

V-Ray Asset Editor

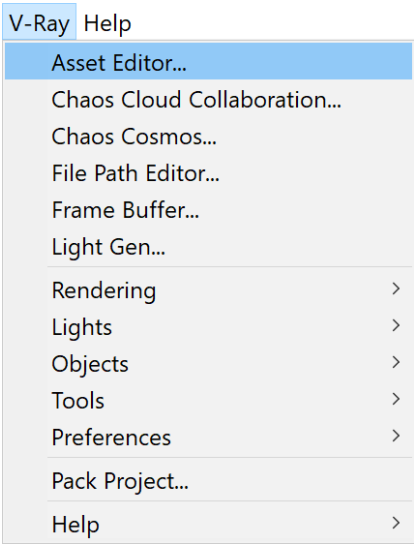
This page provides details on the Asset Editor in V-Ray for Rhino.

Overview

The V-Ray Asset Editor is the place where you can create, save, open assets, and adjust their settings. These include materials, textures, geometry, and lights. You can also manage the Render Channels from the Asset Editor. From its Settings tab, you can choose the render engine, set up the camera, optimize the render process, or render with Swarm. You can also start the render or submit a scene to Chaos Cloud as well as open the VFB.

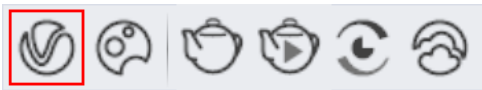
UI Paths

||V-Ray|| > **Asset Editor...**



||V-Ray Toolbar|| > **Asset Editor** (left-click) > **Shows the Asset Editor window**

||V-Ray Toolbar|| > **Asset Editor** (right-click) > **Shows the File Path Editor**



Functionalities

Categories

Assets are grouped in Categories for ease of access and use. On top of the central Asset Editor's panel you can find the [Materials](#), [Lights](#), [Geometry](#), [Render Elements](#), and [Textures](#) categories.

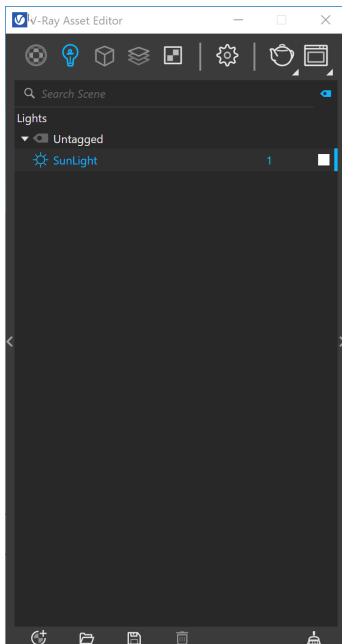
You can create an asset in the respective category by **Left-** or **Right-click** if the category is empty. If there are already items in it **Left-click** will select the directory, while a **Right-click** always opens a list of available assets to choose from in order to create them. The Asset creation dropdown lists remain active when the **Ctrl** key is held, allowing the creation of multiple assets in quick succession.

Each Category has a **Search Scene** tab on the top of the list. You can search for assets from the category selected. You can select more than one category or asset at a time with **Ctrl+select(Cmd+select)** or **Shift+select**.

The Assets tab search function only displays top-level hierarchy assets.

The Asset lists have some additional multi-selection functionalities:


- **Ctrl + Left-click** on deselected item - Adds to the selection;
- **Ctrl + Left-click** on selected item - removes it from the selection;
- **Ctrl + A** - Selects all items in the list/category;
- **Shift + Left-click** - expands the range of the current selection;
- **Shift + Del** - deletes the selected asset(s) without showing a confirmation dialog.
- **Left-Click + Drag** - Drags only the clicked item entry;
- **Right-Click** on deselected item - Shows the context menu for the item and does not change the current selection;
- **Right-Click** on selected item - Shows the context menu for the item and doesn't change the selection. If multiple entries are selected the context menu will display only their common actions.





Buttons


At the bottom of the Asset Editor you can find some utility buttons:

From the **Create Asset** button () you can open a list of all V-Ray assets grouped into categories and select an item to add it to

the scene. Using the **Import Asset** button () you can open a directory and select to import a *.vrmat* file into your Library. Vice versa, an already created asset can be saved with the **Save Asset**


to File button (). Delete the selected asset(s) with the **Delete**

Asset button (). You can select more than one asset by using the **Ctrl** or **Shift** buttons. Purge all unused items of selected asset

categories with the **Purge Unused Assets** button ()

In the right panel of the Asset Editor reside two navigation buttons:

Select **Previous Asset** () traces back assets that were

previously selected, while **Up the Assets Hierarchy** () moves the selection one level up in the hierarchy.

Some keyboard shortcuts are available for navigation in the Asset Editor.

For Windows:

- **Ctrl + (1/2/3/4/5/6)** - Switches to the corresponding category or the settings view;
- **Ctrl + 0** - Selects all categories;
- **Alt + (1/2/3/4/5)** - Adds to the active categories;
- **Ctrl + A** - selects all assets in the category of the current selection;
- **Shift + Left-click** - expands the range of the current selection;
- **Delete** - Deletes the selected asset/s;
- **Ctrl + Left Arrow** - Selects the previous asset;
- **Ctrl + Up Arrow** - Selects the parent of the active asset;
- **Ctrl + ([or])** - Toggles the left or right fly-off panels;
- **Up/Down Arrow** - Increases/decreases the number field with different step (the step varies depending on the parameter).
- **Up/Down Arrow or Left/Right Arrow** - Increases /decreases the value of any other slider¹.



Search Scene



Materials



Untagged



Generic

Lights



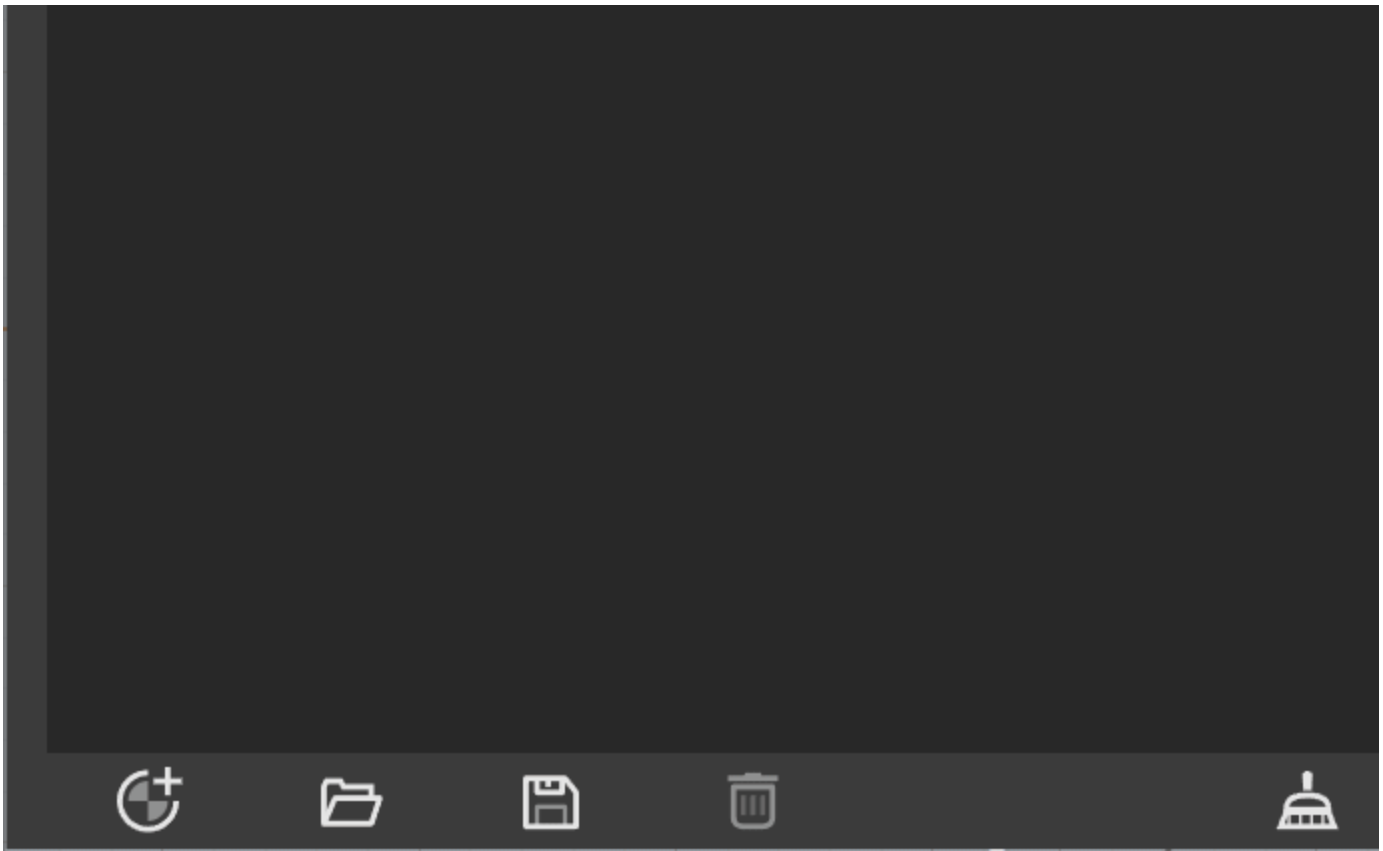
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Rhino Document Sun

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Preset Material Library Buttons

In V-Ray 6, the V-Ray Material Library is part of the Chaos Cosmos Browser. The **Browse Materials in Cosmos** button in the left panel of the V-Ray Asset Editor opens the material library.

In earlier V-Ray versions, the V-Ray Material Library is called Preset Material Library and it resides in the Asset Browser. It has some functionality buttons at the bottom of the Asset Editor.

Import Asset File () button adds a directory in which your .vmats reside. When you load the directory, the .vmats files will load in the Preset Material Library as separate assets.

You can change the view between a row and a column via the () button. The assets' display can be changed between a grid and a list

view (). Use the zoom in/out buttons ( ) to adjust the size of the preview swatches on the list.

Note that materials that have already been downloaded with any earlier V-Ray version remain unchanged and can still be loaded as a custom folder with V-Ray 6.

For more information about all the functionalities that the [V-Ray Material Library](#) offers, follow the link.

Multi-selection of assets is possible in the Library, but you cannot drag-and-drop more than one asset at a time.



▼ Materials



Search Library

Bricks



Carpaint



Ceramic & Porcelain



Concrete



Diagrammatic



Emissive



Fabric



Foam



Glass



Ground



Leather



Liquid



Metal



Paper



Plastic



Stone



Tiles



Bricks A01 1m



Bricks A02 1m



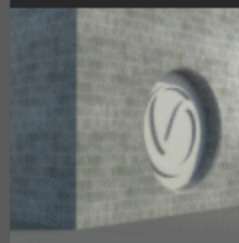
Bricks A03 1m



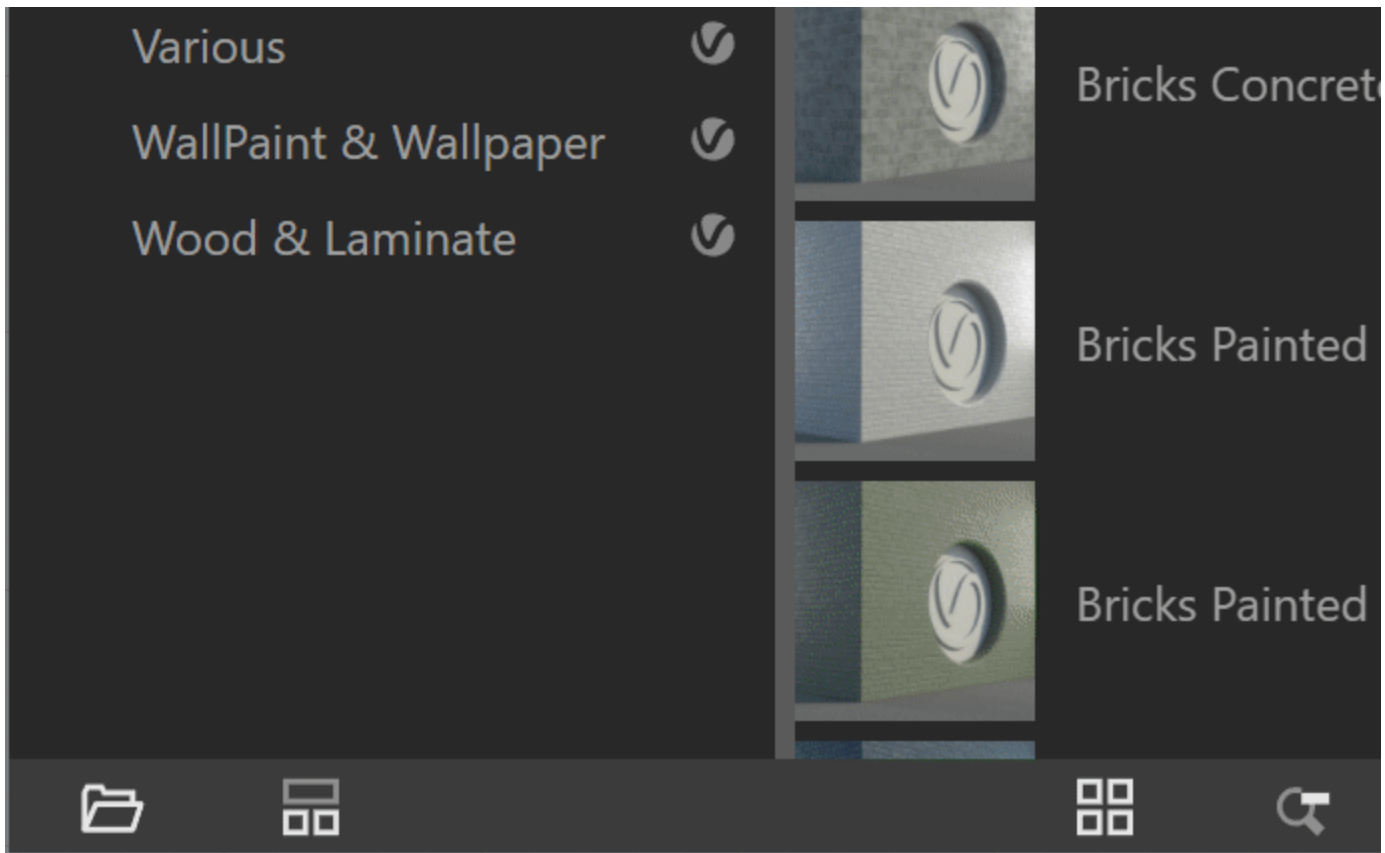
Bricks A04 1m



Bricks Concrete




Bricks Concrete





Preview Swatch


The Preview Swatch resides in the right panel of the Asset Editor, rendering all changes done to the currently selected asset. This is a quick preview of materials, textures, and lights. It has several controls that can be customized for your workflow.


You can enable or disable the live preview of the swatch by pressing

the corresponding button (). As the **Preview Swatch** is an actual render, it might require some additional computing power. The **Stop live preview** button comes in handy in such situations. When you stop the live preview, you have the option to **Preview the asset**

 **once** (). The swatch will render the current settings of the asset, but will not take into consideration any changes done to it later.


When using the live preview swatch, there are other ways to reduce resource usage – choose the resolution of the rendered swatch from 100% (**1/1**) (which is the best quality but is a slower render), 50% (**1/2**), 25% (**1/4**) and 12.5% (**1/8**) (which trades off image quality for refresh speed).

The **CPU/GPU** () allows you to change the render engine for the live preview.

Selecting the scene used to preview the asset () is available for materials and textures. You can choose from Generic, Fabric, Floor, Ground, Subsurface Scattering, Wall, Wall Closeup and Sphere.

Pulling the bottom line of the Preview Swatch up and down reduces or expands the swatch.

For Material assets, you can also choose among several swatch scenes. Some are more suitable than others at displaying certain material types. For example, a Brick material will be best seen in a wall preview, instead of a shader ball.

The **pin**  on the top left is used to preview a specific asset regardless of the currently selected one. It will display the pinned asset until unpinned.

The context menu of each Color slot provides options to **Copy** and **Paste**, as well as to **Reset** it back to its default value. Number slots also have a **Reset** option.

When changing the Units of a given light, its preview will be updated accordingly. Changes of the light intensity value are displayed up to a certain amount in order to guarantee the preview remains illustrative.

Using the Stop Preview Swatch option releases the V-Ray Render node License, if there is no other rendering process taking place.



Search Scene



Materials

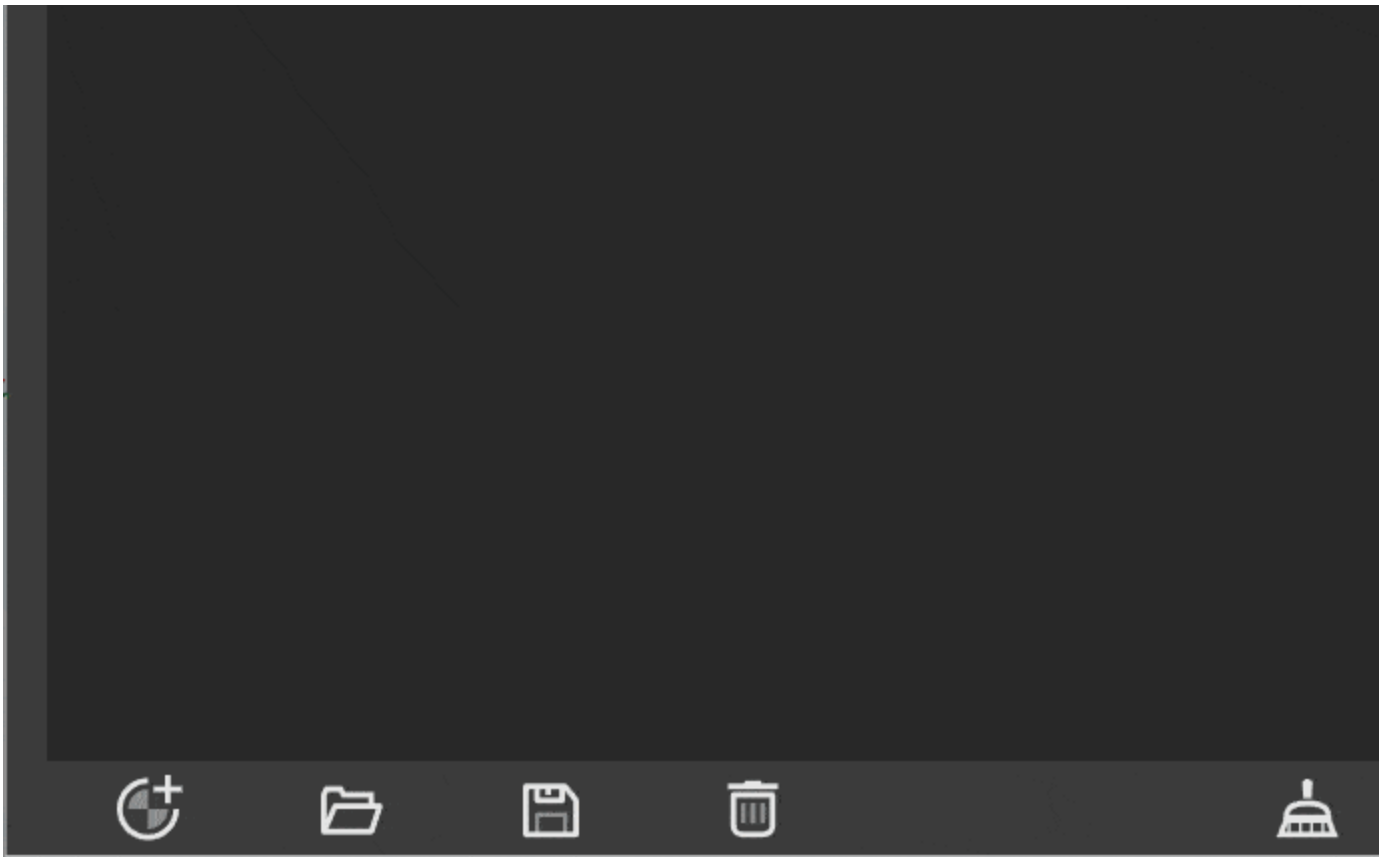


Untagged



Glass_Window_WaterBlue





Asset Tagging

Custom grouping scene assets of any type is now possible in the V-Ray Assets Outliner. Tags help to organize and work more efficiently in complex projects.

Each tag can be assigned to multiple assets all at once via the context menu and one asset can be assigned multiple tags.

Tags can be assigned to assets of all categories - materials, textures, lights, etc. When a tag is assigned to assets of different types, the tag indicator will appear in each category.

Right-clicking on a tag allows its renaming or deletion. Alternatively, double-clicking a tag name allows its renaming directly.

Drag & dropping an asset over a tag assigns the tag to this asset.

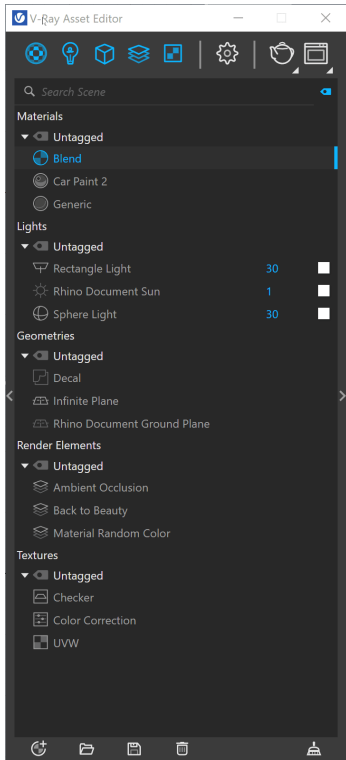
Upon creation each tag is assigned a random color.

A new Tag View button, located at the top-right corner of the Asset Outliner, next to the search field, allows toggling tags visibility on or off.

Right-clicking on any asset and hovering over its "Tag" context menu entry displays a list of all available tags in the scene, as well indicators which tags are currently assigned to the asset.

Tags are considered scene-specific, meaning they are serialized in each project file and they cannot be transferred between scenes.

Saving any asset as a .vrmf does not write its tags to the file keeping it clean of any scene-specific data.



Mathematical Expressions

Entering mathematical expressions as text in the input number fields of the asset editor is also allowed. Find some useful examples below.

If a non valid mathematical expression is written in the input field, it is ignored and the value of the input remains the same.

Examples of supported operations:

Input	Result	Examples
+	Addition	$1 + 3 = 4$
-	Subtraction	$4 - 2 = 2$
*	Multiplication	$3 * 2 = 6$
/	Division	$3 / 2 = 1.5$
Mod	Modulo	$6 \text{ Mod } 4 = 2$
!	Factorial	$5! = 120$
log	Logarithm with base 10	$\log 1000 = 3$
ln	Natural Logarithm	$\ln 2 = 0.6931...$
pow	Power function	$\text{pow}(2,3) = 8$
^	Power function	$2^3 = 8$
root	Square root	$\text{root}(4) = 2$

Trigonometric functions are supported such as "**cos**", "**sin**", "**tan**" are also supported.

The following mathematical **constants** are supported as well.


- **pi** = 3.1415...

- **e** = 2.71...

Parenthesis are also supported which allows for complex mathematical expressions such as: $(3*2)^{2/4} = 9$. Parenthesis are not necessary for some of the operators: e.g.


- **root2** = $\text{root}(2)$
- **ln2** = $\ln(2)$
- **sin60** = $\sin(60)$




 *Search Scene*



Materials

▼  Untagged

 Car Paint 2





Color Picker

The [V-Ray Color Picker](#) can be accessed by clicking on any color slot in the Asset Editor. It is a color manager that allows numeric color value selection in **Screen (sRGB)** and **Rendering (RGB)** Color spaces, options to regulate RGB, HSV and temperature. V-Ray Color Picker automatically converts Kelvin to RGB values, as well as RGB to Kelvin whenever possible.

Left-click on the current color to save it in the palette. Alternatively, right-click on an empty slot in the palette. Right-click on a saved color in the color slot to replace it with a new one.

The V-Ray Color Picker has a Color Assistant that can be opened by clicking on the side bar at the bottom of V-Ray Color Picker window. The Color Assistant provides color palettes to pick a color from.

Left-click on a color from the Color Assistant to pick the current color. Right-click on it to use as a base for a color palette.



Search Scene

Materials



Untagged



Generic

Lights



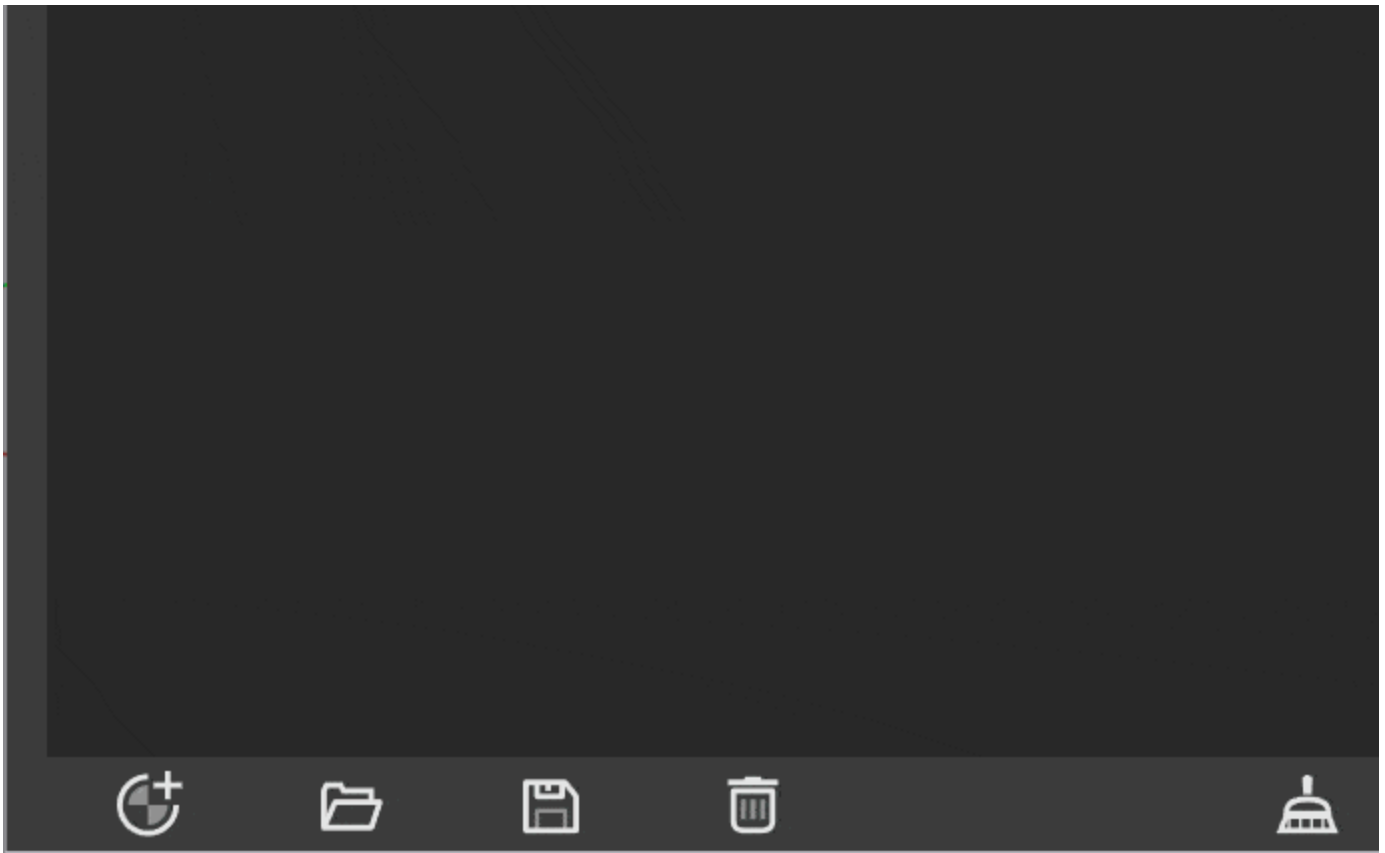
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SunLight






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V-Ray Frame Buffer Buttons

The following buttons are available:

Button	Description
	Opens the V-Ray Frame Buffer .
	Opens the V-Ray Light Gen .
	Opens Chaos Cosmos Browser window.
	Opens the V-Ray log window.
	Opens V-Ray File Path Editor .









Opens [Chaos Cloud Collaboration](#).

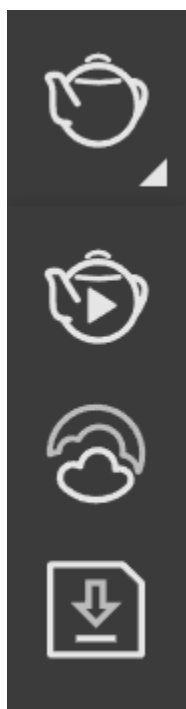


Render Button

The Render button allows you to choose how you wish to render, Render with V-Ray, Render with V-Ray Interactive, and Export V-Ray Scene File.

Button	Description
	Renders the current view with the V-Ray production renderer.
	Stops the current V-Ray production render.

	Starts a V-Ray Interactive Render.
	Stops the V-Ray Interactive Render.
	Exports the scene to Chaos Cloud .
	Exports a V-Ray Scene File (.vrscene)



Notes

1 - Sliders are allowed to be focused and controlled by the keyboard. The visual indication that a slider is focused, is the same as if you have hovered over it

2 - The default theme of the V-Ray Asset Editor can be changed to a lighter one in the [Configuration rollout](#).

3 - Most numeric V-Ray parameters come with a slider to make fine-tuning easier. Each slider is set to a default range of recommended or commonly used values. If a value above that range is used the slider adapts by increasing its range accordingly (2x the input value) to maintain usability. If a value below the current slider range is used, the slider again adjusts its range by shrinking it to twice the amount of the input value.

4 - The slider range does not indicate the parameter's total minimum and maximum input values. The absolute minimum and maximum values of each parameter can be found by hovering over its spinbox.