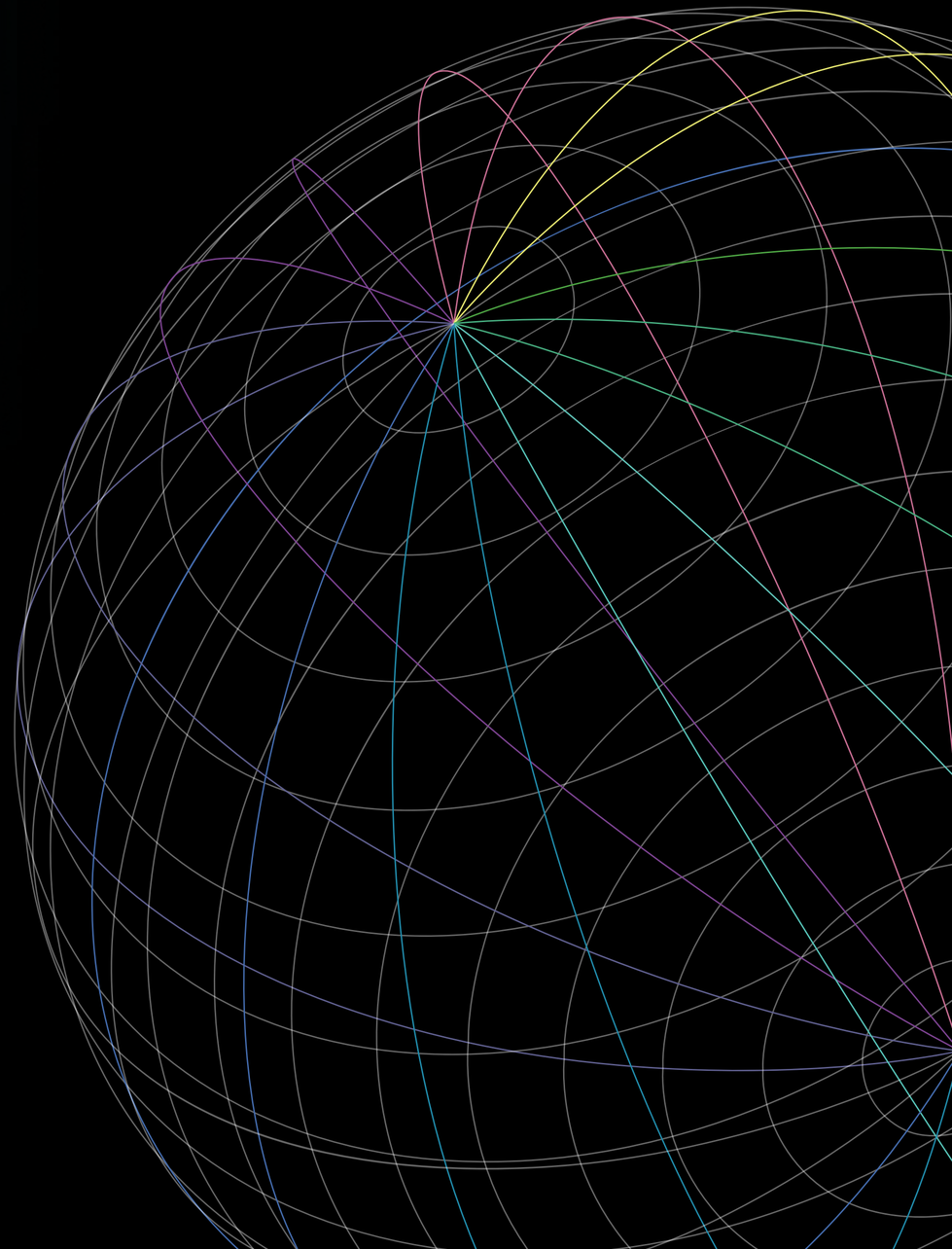
Diachromie

QuickStart Guide



This guide shows the installation and use of Diachromie in DaVinci Resolve.
Diachromie also works with Baselight macOS.

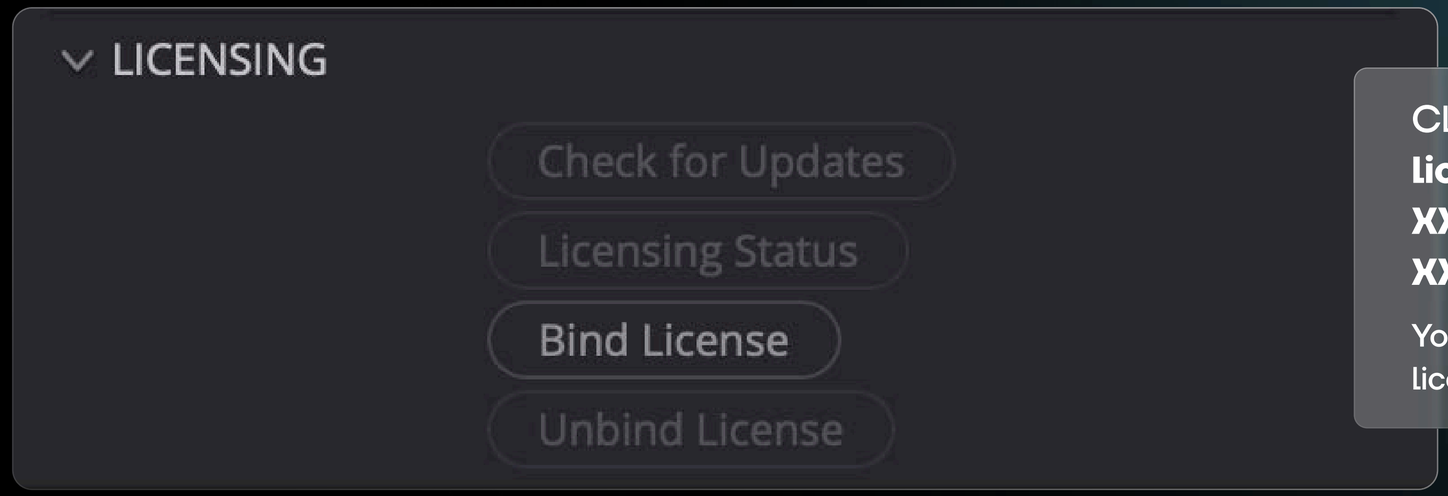
Installation and License

You can **download Diachromie here :**

Diachromie/Diaphanie

Once installed, the plugin should appear **in the Effects section of Resolve Color page.**

To activate a license, **drag and drop** *Diachromie* on a node **and scroll down to the licensing tab**:



Click ***Bind License*** and **enter license key** looking like **XXXXXX-XXXXXX-XXXXXX-XXXXXX-XXXXXX-XXXXXX**

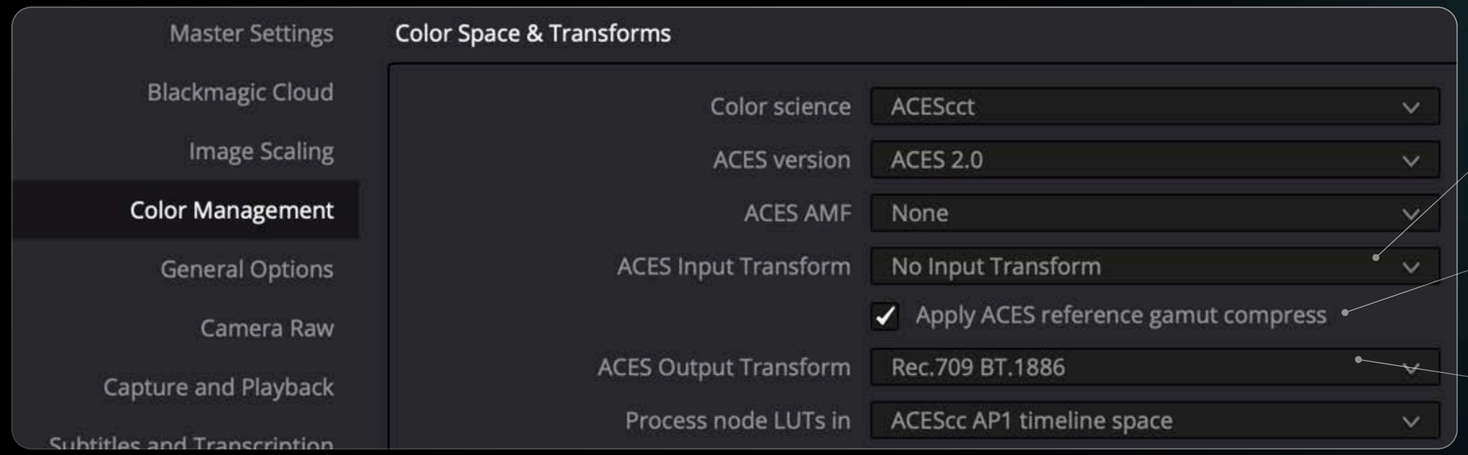
You can use *Unbind License* to move your license to another device.

ACEScct

Working within an ACES pipeline

Diachromie works natively in **ACEScct/AP1 color space**.

Make sure your settings **are properly configured** in Da Vinci Resolve Project Settings and don't use internal color management in Diachromie.



Choose the IDT corresponding to the color space of your natives.

We recommend **using reference gamut compress.**

Choose the ODT corresponding to the destination color space.

You can use either ACES 1.3 or 2.0 but be aware that looks developed in 1.3 won't match when converting to 2.0 and vice-versa. More infos on ACES : https://acescentral.com/

Project Setup

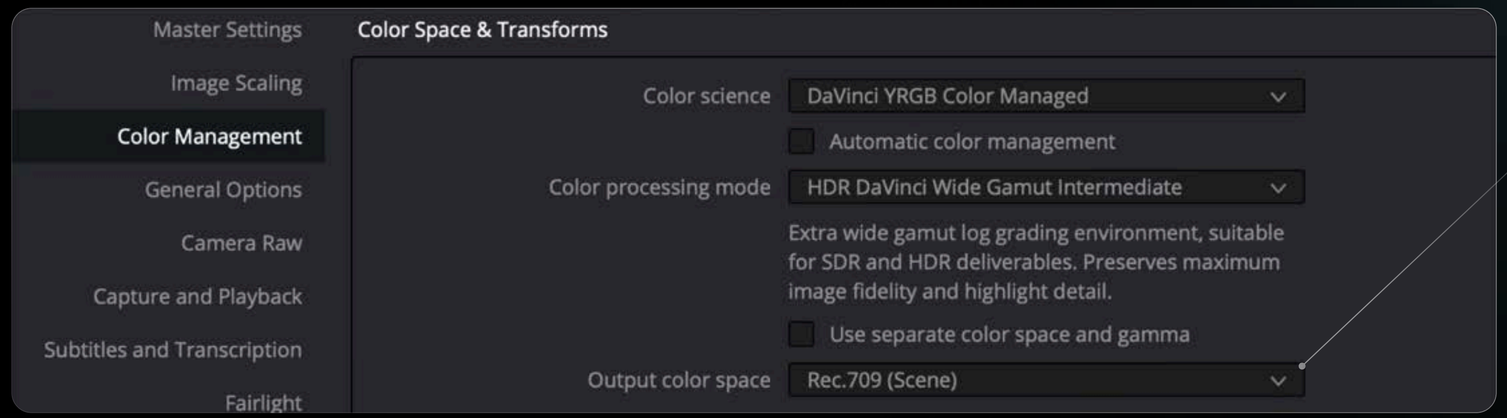
Project Setup

DaVinci ColorManaged

Working within DaVinci YRGB ColorManaged pipeline

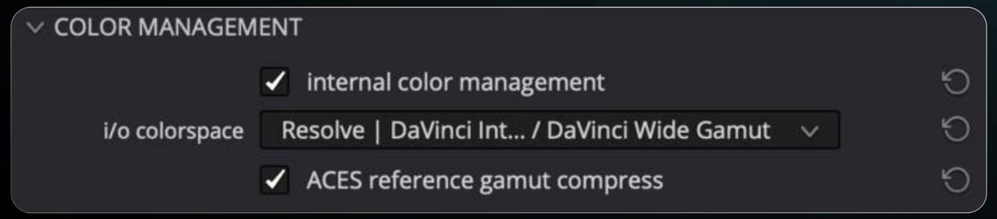
If you want to work in *DaVinci ColorManaged* you need to use **Diachromie's internal color management.**

Make sure **your settings are properly configured** in Da Vinci Resolve project settings.



Choose **the output color space** depending on your monitor.

In Diachromie's Color Management tab, **check internal color management, choose Resolve in the drop down menu.**
If you use multiple instances of Diachromie we recommend **checking ACES reference gamut compress** on the first instance only.

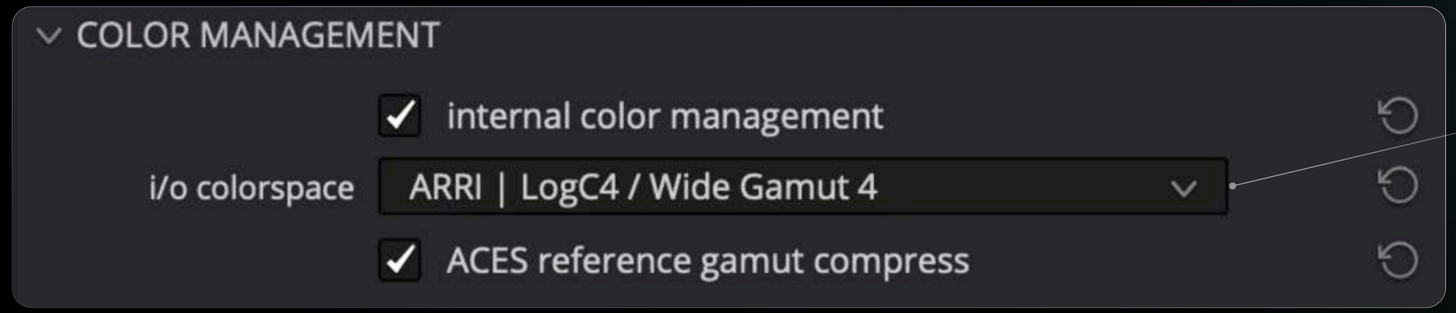


Project Setup

Camera Space

Grading in native camera color spaces

If you're working in native camera color space, with a custom DRT/Color Management **you need to set up Diachromie's internal color management accordingly.**



Choose **the OETF/colorspace depending of your grading color space.**
Supported color spaces :

- ARRI LogC3 / ArriWideGamut3
- ARRI LogC4 / ArriWideGamut4
- RED Log3G10 / REDWideGamutRGB
- SONY Slog3 / Sgamut3.cine
- PANASONIC V-Log / V-Gamut
- BLACKMAGIC BM Gen.5 Film curve / BM Wide Gamut RGB

If you use multiple instances of *Diachromie* we recommend checking ACES reference gamut compress on the first instance only.

LookDev Setup

Base template for usage in lookdev context

A Look must be polyvalent and work on a wide variety of footage. We suggest using a timeline with diverse material and test shots for your project. While creating your looks, don't forget to jump between different footage to make sure you're not compensating something that is shot-specific.

All sample shots must be correctly processed with **correct white balance, tint and exposure** correction. We recommend doing this processing in the *Camera Raw* module when working with RAW footage.

Clip node graph

Basic dailies processing :
- Color temperature
- Tint
- Exposure

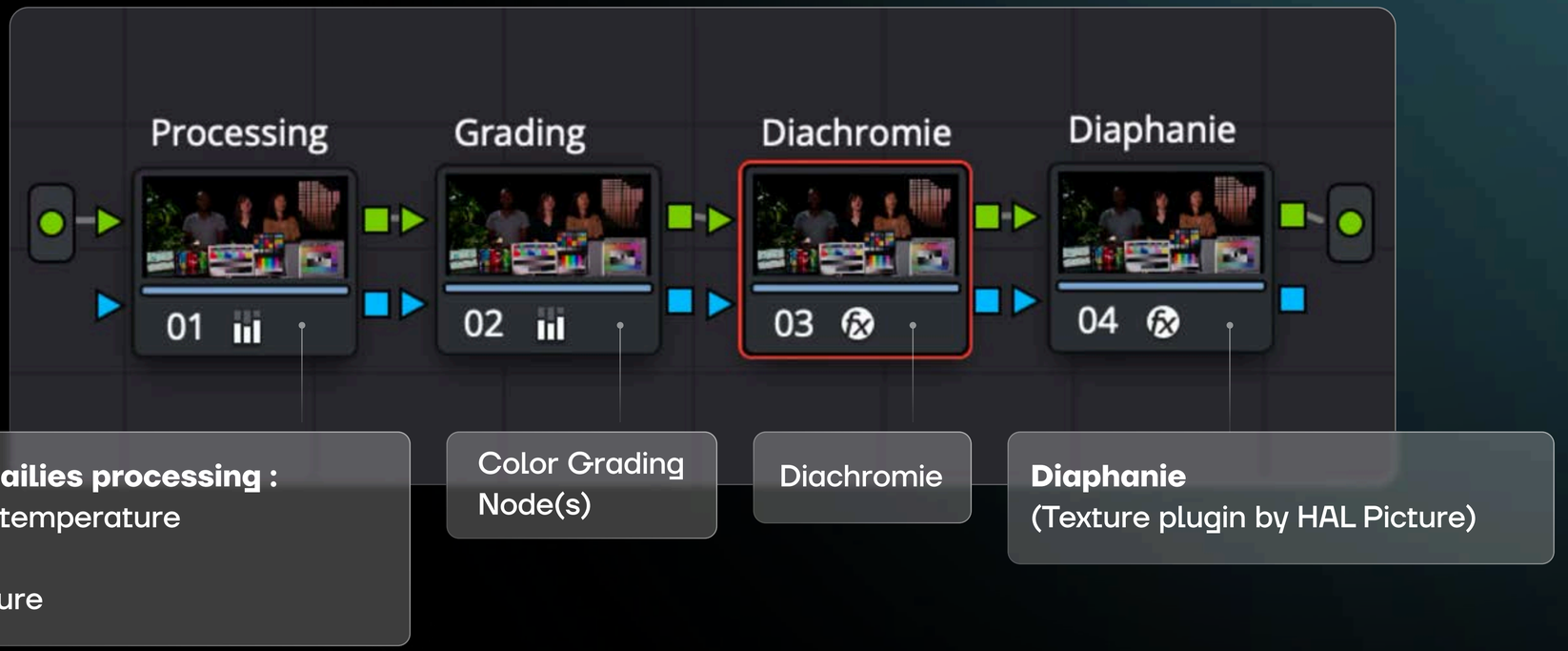
Timeline or Group Post-Clip node graph

Diachromie

Diaphanie
(Texture plugin by HAL Picture)

Color Grading Setup

A basic node graph structure to use *Diachromie* in a color grading context



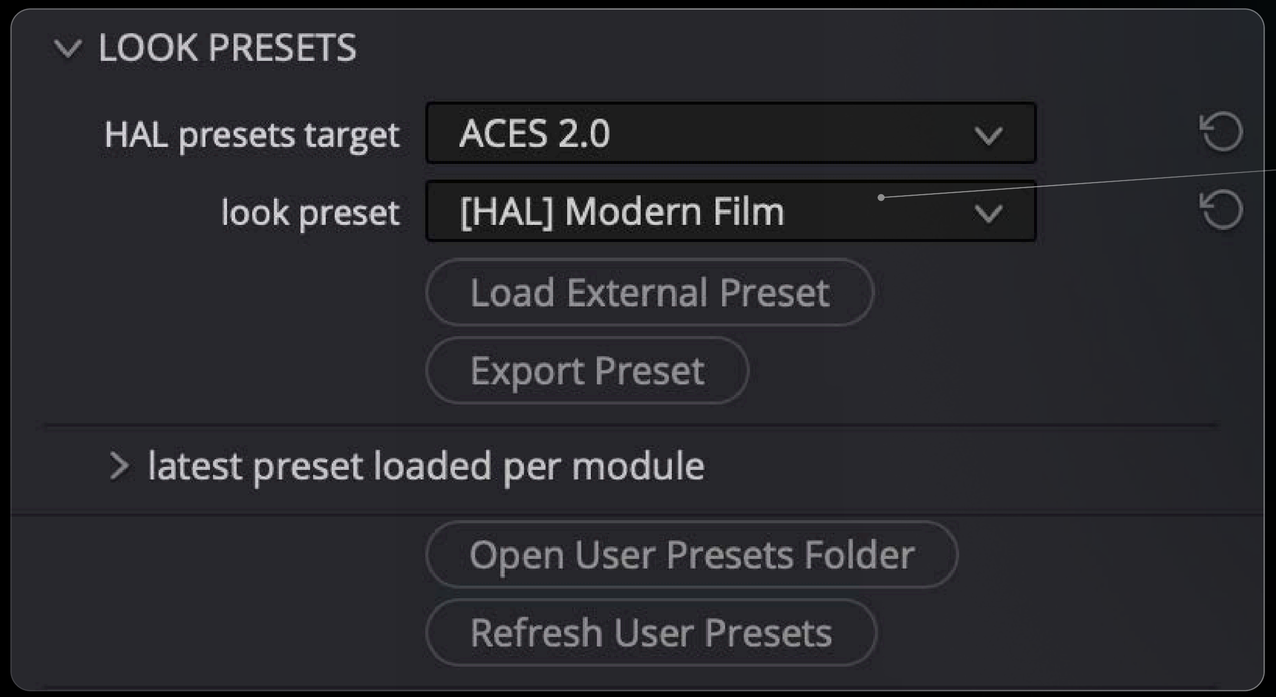
You can obviously move the look's nodes (*Diachromie and Diaphanie*) to timeline or group post-clip.
This node graph is a basic structure to grade through the look, for more advanced multi-instance structure check documentation.

Look Presets

Load and export look presets

You can save the current Diachromie settings **as a preset stored** in an .xml file using Export Preset.

To load your presets, click Open User Presets Folder, drag and drop your presets, then click Refresh User Presets. Alternatively you can load a single .xml preset using Load External Preset.



In the drop down menu you can find **the .xml presets** in your user folder and built-in presets.

The **HAL presets target** menu let you choose between different built-in preset flavors depending on the DRT you are using.

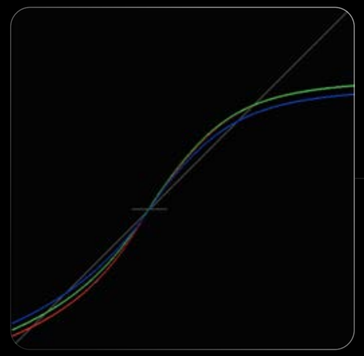
Built-in presets include a wide variety of pre-made looks, that are good starting points for your look development journey !

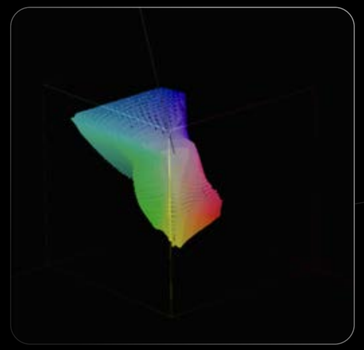
More on built-in presets here.

Monitoring tools

Overview

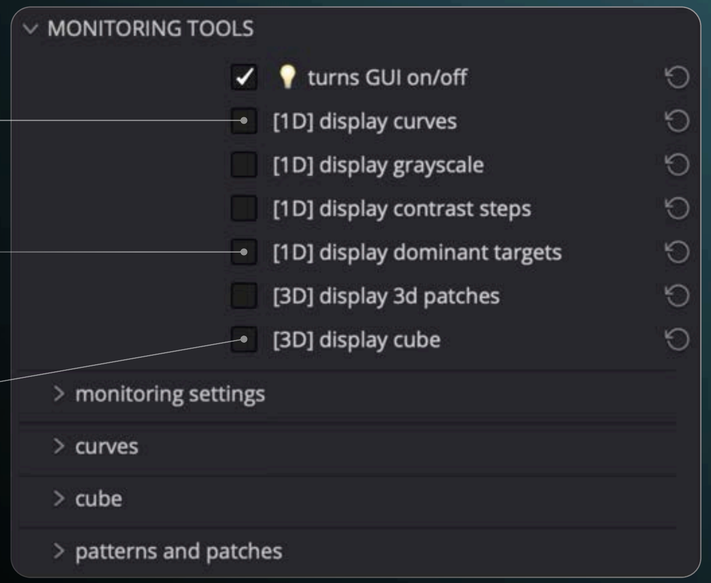
Displays RGB curves





Displays the 3D transforms in an AP1 RGB cube

Show hue targets for Color Tone Curve module (see p.13-14)



Feel free to explore all the other monitoring tools and options, **check the manual for an in depth tour.**

Color Transformations

Overview

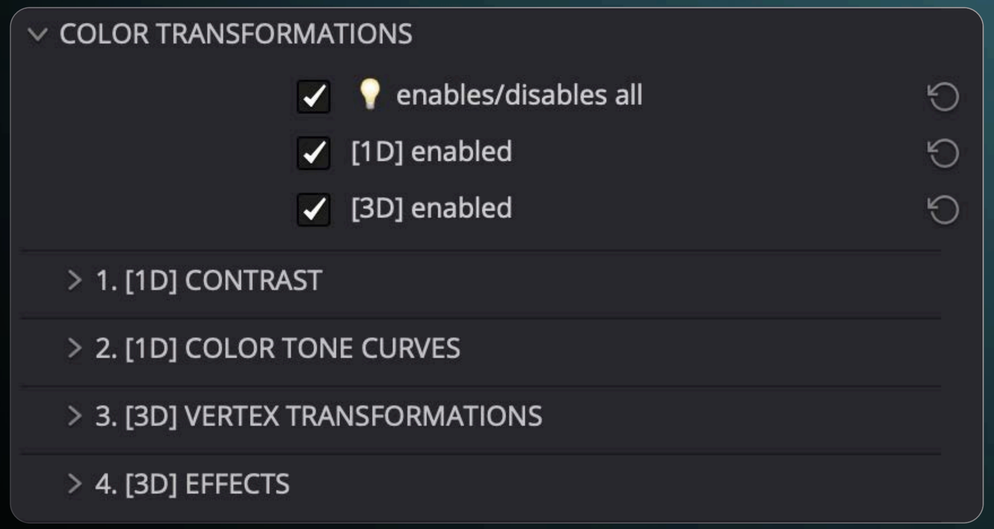
Color Transformations is the heart of Diachromie: it contains **all the tools you need to shape your look.** The order of the sections is not the internal order of operation but a natural order for look development.

The [1D] Contrast section is designed to **work on the tone curve of your look.**

The [1D] Color Tone Curves section is dedicated to **fine tune dominant colors in the shadows**, midtones and highlights.

The [3D] Vertex Transformations section is the most complex set of tools. It is designed **to shape the color cube** and define the color palette of your look.
It includes transformations that affect the behavior of the color in 6 pre-defined zones covering primary and secondary colors.
It also offers operators that target specific zones of interest like skin tones or vegetation.

The [3D] Effects panel contains a bleach bypass effect, other effects might be added in the future.



1D : Contrast Curve

Overview

The Contrast module allows you to fine-tune your tone curve. All the tools (except exposure and flare) preserve neutral grey as a look shouldn't generally modify exposure.

Contrast slider sets the main slope of the curve.

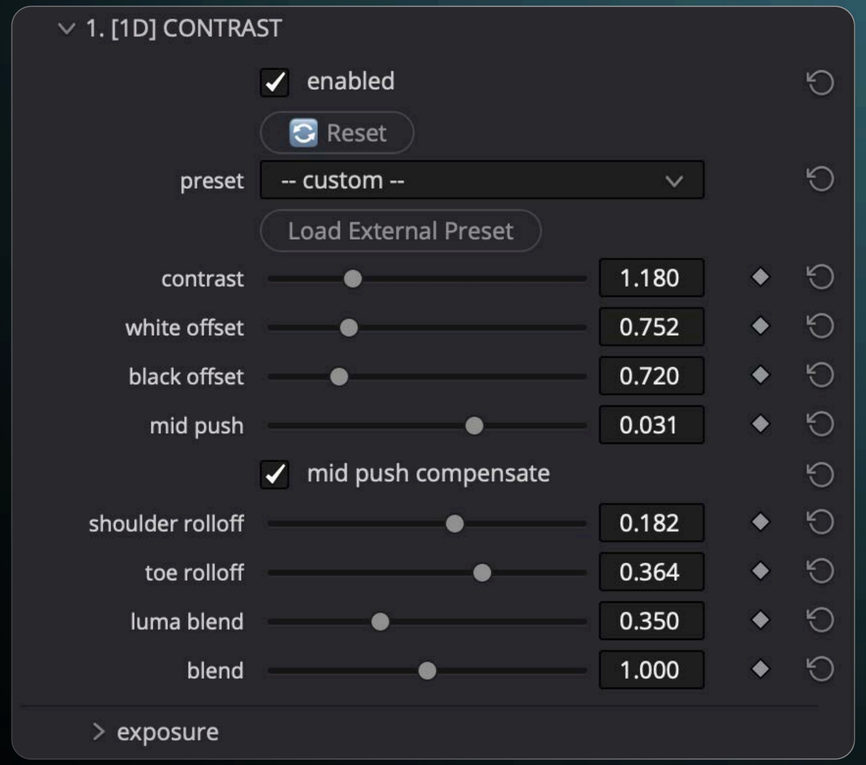
Use **White Offset and Shoulder Rolloff** to shape the shoulder of the curve.

Use **Black Offset and Toe Rolloff** to shape the toe of the curve.

Mid Push introduces a bump in the mid-lights, which gives more depth to the midtones and the faces. Use mid-push compensate to preserve exposure.

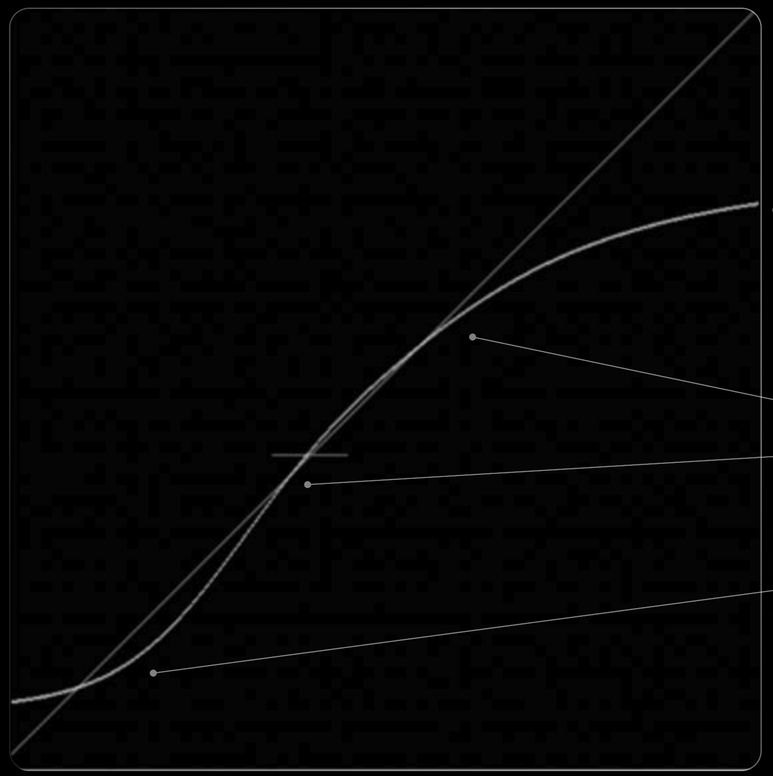
You can use **Luma blend** to blend between applying the effect on RGB channels or only in luma channel.

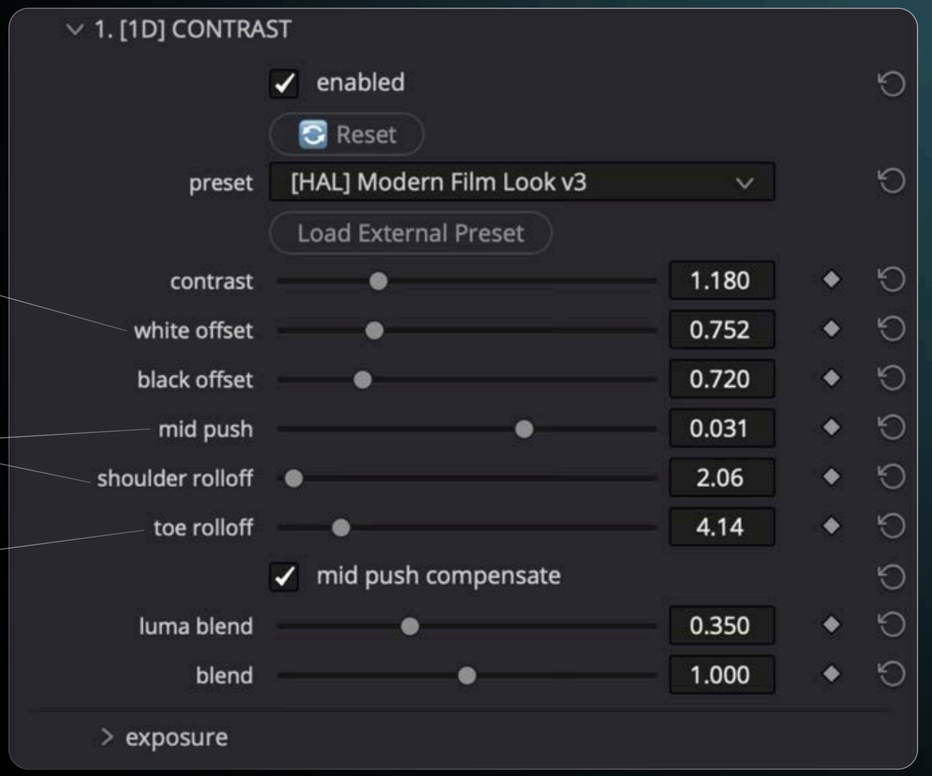
See documentation for detailed description of each parameters.



1D : Contrast Curve

Modern Film





1D : Color Tone Curves

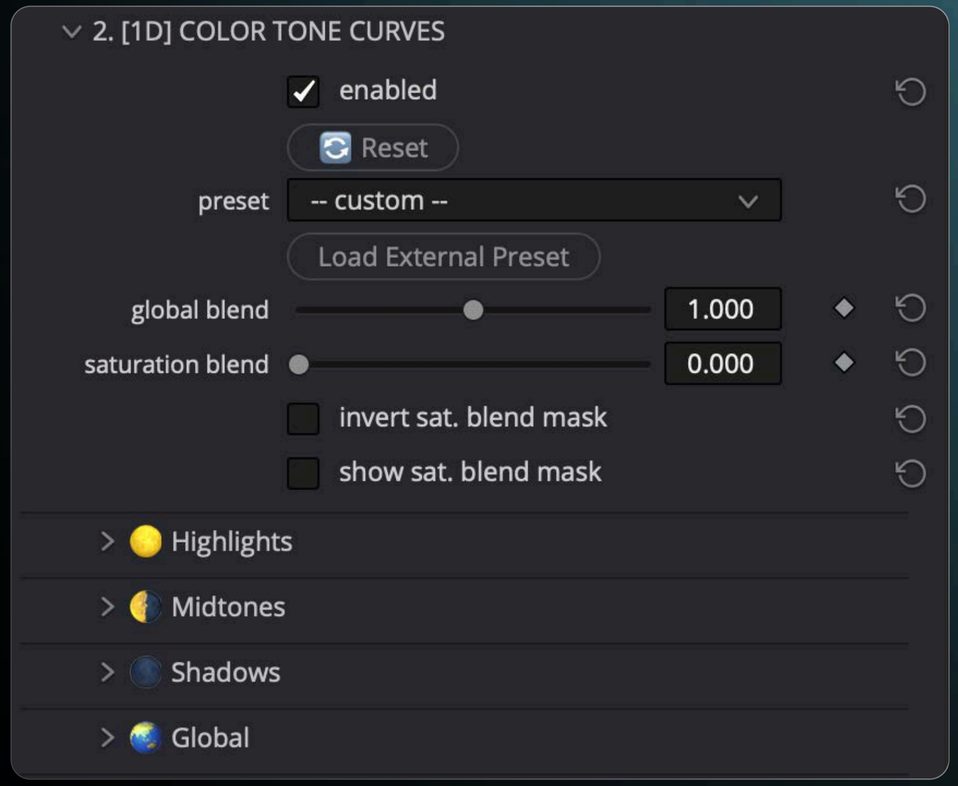
Add color casts and tints

The Highlights, Midtones and Shadows sections allow you to add color tints in the corresponding zone of the look. They all have the same set of tools.

The Global section let you add an overall cast to the look.

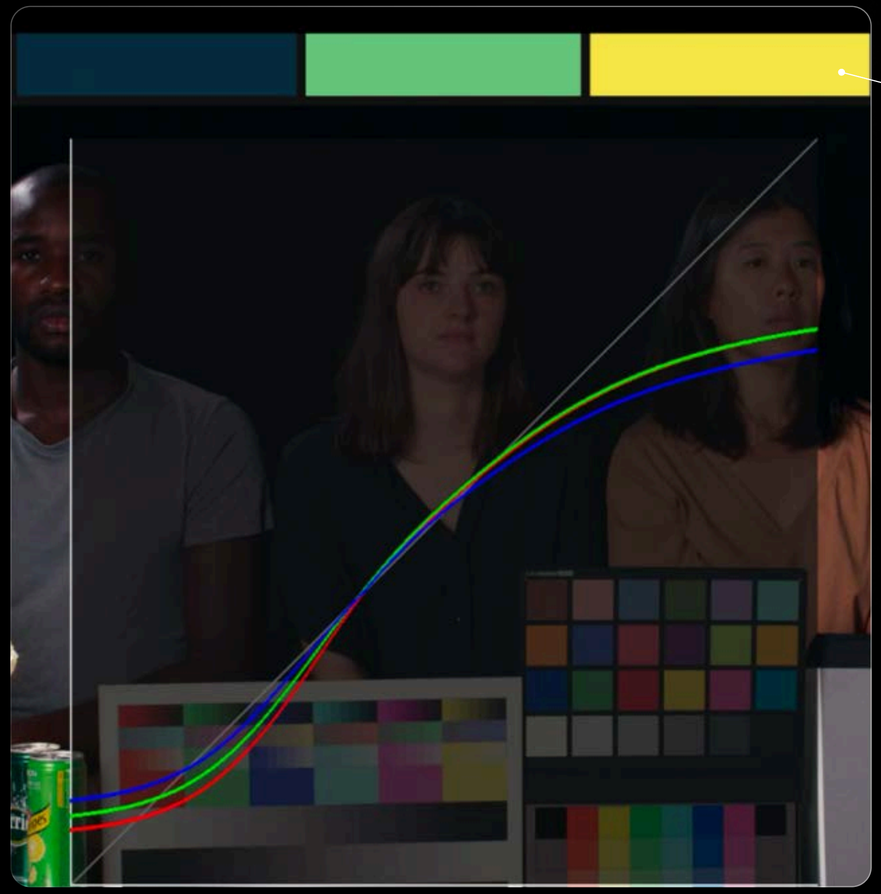
The global blend blends the effect. You can push it over 1 to accentuate the whole transformation of the module.

Saturation blend allows you to exclude saturated colors from all the tint operations of the module, or, if you check invert sat. blend mask, to preserve neutral colors for a more digital look.



1D : Color Tone Curves

Highlights example - Modern Film



You can display **the dominant target GUI** (see p.9) to visualize the target hues using the hue slider.

Control the dominant color strength using **the saturation slider.** You can choose to protect midtones using neutral zone extent, and to protect the highest parts of the image using rolloff offset.

Substractive sat. blend changes the default behavior of the module by decreasing lightness when saturation increases.

3D Vertex Transformations

Overview

The [3D] Vertex Transformations let you shape the color cube. Each vertex, Red, Yellow, Green, Blue, Cyan and Magenta has the same set of tools.

The global section let you apply those tools to all the vertices at once.

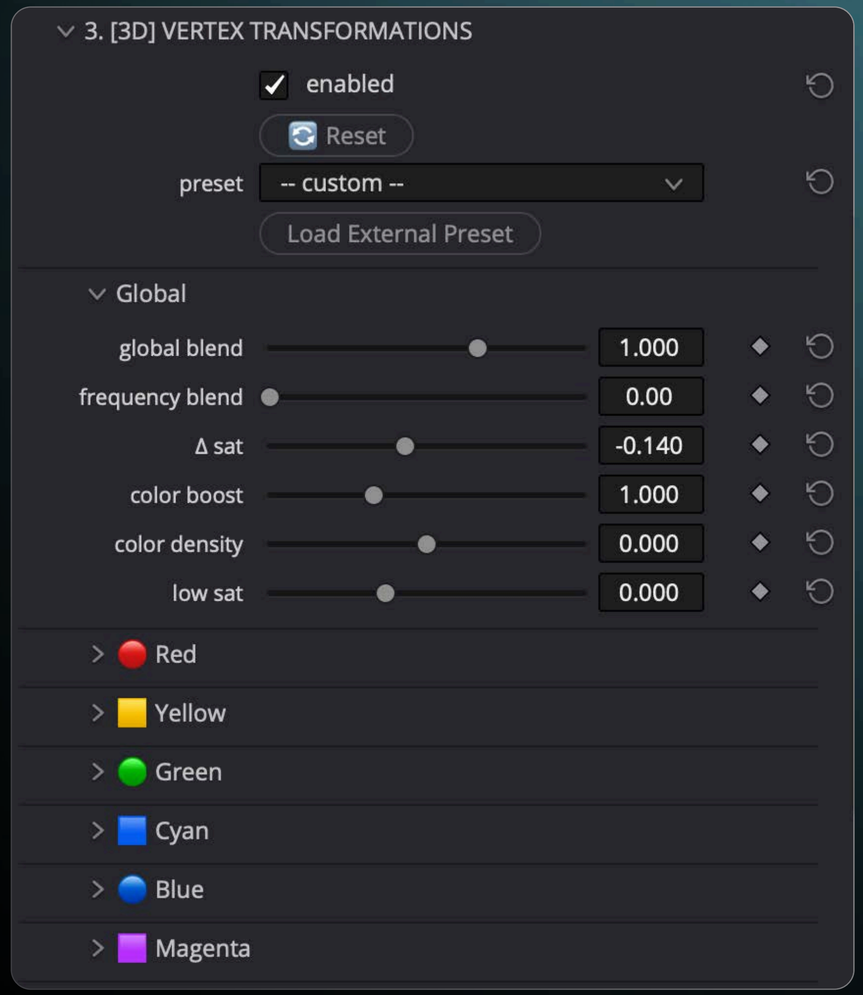
Δsat : increase or decrease global saturation.

Color boost : increase or decrease mid-low saturation while preserving high saturations.

Color density : increase of decrease the lightness of saturated colors.

Low sat : increase or decrease the saturation of low lights.

Global blend : blend all the vertices transformations and can go over 1 to increase the effects.

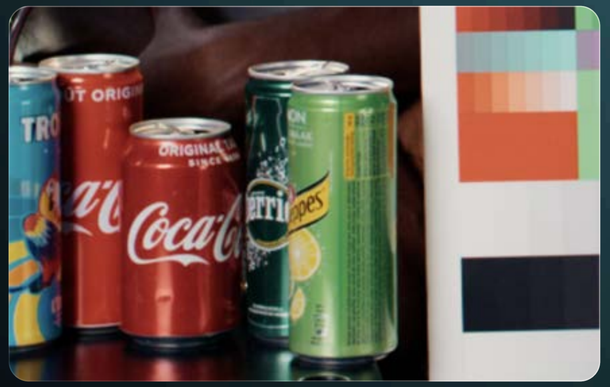


3D Vertex Transformations

Modern Film - Red Vertex example

Red vertex disabled

Red vertex enabled



Each vertex has **the same operators than the Global section** (see previous page), but they only affect their zone of the cube.

In addition, you get access to **Δhue and Δbrightness, Sat Rolloff** which lets you limit the saturation range by compressing high saturation and **Bleach** which lightens and desaturates the bright and saturated colors.

As you can see in the before/after illustration below, for the reds, we can enforce a limit on high saturations while giving the whole color more depth and a slight hue shift toward orange, a typical pattern in film emulsion.

3D Vertex Transformations

Selective Color Guidelines

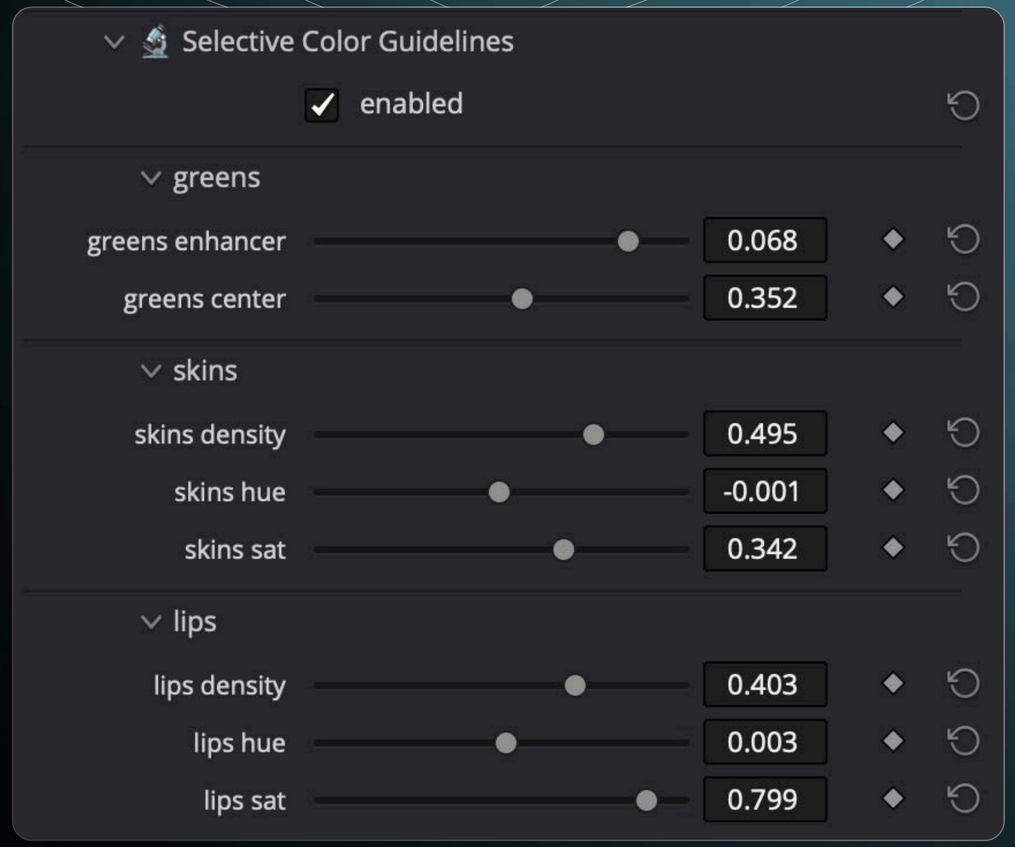
The **Selective Color Guidelines** panel features tools that target specific zones of the cube.

Skins and Lips are particularly useful to modify skin tones independently and to compensate shifts that can be induced by the Red and Yellow vertices transforms.

Greens enhancer on the other hand is designed to split green tones between blue-greens and yellow-greens adding more depth and variety to vegetation.
It can be complemented by an offset of the **greens center** that shifts the main color of the green subsection towards blue or yellow.

Green enhancer disabled

Green enhancer enabled



It is strongly recommended to use the Selective Color Guidelines once the Vertex Transformations have been properly defined. Starting by the Selective Color Guidelines is usually ineffective as it will only target small subsections of the cube that will be strongly affected by any transformation from the Vertex Transformations.

Effects

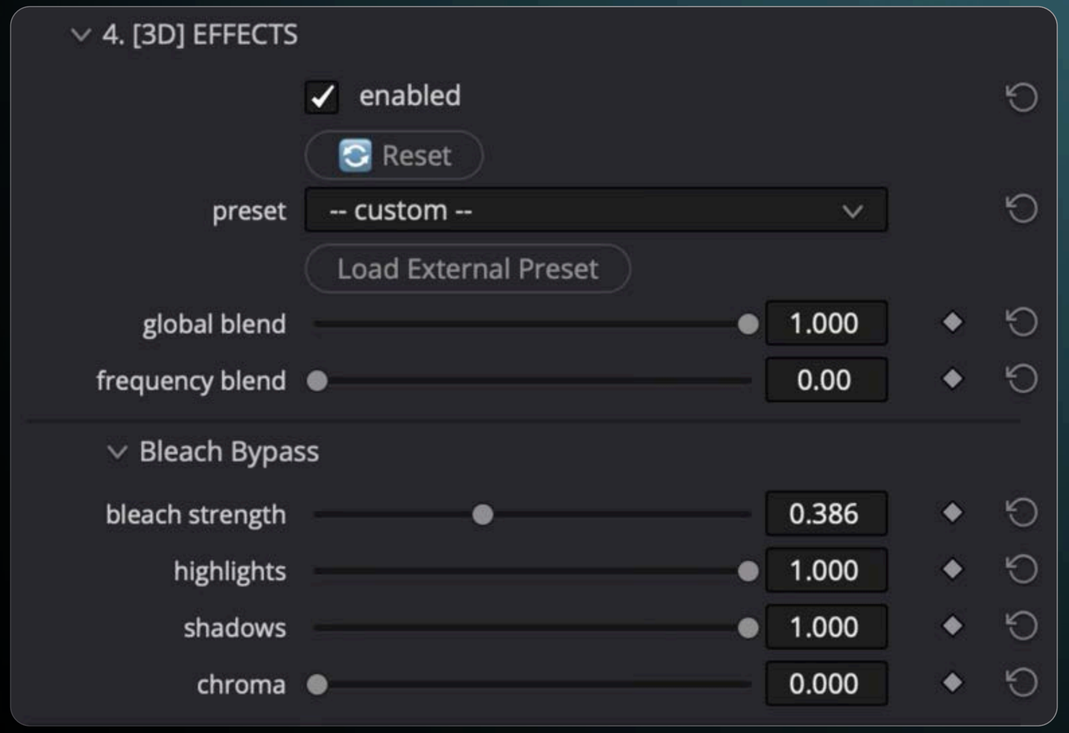
Bleach Bypass

***Diachromie* features a parametric bleach bypass effect.**

Bleach strength let you control the global strength of the effect.

Highlights and Shadows let you control the strength of the effect on specific regions.

Chroma let you choose to apply the effect only over a certain chroma threshold. Default value 0 applies the effect on the whole chroma range for a film-like bleach bypass effect.

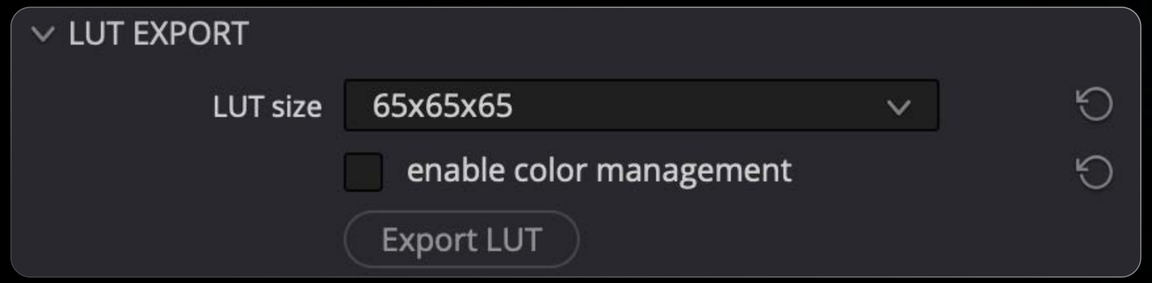


LUT Export

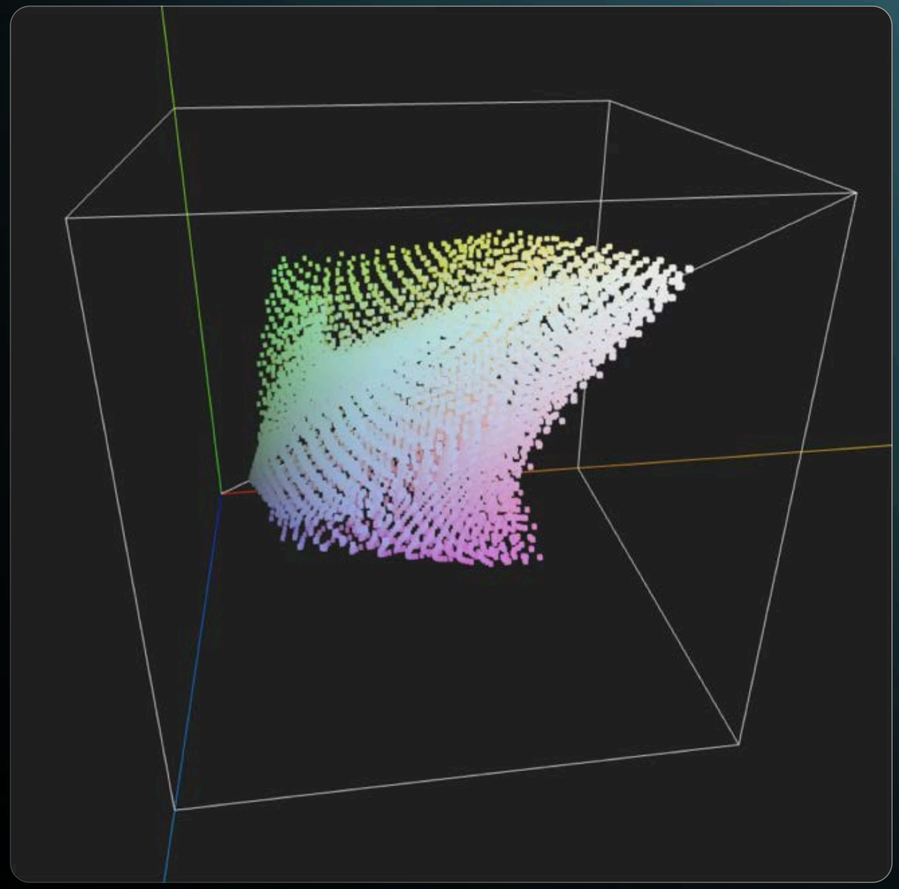
Internal lut export

You can export your look as **a 3D .cube LUT is the LUT Export tab.** By default the LUT is ACEScct/AP1 to ACEScct/AP1, if you work in an ACES color managed environnement, you can simply use it on a node.

If you work within another color management environnement and thus use Diachromie internal color management, you can check enable color management to bake the color management into the LUT.



To export camera LUT using Resolve built-in LUT export tool *refer to the user manual.*



What's next ?

Going further

You're ready to **start experimenting with *Diachromie*,** some suggestions to boost you're lookdev journey :

- Read the complete user manual for an in-depth tour of the plugin : link

- Practice a lot on reference and various material, you can find raw sample shots on camera manufacturers website.

- Color is only half of the look ! Make sure to check ***Diaphanie*** our texture development plugin.

- Need help ? After reading the FAQ, feel free to e-mail us at help@hal-picture.com