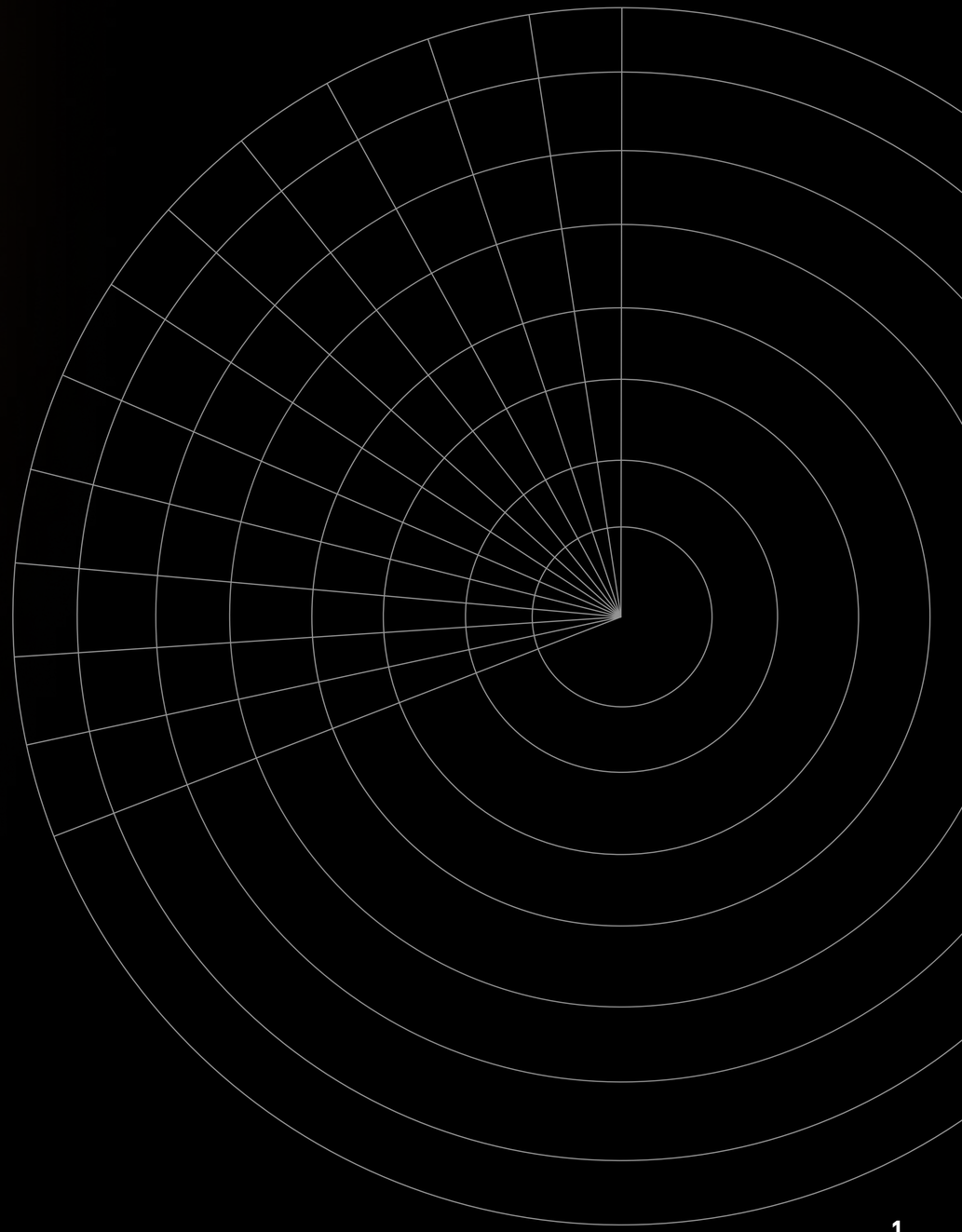


Diaphanie

QuickStart Guide

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

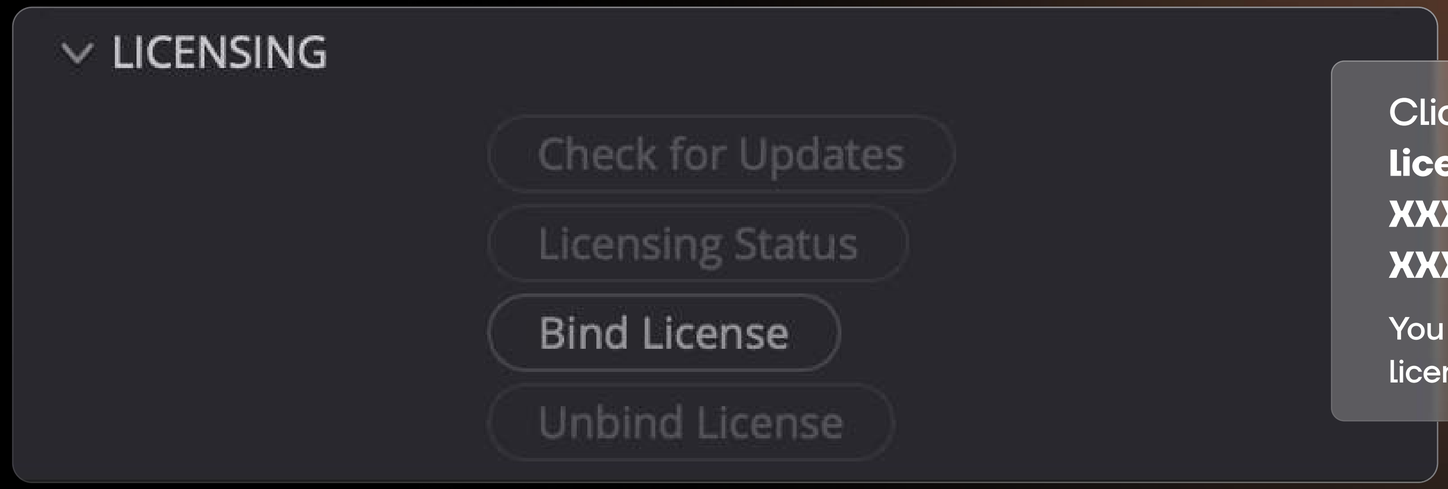
Installation and License

You can **download Diaphanie here :**

Diachromie/Diaphanie

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

To activate a license, drag and drop *Diaphanie* 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**

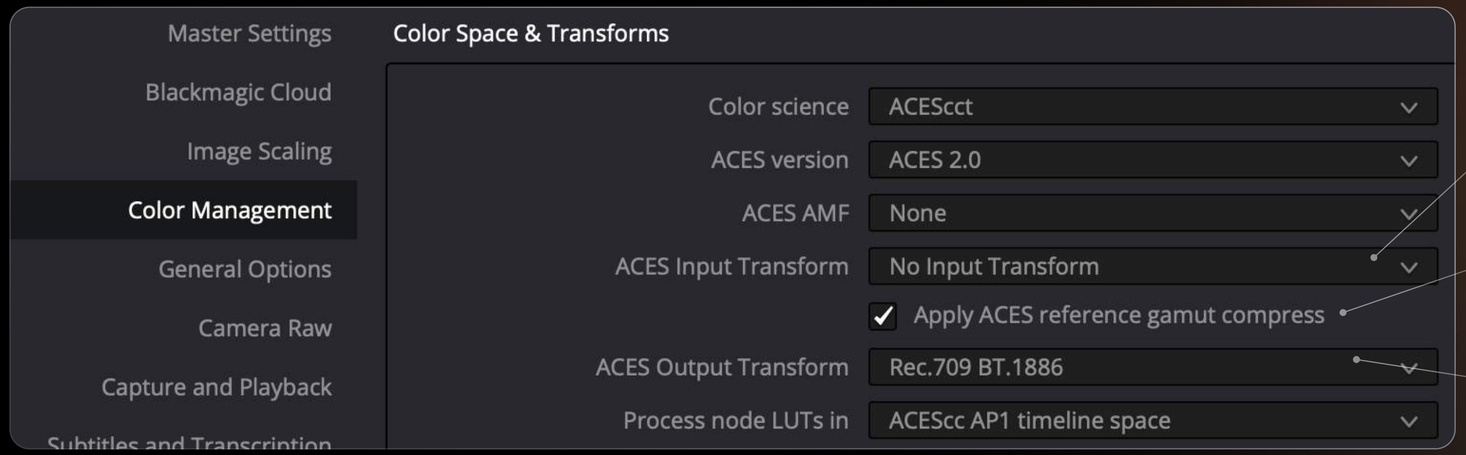
You can use *Unbind License* to move your license to another device.

ACEScct

Working within an ACES pipeline

Diaphanie 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.

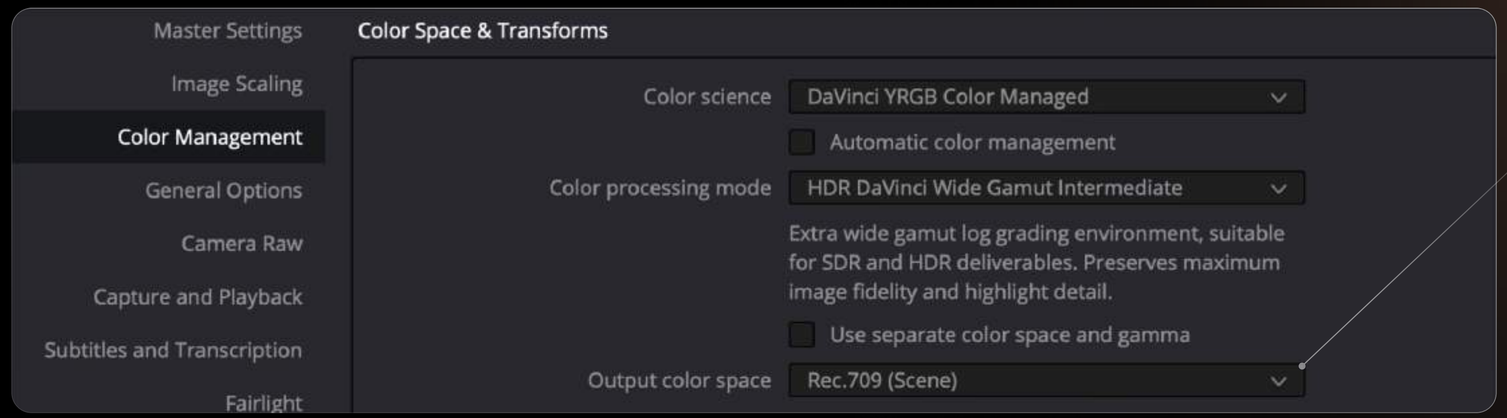
You can use either ACES 1.3 or 2.0 but be aware that looks developed in 1.3 wont match when converting to 2.0 and vice-versa. More infos on ACES : https://acescentral.com/

DaVinci ColorManaged

Working within DaVinci YRGB ColorManaged pipeline

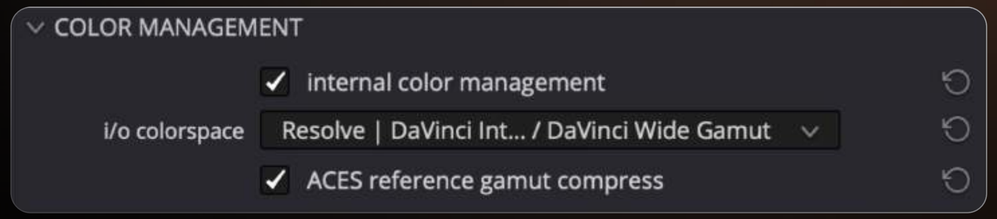
If you want to work in DaVinci ColorManaged you need to use **Diaphanie's internal color management (in Global Settings).**

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



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

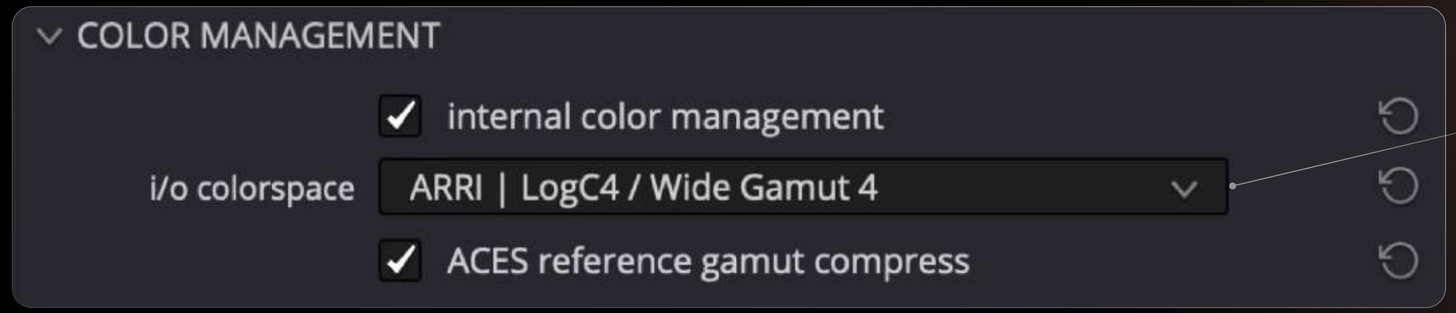
In Diaphanie's Color Management tab, **check internal color management, choose Resolve in the drop down menu.** If you use multiple instances of Diachromie/Diaphanie we recommend checking ACES reference gamut compress **on the first instance only.**



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 **Diaphanie's internal color management (in Global Settings) 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/Diaphanie* we recommend checking ACES reference gamut compress **on the first instance only.**

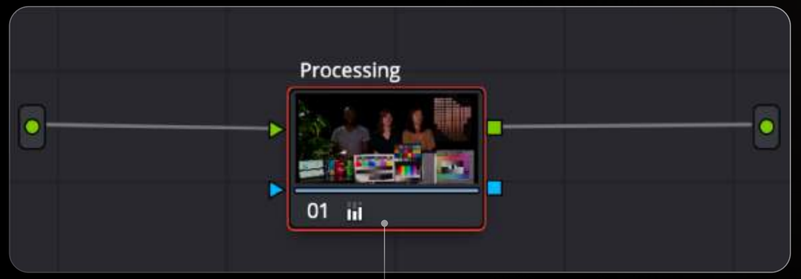
LookDev Setup

Base template for usage in lookdev context

A Look must be polyvalent and work on in a wide variety of context. We suggest using a timeline with varied materials and test shots for your project. While developing 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

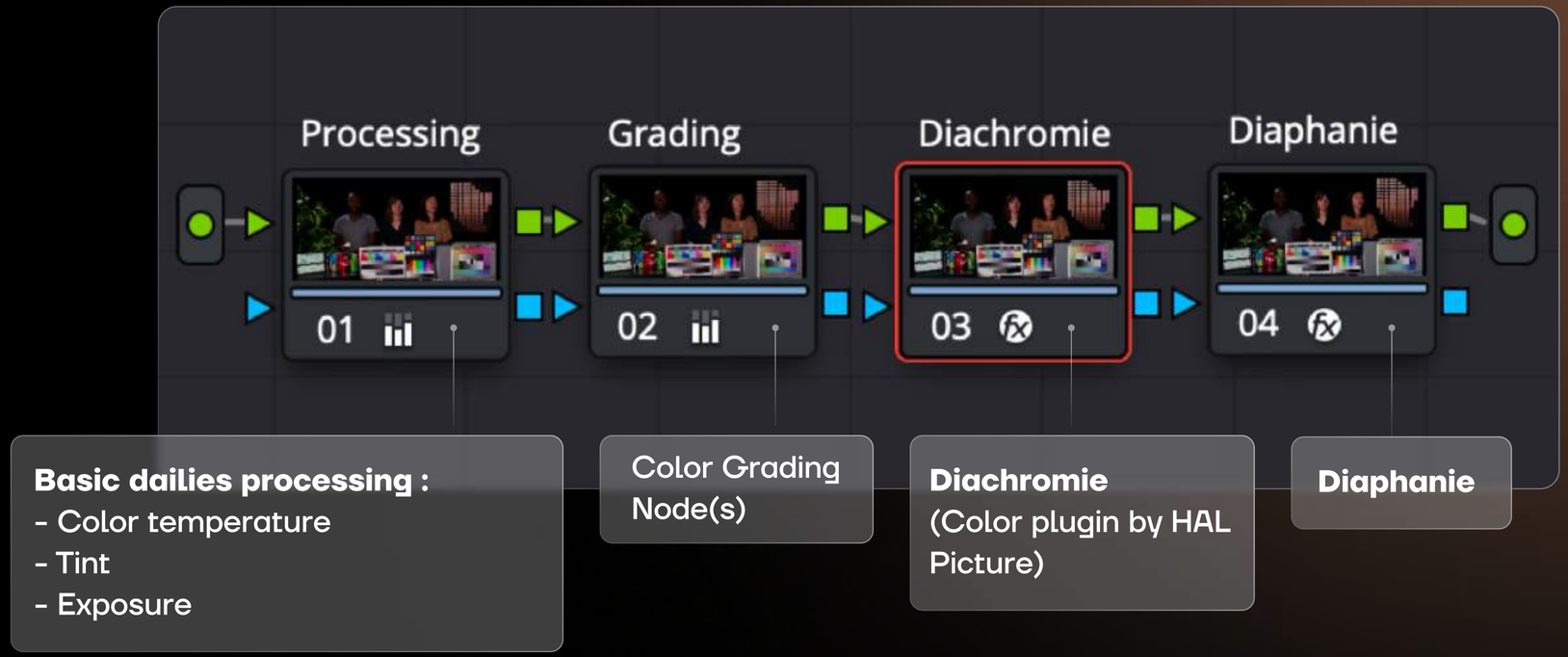
Timeline or Group Post-Clip node graph

Diachromie
(Color plugin by HAL Picture)

Diaphanie

Color Grading Setup

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



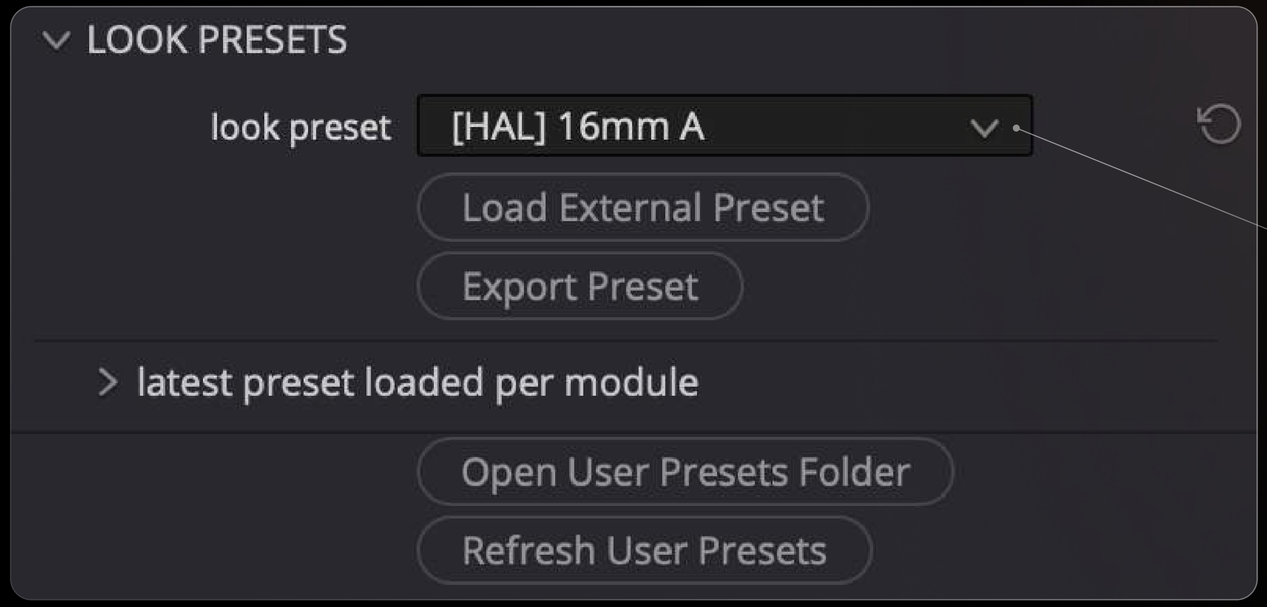
You can obviously move the look nodes (*Diachromie and Diaphanie*) to timeline or group post-clip.
This node graph is a basic structure to grade through the look, for more advanced multi-instance structure check documentation.

Look Presets

Load and export look presets

You can save the current Diaphanie 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 single .xml presets using Load External Preset.



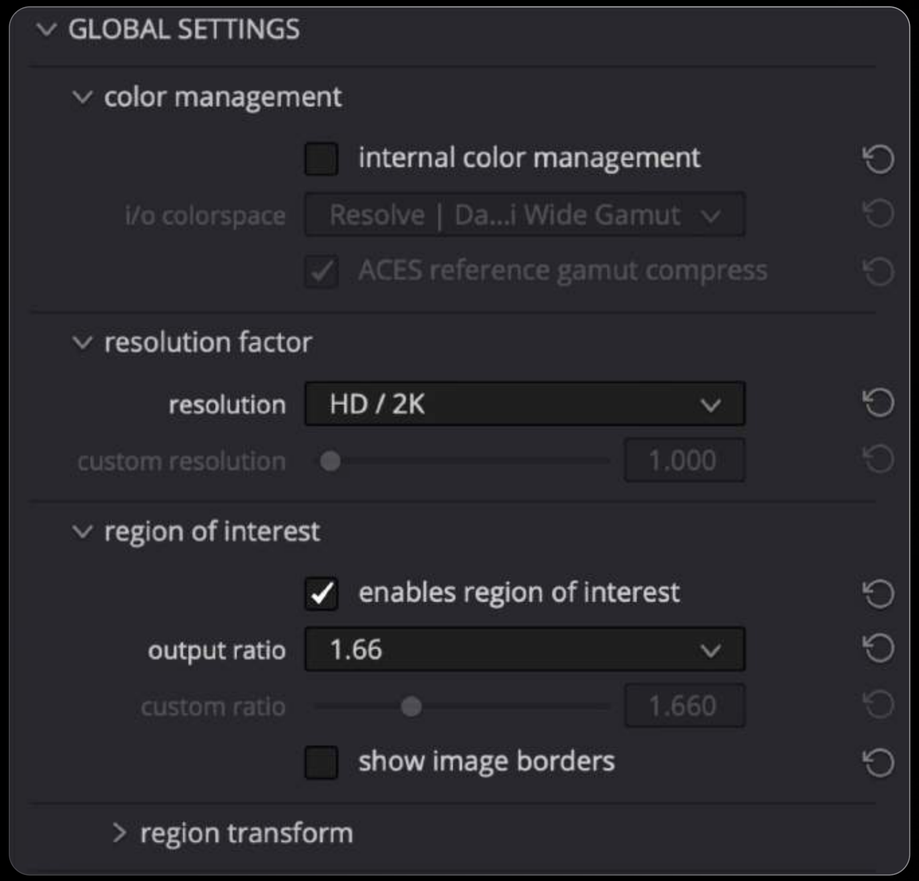
In the drop down menu you can find **the .xml presets** in your user folder and built-in presets.

Diaphanie's builtin presets :
Three film-like textures, one digital-oriented, all good starting points for texture development.

- 16mm A
- 16mm B
- 35mm
- Digital Haze

Global Settings

Don’t skip this !



The Global Settings panel allows you to configure the plugin depending on your project. It’s really important to choose the right settings to make sure that the plugin works properly.

The **Color management section** was covered earlier on *(see p. 3-5)*.

Resolution factor needs to be set in accordance with the resolution of your timeline. If you import your texture look into another timeline of a different resolution, changing the resolution factor will ensure a mathematical identity of the texture between different resolutions.

Region of interest let you ignore certain part of the image, typically burnt-in blanking. Note that the region outside of the region of interest will be cast to black.

You can use **show image border** and **custom ration** to fine tune the blanking.

Components

Overview

Diaphanie is composed of 4 independent modules that shape the texture of your look :

The Spatial Equalizer module is dedicated to working on spatial frequency, allowing you to adjust the spatial resolution of specific levels of detail.

The Halation module emulates the film-related halation phenomenon, reproducing the light contamination that occurs between very bright areas and their adjacent regions.

The Diffusion module emulates optical diffusion filters.

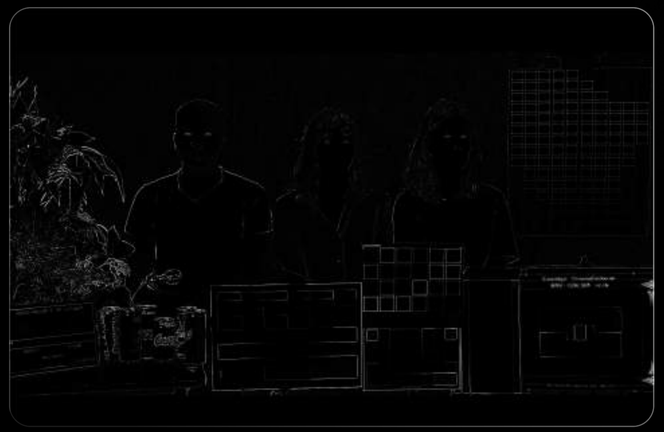
The Grain module lets you apply a fully generated, procedural grain to your image. The grain is highly parametric, allowing you to achieve a wide variety of effects—from authentic film grain emulation to a more digital-looking texture—with careful parameter adjustment.

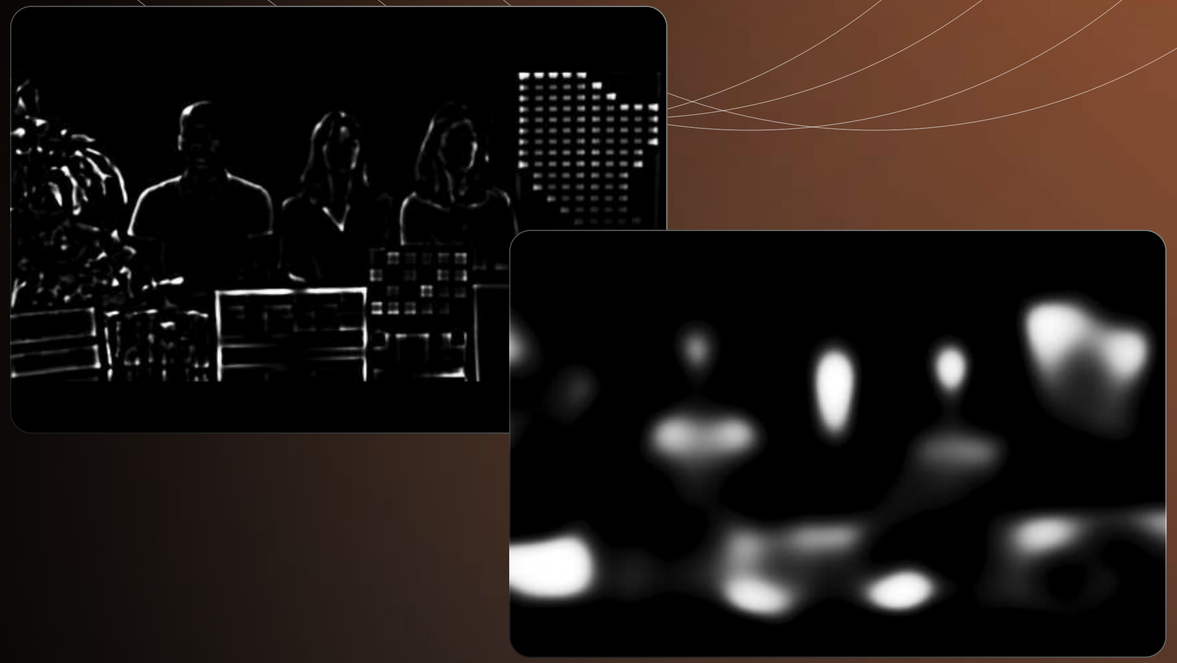
Spatial Equalizer

What is spatial frequency ?

Digital images are typically represented in the spatial domain: each pixel encodes a point in space. However, images can also be represented in the frequency domain, where each frequency corresponds to a specific level of detail in the image.

The frequency representation isn't visually meaningful on its own, but it becomes powerful when you manipulate it. For example, if you apply a high-pass filter (which preserves only the fine details) and then convert the result back to the spatial domain, you'll obtain something similar to edge or contour detection.





Above, you can see the representation of two other frequency bands, similar to a band-pass filter in audio processing. You can think of fine details in an image as being like high-pitched sounds — both correspond to high frequencies (quick variations).

Low spatial frequencies are a bit harder to visualize, but you can think of them as representing the overall spatial structure of the image — broad, gradual variations, or "slow waves," to continue the sound analogy.

Spatial Equalizer

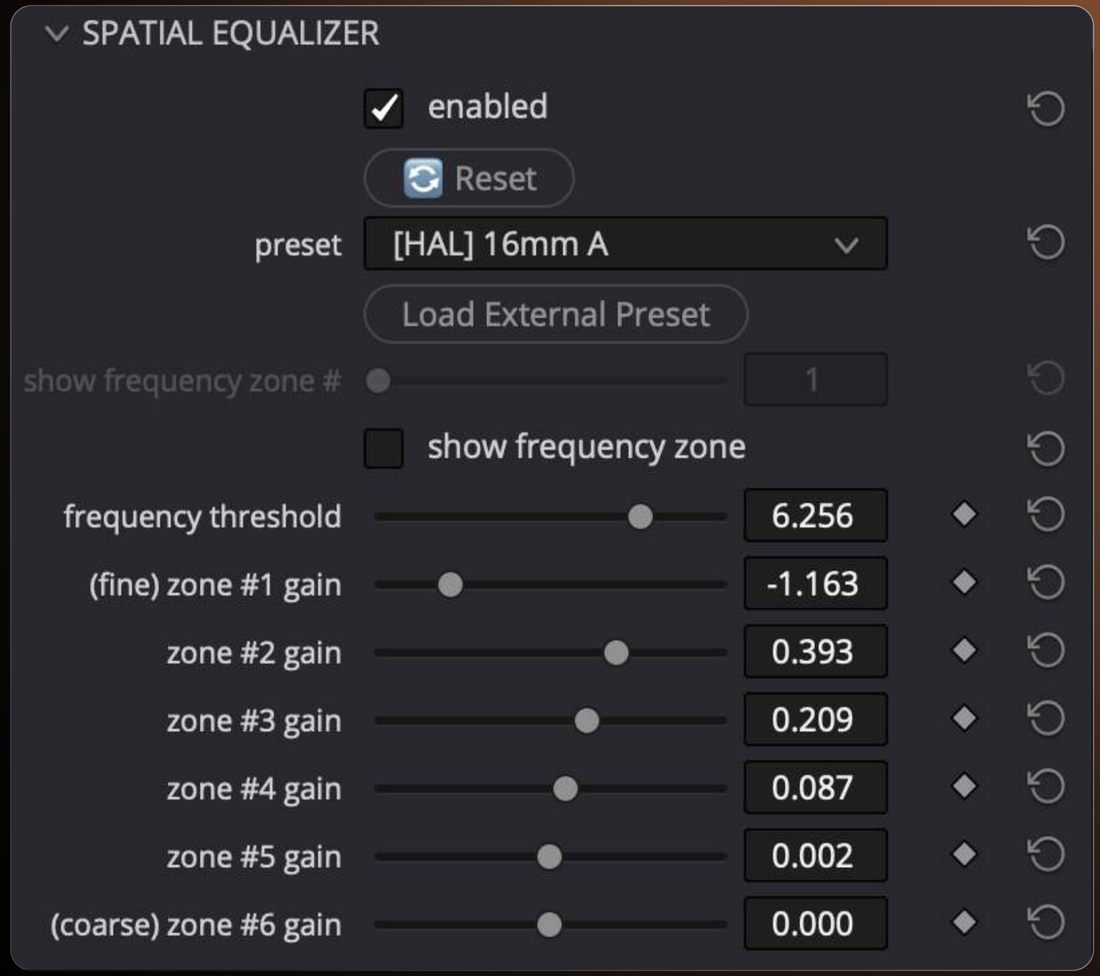
Overview

The spatial equalizer module splits the image in 6 frequency zones. You can use the gain sliders to adjust each zone. Values below zero reduce the relative weight of the selected frequency in the final image. Values over zero increase their relative weight.

Zones #1 and #2 correspond to **the finer details.** Increasing their gain will give an impression of extra sharpness, while decreasing it will create a blurry, out-of-focus render. Disparity in those zones (like in the 16mm preset on the right) can create film-like acutance effect.

Zones #3 and #4 correspond to **the medium details.** Modification on those zones will have a big impact on modeling.

Zones #5 and #6 corresponds to **the global spatial organisation of the image.** Modifications on these zones have a huge impact on the brightness because they carry a lot of information.



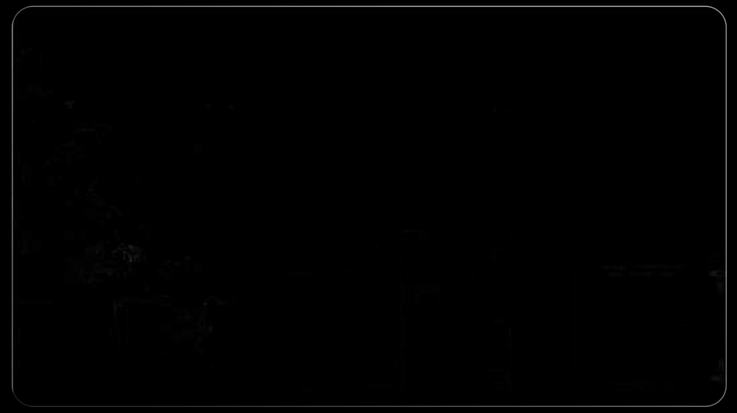
Spatial Equalizer

Calibration

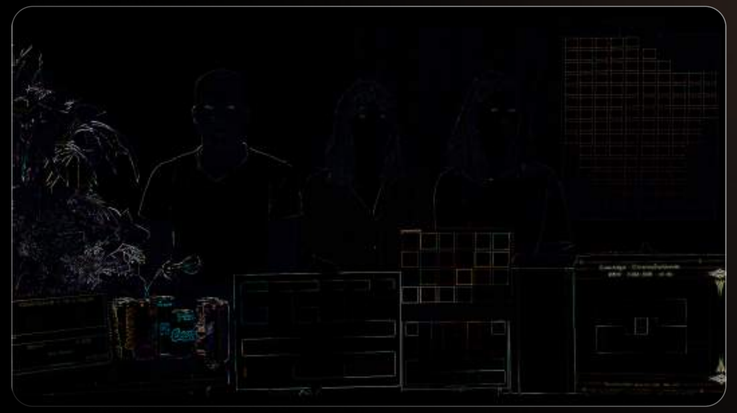
To ensure the frequency zones are well distributed along the original frequency distribution of the image, you need to tune it using the **frequency threshold** slider.

The initial frequency distribution can be impacted by a lot of parameters, such as the camera model, the exposure, the raw settings, the lens, optical filters and other digital spatial treatments (like de-noisers).

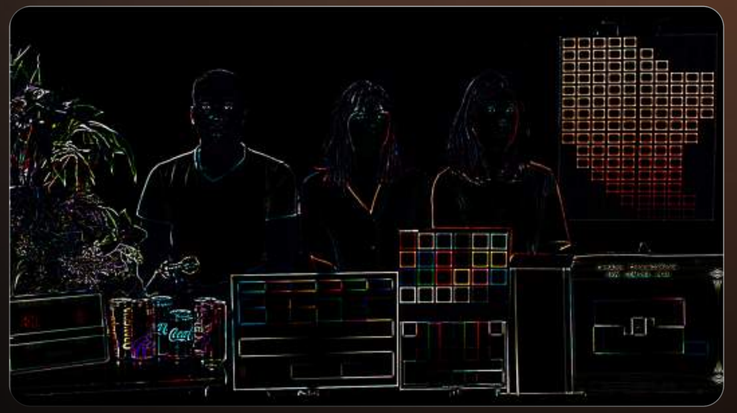
To tune the spatial frequency zones, use **show frequency areas** with Show frequency # slider in position “1”. Then move the **frequency threshold** until you catch only the finer details and contours. The other zones are correlated to the first one, so tuning the first one tunes the whole spatial equalizer.



Frequency threshold is too low



Correct frequency threshold



Frequency threshold is too high

Halation

What is halation?

Halation is a phenomenon present in film due to various properties, like its thickness, the diffusing nature of the gelatin substrate and the reflection on the film support. It typically produces a red-yellow halo around high lights. Historically considered as a defect that manufacturers tried to minimize, halation is nowadays viewed as an interesting aesthetic effect.

The Halation component of Diaphanie is parametric and is designed to let the user replicate typical film halation or try new digital-looking effects.

Kodak Vision3

Diaphanie (with a filmic preset)

Halation
Settings

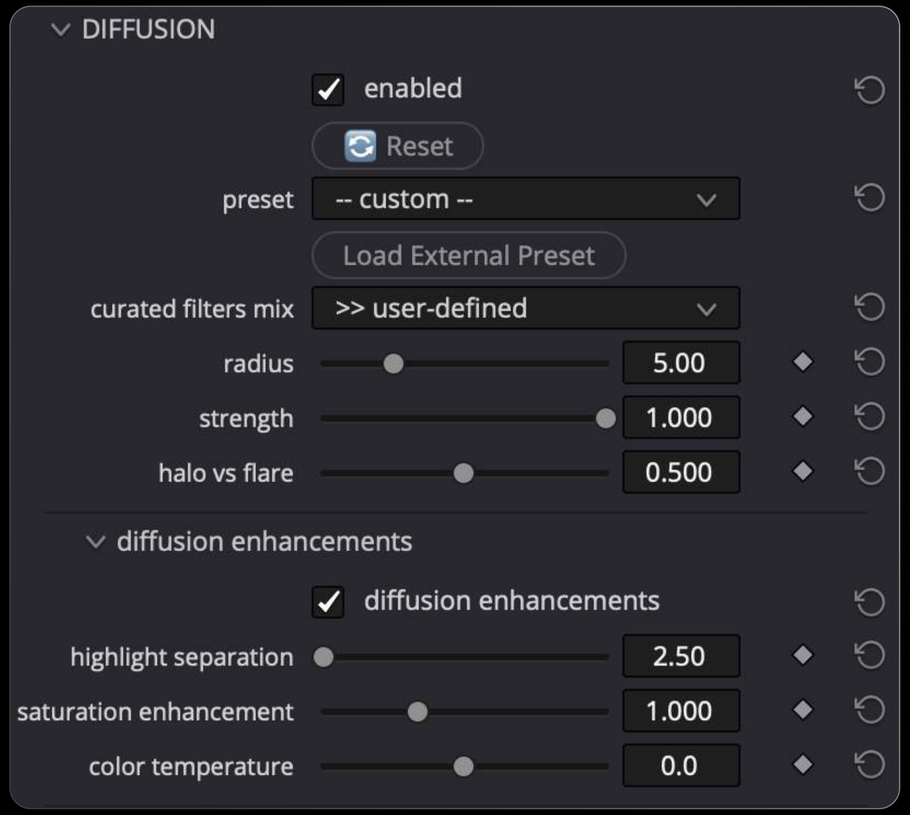
The spatial spread slider allows you to choose the size of the effect.

Δsat, Δhue and Δbrightness let you change the appearance of the halation. From a film-like red-yellow effect to a sci-fi blue glow!

Highlight separation let you choose the threshold for applying the halation. You can use the show halation zone option to monitor the zones of the image that express halation.

Diffusion

Overview



The **Diffusion module** emulates the effect of optical diffusion filters.

Radius and strength slider let you choose the size and the presence of the intensity of the effect.

Halo vs flare lets you mix between a halo effect, creating diffusion only around highlights, or a flare effect where the diffusion affects the whole image, decreasing contrast.

Highlight separation increase the impact of high highlights in the diffusion to mimic optical filters behavior.

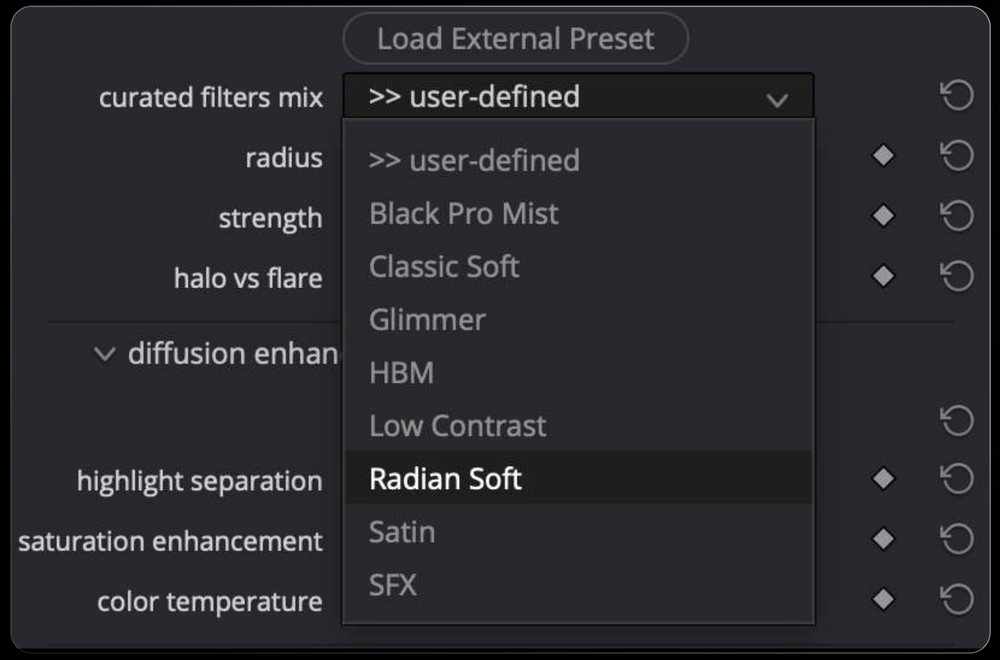
Saturation enhancement modifies the saturation of the diffusion. Its color coming from the diffused light.

Color temperature warms up or cools off the diffusion effect.

Diffusion

Curated Filter Mixes

Curated filter mix let you choose between builtin presets for the **radius, strength** and **halo vs flare** sliders. Those presets mimic the typical behavior of well-known optical diffusion filters. They are based on the analysis and comparison of test shots with and without the considered filters.

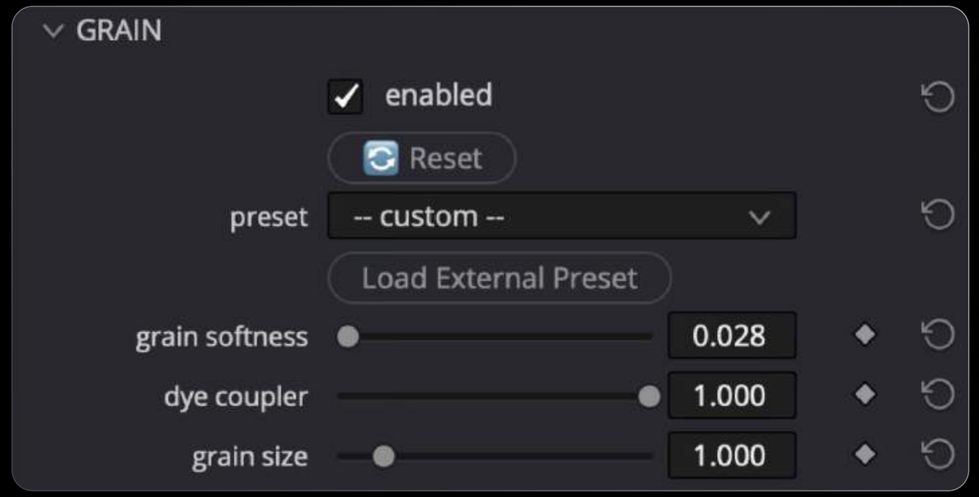


BPM 1/2 or Diaphanie ?

Grain

General Settings

The Diaphanie Grain module is quite complex, but it offers you a total control on a powerful fully generative grain engine. This allows you to achieve accurate film grain emulation, as it is based on film measurements, but also more digital, never seen before, textures.



Grain softness slider, let you sharpen or blur the grain.

Dye coupler let you mix between chromatic and achromatic grain.

Grain size is self explanatory. Note that we suggest to choose your grain size below the size of the finest details of your image, if you want the grain to feel like a part of the image.

Grain

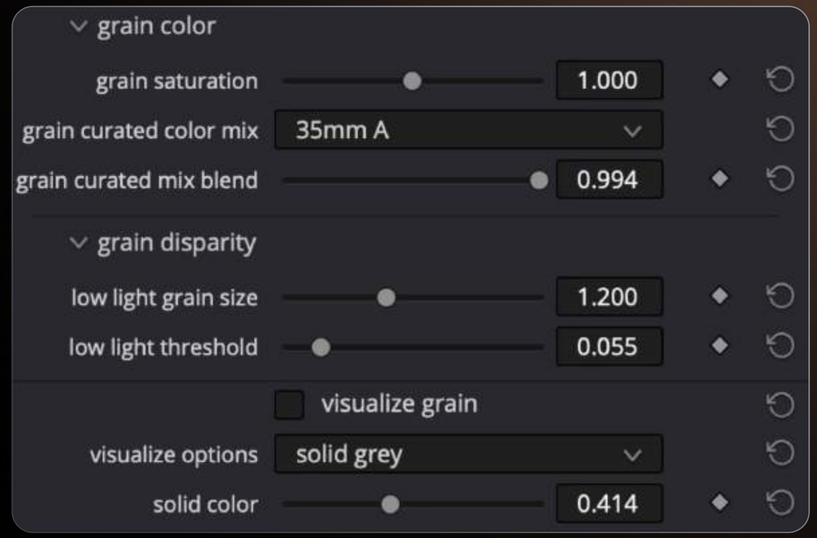
Appearance settings

Grain blend panel let you add or reduce grain globally with grain global blend or in certain exposure zones.

The exposure zones are expressed in an EV (stops) scale where 0 corresponds to neutral grey.

The generative model is based on a random RGB grain generator. In order to achieve film-like grain, the initial colors must be modified. You can load a built-in **grain curated** color mix or create your own in the advanced settings. The grain curated mix blend slider let you mix between rgb grain and the selected curated color mix.

Grain disparity section let you choose to change the size of the grain under a certain exposure threshold, using low light grain size and threshold sliders, to mimic film behavior.



What's next ?

Going further

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

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

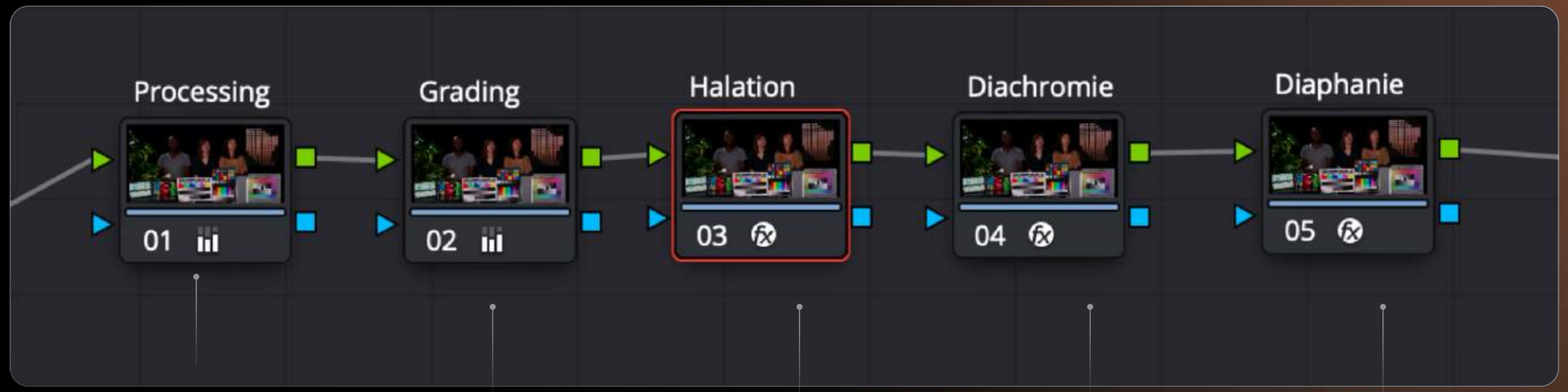
- **Practice a lot on reference and various material,** you can find raw sample shots on camera manufacturers website.

- **Texture is only half of the look!** Make sure to check ***Diachromie*** our color look development plugin.

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

Bonus !

A more advanced node graph to use halation alongside Diachromie



Basic daillies processing :
- Color temperature
- Tint
- Exposure

Color Grading Node(s)

Diaphanie
Halation only

Diachromie
(Texture plugin by HAL Picture)

Diaphanie
without halation

Halation being a physical phenomenon linked to high highlights, the result may be better if you apply it before applying Diachromie's contrast curve as it may compress high highlights and moderate highlights together.

The same logic can be applied to Diffusion. Read the documentation for more information about multi-instance node graph.