MAGIC BULLET LOOKS FOR PINNACLE STUDIO 12

Welcome to Magic Bullet Looks Studio Edition v1.0 help!

The help is organized by subject in the navigation bar on the left. Click on a subject and the corresponding instructions will open in this frame. Below are pages that you should review to get started with the Studio Edition of Magic Bullet Looks.

Features in Looks SE

Graphics Card Requirements

Apply Looks SE in Pinnacle Studio

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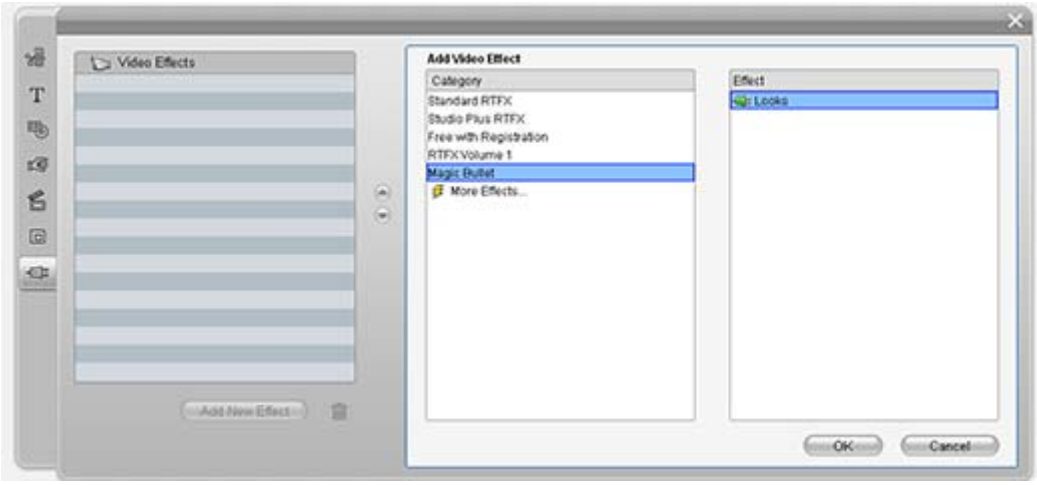
A new approach to Looks

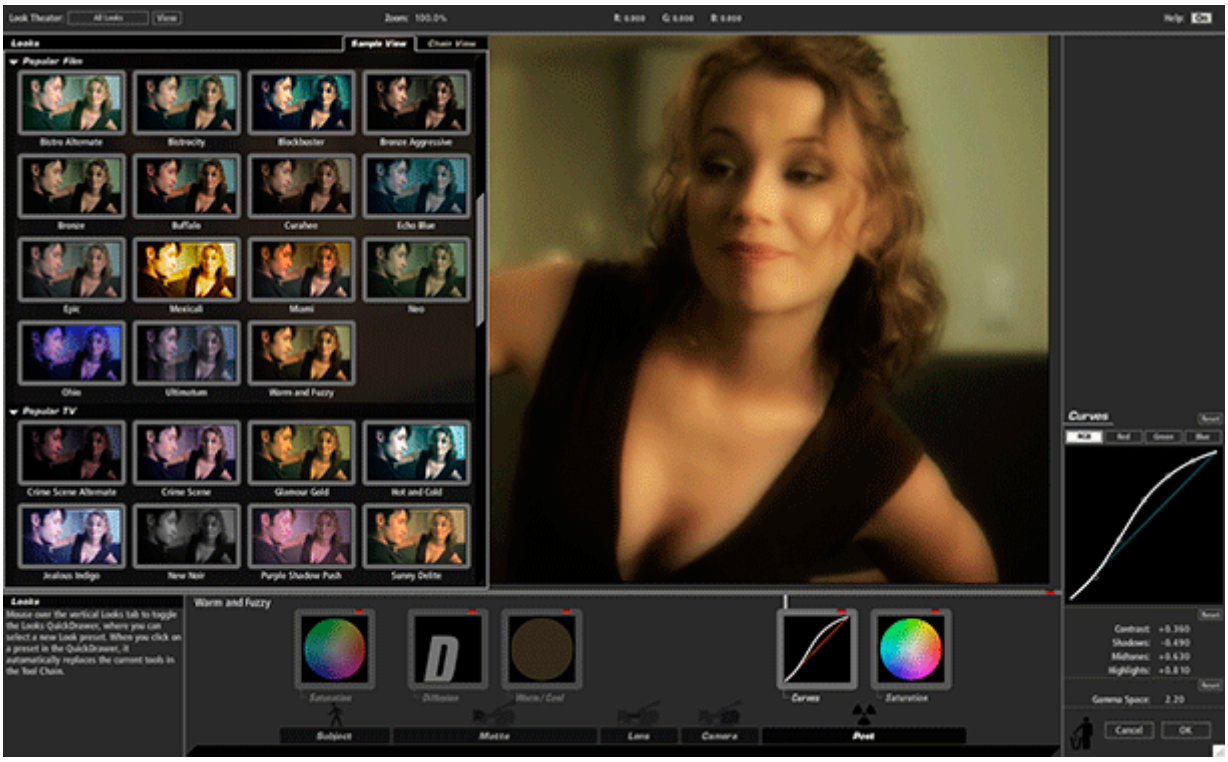
Magic Bullet Looks SE is an all-new package for applying and editing the look of your video or film footage. It consists of two parts: the Looks SE plugin for Studio, and the new LooksBuilder SE standalone application for applying and customizing Look presets. It goes beyond traditional color correction tools to incorporate a wide variety of image enhancement tools that, when used in combination, can create a wide variety of outstanding color changes to give video a more "filmic" look; make a dim, blue shot appear as if it was shot at sundown; or emulate edge focus or shutter streaking effects not possible in any other package.

Application Support

Magic Bullet Looks SE has been created to run as a plug-in for Pinnacle Studio 12 and is included as part of Pinnacle Studio Ultimate. It will appear in the Video Effects tools panel.



LooksBuilder SE- A Revolutionary Interface



The LooksBuilder SE user interface allows you to apply and customize Looks. It features most of the power of the full-blown Magic Bullet Looks tool that is used by broadcast and film professionals. See the full description of the LooksBuilder SE interface here.

A Multitude of Presets

Looks SE features 90 editable preset Looks that you can use on your projects. These presets have been divided into individual categories to make searching and browsing easier. Individual categories include: Basic, Black and White Tints, Diffusion, Horror, Music Videos, Popular Film, Popular TV, Special Effects, Stock Emulation, and Tints/Grads.

To preview the different Looks, go to the Presets Gallery.

Look Theater

A unique preview mode is built right into the top navigation bar of LooksBuilder SE. Simply click the preview button to begin an interactive slide show that shows the looks as applied to a frame from your project or any JPEG file. The slide show applies each presets from the Look Library for a few seconds at a time, or can be paused and moved forward manually.

System Requirements

Magic Bullet Looks SE requires specific graphics card capabilities to run. Without the correct card, the software will not install or run, and the installer will warn you if you don't have the necessary graphics card installed in your system.

Magic Bullet Looks SE uses an advanced render engine that depends on the same kind of graphics processing used in the latest video games like World of Warcraft, Call of Duty or the games that run on the Xbox 360 or Playstation 3 systems. The Looks engine can render color effects, diffusion and other tools faster on an advanced graphics processor than on today's fastest CPUs from Intel or AMD.

Magic Bullet Looks SE supports a wide range of cards from both ATI or NVIDIA. For ATI cards, we require a 9600 XT or greater, or an X series card starting with the X700 series. Cards with greater model numbers and at least 128 MB of RAM can generally run the Looks engine.

For NVIDIA cards, we support the 6600 model and higher or QuadroFX 1300 and up. Cards with higher model numbers and a minimum of 128 MB of RAM can run Looks SE. For users working with HD images, we require that the video card have at least 256 MB of RAM. In all cases, we suggest using the latest video drivers for your graphics card.

The Looks system does NOT support Intel GMA processors. These graphics processors are integrated into the system motherboard of many low-cost systems and are used frequently in laptop computers. The Intel GMA processors are capable of 2D graphics but they do NOT have the advanced graphics processing capabilities required to drive the Looks engine. If you have one of these processors, you will likely be prompted during installation that the graphics processor is unsupported.

NOTE: Since all media is processed with high dynamic range quality like a raw digital photo, you will absolutely need a 256 MB graphics card or larger for HD projects. We do NOT recommend using a card with only 64 MB of RAM. For newer cards from ATI and NVIDIA, we recommend a minimum of 256 MB of RAM.

Rendering

In most cases, the Looks SE plug-in requires rendering to generate final color-corrected output. The Studio host application will either render the content in the background as you work or it will generate the final result during the Make Movie process.

NOTE: The maximum render size in Looks is 8192 x 8192 pixels, but is dependent on the video card in the system. Most cards will support 2K media (2048 x 1536) rendering but only the NVIDIA 8800 series cards or Quadro 4600/5600 support 8K output at time of this writing.

Performance Expectations

Since the processing requirements vary wildly by the number of tools in a look, it is difficult to give exact output or render speed expectations on every system with every look. On the highest-end systems such as a PC system with an Nvidia 8800 GT graphic card, you can expect relatively speedy rendering.

On a Dell 8600 with 8800 GT card, we tested some of the looks for render speed on an HD clip. This is a higher data rate than DV, but lower than full 1080p HD media. The following table shows the render speed of various Look presets. The render speed is noted for the output time relative to the length of the media. For example, a look that is

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2.4x real time means that 1 minute of media will take approximately 2 minutes and 25 seconds to render.

Look	Complexity	Render Speed
Neo, Epic	Extremely Simple	1.1x project time
Subtle Film	Simple	1.5x project time
Basic	Moderate	2.4x project time
Dream Look	Complex	3x project time

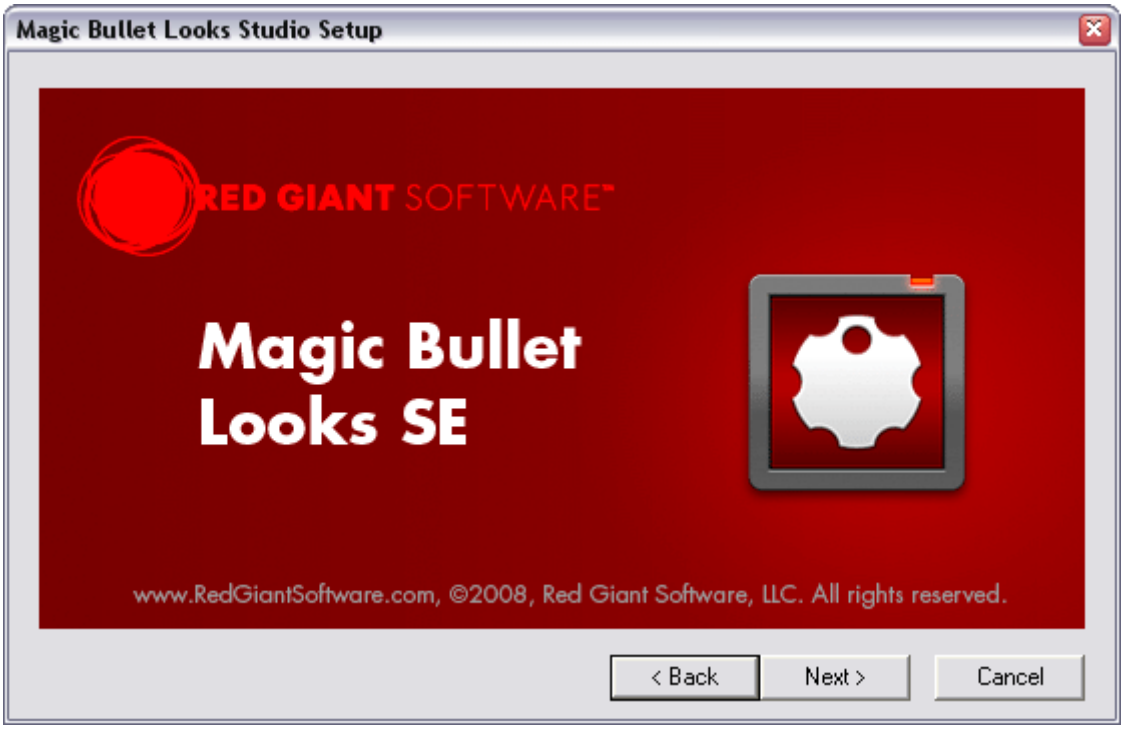
Installation

Magic Bullet Looks SE comes packaged as a complete software installer. You must have installed your copy of Pinnacle Studio Ultimate before installing Magic Bullet Looks SE. The installer will automatically place the required components on your hard drive and guide you through the process of installing the plug-in.

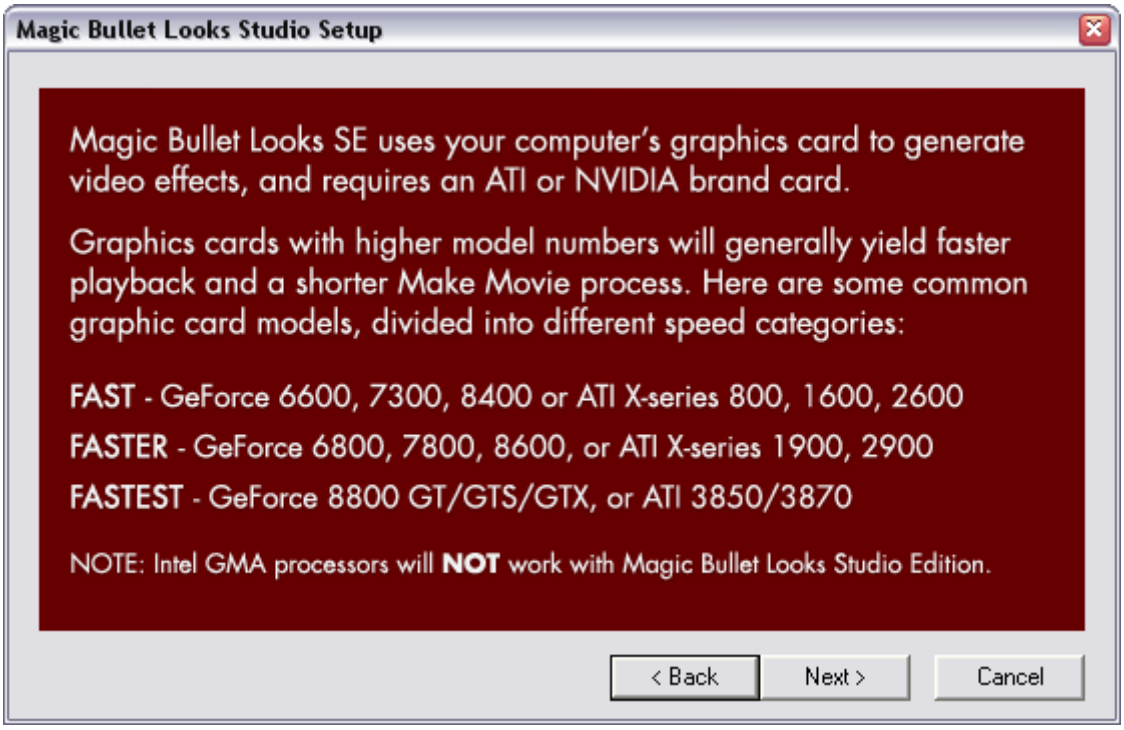
Installer Step-by-Step

The Windows installer is labeled Magic_Bullet_Looks_SE_Install.exe. To begin, simply double-click the installation icon. You will be greeted with the Red Giant Software splash screen.

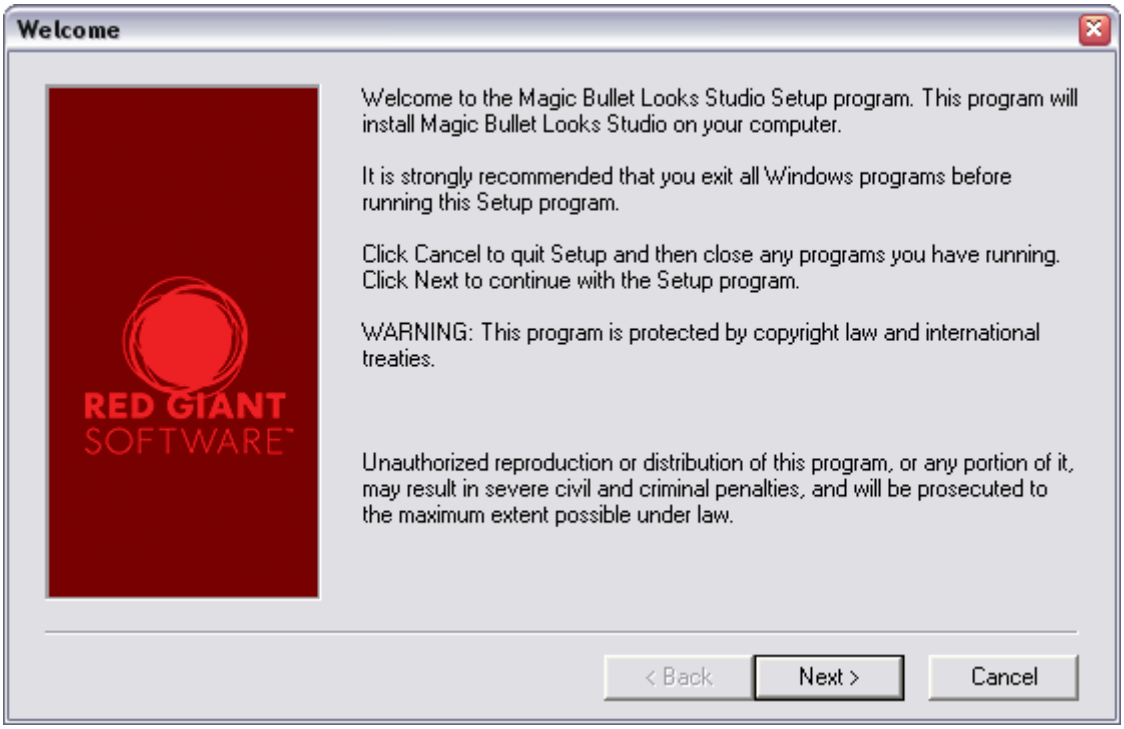
Click next to bring up the product splash screen.



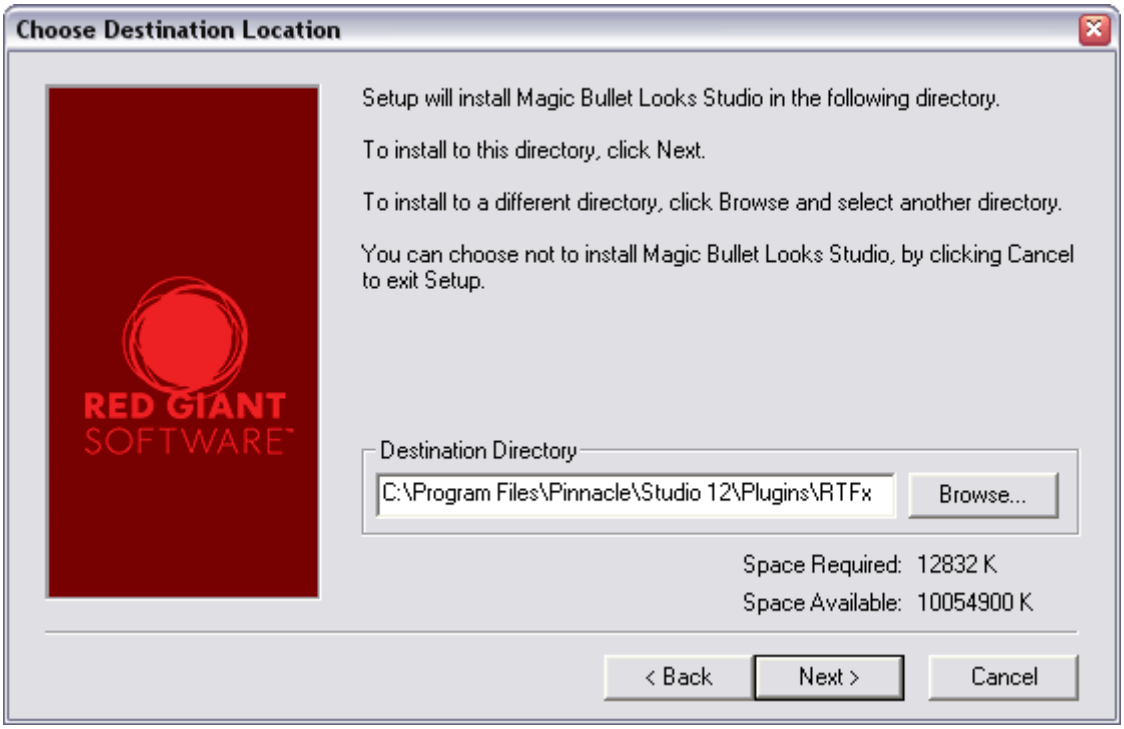
Click Next to move to the graphics card recommendation screen.



Click Next to open to the installer instruction screen.

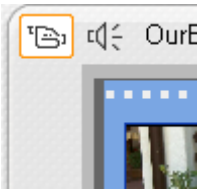


The final screen is the path options screen where you choose an installation location. If you install Studio on your default drive, you can simply click Next to complete the installation.



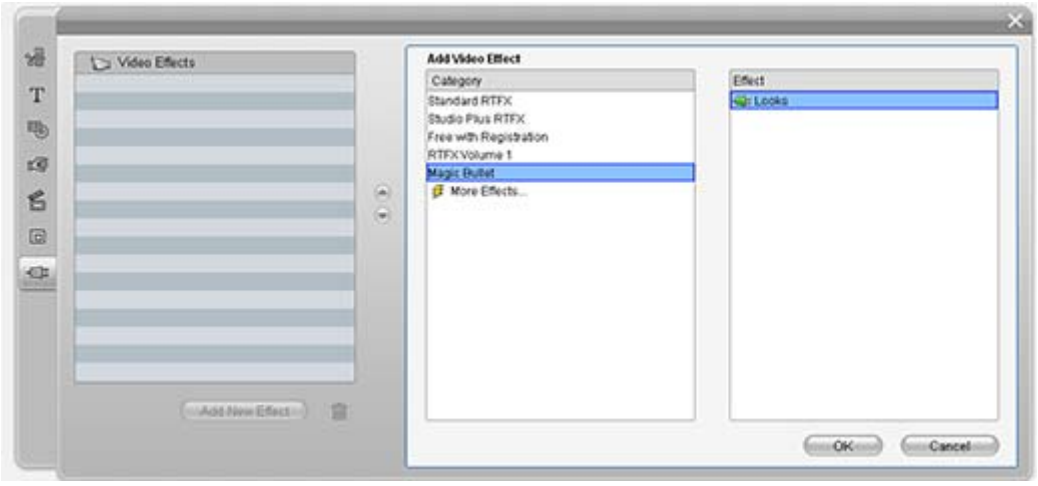
Looks SE Plug-in: Getting Started

To access the LooksBuilder SE application where you choose, edit and apply looks, you must first apply the Looks SE plug-in from the Video Toolbox. First select a clip, then click the Video Toolbox button in the upper left corner of the Timeline/Storyboard window. If you need more general information about Video Effects, see "Using Video Effects" in the Studio Plus manual.



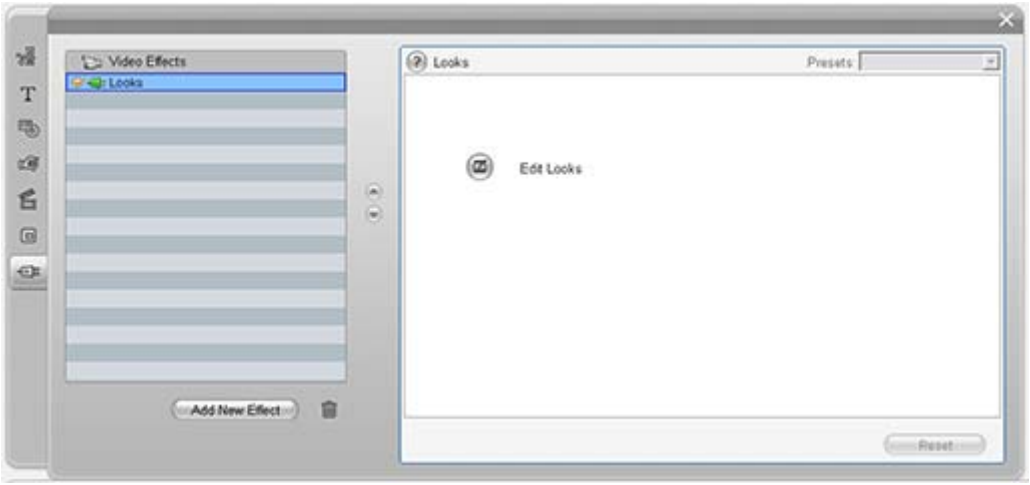
The Video Toolbox button

Once you have the Video Toolbox panel open, click the Video Effects tool to reveal the video effects options. Then click the Add New Effect button to add a video effect to your clip.



The Looks effect is the only effect available from the Magic Bullet category

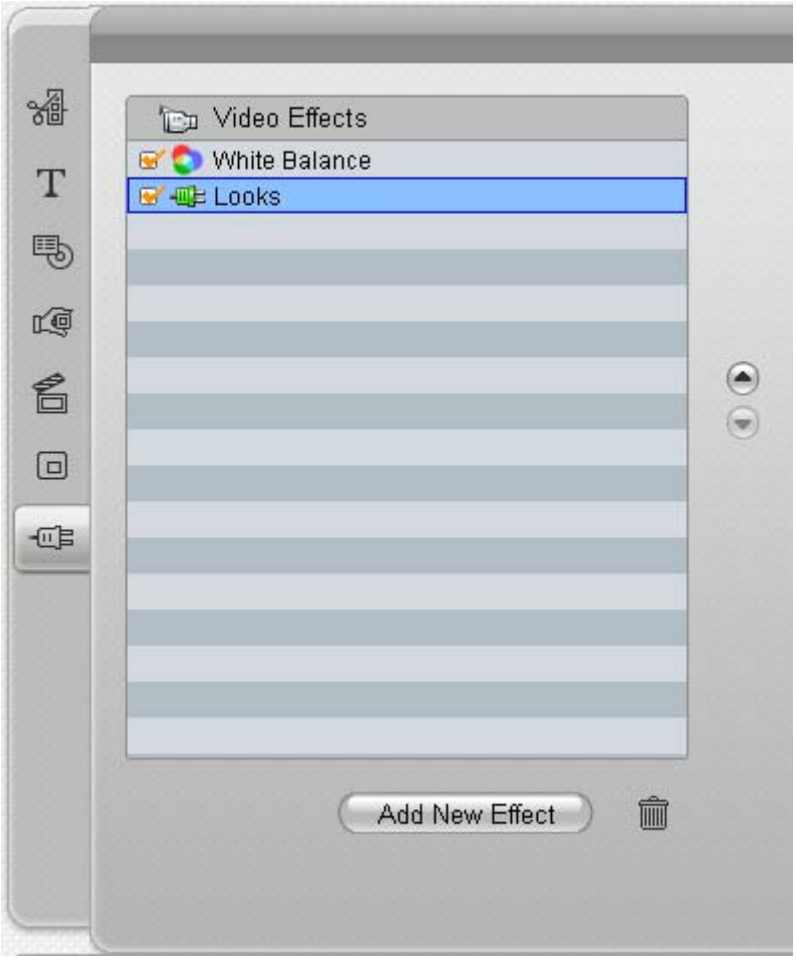
The Looks SE plug-in user interface consists of a single button: The Edit Looks button in the Looks panel. Clicking the Edit button brings up the LooksBuilder SE interface. The help button (the question mark), will open the HTML-based help.



The Looks panel in Studio

Stacking effects

It is possible to use Looks SE in combination with other color correction effects in Studio (such as Color Correction or White Balance effects) in the Standard RTFX category. We recommend that you apply these effects before applying the Looks SE plug-in. In the Video Effects panel, the effects are rendered from top to bottom. Apply any color correction effects to your footage first, then apply Looks SE. You can rearrange the order of the effects by selecting the look and clicking the up or down arrows to the right of the effect list.



The White Balance effect applied before Looks SE in the Video Effect toolbox

Preparing for Looks SE

There is a wealth of information—and just as much misinformation—on the web and in print about how to shoot DV/HDV for the best results. Here, straight from Stu Maschwitz's accumulated knowledge, is the short version of how you can shoot the best footage in preparation for Looks SE. If you want even more information on shooting and color processing, check out Stu Maschwitz's DV Rebel's Guide book from Peachpit Press.

Turn Down the Sharpening
If your camera has the option, reduce the internal sharpening control to almost none. The harsh, over-sharpened edges that appear on high-contrast images are a signature giveaway of video. It's worth experimenting with your camera's settings to find the best sharpening amount, but it will almost certainly be less than the default setting. You can always make the video look crisper later on, but you cannot take the sharpening artifacts out once captured to tape, DVD, HDV or whatever your medium.

Shoot in 16:9 Mode
Especially if you plan on going out to film, but also if a nice, letterboxed video output is your desire. Electronic "16:9 mode" is not as good as shooting with a native 16:9 chip, but it's better than not shooting with it. Be careful though: if a full-frame version of your project is ever needed, it could be a lot of extra work to create it. 16:9 mode is for projects which are primarily intended for widescreen presentation.

Don't Overexpose
DV and HDV do not react well to blown-out areas of the frame. If a hot or overexposed look is your desire, it's far better to shoot at a normal exposure and use Magic Bullet Looks SE to burn it out later.

Many cameras have an option to display a zebra pattern in the viewfinder over areas that are blown out to 100% white. This is a very helpful option when shooting for Looks SE. An ND Grad filter can help keep sunny skies from blowing out, and putting one on the camera will even do a better job than Looks SE's built-in Grad and Exposure tools!

Don't Underexpose
DV doesn't react well to dark areas either! Brightening up a dark DV shot will bring out all the compression and noise that you never knew was there.

Shoot it Plain
As an owner of Magic Bullet Looks SE, you have the most powerful image adjustment tools in the world at your fingertips. Shoot your footage as "normal" looking as possible, and wait until you get it into a Magic Bullet project to create those crazy looks you have in mind. This gives you the power and control to change your mind about how you want it to look. This means avoiding color filters or diffusion filters on the camera (with the exception of the ND Grad mentioned above), and setting the white balance to the correct camera preset for the type of light you're using.

Shoot it Consistent
The best favor you can do for yourself is to ensure that shots in the same sequence look similar to one another. Watch not only the lighting on your foreground subject, but that of your backgrounds as well. Use presets for white balance, so that even if your battery goes dead and you lose your camera settings, you can still return to the same color balance you were using before. Use a color monitor on the set to compare playback of your last setup to the feed from the current one. Try to keep all of your similar skin tones in the same exposure range from one shot to the next—some cameras have zebra patterns in their viewfinders that help you do this. Finally, create a pre-flight checklist for your camera that combines these guidelines with your own experiences, and run through it before beginning every new shot.

As with any advice, please take the above into consideration and make your own decisions. These guidelines have worked well for Stu while working at his post-production company, The Orphanage, but there could be any number of reasons that you may need to do something different. Magic Bullet Looks SE should be flexible enough to handle whatever you throw at it, but if you follow the above guidelines, you are on the road to superior results.

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PRESETS – Looks Library (90 Presets)

Basic	Black & White Tints	Diffusion	Horror	Music Videos
Popular Film	Popular TV	Special Effects	Stock Emulation	Tints and Grads

Basic

Clean Start

Basic Black & White

Basic Black Diffusion

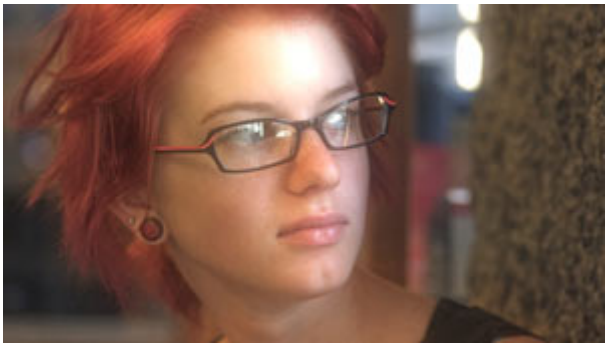
Basic Cool Max

Basic Cool

Basic Grunge

Basic Warm Max

Basic Warm



Basic White Diffusion

Basic

Black& White Tints

Clean Start

Blue Chrome

Gold Process

Platinum Process

Sepia Big Grain

Sepia Contrasty

Diffusion

Clean Start

Black Diffusion 3.5

Edge Noise Soften

SultryTron

SuperBloom

Telecine Net Warm

Unbloom

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Horror

Clean Start

Color of Hell

Deep Copper

Green Vision

Hot Maddy

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Music Videos

Clean Start

Aged

Berlin

Big Country

Coolish Alternate

Coolish

Crush Blue Edge

Dream Look Alternate

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Dream Look Sharp

Dream Look

Green Pearl

Infusion Subtle

Infusion

Night Time

Punchy

Sharp

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Warm Bird

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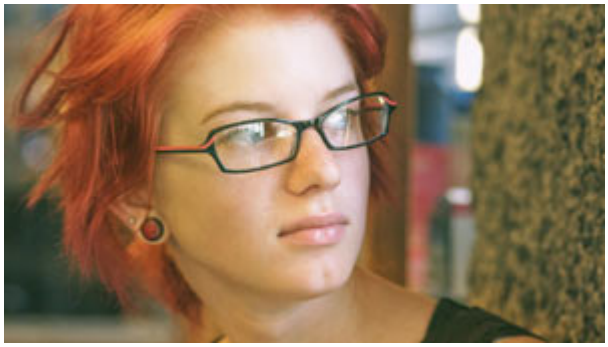
Popular Films

Clean Start



Bistro Alternate

Bistrocity

Blockbuster

Bronze Aggressive

Bronze

Buffalo

Curahee

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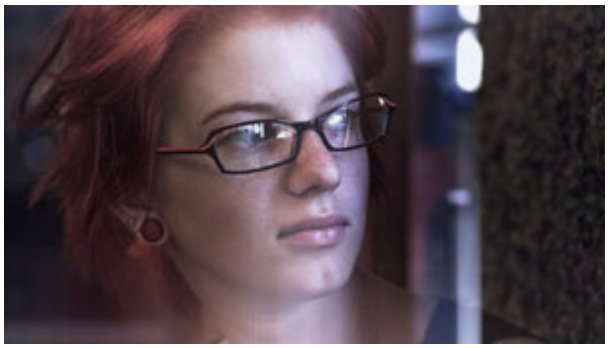
Echo Blue

Epic

Mexicali

Miami

Neo



Ultimatum

Warm and Fuzzy

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Popular TV

Clean Start

Crime Scene Alternate

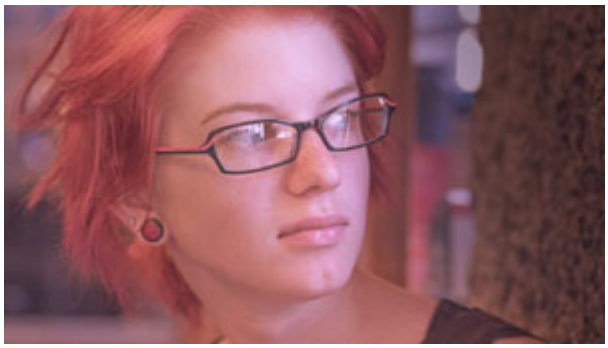
Crime Scene

Glamour Gold

Hot and Cold

Jealous Indigo

New Noir



Purple Shadow Push

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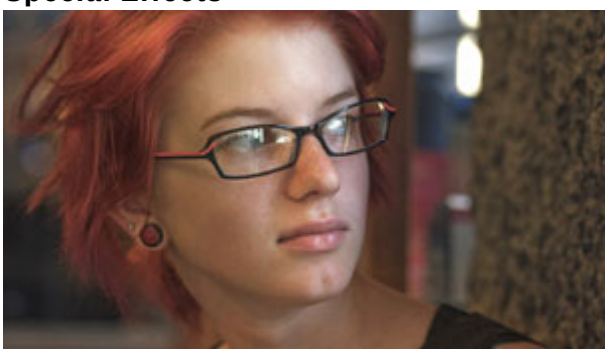
Special Effects



Clean Start

Benumbed

Days of Night

Multi Grad Cool

Pink Spot

Star Filter Tight

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Swing Tilt Film

Warm Spot Focus

Stock Emulation

Clean Start

AG Film Stock

Bleach Bypass Light

Bleach Bypass

BW Film Stock Grainy

Color Reversal Old Style

Color Reversal

Max Contrast

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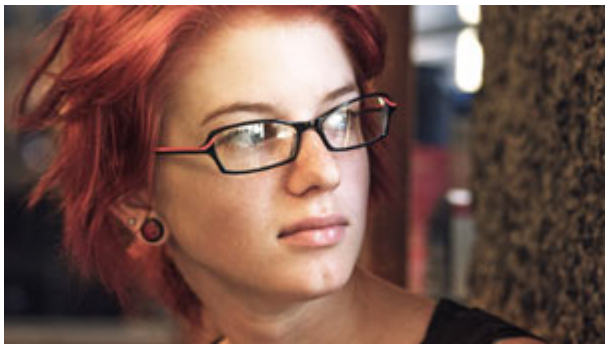
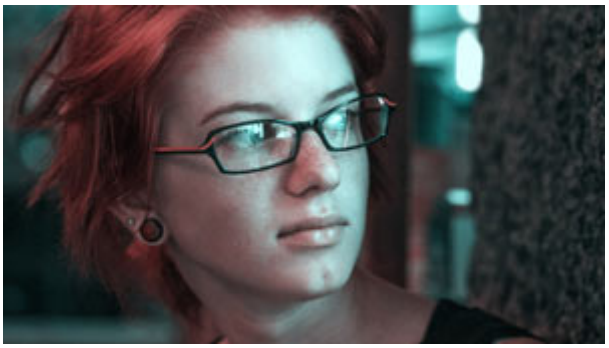
Mishandled Negative

No 85

Subtle Film Soft



Subtle Film



Two Strip Cool Stock

Warm Stock 01

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Tints & Grade

Clean Start

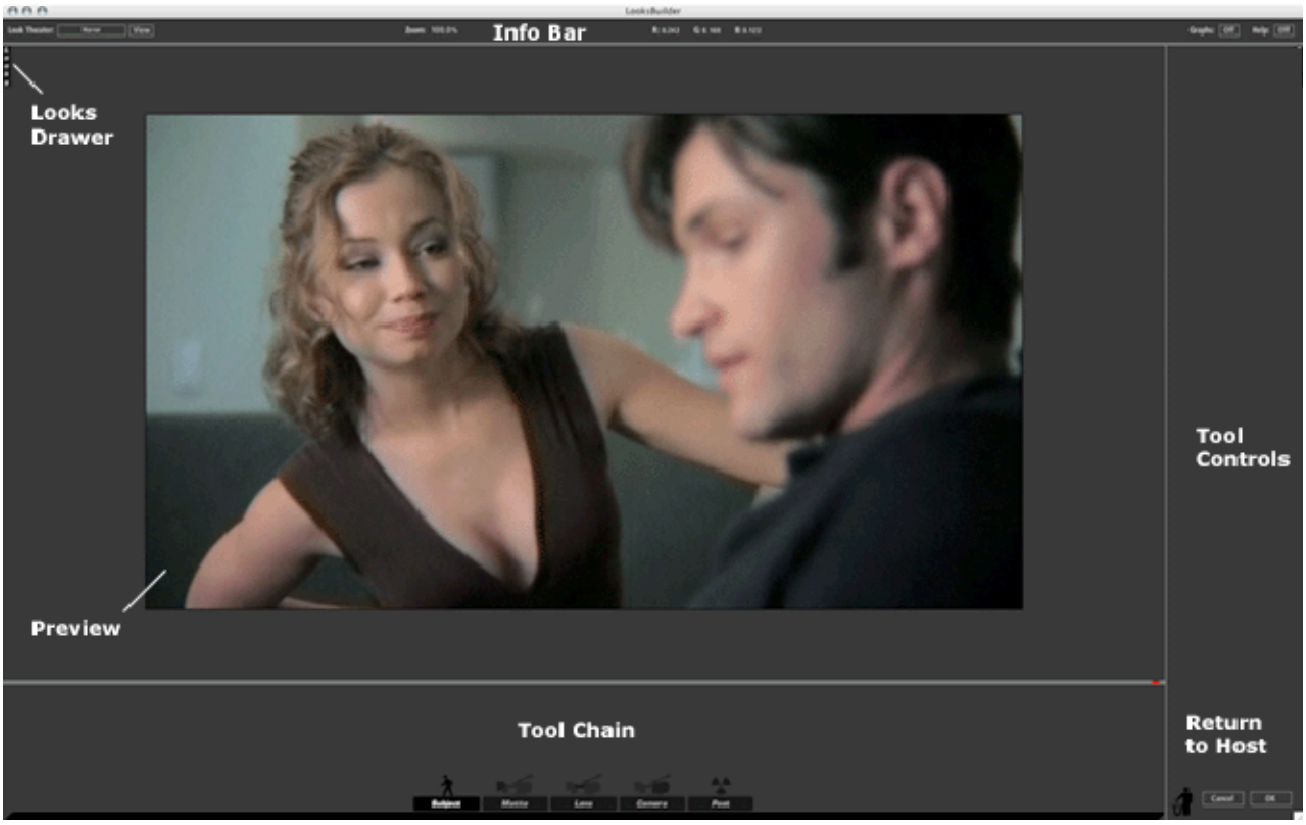
Brilliant Orange Crush

Grad Deep Blue

Grad Sky

LooksBuilder SE Interface

Magic Bullet LooksBuilder SE is a standalone application that lets you edit looks and apply them to your footage. The LooksBuilder user interface appears with the current frame from your timeline ready to apply and edit a look. The OK and Cancel buttons in the lower right corner are used to apply the Look (OK) or simply return to Pinnacle Studio without updating the Look (Cancel). The following figures show the interface as it appears with no Look applied and minimal controls.



The interface appears empty and no Look is applied by default. The left side of the screen is used to open the Looks QuickDrawer that lets you apply Look presets. Look presets are made of a combination of tools. These tools manipulate the color, softness, saturation, focus and more on your video. Once a Look preset is clicked, it loads the approriate tools into the Tool Chain. The Tool Chain is where the action is and where you can edit your looks.

The figure above shows the interface with a look loaded and the Looks QuickDrawers superimposed to show you a set of available preset options. Below is a table that describes each part of the interface.

1	Look Theater controls for browsing looks interactively.
2	The Looks Quickdrawer shows all the presets. Open by mousing to the left side of the screen.
3	The interactive help changes as you place your mouse on the LooksBuilder SE controls.
4	Saving custom looks is easy, just click the label, change the name and press Enter.
5	The Tool Chain shows individual tools, click one to bring up its controls.
6	Remove a tool by drag and dropping it on the trash. Click OK to return to Studio.
7	Each Tool has controls. Here the Curves tool is showing the custom curve controls.
8	You can turn on and off interactive help by clicking the switch in the info bar.

LooksBuilder SE: What is a Look?

LooksBuilder SE lets you apply a number of different tools to alter the way an image appears, allowing you to make it seem warm and fuzzy to emphasize a scene that is happy; or cold and dark to make a scene feel distant or lonely. The Tools are added to the chain when a Look preset is applied. Each icon's appearance shows the effect that it has on the image. Reading the tool states lets you understand how a Look is built from the individual tools. The following image shows the Coolish alternate Look preset applied in the Tool Chain.

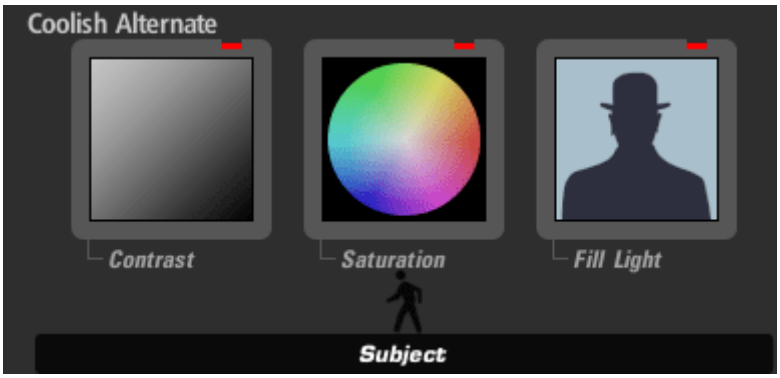
NOTE: You will never see the Tool Chain in this state. This is a composite to show all the tools active but unselected. This is just an illustration.

The look in this case uses eight different tools, including Contrast, Saturation, Fill Light, Diffusion, Curves and Auto Shoulder. These are applied in a specific order to create the look (with the Contrast tool on the left being the first tool, and the Auto Shoulder tool on the right being the last tool) to affect the image. The sections below give a tool-by-tool breakdown of a typical look to help you better understand how to read a look so you can alter it to best suit your footage.

If you want more information on the specific controls in the Tool Chain, see the Tool Chain section.

Subject Tools

The Subject tools are meant to alter the media before processing. In the case of Coolish Alternate, three tools are used prior to coloring and diffusing the image: Contrast, Saturation and Fill Light.



Contrast in this case is set to –.25 or 25% negative contrast. Rather than enhancing the separation between dark and lights, this tool brings them closer together. Why? To allow for more radical changes later. When an image already has a lot of contrast, tools later in the chain can cause the darks to be crushed or lose detail. By applying this negative contrast up front, this look avoids this problem. Note how the Contrast icon looks very gray with no pure white or black colors, which is exactly how the image will change.

The Saturation tool is used here to remove a little bit of saturation from the image. This allows for broader color changes in curves and removes a bit of the common

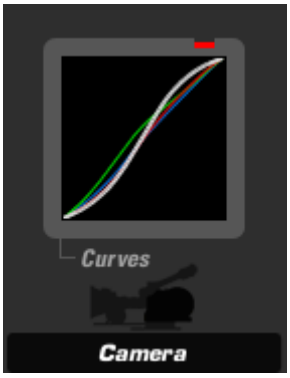
oversaturation of colors in DV or HDV media shot on consumer or prosumer devices.

Fill Light in this instance is used to lighten the shadows by more than half. This protects against the big contrast change in Curves. This is also used to color the shadows a deep blue. Often directors or directors of photography will try to push the shadows to blue make the scene appear cold without touching the flesh tones in the image. Fill Light in this instance is a great way to achieve this effect. The Fill Light icon has turned the silhouette more blue to show the effect.

Matte Tools
The only Matte tool in this case is Diffusion.

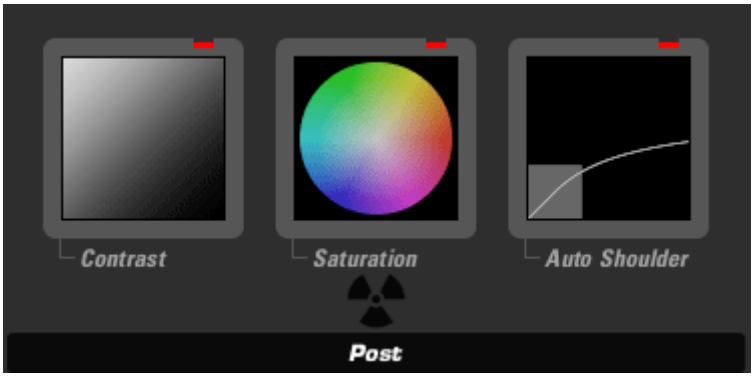
The Diffusion tool in this case is set to a size of 1% and a grade of 2. These values make for a softening in the highlights without changing the brightness in the image. This setting tends to hide noise and soften the highlights in image, which can make actors and actresses look smoother. This setting isn't strong enough to lose significant detail, so again this is a great look for media shot on DV/HDV cameras. Notice also how the icon is actually fairly sharp, indicating that this specific setting doesn't cause a lot of bloom or glow in the image.

Camera Tools
The camera tool in this instance is just the Curves tool.



The Curves settings in this case are set to generate strong contrast, with the shadows set to map to a low value, and the highlights to roll off at the top with greater brightness. Also, the green line indicates that the green shadow and midtone values are mapped higher than normal. This counteracts the blue push in the shadows so that flesh tones don't appear too blue and unnatural.

Post Tools
The Post tools in this case are Contrast, Saturation and Auto Shoulder.



Contrast is set here to add a bit of contrast in the highlights with a value of +.23 or 23% more contrast and a Pivot value of .91. These combine to cause the contrast to stretch the midtones and highlight values.

Saturation is set to 93%. This value creates a little less saturation in the scene. Also, exposure compensation is used in this tool to bring the overall range back to close to the original.

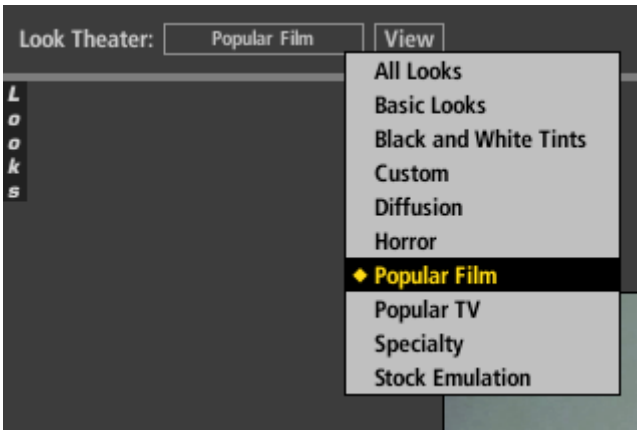
Auto Shoulder is set here to catch any overbrights and push them back into the 0-1.0 range, in case this look is applied to an image that is very bright to begin with. Auto Shoulder is a great way to make sure that when you output a Look in your editor, you don't have any out-of-range values that would cause bleed on screen when you create a master tape.

LooksBuilder SE: Info Bar and Help

The Information Bar provides controls and readouts for the Look Theater view controls, Preview zoom, RGB readout and the Graphs and Help switches.

Look Theater

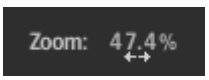
The Looks Theater allows you to preview different Looks on your own image, like a slide show. You can choose to view all Looks in the library or individual sub-categories. Press the space bar key to pause and resume the slide show. Use the left and right arrow keys to move forward and back through the Looks manually. Hit Enter to apply the current look. Timing controls can be changed by altering the Looks Theater values in Preferences.



Look Theater Category: Click to toggle between All Looks, Basic, Black and White Tints, Diffusion, Horror, Music Videos, Popular Film, Popular TV, Special Effects, Stock Emulation, Tints/Grads, Custom Looks, and any other categories in the Looks library.

Look Theater View: Click to view each available Look for a few seconds at a time as a slide show. You can control the view and transition time for the theater presentation by selecting the Preferences menu item. Clicking View while previewing stops the slide show and no Look is applied.

Zoom



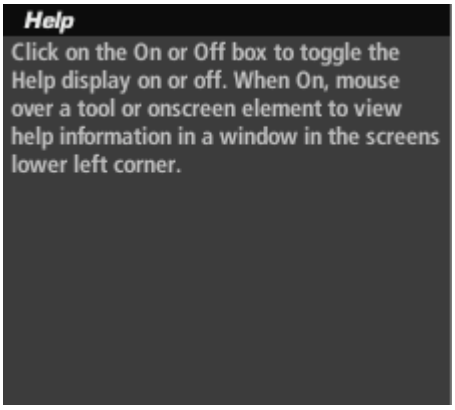
Zoom: Scrub the percentage value to zoom the image or click on the number to enter a specific value. You can also zoom in 10% increments with the , (comma) and . (period) keys, or use the scroll wheel on your mouse. Double-click the word “Zoom” to snap the image to full screen.

RGB numeric readout

Red: Displays the amount of red color information at the cursor’s current location in floating point units from 0.000 to 100.000. Anything over 1.000 is an overbright value

and will be clamped on output.
Green: Displays the amount of green color information at the cursor's current location in floating point units from 0.000 to 100.000. Anything over 1.000 is an overbright value and will be clamped on output.
Blue: Displays the amount of blue color information at the cursor's current location in floating point units from 0.000 to 100.000. Anything over 1.000 is an overbright value and will be clamped on output.

Help button
Help: Click on the "On" or 'Off" box to toggle the Help display on or off. When On, mouse over a tool or onscreen element to view help information in a window in the screen's lower left corner.

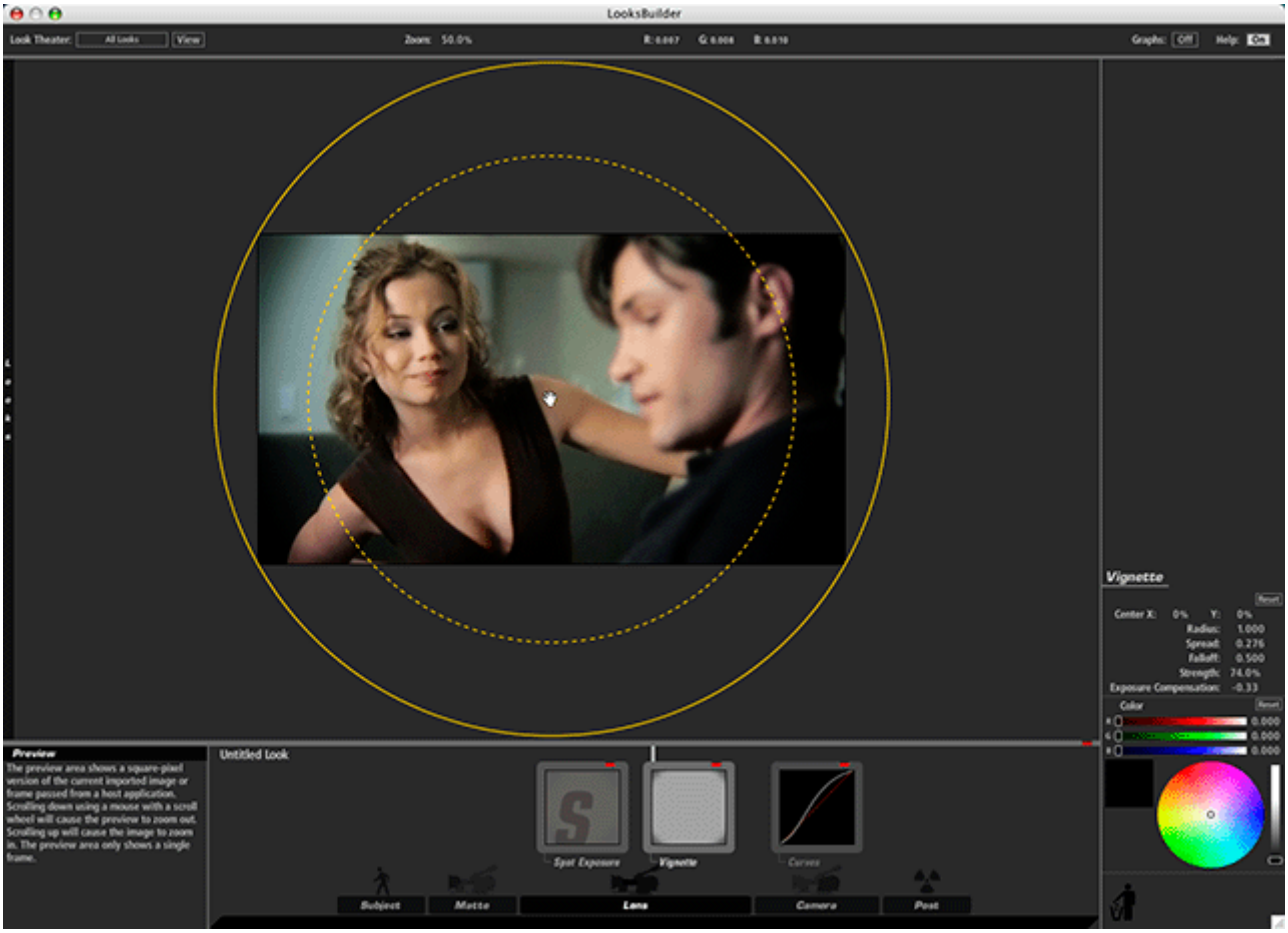


LooksBuilder SE Preview

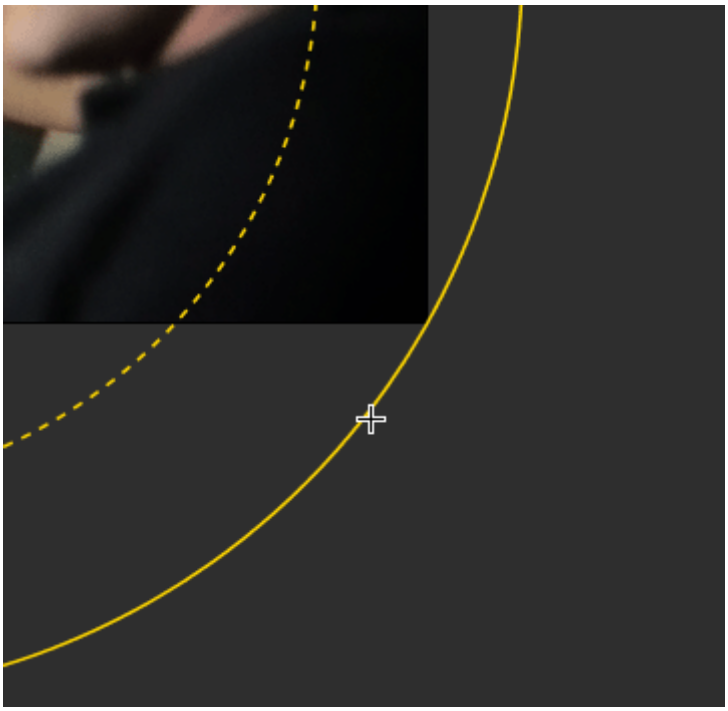
The preview area shows the current imported image, either from the host application or a still image loaded from the File > Open Image File... menu command. Scrolling down using a mouse with a scroll wheel zooms out (, key). Scrolling up zooms in (. key). The preview area only shows a single frame and includes no time navigation controls. The Preview area can change based on the Look that is loaded in the Tool Chain or show overlays for some tools.

Overlays in Preview

A number of tools have onscreen controls that appear in the Preview area to allow you to alter the tool controls visually. Some controls have spot controls for isolating the area of operation or the region that they can effect using three concentric circles. These tools include Vignette, Edge Focus, Spot Focus and others. Below is a shot of the Vignette tool. The center area shows the center point. The dotted line defines the fall-off area and the outer circle defines the radius.



Mousing over the outer circle will change the hand to a cross-hair to designate that the tool control has the focus and can be changed by clicking and dragging the circle in or out.



Finally, the overlay will fade out after approximately four seconds. The fade-out is only to

temporarily hide the cursor if you move your mouse outside the window. This lets you evaluate the look without the distraction of the yellow lines.

LooksBuilder SE: Looks QuickDrawer

You can mouse over the vertical Looks hot area to bring the Looks QuickDrawer into view. This panel lets you choose a preset from any of 10 or more categories. When you click on a preset in the QuickDrawer, it automatically replaces the current tools in the Tool Chain. This allows you to quickly evaluate the Look. As soon as your mouse leaves the QuickDrawer panel, the panel will close and you can edit the look or apply it to your footage by clicking OK (if launched from a host application).

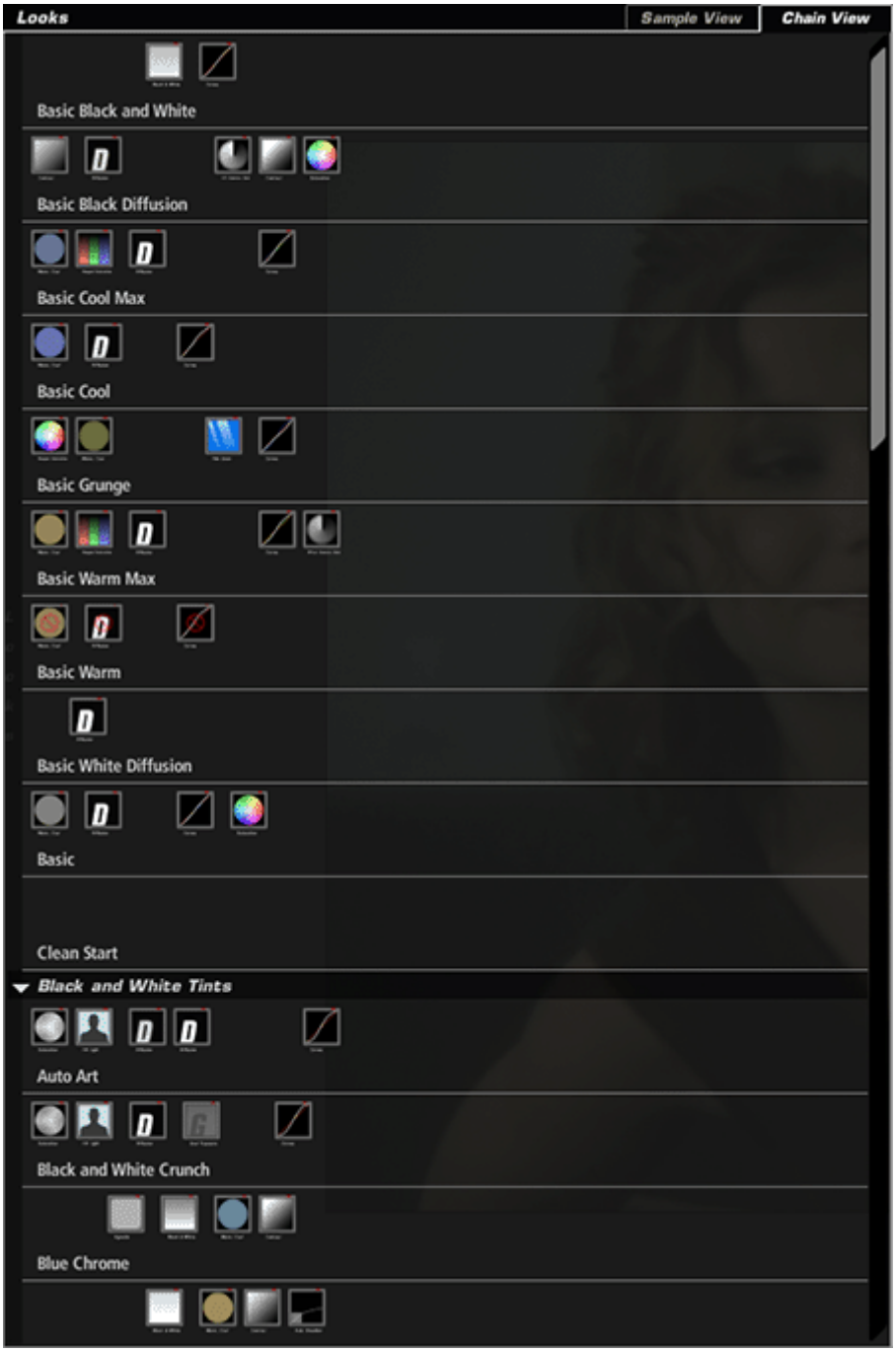
If you want to see a preview of each look with a description, check out the Library gallery.

Two views

The Sample View shows the available Looks applied to a sample image with a label under each for the name. The Sample image is either the current image in LooksBuilder SE. Click on a Look to apply it to your image.

The Chain View displays each available Look as a chain of its individual components. Clicking on a Look applies it to your image just as in sample view.

MAGIC BULLET LOOKS FOR PINNACLE STUDIO 12



Tools and Controls

Subject	Matte	Lens	Camera	Post
3 Way Color Corrector	Color Filter	Anamorphic Flare	2-Strip Process	3 Way Color Corrector
Chromatic Aberration	Diffusion	Chromatic Aberration	3-Strip Process	Auto Shoulder
Color Contrast	Exposure	Deflare	Black & White	Color Contrast
Contrast	Grad Exposure	Edge Softness	Color Contrast	Contrast
Crush	Gradient	Exposure	Color Reversal	Crush
Curves	Lightflex	Grad Exposure	Contrast	Curves
Exposure	Sky Filter	Spot Exposure	Crush	Exposure
Grad Exposure	Spot Exposure	Swing-Tilt	Curves	Film Grain
Fill Light	Star Filter	Vignette	Exposure	Grad Exposure
Lift-Gamma-Gain	Warm/Cool		Film Grain	Lift-Gamma-Gain
Offset-Gamma-Gain			Grad Exposure	Offset-Gamma-Gain
Range Saturation			Neg Bleach Bypass	Print Bleach Bypass
Saturation			Range Saturation	Range Saturation
Spot Exposure			Saturation	Saturation
Spot Fill			Shoulder	Spot Exposure
Warm/Cool			Shutter Streak	Telecine Net
			Spot Exposure	Warm/Cool
			Warm/Cool	

Three Way Color Corrector (appears in Subject, Post)

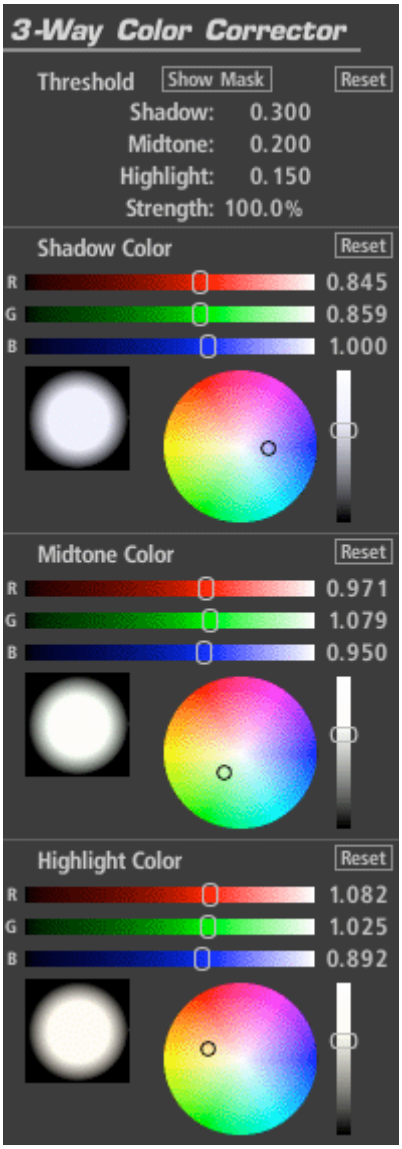
The 3-Way Color Corrector tool provides shadow, midtone, and highlight color correction with control over tone ranges using masks for highlight shadow and midtone regions. It also includes color offset and exposure controls. This tool has an advantage over Lift-Gamma-Gain, in that it can define the value ranges of its three basic controls. With HDRI (High Dynamic Range Imagery), behavior of overbright pixels is also more predictable with 3-Way Color Corrector.

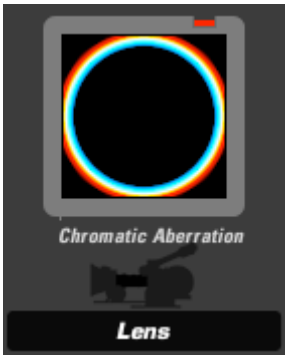
Threshold Controls: Determines the range affected by each respective Color control. Shadows are all values between 0.0 and Shadow. Midtones are the "hump" of values between 0.0 and 1.0, centered on Midtone. Highlights are all values higher than Highlight.

Strength: specifies the extent to which the effect is applied.

Shadow, Midtone, Highlight Color: the target color to which each respective image range is tinted.

MAGIC BULLET LOOKS FOR PINNACLE STUDIO 12

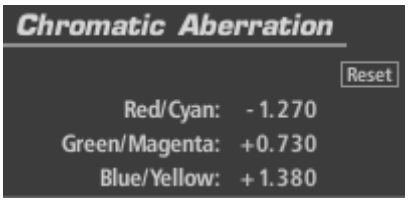




Chromatic Aberration (appears in Subject, Lens)

The Chromatic Aberration tool emulates the look of misprinted film or poor quality lenses by shifting the red, green and blue channels. This tool can also be used to correct for minor chromatic aberration problems in the original image.

Red/Cyan, Green/Magenta, Blue/Yellow: scales each primary color and its opposite from the center. For example, the Red/Cyan control scales cyan to the right and red to the left around edges with positive values and the opposite with negative values in the same control.



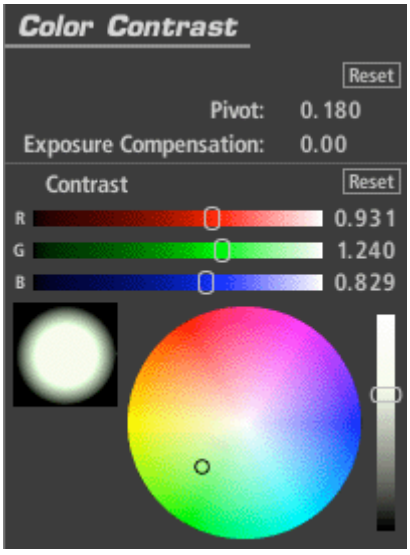
Color Contrast (appears in Subject, Camera, or Post)

The Color Contrast tool deepens the contrast of an image while simultaneously adding an overall tint or color cast to the image. Works just like the Contrast tool, but allows separate control of the R, G and B channels, allowing you to tint highlights toward one hue and shadows toward the opposite.

Pivot: The midtone (inflection) point of the contrast curve, for all three channels on a 0-1.0 scale.

Exposure Compensation: corrects for any resulting changes in overall exposure.

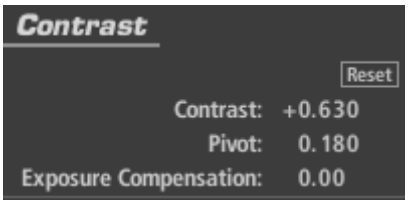
Contrast: Depending on the Pivot setting, highlights or shadows take on this hue and its opposite, respectively.



Contrast (appears in Subject, Camera, or Post)

The Contrast tool offers a simple film response or S-curve contrast adjustment with control over the midtone (inflection) point for the contrast curve.

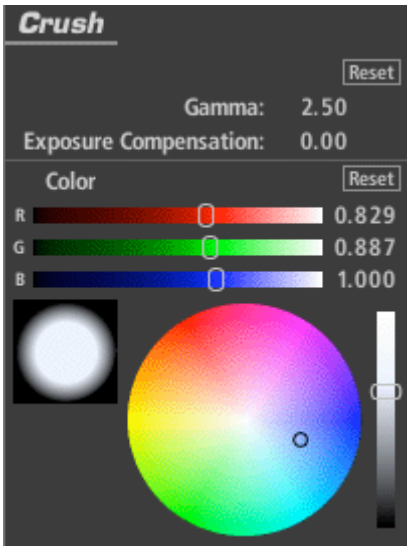
Contrast: the amount of contrast
Pivot: The midtone (inflection) point of the contrast curve, for all three channels on a 0-1.0 scale.
Exposure Compensation: corrects for any resulting changes in overall exposure.

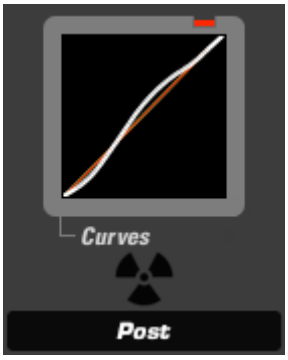


Crush (appears in Subject, Camera, or Post)

Crush (Subject, Camera, or Post tool): Crush deepens the shadows in the image, adding controls for tint of the shadow area.

Gamma: the assumed gamma of the input media
Exposure Compensation: corrects for any resulting changes in overall exposure.
Color: the tint color, weighted toward the shadows.



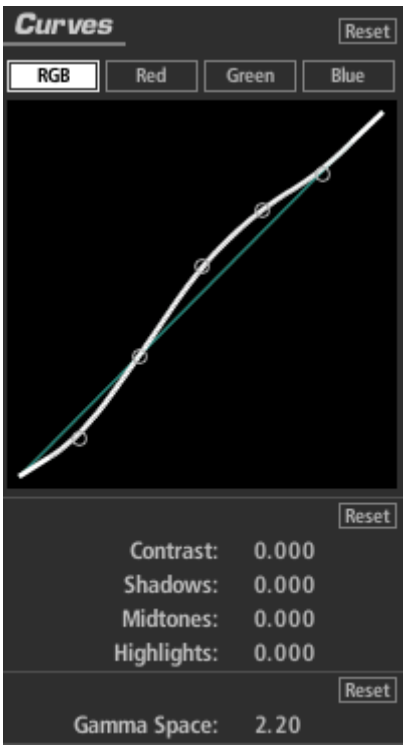


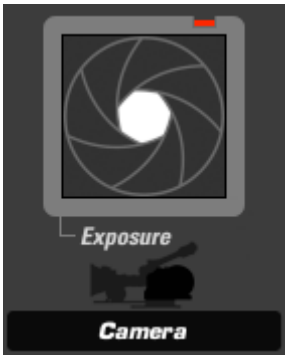
Curves (appears in Subject, Camera, or Post)

The Curves tool provides a master curve, plus red, green, and blue curve controls with fixed-control-point editing for adjusting shadow, midtone and highlight areas with a single, easy-to-use control.

Contrast: adds to the “S” shape of the overall curve
Shadows: weighted to the lower half of the curve
Midtones: weighted to the midpoint of the curve
Highlights: weighted to the upper half of the curve

RGB, Red, Green, Blue: allows adjustment on individual color channels
Gamma Space: the assumed gamma of the input media

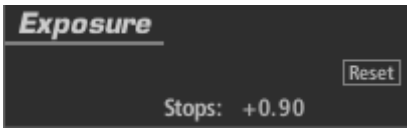




Exposure (appears in Subject, Matte, Lens, Camera, or Post)

The Exposure tool modifies the amount of light passed to the next Tool. The light value is calibrated in stops like a camera exposure control and can be adjusted by up to plus or minus 16 stops. The gamma in the Advanced I/O Input tab influences how the stops are measured.

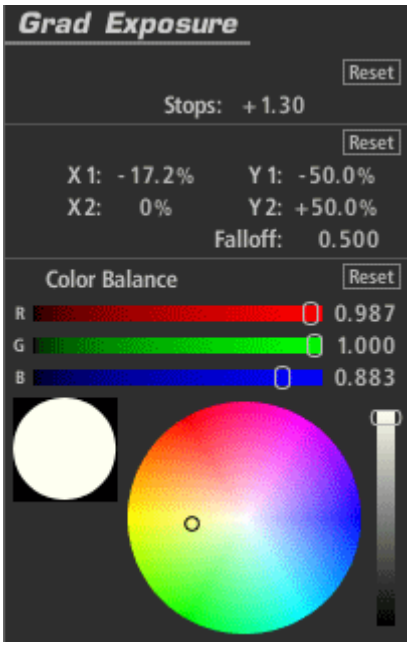
Stops: with a 1.0 gamma, each positive stop doubles the amount of light, each negative stop halves it.

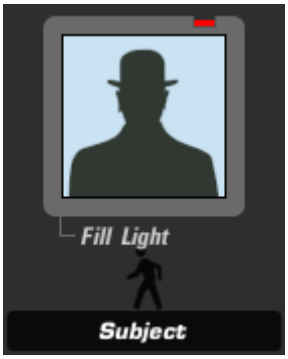


Grad Exposure (appears in Subject, Matte, Lens, Camera, or Post)

The Grad Exposure tool applies exposure adjustment in a soft rectangular area with rotation and falloff controls. The gamma setting in the Advanced I/O Input tab influences how the stops are measured.

Stops: with a 1.0 gamma, each positive stop doubles the amount of light, each negative stop halves it.
X1, Y1, X2, Y2: establishes the positions of the start and end of the gradient
Falloff: weights the gradient toward one end or the other of the gradient
Color Balance: tints the exposed regions

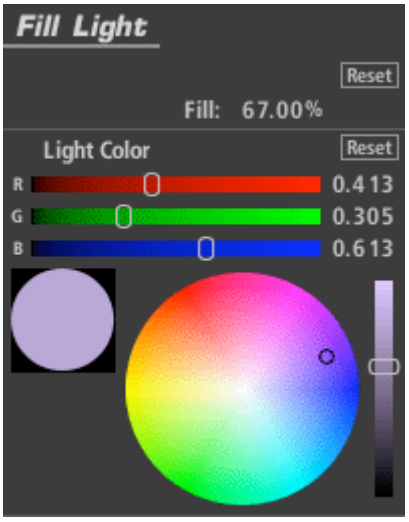




Fill Light (appears in Subject)

The Fill Light tool lightens and tints the shadows to bring out detail in the darkest areas of an image.

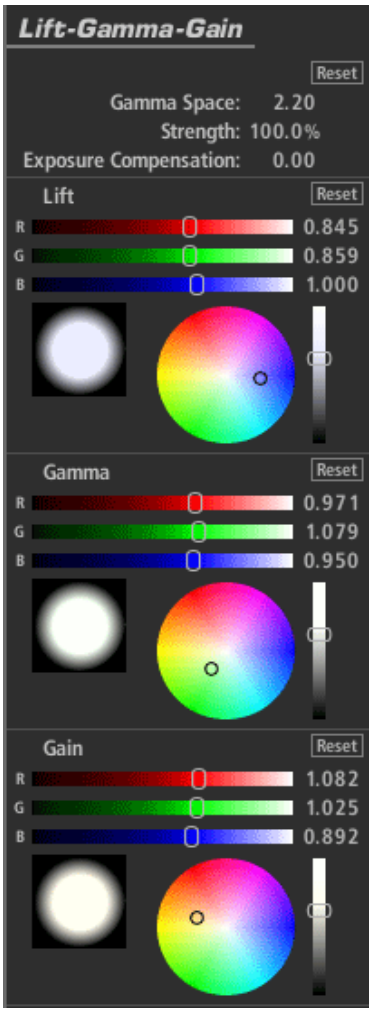
Fill: extent to which the Light Color is added to the scene
Light Color: color used to illuminate shadow areas



Lift-Gamma-Gain (appears in Subject or Post)

The Lift-Gamma-Gain tool uses the standard color model to correct master lift, gamma and gain with color offsets for each control and strength adjustment to blend the result with the previous tool's output. Generally preferred to Offset-Gamma-Gain because it adjusts blacks without affecting white.

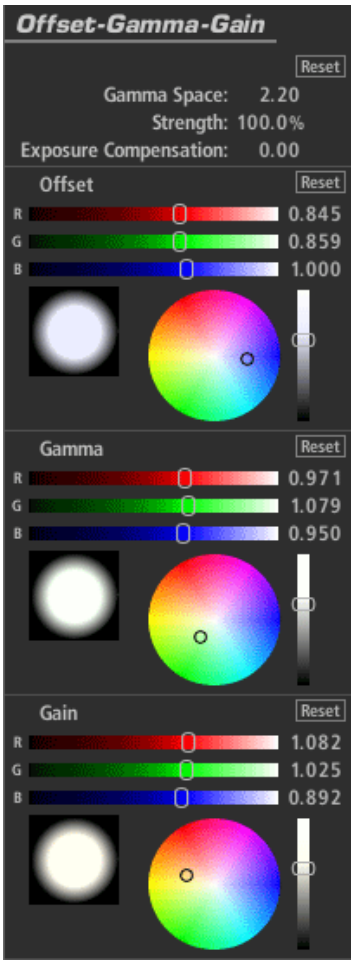
Gamma Space: the assumed gamma of the input media
Strength: the extent to which the effect is applied
Exposure Compensation: corrects for any resulting changes in overall exposure
Lift: sets the black level – shadow level and color
Gamma: darkens, brighten and/or tints midtones.
Gain: brightens or tints the entire image, affecting mostly the highlights.

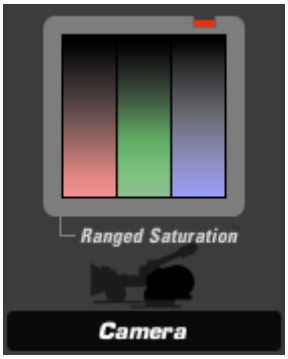


Offset-Gamma-Gain (appears in Subject or Post)

The Offset-Gamma-Gain tool uses the standard offset, gamma, gain color model to correct master offset, gamma and gain values with color offset for each control and strength adjustment to blend the result with the previous tool's output.

Gamma Space: the assumed gamma of the input media
Strength: the extent to which the effect is applied
Exposure Compensation: corrects for any resulting changes in overall exposure
Offset: tints the entire image (unlike the Lift control in Lift-Gamma-Gain, which only affects the shadows).
Gamma: darkens, brightens and/or tints midtones.
Gain: brightens or tints the entire image, affects mostly the highlights.

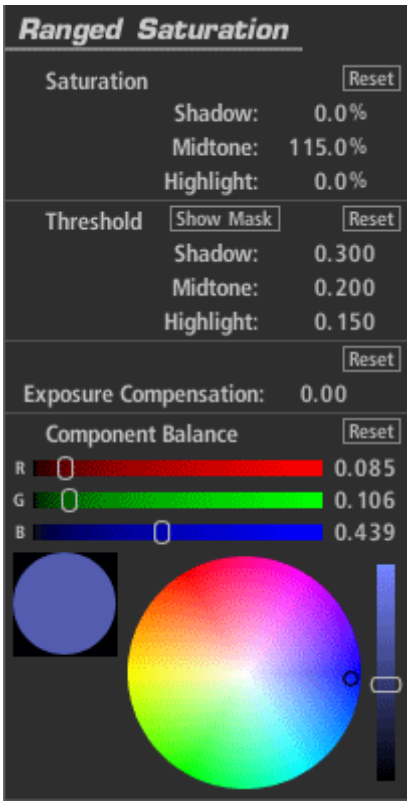




Ranged Saturation (appears in Subject, Camera, or Post)

The Ranged Saturation tool controls the saturation of the shadows, midtones and highlights of an image.

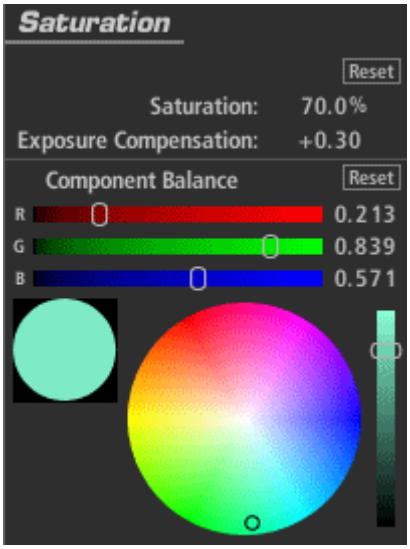
Saturation: includes controls for Shadow, Midtone and Highlight saturation
Threshold: Determines the range affected by each corresponding Saturation control. Shadows are all values between 0.0 and the specified value. Midtones are the "hump" of values between 0.0 and 1.0, centered on the Midtone value. Highlights are all values higher than the Highlight number.
Exposure Compensation: corrects for any resulting changes in overall exposure.
Component Balance: weights the operation to favor a particular color.



Saturation (appears in Subject, Camera, or Post)

Saturation increases or decreases the saturation or vibrancy of the colors in the image with precise control in linear light.

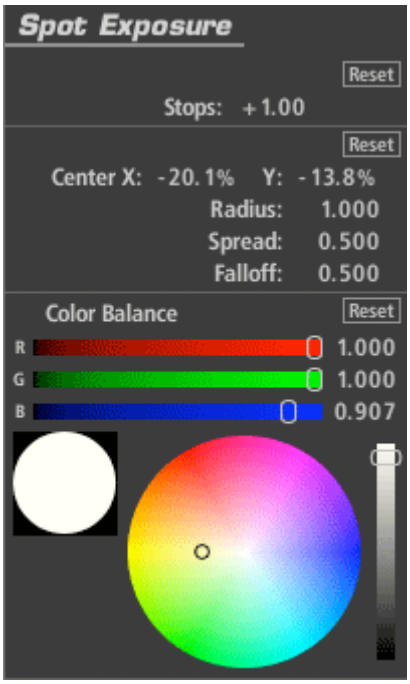
Saturation: the total amount of saturation in the image, on all channels
Exposure Compensation: corrects for any resulting changes in overall exposure
Component Balance: weights the operation to favor a particular color.

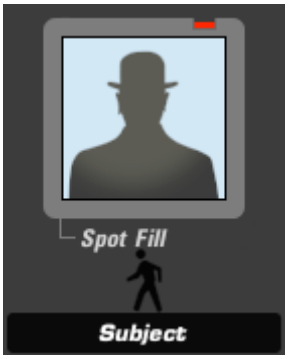


Spot Exposure (appears in Subject, Matte, Lens, Camera, or Post)

The Spot Exposure tool controls the light in a circular area of the image with on-screen adjustments for size and position.

Stops: with a 1.0 gamma, each positive stop doubles the amount of light, each negative stop halves it.
Center: the center of the blur region (and the least blurred area), expressed as percentage offset from the image center.
Radius: size of the area outside which the blur operation is at full strength
Spread: threshold/softening region feathers the radius
Falloff: sets the median point between the Radius and Spread
Color Balance: tints the exposed regions

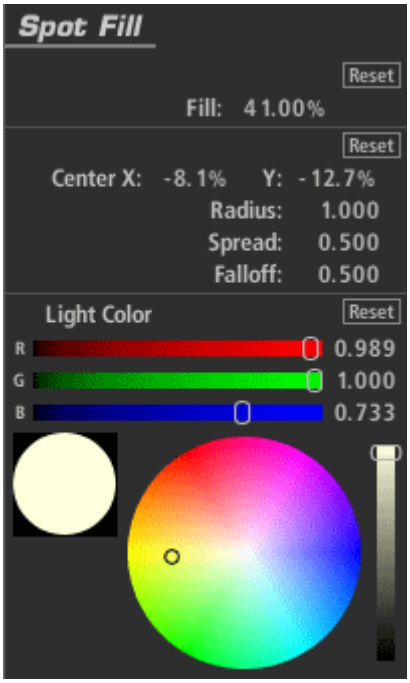


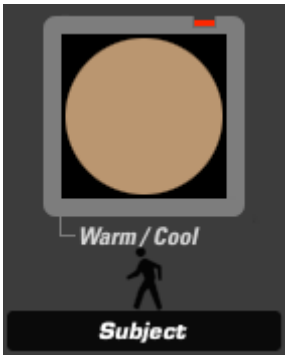


Spot Fill Light (appears in Subject)

The Spot Fill Light tool works like the standard fill light control, but adds circular area control for finer control of the effect with on-screen adjustments for size and position.

Fill: extent to which the Light Color is added to the scene
Radius: size of the area outside which the blur operation is at full strength
Spread: threshold/softening region feathers the radius
Falloff: sets the median point between the Radius and Spread
Light Color: color used to illuminate shadow areas

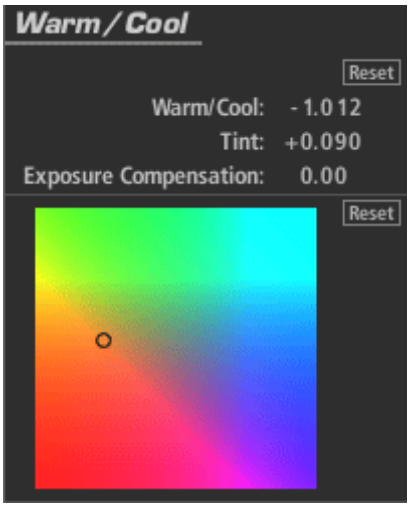


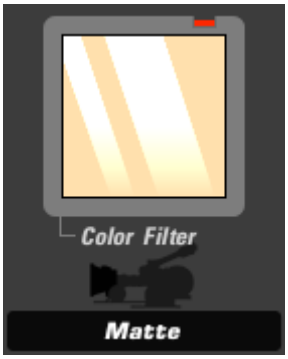


Warm / Cool (appears in Matte)

The Warm/Cool tool creates a color temperature offset, making the image warmer (more orange) or cooler (more blue) with additional tint bias adjustment to move the color towards green or red.

Warm/Cool: offsets color temperature (left and right on the color map)
Tint: offsets the color toward red or green (up and down on the color map)
Exposure Compensation: corrects for any resulting changes in overall exposure.

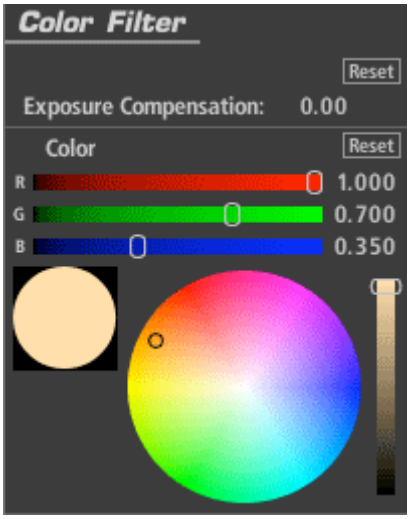




Color Filter (appears in Matte)

The Color Filter tool creates a color overlay filter, like that used in a matte box, where the imposed color typically darkens the image. An integrated exposure adjustment can be used for brightness compensation.

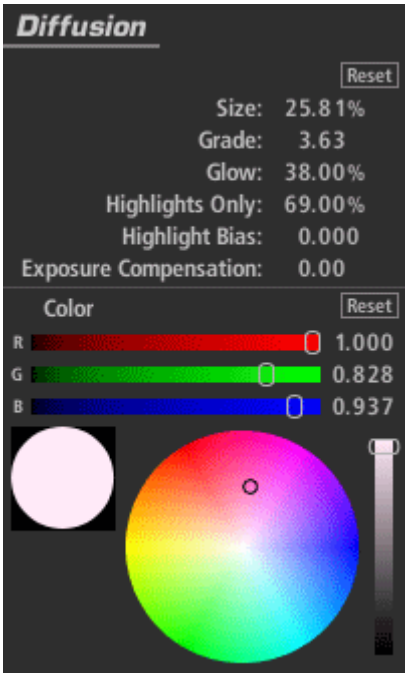
Color: the color of the filter – typically bright and saturated.
Exposure Compensation: corrects for any resulting changes in overall exposure.

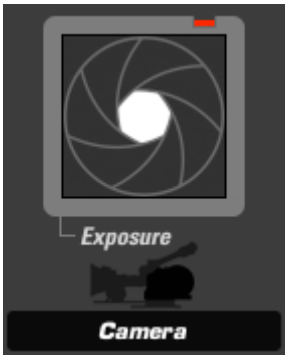


Diffusion (appears in Matte)

The Diffusion tool adds a diffuse glow with control over size and emulation of filter grades. Color offset lets you add a tint to the glow effect in order to emulate a tinted diffusion filter.

Size: the range of diffusion, as a percentage of total image size
Grade: adjusts the softness of the diffusion grade
Glow: amount of luminance/bloom added to highlights
Highlights Only: the extent to which operation is restricted to the brightest regions of the image
Highlight Bias: a lower number pushes more of the image into the Highlights region.
Exposure Compensation: corrects for any resulting changes in overall exposure
Color: tints the glow area

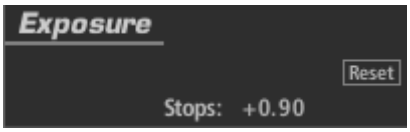




Exposure (appears in Subject, Matte, Lens, Camera, or Post)

The Exposure tool modifies the amount of light passed to the next Tool. The light value is calibrated in stops like a camera exposure control and can be adjusted by up to plus or minus 16 stops. The gamma in the Advanced I/O Input tab influences how the stops are measured.

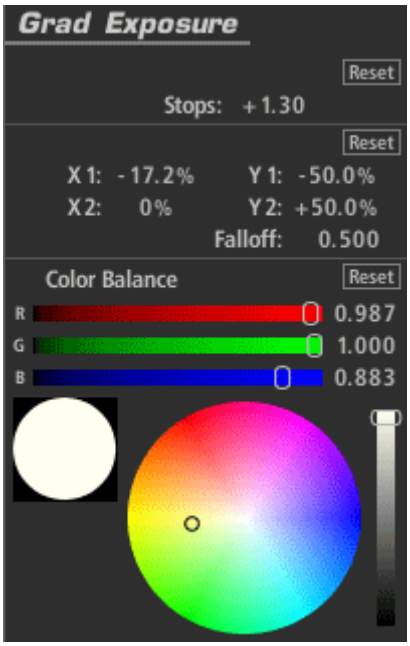
Stops: with a 1.0 gamma, each positive stop doubles the amount of light, each negative stop halves it.

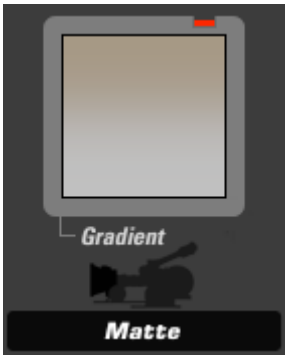


Grad Exposure (appears in Subject, Matte, Lens, Camera, or Post)

The Grad Exposure tool applies exposure adjustment in a soft rectangular area with rotation and falloff controls. The gamma setting in the Advanced I/O Input tab influences how the stops are measured.

Stops: with a 1.0 gamma, each positive stop doubles the amount of light, each negative stop halves it.
X1, Y1, X2, Y2: establishes the positions of the start and end of the gradient
Falloff: weights the gradient toward one end or the other of the gradient
Color Balance: tints the exposed regions

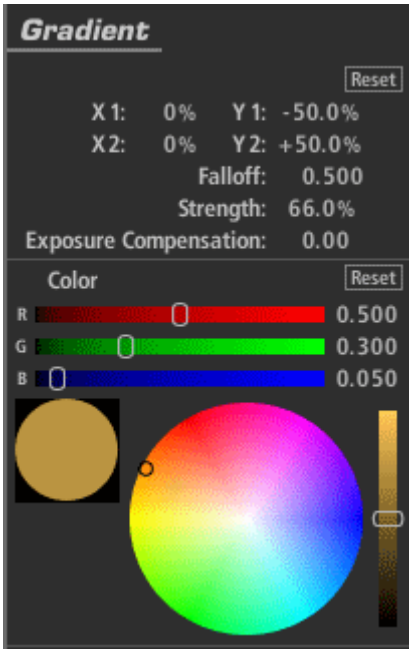




Gradient (appears in Matte)

The Gradient tool adds a colored tint, like a matte box gradient, with control over color, falloff, and strength. On-screen overlay controls let you position the effect easily.

Stops: with a 1.0 gamma, each positive stop doubles the amount of light, each negative stop halves it.
X1, Y1, X2, Y2: establishes the positions of the start and end of the gradient
Falloff: weights the gradient toward one end or the other of the gradient
Strength: specifies the extent to which the effect is applied
Exposure Compensation: corrects any resulting changes in overall exposure.
Color: the color of the filter – typically bright and saturated.

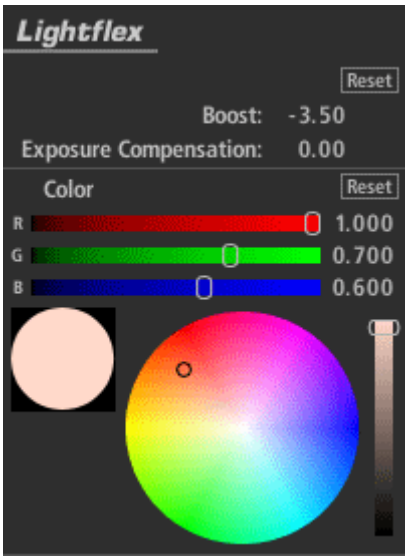


Lightflex (appears in Matte)

The Lightflex tool emulates the flashing of light in the film box. It flashes the image with a base illumination. This has the effect of lowering the contrast of the scene that the camera photographs.

The actual Lightflex device was used by cinematographer Freddie Francis to create a film-within-the-film look in *The French Lieutenant's Woman*, and again to create the color look of *Dune*.

Boost: lifts the black pedestal on all three channels, proportional to the Color setting
Exposure Compensation: corrects for any resulting changes in overall exposure
Color: the specified color is flashed into the blacks.



Sky Filter (appears in Matte)

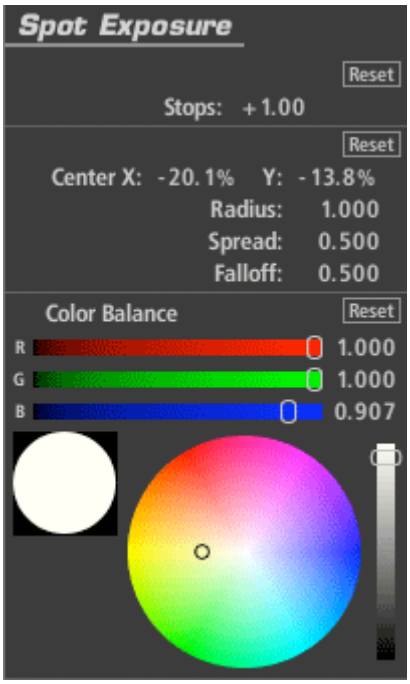
The Sky Filter tool emulates the look of a polarizer on a blue or partially blue sky. The digital version doesn't control reflections but does add saturation and contrast to a sky.

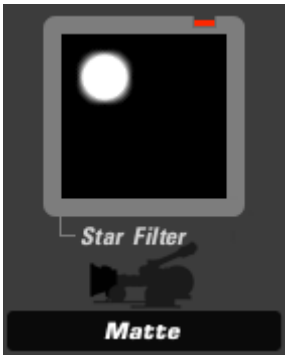
Tint: determines the relative amount of blue or green in the sky color.
Strength: specifies the extent to which the effect is applied where 0 produces no result and 100% causes a strong blue tint.
Exposure Compensation: corrects for any resulting changes in overall exposure.

Spot Exposure (appears in Subject, Matte, Lens, Camera, or Post)

The Spot Exposure tool controls the light in a circular area of the image with on-screen adjustments for size and position.

Stops: with a 1.0 gamma, each positive stop doubles the amount of light, each negative stop halves it.
Center: the center of the blur region (and the least blurred area), expressed as percentage offset from the image center.
Radius: size of the area outside which the blur operation is at full strength
Spread: threshold/softening region feathers the radius
Falloff: sets the median point between the Radius and Spread
Color Balance: tints the exposed regions

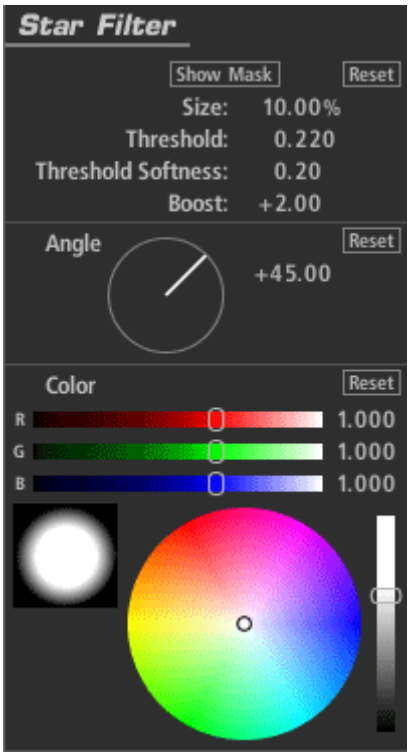


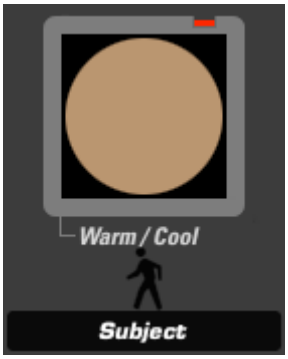


Star Filter (appears in Matte)

The Star Filter tool generates 2-point star shapes on overbright areas of an image, emulating the look of a star filter on a real camera.

Size: Sets the size of the stars, as a percentage of the screen size.
Threshold: the luminance level above which highlights are picked up by the flare. Lower it to get more flare effect.
Threshold Softness: introduces softness into the boundaries of the Threshold region, softening the overall flare effect naturally.
Boost: Lifts the white values in the image to create brighter stars.
Angle: Controls the angle of the stars.
Color: Shifts the color of star from the overbright color tint toward a pure color.

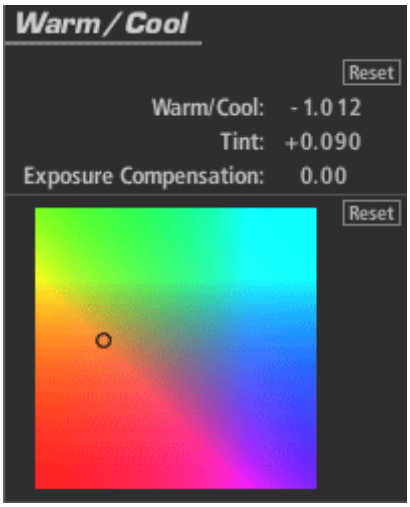


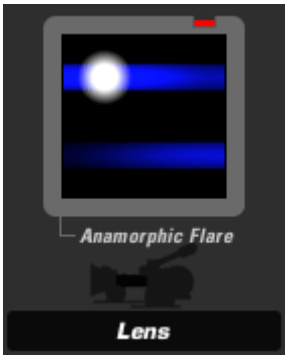


Warm/Cool (appears in Matte)

The Warm/Cool tool creates a color temperature offset, making the image warmer (more orange) or cooler (more blue) with additional tint bias adjustment to move the color towards green or red.

Warm/Cool: offsets color temperature (left and right on the color map)
Tint: offsets the color toward red or green (up and down on the color map)
Exposure Compensation: corrects for any resulting changes in overall exposure.

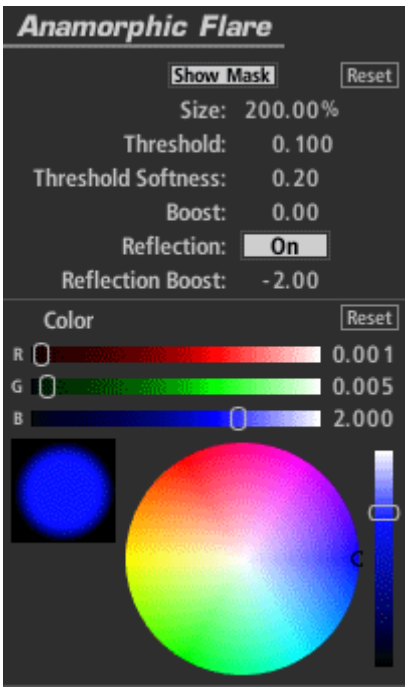


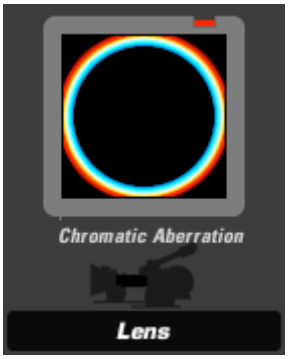


Anamorphic Flare (appears in Lens)

The Anamorphic Flare tool produces the look of an anamorphic flare created from internal lens reflections.

Show Mask: displays the threshold matte used to isolate the highlights, but only when you adjust the threshold controls.
Size: the extent to which the flare extends from each highlight area.
Threshold: the luminance level above which highlights are picked up by the flare. Lower it to get more flare effect.
Threshold Softness: introduces softness into the boundaries of the Threshold region, softening the overall flare effect naturally.
Boost: lifts the white values
Reflection: adds a secondary flare, positioned as an inversion of the first.
Reflection Boost: lifts the luminance of the reflection flare.
Color: The color of the flare

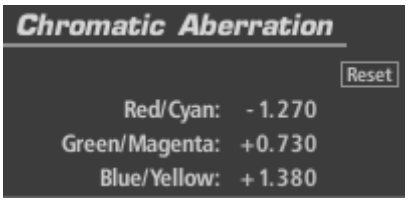




Chromatic Aberration (appears in Subject, Lens)

The Chromatic Aberration tool emulates the look of misprinted film or poor quality lenses by shifting the red, green and blue channels. This tool can also be used to correct for minor chromatic aberration problems in the original image.

Red/Cyan, Green/Magenta, Blue/Yellow: scales each primary color and its opposite from the center. For example, the Red/Cyan control scales cyan to the right and red to the left around edges with positive values and the opposite with negative values in the same control.



Deflare (appears in Lens)

Deflare is a simulated contrast enhancement that increases contrast to provide better shadow definition.

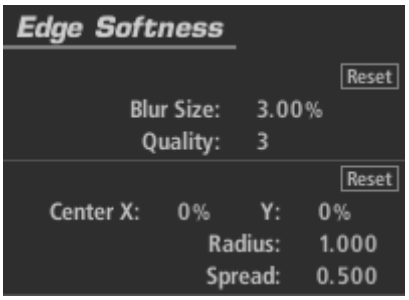
Size: the range around highlight pixels, as a percentage of total image size
Strength: specifies the extent to which the effect is applied
Exposure Compensation: corrects for any resulting changes in overall exposure

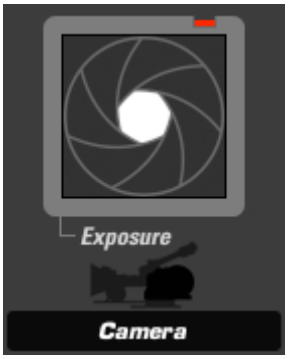
Edge Softness (appears in Lens)

The Edge Softness tool creates a circular, out-of-focus area with controllable falloff and on-screen adjustments of position and size.

Blur Size: size of the blur operation itself
Quality: number of blur iterations. The default of 3 is equivalent to a standard Gaussian blur operation.

The following controls can be drag-adjusted in the Preview area:
Center: the center of the blur region (and the least blurred area), expressed as percentage offset from the image center.
Radius: size of the area outside which the blur operation is at full strength
Spread: threshold/softening region feathers the radius

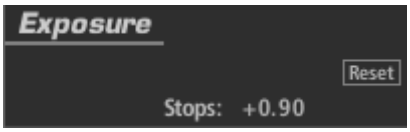




Exposure (appears in Subject, Matte, Lens, Camera, or Post)

The Exposure tool modifies the amount of light passed to the next Tool. The light value is calibrated in stops like a camera exposure control and can be adjusted by up to plus or minus 16 stops. The gamma in the Advanced I/O Input tab influences how the stops are measured.

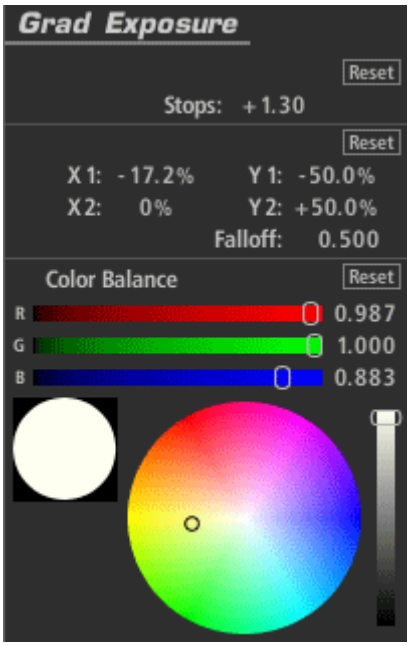
Stops: with a 1.0 gamma, each positive stop doubles the amount of light, each negative stop halves it.



Grad Exposure (appears in Subject, Matte, Lens, Camera, or Post)

The Grad Exposure tool applies exposure adjustment in a soft rectangular area with rotation and falloff controls. The gamma setting in the Advanced I/O Input tab influences how the stops are measured.

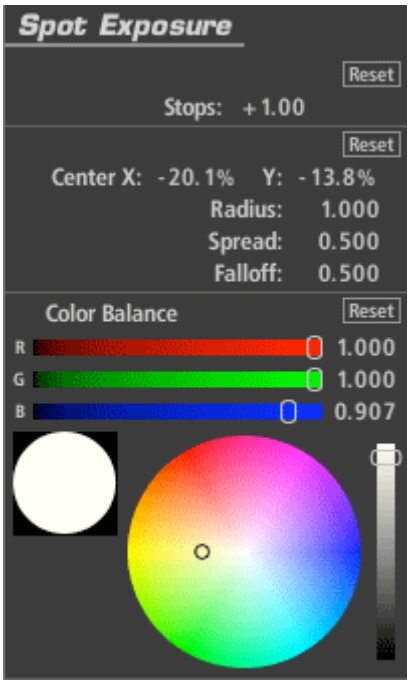
Stops: with a 1.0 gamma, each positive stop doubles the amount of light, each negative stop halves it.
X1, Y1, X2, Y2: establishes the positions of the start and end of the gradient
Falloff: weights the gradient toward one end or the other of the gradient
Color Balance: tints the exposed regions

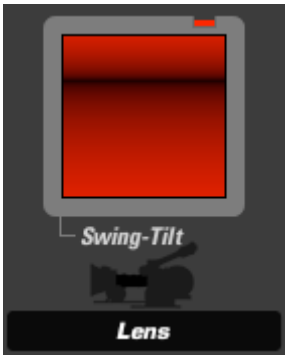


Spot Exposure (appears in Subject, Matte, Lens, Camera, or Post)

The Spot Exposure tool controls the light in a circular area of the image with on-screen adjustments for size and position.

Stops: with a 1.0 gamma, each positive stop doubles the amount of light, each negative stop halves it.
Center: the center of the blur region (and the least blurred area), expressed as percentage offset from the image center.
Radius: size of the area outside which the blur operation is at full strength
Spread: threshold/softening region feathers the radius
Falloff: sets the median point between the Radius and Spread
Color Balance: tints the exposed regions

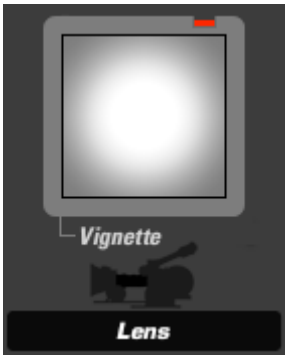




Swing-Tilt (appears in Lens)

A swing/tilt lens tilts the plane of focus, allowing a camera to focus on objects at different distances in the same frame. This can simulate the out-of-focus qualities of a real swing/tilt lens, or it can be used to create a faux depth-of-field effect.

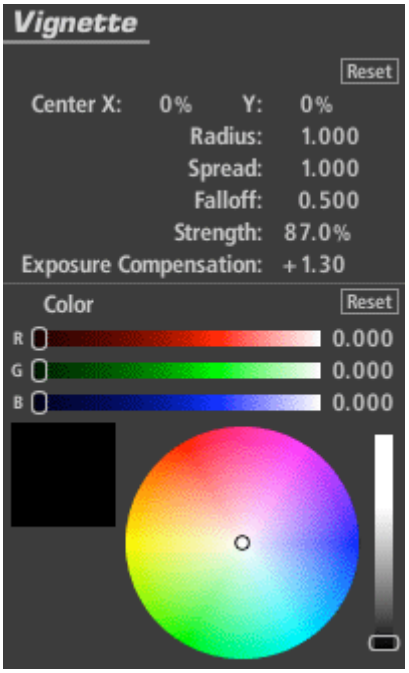
Blur Size: size of the blur operation itself
Quality: number of blur iterations. The default of 3 is equivalent to a standard Gaussian blur operation.
X1, Y1, X2, Y2: establishes the positions of the start and end of the gradient
Center: offsets the center point between the start and end coordinates

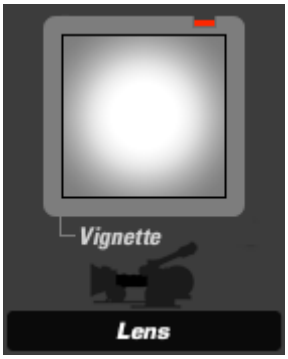


Vignette (appears in Lens)

Vignette (Lens tool): The Vignette tool darkens the edges of an image with control over darkness, tint and falloff with on-screen adjustments for size and position.

Radius: size of the area outside which the darkening operation is at full strength. By default, this encompasses the image boundary.
Spread: sets the start of the falloff area and is definied by a dotted line in the image. Inside the spread there is no vignette effect.
Falloff: weights the gradient toward the spread line or toward the edge. The default of .5 causes a darkening half way between the spread line and the radius.
Strength: specifies the extent to which the effect is applied where 0 is no effect and 100 is full effect.
Exposure Compensation: corrects for any resulting changes in overall exposure.
Color: The vignette by default just darkens the edge toward black but the color value can push the vignette toward any color.

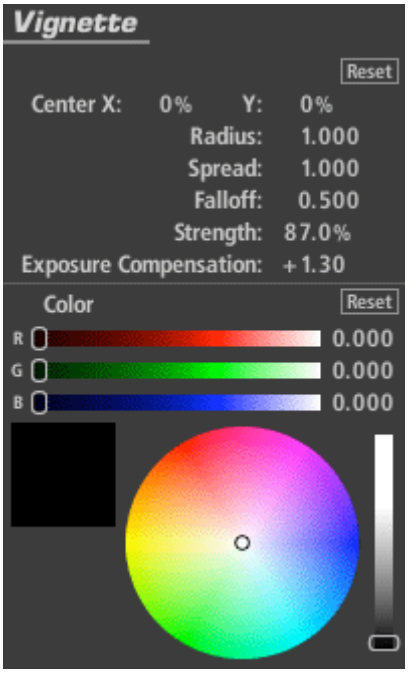


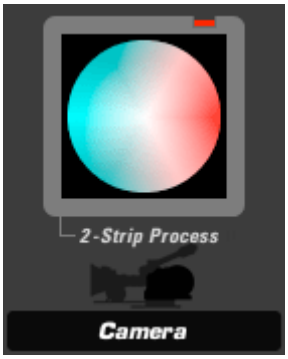


Vignette (appears in Lens)

Vignette (Lens tool): The Vignette tool darkens the edges of an image with control over darkness, tint and falloff with on-screen adjustments for size and position.

Radius: size of the area outside which the darkening operation is at full strength. By default, this encompasses the image boundary.
Spread: sets the start of the falloff area and is definied by a dotted line in the image. Inside the spread there is no vignette effect.
Falloff: weights the gradient toward the spread line or toward the edge. The default of .5 causes a darkening half way between the spread line and the radius.
Strength: specifies the extent to which the effect is applied where 0 is no effect and 100 is full effect.
Exposure Compensation: corrects for any resulting changes in overall exposure.
Color: The vignette by default just darkens the edge toward black but the color value can push the vignette toward any color.

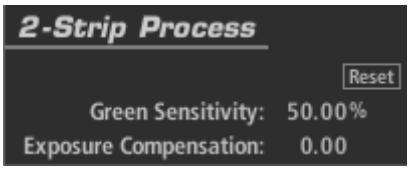


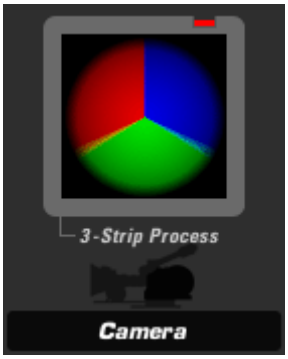


2 Strip (appears in Camera)

The 2-strip Process tool emulates the old technical 2-strip printing process where images were printed to black and white with a red and green filter, then cemented together for projection. The creates distinct look that mostly preserves flesh tones but shifts green toward to a teal blue and makes red colors more prominent.

Green Sensitivity: controls the relative amount of red or cyan in the image
Exposure Compensation: corrects for any resulting changes in overall exposure.

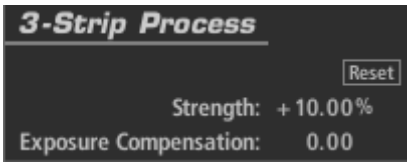


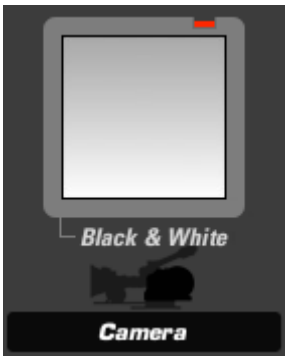


3 Strip (appears in Camera)

The 3-strip Process tool creates the contrast and punch of the Technicolor 3-strip print process where prints were made using a dye-printing process that used cyan, magenta and yellow inks.

Strength: the extent to which the effect is applied
Exposure Compensation: corrects for any resulting changes in overall exposure.

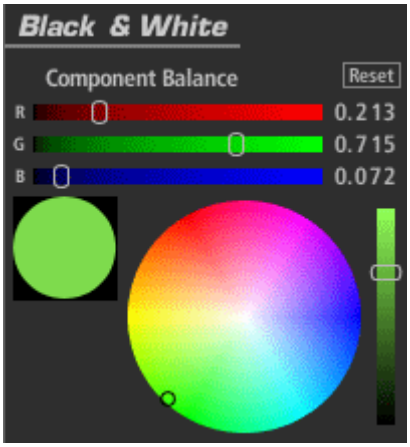




Black and White (appears in Camera)

The Black & White Process tool removes all color. It gives you control over tone shifting where the color wheel controls the balance of tones used to create the final black and white output.

Component Balance: selects the hues to use for black and white luminance. A gray setting uses R, G and B channels equally. The default uses predominantly green, often the channel with the strongest luminance and contrast (and the one most prominent in human vision).


Black & White
Component Balance
Reset
R
0.213
G
0.715
B
0.072

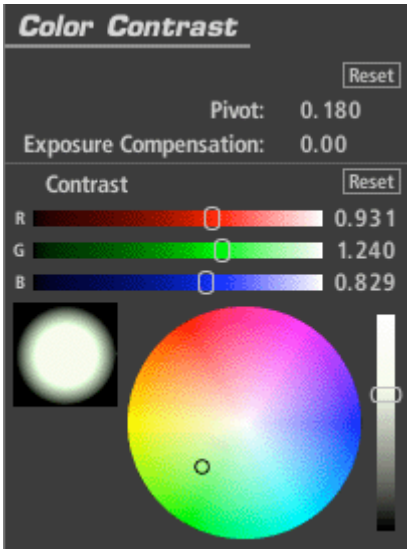
Color Contrast (appears in Subject, Camera, or Post)

The Color Contrast tool deepens the contrast of an image while simultaneously adding an overall tint or color cast to the image. Works just like the Contrast tool, but allows separate control of the R, G and B channels, allowing you to tint highlights toward one hue and shadows toward the opposite.

Pivot: The midtone (inflection) point of the contrast curve, for all three channels on a 0-1.0 scale.

Exposure Compensation: corrects for any resulting changes in overall exposure.

Contrast: Depending on the Pivot setting, highlights or shadows take on this hue and its opposite, respectively.



Color Reversal (appears in Camera)

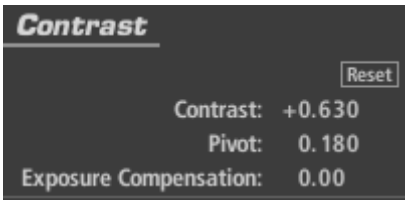
The Color Reversal tool emulates the color reversal film process providing greater contrast.

Strength: specifies the extent to which the effect is applied.
Exposure Compensation: corrects for any resulting changes in overall exposure.

Contrast (appears in Subject, Camera, or Post)

The Contrast tool offers a simple film response or S-curve contrast adjustment with control over the midtone (inflection) point for the contrast curve.

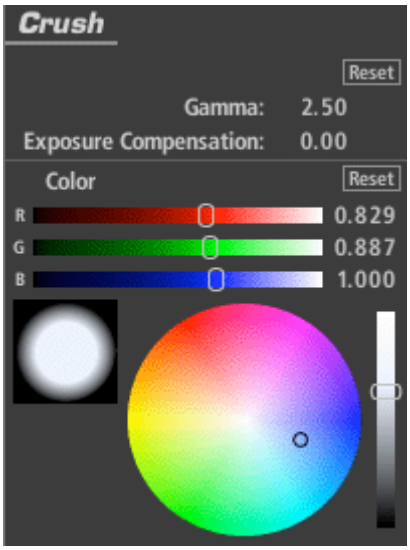
Contrast: the amount of contrast
Pivot: The midtone (inflection) point of the contrast curve, for all three channels on a 0-1.0 scale.
Exposure Compensation: corrects for any resulting changes in overall exposure.

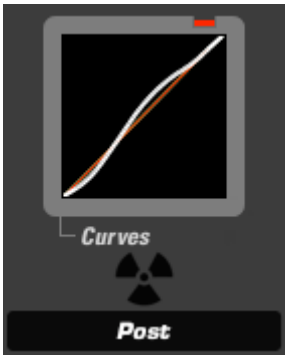


Crush (appears in Subject, Camera, or Post)

Crush (Subject, Camera, or Post tool): Crush deepens the shadows in the image, adding controls for tint of the shadow area.

Gamma: the assumed gamma of the input media
Exposure Compensation: corrects for any resulting changes in overall exposure.
Color: the tint color, weighted toward the shadows.



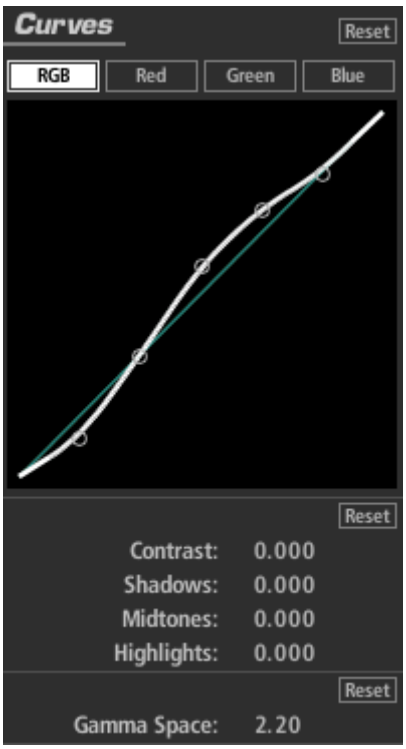


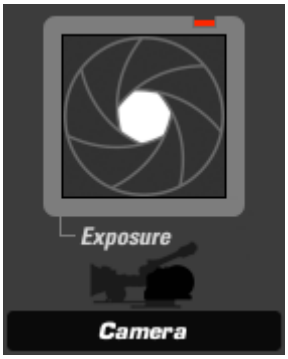
Curves (appears in Subject, Camera, or Post)

The Curves tool provides a master curve, plus red, green, and blue curve controls with fixed-control-point editing for adjusting shadow, midtone and highlight areas with a single, easy-to-use control.

Contrast: adds to the “S” shape of the overall curve
Shadows: weighted to the lower half of the curve
Midtones: weighted to the midpoint of the curve
Highlights: weighted to the upper half of the curve

RGB, Red, Green, Blue: allows adjustment on individual color channels
Gamma Space: the assumed gamma of the input media

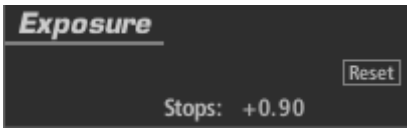


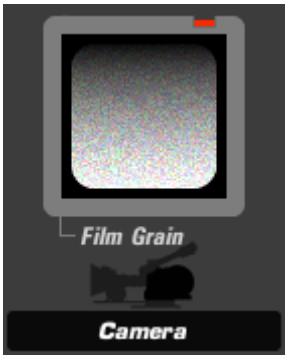


Exposure (appears in Subject, Matte, Lens, Camera, or Post)

The Exposure tool modifies the amount of light passed to the next Tool. The light value is calibrated in stops like a camera exposure control and can be adjusted by up to plus or minus 16 stops. The gamma in the Advanced I/O Input tab influences how the stops are measured.

Stops: with a 1.0 gamma, each positive stop doubles the amount of light, each negative stop halves it.

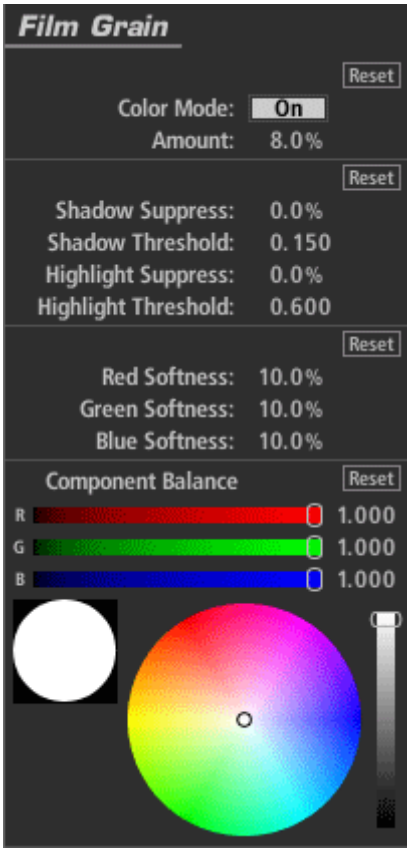




Film Grain (appears in Camera or Post)

The Film Grain tool adds grain-like noise, with softness controls for individual channels and shadow and highlight masking for greater realism.

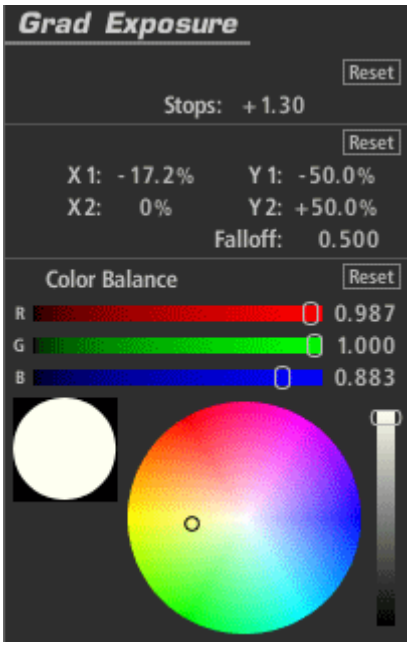
Color Mode: creates individual red, green and blue grain when on, monochromatic grain when off
Amount: grain intensity
Shadow Suppress: percentage to which grain is withheld from shadow regions
Shadow Threshold: luminance level below which Shadow Suppress operates
Highlight Suppress: percentage to which grain is withheld from highlight regions
Highlight Threshold: luminance level above which Highlight Suppress operates
Red, Green, Blue Softness: blurs the grain on individual channels
Component Balance: effectively tints the grain



Grad Exposure (appears in Subject, Matte, Lens, Camera, or Post)

The Grad Exposure tool applies exposure adjustment in a soft rectangular area with rotation and falloff controls. The gamma setting in the Advanced I/O Input tab influences how the stops are measured.

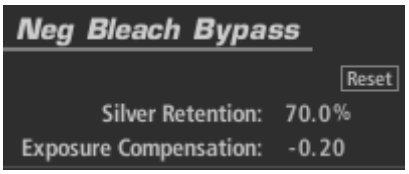
Stops: with a 1.0 gamma, each positive stop doubles the amount of light, each negative stop halves it.
X1, Y1, X2, Y2: establishes the positions of the start and end of the gradient
Falloff: weights the gradient toward one end or the other of the gradient
Color Balance: tints the exposed regions

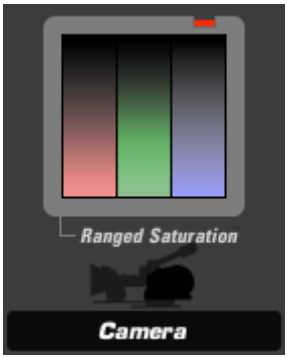


Negative Bleach Bypass (appears in Camera)

The Negative Bleach Bypass tool emulates the look of processing the negative with a skip bleach process used to retain silver on the negative and decrease saturation and increase contrast.

Silver Retention: the more silver is retained, the more desaturated and contrasty the look.
Exposure Compensation: corrects for any resulting changes in overall exposure.

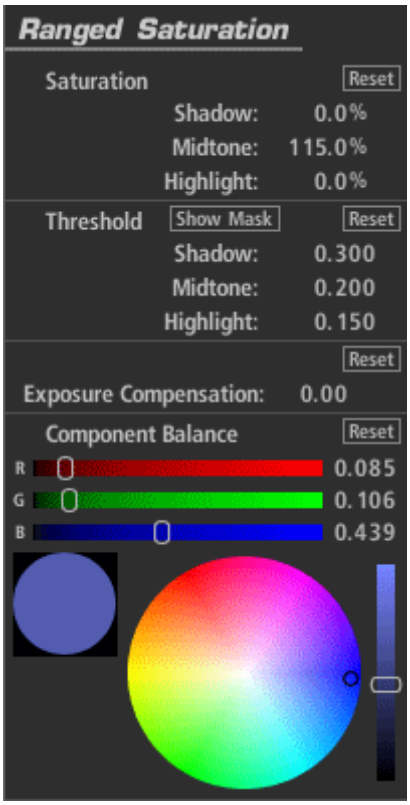




Ranged Saturation (appears in Subject, Camera, or Post)

The Ranged Saturation tool controls the saturation of the shadows, midtones and highlights of an image.

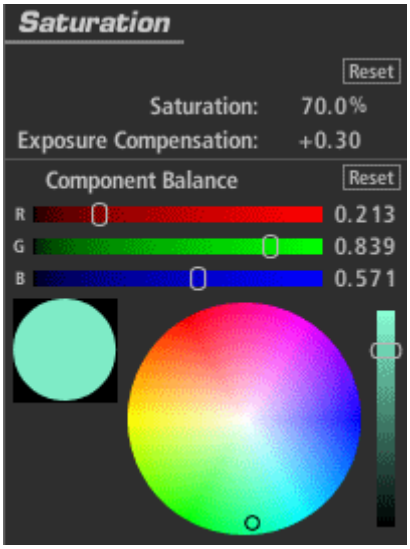
Saturation: includes controls for Shadow, Midtone and Highlight saturation
Threshold: Determines the range affected by each corresponding Saturation control. Shadows are all values between 0.0 and the specified value. Midtones are the "hump" of values between 0.0 and 1.0, centered on the Midtone value. Highlights are all values higher than the Highlight number.
Exposure Compensation: corrects for any resulting changes in overall exposure.
Component Balance: weights the operation to favor a particular color.

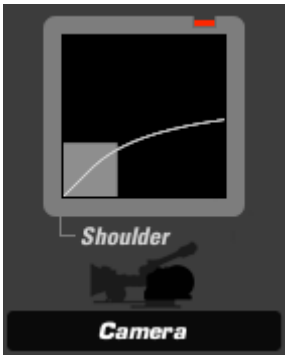


Saturation (appears in Subject, Camera, or Post)

Saturation increases or decreases the saturation or vibrancy of the colors in the image with precise control in linear light.

Saturation: the total amount of saturation in the image, on all channels
Exposure Compensation: corrects for any resulting changes in overall exposure
Component Balance: weights the operation to favor a particular color.

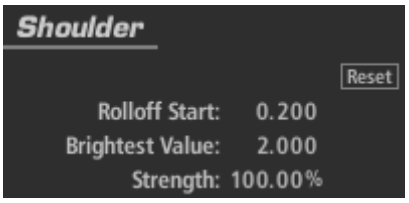




Shoulder (appears in Camera)

The Shoulder tool pushes the brightest values in the image into the 0-1.0 brightness range, yielding a natural result for images with over-bright values. The controls define which values will be altered. Any luminance values in the Red, Green, and Blue channels which fall between the rolloff start and the brightest value will be re-mapped to a normal range.

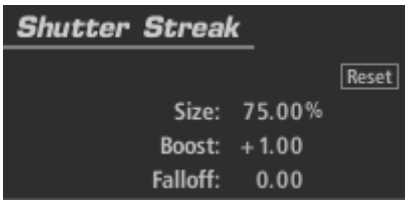
Rolloff Start: value between 0 and 1 establishing the luminance value at which the rolloff is based
Brightest Value: the ceiling from which highlights are rolled off
Strength: specifies the extent to which the effect is applied.



Shutter Streak (appears in Camera)

The Shutter Streak tool emulates the look of light leaking into the bottom and top of the film because of a misaligned film gate.

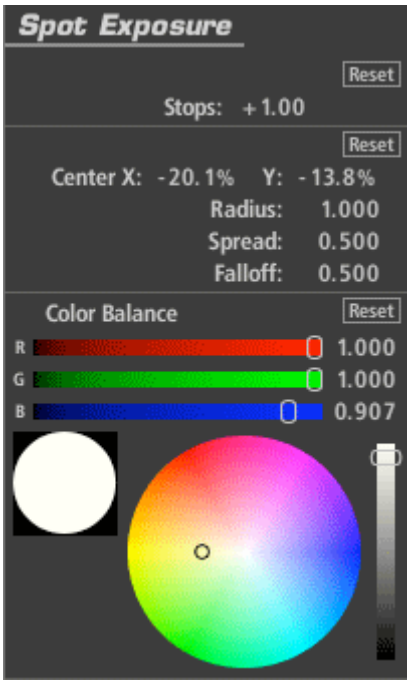
Size: The horizontal scale of the streak as measured from the midpoint of the frame to the top and bottom edges.
Boost: increases or decreases the overall exposure change of just the streaks and not the underlying image.
Falloff: controls the softness of the streak as it approaches the center of the image. Positive values cause greater falloff and less visible streak, while negative values emphasize the streak in the frame.

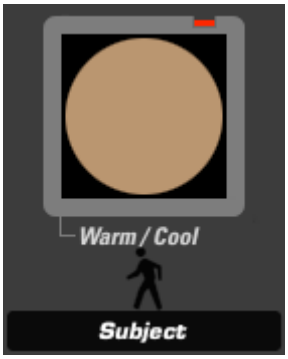


Spot Exposure (appears in Subject, Matte, Lens, Camera, or Post)

The Spot Exposure tool controls the light in a circular area of the image with on-screen adjustments for size and position.

Stops: with a 1.0 gamma, each positive stop doubles the amount of light, each negative stop halves it.
Center: the center of the blur region (and the least blurred area), expressed as percentage offset from the image center.
Radius: size of the area outside which the blur operation is at full strength
Spread: threshold/softening region feathers the radius
Falloff: sets the median point between the Radius and Spread
Color Balance: tints the exposed regions

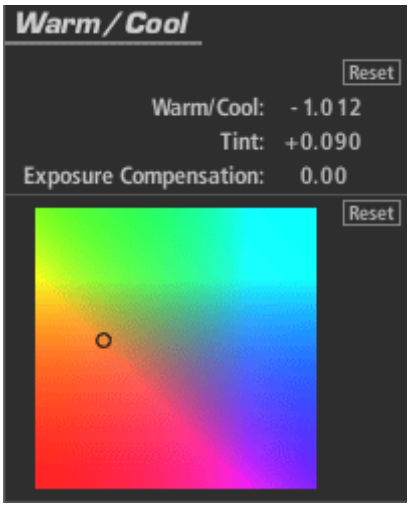




Warm/Cool (appears in Matte)

The Warm/Cool tool creates a color temperature offset, making the image warmer (more orange) or cooler (more blue) with additional tint bias adjustment to move the color towards green or red.

Warm/Cool: offsets color temperature (left and right on the color map)
Tint: offsets the color toward red or green (up and down on the color map)
Exposure Compensation: corrects for any resulting changes in overall exposure.



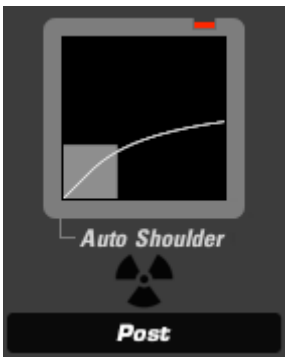
Three Way Color Corrector (appears in Subject, Post)

The 3-Way Color Corrector tool provides shadow, midtone, and highlight color correction with control over tone ranges using masks for highlight shadow and midtone regions. It also includes color offset and exposure controls. This tool has an advantage over Lift-Gamma-Gain, in that it can define the value ranges of its three basic controls. With HDRI (High Dynamic Range Imagery), behavior of overbright pixels is also more predictable with 3-Way Color Corrector.

Threshold Controls: Determines the range affected by each respective Color control. Shadows are all values between 0.0 and Shadow. Midtones are the "hump" of values between 0.0 and 1.0, centered on Midtone. Highlights are all values higher than Highlight.

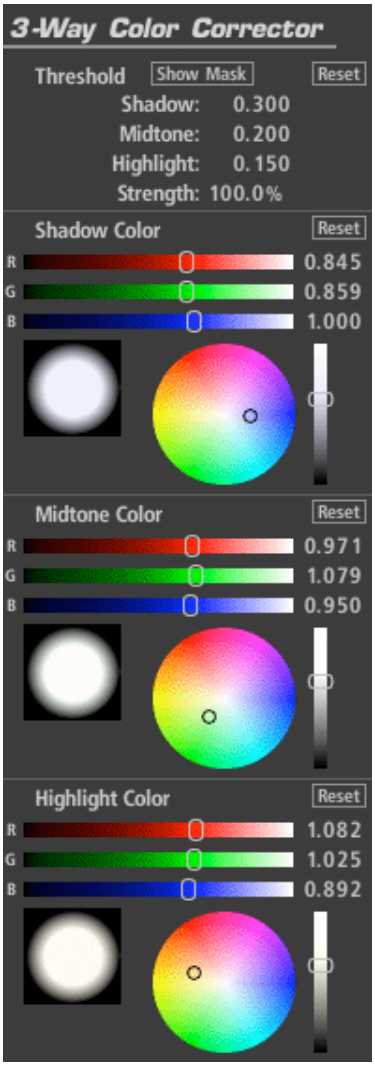
Strength: specifies the extent to which the effect is applied.

Shadow, Midtone, Highlight Color: the target color to which each respective image range is tinted.



Auto-shoulder (appears in Post)

The Auto-shoulder tool pushes the brightest values in the image into a usable range to compensate for overbrights in the image. Greater control over this process can be achieved with the Shoulder tool in the Camera category. This tool is best used to compensate for small overbrights before returning to an editing application that doesn't handle overbright ranges natively.



Strength: specifies the extent to which the effect is applied.

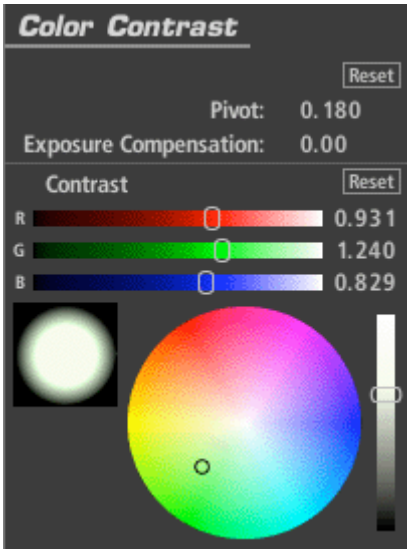
Color Contrast (appears in Subject, Camera, or Post)

The Color Contrast tool deepens the contrast of an image while simultaneously adding an overall tint or color cast to the image. Works just like the Contrast tool, but allows separate control of the R, G and B channels, allowing you to tint highlights toward one hue and shadows toward the opposite.

Pivot: The midtone (inflection) point of the contrast curve, for all three channels on a 0-1.0 scale.

Exposure Compensation: corrects for any resulting changes in overall exposure.

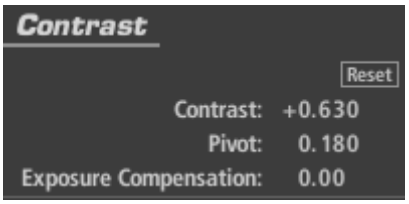
Contrast: Depending on the Pivot setting, highlights or shadows take on this hue and its opposite, respectively.



Contrast (appears in Subject, Camera, or Post)

The Contrast tool offers a simple film response or S-curve contrast adjustment with control over the midtone (inflection) point for the contrast curve.

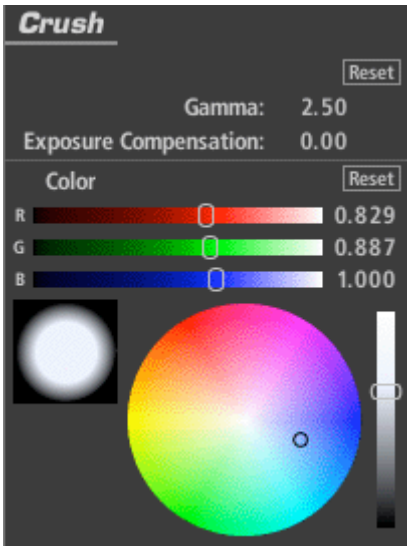
Contrast: the amount of contrast
Pivot: The midtone (inflection) point of the contrast curve, for all three channels on a 0-1.0 scale.
Exposure Compensation: corrects for any resulting changes in overall exposure.

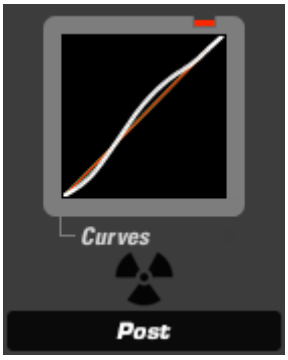


Crush (appears in Subject, Camera, or Post)

Crush (Subject, Camera, or Post tool): Crush deepens the shadows in the image, adding controls for tint of the shadow area.

Gamma: the assumed gamma of the input media
Exposure Compensation: corrects for any resulting changes in overall exposure.
Color: the tint color, weighted toward the shadows.



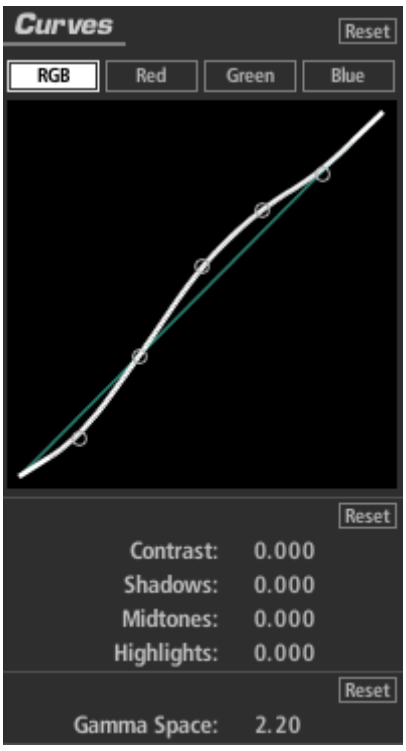


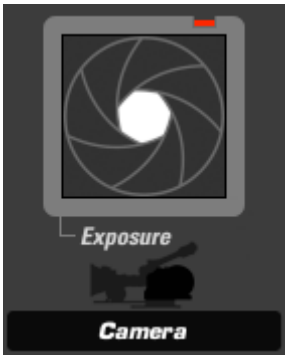
Curves (appears in Subject, Camera, or Post)

The Curves tool provides a master curve, plus red, green, and blue curve controls with fixed-control-point editing for adjusting shadow, midtone and highlight areas with a single, easy-to-use control.

Contrast: adds to the “S” shape of the overall curve
Shadows: weighted to the lower half of the curve
Midtones: weighted to the midpoint of the curve
Highlights: weighted to the upper half of the curve

RGB, Red, Green, Blue: allows adjustment on individual color channels
Gamma Space: the assumed gamma of the input media

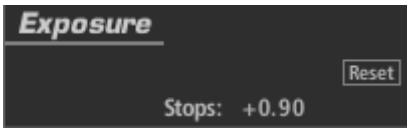


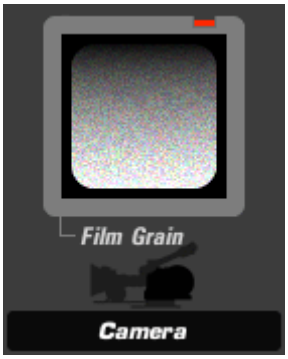


Exposure (appears in Subject, Matte, Lens, Camera, or Post)

The Exposure tool modifies the amount of light passed to the next Tool. The light value is calibrated in stops like a camera exposure control and can be adjusted by up to plus or minus 16 stops. The gamma in the Advanced I/O Input tab influences how the stops are measured.

Stops: with a 1.0 gamma, each positive stop doubles the amount of light, each negative stop halves it.

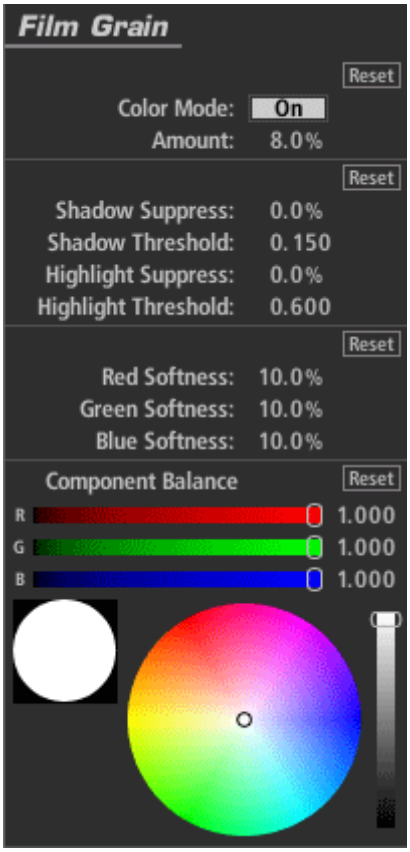




Film Grain (appears in Camera or Post)

The Film Grain tool adds grain-like noise, with softness controls for individual channels and shadow and highlight masking for greater realism.

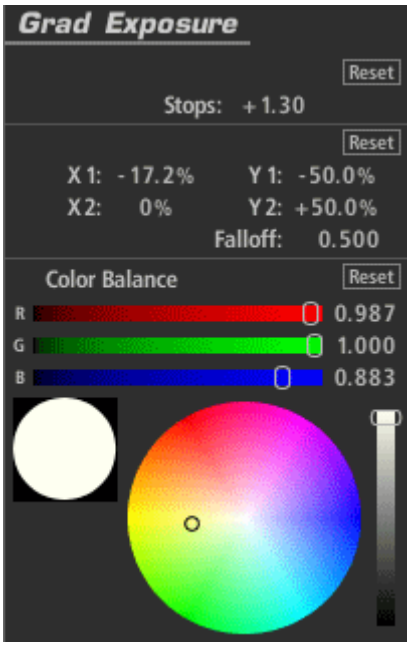
Color Mode: creates individual red, green and blue grain when on, monochromatic grain when off
Amount: grain intensity
Shadow Suppress: percentage to which grain is withheld from shadow regions
Shadow Threshold: luminance level below which Shadow Suppress operates
Highlight Suppress: percentage to which grain is withheld from highlight regions
Highlight Threshold: luminance level above which Highlight Suppress operates
Red, Green, Blue Softness: blurs the grain on individual channels
Component Balance: effectively tints the grain



Grad Exposure (appears in Subject, Matte, Lens, Camera, or Post)

The Grad Exposure tool applies exposure adjustment in a soft rectangular area with rotation and falloff controls. The gamma setting in the Advanced I/O Input tab influences how the stops are measured.

Stops: with a 1.0 gamma, each positive stop doubles the amount of light, each negative stop halves it.
X1, Y1, X2, Y2: establishes the positions of the start and end of the gradient
Falloff: weights the gradient toward one end or the other of the gradient
Color Balance: tints the exposed regions



Lift-Gamma-Gain (appears in Subject or Post)

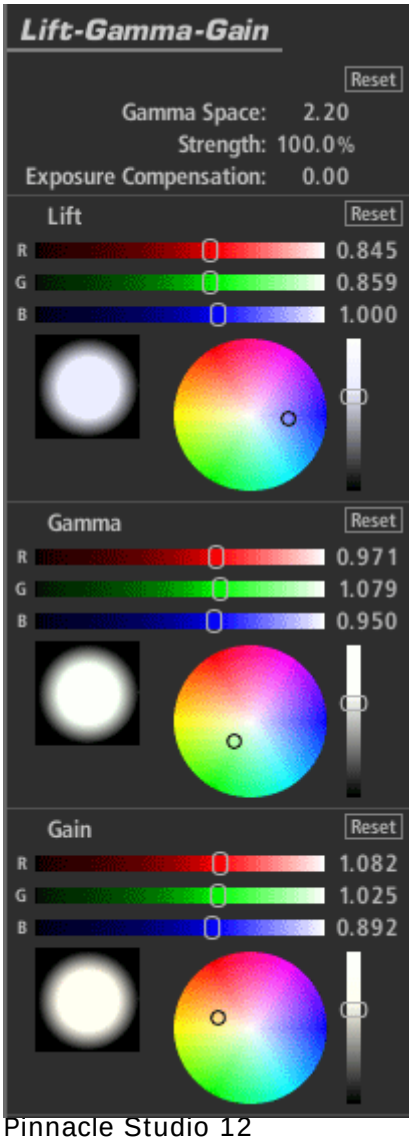
The Lift-Gamma-Gain tool uses the standard color model to correct master lift, gamma and gain with color offsets for each control and strength adjustment to blend the result with the previous tool's output. Generally preferred to Offset-Gamma-Gain because it adjusts blacks without affecting white.

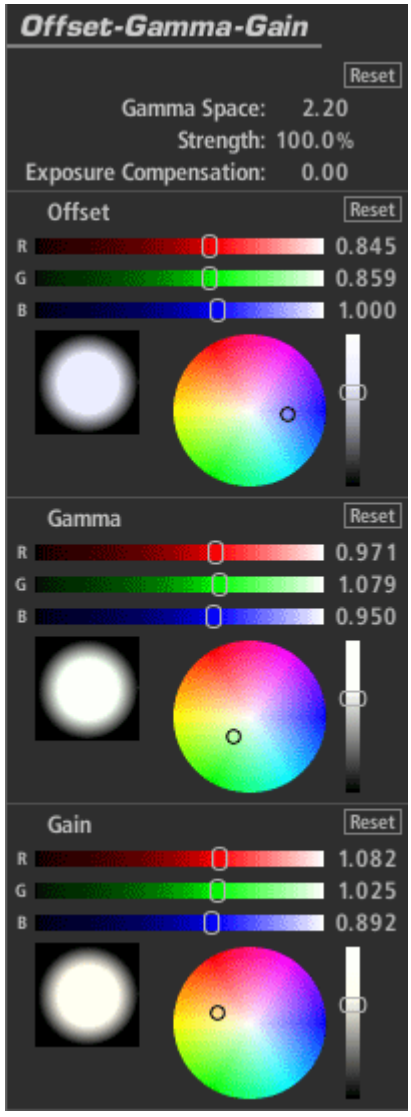
Gamma Space: the assumed gamma of the input media
Strength: the extent to which the effect is applied
Exposure Compensation: corrects for any resulting changes in overall exposure
Lift: sets the black level – shadow level and color
Gamma: darkens, brighten and/or tints midtones.
Gain: brightens or tints the entire image, affecting mostly the highlights.

Offset-Gamma-Gain (appears in Subject or Post)

The Offset-Gamma-Gain tool uses the standard offset, gamma, gain color model to correct master offset, gamma and gain values with color offset for each control and strength adjustment to blend the result with the previous tool's output.

Gamma Space: the assumed gamma of the input media
Strength: the extent to which the effect is applied



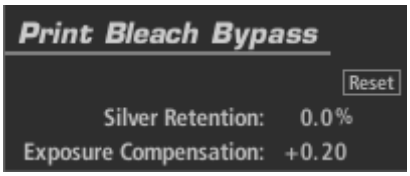


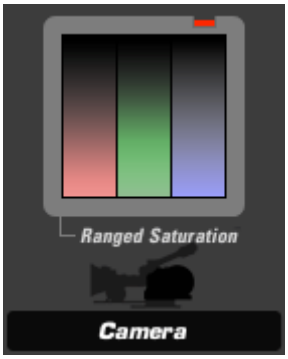
Exposure Compensation: corrects for any resulting changes in overall exposure
Offset: tints the entire image (unlike the Lift control in Lift-Gamma-Gain, which only affects the shadows).
Gamma: darkens, brightens and/or tints midtones.
Gain: brightens or tints the entire image, affects mostly the highlights.

Print Bleach Bypass (appears in Camera)

The Print Bleach Bypass tool emulates the look of a skip bleach process on print film instead of the negative (Negative Bleach Bypass tool).

Silver Retention: the higher this value, the more silver is retained, and the more desaturated and contrasty the look.
Exposure Compensation: corrects for any resulting changes in overall exposure

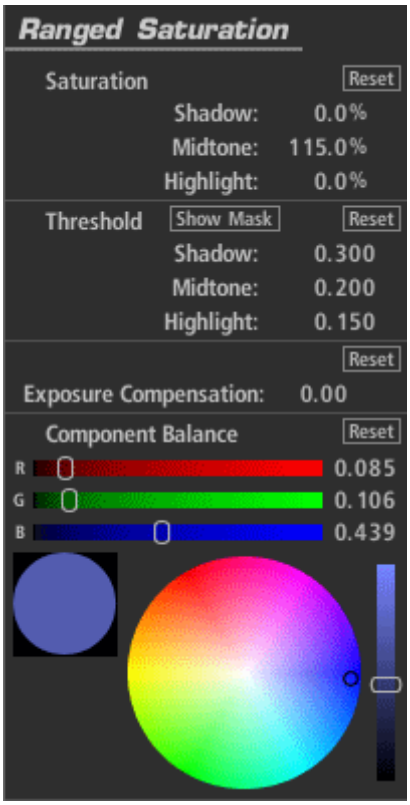




Ranged Saturation (appears in Subject, Camera, or Post)

The Ranged Saturation tool controls the saturation of the shadows, midtones and highlights of an image.

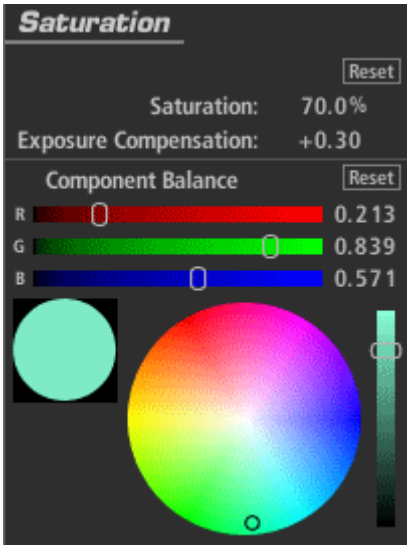
Saturation: includes controls for Shadow, Midtone and Highlight saturation
Threshold: Determines the range affected by each corresponding Saturation control. Shadows are all values between 0.0 and the specified value. Midtones are the "hump" of values between 0.0 and 1.0, centered on the Midtone value. Highlights are all values higher than the Highlight number.
Exposure Compensation: corrects for any resulting changes in overall exposure.
Component Balance: weights the operation to favor a particular color.



Saturation (appears in Subject, Camera, or Post)

Saturation increases or decreases the saturation or vibrancy of the colors in the image with precise control in linear light.

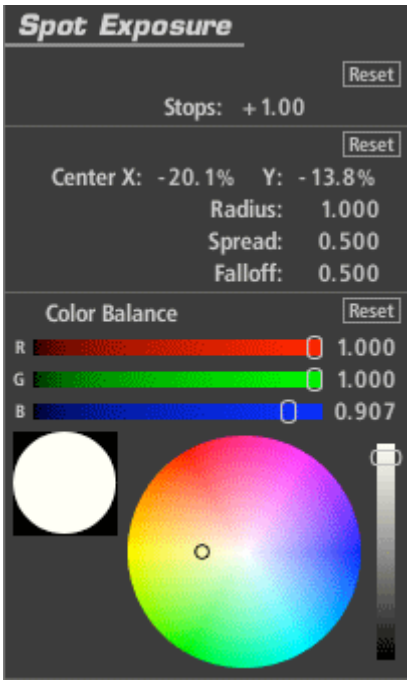
Saturation: the total amount of saturation in the image, on all channels
Exposure Compensation: corrects for any resulting changes in overall exposure
Component Balance: weights the operation to favor a particular color.



Spot Exposure (appears in Subject, Matte, Lens, Camera, or Post)

The Spot Exposure tool controls the light in a circular area of the image with on-screen adjustments for size and position.

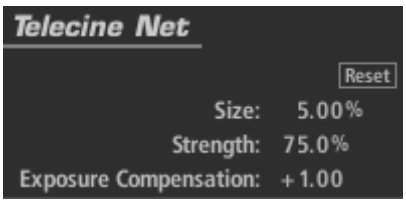
Stops: with a 1.0 gamma, each positive stop doubles the amount of light, each negative stop halves it.
Center: the center of the blur region (and the least blurred area), expressed as percentage offset from the image center.
Radius: size of the area outside which the blur operation is at full strength
Spread: threshold/softening region feathers the radius
Falloff: sets the median point between the Radius and Spread
Color Balance: tints the exposed regions

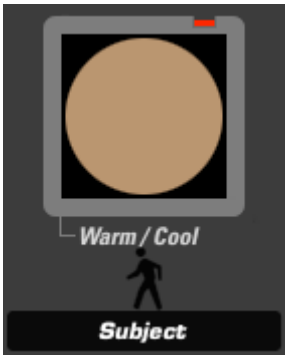


Telecine Net (appears in Post)

The Telecine Net tool emulates a silk effect in a telecine to soften the blacks in an image.

Size: relative scale of the net.
Strength: the extent to which the effect is applied
Exposure Compensation: corrects for any resulting changes in overall exposure.

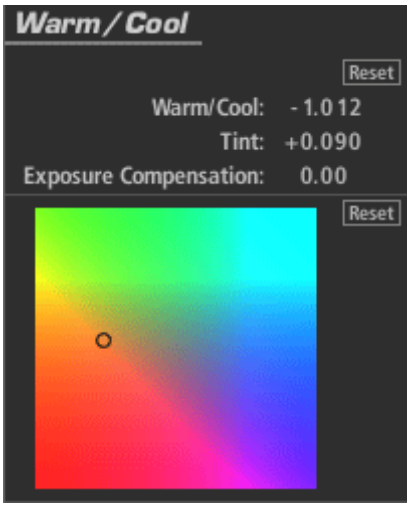




Warm/Cool (appears in Matte)

The Warm/Cool tool creates a color temperature offset, making the image warmer (more orange) or cooler (more blue) with additional tint bias adjustment to move the color towards green or red.

Warm/Cool: offsets color temperature (left and right on the color map)
Tint: offsets the color toward red or green (up and down on the color map)
Exposure Compensation: corrects for any resulting changes in overall exposure.



LooksBuilder SE: Tool Chain

The Tool Chain is the heart of LooksBuilder SE. It resembles a camera workflow, from the subject (in front of the lens) through the camera to the post-production process. Each of these parts of a traditional shoot pipeline are represented by a section in the Chain. Fill the Chain with a preset Look by mousing to the left edge of the screen and selecting a preset from the Looks QuickDrawer. Tools are processed from left to right, following the same path as light through a real-world cinematography workflow.

In LooksBuilder SE, the Tools in the chain can be changed and saved as a new preset Look. New Tools cannot be added to the chain in the LooksBuilder SE version. More full-featured versions of LooksBuilder for professional editing applications offer the ability to create new Looks from scratch. For more information about professional versions of Magic Bullet Looks, please visit the Red Giant Software website.

Tool Behaviors
The Tool Chain shows large icons that represent each of the tools that are altering the image and creating the overall look. You can drag tools from one position in the chain to another to control their place in the workflow.

Look Name
The name of the current preset Look is shown at the upper right of the Tool Chain. When a new Look preset is applied, the label will display the current preset name. Double-click the name to enter edit mode, and enter your own custom name. Click Enter again to exit edit mode and create a new preset look with your custom name in a new category called Custom Looks. If a preset is altered by changing Tool values, then the name will revert to Untitled Look. Below is the name of a preset as it appears in the upper-right corner of the Tool Chain area.

Tool Switch Record
Each tool in the Chain has an On/Off switch that toggles its effect. When Off, a Tool doesn't affect the image in any way. You can save a Look or a Session with tools that are switched off. Below are two tools in the chain, the one on the left is in the off state and will not alter the image, while the one on the right is part of the active chain.

Tool Chain Record
You can enable or disable the use of all tools in the Tool Chain area by clicking the red record button. Turning the chain off shows the preview without any tools. Turning the chain on enables the tools and displays the current image with a processed look. In the image, you can see the red light in the upper-right hand corner is off and the individual tools are set to bypass even though their individual tool switches are still on.

Subject Area
The Subject area tools are those that alter the image before being processed in the virtual camera. Tools in this area focus on lighting changes such as exposure, fill and contrast. Typical post-production tools such as curves and three-way color correction are also available to alter the virtual lighting.

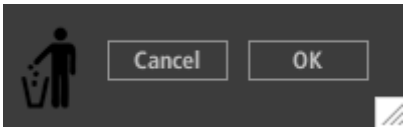
Matte Area
The Matte area offers tools that mimic filters that would fit in a real-world matte box, including diffusion, color, and star filters.

Lens Area
The Lens area offers tools that alter the virtual lens of the camera, including vignettes, anamorphic flares, and edge softness.

Camera Area
The Camera area offers tools that affect the virtual recording of the image and tools that mimic film stocks, shutter control, and film processes, including 2 Strip, 3 Strip, color reversal, film grain and more.

Post Area
The Post area is the final development stage for your Look. This category includes standard color correction filters like Lift-Gamma-Gain, Offset-Gamma-Gain, 3-way Color Corrector, Saturation, Range Saturation, Spot Exposure, Print Bleach Bypass, and Curves.

Trash
Drag and drop a tool from any Tool Chain category to the right area above the trash can icon and release to remove the Tool effect from your Look. If a tool is selected, you can also use the Delete (Del) or Backspace key to remove the tool.

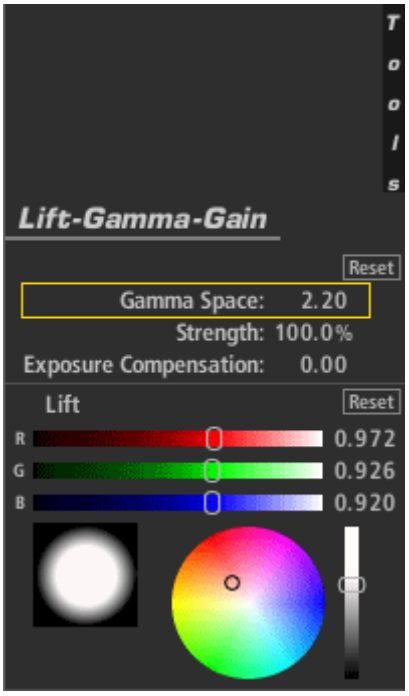


LooksBuilder SE: Hands-On Mode

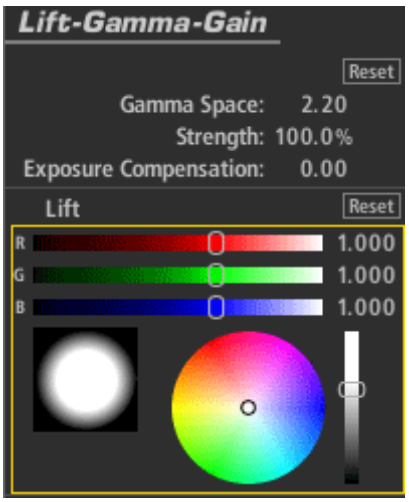
The LooksBuilder SE tool controls feature a unique interaction mode that lets you edit the numeric values of a tools' controls with the touch of a trackpad, trackball, or mouse. Every control in a Tool can be controlled in this mode, and unique mapping of the keyboard has been built in to aid in moving between the controls as you edit values.

Hands-On Mode with Lift-Gamma-Gain Tool
We will use the Lift-Gamma-Gain tool and its controls to show how hands-on mode works.

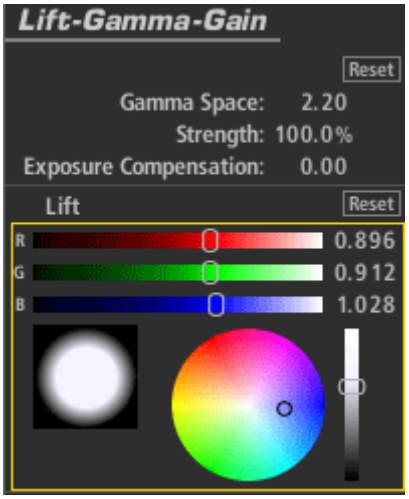
Step 1. With the Tool selected, press the tilde key ("~" - this key is usually placed next to the "1" key on US/Canadian keyboards)



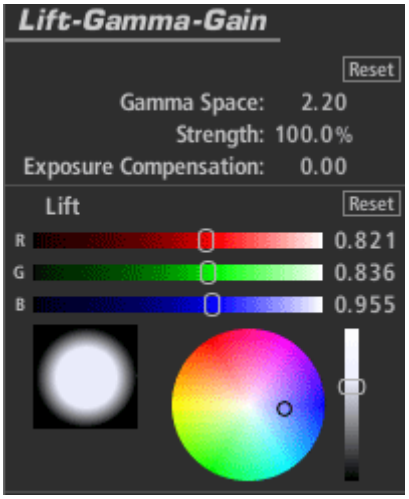
Step 2. Press the down arrow three times to select the Lift controls.



Step 3. Mouse or use a trackpad to push the center dot away from the reds toward blue



Step 4. With the scroll-wheel, scroll down to change the luminance and then press return to exit the mode.



Hands-On Mode Keyboard Shortcuts
The following keyboard controls are used in Hands-On Mode:

tilde ("~") - Enter hands-on mode
Esc or Return - Leave hands-on mode and accept changes
Up arrow - Move to the control above the current one. If at the topmost control, nothing happens.
Down arrow - Move to the control below the current one. If the control is the last in the list, nothing happens.
Left arrow - Move to the previous tool in the chain and select the top or last-used control.
Right arrow - Move to the next tool in the chain and select the top or last-used control.
Command/Ctrl-Z - Undo the last change (this works without leaving hands-on mode).
Command/Ctrl+Shift - Z - Redo the last change (this works with leaving hands-on mode).

MAGIC BULLET LOOKS FOR PINNACLE STUDIO 12

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