SUCOM3

Linny & Cinny
User Manual

Version 3.0

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Introduction

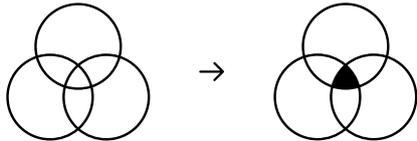# A New Era of Cinema Color Science

The SUCOMO™ (Subtractive Color Model) Linny & Cinny LUTs are custom-built, not generated through color grading software, and are developed to achieve an accurate film-like subtractive color model.

They serve as both creative and technical Log-to-Linear as well as Pseudo-Log converters. When using just the clean Linny LUT, there are no color palette changes beyond the color separation corrections necessary for the sensor and log encoding system. This ensures that you have an open canvas for creative look decisions during the color grading process while giving you all the benefits of working within a subtractive color system like you would with a high-quality Cineon film scan.

Cinny, on the other hand, does introduce some changes to the palette and hues, along with a higher density. However, both serve as an excellent starting point for any grade.

Introduction

Additive vs. Subtractive

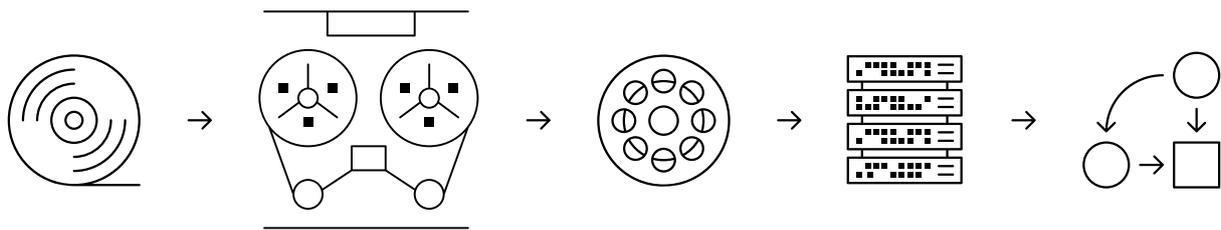## Subtractive Color Formation Model

The colors formed in camera origination color negative film stocks are based on a subtractive color formation model. In the subtractive color formation model, pigment is used to produce color using reflected light. The subtractive colors are cyan, yellow, magenta, and black, also known as CMYK. Subtractive color begins with white and ends with black; as color is added, the result is darker.

Additive Color Formation Model

Digital cinema cameras are based on an additive color formation model. The additive color model describes how light produces color. The additive colors are red, green, and blue, or RGB. Additive color starts with black and adds red, green, and blue light to produce the visible spectrum of colors. As more color is added, the result is lighter. When all three colors are combined equally, the result is white light.

Introduction

How was SUCOMO™ created?

Our Subtractive Color Model starts with camera origination negatives and positive show-print analog film stocks.

The film is printed with thousands of optical response data points, then precisely developed and scanned. The resulting response points are quantified through densitometry and colorimetry and plotted using an artificial neural network to detect and mitigate potential artifacts and irregularities. On the digital camera end, the gamut and gamma response for each camera system is determined through spectrometry, where the camera body becomes the sensing element of a spectrophotometer. These two datasets are combined and assembled, resulting in a very fine non-linear subtractive color response with all its intricate transients and luminance roll-off characteristics. Many of the scientific measurement devices and processing algorithms used were developed specifically for the SUCOMO™ project by our in-house team in collaboration with partners from the cinema, defense and aerospace industries.

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SUCOMO™ LUT Types

Linny

Linny is a Pseudo-Log & Log-to-Linear conversion LUT kit designed as a subtractive color and film-like response alternative to popular digital cinema camera standard log encoding systems.

Grading with the Linny base LUT is incredibly straightforward and consistent. It is easy to pair the main Linny Pseudo-Log LUT with third-party FPEs and our SPK Supplementary Print Kit FPEs.

Every Linny kit also includes two types of Log-to-Linear conversions intended for on-set monitoring, dailies, editing, and grading / color mastering for deliveries.

Linny LUTs are designed to do the heavy lifting for you, allowing for faster turnarounds and more time for creative decision-making.

For more visit : https://www.thebrim.pictures/sucomo.html

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SUCOMO™ LUT Types

LinnyVFX

With LinnyVFX you can easily match linear textured / rendered CGI models, plates, and other compositing assets with footage shot on Linny LUT supported cinema cameras, and because Linny LUT is such an accurate representation of analog film, it can be utilized for matching with material shot on 16mm, 35mm and 65mm motion picture film. For these tasks, the kit also includes the regular non-print version of Linny LUT for use as a pseudo log base, making Linear-to-Log conversions a breeze with unprecedented accuracy and depth.

Going beyond VFX and motion picture applications, LinnyVFX is suitable for photography, game development, and wherever linear material needs a cinematic touch or a starting point for a custom color grade based on our acclaimed SUCOMO™ subtractive color science. An ideal solution for pre-production stills, high-resolution compositing plates, and commercial or art photography.

For best performance in photographic applications, the kit includes LinnyVFX in the form of Adobe CameraRaw profiles, which allow LinnyVFX to be used in Adobe Photoshop ACR and Lightroom for processing RAW images.

Linny Pipeline solutions allow for a unified cross-platform color science throughout the production process. Be it for pre-production tasks or down the post-production pipeline, SUCOMO3 subtractive color science LUTs are cohesive and easy to use at every stage, allowing for fast and efficient cross-department process communication and integration with mixed media.

For more visit : https://www.thebrim.pictures/linnyvfx.html

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SUCOMO™ LUT Types

Cinny

Cinny is a final color oriented, subtractive color science model, Pseudo-Log LUT, for use as a Log alternate for your camera system of choice. Designed to approximate a Cineon technical film scan, Cinny is a base LUT for colorists and post-production facilities.

Cinny features everything needed in a base LUT, subtractive color modeling, and deep organic film-like colors and densities.

Cinny does introduce some major changes to the source color palette and color densities, this is also one of the main differences between Linny & Cinny.

For more visit : https://www.thebrim.pictures/sucomo.html

SUCOMO™ LUT Types

Modes & Types

Standard Mode LUTs

Linny or Cinny Base

These are the main Pseudo-Log / Log-to-Log base LUTs for Linny and Cinny kits.

Linny + Print

Are Log-to-Linear versions of Linny LUTs, pre-mixed with an FPE in 5 contrast ratio intensities with a constant print color palette, indicated B0 through B4.

LinnyC16

The basic Log-to-Linear version of Linny LUT, in 2 intensities, "High" and "Low" indicates contrast ratios.

Special Mode LUTs

* Only available for Linny LUTs

HRM

Short for "Highlight Retention Mode" these are special mode LUTs that Introduce analog style highlight limiting and roll-off.

SST

Short for "Smooth Saturation Transients" these are special mode LUTs for use with problematic saturation and hue transients.

HRM + SST

Are LUTs that combine HRM and SST special mode features.

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Workflow, Specs & Installation

Workflow

Linny or Cinny LUTs should always be applied over neutral or close to neutral white balance scenes and creatively adjusted from there. To maintain the SUCOMO3 subtractive color model, the base saturation level when the LUT is applied is at its maximum (within optimal operational limits). You should always trim down the saturation on input for lower saturation looks.

Linny / Cinny & Custom Linearization - Order of Actions:
* Emulates a negative to film scan / Cineon DI workflow.
1. Input Log Material
2. Basic Color Correction
3. Base Log-to-Log Linny or Cinny LUT
4. Creative Color Grading
5. Custom Linearization Curve

Linny + Print B0 to B4 - Order of Actions:
* Emulates a direct from negative optical strike print workflow.
1. Input Log Material
2. Basic Color Correction
3. Creative Color Grading
4. Linny + Print B0 to B4 LUT

Linny / Cinny & SPK / FPEs - Order of Actions:
* Emulates a negative to interpositive / Cineon DI to film print workflow.
1. Input Log Material
2. Basic Color Correction
3. Base Log-to-Log Linny or Cinny LUT
4. Creative Color Grading
5. Film Print Emulation LUT

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Workflow, Specs & Installation

I/O

Expected Input

On input, SUCOMO3 LUTs expect log specs indicated in the LUT file name for each supported camera system.

Target Output

For maximum compatibility and flexibility, all SUCOMO3 LUTs are intended for Rec.709 / sRGB Gamut & Gamma 2.2 deliverables and should be trimmed appropriately if other gamma spec deliveries are required.

With Linny + Print B2 through B4 LUTs you could easily trim for different gammas with different contrast intensities:

B4 for gamma 2.2
B3 for gamma 2.4
B2 for gamma 2.6

This trimming method is not a rule, you can trim manually or miss-match these combinations but it is a feature.

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Workflow, Specs & Installation

SUCOMO3 Kits Include

Linny & LinnyVFX Kits

LUT Types & Styles
    Linny or LinnyVFX
    Linny or LinnyVFX + Print B0 / B1 / B2 / B3 / B4
    Linny or LinnyVFX C16 High / Low

* Including HRM, SST, HRM+SST "Special Mode" LUTs for each of the above, 32 LUTs, per size or file type.

Cinny Kits

LUT Types & Styles
    Cinny

* LinnyVFX and Cinny are standalone products and can only be bought separately or in bundles with camera-specific Linny Kits.

Workflow, Specs & Installation

SUCOMO3 LUTs DaVinci Resolve Installation

SUCOMO3 LUTs in DaVinci Resolve

Drag and drop the supplied folder of .CUBE files to the following location:

Mac

/Library/Application Support/Blackmagic Design/DaVinci Resolve/LUT

Windows

C:\ProgramData\Blackmagic Design\DaVinci Resolve\LUT

You can also locate this destination / folder by going to the "Project Settings" window in the lower right corner of the DaVinci Resolve interface, indicated by a "⚙" cog icon, and finding the following :

Color Management (Tab) > Lookup Tables (Section) > Open LUT Folder (Button)

* You will need to restart any of the supported applications if they were running during the installation procedure.

* For other hardware or software platforms that support 3D LUTs, please consult the platform manufacturer's manual.

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Workflow, Specs & Installation

LinnyVFX
Adobe Installation

LinnyVFX Profiles & Presets in Adobe ACR

Drag and drop the supplied folder titled "Linny VFX ACR" to the following location:

Mac
/Library/Application Support/Adobe/CameraRaw/Settings
Windows
C:\ProgramData\Adobe\CameraRaw\Settings

* This procedure will install the profiles and presets for both Adobe Photoshop ACR and Adobe Lightroom.
* Due to the profile name lengths, we suggest using the "List" view option from the dropdown in the profile or preset browser segment of the interface.

LinnyVFX LUTs in Adobe Photoshop

Drag and drop the supplied folder containing .CUBE LUTs the following location within the main Photoshop application folder (on both Mac & Windows):

/Presets/3DLUTs

* Following the same procedure you can install all other camera-specific or SPK FPE .CUBE 3D LUTs and easily find them through the "Color Lookup" adjustment layer.
* You will need to restart any of the supported applications if they were running during the installation procedure.

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Workflow, Specs & Installation

Technical Specifications

Linny & LinnyVFX Kits

LUT Sizes

    32 x 32 x 32

    33 x 33 x 33 *Hardware Loadable Versions*

File Types

    .CUBE 3D LUT

    .AML ARRI Look File 2 *Linny for ARRI*

    .TIFF *LinnyVFX*

    .XMP Adobe ACR / Lightroom Profiles & Presets *LinnyVFX*

Cinny Kits

LUT Sizes

    64 x 64 x 64

File Types

    .CUBE 3D LUT

If other file formats or sizes are required, you can contact our support team.

SUCOMO3

Support

Updates & Support

For the latest news, additional info, downloads, and updates, please visit
TheBrim® Industrial Imaging Bureau website at *https://www.thebrim.pictures*
and follow *@thebrim.pictures* on Instagram, Twitter, Facebook, and YouTube.

Questions? Email *thebrim.pictures@gmail.com*

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