balance node.)

Gain

Multiplier, stronger influence on the whole image. (Works like Slope in the Color Balance node.)



Offset

Controls the offset of the entire image.

Highlights panel

Saturation

Adjusts the saturation of the highlights.

Contrast

Adjust image contrast of the highlights.

Gamma

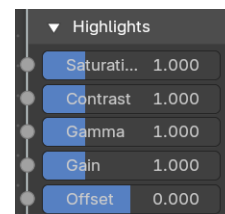
Exponential gamma correction, affecting the highlights of the image. (Works like Power in the Color Balance node.)

Gain

Multiplier, stronger influence on the highlights. (Works like Slope in the Color Balance node.)

Offset

Controls the offset of the of the highlights.



Midtones panel

Saturation

Adjusts the saturation of the midtones.

Contrast

Adjust image contrast of the midtones.

Gamma

Exponential gamma correction, affecting the midtones of the image. (Works like Power in the Color Balance node.)

Gain

Multiplier, stronger influence on the midtones. (Works like Slope in the Color Balance node.)

Offset

Controls the offset of the of the midtones.



Midtones panel

Saturation

Adjusts the saturation of the midtones.

Contrast

Adjust image contrast of the midtones.



Gamma

Exponential gamma correction, affecting the midtones of the image. (Works like Power in the Color Balance node.)

Gain

Multiplier, stronger influence on the midtones. (Works like Slope in the Color Balance node.)

Offset

Controls the offset of the of the midtones.

Shadows panel

Saturation

Adjusts the saturation of the shadows.

Contrast

Adjust image contrast of the shadows.

Gamma

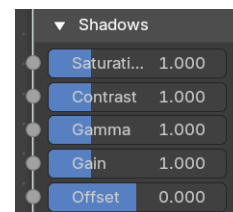
Exponential gamma correction, affecting the shadows of the image. (Works like Power in the Color Balance node.)

Gain

Multiplier, stronger influence on the shadows. (Works like Slope in the Color Balance node.)

Offset

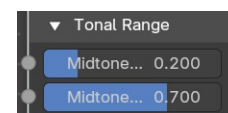
Controls the offset of the of the shadows.



Tonal range panel

Mid tones Start, Mid tones End

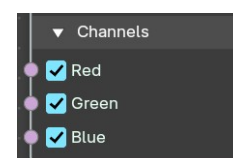
Defines the start and the end of mid tones range, i.e. values where the whole tonal range is divided into the highlights, mid tones and shadows (there is also a smooth transition between the ranges of width 0.2 units).



Channels

Red, Green, Blue

Specifies which RGB channels will be affected by correction.



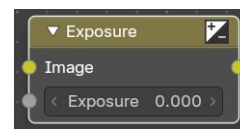
Outputs

Color

The image output.

Exposure

The Exposure Node node allows you to make areas of an image brighter or dimmer.



Inputs

Image

Standard image input.

Exposure

The scalar factor to adjust the exposure of the image.

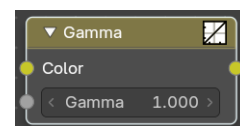
Outputs

Image

Standard image output.

Gamma

Use this node to apply a gamma correction.



Inputs

Image

Image input.

Gamma

An exponential brightness factor.

Outputs

Image

Image output.

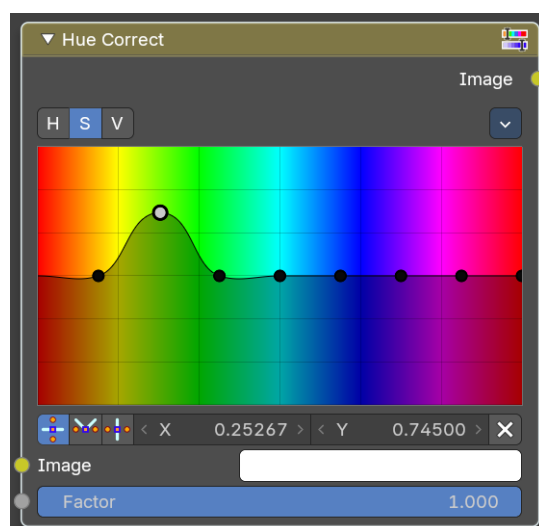
Hue Correct

With the Hue Correct Node you can adjust the Hue, Saturation, and Value of an image with an input curve.

Inputs

Image

Standard image input.



Factor

Controls the amount of influence the node exerts on the output image.

Properties

Level

H (Hue), S (Saturation), V (Value). Choose which curve you want to modify.

Tools menu

Reset View

Resets the view. This menu item is here dysfunctional, you cannot view in or out.

Reset Curve

Resets the curve to defaults.

Auto Handle

Sets the handle for the curve points to Auto Handle.

Vector Handle

Sets the handle for the curve points to Vector Handle.

Auto Clamped

Sets the handle for the curve points to Auto Clamped.

X / Y

The x and y position of the currently selected curve point.

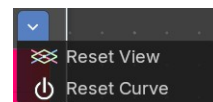
Delete Points

Deletes the currently selected curve point.

Output

Image

Image Output

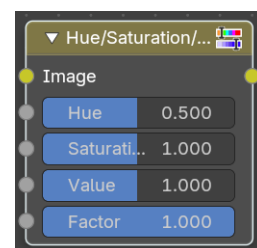


Hue/Saturation/Value

The Hue Saturation Node applies a color transformation in the HSV color space. Called “Hue Saturation Value” in shader and texture context.

Inputs / Properties

The inputs also works as properties when nothing is connected.



Image

Plug in an image.

Hue

Specifies the hue rotation of the image. 360° are mapped to (0 to 1). The hue shifts of 0 (-180°) and 1 (+180°) have the same result.

Saturation

A saturation of 0 removes hues from the image, resulting in a gray scale image. A shift greater than 1.0 increases saturation.

Value

Value is the overall brightness of the image. De/Increasing values shift an image darker/lighter.

Factor

Controls the amount of influence the node exerts on the output image.

Image

Standard input.

Outputs

Image

Standard output.

Hue/Saturation Tips

Some things to keep in mind that might help you use this node better:

Hues are vice versa

A blue image, with a Hue setting at either end of the spectrum (0 or 1), is output as yellow (recall that white, minus blue, equals yellow). A yellow image, with a Hue setting at 0 or 1, is blue.

Hue and Saturation work together.

So, a Hue of 0.5 keeps the blues the same shade of blue, but Saturation can deepen or lighten the intensity of that color.

Gray & White are neutral hues

A gray image, where the RGB values are equal, has no hue. Therefore, this node can only affect it with Value. This applies to all shades of gray, from black to white; wherever the values are equal.

Changing the effect over time

The Hue and Saturation values can be animated with a Time Node or by animating the property.

RGB Curves

The RGB Curves Node allows color corrections for each color channel and levels adjustments in the compositing context.

Inputs

Image

Standard image input.

Factor

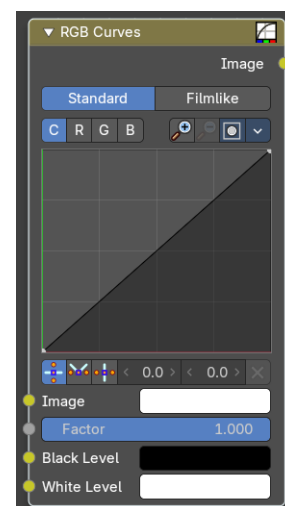
Controls the amount of influence the node exerts on the output image.

Black Level

Defines the input color that is (linear) mapped to black.

White level

Defines the input color that is (linear) mapped to white.



Properties

Tone

What tone mapping to use. Standard or Film like.



Curve Field

Channel buttons

Clicking on one of the channels displays the curve for each.

C (Combined RGB), R (Red), G (Green), B (Blue).



Navigation elements

They are described from left to right.

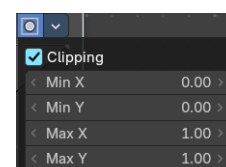


Zoom in and out

The two buttons with the magnifying glass at it zooms in and out in the curve window.

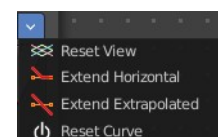
Clipping

Clipping options. Set up clipping for the stroke.



Tools

Tools is a menu where you can find some curve related tools.



Reset View

Resets the curve windows zoom.

Extend horizontal

Extends the curve before the first curve point and behind the last curve point horizontally.

Extend extrapolated

Extends the curve before the first curve point and behind the last curve point extrapolated.

Reset Curve

Resets the curve to the initial shape.

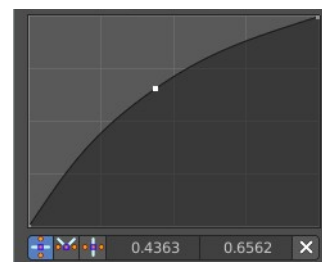
Curve edit field

Create and tweak a Bezier curve that varies the input levels (X axis) to produce an output level (Y axis).

Selecting Points

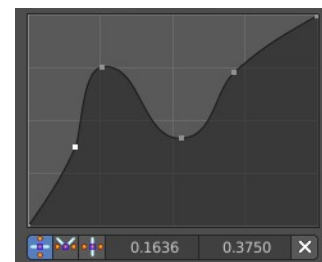
You can select curve points. This reveals two edit boxes for the x and y coordinate of this point.

Selected points can be moved around. Left click at them, hold the mouse button down and move them to a new location.



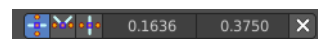
Adding Points

You can add new curve points by simply left clicking at the curve. Move the mouse to position them where you need it.



Curve point settings

When you have a point selected then you will reveal further settings at the bottom.



Vector Handle

Set handle type to Vector.

Auto Handle

Set handle type to Auto.

Auto Clamped Handle

Set handle type to Auto Clamped.

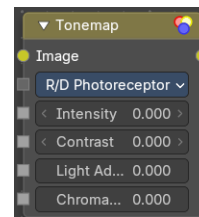
Outputs

Color

Standard output.

Tonemap

Tone mapping is a technique used in image processing and computer graphics to map one set of colors to another in order to approximate the appearance of high dynamic range images in a medium that has a more limited dynamic range.



Tone mapping addresses the problem of strong contrast reduction from the scene values (radiance) to the displayable range, while preserving the image details and color appearance. This is important to appreciate the original scene content.

Inputs

Image

Plug in the HDR image.

Properties

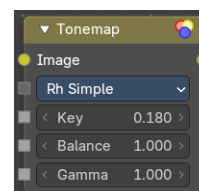
Type

There are two methods of tone mapping. Rh Simple and R/D Photo receptor.

Rh Simple

Key

The value the average luminance is mapped to.



Balance

Normally always 1, but can be used as an extra control to alter the brightness curve.

Gamma

If not used, set to 1.

R/D Photo receptor

Intensity

A value smaller than zero darkens image. A value greater than zero makes it brighter.



Contrast

Set to 0 to use estimate from input image.

Adaptation

If 0, global; if 1, based on pixel intensity.

Color Correction

If 0, same for all channels; if 1, each independent.

Outputs

Image

The Image output.