

Layers

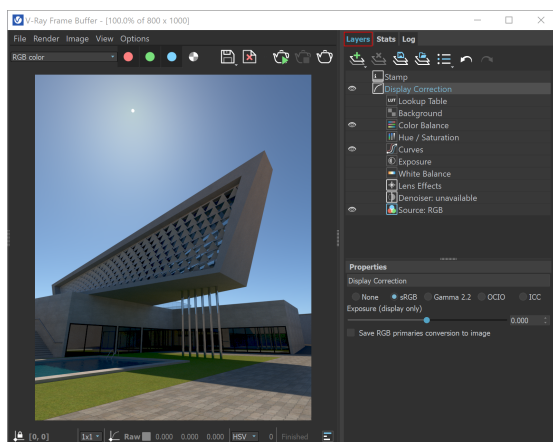
This page contains information on the Layers panel in V-Ray Frame Buffer.

Overview

The Layers panel in [V-Ray Frame Buffer](#) provides a new powerful workflow for making adjustments to your rendered image. You can bring out render elements and compose them together with individual color corrections in the panel's Composite mode, or deconstruct light contribution in the scene and fine-tune each light individually in the completed render using the VRayLightMix mode. You can also color correct the final render just like you were able to do in the previous version of VFB.

UI Path

||V-Ray Frame Buffer|| > **Layers**



Layers Menu

Commands available for the Layers panel are located at the top of the panel. Press on the icons to see the expanded list of commands for the stacked buttons.

Layers

Stats

● Log



Proportion Guide



Stamp



Display Correction



Folder



ICC profile



Filmic tonemap



Lookup Table



Curves



Color Balance



Hue / Saturation



White Balance



Exposure



Constant



Background



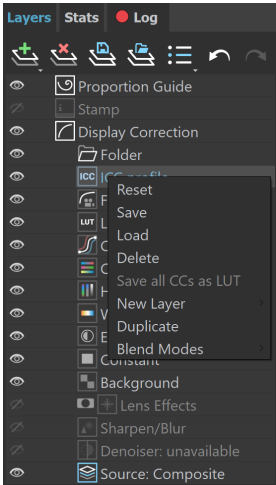
Lens Effects









Sharpen/Blur



Denoiser: unavailable



	<p>Creates a layer or folder. Multiple layers of the same type can be added.</p> <p>Folder – Allows grouping multiple layers in folders and folders in sub-folders.</p> <p>ICC Profile – Uses an ICC profile file for color corrections.</p> <p>Filmic tonemap – Contains different types of mapping curves and gamma corrections. Also allows selection of a color space.</p> <p>Lookup Table – Allows loading a LUT file for color transformations.</p> <p>Curves – Adds a Curves color correction layer.</p> <p>Color Balance – Adds a Color Balance color correction layer.</p> <p>Hue/Saturation – Adds a Hue/Saturation color correction layer.</p> <p>White Balance – Adds a White Balance color correction layer.</p> <p>Exposure – Adds an Exposure color correction layer.</p> <p>Constant – Adds a solid color that can be used to achieve an effect on another layer (for example to multiply by the constant).</p> <p>Render Element – Selects a render element (with ability to apply mask on it) from your image that you can use in compositing. This is only available when the Source layer is set to Composite.</p> <p>Background – Adds a background color correction layer.</p> <p>MultiMatte mask element – Mask is based on the MultiMatte Render Element.</p> <p>Cryptomatte mask element – Mask is based on the Cryptomatte Render Element.</p> <p>Integer mask element – Mask is used with integer render elements like Render ID, Object ID, and Material ID Render Elements.</p> <p>Proportion Guide – Allows for a number of composition guides to be overlaid on the image. The available guides are <i>Rule of Thirds</i>, <i>Diagonals</i>, <i>Golden Ratio</i>, <i>Center Cross</i>, and <i>Custom Grid</i>.</p>
	<p>Deletes the selected layer(s).</p>
	<p>Saves a layer tree preset.</p>
	<p>Loads a layer tree preset.</p>
	<p>Quick access to custom layer presets. You must set the path to it in the VFB Settings.</p>
	<p>Undo various actions related to layers, such as create, delete, reorder, or modify a layer.</p>




Redo various actions related to layers, such as create, delete, reorder, or modify a layer.

Color correction layers like Exposure and White Balance can be applied to a single layer instead of the entire composite.

You can do that by selecting a layer and then adding a new correction or by dragging the correction layer to another layer until an arrow icon appears.

The **Display Correction**, **Lens Effects**, **Denoiser**, and **Source** layers are listed in the Layers panel by default to any rendered image. Their order cannot be changed.

Layers and folders can be disabled from the visibility icon () , reordered, nested, stacked in folders, etc.

Corrections are applied from the bottom to the top, except for nested layers, which are executed after their parent.

Color corrections and the denoiser channel are saved in the output image just like they are applied in the VFB.

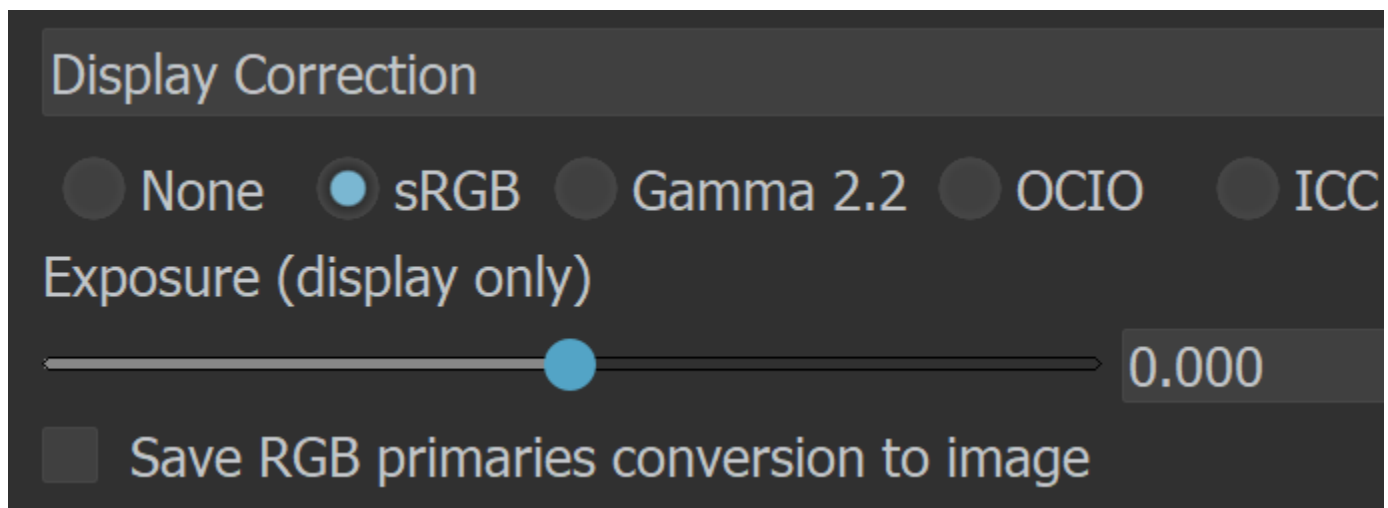
Adjustments made to the Display Correction layer are only applied for preview purposes in the VFB. Display corrections are usually saved for 8-bit image formats like JPEG and PNG and not to EXR files, which are expected to be linear.

Display Correction

The Display Correction layer specifies the color space, in which the image is displayed. You can choose between sRGB, Gamma 2.2, OCIO, and ICC or select None to return to a linear display.

The ICC correction allows you to apply an ICC profile to the image, so that (for example) it matches the appearance of the image in Adobe Photoshop. This is a display correction that is only applied when the image is viewed in the frame buffer. It is not applied when the image is saved to a file.

The OCIO correction allows you to apply color corrections from an .ocio color profile to image colors. When this correction is enabled and no specific .ocio profile is specified, it attempts to read the **OCIO environment variable** and apply the profile specified in it.



The Display Correction layer cannot be removed or reordered. It is always applied on top of all other layers, as it specifies the display color space of the resulting image or composite in the frame buffer.

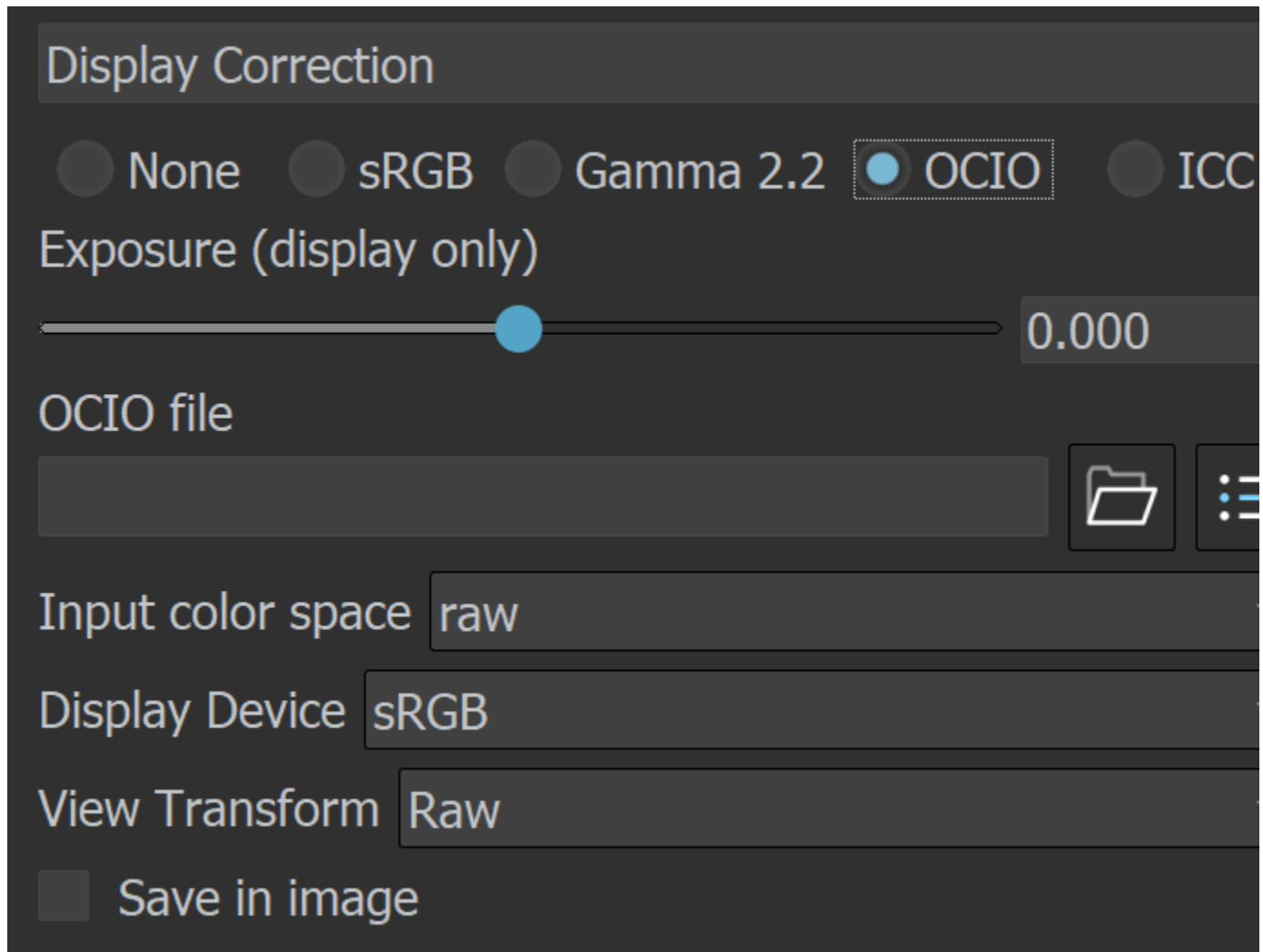
OpenColorIO (OCIO)

Input color space – Specifies the input color space for the image; normally this is a linear color space as V-Ray internally works in that space.

Display Device – Specifies the device on which the VFB with the image is displayed.

View Transform – Specifies the viewing transformation.

Save in Image – Saves/bakes the OCIO effect along with the image. This does not affect multi-channel images (such as multi-channel .exr).



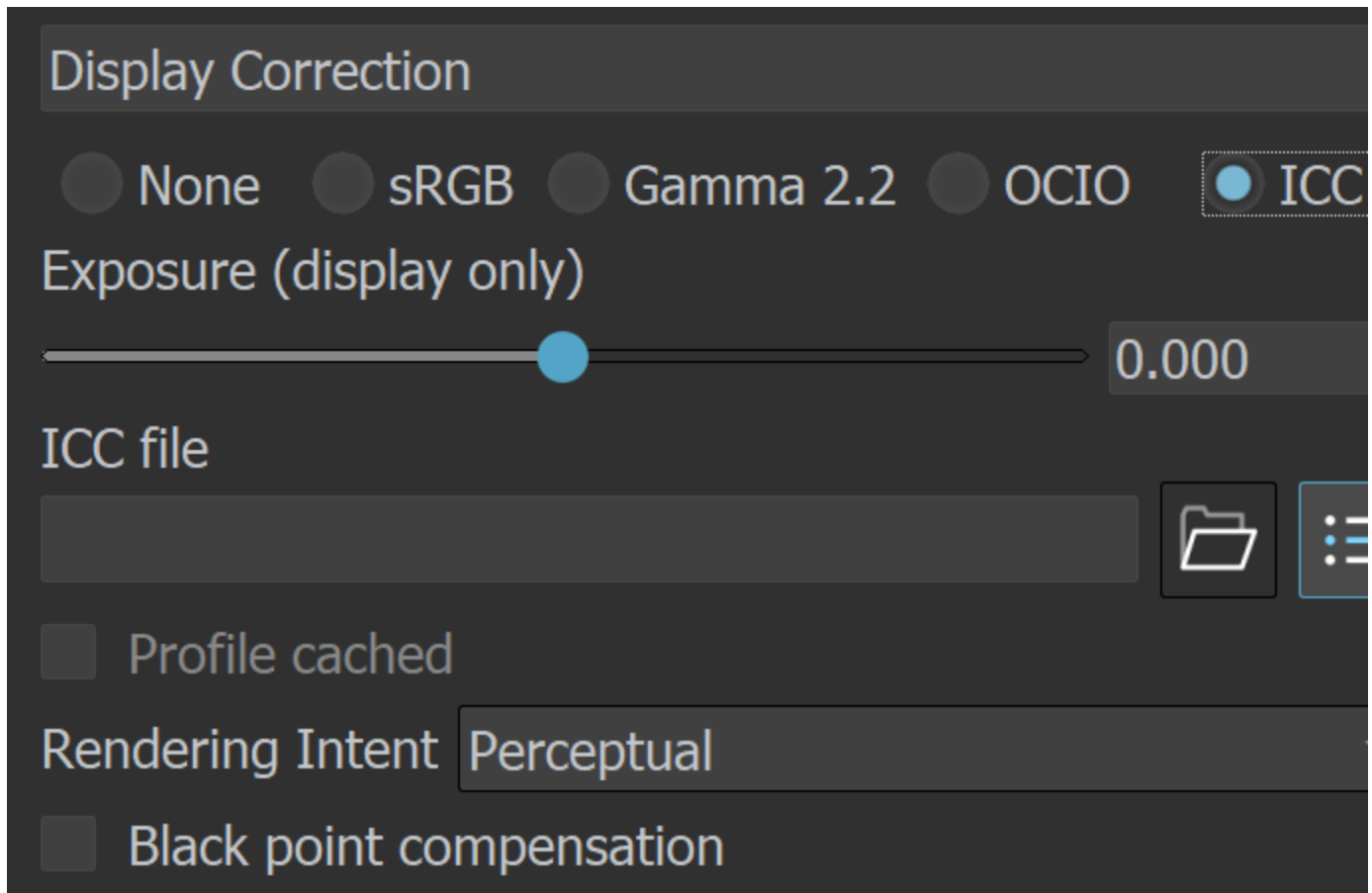
ICC Profile

The ICC profile layer provides all options of the Display Correction ICC mode. On top of that, as a layer it can be blended with the other layers.

Profile cached – When loading an ICC file, this checkbox indicates whether the file is smaller or bigger than a given threshold of 64k. If the file is smaller than 64k, the checkbox is ticked to indicate that the ICC file is directly embedded in the scene. If the loaded file is bigger than 64k, the checkbox is inactive which indicates that you must either put the ICC file in the Max project folder, or set the correct path to load it.

Rendering Intent – Specifies an ICC color replacement scheme. You can choose from *Perpetual*, *Relative colorimetric*, *Absolute colorimetric*, and *Saturation*.

Back point compensation – Enables back point compensation.



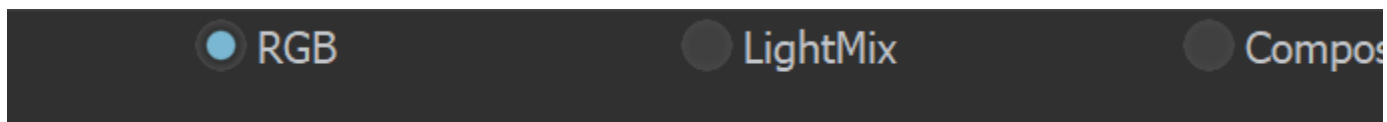
Source

The Source layer determines the input of the layers stack. It specifies if you work on your rendered image, composite or light mix.

RGB - The rendered image is the source.

LightMix - This mode allows you to adjust the intensity and color of your lights during and after the render. Changes can be transferred back to the lights in the scene. To use the LightMix, add a [VRay LightMix](#) render element before rendering.

Composite - You can add Render element layers in this mode and start compositing your image from the render elements rendered with it. For example, you can do a simple Back to Beauty compositing of your image in this mode.



LightMix Mode

When the Source is set to LightMix, you can enable/disable lights and adjust light intensity and color during and after the render. The modifications can be saved as light mix presets and reused. VRayLightMix automatically creates Environment and Self Illumination render elements. See the LightMix page for more information and examples.

Reset – Resets all changes made to default values.

Save – Saves the changes as light mix preset.

Load – Loads a light mix preset.

Recent – Shows a list of recent light mix presets.

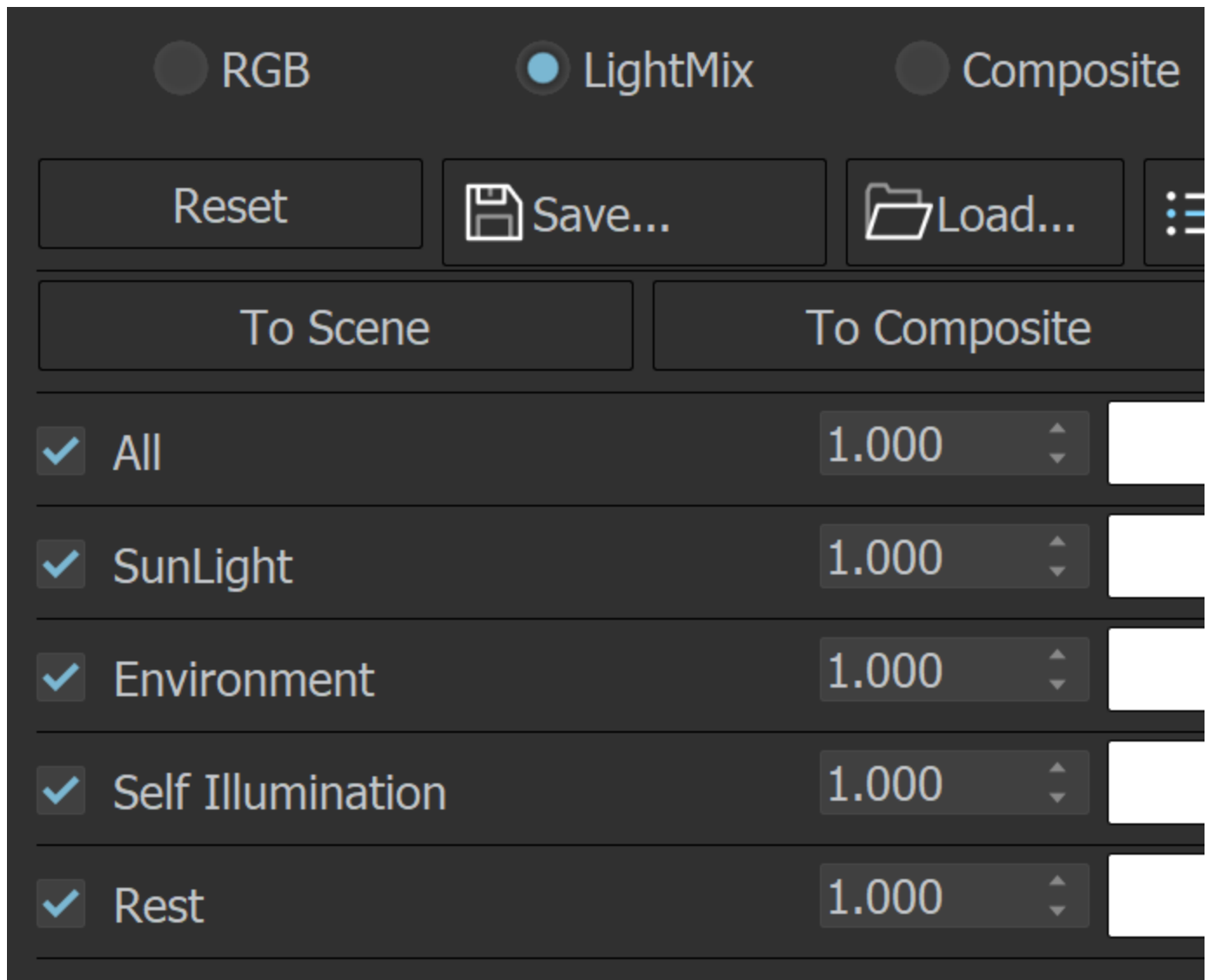
To Scene – Transfers the current LightMix settings to the scene.

To Composite – Sends the Light Selects from LightMix to Composite for additional post adjustments.

Checkbox – Enables/Disables the selected light.

Multiplier – Specifies an intensity multiplier.

Color Slot – Specifies a color for the selected light.



Composite Layer Properties

The Composite layer options allow you to specify how the selected render element blends with the result from all render elements below it, as well as to control render elements' intensity.

Name field – Specifies the name of the chosen render element. It can be adjusted.

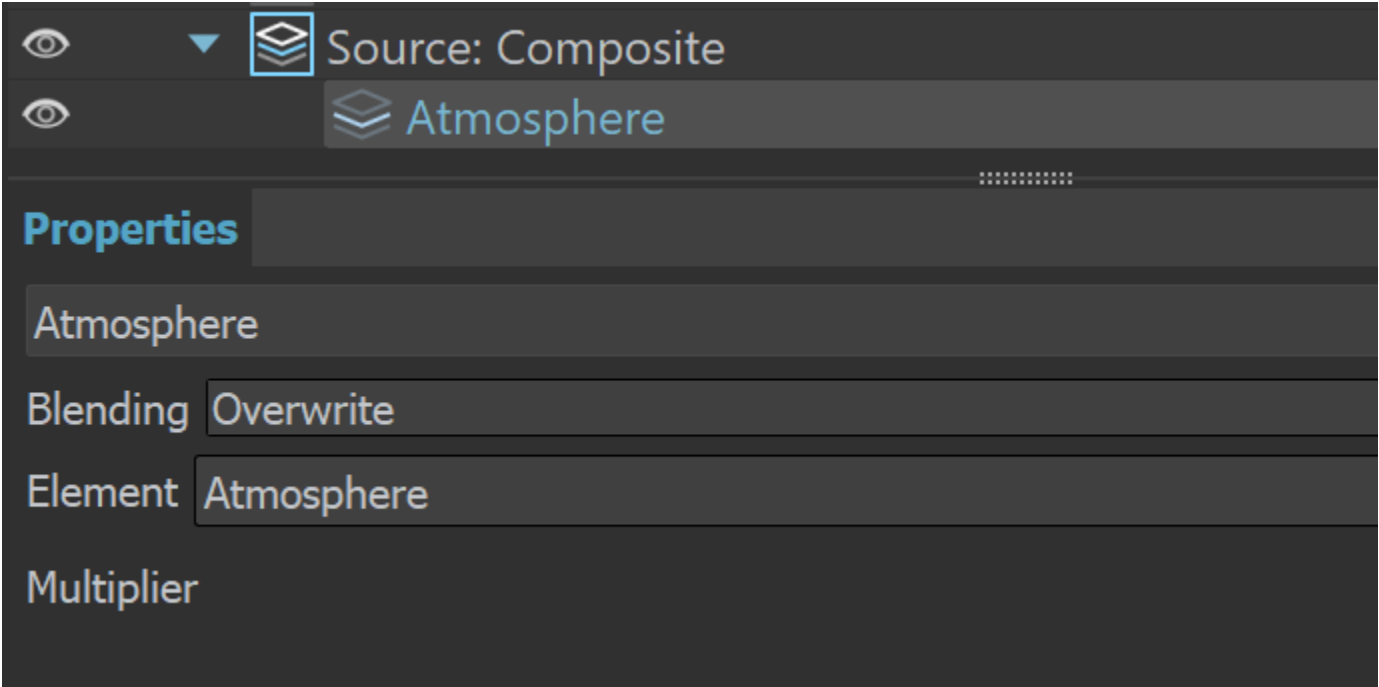
Blending – Specifies how the layer blends with the result from all layers below it.

Opacity – Controls the weight of the layer. A value of 0 means no effect and a value of 1.0 means full effect.

Element – Indicates the selected render element.

Multiplier – Multiplies the pixel values by a number.

Color slot – Multiplies the pixel values by a color



Blending modes

Layers are applied from the bottom to the top, where the bottom is the background (BG) and the top is the foreground (FG) of the composite.

Blending – Specifies how the layer blends with the result from all layers below it.

1.000 – Controls the weight of the layer. A value of 0 means no effect and a value of 1.0 means full effect.

Blending

Overwrite

1.000

When adding a new layer, it is placed on top of the stack and it is considered the foreground (**FG**).

The result of all layers below it is considered the background (**BG**). Layers are applied from the bottom to the top.

Where darker and lighter pixels are mentioned below, it is in relation to mid-grey.

Blending Mode*	Description
Overwrite	Displays the current layer (FG) on top of all layers (BG) without blending. This is the default.
Normal	Blends the FG based on the alpha values of the BG .

Average	The average of the current layer (FG) and the result from the layers below it (BG).
Add	Adds the FG to the BG .
Subtract	Subtracts the FG from the BG .
Divide	Subtracts the BG from the FG . Dark areas of the render are brightened, while bright areas of the render are not changed significantly. Does not affect completely white areas.
Darken	Compares the FG to the BG and takes the darker pixel values of the two.
Multiply	Multiplies the FG by the BG .
Color Burn	The color of the FG is applied to darker pixels in the BG .
Linear Burn	Same as Color Burn but with less contrast.
Lighten	Compares the FG to the BG and takes the lighter of the two.
Screen	Makes both light and dark areas lighter.
Pin Light	Replaces the BG colors depending on the brightness of the FG color. If the FG color is lighter than mid-gray, BG colors darker than the FG color are replaced and vice versa.
Difference	Compares the pixels in the BG and FG and subtracts the darker pixels from the brighter ones.
Exclusion	Same as Difference but with less contrast.
Hue	Uses the hue from the FG , while the value and saturation are taken from the BG .
Saturation	Uses the saturation from the FG , while the value and hue are taken from the BG .
Color	Uses the hue and saturation from the FG , while the value is taken from the BG .
Value	Uses the value from the FG , while the hue and saturation are taken from the BG .
Hard Mix (8bit)	Adds the FG to the BG and for each color component returns a value of 255 if the result is 255 or greater, or returns 0 if the result is less than 255.
Color Dodge (8 bit)	The color of the FG is applied to lighter pixels in the BG .
Linear Dodge (8 bit)	Same as Color Dodge but with less contrast.
Spotlight (8bit)	Same as Multiply , but with twice the brightness.
Spotlight Blend (8bit)	Same as Spotlight , but additionally brightens the BG .
Overlay (8bit)	Darker pixels become darker where the BG is dark and brighter pixels become brighter where the BG is bright.
Soft Light (8bit)	Darker pixels become darker where the FG is dark and brighter pixels become brighter where the FG is bright.
Hard Light (8bit)	Spotlight is applied to pixels where the FG is dark and Screen is applied to pixels where the FG is bright.

* All 8-bit blending modes clamp colors to a maximum value of 1.0.

Stamp

The Stamp layer is always placed on top at the layers tree by design. When enabled, it contains info regarding V-Ray version, frame, number of primitives, as well as the time elapsed.

Alignment – Aligns stamp options. You can choose from *Left alignment*, *Right alignment* or *Center alignment*, as well as from *Bottom* and *Top*.

Color – Changes the stamp color.

Font – Opens the Select Font window to change font, its style and size.

Variables – Stamp variables can be typed directly into the stamp textbox with a % symbol before and separated with a | symbol. Example: %renderime | %frame | %camera

Field	Description
vraycore	Version of the V-Ray core
rendertime	The render time for the last completed frame
vrayversion	Internal V-Ray version
filename	Max project file name
frame	Current frame number
primitives	Number of internal V-Ray primitives used in rendering
computername	The name of the computer this frame was rendered on
date	Date at the end of rendering
time	Time at the end of rendering
w	Width
h	Height
ram	Physical memory available (RAM)
vmem	Virtual memory available
mhz	The speed in Mhz of the CPUs
cpu	CPU type and number of CPUs available
os	OS version
camera	Camera name
numPasses	Sampling level reached: number of passes
numSubdivs	Sampling level reached: number of subdivs
noiseThreshold	Noise threshold reached (progressive sampler only)

Stamp

Alignment Left

Bottom

Font

Text

Variables:

Insert variable

Field	Current value	Description
vraycore	6.01.00	Version of the V-Ray ...
rendertime	0h 0m 0.0s	The render time for ...
vrayversion	6.01.00	Internal V-Ray version
filename	Sky_City_Interior....	Max project file name
frame	00000	Current frame number
primitives	0	Number of internal V...
computername	desktop-gergana	The name of the ...
date	9.2.2023 г.	Date at the end of ...
time	10:01:31	Time at the end of ...
w	0	Width
h	0	Height
ram	49072MB	Physical memory ...
vmem	134217728MB	Virtual memory ...
mhz	0MHz	The speed in Mhz of ...

cpu	INTEL/OctaModel:...	CPU type and numb...
os	Win10	OS version
camera	<unknown>	Camera name (came...
numPasses	0	Sampling level ...
numSubdivs	0.00	Sampling level ...
noiseThreshold	0.000000	Noise threshold ...

Lens Effects

The [Lens Effects](#) layer simulates real-world camera lens effects such as bloom and glare. The plug-in uses a fast multi-threaded technique to compute the result and provide immediate update in V-Ray VFB. V-Ray Lens Effects are applied in the effectsResult channel together with other post effects executed over the RGB rendered image. See the [Lens Effects](#) page for more information on the individual parameters of this layer.

Lens Effects

Opacity

1.000

☒ Enable Lens Effects

Size

30.000

Intensity

1.000

Bloom Threshold

Rotation Saturation

☒ Hardware accelerated ☐ Cold/Warm

☒ Interactive

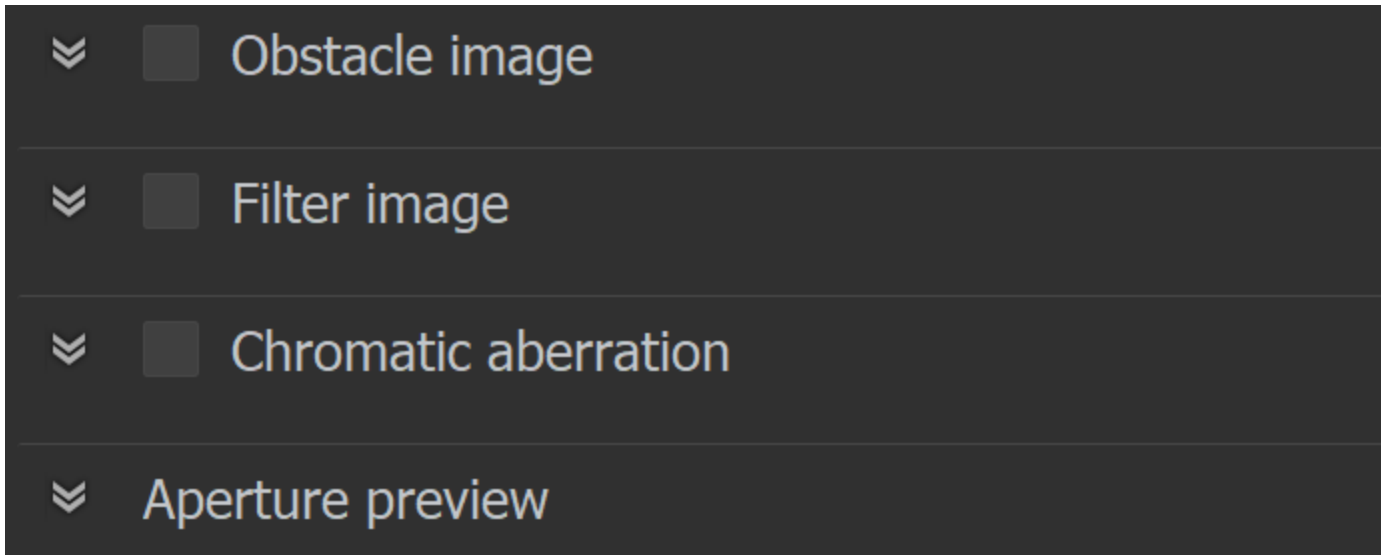
☒ Save Glare channel ☐ Bake intensity

☐ Create effectsResult channel

≡ Aperture shape

≡ ☐ Lens scratches

≡ ☐ Lens dust



Sharpen/Blur

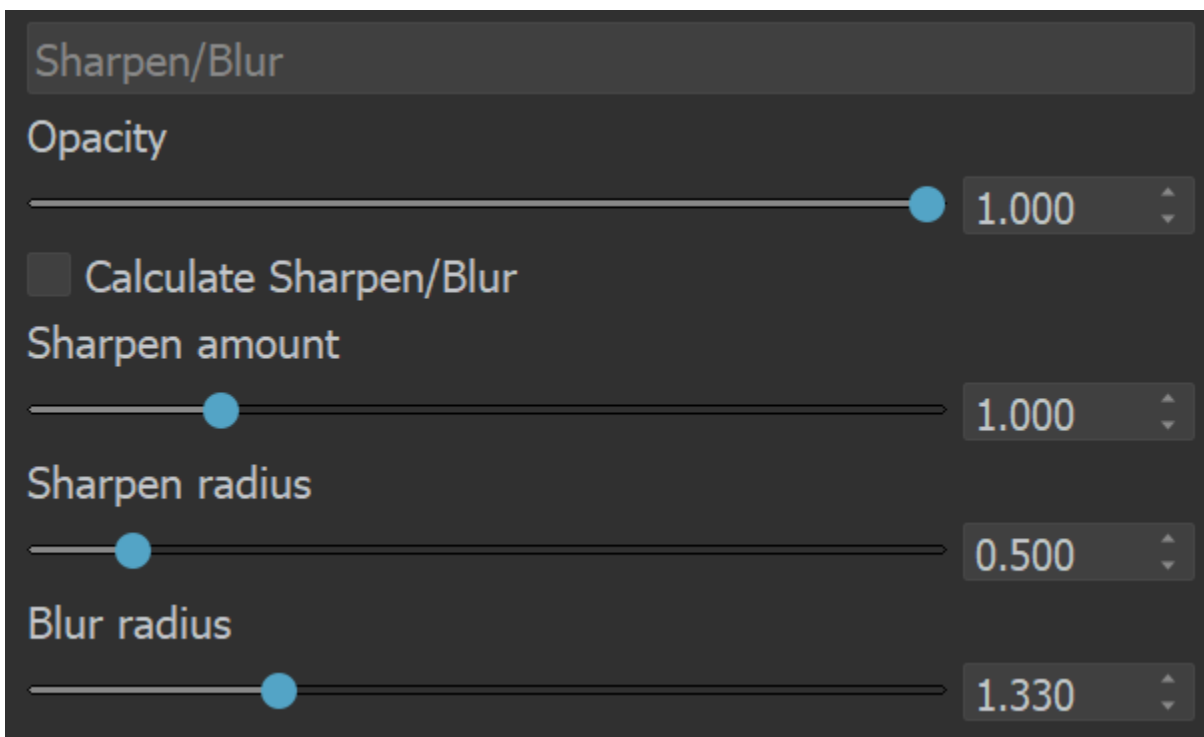
Opacity – Controls the weight of the layer. A value of 0 means no effect and a value of 1.0 means full effect.

Calculate Sharpen/Blur – Enables computation on the sharpen/blur post effect and automatically sets it visible when computed.

Sharpen amount – Applies sharpening to the image. Increasing the amount leads to a sharper image, while setting the amount to 0 switches off this filter.

Sharpen radius – Determines the radius in pixels used for sharpening. Higher values lead to more extensive sharpening.

Blur radius – Determines the radius in pixels used for blurring. Higher values lead to greater blurring effect.



Denoiser

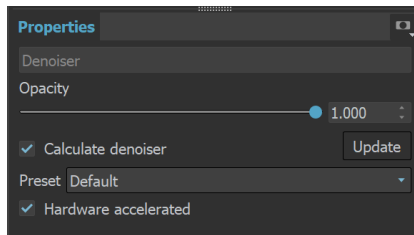
This layer provides access to the V-RayDenoiser render element (if available) from inside the VFB. To enable the layer, turn on the Denoiser in the Asset Editor Settings. Start a new render to apply the changes.

Calculate denoiser – Enables/disables the denoiser calculation. This can be useful sometimes while adjusting your render. Disabling the denoiser layer visibility instead still calculates the denoiser in the background. *Read more about this working with the denoiser on the [V-Ray Denoiser](#) page.*

Update – Updates the Denoiser layer manually and also initiates a Lens Effects update.

Preset – Provides mild, default, strong and custom preset options.

Hardware accelerated – When enabled the machine's GPU is used for faster denoise calculations.



Filmic Tonemap

This correction allows you to control different types of mapping curves, make gamma correction and select a color space. Note that color values are mapped per channel.

Tone mapping space – Specifies the color space where the operator is applied. Converts the image to the selected space and back, if needed. You can choose between *Linear sRGB* and *ACEScsg*.

Type – Specifies the type of curves used for the tone mapping. You can choose between *Linear*, *Hejl-Dawson*, *AMPAS (ACEScsg)*, *Hable*, and *Power Curve*.

Log space – Converts the image to log space before applying the tone mapping.

Gamma – Specifies the gamma correction. It is applied before the operator.

Use blue fix – Applies an additional transformation to ACEScsg primitives that results in pure blues burning out through cyan instead of magenta. Available when Tone mapping is *ACEScsg*.

AMPAS (ACEScsg)

AMPAS mode applies an approximate ACES standard curve.

Hejl-Dawson Type

Shadows – Shadow compression. Higher values darken the shadows, while also brightening the mid tones.

Highlights – Highlight compression. Higher values reduce burnout.

Hable Type

Shoulder strength – Determines how sharp the shoulder is. Higher values sharpen the shoulder, which results in an overall brighter image.

Linear strength – Determines the strength of the effect from changing Linear angle.

Linear angle – Determines the angle of the curve at the base. Higher values increase the angle.

Toe strength – Low to mid tone compression. Higher values darken the low and mid tones.

White point – The intensity, which gets mapped to 1. This parameter scales the whole curve evenly.

Power Curve Type

Toe length – Determines the range of low to mid tones that are compressed.

Toe strength – Low to mid tone compression. Higher values darken the low and mid tones.

Contrast – Higher values increase the contrast between low and high tones.

Shoulder length – Determines the range of mid to high tones that are compressed.

Shoulder strength – Mid to high tone compression. Higher values darken the mid and high tones.

White point – The intensity, which gets mapped to 1. This parameter scales the whole curve evenly.

Filmic tonemap

Blending Overwrite 1.000

Tone mapping space Linear sRGB

Type Hable

☐ Log space Gamma 1.000

Shoulder strength

0.150

Linear strength

0.150

Linear angle

0.100

Toe strength

0.200

White point

11.200



Lookup Table

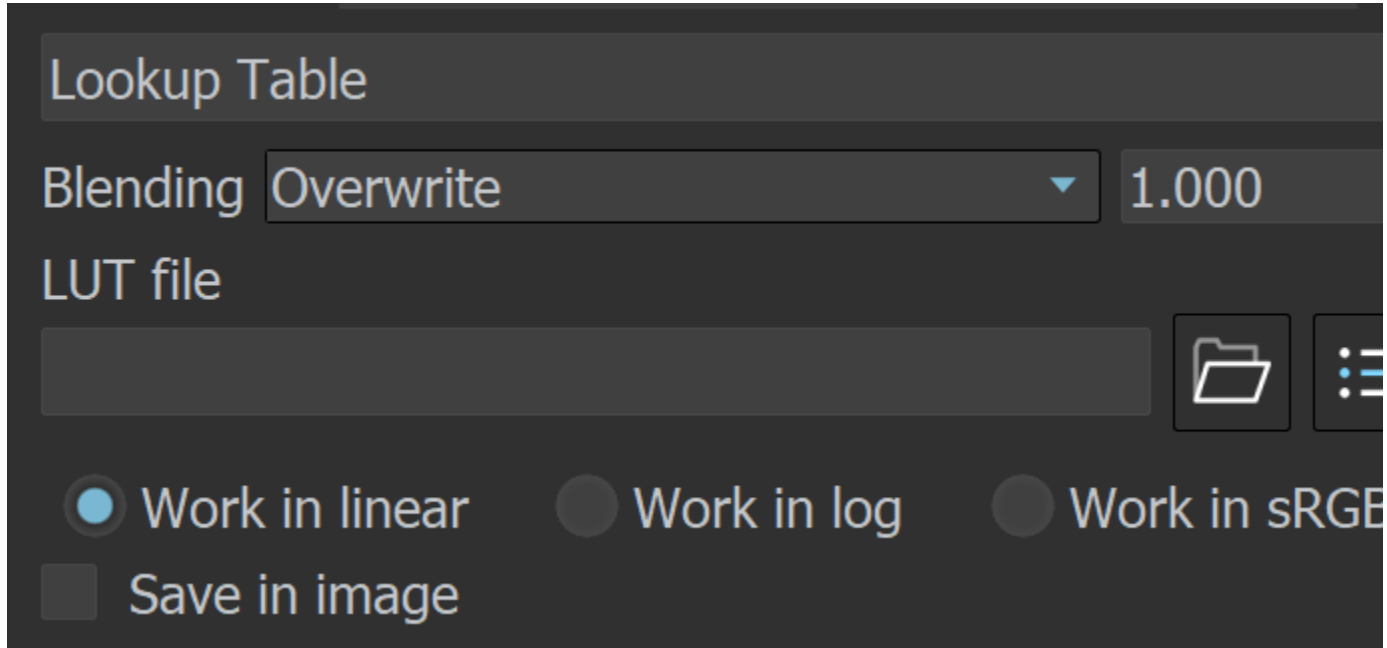
This correction allows you to remap the image colors based on an IRIDAS .cube LUT (Look-Up Table) file.

Work in linear – The image is considered in linear color space.

Work in log – The image is converted to a logarithmic color space before applying the look-up table. Then it is converted back to linear color space.

Work in sRGB – The image is converted to a sRGB space before applying the look-up table. Then it is converted back to linear color space.

Save in image – Saves/bakes the LUT effect along with the image. This does not affect multi-channel images (such as multi-channel .exr).



Curves

This correction allows you remap the image colors with a Bezier curve. The control also allows you to save and load .acv curve files from Adobe Photoshop.

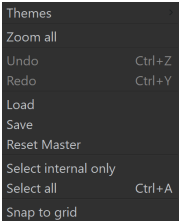
Controlling the View

Use the mouse wheel to zoom in and out of the curve view. Drag with the middle mouse button to pan.

Controlling the Bezier Points

Click on a point to select it. Draw a rectangle to select multiple points at once. Click and drag on a selected point or its tangents to move them. To add a new point, **Ctrl+click** on the curve. To delete points, select them and press Del, or alternatively **Shift+click** on a point. Once a point is selected, you can also use the input coordinates field to modify its position. To display the input coordinates field, either press **Enter** or **right-click** on the point and then select **Edit point**.

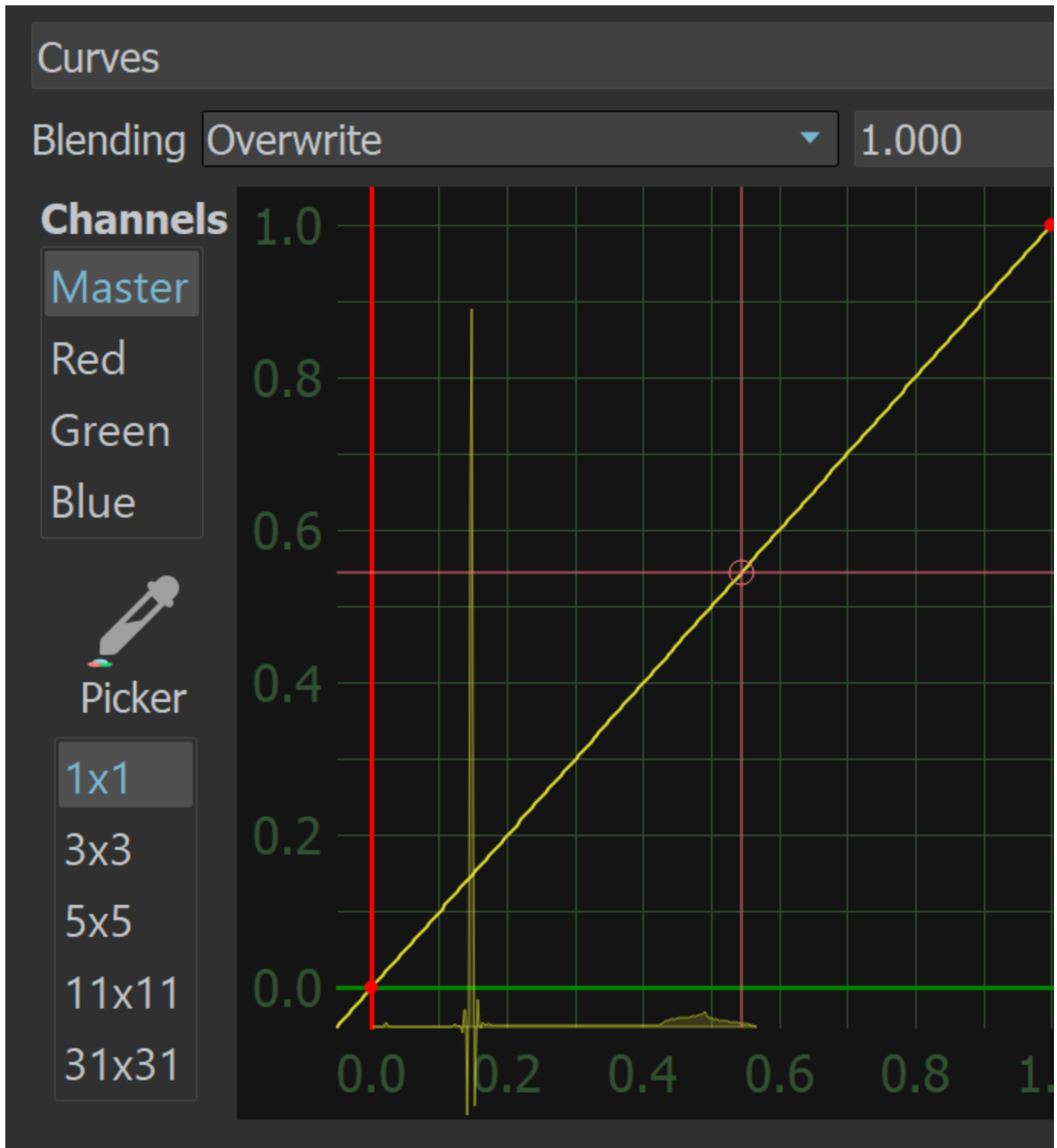
Right-click on a point to bring up a context menu with additional options for that point.



Context Menu

Right-clicking in the curve view brings up a context menu with additional options:

Menu Item	Description
Zoom all	Adjust the curve view so that all points are visible.
Undo/Redo	Undo and redo modifications to the curve.
Load	Load the curve control from a file. Two formats are available: native .bcurve and PhotoShop .acv.
Save	Save the curve control to a file. Two formats are available: native .bcurve and PhotoShop .acv.
Reset Master	Reset the curve control to its default state.
Select internal only	Select only the points which are currently visible in the curve view.
Select all	Select all points.
Snap to grid	Toggle snapping to the curve grid. When enabled, moving points snaps them to the grid nodes.



When working with .acv files, some approximations are performed because the curves in the .acv files are described by a different mathematical formulas.

Color Balance

This correction adjusts the overall color tone of the image, as well as the tone of the dark (shadow), medium, and bright (highlight) colors. The color corrections are additive in that the All correction affects all colors of the image, and the **Shadows/Midtones/Highlights** options adjust the individual components in the image on top of the All correction.

Color Balance

Blending

Overwrite

1.000

☒ All☐ Shadows☐ Mids☐ Highlight

Cyan - Red

0.000

Magenta - Green

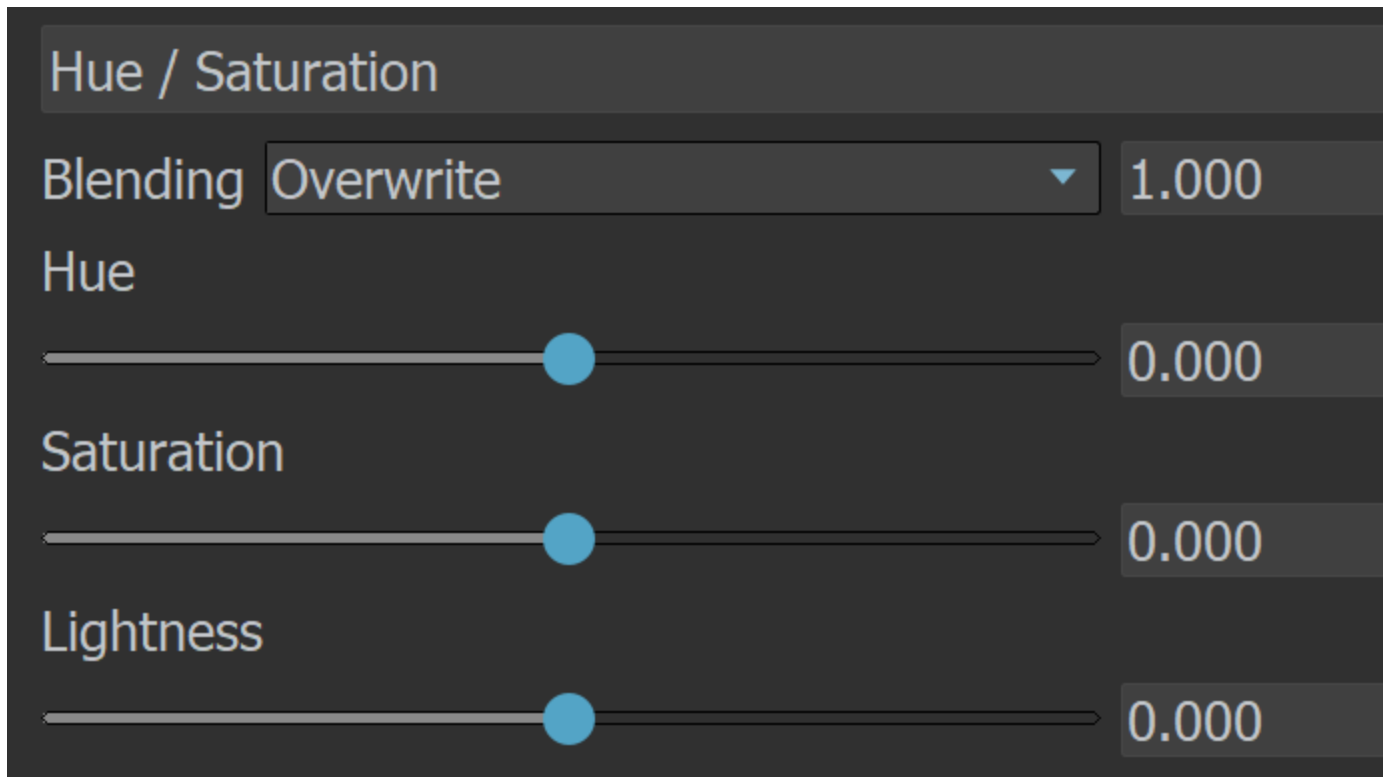
0.000

Yellow - Blue

0.000

Hue/Saturation

This correction applies HSL transformation on the image colors. Moving the **Hue** slider changes the overall hue of the image colors (grey colors remain intact). Lower **Saturation** values move the image towards greyscale while higher values increase the colors' intensities. Higher **Lightness** values add white to the image, whereas lower values subtract white from the image.



White Balance

The White Balance (Temperature) slider corrects the colors in the image so that objects that are white appear as pure white (and not tinted blue, yellow, red, etc.) in the final image.

Temperature – Adjusts the white balance of the image by specifying the color temperature in Kelvin. Lower values make the image bluer, higher ones make it more amber.

Magenta - Green tint – Adjusts the white balance of the image to make it more purple (negative values) or greener (positive values).

Color tint – Picks or chooses a color to be the new "white point" for the image, adjusting all colors. Use it to pick a neutral color from the image (e.g. one that should be white or gray).

Render view color picker – Picks a color from the render window. Left-click to choose a new "white point" or a tint to neutralize. Right-click to pick a tint to boost.

White Balance

Blending

Overwrite

 1.000

Temperature6500.000

Magenta - Green tint0.000

Color tint1x1

Exposure

This color correction applies exposure and contrast to the image. An **Exposure** value of 0.0 leaves the original image brightness, +1.0 makes it twice as bright, and -1.0 makes it twice as dark. **Highlight Burn** selectively applies exposure corrections to highlights in the image. Positive **Contrast** values push the colors away from the medium gray value to increase image contrast, while negative values push the colors closer to medium grey.

Exposure

Blending

Overwrite

 1.000

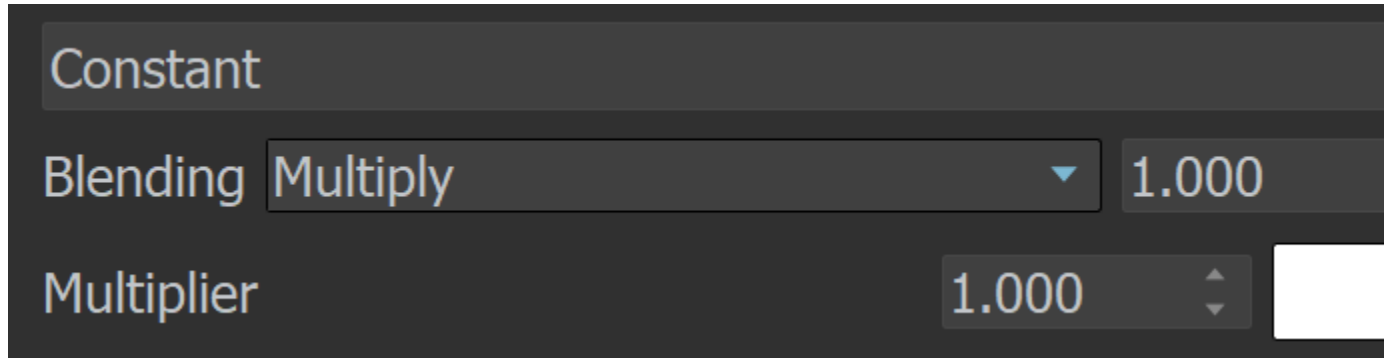
Exposure0.000

Highlight Burn1.000

Contrast0.000

Constant

This color correction applies a solid color that can be used as a constant to achieve an effect on another layer. For example, it can be multiplied by another layer.



Background

This layer allows you to add a background to your rendering.

Opacity – Controls the layer opacity.

Color – Picks a solid color to be used as background.

File – Loads a file that is going to be used as a background. Image sequences can be loaded as well using the <frameNum> tag.

Recent – Lists recently used files.

Stretch – Controls the aspect ratio of the image by stretching the image to fit the VFB.

Fit – Keeps the aspect ratio of the image. Enlarges or shrinks the VFB to fit the image.

Fill – Keeps the aspect ratio of the image and cuts some parts of the picture to fill the VFB.

Horizontal offset – Controls the background image position by the X axis.

Vertical offset – Controls the background image position by the Y axis.

As foreground – When enabled, the image loaded in the field above is used as a foreground. This means that the image is on top of the rendering and you are able to see the rendering only if the image has an alpha channel.

Save in image – When enabled, saves the layer to the image.

Color Transformation – This dropdown allows display corrections to be applied to the Background layer independently.

Auto – Recognizes what the desired transformation would be based on the image suffix (_srgb, _lin_srgb, _acescg...) and sets those settings automatically.

Manual – Allows manual setup of the color transformation options. The options can be left at Auto and be determined automatically by V-Ray. The options can be set to None and apply no transformations.

RGB color space – Choose which color space to use for the color transformations. sRGB is the color space for most monitors and computer displays. ACEScg allows for greater range of color transformations in post. It has a wider gamut of colors than the sRGB linear gamut.

Transfer function – Alters the pixel values to a new range. Gamma 2.2 is the standard for most monitors.

OCIO – Allows an Input color space to be selected when an OCIO profile is already loaded. OCIO profiles can be loaded through the Display Correction Layer.

Input color space – Determines the input color space for the background image; normally this is a raw (linear color space) as V-Ray internally works in that space.

Background

Opacity

1.000

Color

Load image here

StretchFitFill

Horizontal offset

0.000

Vertical offset

0.000

As foreground

Save in image

Color transformationManual

RGB color spaceAuto (None)

Transfer functionAuto (Raw)

(Color transformation: Manual)

Color transformationOCIO

Input color space

(Color transformation: OCIO)

Example: Background

Save your rendering with the uploaded background in the final exported image by enabling the **"Save in image"** option in the Background layer properties and saving the image as a .jpg file format.

You can easily control the exposure of the background image by changing the **"Environment"** intensity multiplier of the **Light Mix** parameters. For this purpose make sure to add a Light Mix render element prior rendering and set the VFB Layers Source to Light Mix.

No Background
With Background





Masks

The V-Ray Masks are used to refine only selected parts of the rendered image in the VFB. They can be applied to Color correction layers, the Lens Effects layer, the Denoiser layer and also to Folders in the VFB layers tree.

When one or more masks are applied to the same layer or folder, a mask icon is placed in front of it in the layer tree to signify its presence. The parameters of each mask are available in their own separate tabs to the Properties of the masked layer or folder.

When a folder or a layer has mask(s), the **Show preview when selected** option is available in the Parameters Tab of the respective folder/layer. This option shows a preview of the masks elements when selected.

For more information on [masks](#), see the *Masks* page.

☒ Show preview when selected

Proportion Guide

The Proportion Guide layer allows for a number of composition guides to be overlaid on the image. The available guides are *Rule of Thirds*, *Diagonals*, *Golden Ratio*, *Center Cross*, and *Custom Grid*.

Rule of Thirds – Overlays the Rule of Thirds guidelines.

Diagonals – Overlays diagonal guidelines.

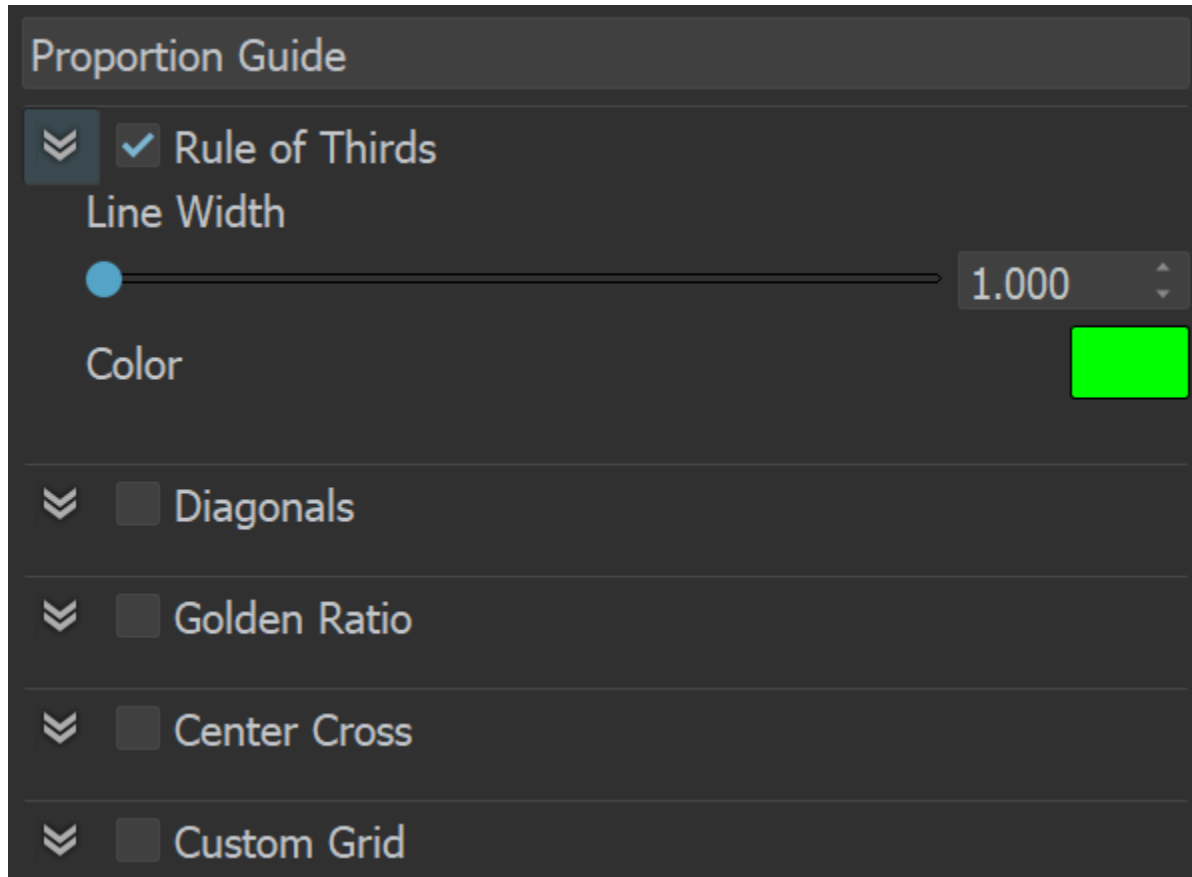
Golden Ratio – Overlays the Golden Ratio guidelines

Center Cross – Overlays a center cross guideline.

Custom Grid – Overlays custom grid guidelines. You can specify up to 10 columns and rows of the grid.

For all the guides there is a **Line Width** option, which can be controlled via a slider or spinners, as well as a **Color Swatch** to control the color of the lines.

For the **Custom Grid Rows** guides, there are **Rows** and **Columns** options to control the rows /columns of the grid.



Notes

- Color corrections in RGB mode are applied to all Beauty render elements and some Utility render elements too. They are not applied to render elements that present masks or hold geometry or computational data for the rendered frame.