digieffects®

Delirium v2 User Manual

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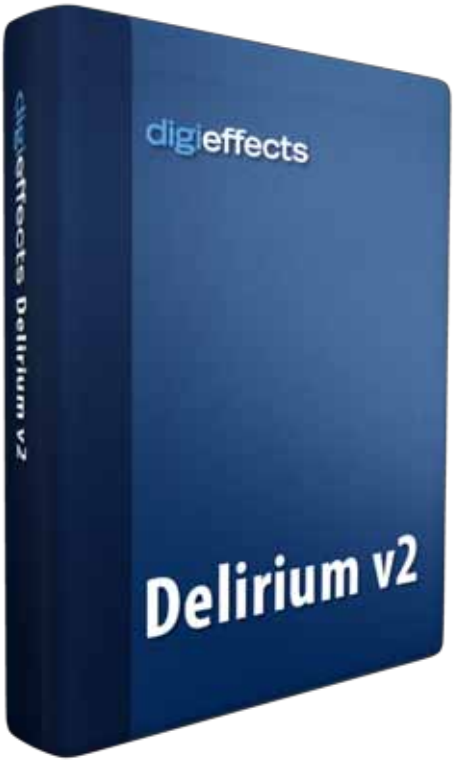
Delirium v2

Welcome to Delirium v2, the amazing package of special effects plugins for: Adobe After Effects, Adobe Premiere Pro, Apple Final Cut Pro, Autodesk Combustion, Boris RED, and Grass Valley Edius. With the Delirium v2 plugin you can create multitudes of animated imagery through the use of a wide range of effects including: natural forces, special effects elements, color & style filters, patterns & distortions, lighting & glow effects and compositing tools.



Many of the effects are set up to get you started with a certain look in mind. For example, Fire will look great as soon as you apply it. It will also AutoAnimate meaning that it will automatically animate and look great without setting keyframes. Many of the particle effects don't need lengthy adjust- ment of parameters to get excellent immediate results.

We will be adding more sample projects to our web site, and from time to time newsletters will be sent out when new presets, projects, and tutorials are available on our website (digieffects.com).

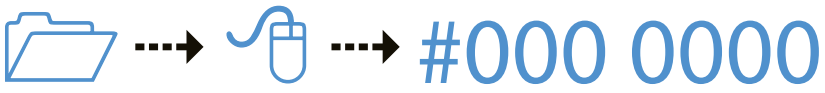
Installation

System Requirements:

Delirium v2 is a plugin for Adobe After Effects, Adobe Premiere Pro, Apple Final Cut Pro, Autodesk Combustion, Boris RED, and Grass Valley Edius. It has been tested with Snow Leopard and Windows 7.

Installing

1. Locate the Install file.
2. Double-click the installation program and follow the instructions.
3. The first time that you run the installer you will be asked to enter the serial.



For more information visit:

http://www.digieffects.com/support/installation_guide

Using the Plug-ins

Particle Systems

Delirium v2 has a number of different effect plug-ins that includes a collection of particle systems which simulate or create specific effects. For example, the Fire plug-in makes a great looking fire effect as soon as it's applied to a layer.

In the past, creating effects like snow with particles that look and move realistically like snow could take hours or days to perfect. With the Delirium Snow plug-in, the solution is simple and virtually immediate. This AutoAnimation idea is at the core of every particle system that simulates a natural force (bubbles, fire, smoke, rain, fireworks, etc). With a basic understanding of how these plug-ins work, great looking effects can be created in record time.

In addition to the natural-force-related particle systems, many other effects within Delirium v2 are particle-based. As an example, Electrical Arcs, Visual Harmonizer, Hyper Harmonizer, Nexus, Sparks, and many others are also particle-based effects. Although some of these effects do not auto-animate, they still function as particle effects and many of the parameters function similarly.

Channel Operations are the methods by which two images are mixed together.

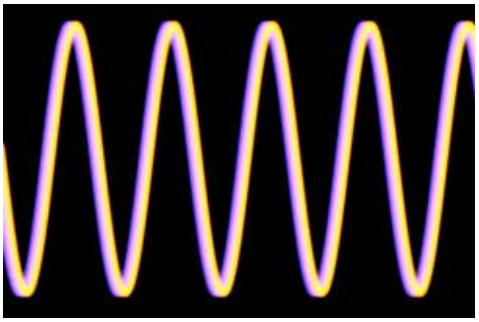
Composite Modes are channel operations that are used to blend the effect with the source layer.

Particle Composite Mode handles how the particles that make up the effect will blend with each other before they are composited with the source layer.

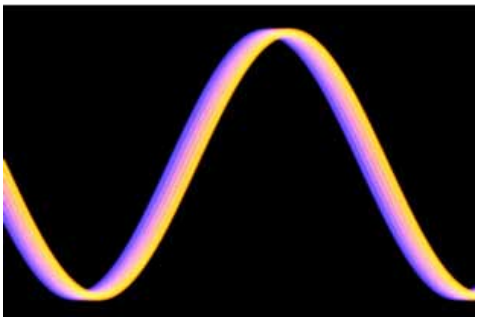
Alpha Threshold/Alpha Weight provide control over the opacity of various particles. These parameters change the luminance of a particle system in terms of opacity or transparency.

Effect Systems

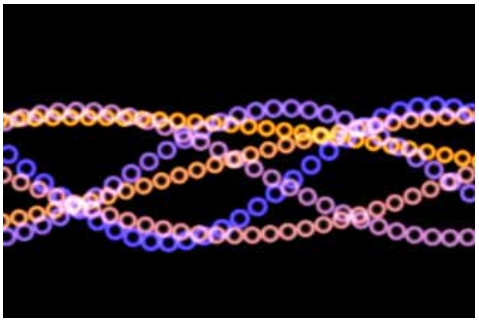
Effect Systems define the motion and overall visual characteristics of an effect. For example, "Electrical Arcs" within the Electrical System has control for the length of an arc, specific number of arcs, color, length and frequency of branches and subdivisions, etc. The Effect Systems, more than any other part of the plug-in, define the characteristics of the effect.



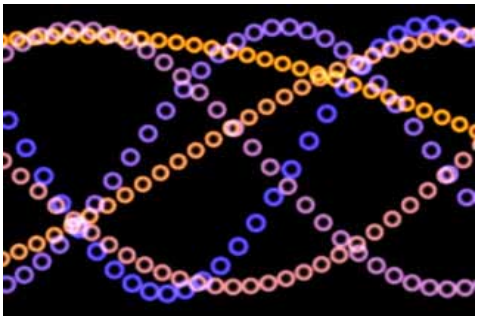
Amplitude set to 40



Amplitude set to 100



Frequency set to 5



Frequency set to 20

AutoAnimation Effects

A key feature in Delirium v2 is the ability to automatically animate an effect without setting keyframes. For example, when the Snowstorm effect is applied to a composition, snow is being automatically generated from the first frame. The "pre-roll frame" setting is set to 20 by default, so in actuality the effect has begun 20 frames before the beginning of the composition's time-line. Individual parameters can still be adjusted as with other effects, however these effects can also be rendered without any adjustment of the parameters .

Parameter Naming Conventions

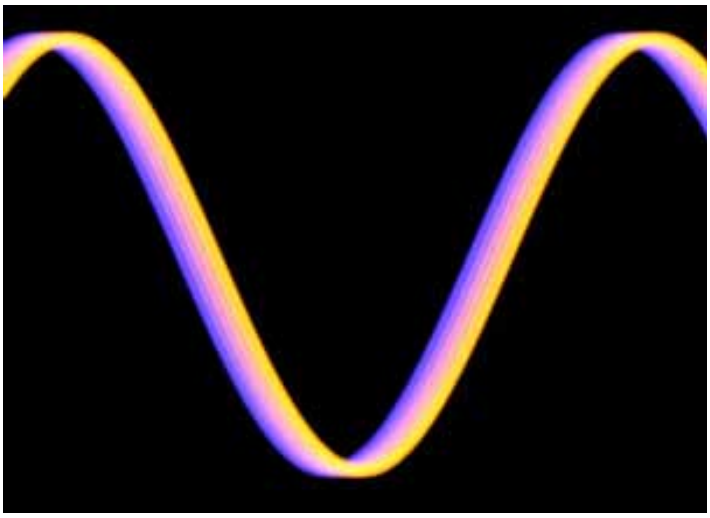
Amplitude refers to the specific wave height of an effect. In effects such as Visual Harmonizer, amplitude refers to the height of the curve.

Frequency is defined as how often an effect occurs. In the case of Visual Harmonizer frequency refers to how often the wave occurs in a given amount of time.

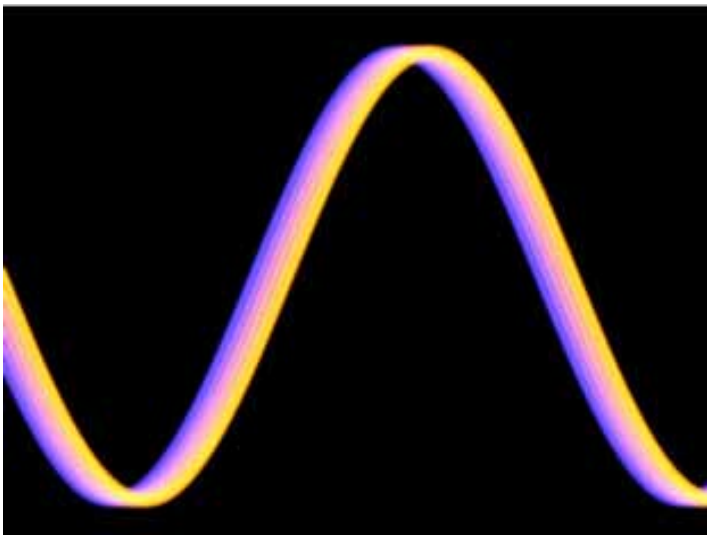
Parameter Naming Conventions (Cont'd)

Phase determines where a specific portion of an effect will occur. In the example to the right, it is apparent that setting different phase parameters allows a different portion of the wavelength to enter the frame.

Some of the plug-ins have both beginning and end values, allowing for a wide array of specific adjustment to the effect. By adjusting these values individually, a very unique and personalized effect can be applied to your composition.



Phase set to 35



Phase set to 0

Using the Plug-ins

Composite Modes

Composite modes control how the colors of an effect interact with the colors of the source layer (image.) There are, at most, two different composite modes that can be used at a time, the first being "Image Composite Mode" which defines how the entire effect will be mixed with the entire source image.

The second composite mode defines how the particles will be mixed with the other particles when the particle system is rendered, as well as how particles will interact with one another if there is an overlap between effects.

Apply Mode

Use Source composites an effect over the layer to which it is applied

Effect Only will hide the layer to which the plug-in is applied and show only the effect. This mode is useful when all you want to see at the time is the behavior of the specific plug-in.

Use Source Mode

Effect in Front places the effect directly in front of the layer to which the plug-in is applied

Effect Behind places the effect behind the layer to which the plug-in is applied.

Use Source Mode

Composite Effect in Front works similarly to "Effect in Front" except that it enables the Composite Mode controls (below). Use this setting when you want to use a composite mode other than Blend to composite the effect with the source layer.

Composite Effect Behind composites the effect with the layer ONLY when Subtract and Difference are selected in the Composite Mode pop-up. Because of the subtractive nature of those two composite modes, the results will be different than the results of "Composite Effect in Front."

Composite Mode

Add combines the color values of the layers. The resulting color is always brighter than the original.

Screen multiplies the inverse brightness values of the colors in the layers. The resulting color is never darker than the original.

Difference subtracts the color values of the effect and source layer and displays the absolute value of the result. Colors can look psychedelic.

Subtract uses the effect to reduce the brightness of the source layer but does not roll over beyond zero like difference, so the extreme colors do not occur. The resulting color is always darker.

Blend performs a simple blend.

Blend Using Alpha uses the alpha of the effect as a weight to blend the effect with the source layer.

Using the Plug-ins

Composite Mode (Cont'd)

Multiply mathematically combines the Source Layer and Effect color values in the layers and divides the result by 255. The resulting color is never brighter than the original.

Lighter compares the channel values of the underlying and layer colors and displays the lighter of the two.

Darker compares the channel values of the underlying and layer colors and displays the darker of the two.

Scales is a special case composite mode to be used on an experimental basis. It causes extreme color distortions.

Overlay multiplies or screens the colors depending on the base color. Patterns or colors overlay the existing pixels while preserving the highlights and shadows of the base color.

Hard Light multiplies or screens the resulting color depending on the original layer color. If the underlying color is lighter than 50% gray, the layer lightens as if it were screened. If the underlying color is darker than 50% gray, the layer darkens as if it were multiplied.

Soft Light darkens or lightens the resulting colors, depending on the layer color. If the underlying color is lighter than 50% gray, the layer lightens. If the underlying color is darker than 50% gray, the layer darkens.

Minimum uses the mathematical minimum of the effect and source images color values to replace the original image. This is a modified version of Lighter.

Maximum uses the mathematical maximum color value to replace the original footage. This is a modified version of Darker.

Bitwise OR, Bitwise AND, Bitwise XOR each do similar but slightly different operations to the color channels. Exactly what they do is hard to explain without using mathematical formulas, and even then, they would not easily translate into a few descriptive adjectives. We suggest that you just try them out and see what they do. Generally, they will give very odd looks that reshuffle the colors through different color bands.

Alpha Threshold

Alpha Threshold defines a transparency or "alpha" for the particles based on the luminance value of the image used to define the particles. By increasing this number, less of the particle will be visible. The opacity of the particle will be clipped starting at the darker colors then transitioning to the lighter colors.

Alpha Weight

Alpha Weight defines the overall opacity of the particles. Larger values will make the particle will appear more opaque. The lower the value, the more transparent the particle will become.

Using the Plug-ins

Random Seed

Random Seed is the seed value (think of it as a start point) for any random values generated within the plug-in. Do not animate this as it will cause the effect to jump or randomly change parameter values every frame and the animation will not look smooth.

Blend Original

Blend Original will blend in the unaffected original source layer with the effect. The higher this number, the more of the original layer will be blended in with the affected footage.

Particle System Generators

Generate From sets the locations the particles of the particle system will be created from.

Bottom/Top of Layer - will generate the effect from either the bottom or top of the layer

Generate Layer Alpha - Threshold is used to generate particles from an image that has an alpha. When this is selected, the particles will be generated in areas that are inside the alpha mask. When the "Generate Threshold" slider (next page) is set to zero, all areas will generate particles. As this number increases, the more transparent areas of the alpha will no longer be able to produce particles.

Generate Layer Luminance - Threshold is used to generate particles from the lighter areas of an image. The "Generate Threshold" slider (below) controls which areas of the image can generate particles. When this slider is set to zero, all area's of an image can generate particles. As the "Generate Threshold" number gets higher, darker areas of the image will no longer generate particles

Integrate Over Time should only be checked if you plan on key-framing any of the controls. If you are not keyframing any of the parameters, leave this box unchecked and rendering time will decrease.

Generate Source defines the layer that will be used to generate particles. It allows for the use of another layers' image or alpha channel to control the generation of particles.

Generate Threshold becomes active when "Generate Layer Alpha > Threshold" or "Generate Layer Luminance > Threshold" is selected in the "Generate From" pop-up menu. When one of these generate methods is selected, this slider controls the threshold level at which particles will be generated. When set to zero, any luminance level or alpha level can generate particles. When set high, only the brightest luminance levels or most-opaque alpha levels will generate particles.

Generate Point (also Bubble Point, Fire Point, etc) becomes enabled when the "Generate From" control is set to "Generate from Point". This control will set the point where the particles are created

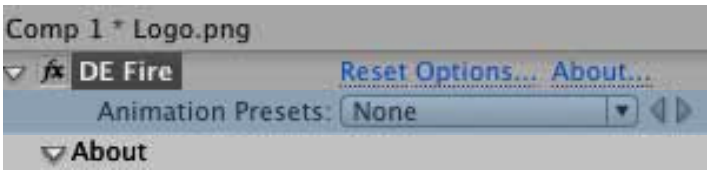
Preroll Frames allows you to start the effect before the first frame of the clip, giving the ability to make the effect begin generating particles before the clip starts on the timeline. The value corresponds to the number of frames before the first frame that the effect will start to generate particles.

Using the Plug-ins

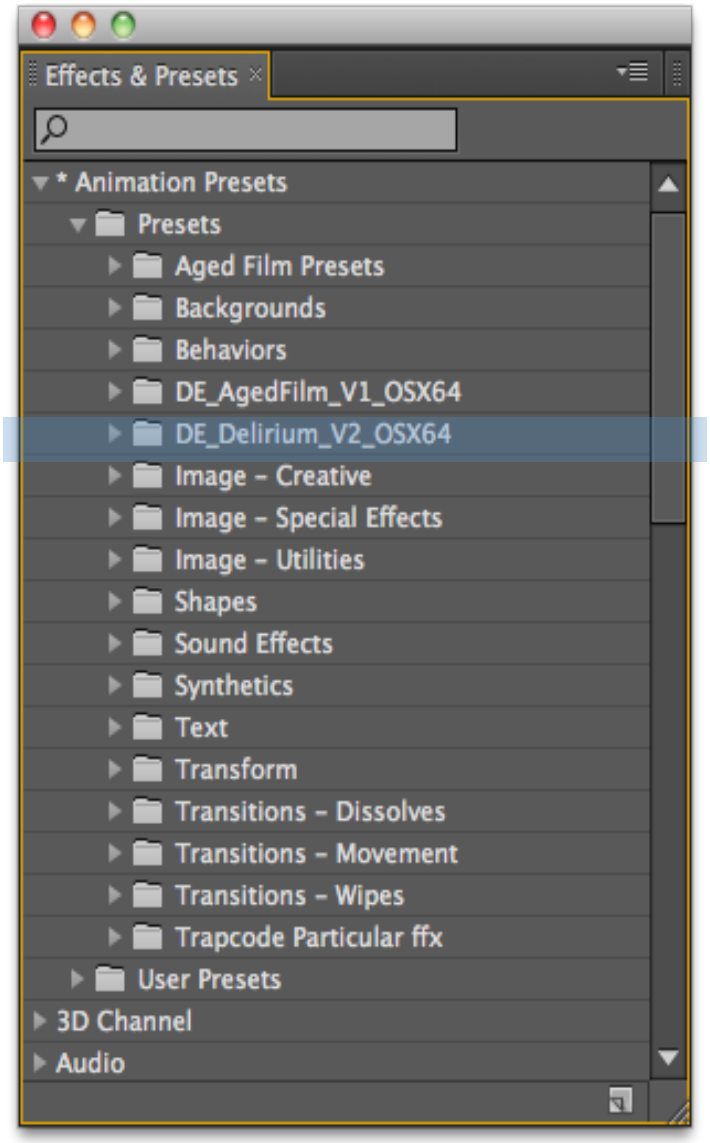
Presets

The Presets user interface provides a way to load and save parameter settings for the Delirium v2 plugins.

Included with the installation of Delirium v2 are over 100 presets designed by Digieffects. In After Effects CS5 the installed presets can be found in the "Effects and Presets" panel under Animation Presets > Presets > DE_Deliriumv2. It is possible to save additional presets by setting the controls of the effect and then selecting Animation > Save Animation Preset. The next time the presets pop-up is selected, that preset will be in the User Presets folder.



Animation Presets in CS4 and below.



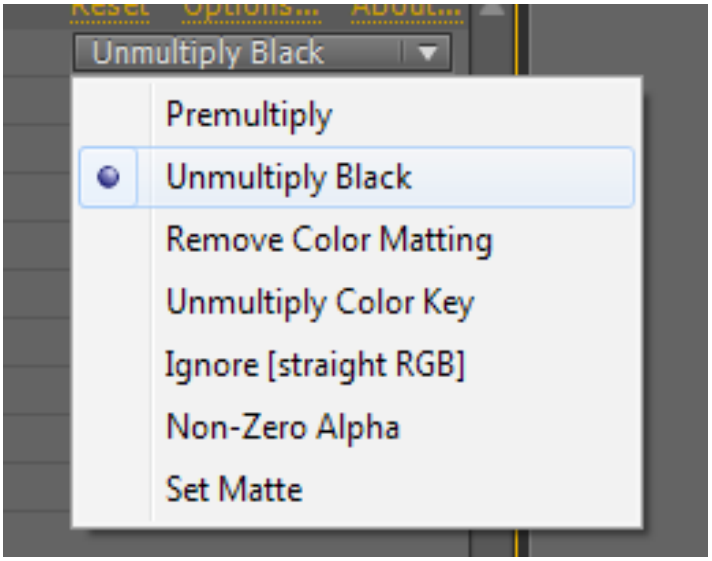
Animation Presets for CS5.

The Effects

Alpha Tool

This plug-in is a special tool for working with alpha channels and gives a wide range of capabilities.

Alpha Modes



Alpha Tool provides 7 different operations, each one with a particular purpose that affects the alpha and color channels differently.

Premultiply - composites the layer over a solid background color, resulting in an opaque layer.

Unmultiply Black - The preexisting alpha channel is replaced by a new one generated from luminance. This is ideal for lens flares, fire, smoke and other effects matted over black.

Remove Color Matting - When an image has been rendered pre-multiplied with alpha, this mode can be used to remove color matting from the RGB channels.

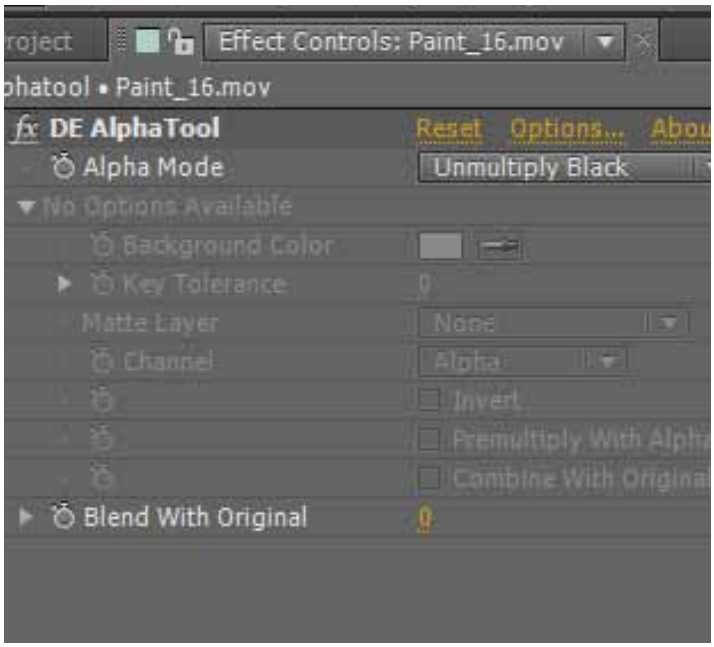
Unmultiply Color Key - Specify what color you want to be the transparent color and that color is extracted from the RGB channels and placed into the alpha channel.

Ignore - The Ignore mode removes the alpha channel of a layer by filling the alpha fully opaque, while leaving the RGB channels unchanged.

Non-Zero Alpha - Prevents Delirium from throwing away color information for pixels with no alpha value.

Set Matte - Allows the alpha channel to be set using another layer source.

Alpha Tool



Options

Each Alpha Mode provides a different set of controls. If there are no controls for the selected mode, then the Options group name will change to 'No Options Available.'

Background Color - Specifies the background color for the effect

Key Tolerance - Used to increase or decrease the effect of the color key. Only available with Un-multiply Color Key

Matte Layer - In Set Matte mode, this control specifies the source layer to pull the new matte from.

Channel - The selected channel is extracted from the Matte Layer and used as the current layer's new alpha.

Invert - This checkbox will invert the selected channel but will not affect color channels or the layer's original alpha.

Premultiply with Alpha - Pre-multiplies the matte layer. This is helpful if the matte layer has transparency that needs to be included with the selected channel.

Combine with Original - The new channel will be multiplied with the layer's current alpha, rather than just replacing it.

Blend with Original - Used to blend the re-sult of the effect with the original input layer. If 'Blend With Original' is set to 100, the effect will not render.

Bubbles

Bubbles will easily create any type of bubble effect, from a fizzy drink to bubbles trailing a shark.

Bubble System

Use the bubble system to control how the individual bubbles will appear including speed, size and amount, as well as the overall motion of the bubbles.

Bubble Type - Harsh edge, droop, textured, sphere high contrast, sphere low contrast, and dark texture are all bubble types.

Bubble Amount - This gives control over the number of bubbles that the effect produces per frame.

Vert Speed - Controls how fast the bubbles will rise. This is an average speed

Bubble Lifetime - Controls how fast the bubbles will rise before popping.

Min Size - Controls the minimum size of any bubble on the layer.

Max Size - Controls the maximum size of any bubbles on the layer.

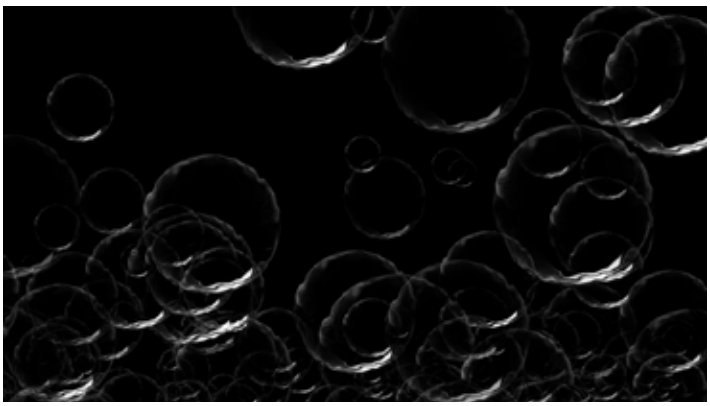
Min Opacity - Controls the minimal amount of opacity of a bubble.

Max Opacity - Controls the maximum amount of opacity of a bubble.

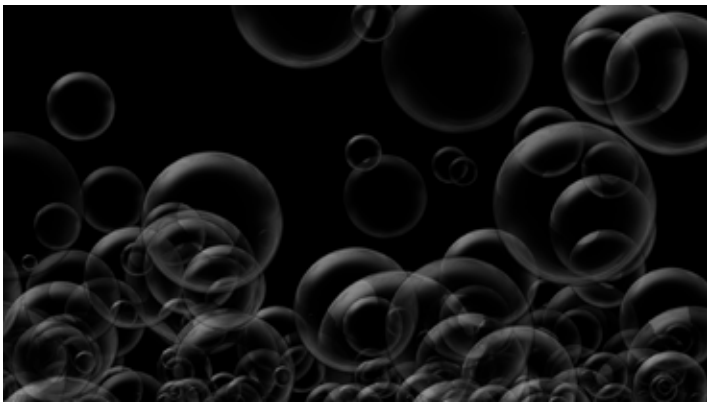
Horiz Dispersion - Controls how much the bubbles will randomly float horizontally

Wind Horizontal - Controls how much the bubbles can be pushed left or right by "wind".

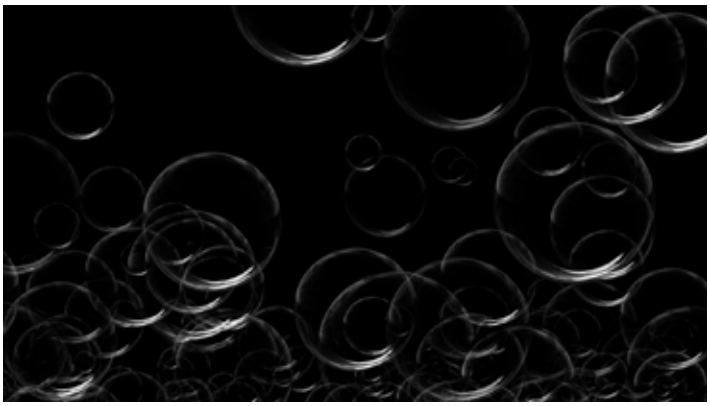
Wind Vert - Controls the vertical speed of the bubbles.



Dark Texture Bubbles



Drooping bubbles

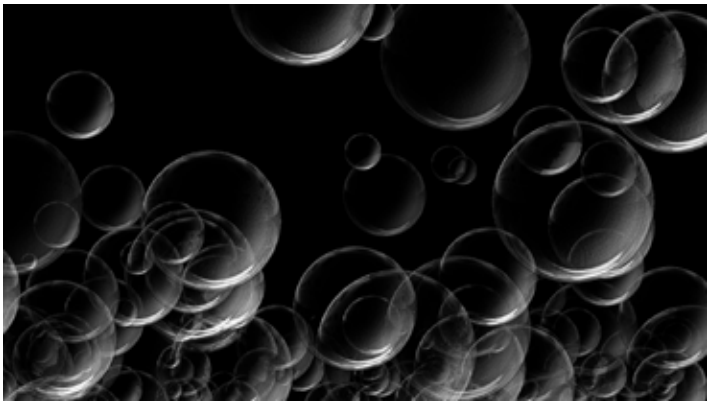


Harsh Edge Bubbles

Bubbles

High Contrast Bubbles

Low Contrast Bubbles



Textured Bubbles

Distortion

Distortion determines how much the bubbles will distort the footage to which the bubbles effect is applied. This distortion is based on the bubbles and so will have the same shape and location as the bubbles.

Distortion H - Determines the amount of horizontal distortion.

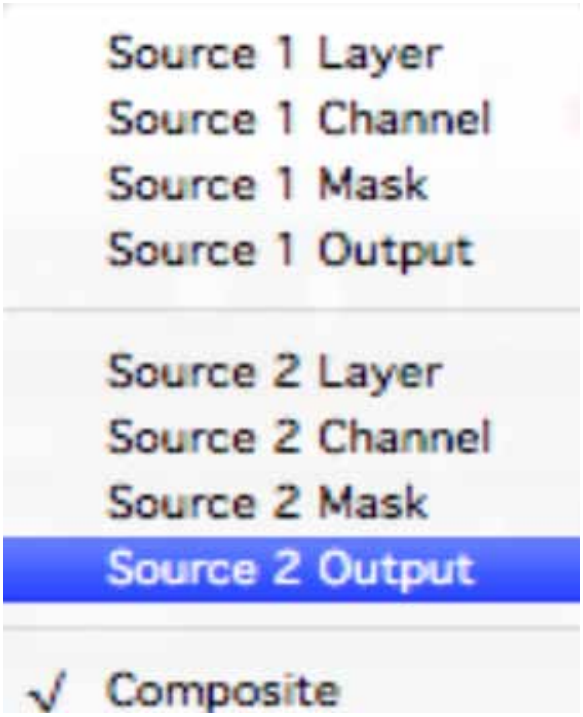
Distortion V - Determines the amount of vertical distortion.

Channel Composite

This plug-in provides the ability to directly composite layer channels with many advanced options such as built-in Levels, Masks, Blur, and Composite Modes.

View Mode

This menu allows you to isolate different aspects of Channel Composite. Each mode modifies the render output and the available controls so that you can easily work with the plug-in to dial in the settings. The following modes are available:



Source 1 Layer – Displays the original input layer for Source 1, as specified by the layer control. If None is selected, then the layer on which the plug-in is applied will be shown.

Source 1 Channel – Allows you to directly see the input channel, making it easy to select the best channel for your needs.

Source 1 Mask – Displays the mask for Source 1. If no path is selected, or it is invalid, a red X will be rendered instead.

Source 1 Output – The final processed input channel, including Mask and Levels, is displayed by this view mode.

Source 2 Layer, Channel, Mask, Output - Works the same as the Source 1 options, but displays the elements specified by the Source 2 controls. These View Modes will only work if the compound channel is enabled.

Composite - renders the final processed output of Channel Composite. It takes into account all of the effects settings and renders the output to the destination channel.

Channel Composite

Channel Composite Controls

Source 1 - The Source 1 group is the basic input into Channel Composite. This provides the basis for building more complex operations.

Layer - Specifies the input layer for Source 1. If None is selected, then the layer on which the effect is applied will be used. When choosing a layer, set View Mode to Source 1 Layer in order to see it directly.

Channel - The selected channel will be extracted from the layer. Because Channel Composite only works with single channels, there is no option to work with full RGB.

Invert - the selected channel will be inverted. Invert is calculated before Pre-multiply With Alpha.

Pre-multiply with Alpha - Renders the channel pre-multiplied with its alpha channel. This option is generally used for layers that have transparency.

Blur - Provides blurring for the Source 1 channel.

Blur Quality - Determines the type of blur used.

Uniform Blur - Controls whether the blur is applied equally in the horizontal and vertical directions.

Blur After Levels - Allows you to choose the rendering order to have maximum flexibility in using the blurring and levels features.

Levels - Used to modify the grayscale values of the channel.

Input Black - As the value increases, the channel becomes darker.

Input White - As the value increases, the channel becomes lighter.

Channel Composite

Composite Controls (Cont'd)

Gamma – The grayscale levels between white and black can be biased towards either end of the spectrum using Gamma.

Output Black – Limits the maximum darkness of the channel.

Output White – Limits the maximum brightness of the channel

Mask – The Mask group is only active when a valid Path is chosen and the Enable checkbox is on. Paths must be closed.

Path - To specify a mask, select the desired path from this menu.

Use All Paths - Open paths will be ignored, while all closed paths are combined together as though they are one.

Feather - controls the size of the feathering in pixels.

Uniform Feather - Mask feathering will be equal in the horizontal and vertical directions.

Invert - This whether the mask region is included or excluded.

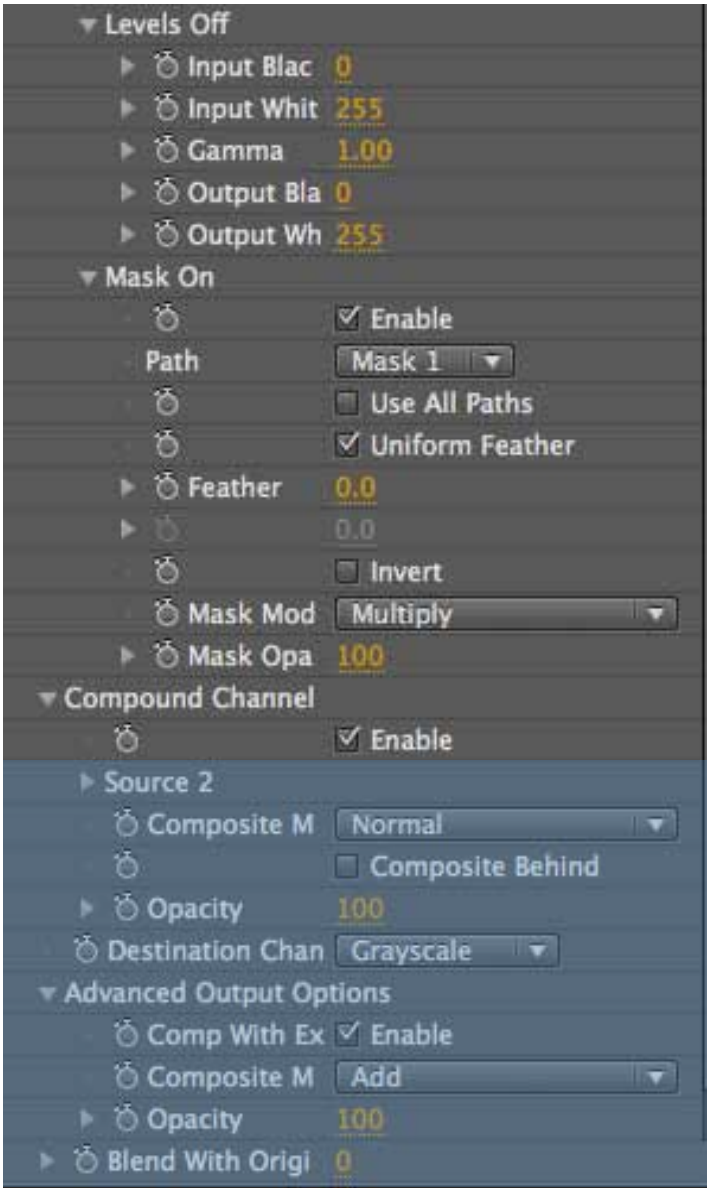
Mask Mode - Controls how the mask interacts with the channel. The default mode is multiply.

Mask Opacity - Controls how much the mask affects the channel.

Compound Channel - Used to combine a second channel with the first in order to build more complex operations.

Enable - Whether the compound channel controls (next page) are available depends on whether or not this box is checked.

Channel Composite



Compound Channel Options

Source 2 - The Source 2 group provides the second input source for Channel Composite.
Composite Mode - Controls how Source 1 and Source 2 channels are combined.

Composite Behind - Reverses the composite order of Source 1 and Source 2.

Opacity - Controls the amount to which Source 2 is composited with Source 1.

Destination Channel - The result of Channel Composite is output to the channel specified by this control.

Advanced Output Options

Composite With Existing - This will allow you to composite the output of Channel Composite with the destination channel. If this checkbox is off, then Channel Composite will simply replace the destination channel.

Composite Mode - Sets the mode to use in combining the new channel created by Channel Composite with the Destination Channel.

Opacity - Controls how much the output is composited over the destination channel.

Blend With Original - Blends the result of the effect with the original input layer.

Channel Lighting

Channel Lighting is an alternative approach to 3D lighting and offers compositors the ability to control 3D lighting within Delirium.

Creating the Diffuse Pass

The first render pass required by Channel Lighting is a fully ambient color pass. Typically, you can set this up in 3D by turning off all your scene lights, and setting ambient light to 100%. In some programs, the ambient may be built into global controls and in others you may need to create a new light object. The end result should be full illumination everywhere with no shadows or unlit areas.

Creating the Lighting Pass

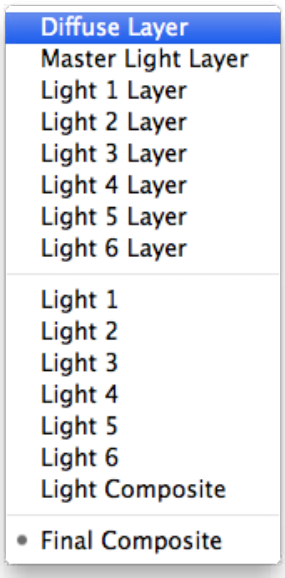
The lighting must be isolated from the scene colors by giving all of the objects in the scene a matte white color with no textures. For the best lighting results, be sure to leave on bump and displacement texture maps as they affect how the light interacts with surfaces.

In order for Channel Lighting to be most effective, you also want to separate lighting into groups that can be treated as individual lights. For example, if you were creating an outdoor scene you may have separate keys for sunlight, reflected light from the ground, and general light from the sky. The following tips will help you create good lighting passes quickly:

Light Range - Make sure there are no blown-out hot spots, large voids, or completely black areas.

Shadow Quality - The shadow softness can be tweaked in Channel Lighting using Gamma and Intensity, but it will affect surface shading as well.

Light Direction - Direction cannot be changed in Channel Lighting, so make sure that lighting directions are set accurately.



View Mode

Diffuse Layer - The layer to which the light is applied.

Master Light Layer - Defines the source channels for the lights.

Light 1 Layer (1-6) - Each light layer view mode displays the source layer for that light

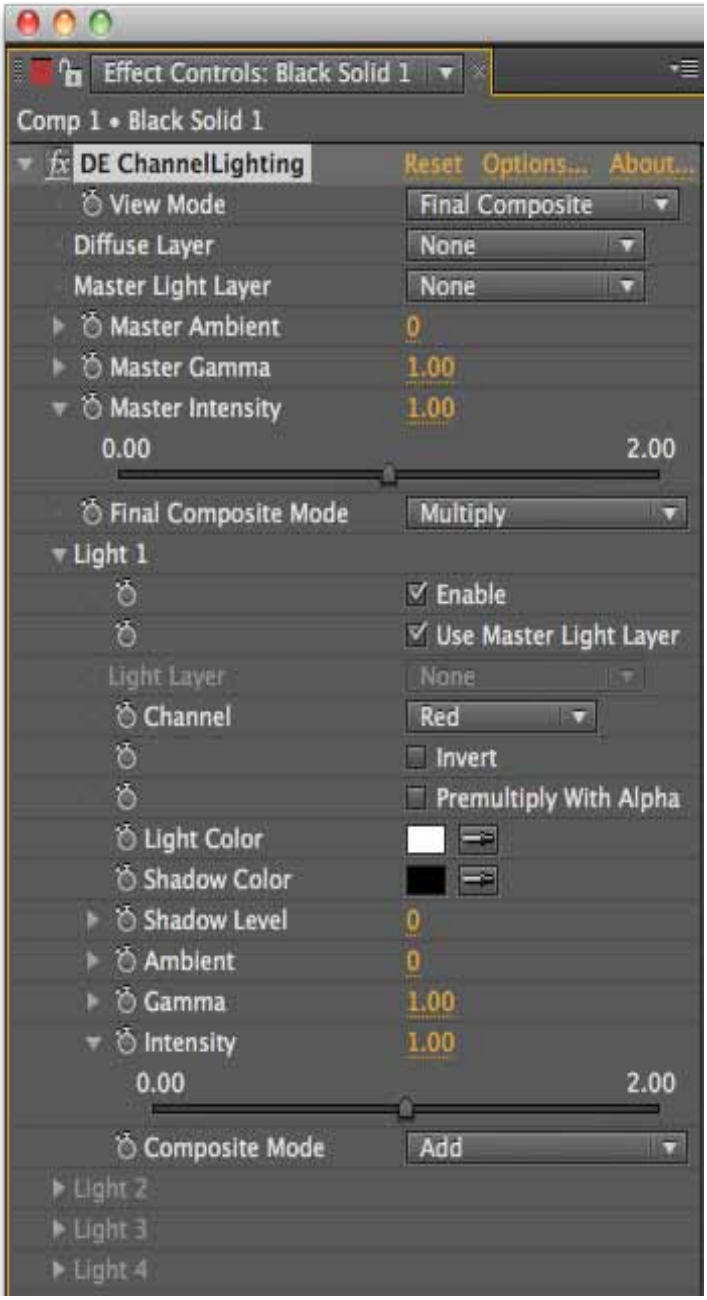
Light 1 (1-6) - Use these view modes to see what each light is doing individually.

Light Composite - This is where you can best see how lights are interacting with each other and fine tune the settings before the final composite.

Final Composite - renders the complete Channel Lighting process and composites the light over the diffuse layer.

Channel Lighting

Channel Lighting Controls



Master Ambient - This specifies the overall ambient amount for all lights.

Master Gamma - Each light's gamma value is factored into the master gamma.

Master Intensity - The master intensity is multiplied with each light's Intensity and affects overall brightness of light.

Final Composite Mode - Controls how lighting is applied to the diffuse layer; not related to the composite mode of individual light groups.

Light Group - Channel Lighting supports up to 6 independent lighting groups.

Enable - Determines if a light group is used.

Use Master Light Layer - Turned on by default; determines whether the master layer is used.

Light Layer - Specifies an alternate light source.

Channel - Uses single greyscale channels as lighting passes.

Invert - Inverts normal channel values.

Premultiply With Alpha - Premultiplies the channel value with the light layer's alpha channel.

Light Color - Light color is pre-computed into the light group and is subjected to Intensity and Gamma values.

Shadow Color - Specifies the darkest color of the light.

Shadow Level - controls the black point of the light.

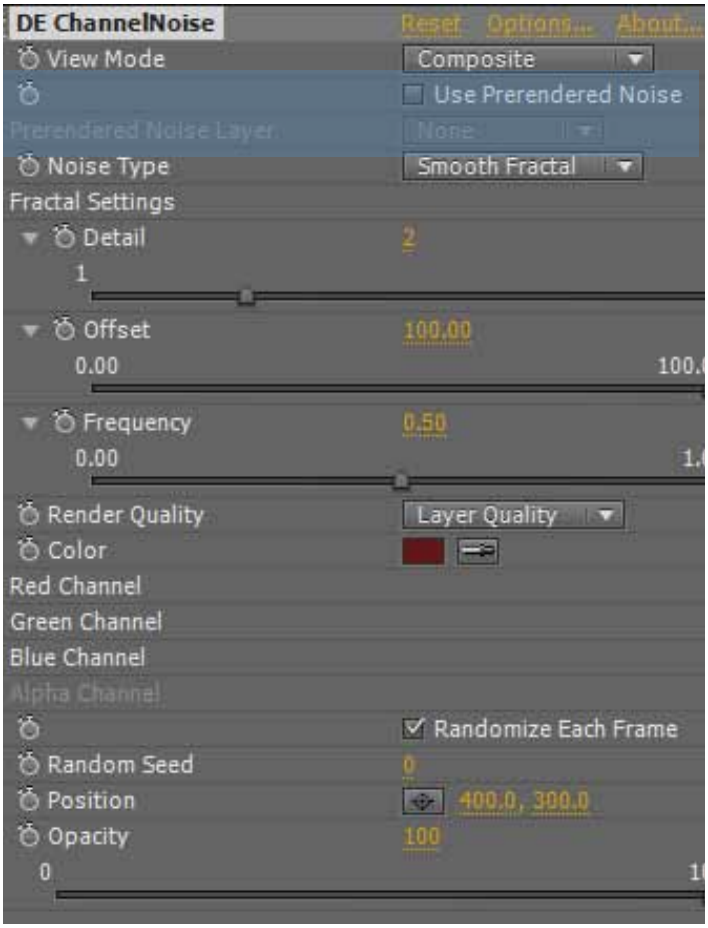
Ambient - Increases overall lighting.

Gamma - Biases channel midrange levels toward black or white.

Intensity - multiplies the light value and will increase or decrease the power of the light.

Channel Noise

Channel Noise applies random noise to layers with individual controls for the red, green, blue and alpha channels.



Matching Film Grain

Often film footage has noticeable grain that varies in size and intensity, while CG elements have no grain. It is very important to match the texture of the film with the CG elements in order to have a convincing composite. To begin matching the grain, you need sample source footage and the layer to which you would like to apply the grain. Start by placing the CG layer so you can see the source footage at the same time, then apply Channel Noise to the CG layer and begin to work channel by channel to match the grain.

Prerendering Channel Noise

To help save time it is a common practice to prerender noise, which can be easily accomplished using the pre-render option checkbox. After the noise is rendered separately, the plug-in can then quickly composite the noise onto your layer, giving individual opacity and composite mode controls for each channel.

Channel Noise

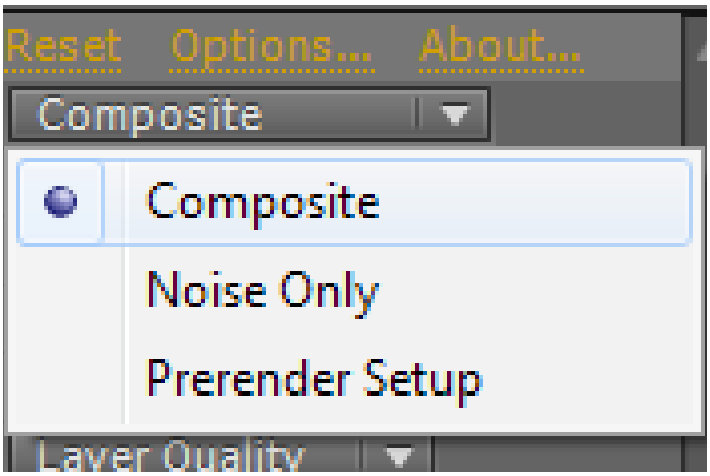
View Mode

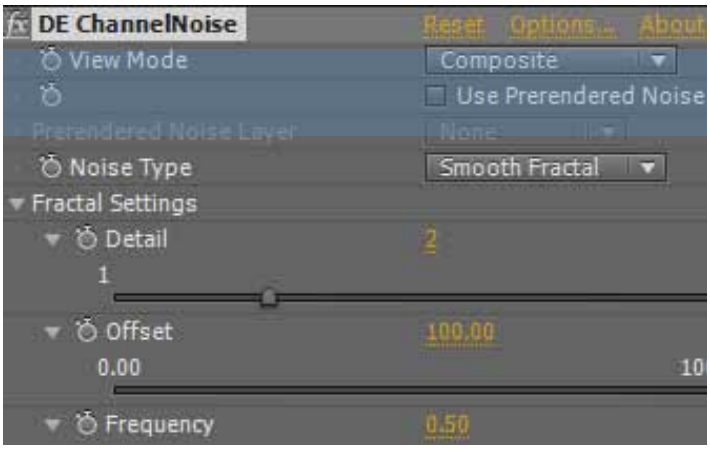
Composite - Renders the noise applied to the source layer using the composite mode specified by each channel.

Noise Only - Ignores the input layer and renders the noise over black. This is useful when you want to see the detail of the noise separately from the image, or when you just want to create a noise texture.

Prerender Setup- Prerendering noise is an easy way to cut down on a rendering time, while maintaining some flexibility. It is important to turn off all other layers so the comp is only rendering the noise. When the rendering is done, import the noise render into the project. You can then enable Use Prerendered Noise and select the rendered noise layer.

Tip: You can save more time by rendering a short sequence of noise (like 30 frames) and looping it. You can set footage looping in the Interpret Footage options from the File menu.





Noise Type

Generally, Point noise is the best choice for producing great looking grain at smaller scales. The other options are available for special cases and creating interesting effects.

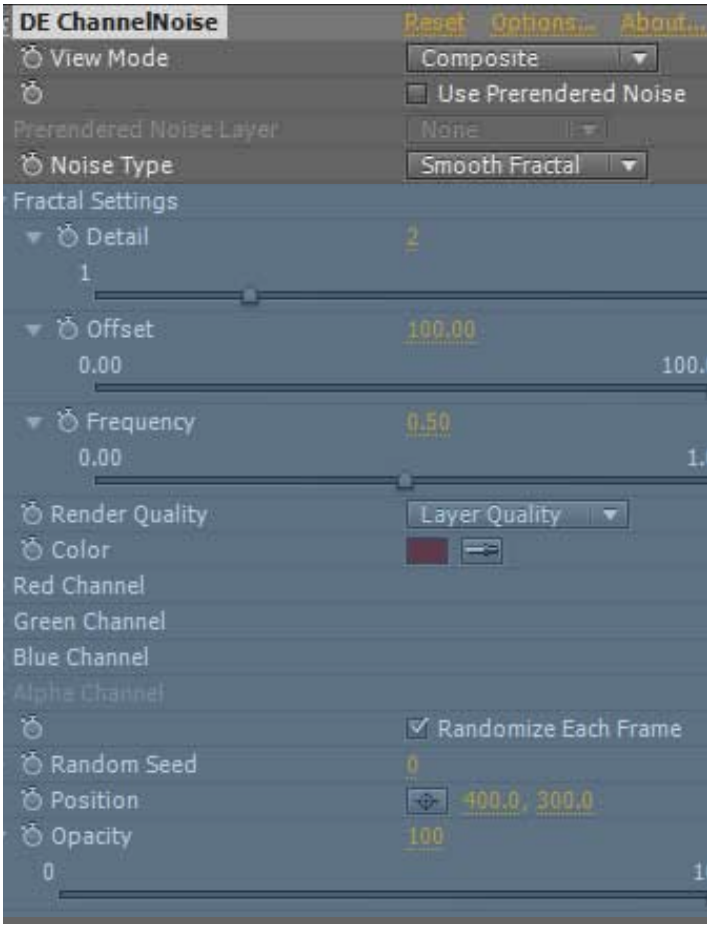
Point - This type produces noise that is rectangular in shape. For smaller noise, this is the most optimal choice for rendering speed and quality.

Smooth - Produces a smoother noise field with no noticeable edges.

Point Fractal - Samples the noise to produce varying levels of complexity.

Smooth Fractal - Samples smooth noise to produce a complex, soft fractal noise.

Channel Noise



Fractal Settings

Detail- specifies the number of iterations the noise is sampled at. Smaller values result in faster render times, but coarser grain.

Offset - determines the positional difference between each fractal iteration. The larger the value, the more random the effect.

Frequency- This feature is helpful for controlling whether noise tends to get larger or smaller with increasing detail.

Layer Quality - In this mode, Channel Noise will match the quality at which the layer is rendered.

Draft Quality - Forces Channel Noise to render faster by foregoing sub-pixel sampling.

Best Quality - Channel Noise will always use sub-pixel sampling to produce the smoothest, cleanest noise.

Color - Relates directly to the amount of noise in each channel.

Channel Group - Each channel of noise is only rendered when the opacity is greater than 0.

Opacity - Simply fades the noise off and on, from 0 to 100%. Opacity is directly linked to color control.

Density - The default value of 1.0 results in perfectly uniform noise. As density decreases towards zero, the noise grains will become more and more sparse. As density approaches 2.0, noise increases steadily until solid.

Size - Controls individual grain size by channel

Uniform Size - Controls overall grain size for the entire channel group.

Uniform Size - the value affects both horizontal and vertical values equally.

Channel Noise

Fractal Settings (Cont'd)

Blur - can be used on each noise channel to soften the grain, measured in pixels.

Uniform Blur - both horizontal and vertical blur will be affected uniformly.

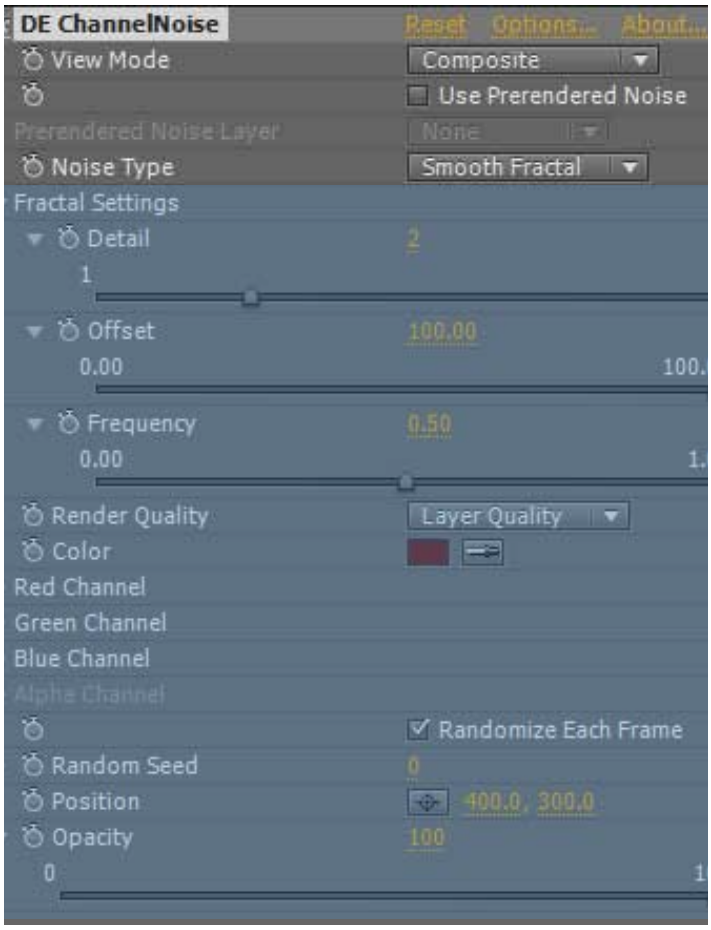
Composite Mode- How the noise interacts with the source footage is determined by the composite mode set for each channel. This flexibility is invaluable for accurately matching film grains and controlling how the noise affects the source, whether brightening, darkening, or both.

Randomize Each Frame - Causes Channel Noise to render a unique noise pattern for each frame rendered.

Random Seed - Adds further control over how random each frame is.

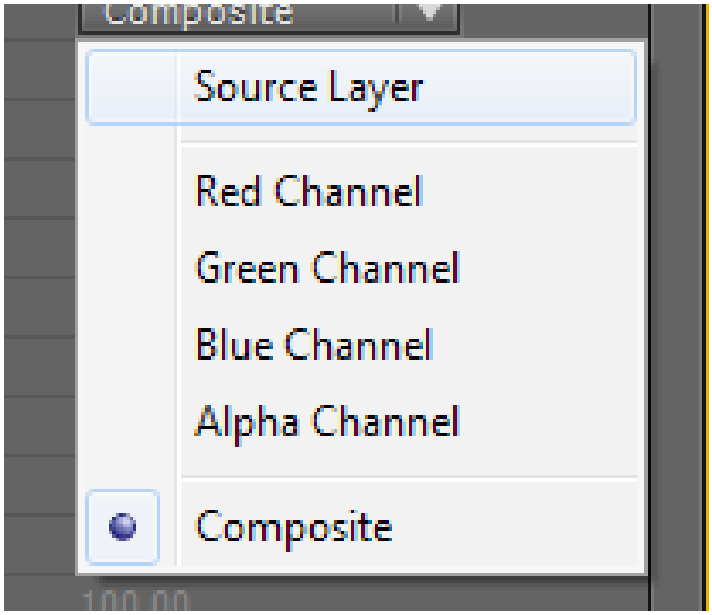
Position - Defines the center of the noise in regard to how the noise scales

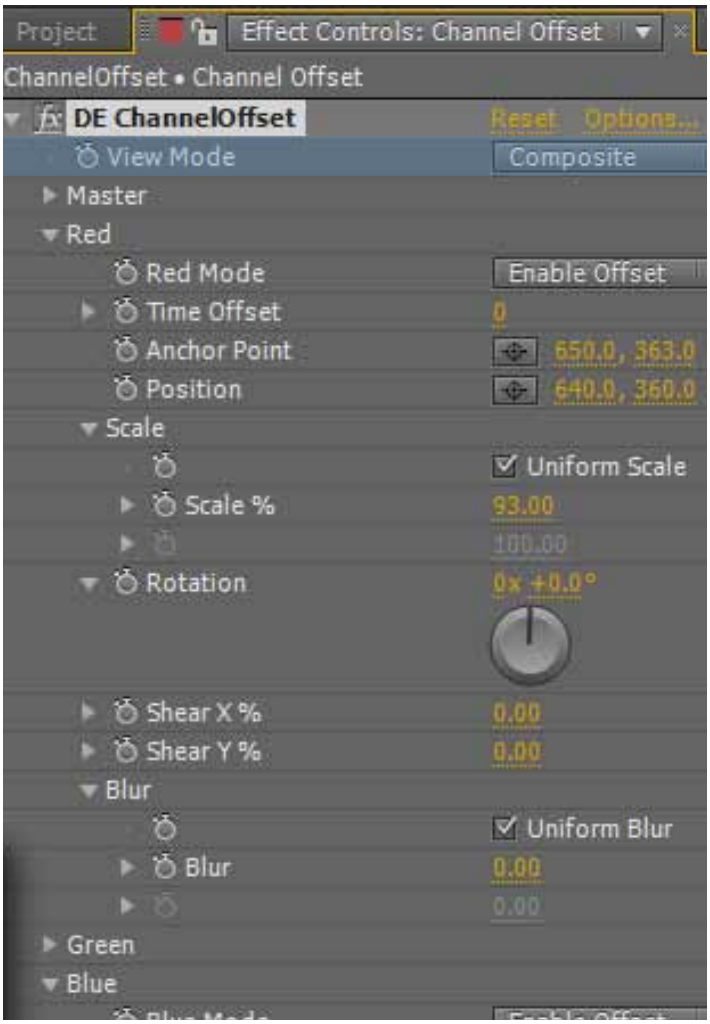
Opacity - This value is multiplied with the opacity value of each channel group and acts as a master opacity control. At a value of 0, Channel Noise will effectively render no noise and simply pass through the source layer. If the View Mode is set to noise only, this slider becomes inactive.



Channel Offset

Channel Offset is used for creating interesting designs and effects by transforming the red, green, blue and alpha channels of a layer separately.





Channel Offset is used for creating interesting designs and effects by transforming the red, green, blue and alpha channels of a layer separately. Channel Offset can easily be used to simulate print misalignments and even chromatic aberration.

View Mode

The View Mode is used to isolate and work with different aspects of Channel Offset. You can use it to view each channel individually while dialing in the controls.

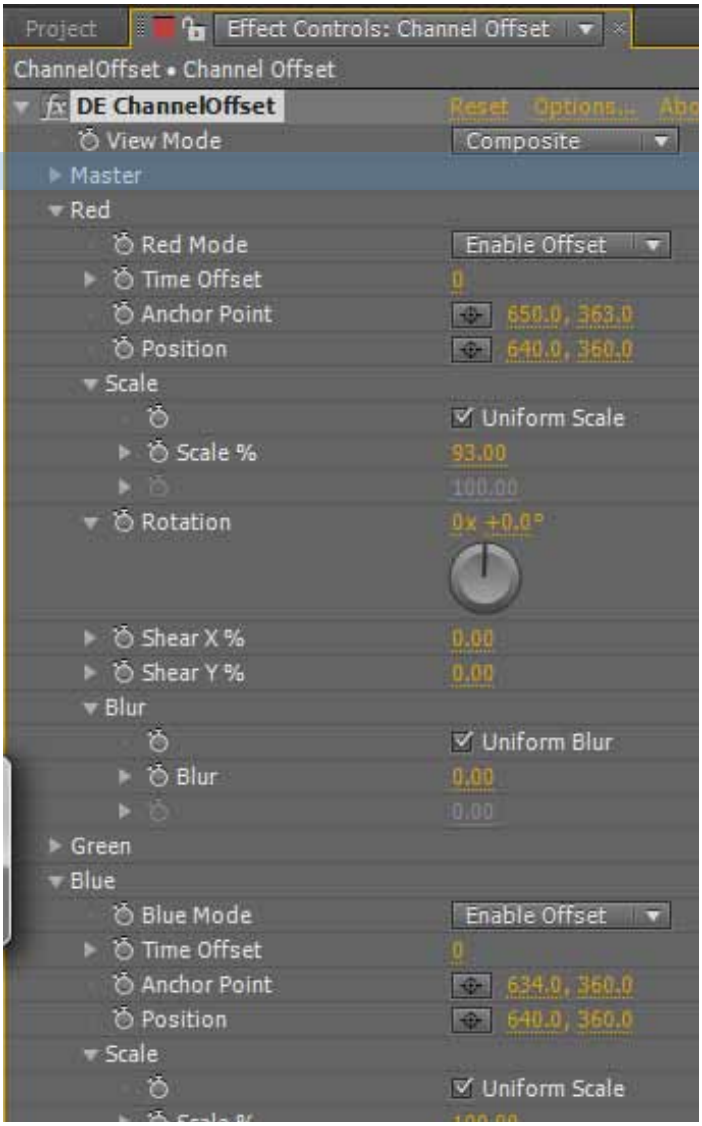
Source Layer- This displays the unaltered input layer of Channel Offset. The input layer is the layer on which the effect is applied. This View Mode actually just passes the input layer through the effect and is practically the same as turning the effect off. This mode is useful when placing the Anchor Point, since the layer remains fixed in the same position.

Red, Green, Blue, Alpha Channel - Each of these options will display the selected channel. This temporarily disables the other channel controls to help you see more clearly what you are doing and speed up rendering.

Composite - Choose this view mode to see the final result of Channel Offset. All the controls will be enabled in this mode.

Channel Offset

Offset Controls



Master- Affect all channels, making it possible to move all of the channels in unison without disrupting relative offsets.

Time Offset - shifts the current time forward or backward, measured in whole frames.

Anchor Point- Determines the center point of a layer, by which all movement is oriented.

Position - Controls the position of a layer, relative to the anchor point.

Scale - provides uniform and nonuniform scaling of the layer, measured in percentage.

Uniform Scale - effects both horizontal and vertical scale uniformly

Rotation - Rotates the layer relative to the anchor point.

Shear X and Shear Y - Will cause the layer to stretch along either the horizontal or vertical axis, measured in percentage.

Blur - Can be applied individually and through master controls.

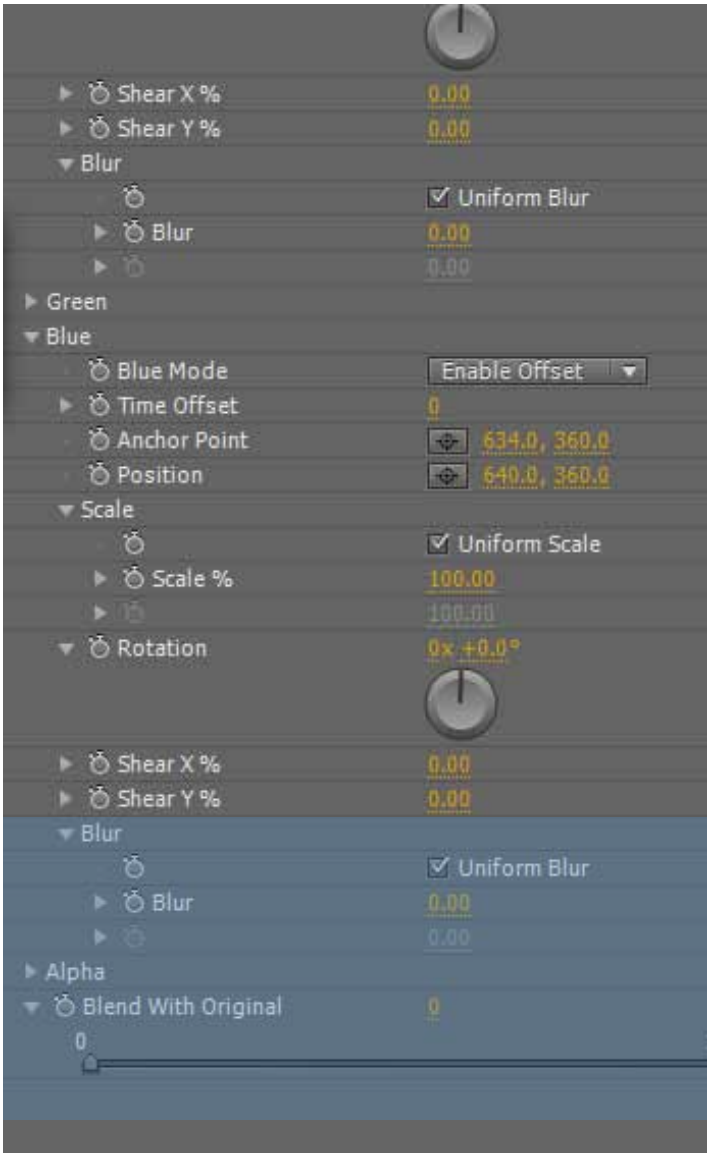
Uniform Blur - Controls whether blur is applied uniformly across both the X and Y axis.

Convergence - Scales all individual channel transformations towards the master settings. This is very helpful to transition in and out of Channel Offset.

Edge Behavior - controls how areas outside the layer are handled.

> **None -** Areas outside of the layer area will be rendered black transparent.
>
> **Wrap -** will infinitely repeat the layer in all directions.
>
> **Hold -** extends the pixels on the edge of the layer out to infinity, most often creating a solid or streaking effect.
>
> **Mirror -** repeats the image infinitely in all directions, but flips the image with each repeat.

Channel Offset



Offset Controls (Cont'd)

Blur Quality - allows you to decide what type of blur is used.

Motion Blur Samples - this value determines how many samples are used in the blur.

Channel Mode

Enable Offset - enables transformation of the channel.

Pass Through - renders the channel value, but will not modify it in any way.

Off - effectively turns the channel off and will render it solid black.

Alpha Mode - There are special modes for the alpha channel since it is inherently treated differently than the RGB channels.

Enable Offset - Enables transformation of the channel.

Pass Through - Renders the original alpha channel unmodified.

Distribute - Splits the alpha proportionally among the RGB channels, producing a very natural looking separation.

Premultiply - Premultiplies the channels with the alpha value of the layer. If you do not need the result of Channel Offset to be transparent, the premultiply mode is most likely the best choice.

Each Channel - The alpha will be duplicated for each channel. When the channels converge, the alpha will be brighter than the original.

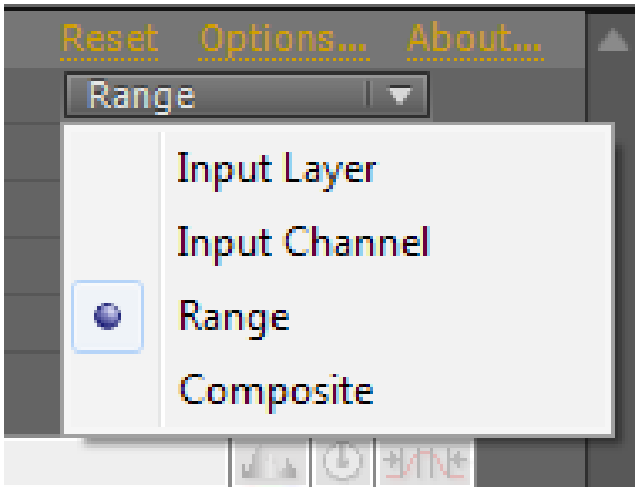
Off - Turning the Alpha Mode off will simply render out solid white for the alpha.

Blend With Original - blend the result of the effect with the original input layer.

Channel Range

This plug-in is a powerful tool for generating and manipulating mattes and transitions by easily allowing you to isolate specific grayscale ranges of channels.

View Modes



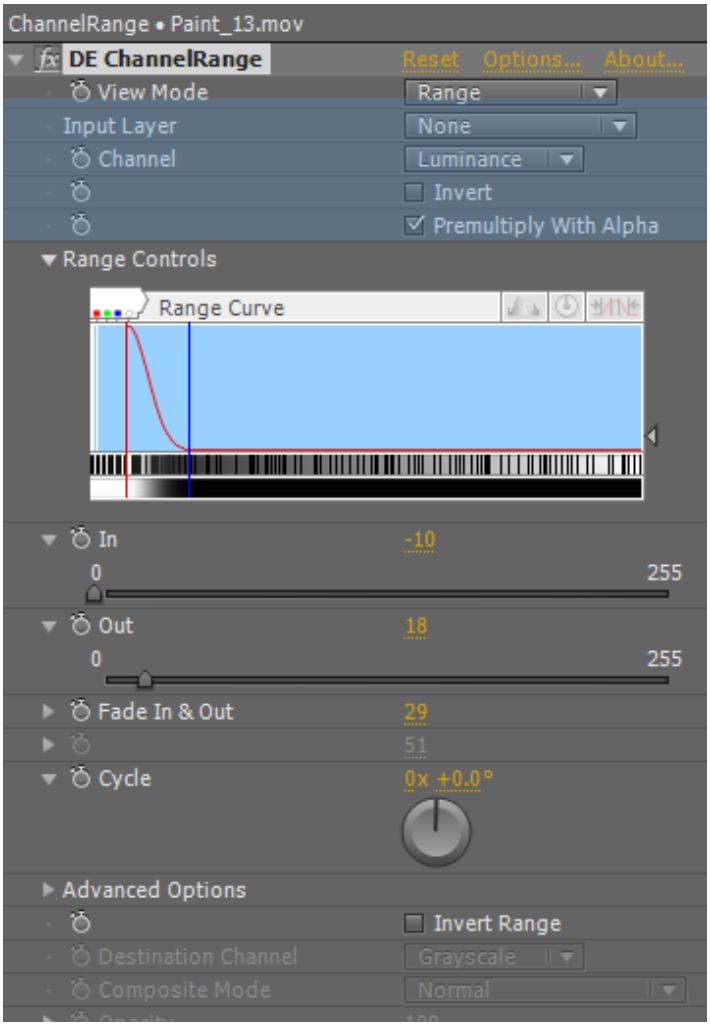
Input Layer - Displays the input layer to the effect, specified by the Input Layer popup menu. With this view mode, no rendering takes place and the input layer is simply passed through the effect.

Input Channel- After choosing an input layer, use this mode to view the input channel.

Range - Renders out the selected channel range in grayscale.

Composite - Allows you to composite the range over the source layer. This makes it possible to apply Channel Range directly into the alpha channel, or use the range to modify the source in another way.

Channel Range Controls



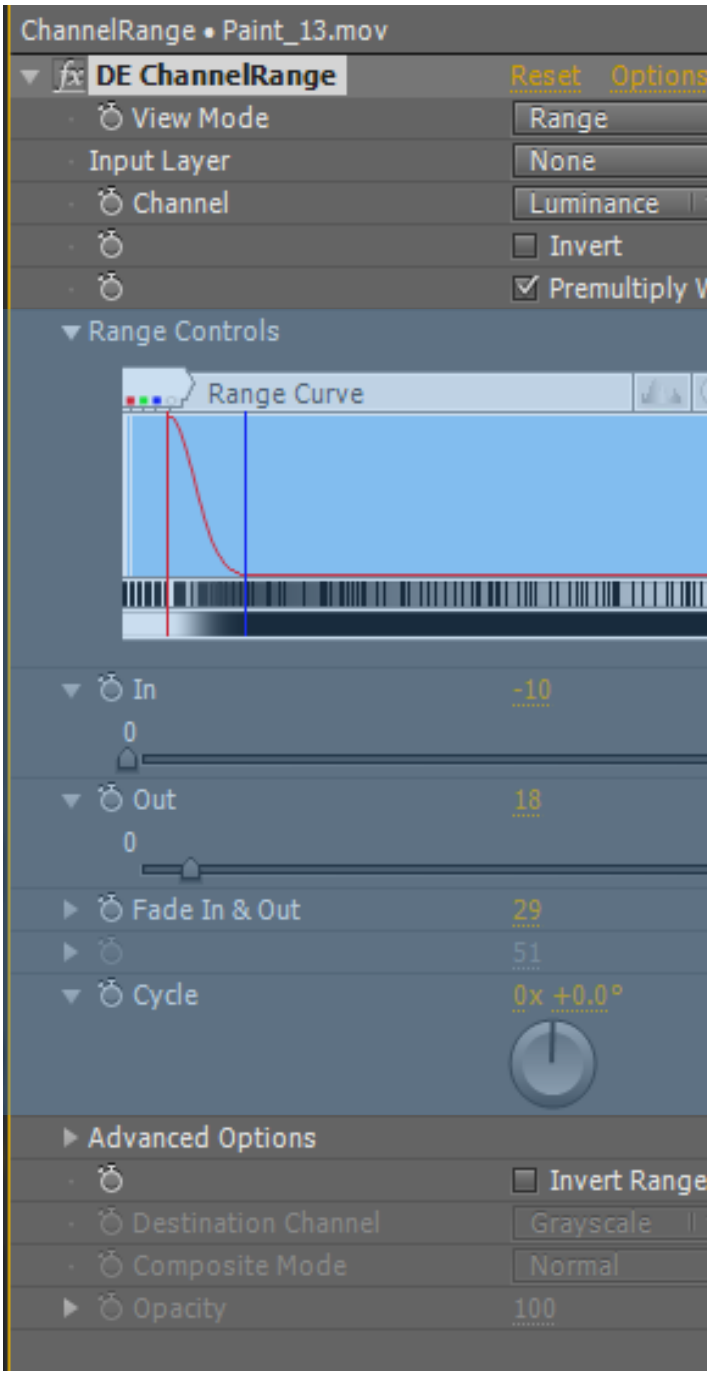
Input Layer - Specifies the layer from which the channel range derives the range.

Channel - You can choose from a long list of channels on which to base the range.

Invert - The selected channel will be inverted. This is processed before Premultiply With Alpha.

Premultiply With Alpha - Incorporates the input layer's alpha channel with the selected channel.

Channel Range



Range Controls

Control Bar - The Control Bar is at the top of the interface. The gray text in the upper left corner of the interface tells you the names of each control.

Display Histogram Gradient - The first button on the control bar toggles between displaying the histogram in black or as a gradient.

Reset Cycle - The middle button on the control bar will reset the cycle value to 0, centering the curve in the range view.

Reset to Default Positions - The button furthest to the right resets all of the range controls to default.

Histogram - shows the distribution of grayscale values within the input channel. This allows you to see where channel data starts and ends, and in what areas the channel is most dense.

Histogram Scale - Use this slider to zoom in and see smaller histogram details.

Range Curve - Plotted in red over the histogram, this depicts what range of the channel is being selected.

In - Represented as a green line; specifies at what point the range curve becomes 100%. The In point can never be greater than Out.

Out - Represented as a red line, this is the beginning of the end of the range curve.

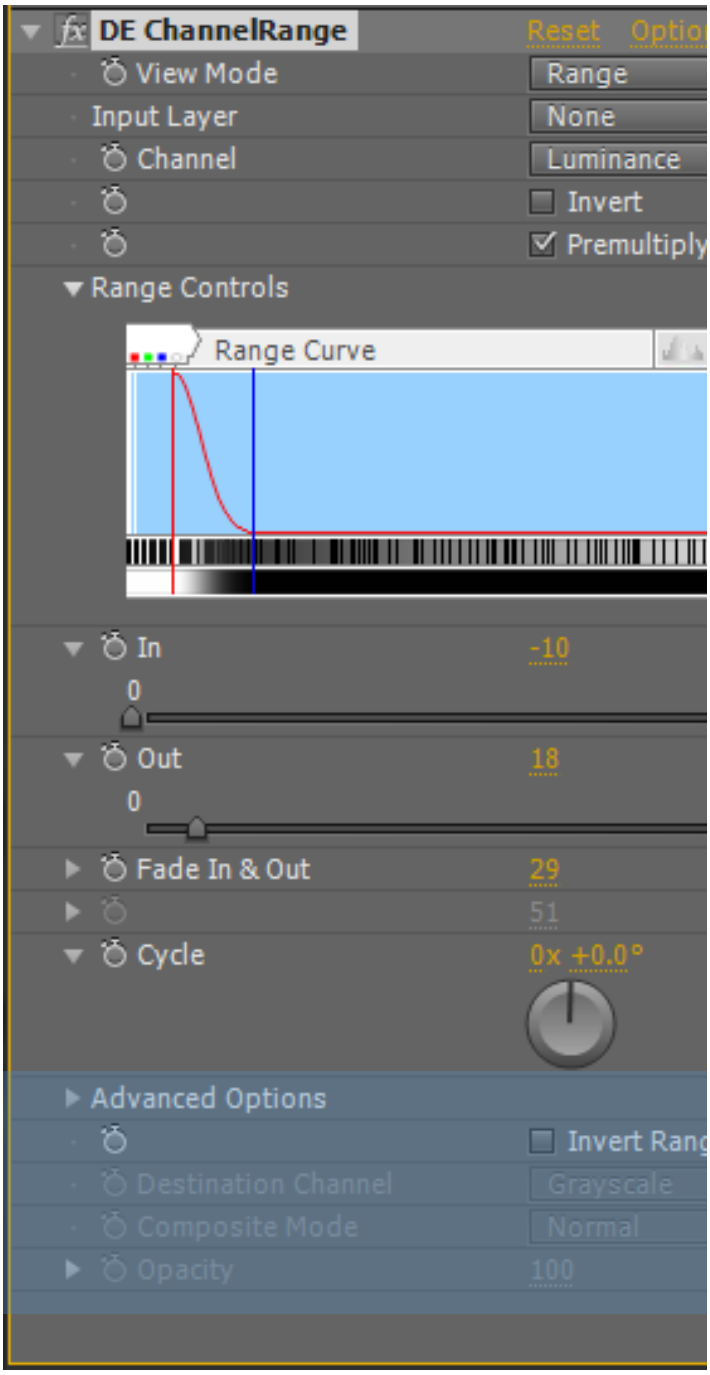
Fade In - Represented as a blue line, Fade In specifies the starting point of the curve.

Fade Out - By default the Fade Out control is mirrored to the Fade In control. Uniform fade can be turned off in the advanced settings to get an independent Fade Out control, represented as a purple line.

Cycle - offsets the entire range curve without modifying the values of the In or Out points.

Channel Range

Advanced Options



Normalize Output Gradient - When enabled, the resulting output gradient will always be normalized to a full spectrum of black and white values. Otherwise, the output gradient will be based on the existing grayscale values of the input channel.

Uniform Fade- When enabled, the Fade In and Fade Out values will be merged into a single Fade In & Out control.

Curve Type - There are two types of curves available: Natural and Linear. Natural curve type is the default and will produce a smooth curve based on Gaussian distribution. Linear causes the range curve to interpolate in straight lines.

Bias - Allows for further manipulation of the curve, making it either more concave or more convex.

Repeat - Can repeat the range curve left, right, or left & right of the initial curve.

Repeat Spacing - Sets the distance between repetitions.

Invert Range - inverts the values of a specific range.

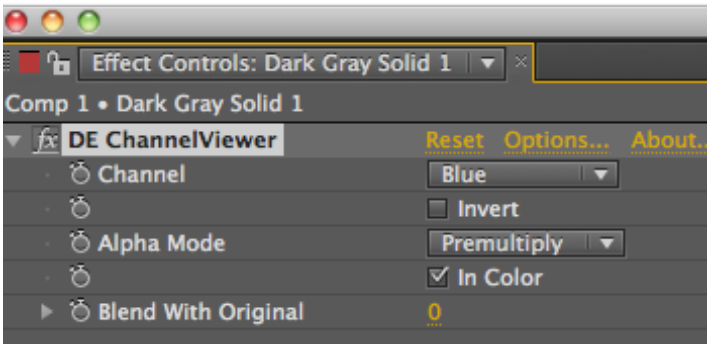
Destination Channel - Specifies a channel to which to composite the effect result. The default choice, RGB, will composite the channel range to the color channels of the source layer.

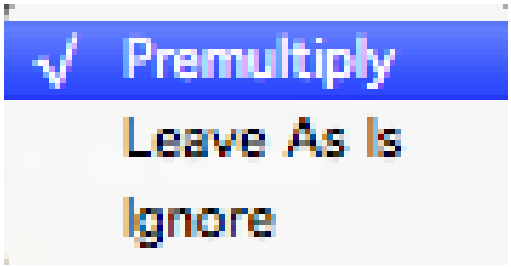
Composite Mode - Sets how the channel range is mixed with the destination channel.

Opacity - Controls how much the channel range affects the destination channel.

Channel Viewer

Channel Viewer is a utility for pulling channels out of a layer.





Channel Viewer Controls

Channel - Channel Viewer extracts the selected channel from the layer upon which it is applied. There is a wide range of choices when it comes to channels, each providing its own unique perspective into the source layer. Most of the standard color models are available, including YUV, LAB, and CMYK.

Invert - Any channel can be inverted. The invert operation is calculated before premultiplying or coloring.

Alpha Mode - Since Channels are typically extracted from just the color channels, you may wish to also include the Alpha channel. There are three options in regards to working with the alpha channel:

> **Premultiply -** Multiplies the channel with the alpha, in effect combining them. Premultiply is calculated after Invert.
>
> **Leave As Is -** With this option, Channel Viewer will not change the alpha channel at all.
>
> **Ignore -** If Ignore is selected, the alpha channel gets filled solid white. This is useful when you need to access the whole color value of each pixel, regardless of the alpha value.

In Color - Even though individual channels really have no color, this pseudo coloring can be helpful in better understanding what the channel represents.

Blend With Original - Use this slider to blend the result of the effect with the original input layer.

Color Composite

This plug-in applies color to a layer with advanced features such as mattes, masking, composite modes, and alpha channel control.

View Modes

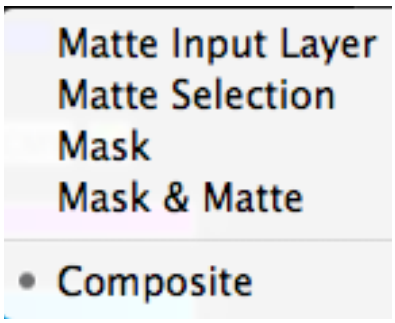
Matte Input Layer - Displays the Matte Input Layer unmodified. The layer is specified by the Input Layer menu in the matte group. If the layer is set to none, then the layer on which the effect is applied will be used.

Matte Selection- Shows where the color will be applied to the layer. How the matte is created depends on the selection method: Match Color Key or Use Channel Matte. The Matte is always rendered in grayscale and represents the areas to which the color will be filled. In this view mode you can adjust all of the matte settings including Blur and Levels.

Mask - Use this view mode to see the Mask by itself.

Mask & Matte - When using both a matte and mask, this view mode can be very helpful to see their combined result. The mask is composited over the matte using Mask Mode and Opacity.

Composite - This mode outputs the final result of Color Composite. In this mode, all effect controls will be enabled and the color will be applied to the source layer.



Color Composite Controls

Color - This is the color that is composited onto the source layer. Standard color picker, eye dropper, or the color sliders can all be used to set the color.

Color Sliders - These sliders offer a fast and direct way of changing the color. Unlike using the color picker, these sliders provide immediate feedback, with the numerical color value displayed at the right of each slider.

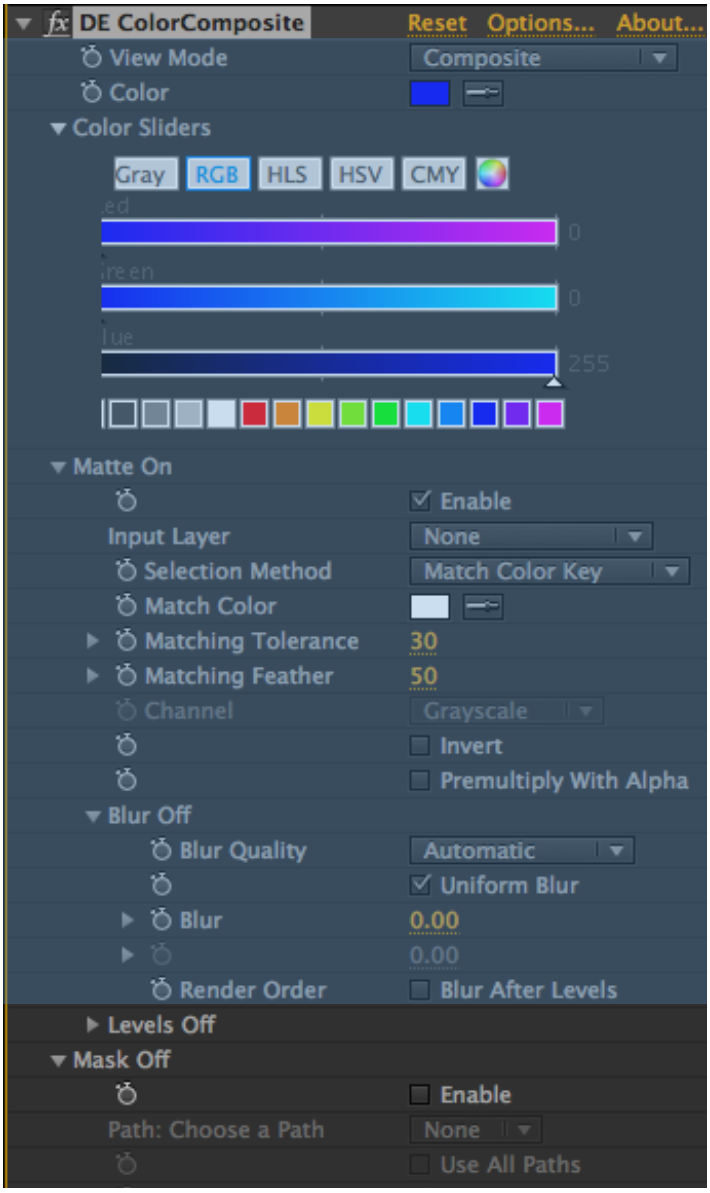
Matte - Offers a way to control where color is applied based on a channel from any layer. To help facilitate setup of the matte channel, use the view mode to view the matte input layer and matte channel. Click "Enable" to turn on these parameters.

Input Layer - This specifies which layer on which to base the matte. If none is selected, Color Composite will use the layer on which it is applied.

Selection Method - The matte can be created using two methods: Match Color Key or Use Channel Matte. Using a color key allows you to select a specific range of colors based on Match Color, Match Tolerance and Feather. Channel Matte is used when you need to apply color based on a layer's transparency or luminance.

Match Color - This color specifies the keying color when the selection method is set to Match Color Key and is based on RGB similarity.

Color Composite



Color Composite Controls

Matching Tolerance - This slider controls the plus or minus range for the match color. Increasing the tolerance will grow the matte to include more colors that resemble the match.

Matching Feather - Also increases the plus or minus range of the match color, however it calculates the amount of difference. This helps to soften the matte.

Channel - This channel is extracted from the input layer and determines where color is applied. The grayscale levels of the channel stencil the color, with white being opaque and black being transparent.

Invert - If this checkbox is enabled, the channel will be inverted. For example, to isolate the shadows of a layer, you could select the luminance channel and Invert it.

Premultiply with Alpha - the channel will be multiplied with its alpha channel. This is useful when you want the transparency of the input layer to be included in the channel.

Blur - These controls provide blurring for the Matte channel. Click "Enable" to turn on these parameters.

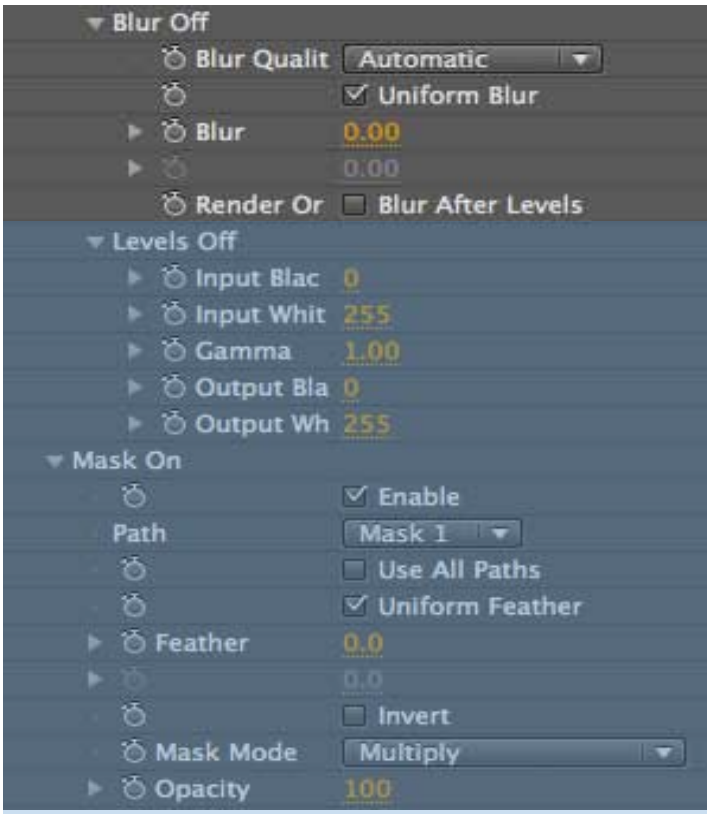
Blur Quality - To help maximize rendering efficiency, this menu allows you to decide what type of blur is used. When set to Automatic, the effect will render Gaussian Blur for best quality and Fast Blur for draft quality.

Uniform Blur - This checkbox controls whether the blur is applied equally in the horizontal and vertical directions.

Blur After Levels - Applying blur before or after levels can produce dramatically different results.

Color Composite

Color Composite Controls



Levels - The matte can be further adjusted using the Levels controls. These controls work similarly to the standard levels effect. Click "Enable" to turn on these parameters.

Input Black - As Input Black is increased, the channel becomes darker. Input Black and Input White values can be moved closer together to create contrast.

Input White - Opposite of Input Black, Input White increases the range of white pixels.

Gamma - The grayscale levels between white and black can be biased towards either end of the spectrum using Gamma. Gamma values less than 1.0 bias the gray levels towards black, creating a darker image. When the gamma value is greater than 1.0 the gray values are pushed towards white, brightening the image.

Output Black - Limits the maximum darkness of the matte.

Output White - Limits the maximum brightness.

Mask - With Color Composite, the mask is combined with the matte to further control where color is applied. The Mask group is only active when a valid path is chosen and all paths must be closed. Whether the mask is active or not is indicated by the word 'On' or 'Off' next to the mask group name.

Path - To specify a mask, select the desired path from this menu.

Use All Paths - With this option, it is not necessary to explicitly select a path. Instead, all available closed paths are used while open paths will be ignored

Uniform Feather - Ensures that mask feathering will be equal in the horizontal and vertical directions.

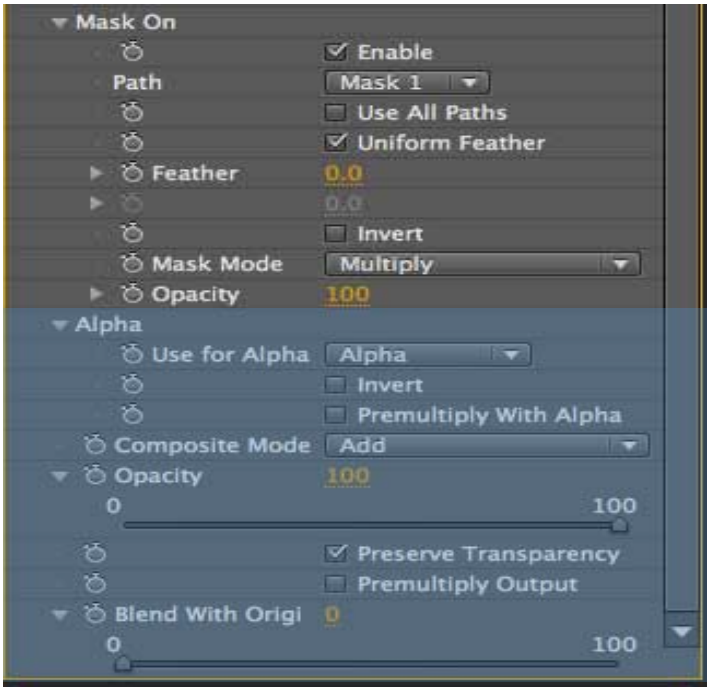
Feather- This slider controls the size of the feathering in pixels.

Invert - Renders the mask inverted.

Mask Mode - The default mask mode is Multiply, which produces the most commonly expected result. However, you can use any other mode to subtract, add, or otherwise affect the Channel with the mask.

Opacity - Controls how much the mask affects the channel.

Color Composite



Color Composite Controls

Alpha - Sometimes when applying color to a layer you may also need to change the opacity of the layer. You can use the alpha group controls to change the layer's transparency.

Use for Alpha - Choose a channel to replace the current alpha channel. This new channel will become the transparency of the layer.

Invert - Turn this checkbox on to invert the channel specified by Use for Alpha.

Premultiply with Alpha - The channel in Use for Alpha will be multiplied with the source layer's original alpha channel. This may be helpful when you want the channel values to accommodate for the transparency of the layer. Note that Premultiply With Alpha does not premultiply the whole effect, but only modifies the Use for Alpha channel.

Composite Mode - Using composite modes when applying color greatly increases flexibility and ultimately allows you to create many different types of color effects.

Opacity- Controls the amount of color applied.

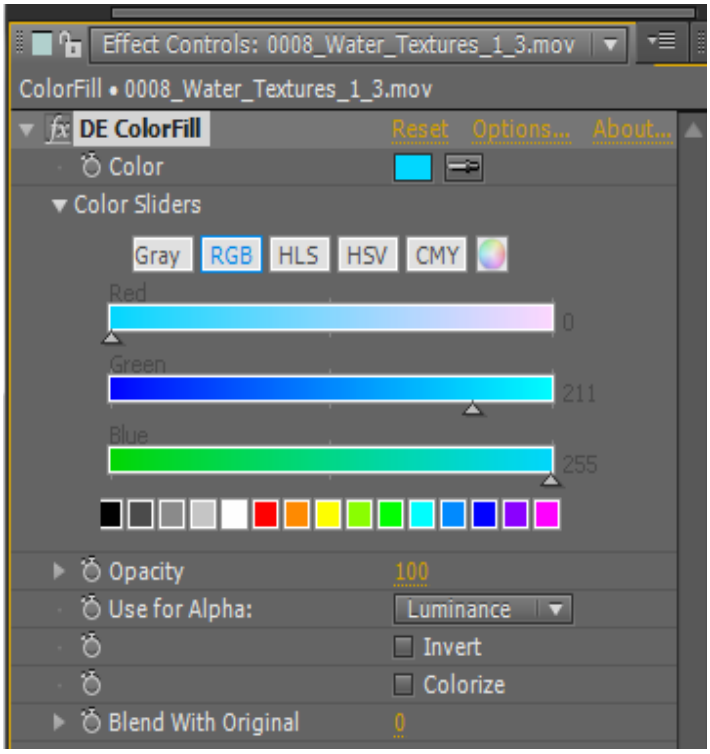
Preserve Transparency - Keeps transparency from being affected, otherwise the alpha channel will be modified wherever color is applied.

Premultiply Output - The rendered output of Color Composite will be opaque, matted over black. This is often useful when creating control mattes that do not need an alpha channel.

Blend With Original - Use this slider to blend the result of the effect with the original input layer. If Blend With Original is set to 100, the effect will not render.

Color Fill

This plug-in provides a quick way to fill a layer with a solid color and is an efficient replacement for solid layers.



Color Fill Controls

Color - The user specified color fully replaces the original colors of the layer. Opacity can be used to control how much the color is blended with the source.

Color Sliders - These sliders offer an easy interactive way to select a color. Unlike using the standard color picker, this interface updates the plug-in immediately to provide live feedback as you change the color.

Opacity - Controls the amount of color applied to the layer. A value of 100% will fully replace the original layer colors with the specified color. With values between 0 and 100%, the color is blended with the original layer colors.

Use For Alpha (Map Color To) - This popup menu allows you to choose any channel as the transparency matte, making color fill useful as a replacement for solid layers. When enabled, this control will be renamed to 'Map Color To' and the selected channel will be used as a guide for tinting.

Invert - The selected channel for Use For Alpha will be inverted.

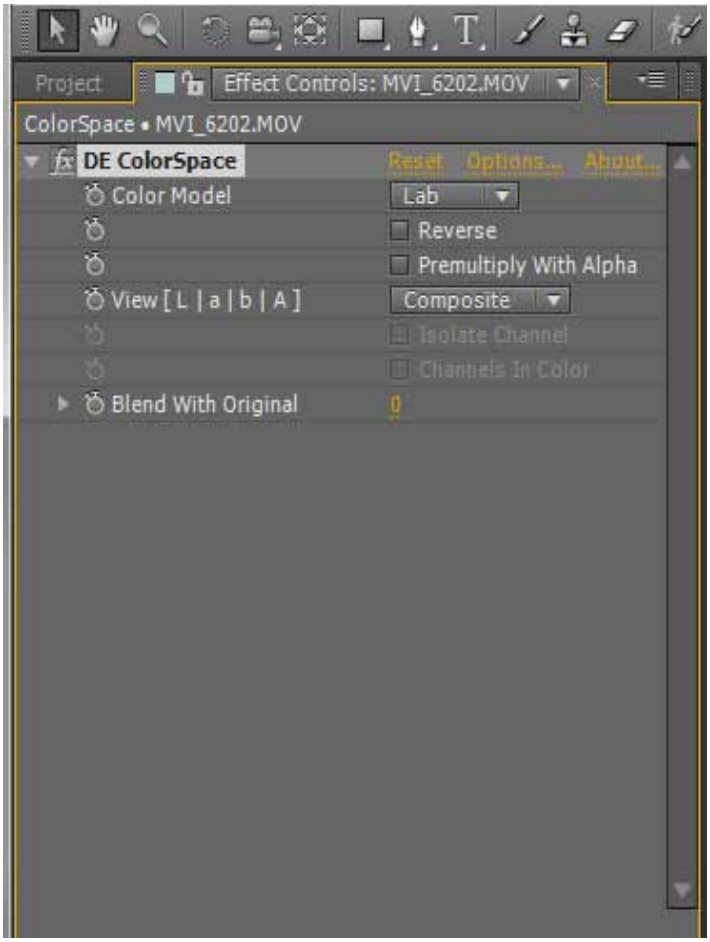
Colorize - Will tint the layers without affecting transparency.

Blend With Original - Use this slider to blend the result of the effect with the original input layer. If Blend With Original is set to 100, the effect will not render.

Color Space

This plug-in provides access to a wide variety of standard color models.

Using Color Space is generally a multi-step process. First, Color Space is used to convert a layer to a color model other than RGB. This exposes the channels of the selected color space, temporarily storing the values in the RGB and alpha channels which can then be manipulated with any effect. Color Space is then re-applied to reverse the color model back to RGB.



Color Space Controls

Color Model - When a color model is selected, the components of the new color space are respectively stored in the RGBA channels of the layer. For example, choosing HLS will effectively store the Hue in the Red channel, the Lightness in the Green, and the Saturation in the Blue, while the View control will read 'View [H|L|S|A].'

RGB - This is the standard color space. Since the layer is already in RGB color space, choosing this color model has no effect on the input channels. This mode provides a useful way to view and isolate the RGB channels.

HLS - Represents color as Hue, Lightness and Saturation.

HSV - HSV represents colors as Hue, Saturation and Value. Unlike Lightness, Value represents the intensity of color.

CMY - Offers the inverse space of RGB, represented by Cyan, Magenta and Yellow.

CMYK - CMYK further extracts the Black channel (K) from the image. This color model stores the K channel in the alpha, and will lose any preexisting alpha. If you need to preserve the alpha, premultiply the layer and reintroduce the transparency after Color Space is used.

Color Space

Color Space Controls

XYZ - The XYZ Color Model is a CIE system based on human vision. The Y component defines luminance while X and Z are respectively the red-yellow and blue-yellow representations. This color model is most often used as a transitional model to other color spaces.

xyY - Represents colors as coordinates within the Chromaticity Diagram. The channels X and Y are the coordinates, with Y representing luminance.

YUV - This is the analog standard color space used in the PAL video format. Y is luminance while U and V are the color components.

YIQ - This is the analog standard color space used in the NTSC video format. Y is luminance while I and Q are the color components.

Lab - This is another CIE color system based on the XYZ color space. Luminance is measured by L while a and b represent the red-blue and yellow-blue components.

Luv - The Luv Color Model is also a CIE color system based on XYZ. L defines Luminance, while u and v define chrominance.

Reverse - Determines whether Color Space is converting from or to the chosen color model. When not checked, Color Space converts to the specified color model, storing the new channels in the RGBA channels of the layer. Generally Color Space is applied twice: Once to convert to the color model and then reversed to return the model back to RGB.

Premultiply With Alpha - Incorporates the layer's original alpha with the color model.

View [1,2,3,4] - Provides the ability to see each channel individually. The name of the View control will change to reflect the current arrangement of channels.

Composite - Outputs all channels of the color space. When converting to and from a color space, this mode must be set.

1, 2, 3, 4 - Each of the numbered View modes relate to the ordered channels of the color model. With each model, the view name updates to reflect the ordering. For example, with the color model CMYK chosen, the View mode name will be 'View [C|M|Y|K]'. Furthermore, the selected channel will be named next to the Isolate Channel checkbox. If you choose View Mode 2 with the Lab color model, the name will be shown 'a -> Green', meaning that component 'a' of Lab is being stored in the Green channel of the layer.

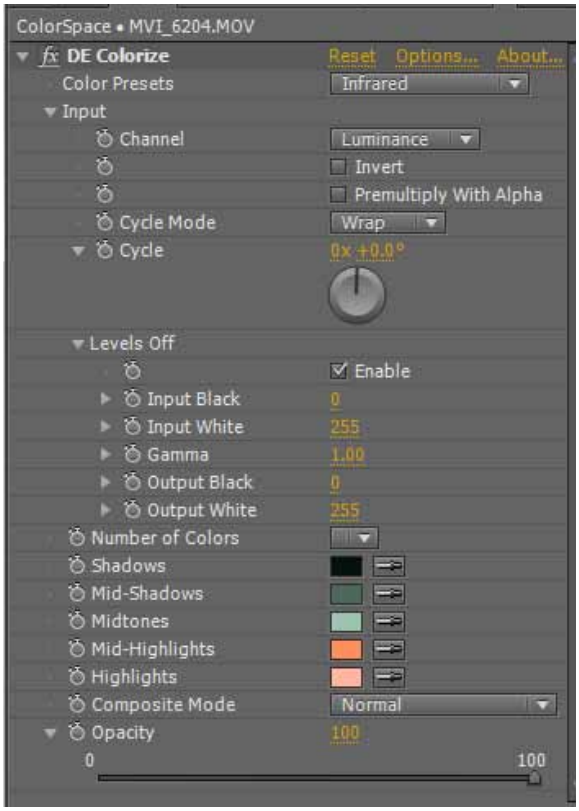
Isolate Channel - Will cause the current channel to be placed in its respective Red, Green, or Blue channel. Use this feature if you are using Color Space to separate the channels into individual layers and want recombine them later using Color Space.

Channels In Color - The selected channel will be rendered in color rather than grayscale.

Blend With Original - Use this slider to blend the result of the effect with the original input layer. If Blend With Original is set to 100%, the effect will not render.

Colorize

Colorize is a great tool for applying color schemes and tints to layers.



Colorize Controls

Color Presets - A wide range of common color corrections are listed in the presets menu. Typically these presets offer at least a good starting point. Choosing a preset may change the color values and the number of colors used.

Input - Colorizing works by remapping the values to the new colors. Any channel can be used to create the mapping.

Channel - This specifies to which channel the new color will be mapped.

Invert - Any channel can be inverted; calculated before premultiplying or coloring.

Premultiply With Alpha - Multiplies the channel with the alpha, in effect combining them; calculated after invert.

Cycle Mode - Determines how values are handled beyond the normal value range when the cycle is changed.

Cycle - Offsets the input phase of the channel. This essentially cycles the grayscale gradient, wrapping it around. Cycle Mode can be used to determine how the values are wrapped.

Levels - The matte can be further adjusted using Levels. These controls work similarly to the standard Levels effect.

Input Black - As Input Black is increased, the channel becomes darker. Input Black and Input White values can be moved closer together to create contrast.

Input White - As Input White is Increased, the channel becomes lighter.

Gamma - Gamma values less than 1.0 bias the gray levels towards black, creating a darker image. When the Gamma value is greater than 1.0, the gray values are pushed towards white brightening the image.

Output Black - Limits the maximum darkness of the matte.

Output White - Limits the maximum lightness of the matte.

Number of Colors - Colorize supports either 3 or 5 colors. When set to 3 colors the Mid-Shadow and Mid-Highlight controls become disabled.

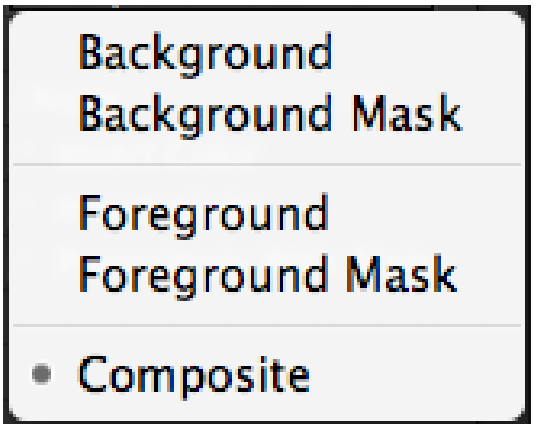
Color Controls - Each color control targets its respective range within the image. Shadow, for example, is mapped to the darkest areas of the image while the highlights are mapped to the brightest.

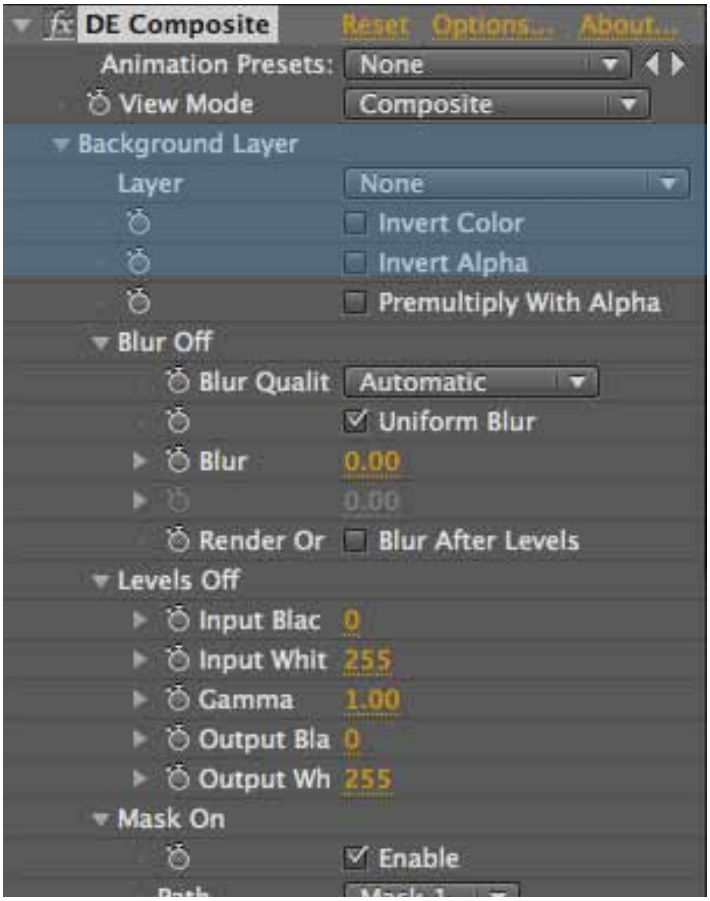
Composite Mode - Controls how new color is mixed with the original layer colors. The default setting of Normal simply replaces the original layer colors.

Opacity - The amount of color applied is controlled by Opacity.

Composite

This plug-in is designed to perform compositing directly on a layer without the need to pre-compose.





Composite is capable of taking two layers and combining them together with a number of advanced options including: inverting, masking, alpha control, and additional compositing modes.

View Mode

Background - Displays the adjusted background layer, including all the layer options.

Background Mask - Displays the mask for the background layer.

Foreground - Displays the adjusted Foreground layer, including all the layer options.

Foreground Mask - Displays the mask for the foreground layer.

Composite - Displays the final composite of the effect. Only in this mode will all effect controls be enabled.

Composite Controls

Background Layer - Specifies the bottom layer to use in compositing. Often, these values are left at default so that the layer on which the plug-in is set is used.

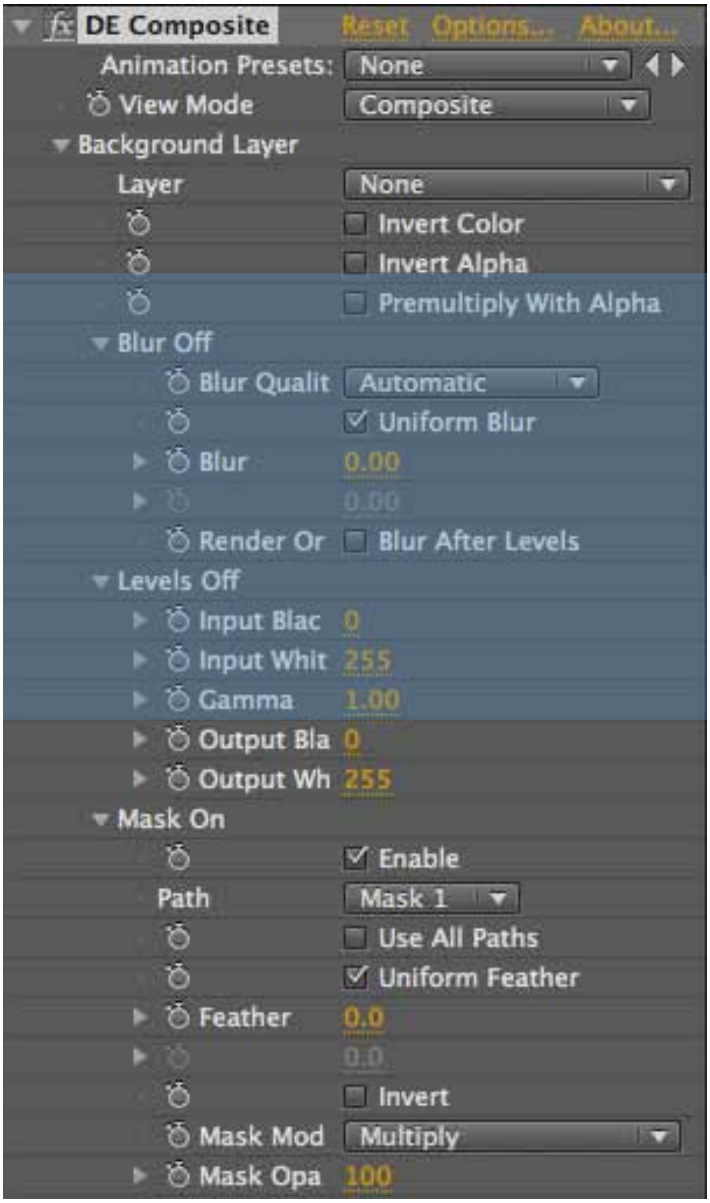
Layer - Used to select any layer in the composition.

Invert Color - Will invert the color channels of the layer

Invert Alpha - Will invert the alpha channel of the layer; calculated before Premultiply With Alpha.

Composite

Composite Controls



Premultiply With Alpha - Will premultiply the color channels of the layer with the alpha channel. This effectively pre-renders the layer over black.

Blur - These controls provide blurring for the layer. Blur is only rendered when the amount is greater than 0.

Blur Quality - To help maximize rendering efficiency, this menu allows you to decide what type of blur is used.

Uniform Blur - Controls whether the blur is applied equally in the horizontal and vertical directions.

Blur After Levels - Applying blur before or after Levels can produce dramatically different results.

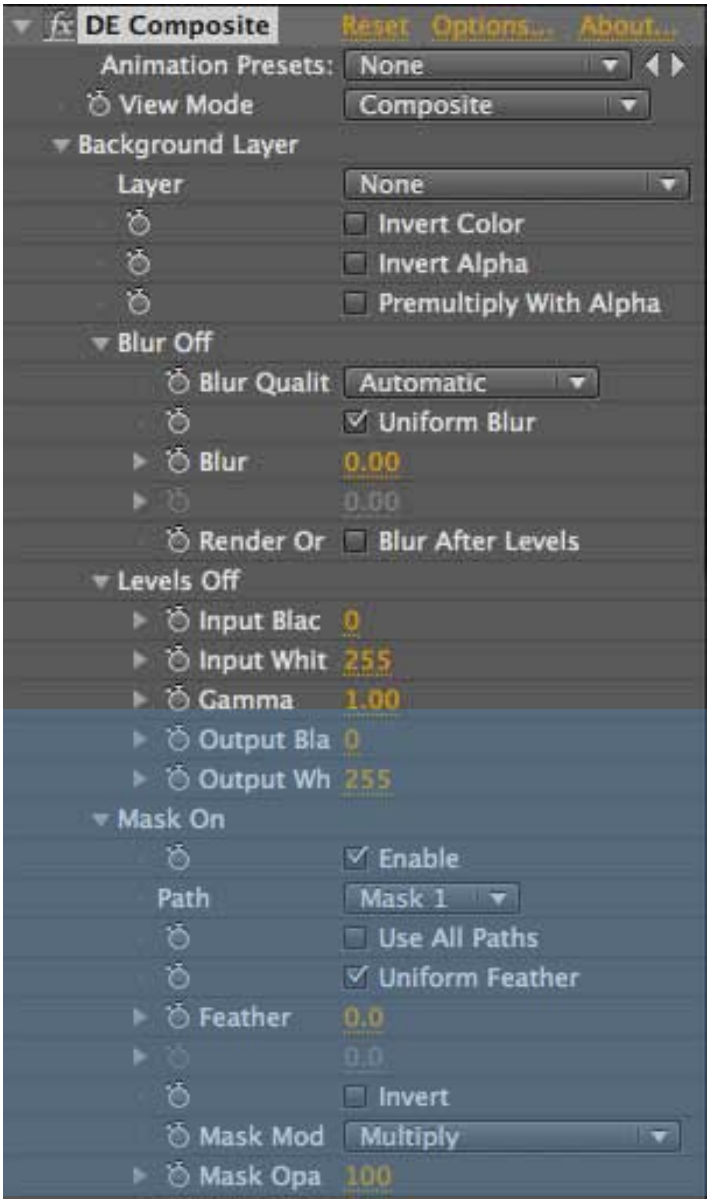
Levels - Used to modify the grayscale values of the layer and is useful for both fine-tuning and dramatic changes.

Input Black - When increased, the channel becomes darker. Input Black and Input White values can be moved closer together to create contrast.

Input White - Controls the lightness of the channel.

Gamma - Values less than 1.0 bias the gray levels towards black, creating a darker image with more contrast. When the gamma value is greater than 1.0, the gray values are pushed towards white brightening the image and reducing contrast.

Composite



Composite Controls

Output Black - Limits the maximum darkness of the matte.

Output White - Limits the maximum lightness of the matte.

Mask - Layer masks can be used with Composite similarly to how they are used with other plug-ins. The mask group is only active when a valid Path is chosen. Paths must be closed.

Path - To specify a mask, select the desired path from this menu.

Use All Paths - With this option, it is not necessary to explicitly select a path. Instead, all available closed paths are used.

Uniform Feather - Feathering will be equal in the horizontal and vertical directions.

Feather - This slider controls the size of the feathering in pixels. You can turn off Uniform Feather in order to control the feathering amount independently on the X and Y axis.

Invert - When on, the mask will be inverted.

Mask Mode - The default mask mode is Multiply, which produces the most commonly expected result. However, you can use any other mode to subtract, add, or otherwise affect the layer with the mask.

Mask Opacity - Controls how much the mask affects the layer, in terms of percentage.

Foreground Layer - Specifies the layer to composite over the background Layer.

Composite

Composite Controls

Alpha Mode - Composite provides a number of different options for handling the compositing of alpha channels.

> **Normal -** Composites all values together.
>
> **Alpha only -** Limits the operation of Composite to just the alpha channels of the layers without affecting the color channels of the background layer.
>
> **Luma to Alpha -** Composites the luminance of the foreground layer into the alpha channel of the background layer.
>
> **Same As RGB -** Composites the alpha channel using the same composite mode as the color channels.
>
> **Preserve Transparency -** Preserves the alpha channel of the background layer, leaving it unaffected by the alpha channel of the foreground layer.
>
> **Alpha Add -** Adds the alpha channel values together. This mode is useful when you are combining images that are meant to match up perfectly.
>
> **Replace -** Works similarly to Preserve Transparency, but preserves the alpha of the foreground layer instead of the background.

Composite Mode - This is the final composite mode used to apply the foreground and background layers together.

Composite Order Reverse - The background and foreground layers are swapped during compositing, which can save time.

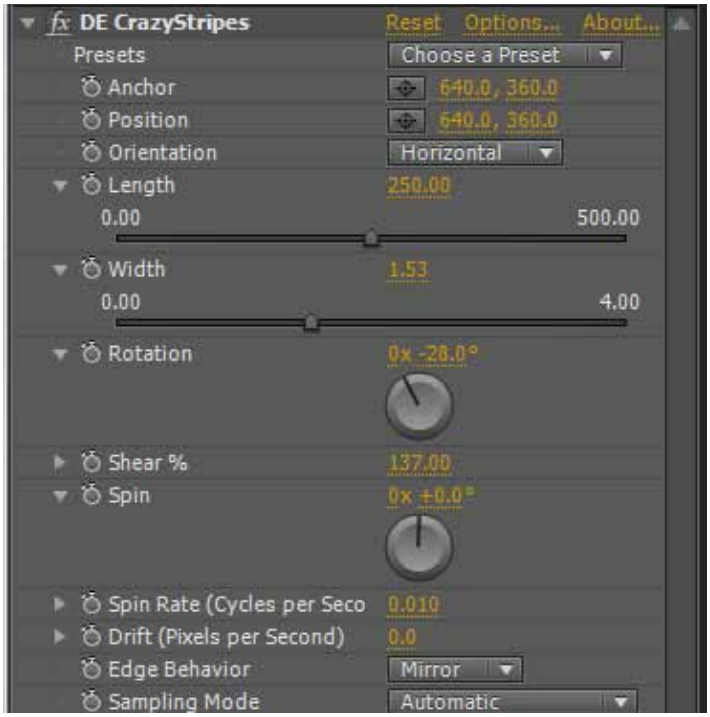
Opacity - Controls how much the foreground layer is composited over the background.

Extra Composite Modes - It is not uncommon when compositing to apply the same layer multiple times. This effect allows you stack up to 3 composite modes.

Blend With Original - Use this slider to blend the result of the effect with the original input layer. If Blend With Original is set to 100, the effect will not render.

Crazy Stripes

This a great plug-in for creating abstract backgrounds and styles, capable of taking any still image or movie and quickly making abstract stripes from it.



Crazy Stripes Controls

Presets - These built-in presets are a great starting point. When a preset is chosen, the transform controls will be changed but the mode switches, are not affected.

Anchor - Specifies the center point of the layer; can be placed anywhere to act as the hinging point for the transformations.

Position - The position of Crazy Stripes can be set just like any layer.

Orientation - Choosing an orientation changes the mapping of the length and width parameters and will change the direction of the stripes.

Length - Controls the stretching of the stripes in the long direction.

Width - Always controls the stripes in the direction opposite of length. The Width affects the apparent size of the stripes.

Rotation - Can make stripes travel at any angle relative to the anchor point.

Shear - Skews the layer perpendicular to the orientation.

Spin - Moves the image through the stripes creating a flowing effect. Like Rotation, one full revolution of Spin returns to the same position.

Spin Rate - In order to create an automatically animating effect, Spin Rate is used to specify how much the spin changes over time, measured in cycles per second.

Drift - Allows automated motion for the anchor, measured in pixels relative to the source. This creates flowing stripes that do not spin.

Edge Behavior - Controls how areas outside the layer are handled. Can be used to create infinitely repeating stripes.

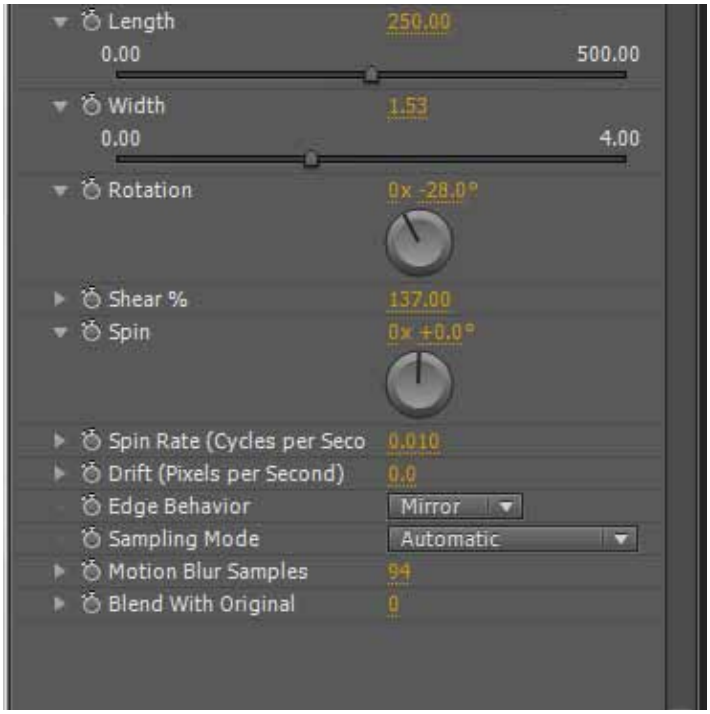
- **None -** Areas outside the layer will be rendered black transparent
- **Wrap -** Infinitely repeats the layer in all directions. When scaling the layer down, this will produce a tiling texture.
- **Hold -** Extends the pixels on the edge of the layer out to infinity
- **Mirror -** Repeats the image infinitely in all directions, but flips the image with each repeat.

Sampling Mode - Affects the speed and quality of the render by determining how pixel values are interpolated when the image is stretched and distorted.

Automatic - Causes the plug-in to use Bilinear sampling for best quality and Nearest Neighbor for draft quality.

Crazy Stripes

Crazy Stripes Controls



Nearest Neighbor - The fastest but also has the poorest quality. It determines pixel colors by rounding coordinates to the nearest whole pixel.

Bilinear- Uses linear interpolation to generate new pixel values between existing whole pixels.

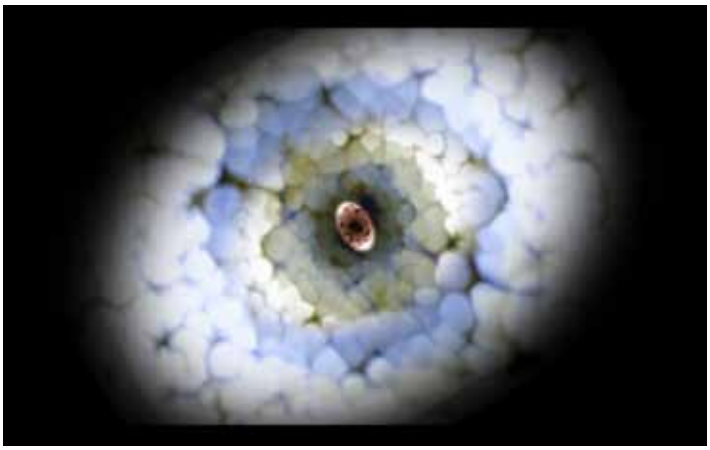
Bicubic - This method of sampling looks best but has the highest cost in rendering time. For Crazy Stripes, Bicubic is typically overkill.

Motion Blur Samples - When motion blur is enabled for the layer, this value determines how many samples are used in the blur.

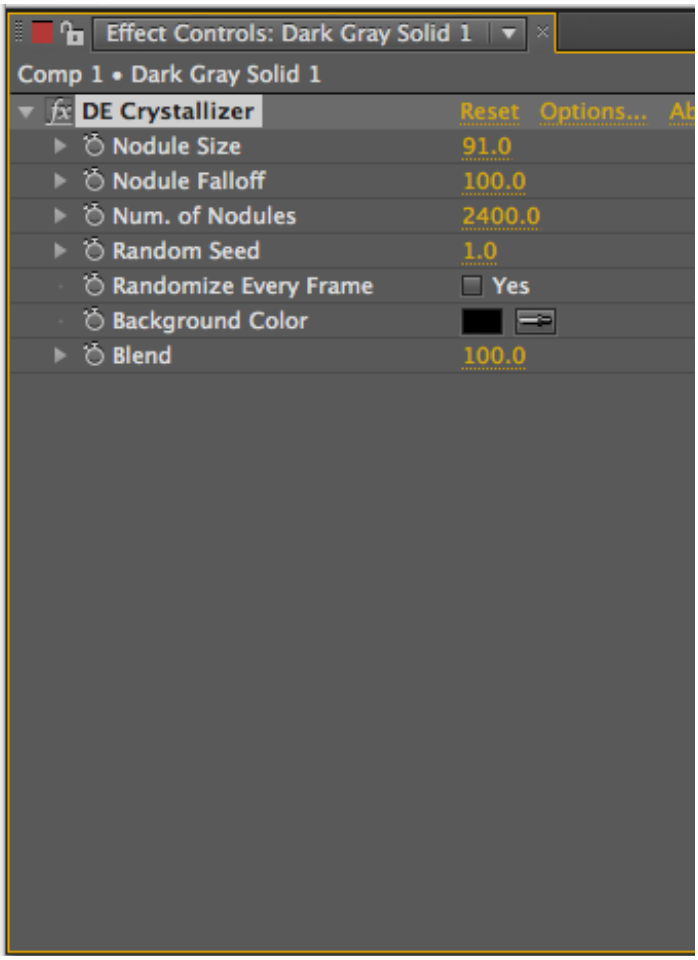
Blend With Original - Use this slider to blend the result of the effect with the original input layer. If Blend With Original is set to 100%, the effect will not render.

Crystallizer

This plug-in is used for creating interesting animated textures with crystalline-type patterns.



The crystal pattern is made up from a series of circle-shaped nodules. You can control the number of nodules, which controls the level of detail, the size of the nodules, and the nodule falloff.



Crystallizer Controls

Nodule Size - controls the size of each crystal nodule. Larger sized create longer renders but each nodule will be smoother when rendered.

Nodule Falloff - Controls the smoothness of each nodule. Lower values create smoother nodules.

Number of Nodules - Controls the total number of nodules rendered. Larger values create more detail but render more slowly.

Random Seed - Changing this value will create different looks, but do not change this setting per frame as the effect will seem to "jump," and not render smoothly.

Randomize Every Frame - Will randomize the effect every frame.

Blend - Controls the level to which the effect interacts with the underlying layer.

Edge Behavior - Controls how areas outside the layer are handled. Can be used to create infinitely repeating stripes.

Edgex

This plug-in is used to create a posterization of the image by thresholding individual color channels.

Edgex Controls

Red Edge - Controls the maximum value for the red channel.

Red Softness - Controls the smoothness of the red channel.

Green Edge - Controls the maximum value for the green channel.

Green Softness - Controls the smoothness of the green channel.

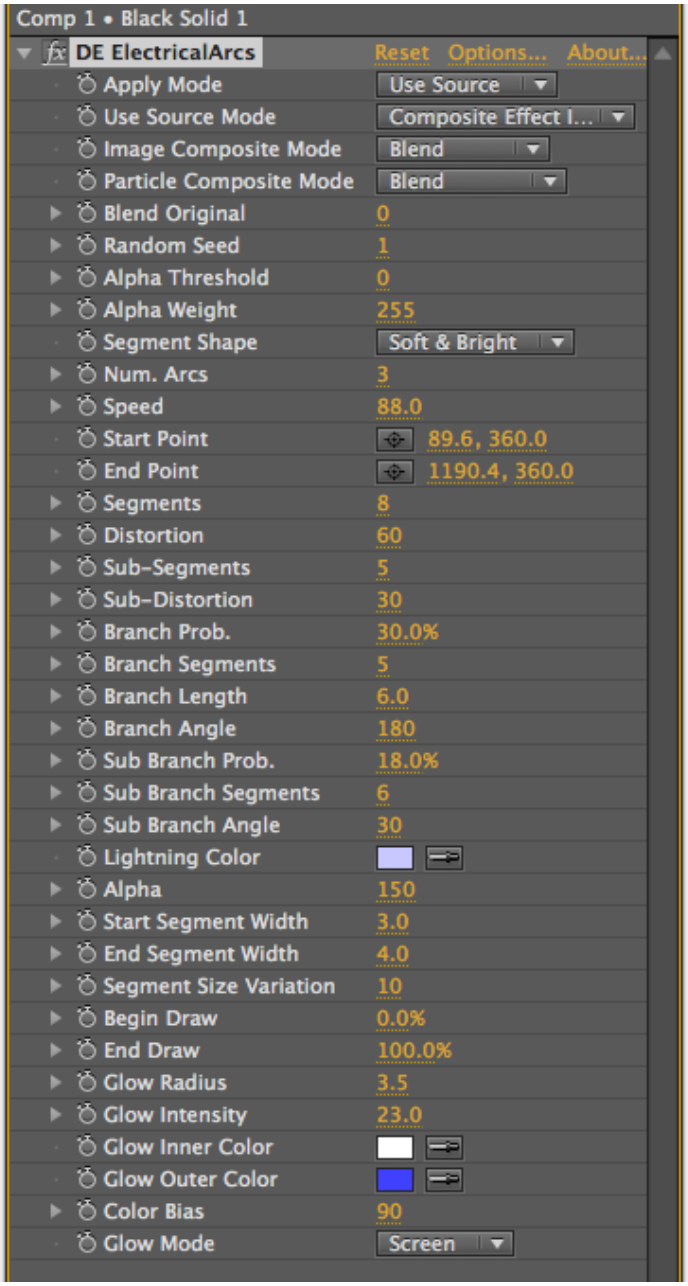
Blue Edge - Controls the maximum value for the blue channel.

Blue Softness - Controls the smoothness of the blue channel.

Blend - Controls the level to which the effect interacts with the underlying layer.

Great for creating a pseudo-new wave look

Electrical Arcs



TIP: This effect is very fast when there is only a single arc. To test how the controls work, set the number of arcs to one, hold down the option key and slide the sliders up and down to receive quick feedback and get a better feel for the controls

Electrical Arcs is designed to generate arcs of electricity similar to what you see with a "Jacobs Ladder." While it was designed to generate arcs, this plug-in is also quite good at generating lightning bolts.

Electrical Arcs Controls

Segment Shape - Includes: soft and bright; harsh falloff; dot; rounded; star; oval.

Num Arcs- Controls the number of arcs that will be generated between the Start Point and End Point.

Speed - Controls how frequently the many controls below will be recalculated. The higher this number, the more the electrical arcs will twitch and move.

Variation Seed - Same as random seed; changing this value will create different looks.

Start Point - The left side point on the arc at the default setting where the beginning of the arcs are generated.

End Point - The right side point on the arc at the default setting.

Segments - Determines how many times the electrical arcs will break or change directions between the start point and the end point.

Distortion - Determines how far from the center line (an imaginary line drawn directly between the start point and end point) each of the segments can travel. The larger this value becomes, the further away from a straight line the arc will become.

Sub-Segments - Determines the number of times the main segments will be subdivided. As the value increases, the segments will appear more broken.

Electrical Arcs

Electrical Arcs Controls

Sub-Distortion - Controls how far the sub-segments will be bent. The higher this value, the more crooked the lines between the segments.

Branch Prob - Controls the probability of a branch being generated at a sub-segment joint. This does not define how the branch will behave, only whether or not it will appear.

Branch Segments - Controls how many times the branches will be segmented or change direction. Higher values will give the branches a more twisted appearance.

Branch Length - Determines the total length of the branch. This length will be subdivided by the number of segments so the greater number of branch segments, the closer the branch will stay to the main arc.

Branch Angle - Determines the direction of the branches as they come out of the joints of the sub-segments.

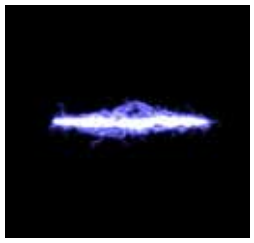
Sub Branch Prob - Controls the likelihood of each branch dividing into additional branches.

Sub Branch Segments - Determines how many times the sub branches will be divided. The higher the value, the more twisted the sub branches will appear.

Sub Branch Angle - Determines the angle of each sub branch divide AFTER it has left the arc. The initial direction is determined by Branch Angle.

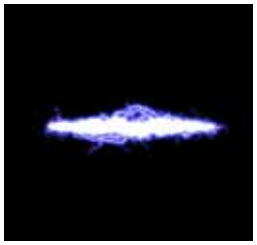
Lightning Color - Determines the color of the interior or arc (non-glowing portion) of the lighting.

Alpha - Determines the transparency or opacity of the Electrical Arc.

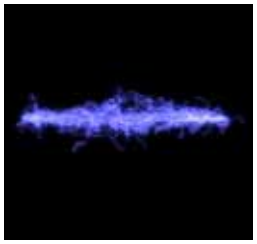


Soft & Bright

Harsh Falloff



Dot

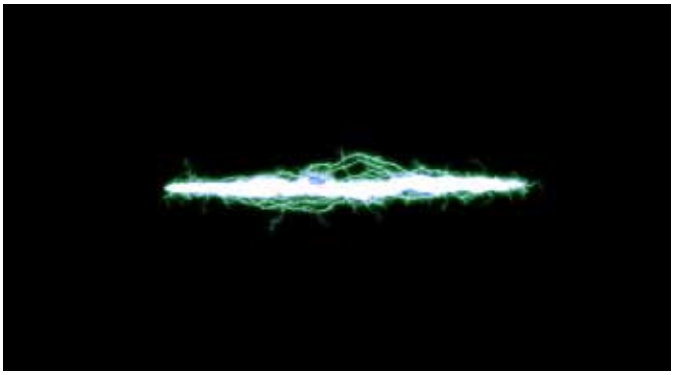


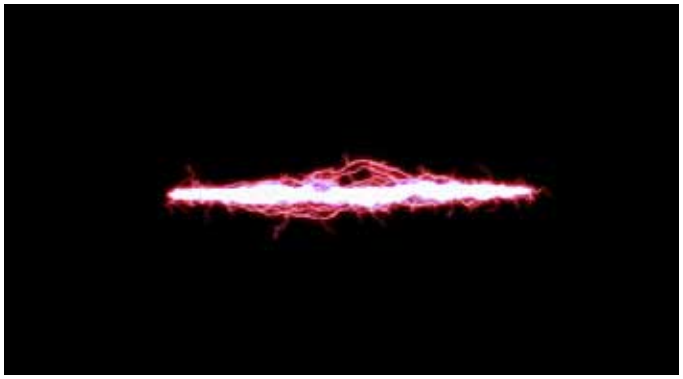
Star

Oval

Rounded

Electrical Arcs





TIP: Electrical Arcs typically look best with a lighter and whiter color for the Glow Inner Color and a darker, more vibrant color for the Glow Outer Color.

Electrical Arcs Controls

Start Segment Width - Determines the width of the start segment. If start segment width and end segment width are of different sizes, the arcs will taper between the wider and narrower sizes.

End Segment Width - Determines the width of the end segment, by default the right side segment.

Segment Size Variation - Allows control of how uniform or non-uniform the sizes are for each segment. The higher this value, the more random and less uniform the segments.

Begin Draw - Controls where the beginning of the arc will be drawn in relation to the start point. This control will remove segments starting at the start point and moving towards the end point.

End Draw - Controls where the ending of the arc will be drawn in relation to the end point. This control will remove segments starting at the end point and moving towards the start point.

Glow Radius - Controls the distance from the arc's edge glow colors will travel.

Glow Intensity - Controls the brightness level of the glow, affecting both the interior and exterior of the arc.

Glow Inner Color - Defines the glow color closest to the arc.

Glow Outer Color - Defines the glow color that is outside the electrical arc; affects the glow inner color.

Color Bias - Defines the balance of Glow Inner Color and Glow Outer Color.

Fairy Dust

This plug-in can be used to follow a magic wand or zip around the screen like a comet.

Fairy Dust Controls

Dust Type - Includes: soft glow; hexagonal; sparky; quad highlight; quad; solar; random hex.

Dust Amount - determines the quantity of dust that is generated per frame.

Max Speed - Controls how fast the fastest of the particles will move. Particle speed functions as an average from zero to max speed.

Dust Lifetime - Determines how long the particles will stay on the layer before they disappear.

Dust Color - Determines the color of the dust on the layer when it is generated. This can be a great control to keyframe.

Bright Variance - Controls the amount of flicker that the various particles will have over time. This is a temporal effect and may be difficult to see when adjusted on a single frame.

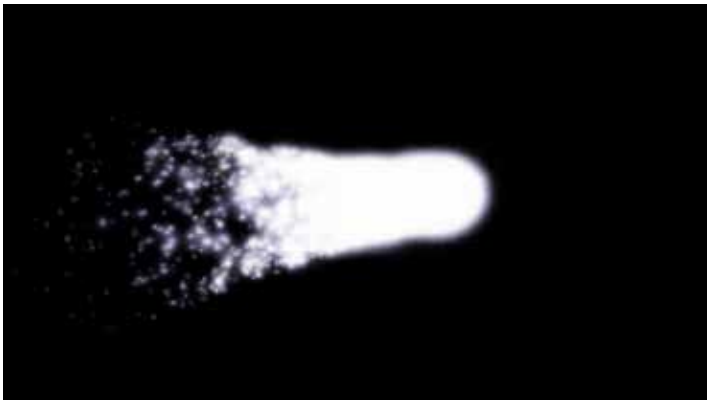
Min Size - Determines the smallest size of particle that will be generated.

Max Size - Determines the largest particle size generated.

Min Opacity - Each of the particles is to some degree transparent and opaque. Min Opacity controls the minimum amount of opacity for each particle.

Max Opacity - Defines the maximum amount that a particle will be opaque.

Max Dispersion - Controls the size of the emitter point when Generate From is set to Dust Point. When Generate From is set to any other generate type, Max Dispersion increases the area in which the particles will be generated.



Fairy dust can follow a point, leaving a trail

Fairy dust from the alpha channel of a logo

TIP: By keyframing Dispersion, you can have particles start in a small area and grow to a much larger area. This will work better than Generate Threshold since that requires certain values to be in the image before it will be a valid area to generate particles. Dispersion uniformly grows the area in which it will generate particles.

Fairy Dust

Fairy Dust Controls

Wind Horiz - Controls how much the dust can be pushed left or right by the force of "wind". This directional force will interact with the dusts tendency to go in different directions and is based on averages. Positive numbers will make the particles drift right while negative numbers will make the particles drift to the left.

Wind Vert - Controls a force that can make the dust particles drift up or down. As above, this is an average and will affect the whole, but individual particles are able to drift in any direction.

TIP: Use high negative numbers for Wind Vert and Generate From Bottom of Layer to give the appearance of a curtain of dust rising up from the ground.

Fire

This plug-in creates a raging inferno type of fire with flames flicking upwards from the burning object.

In contrast to other fire effects, the Delirium Fire effect is a particle based algorithm. Delirium's Fire will have a much more organic and realistic appearance than other simulations due to the particle system.

Fire from a logo

Fire System Controls

Organic Level - Fire composites several slightly different layers of the fire effect to render a more natural and organic appearance. Organic Level also determines the number of repetitions of the effect that will be generated.

Fire Amount - Controls the total number of flames that are generated per organic layer per frame.

Vert Speed - Controls the rate at which the flames rise once they have been emitted.

Flame Lifetime - Controls how many frames the flames will last once they are emitted.

Min Size - Determines the smallest size flame that will be emitted.

Max Size - Determines the largest size flame that will be emitted.

Min Opacity - Controls the minimum limit of opacity of the flames. The lower the value, the more transparent the flame.

Max Opacity - Controls the maximum limit of opacity of the flames.

Horiz Dispersion - Controls how much the flames will be dispersed along the horizontal axis from their generation location

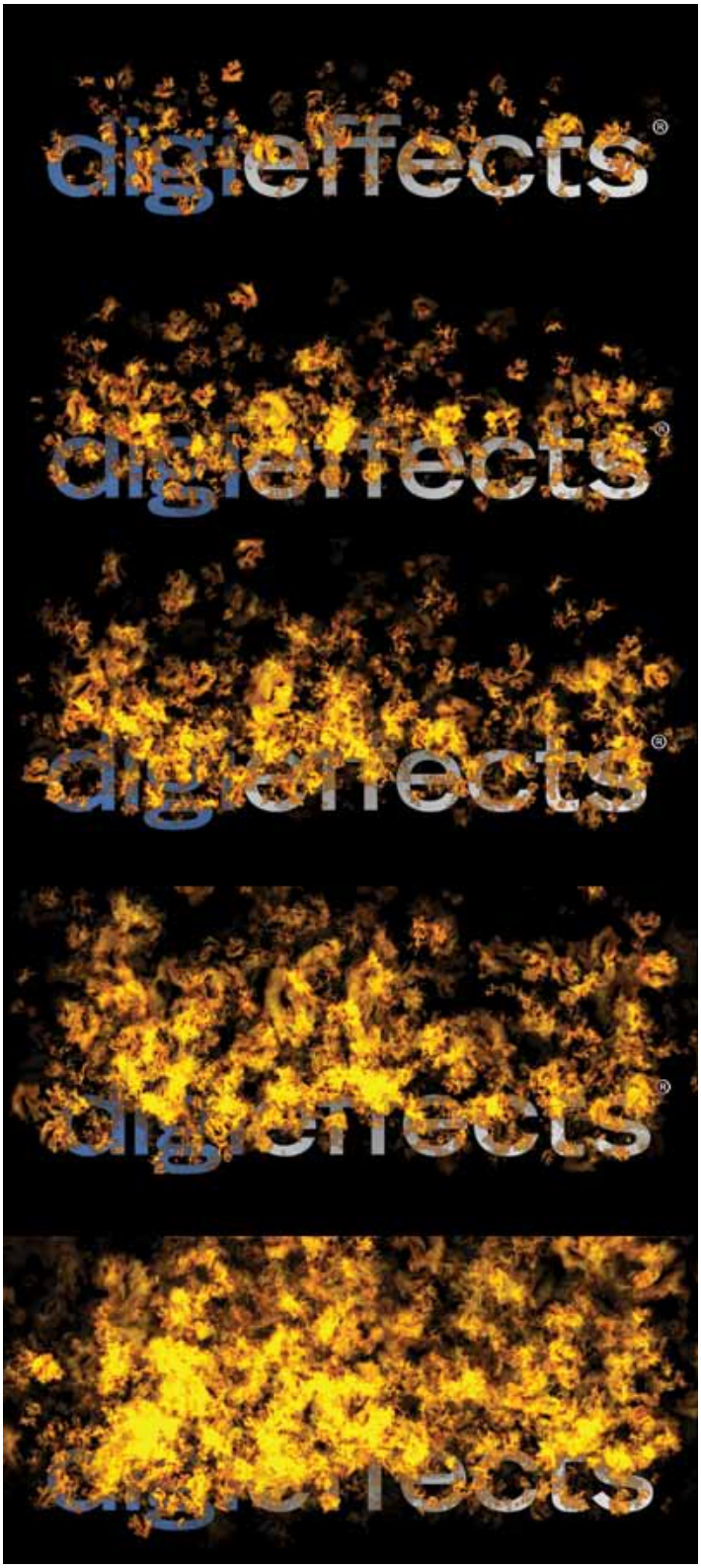
Wind Horiz - Controls how much sideways force there is on the fire.

Wind Vert - Controls how fast the flames rise.

Burn from the bottom

TIP: Using "Generate from Layer Alpha > Threshold" is the best way to generate fire from text or a company logo that has an alpha channel.

Fire



Fire Controls

Turbulence - The wispy appearance that is seen in the flames. Turbulence stretches the flames to create realism and cohesion.

Turb Amount - Determines how much of an effect turbulence will have on the fire.

Turb V Speed - Determines the speed of the displacement field related to the turbulence.

Turb Size - Determines the detail that is generated with the turbulence. The higher the value, the greater the details visible from the turbulence in the fire.

Fireworks

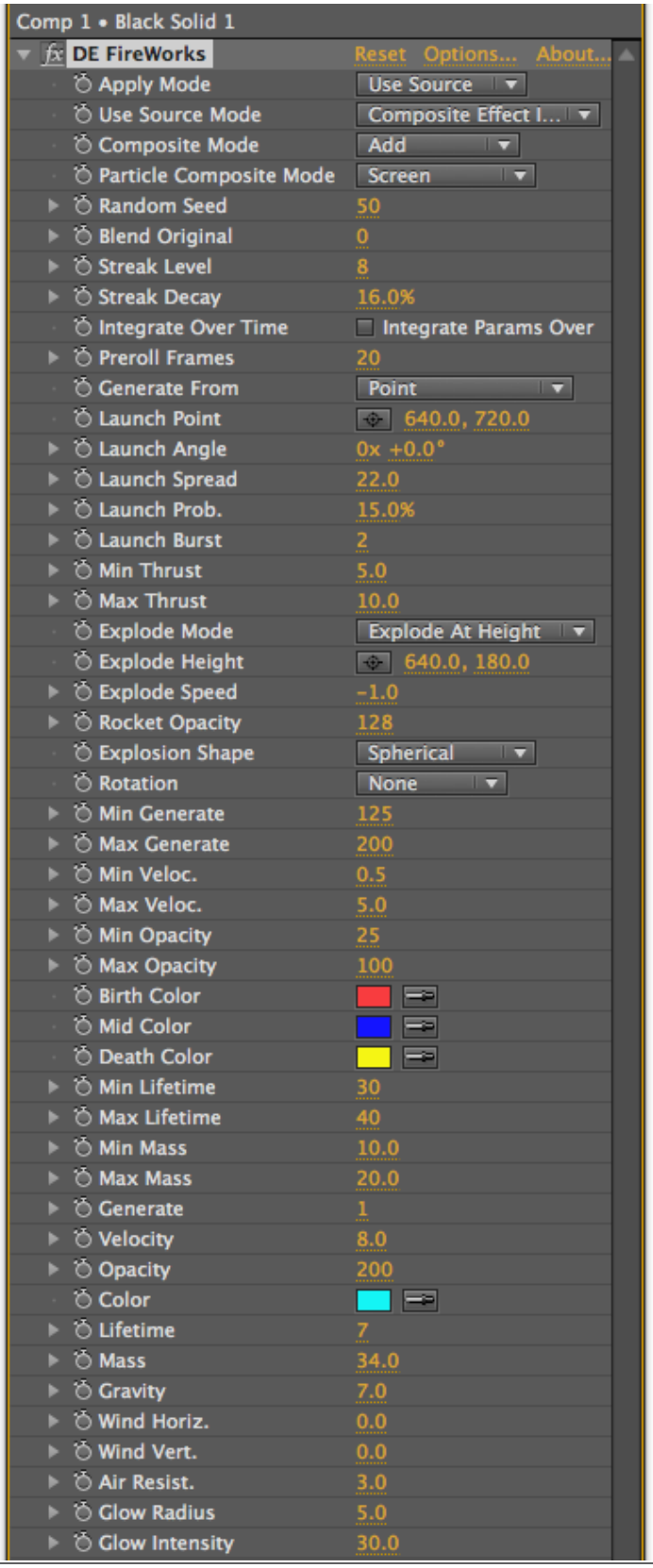
This plug-in simulates large-scale fireworks displays.

Fireworks is a particle-system effect aimed at creating motion sequences that are difficult to handle with a general purpose particle system. It is therefore broken down into 3 stages: Launch System, Explosion System, and Sparkler System.

The **Launch System** controls how the firework shell rockets will fly up: how quickly, how many, at what speed and at what point they will explode into the main firework.

The **Explosion System** what happens after the firework explodes. The colors, speed and direction of the exploded parts, how long the explosion lasts and how fast it drops is handled from this control.

The **Sparkle System** adds small particles to the explosion system particles. This creates a realistic sparkling effect.



Fireworks Controls

Streak Level - Determines how far behind the firework particle a streak will travel.

Streak Decay - Determines how quickly the streak will fade out.

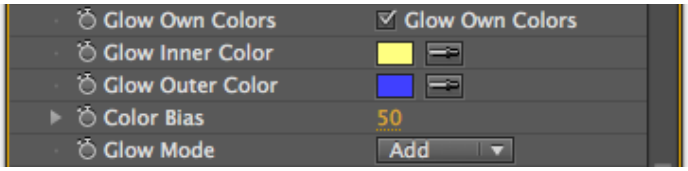
Launch System

Integrate Over Time - Check this box if you plan on keyframing any of the controls. If you are not keyframing any of the parameters, leave this box unchecked and rendering time will significantly decrease.

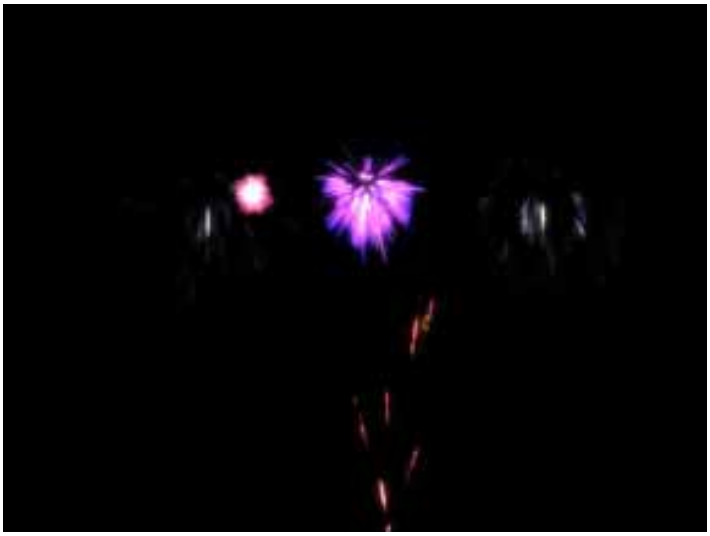
Generate From

> **Bottom of Layer -** the fireworks will be sent up from any point on the bottom of the layer. The launch location will be determined randomly.

Fireworks



Spherical Burst



Geometrical Burst

Launch System

Generate From

Point - The fireworks will be launched according to whatever point is selected in the Launch Point control.

Launch Point - Determines the point from which the fireworks will be launched.

Launch Angle - Determines the direction from which the fireworks will be launched. 0 degrees will launch the fireworks straight up. Negative numbers will launch to the left and positive numbers to the right.

Launch Spread - Determines how far from the launch angle the fireworks may shoot. When set low, fireworks will go straight up from the launch point. As the value increases the fireworks will shoot to the left and right of the launch point.

Launch Prob - Determines how often the fireworks will be launched. The higher the value, the greater the likelihood of fireworks being launched per frame.

Launch Burst - Determines how many fireworks will be launched per launch event as determined by Launch Probability.

Min Thrust - Determines the speed of the slowest fireworks on their way up (pre-explosion).

Max Thrust - Determines the speed of the fastest fireworks on their way up.

Explosion System

Explode Height - Determines the altitude at which the fireworks will explode when Explode at Height is selected.

Explode Speed - Determines the rate at which rockets must be moving before they will explode into fireworks.

Fireworks

Explosion System

Tip: To cause a rocket to explode on the way down, set Explode Speed to a negative number. Once the rocket peaks and it's falling rate equals the desired speed, the rocket will explode.

Explosion Shape - Defines the general direction of the particles. Shapes include explosive, oral, spherical and geometrical.

Rotation Variation - Allows the particles to rotate around the explosion point after they have been pushed from the explosion. This could be described as a pinwheel effect.

- **None -** When selected, no rotation or pinwheel effect occurs.
- **Constant -** When selected, there is a random but uniform amount of rotation applied to the particles. The effect looks like a pin-wheel.
- **Varying -** When selected, there is a nonuniform amount of rotation applied to the particles within the explosion. The particles seem to fly randomly in all directions.
- **Squiggle -** When selected, the post explosion particles will waver back and forth as they explode.

Min Generate - Determines the minimum amount of particles that will be a part of the firework explosion.

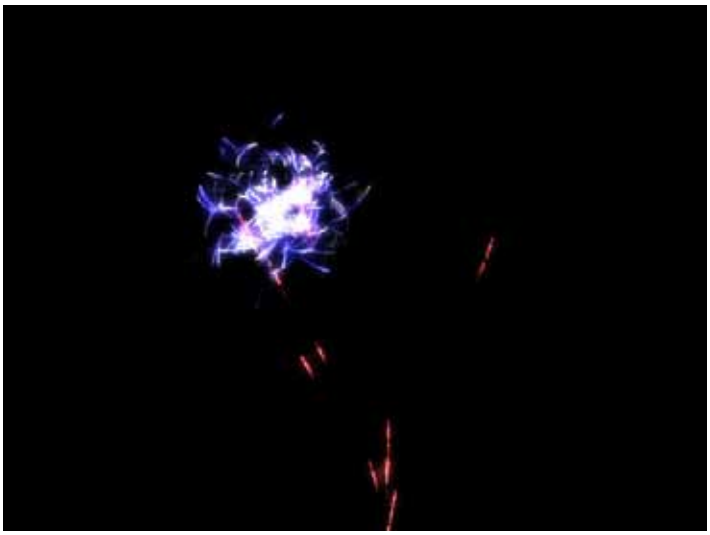
Max Generate - Determines the maximum amount of particles that will be a part of the firework explosion.

Min Velocity - Controls the slowest rate at which the particles will move away from the fireworks explosion point.

Max Velocity - Controls the fastest rate at which the particles will move away from the fireworks explosion point.

Min Opacity - Determines the minimal amount of transparency or opacity in the firework explosion.

Squiggle Rotation



Varying Rotation

Fireworks

Explosion System

Max Opacity - Determines the maximum amount of transparency or opacity in the firework explosion.

Birth Color - Determines the color of the firework when it initially explodes.

Mid Color - Determines the color of the firework in the middle of its life.

Death Color - Determines the final color of the firework before it completely fades away.

Min Lifetime - Determines the shortest amount of time that any individual particles that make up a firework will last.

Max Lifetime - Determines the longest amount of time that any individual particles that make up a firework will last.

Mass - The factor that defines how much gravity, air-resistance and wind affect the particle.

Min Mass - Determines the least amount of mass that can be assigned to each of the fireworks particles. Mass is the factor that defines how much gravity, air resistance and wind affect the particle.

Max Mass - Determines the greatest amount of mass that can be assigned to each of the fireworks particles.

Sparkler System

Generate - Determines how many sparkle particles will be generated per frame.

Velocity - Controls maximum speed of the sparkler particles.

Opacity - Determines the transparency of the sparkle particles.

Color - Determines the color of the Sparkler system particles

Lifetime - Determines the maximum lifetime for each of the sparkler particles.

Gravity - Controls how quickly the firework particles will fall once exploded.

Wind Horiz - Controls the ability to make the fireworks drift to the right or left.

Wind Vert - Increases or decreases the vertical speed of the fireworks. This can be used to simulate wind blowing from the ground.

Air Resist - Decelerates the particles as they are traveling. This is equivalent to setting brakes on the particles.

Glow Radius - Determines how far the glow that is set in Glow Intensity will spread.

Glow Intensity - Determines how brightly the particles will glow.

Glow Own Colors - When selected, the glow will be the same as the color of the particles.

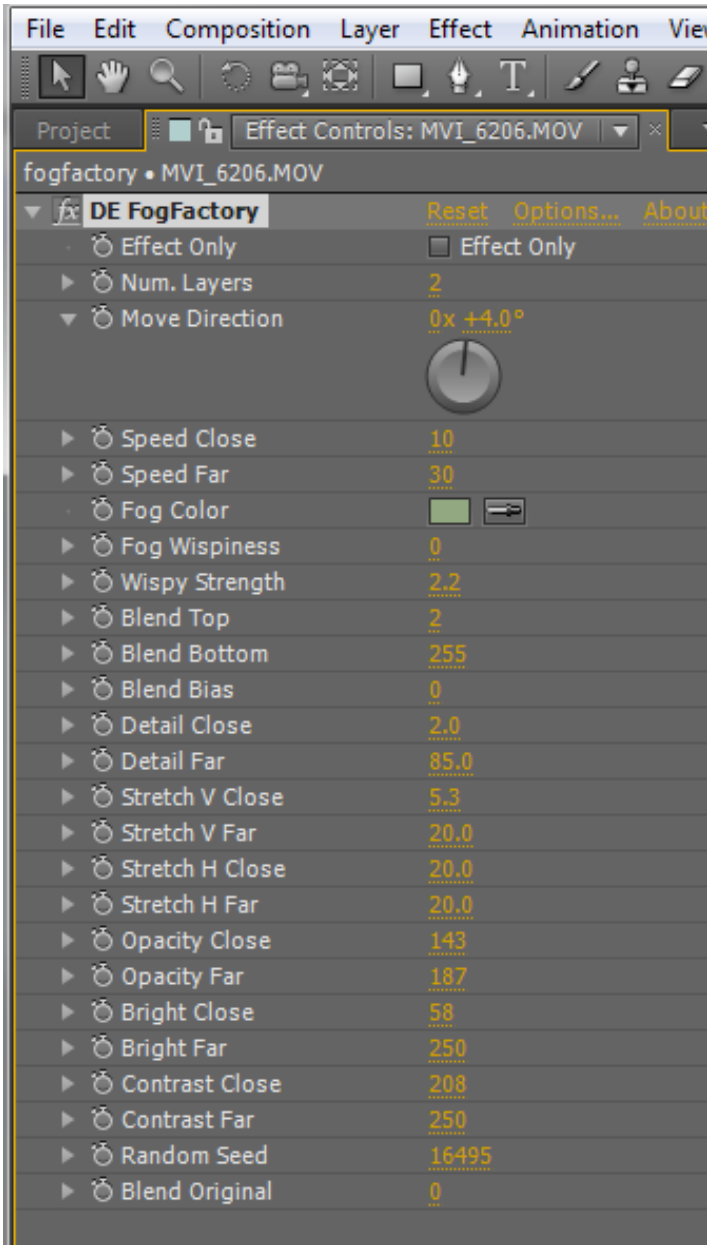
Glow Inner Color - This determines the interior color of the glow.

Glow Outer Color - This determines the color of the exterior glow.

Color Bias - Allows for control over which color between Glow Inner Color and Glow Outer Color will be more dominant.

Fog Factory

This plug-in creates a flowing fog effect that offers depth of field simulation and automatically moves without keyframing.



Fog Factory Controls

All of the controls that have a close and far control will scale the results between the closest and furthest layer. Large differences in these values will give a large depth-of-field effect to the motion.

Effect Only - When selected, only the fog factory effect will be seen while the original source footage will be removed.

Num Layers - Determines the number of fog layers that are placed onto the footage.

Move Direction - Determines the direction in which the fog will pass by.

Speed Close - Determines the speed of the closest layer of fog.

Speed Far - Determines the speed of the fog that is furthest.

Fog Color - Determines the color of the fog.

Fog Wispiness - Provides curls and whirlpool motion into the banks of fog. Fog Wispiness determines the quantity of wispiness.

Wispiness Strength - Determines how extremely the wisps will affect the fog.

Blend Top - Determines the opacity of the fog bank in the upper half of the layer. The lower the value, the less fog there will be along the top of the layer.

Blend Bottom - Determines the opacity of the fog bank in the lower half of the layer. The lower the value, the less fog there will be along the top of the Bottom.

Blend Bias - Allows for further weighting of the top and bottom opacities. This is the only way to completely remove fog from the top or bottom halves of the footage.

Fog Factory

Fog Factory Controls

Detail Close - Determines the level of detail of the closest fog bank. The smaller this number, the closer the fog bank will appear.

Detail Far - Determines the detail level of the furthest fog bank. The higher this number, the further away the fog bank will appear.

Stretch H Close - Stretches the closest fog bank along the horizontal axis.

Stretch H Far - Stretches the furthest fog bank longer along the horizontal axis.

Stretch V Close - Stretches the closest fog layer along the vertical axis, making the fog look tall and thin.

Stretch V Far - Stretches the farthest fog layer along the vertical axis.

Opacity Close - Determines the transparency or opacity of the closest fog layer.

Opacity Far - Determines the transparency or opacity of the furthest fog layer.

Bright Close - Determines the brightness value of the closest layer of fog.

Bright Far - Determines the brightness value of the farthest layer of fog.

Contrast Close - Determines the contrast value of the closest layer of fog.

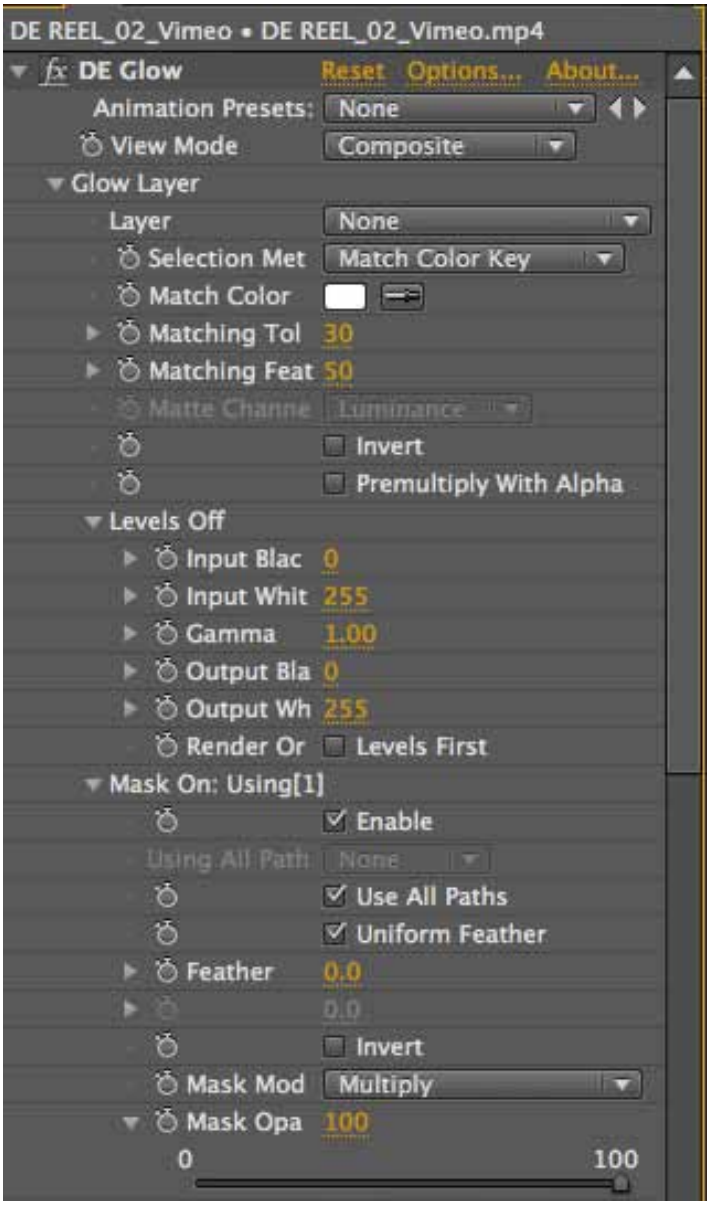
Contrast Far - Determines the contrast value of the farthest layer of fog.

Random Seed - The seed value (start point) for any randomization that occurs in the plug-in.

Blend Original - This will blend in the unaffected original layer with the affected layer. The higher this number, the more the original layer will be blended.

Glow

This effect is an advanced plug-in for generating beautiful blooms and glowing regions.



Glow works by extracting a region of the source layer, blooming it, and then re-compositing it over the original. Selection of glow regions can be achieved using a channel matte or color key. Additionally, masks can be used to control where the blur is applied.

View Mode

Glow Source - This view mode displays the selected layer unmodified. If the layer is set to none, then the layer on which the effect is applied will be used.

Glow Selection - Use this view mode to see the areas that will be glowed. The glow selection is controlled by Match Color or Matte Channel, depending on which mode is chosen.

Glow Mask - Use this view mode to see the mask by itself.

Glow Only - This view mode displays the fully processed glow layer by itself. This is useful to see exactly what the glow is doing and can even be used as an output option to use with other effects.

Composite - This view mode outputs the final result of Glow. In this mode, all effect controls will be enabled and the glow will be applied to the source layer.

Glow Controls

Glow Layer - Specifies the input layer and options for building the glow.

Layer - Specifies on which layer to base the glow.

Glow

Glow Controls

Selection Method - Rather than glowing the entire image, Glow uses a selection to build the glow. There are two methods for selecting the image region:

> **Match Color Key -** This method uses color keying to define the image region to glow. When using this mode the Match Color, Tolerance, and Feather controls will become enabled.
>
> **Use Channel Matte -** The other method of selecting the glow region is to use a channel as a matte. A channel can be used with levels to pull a precise region from an image. For example, you could use the luminance channel to generally apply glow to the lighter areas of the image.

Match Color - This color specifies the color to key from the layer. Any color matching this will be included in the glow.

Matching Tolerance - Starting from the match color ,the tolerance expands the search region to include more pixels.

Matching Feather - Can also be used to increase the selection region. However the feather fades in pixels based on their closeness in matching, creating a softer matte.

Channel - The selected channel is used to determine what areas of the image will be glowed. Levels can be used to fine tune the selection region.

Invert - When enabled, the glow region will be inverted.

Premultiply With Alpha - The selection region will be multiplied with the layer's alpha channel.

Levels - The glow selection can be further adjusted using Levels.

Input Black - When increased, the channel becomes darker. The Input Black and Input White values can be moved closer together to create contrast.

Input White - Increases the range of white pixels. As the value is decreased, the brightness of the image increases until the whole image becomes white.

Gamma - Values less than 1.0 bias the gray levels towards black, creating a darker image. When the gamma value is greater than 1.0 the gray values are pushed towards white, brightening the image.

Output Black - Limits the maximum darkness of the channel.

Output White - limits the maximum brightness of the channel.

Render Order, Levels First - allows you to control whether levels are applied to the glow before or after its blur is computed.

Mask - Layer masks can be used to control to what areas of the image glow is applied. The mask group is only active when a valid path is chosen and paths must be closed.

Path - To specify a mask, select the desired path from this menu. Only closed paths are valid.

Use All Paths - All available closed paths are used. The paths used are indicated by number in the name of the mask group control.

Uniform Feather - Mask feathering will be equal in the horizontal and vertical directions.

Feather - Controls the size of the feathering in pixels. You can turn off Uniform Feather in order to control the feathering amount independently on the X and Y axis.

Invert - The mask will be rendered inverted. Rather than color being filled inside the path shape, it will fill all areas outside the closed path.

Mask Mode - The default mask mode is Multiply, which produces the most commonly expected result. However, you can use any other mode to subtract, add, or otherwise affect the matte with

Glow

the mask.

Opacity - Controls how much the mask affects the matte.

Colorize - When creating a glow, you can use the original input colors of the Glow Layer or you can use the following controls to tint and colorize the effect.

> **Enable -** To enable Colorize, this checkbox must be on.
>
> **Color Presets -** A collection of built-in presets make easy work out of colorizing and provides great starting points.
>
> **Number of Colors -** Colorize supports either 3 or 5 colors. When set to 3 colors the Mid-Shadow and Mid-Highlight controls become disabled.

Color Controls - Each color targets its respective range of the image. The shadow color, for example, is mapped to the darkest areas of the image, while the highlights are mapped to the brightest. With Glow, the darker areas are transparent and will have less effect.

Colorize Opacity - At a value of 0, no color is applied to the glow, while at 100 the color is fully applied.

Cycle Mode - Determines how values are handled beyond the normal value range when the Cycle is used.

Cycle - This cycles the grayscale gradient, wrapping it around. The cycle mode can be used to determine how the values are wrapped.

Size - Controls how much the glow is bloomed. Size is used in conjunction with Intensity to control the visible amount of glow.

Quality - Allows you to decide what type of blur is used for computing the size. When set to Automatic, the effect will render Gaussian Blur for best quality and Fast Blur for draft quality.

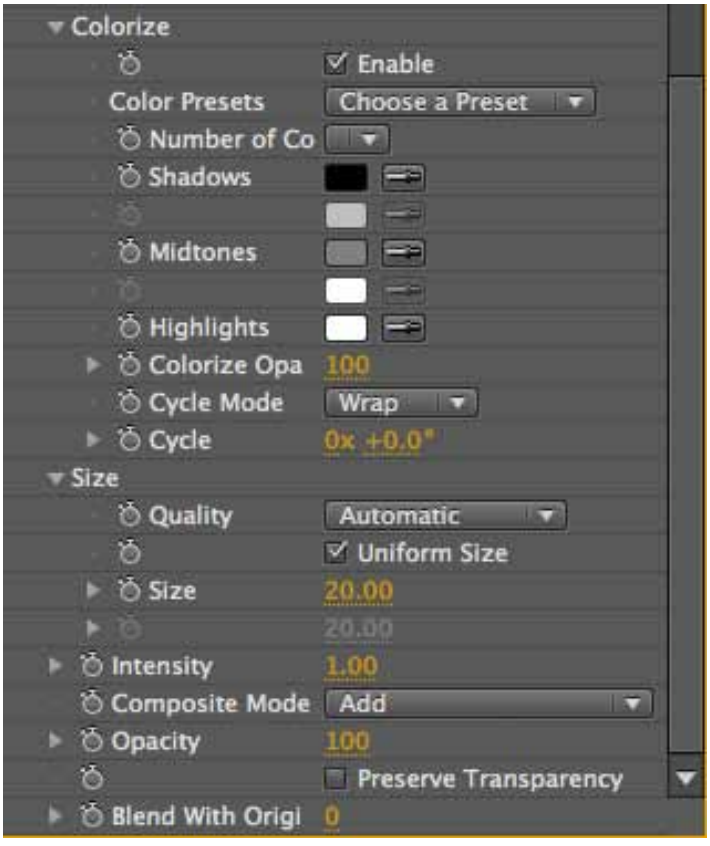
Uniform Blur - Controls whether the glow is applied equally in the horizontal and vertical directions.

Preserve Transparency - When enabled, the alpha channel of the original layer is preserved. Otherwise, the glow region has it's own alpha and may extend beyond the edges of the original alpha.

Composite Mode - This is the final composite mode used to apply the glow over the original layer.

Opacity - The final glow opacity is controlled by this slider. If set to 0, Glow will have no effect on the original layer.

Blend With Original - Use this slider to blend the result of the effect with the original input layer. If Blend With Original is set to 100, the effect will not render.



Glower

This plug-in allows for a wide variety of glowing effects.

Glower Controls

Glow Radius - Determines how many pixels away from the source pixel (every pixel that falls within Threshold Min and Threshold Max) that the glow will extend.

Threshold Min - The minimal luminance threshold from which the glow will be generated. Zero is equal to black.

Threshold Max - The maximum luminance threshold from which the glow will be generated. 255 is equal to white.

Use Original Colors - When selected, the glow colors will be determined by the colors in the footage. When not selected, the glow will be based on the dark color and bright color controls.

Glow Intensity - Determines how brightly the effect will glow on the pixels on which the threshold will let the effect occur.

Color Bias - Determines the dominance between Dark Color and Bright Color.

Dark Color - The color of the darkest part of the glow when Use Original Colors is NOT checked.

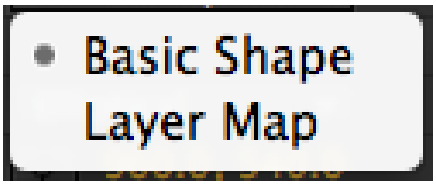
Bright Color - The color of the brightest part of the glow when Use Original Colors is NOT checked.

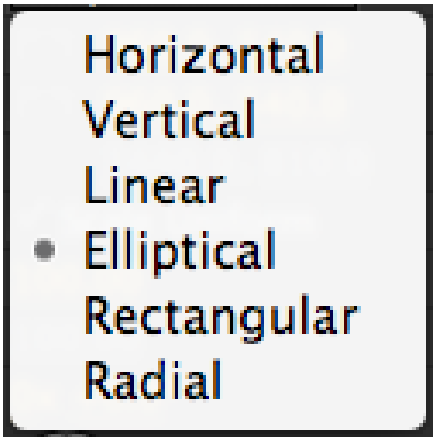
Blend Original - Will blend the unaffected original layer with the affected layer. The higher the value, the more the original layer will be blended with the affected footage. Blend Original is an excellent way to bring some of the sharpness and detail back into the footage.

TIP: If you want the dark areas to glow, set the min to zero and the max to somewhere around 75 (depending on the image.) This can give a slightly cartoonish look to the footage and will often bring detail out of the darker areas.

Gradient Designer

This plug-in is the ultimate tool for building gradients and supports dynamic creation of up to 12 colors.





Gradients can be created in two general ways: Basic Shape and Layer Map.

Basic Shape

You can choose from a list of standard gradient shapes to create practically any kind of gradient needed.

Horizontal - This maps the gradient from left to right across the layer.

Vertical - This maps the gradient from top to bottom across the layer.

Linear - This creates a gradient in a direction from the start point to the end point.

Elliptical - Produces a circular gradient. In this mode the transform controls will become active allowing you to move, scale, and rotate the gradient just as you would a layer with Anchor determining the center of the transformations.

Rectangular - This produces a box style gradient. In this mode the transform controls will become active allowing you to move, scale, and rotate the gradient just as you would a layer. Anchor determines the center point of the transformations.

Radial - This produces a gradient that rotates around the center point in a clockwise direction. This shape also supports transformation controls.

Layer Map

When the gradient type is set to Layer Map, these controls will become active. Layer Map builds a gradient by mapping the colors to the specified channel of a layer.

Layer - Specifies the input layer for the gradient. If none is selected, then the layer on which the effect is applied will be used.

Channel - The selected channel will be extracted from the layer. You can set the render mode to Gradient Map to see the channel by itself with the Invert and Premultiply With Alpha options included.

Invert - When enabled, the selected channel will be inverted, calculated before Premultiply With Alpha. This will reverse the mapping of the gradient.

Premultiply With Alpha - Enable this in order to render the channel premultiplied with its alpha channel.

Color Presets - As a starting point you can choose from the list of color presets. Each preset may vary in the number of colors used.

Gradient Designer

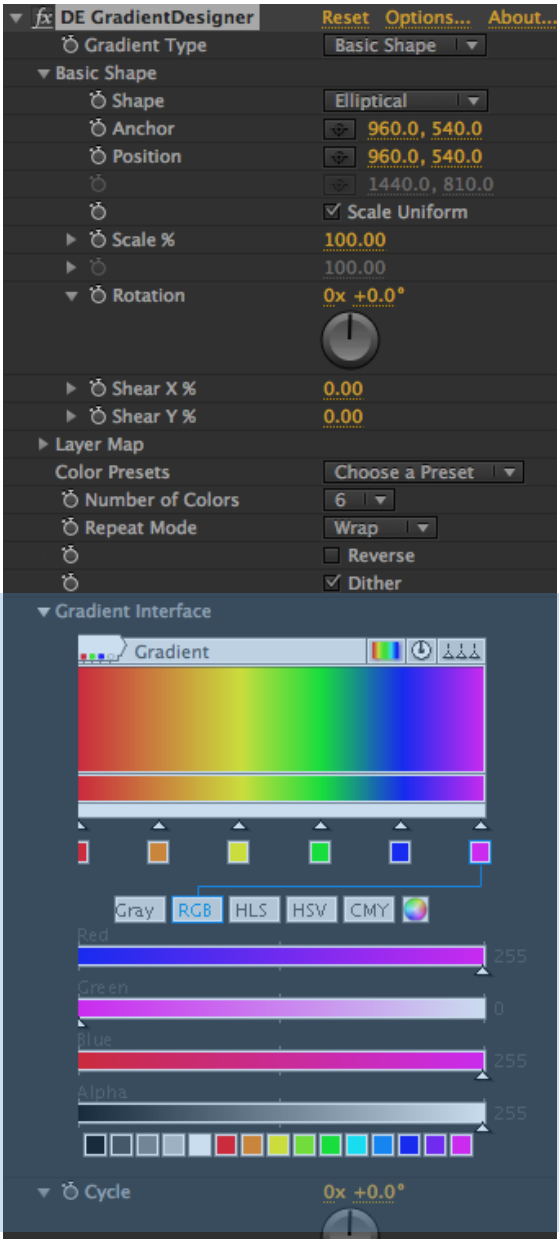
Layer Map

Number of Colors - Gradient Designer supports up to 12 colors. You can set the number of color using this popup menu, or you can interactively add and remove colors using the gradient interface.

Repeat Mode - Specifies how the gradient behaves beyond the initial range and when using the cycle feature. You can create infinitely repeating gradients, or gradients that simply fade in and out.

Reverse - Checking this box will reverse the gradient.

Dither - To help avoid gradient banding you can enable dithering. Dithering adds slight random variation to the color mapping to help reduce visual steps in the gradient.



Gradient Interface

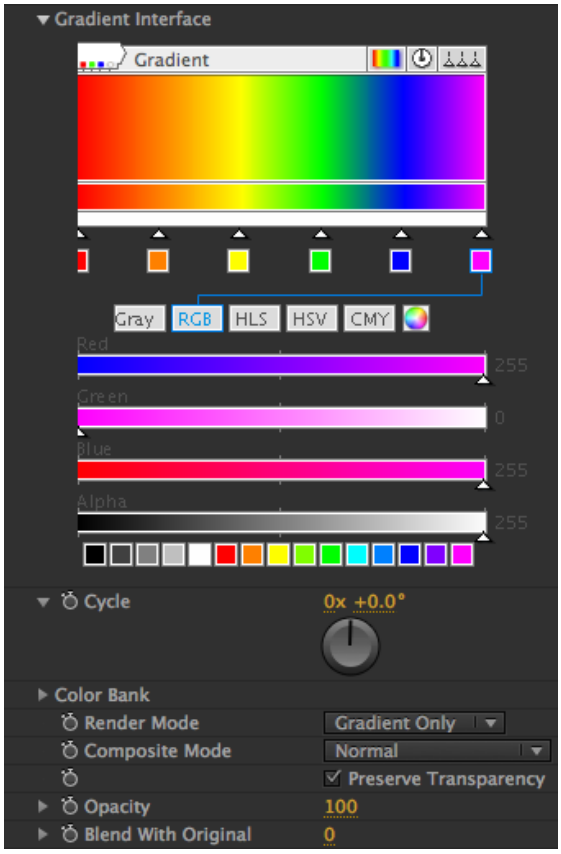
The Gradient Interface greatly simplifies the process of creating and manipulating colors.

Control Bar - Displays the name of any control as you move over or select it. In some cases the control value is also displayed, making it easier for you to judge the changes you are making.

Display Color/Alpha - Toggles between displaying the color gradient or the alpha gradient. The change will be reflected in the main viewing area of the gradient interface. The rendered gradient is unaffected by this change.

Reset Cycle - This button provides a quick way to reset the cycle parameter and will not modify the colors or positions in any way.

Gradient Designer



Gradient Interface

Space Positions Evenly - The current order of colors will be maintained, but the spaces between will be evenly spread out.

Histogram/Gradient View - If Layer Map is being used, a histogram of the channel map will be displayed superimposed with the gradient. If Basic Shape is being used, the viewing area will display a full gradient.

Cycle - Can be interactively set in the gradient interface by dragging anywhere in the main viewing area. The cursor will change to the hand as an indication.

Histogram Scale - There is a slider control at the right of the interface that allows you to zoom into the histogram to see smaller details more clearly.

Color and Alpha Gradient - Below the main viewing area of the histogram is the gradient display. This is separated into two portions: color and alpha.

Adding a Color - Colors can be dynamically added to the gradient by clicking in any empty space between existing color controls. The cursor will change to a pen '+' to indicate the mode change.

Removing a Color - Colors can be removed from the gradient by holding down the control key and clicking on a color. The removed color will be returned to the color bank for reuse. Colors can be removed until just 1 color remains.

Color Picker - To select a color simply click on it. The selected color is indicated by a connection line in blue. Changes made to the color picker will directly affect the selected color. To set the alpha value of a color, use the alpha slider at the bottom.

Cycle - The Color Bank lists all of the color controls used by Gradient Designer. Rather than encapsulating all of the controls into a single parameter, individual controls store the data to provide maximum flexibility in animating. You can enable animation for any of the controls in the color bank by clicking on the standard stopwatch icon.

Color Bank - The color bank is carefully managed by Gradient Designer and will add and remove colors as needed. Unused colors will be disabled gray.

Gradient Designer

Render Mode

Render Mode gives a few different render output options:

Gradient Map - This mode will render the gray-scale gradient map without color. This mode is most useful when using Layer Map.

Gradient Only - This mode will output just the gradient with its own opacity. Use this view mode when you don't care to composite the gradient over the source layer.

Composite - This mode will render the gradient composited over the layer on which the effect is applied. With this mode selected, Composite Mode and Opacity controls will become available.

Composite Mode - This option is only available when Render Mode is set to Composite. The default setting of Normal simply replaces the original layer colors. Other composite modes can be used to create more dynamic coloring effects.

Preserve Transparency - When this option is enabled, the alpha channel of the original layer is preserved. Otherwise, the glow region has it's own alpha and may extend beyond the edges of the original alpha.

Opacity - The amount of color applied is controlled by the Opacity. At a value of 0, no color is applied to the image, while at 100% the color is fully applied.

Blend With Original - Use this slider to blend the result of the effect with the original input layer. If Blend With Original is set to 100, the effect will not render.

Grayscaler

This plug-in converts color images into grayscale images with a customizable luminance control.

Grayscaler gives control over the process of going from color to grayscale, allowing for varying amounts of red, green, and blue color channels. Additionally, brightness and contrast may be worked with independently for each of these channels.

Grayscaler Controls

Weight is the amount of color that is contributed from each channel. The sum of all three channels should equal 100, as this is the standard amount of channel contribution in a normal image.

Red, Green, Blue Weight - Determines the contribution of the red, green, and blue channels to the final grayscale image.

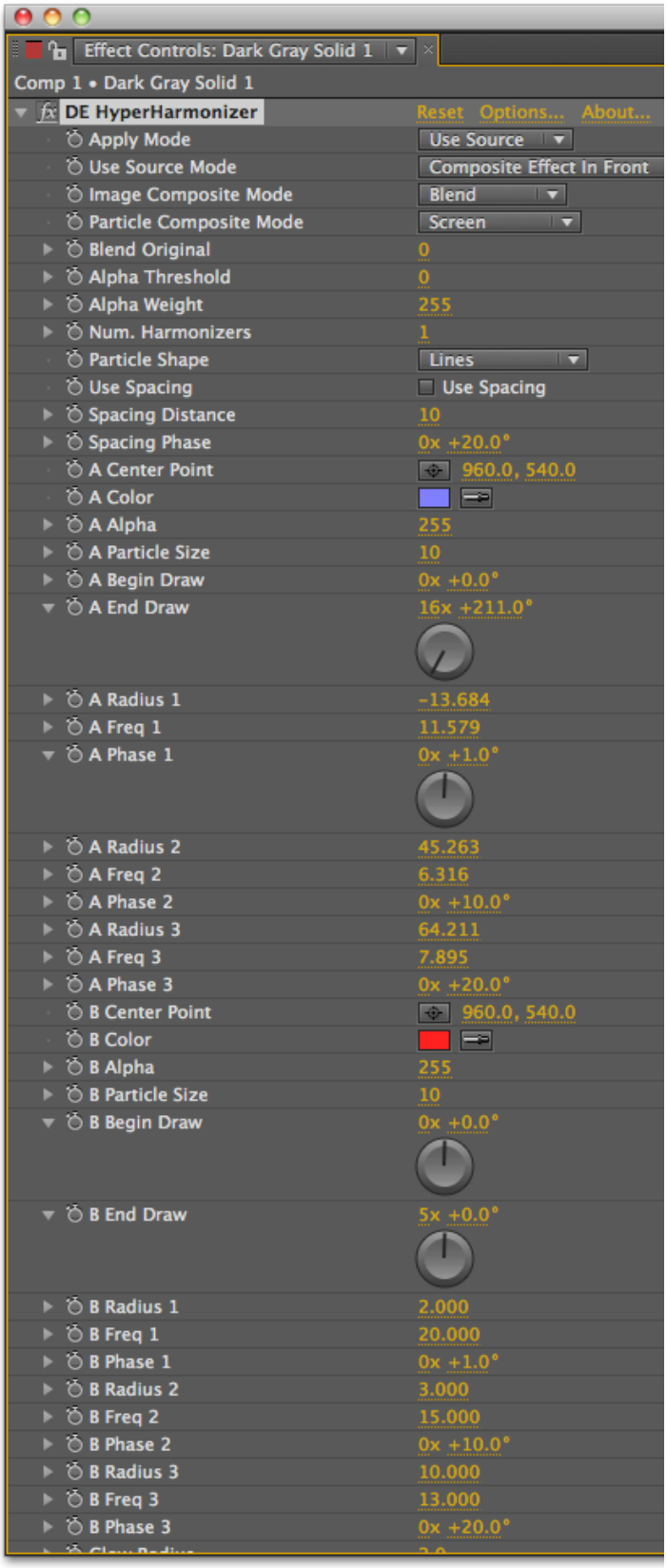
Red, Green, Blue Contrast - Controls the amount of contrast in the red, green, and blue channels. This allows for increasing or decreasing contrast levels in the channel before it is blended

Red, Green, Blue Brightness - Controls the amount of brightness in the red, green, and blue channels. This allows for increasing or decreasing brightness levels in the channel before it is blended

Blend Original - Will blend the unaffected original layer with the affected layer. The higher the value, the more the original layer will be blended with the affected footage.

HyperHarmonizer

This plug-in is used to create incredibly mesmerizing geometric images.



HyperHarmonizer is a visual element-generating plug-in designed using sine-wave curves and other mathematical constructs to create beautiful and interesting patterns.

HyperHarmonizer Controls

Num Harmonizers - Controls the number of harmonizer generators. Each one will create a single, possibly very complicated curve.

Particle Shape - Define the particle shape that makes up the line for the Harmonizer. Shapes include: star; oval; line; soft & bright; harsh falloff; dot.

Use Spacing - Allows a distance to be set between drawing points.

Spacing Distance - Used to control the amount of space between segments when Use Spacing is enabled.

Spacing Phase - This is the phase of the spacing segments. Animate this to move the particles along their paths.

A Shape

This section defines the HyperHarmonizer graphic element using 3 sets of sine-wave generators.

A Center Point - Defines the center of the harmonizer.

A Color - Controls the color of the harmonizer.

A Alpha - Controls the opacity of the harmonizer.

A Particle Size - Controls the size of the particles when particle shape is other than Line.

A Begin Draw - This is the starting phase of the drawing. Animate this to get a "drawing it now" animated look.

HyperHarmonizer

A Shape

A End Draw - This is the end drawing point. Use this in conjunction with Begin Draw to animate the actual drawing of the path.

The harmonizer is created using 3 sine-wave generators. By defining different values to this bank of parameters, various interesting effects can be created.

A Radius 1-3 (amplitude) - This controls the maximum radius of this part of the harmonizer function.

A Freq 1-3 - This controls the frequency of this part of the harmonizer function.

A Phase 1-3 - This controls the phase of this part of the harmonizer function.

B Shape - These parameters are identical to A Shape. The B shape is the bottom shape when interpolating between more than 1 harmonizer.

Glow Radius - Determines how far the glow will spread. If this value is set high, the glow will extend for a large distance around the image. If it is set low, the glow will be concentrated closely around the image.

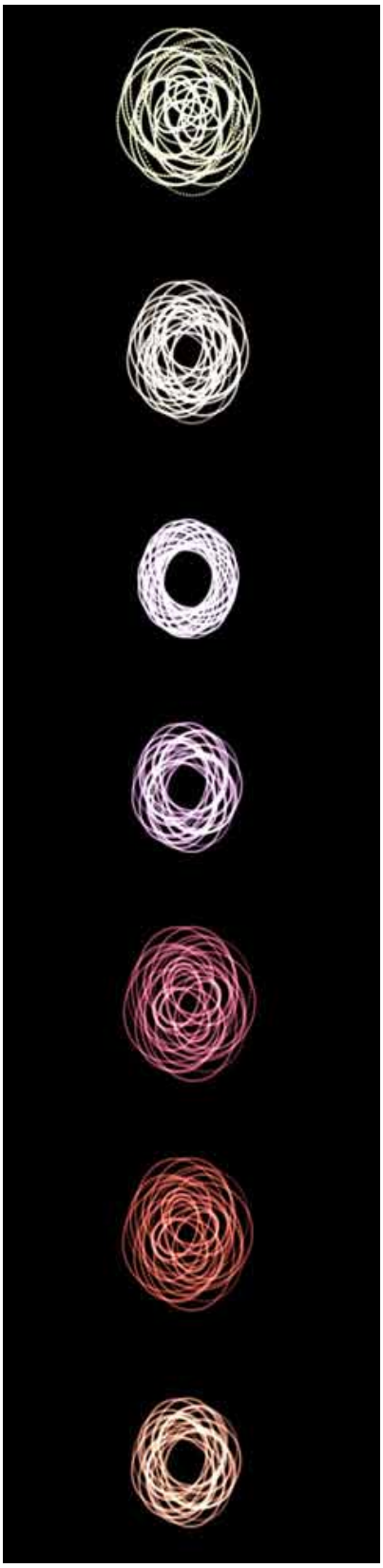
Glow Intensity - Determines how brightly the image will glow.

Glow Own Colors - When enabled, the glow will be the same as the color of the particles.

Glow Inner Color - When Glow Own Colors is unchecked, this determines the interior color of the glow.

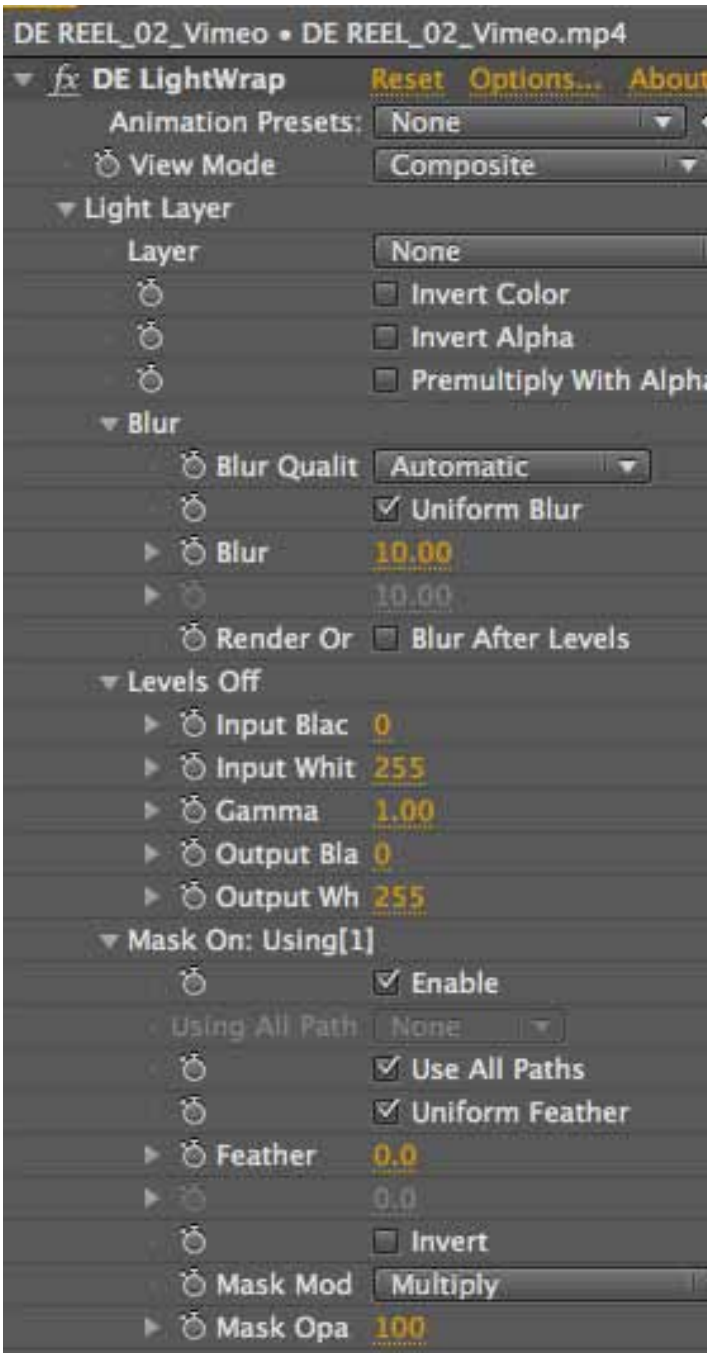
Glow Outer Color - This determines the exterior color of the glow.

Color Bias - Determines the balance between inner and outer glow.



Light Wrap

This plug-in helps to integrate composite elements by glowing background light around foreground objects.



In the real world, concentrated light tends to scatter, creating a blooming effect that is particularly noticeable at the edges of objects. Light Wrap simulates this effect digitally, providing advanced features for precisely controlling how and where the light is applied.

To use Light Wrap, apply it to the foreground layer. Because Light Wrap is based on the layer's alpha channel, the layer must have transparency. Then specify which layer to use as the background light source.

View Mode

Light Layer - Use this view mode to see the source of the light. This mode will render the light layer with masks, levels and blur applied.

Light Mask - If you are using a mask on the light layer, use this mode to view the mask by itself.

Light Wrap - This view mode will render out the internal light wrap layer. This can be useful if you wish to composite the light wrap separately or simply see what the light looks like alone. Note that you may need to turn off the background layer to see the light wrap correctly.

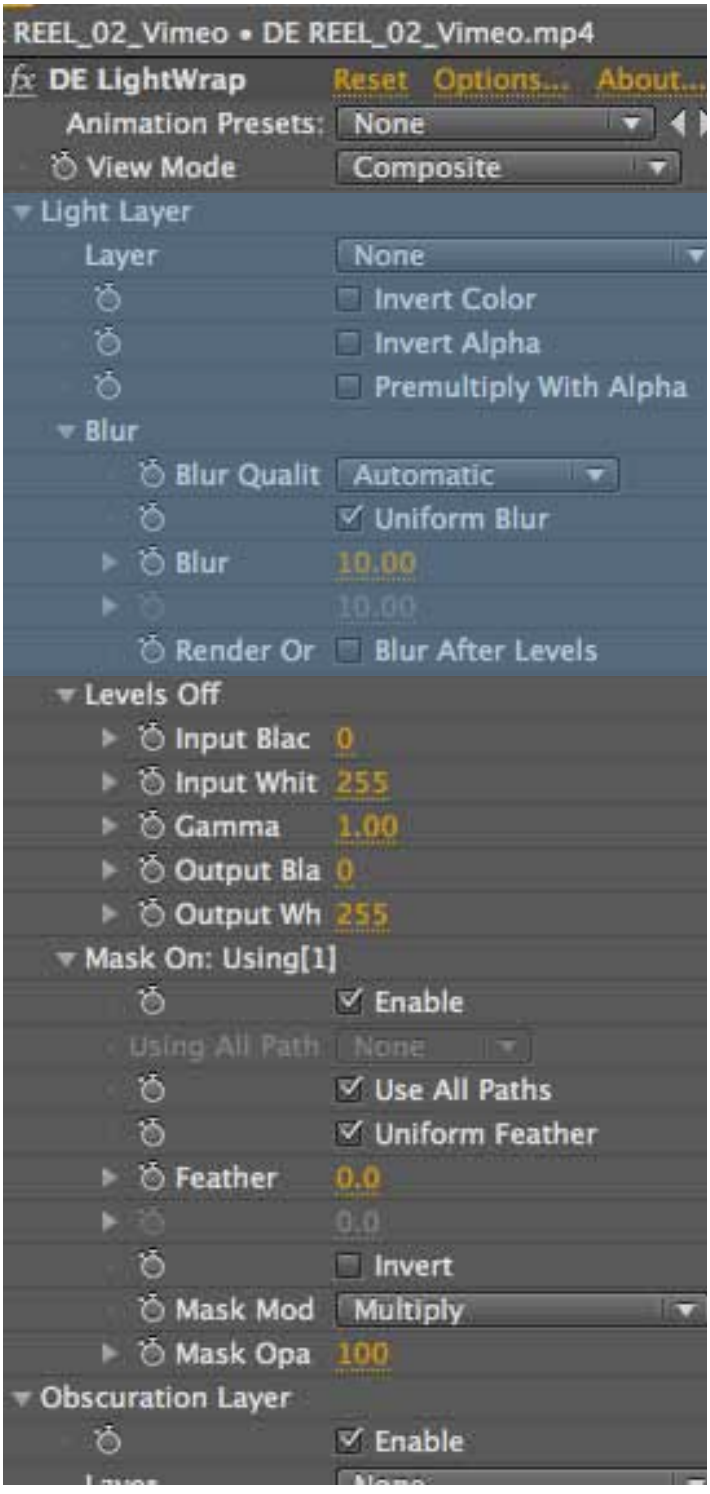
Light Stencil - This view mode can be used to inspect the affected regions of the light wrap. It will show in grayscale the area the light is covering. This view mode is especially useful when setting up the obscuration layer.

Obscuration Layer - When enabled, this view mode can be used to see the obscuration layer directly.

Composite - View the final output of Light Wrap in this mode. Only in this mode will all of the effect controls be available.

Light Wrap

Light Wrap Controls



Light Layer - Specifies the background light that will be wrapped around the foreground object.

Layer - Use this menu to choose the source layer for Light Wrap. If None is selected then the layer on which the effect is applied will be used.

Invert Color - Enable this in order to invert the color channels of the layer. This can be useful in conjunction with certain composite modes.

Invert Alpha - This invert the alpha channel of the layer when enabled. Invert is calculated before Premultiply With Alpha.

Premultiply With Alpha - Enabling this will premultiply the color channels of the layer with the alpha channel. This effectively pre-renders the layer over black.

Blur - Used to soften the background light which helps to diffuse the light more and reduce visible edges.

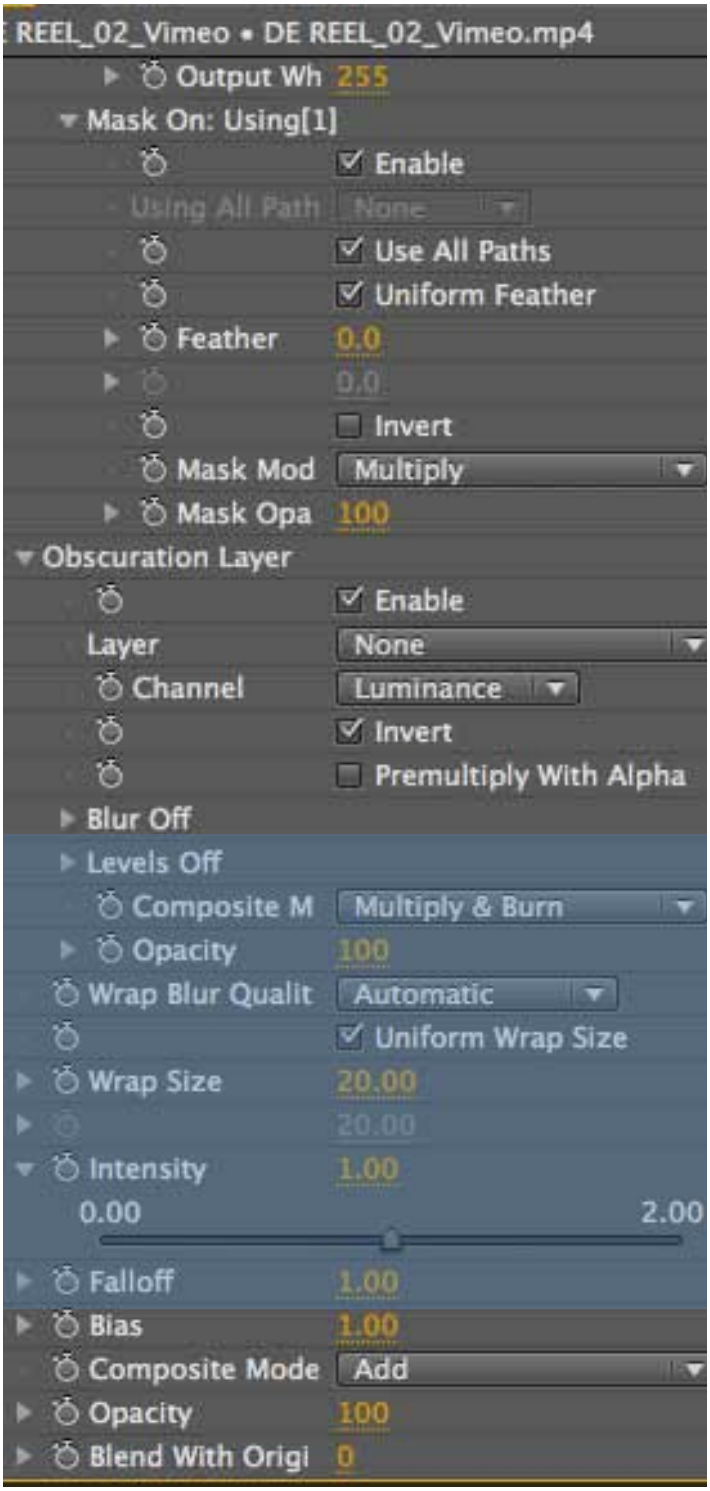
Blur Quality - Choose from Fast Blur or Gaussian. When set to Automatic, the effect will render Gaussian Blur for best quality and Fast Blur for draft quality.

Uniform Blur - This controls whether Blur is applied equally in the horizontal and vertical directions.

Blur After Levels - Applying blur before or after Levels can produce dramatically different results. This checkbox provides choice in the rendering order to allow maximum flexibility in using the blurring and levels features.

Levels - The light layer can be adjusted using the levels controls.

Light Wrap



Light Wrap Controls

Input Black - As the Input Black is increased, the layer becomes darker. The Input Black and Input White values can be moved closer together to create contrast.

Input White - As the value is decreased, the brightness of the image increases until the whole image becomes white.

Gamma - Gamma values less than 1.0 bias the gray levels towards black, creating a darker image. When the Gamma value is greater than 1.0 the gray values are pushed towards white, brightening the image.

Output Black - Limits the maximum darkness of any pixel (measured in bits per pixel.)

Output White - Limits the maximum brightness of the layer.

Mask - Layer masks can be helpful in isolating or excluding areas of the light layer. The Mask group is only active when a valid path is chosen and paths must be closed.

Path - To specify a mask, select the desired path from this menu.

Use All Paths - With this option, it is not necessary to explicitly select a path. Instead, all available closed paths are used. The paths used are indicated by number in the name of the mask group control.

Uniform Feather - Enabling this function means that mask feathering will be equal in the horizontal and vertical directions.

Feather - This slider controls the size of the feathering in pixels. Turn off Uniform Feather in order to control the feathering amount independently on the X and Y axis.

Light Wrap

Light Wrap Controls

Invert - When enabled, the mask will be rendered inverted. Rather than color being filled inside the path shape, it will fill all areas outside the closed path.

Mask Mode - The default Mask Mode is Multiply, which produces the most commonly expected result. However, you can use any other mode to subtract, add, or otherwise affect the transparency.

Mask Opacity - Controls how much the mask affects the light layer. With a value of 0, the mask is not rendered, and at a value of 100 the mask is fully applied.

Obscuration Layer - This function adds another level of control to Light Wrap by limiting light to particular areas. It is often desirable to have more light wrap relative to the dark areas of the foreground, and less light wrap along bright edges. The default settings are intended for this purpose, using the inverted luminance of the source layer as matte.

Layer - Typically this can be left to None in order to use the layer on which the effect is applied.

Channel - The default is Luminance with Invert enabled. This means the bright areas of the foreground object will be more resistant to the background light.

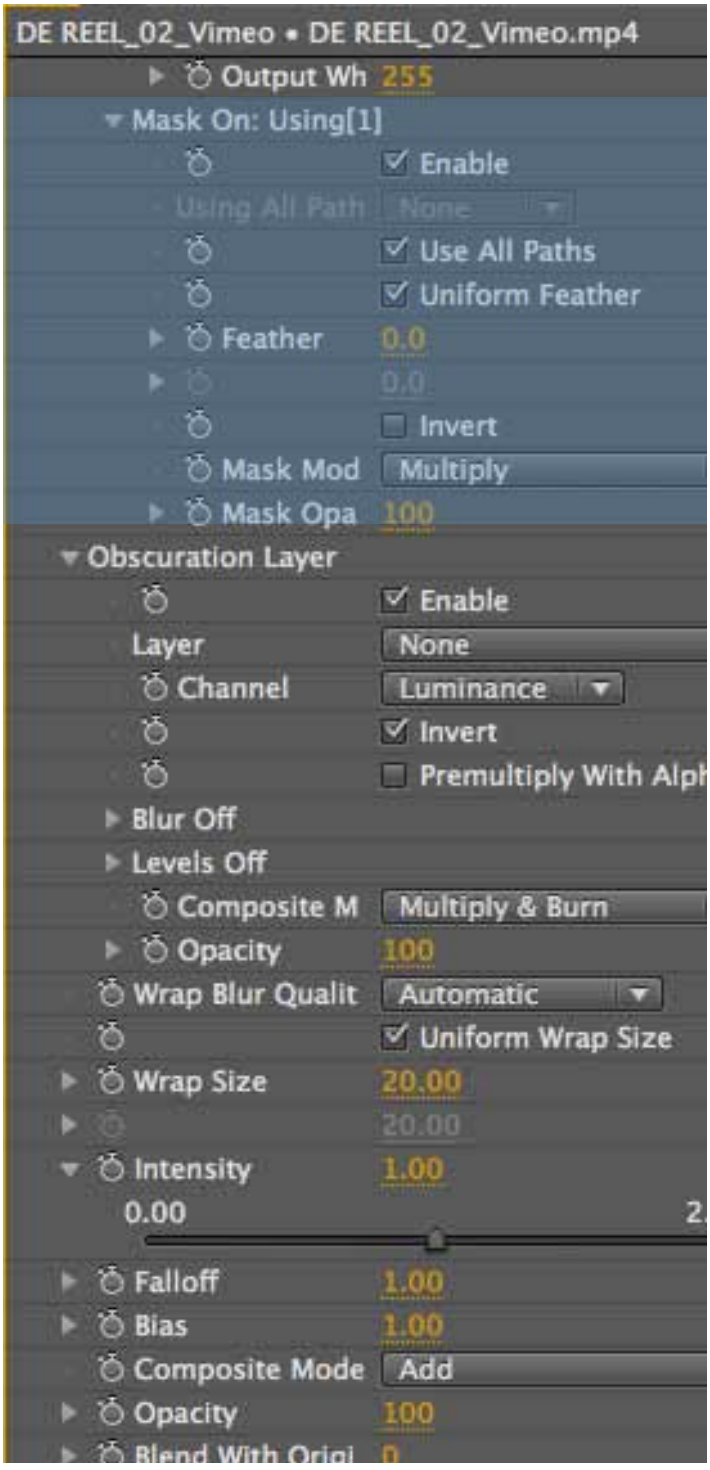
Invert - The selected channel will be inverted, calculated before Premultiply With Alpha.

Premultiply With Alpha - This option is generally used for layers that have transparency.

Blur and Levels - These controls work identically to the light layer Blur and Levels controls.

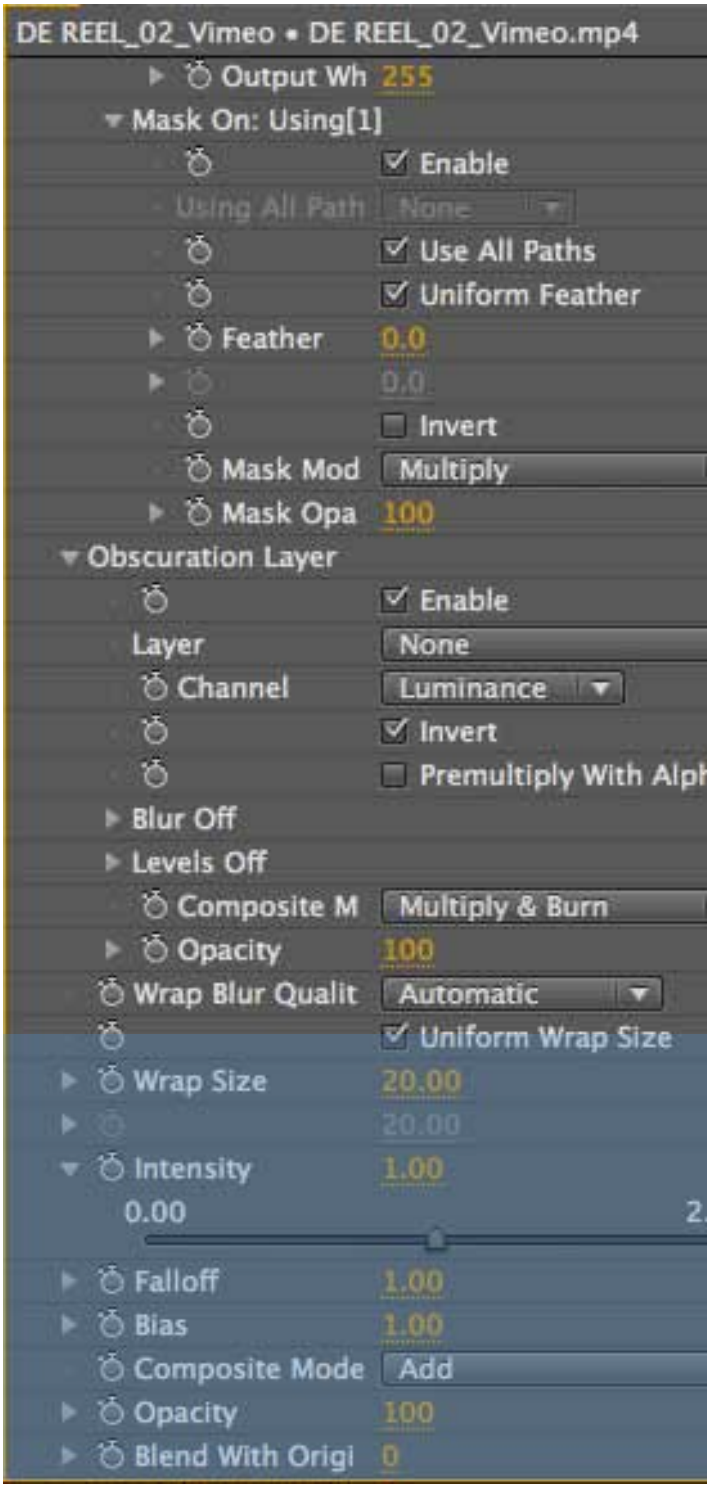
Composite Mode - Specifies the method to use when applying the Obscuration Layer. The default mode is Multiply & Burn, a proprietary mode that's great for organically combining mattes and channels.

Opacity - The degree of obscuration is controlled by the Opacity.



Tip: To help see what the Obscuration Layer is doing it is helpful to use the Light Stencil and Obscuration Layer View Modes.

Light Wrap



Light Wrap Controls

Wrap Blur Quality - You can choose from Fast Blur or Gaussian. When set to Automatic, the effect will render Gaussian Blur for best quality and Fast Blur for draft quality.

Uniform Wrap Size - When enabled, the light wrap will be equal in size in both the horizontal and vertical directions.

Wrap Size - The size of the wrap is controlled by this slider. The larger the value, the more the background light will overtake the foreground. Light Stencil view mode can be used to see this clearly.

Intensity - The Intensity is multiplied with the light wrap as a way to increase or decrease the effect of the light. Increase intensity to make the light wrap more prominent.

Falloff - Controls the contrast of the light stencil and can be used to keep the light closer to or farther from the center of the foreground layer. Lower values will wash out the light wrap creating overall light, while higher values will shrink the light wrap towards the edges.

Bias - Controls the gamma of the light wrap. Lower values will shrink the light wrap while larger values will grow the light wrap.

Composite Mode - Most often the add mode is great for lighting but other composite modes such as Luma Out & Add can provide excellent results without over-exposing the foreground.

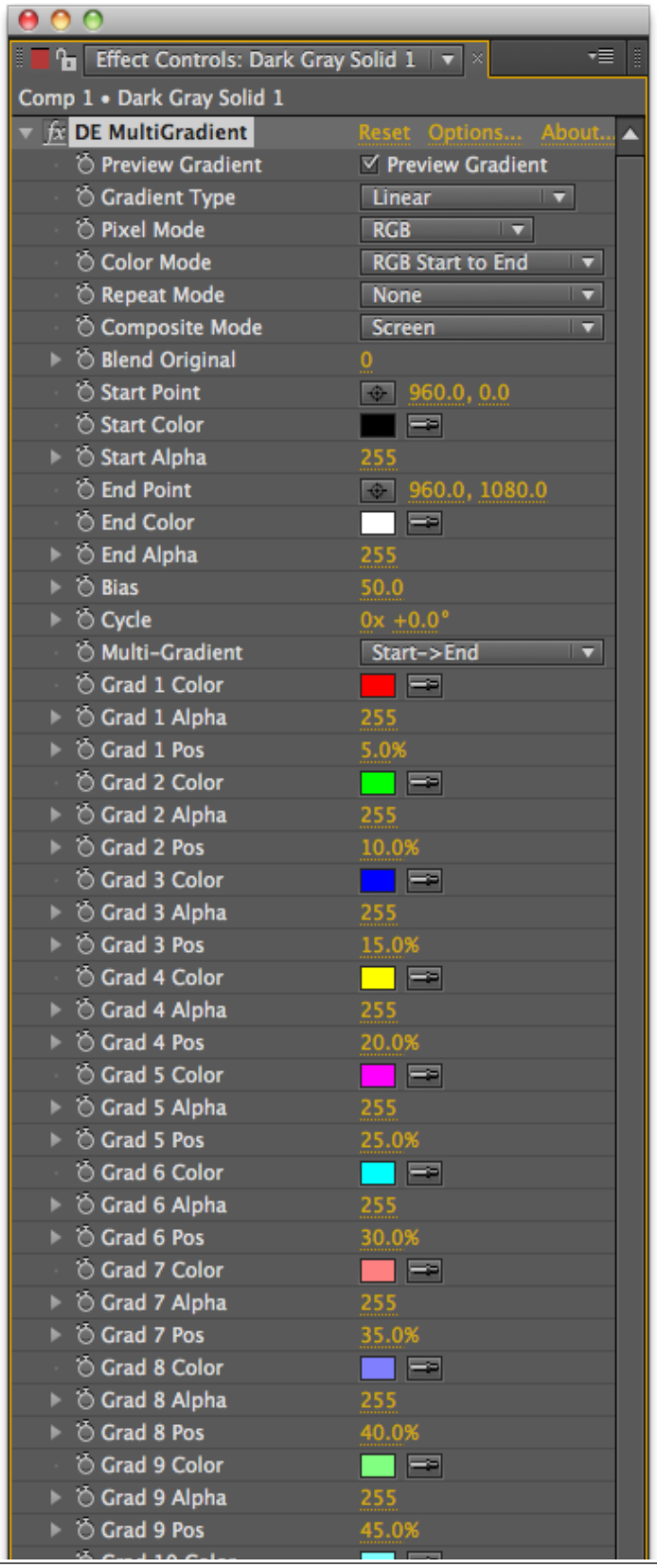
Opacity - Controls how much Light Wrap affects the layer it is applied on.

Blend With Original - Use to blend the result of the effect with the original input layer. If Blend With Original is set to 100, the effect will not render.

MultiGradient

This plug-in provides the ultimate tool for creating and animating color gradients.

MulitGradient allows control over the type of gradient, how it is to be blended into the footage, and the number of colors including alpha. MultiGradient can be used to create many different effects including sunset skies, alpha masks, border and backgrounds.



MultiGradient Controls

Preview Gradient - When enabled, the Comp window will show the basic gradient that is being used to create the effect.

Gradient Type - This includes: radial; square; cone one way; cone match up; linear; linear mirrored.

Pixel Mode - Allows for the rendering of only the red, green or blue parts of the gradients.

Color Mode - Defines how the colors are interpolated. RGB Modes interpolate linearly using RGB channels. HSB modes interpolate through a full spectrum of colors.

Repeat Mode - Defines how the gradient ramp will repeat. S=Start; E=End.

Composite Modes - Several different composite modes can be used which have different effects on the gradients.

Basic Gradient

Start Point - Defines the location of the beginning of the gradient.

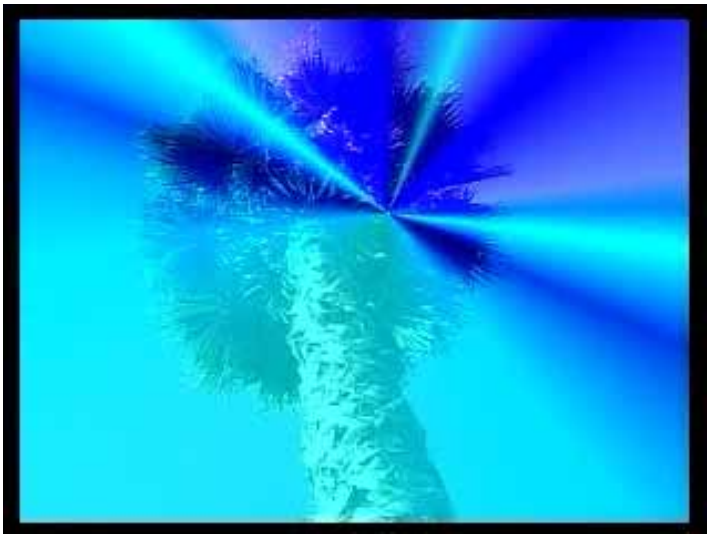
Start Color - Defines the color that will be used by Start Point in the gradient.

Start Alpha - Determines the transparency or opacity of the start color in the gradient.

End Point - Defines the location of the end of the gradient.

End Color - Defines the color that will be used

MultiGradient



by the End Point in the gradient.

End Alpha - Determines the transparency or opacity of the end color in the gradient.

Bias - Defines the weight or distribution of the start and end colors. The lower this value, the more dominant the start color.

Cycle - This allows the location of the start and end colors in the gradient to be shifted. The best way to see this is to check Preview Gradients, hold down the option key and rotate the cycle control. Keyframing this control is an excellent way to create a dreamy effect.

Multi-Gradient

Multi-Gradient - This pop-up determines how many colors will be in the gradient. The colors will always fall in between the start and end colors. For Example, S ->1 ->E, will provide for a 3 color gradient beginning with Start Color, transitioning to Grad 1 Color and ending with End Color.

Grad 1 Color - When a multi-gradient is selected in the pop-up, this will determine the color of the Grad 1. As additional colors are added to the gradient with the multi-gradient pop-up, it will begin to colorize the gradient at their respective positions.

Grad 1 Alpha - Determines the transparency of the Grad 1 color.

Grad 1 Position - Determines the position of the Grad 1 color on the gradient relative to the start color and end color.

Muzzle Flash

This plug-in simulates the flash that occurs when a gun is fired.

Firing System

Muzzle Type - Each muzzle type will create a different type of muzzle flash.

Flash point - Determines where the beginning of the flash will occur. This is where the muzzle tip should align.

Gun Butt - This option only functions when Auto Angle is enabled. When checked, the angle of the flash point will be determined by this control. A straight line passing through the gun butt and flash point will determine the flash angle.

Automatic Angle - When checked, the angle of the muzzle flash is determined by a straight line passing through the flash point and gun butt. When this is unchecked, the flash angle is determined by the flash angle control.

Flash Angle - When Auto Angle is unchecked, Flash Angle determines the angle of the flash.

Pull Trigger - Determines when the flash begins. Keyframe this control if you want the flash to begin after the first frame.

Auto-Fire - When enabled, Muzzle Flash will keep firing based on Burst Count, Flash Lifetime and Firing Space without having to keyframe Pull Trigger.

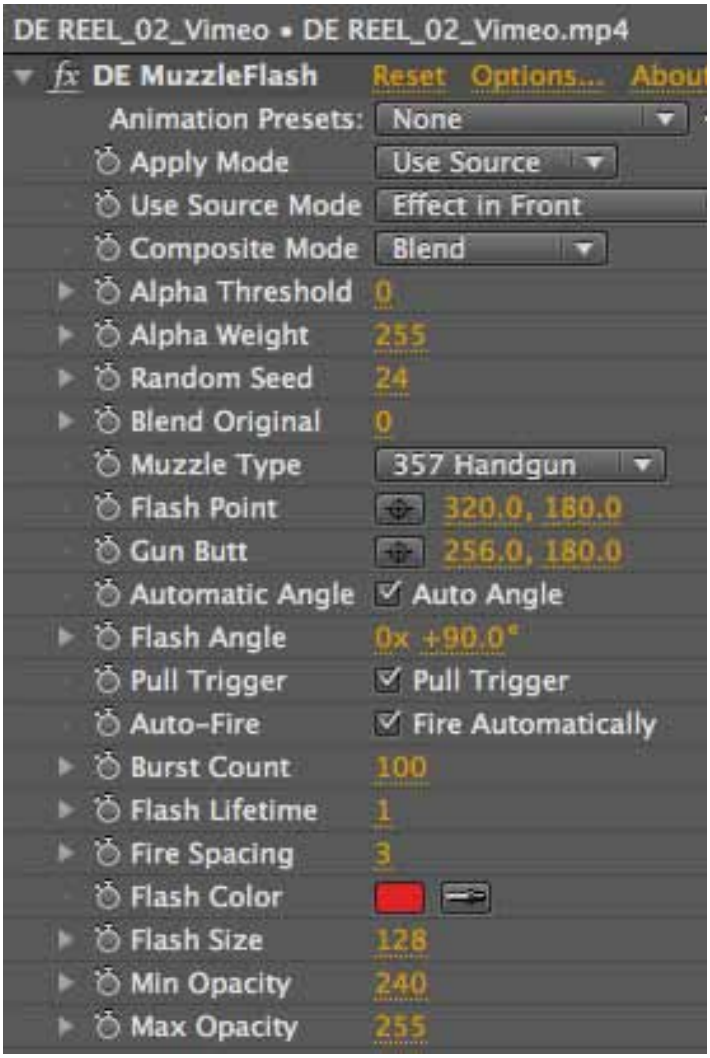
Burst Count - Determines how many times the muzzle flash will occur.

Flash Lifetime - Determines the number of frames that a flash will last.

Firing Space - Determines the number of frames between each of the bursts. This control only applies if the Burst Count is greater than 1.

Flash Color - Determines the color of the muzzle flash.

Flash Size - Determines how large or small the muzzle flash will be.



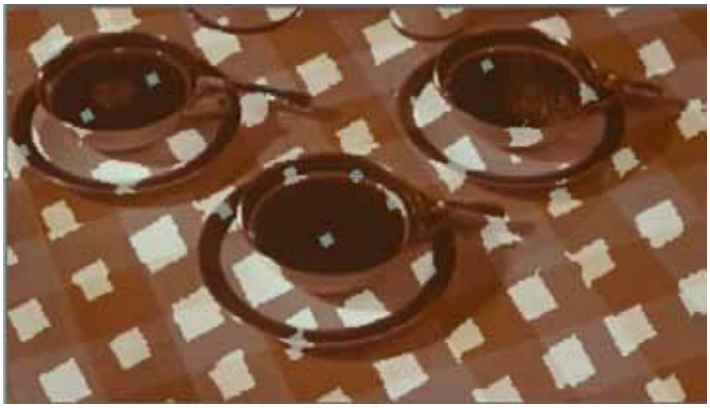
Min Opacity - Determines how transparent the thinnest part or most transparent parts of the flash will be.

Max Opacity - Determines how opaque or non-see through the thickest parts of the flash will be.

NOTE: This effect is designed to work from a side angle of the gun only. It cannot simulate head-on gunfire.

Newsprint

This plug-in can create half-tone images similar to an image on a newspaper.



In Newsprint, all aspects of the half toning process can be animated. This includes halftone shape, offset, size of the halftone dots, angle, dark color and light color. Newsprint can also be blended back with the source image. One great use for this filter is to create images that come alive on a newspaper and walk off the page into real life. Create a smaller sized halftone for more detail, larger for a more "grainy" look.

Newsprint Controls

Halftone Shape - Sets the shape of the halftone (Dot, Line, and Square.)

Offset - Controls the location of the center of the mask.

Size - Controls the size of the halftone image.

Angle - Controls the angle of the halftone image mask.

Dark Color - Renders color for the dark areas

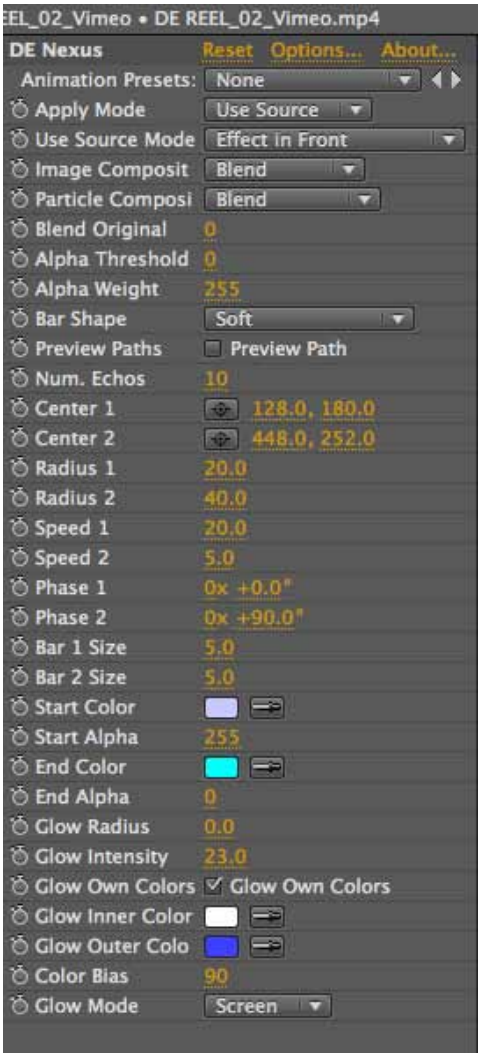
Light Color - Renders color for the light areas

Blend - Controls the overall blend of the effect with the underlying layer.

Nexus

This plug-in will generate animated graphic elements from geometrical constructions.

The Nexus effect is generated by creating a bar that rotates around two circles and fades out over time



Nexus Controls

Bar Shape - There are three options: Soft, thin, and square. Square is further broken down into soft, medium, and hard.

Preview Paths - When enabled, the motion path circles that form the basis of the effect can be seen.

Num Echoes - Determines how many bars will appear in your footage.

Center 1 - Determines the location of the center of the first circle. When preview paths is on, the first circle is red.

Center 2 - Determines the location of the center of the second circle. When preview paths is on, the first circle is green.

Radius 1 - Determines the radius of the first or red circle that determines one end of the bars.

Radius 2 - Determines the radius of the second or green circle that determines one end of the bars.

Speed 1 - Determines the rate at which one end of the bars will move around the circumference of the first (red) circle.

Speed 2 - Determines the rate at which one end of the bars will move around the circumference of the second (green) circle.

Phase 1 - Determines the point on Circle 1 (red) where it is touched by the first bar.

Phase 2 - Determines the point on Circle 2 (green) where it is touched by the first bar.

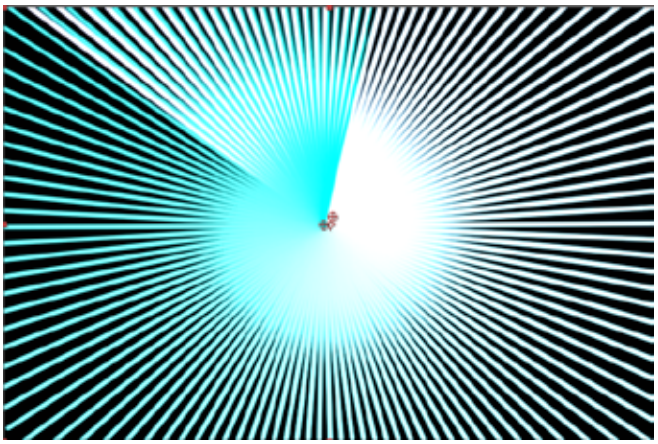
Bar 1 Size - Determines the size of the side of the bar that touches Circle 1 (red).

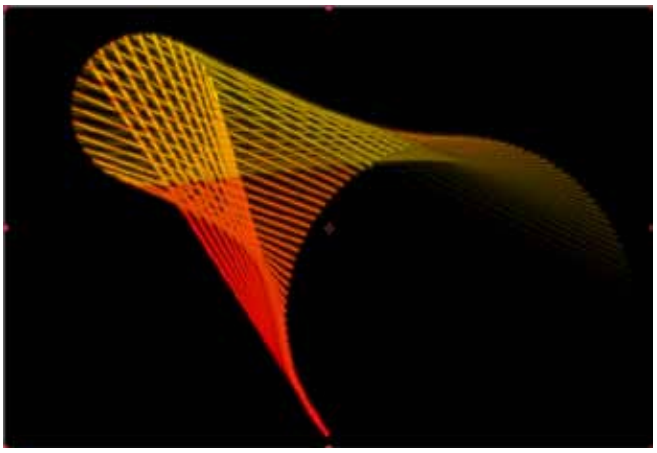
Bar 2 Size - Determines the size of the side of the bar that touches Circle 2 (green).

TIP: By making Phase 1 and Phase 2 opposites you can have the bar spinning around itself.

TIP: By animating the bar size, it is possible to create the illusion that the bars are moving towards you.

Nexus





NOTE: Glow Radius and Glow Intensity work together. If either of them is set to zero, you will not generate any glow.

NOTE: The glows blend and add to each other where they overlap and can quickly become pure white.

Nexus Controls

Start Color - Determines the color of the first or lead bar.

Start Alpha - Determines the transparency of the first or lead bar.

End Color - Determines the color of the last bar.

End Alpha - Determines the transparency of the last bar.

Glow Radius - Determines how far any glow that the bars have will extend from the bars.

Glow Intensity - Determines how strongly the bars will glow.

Glow Inner Color - Determines the color of the glow closest to the bars.

Glow Outer Color - Determines the color of the glow at the glows edges.

Color Bias - Determines the position or balance of the inner and outer colors in the glow. The lower the value, the more the inner glow color will dominate the glow.

Glow Mode

Screen - multiplies the inverse brightness values of the colors in all layers. The resulting color is never darker than the original.

Add - Combines the color values of the layer and the underlying colors. The resulting color is lighter than the original.

Nightbloom

This plug-in simulates a depth-of-field effect.

The Nightbloom effect is primarily designed for nighttime scenes but can be used for day scenes as well. Full control is given over the shape of the bloom, or lens iris shape, the size of the bloom, the threshold of the blooming, the brightness of the bloom, the amount of blur, and the amount of blend with the original image.

Nightbloom Controls

Bloom Shape - Style of lens aperture.

Bloom Size - Size of the bloom "flare".

Bloom Threshold - Brightness threshold value to render the bloom shape. A lower threshold corresponds to the darker parts of the image.

Bloom Brightness - Brightness value of bloom shapes.

Blur Amount - Amount to blur the underlying source image.

TIP: While experimenting with settings, lower the image resolution for faster previews.

Perspectron

This plug-in creates a unique warping effect.

NOTE: Any still image can be given an animated human personality using this plug-in.

Perspectron simulates mapping an image on a rubber sheet and stretching the sheet using a series of control points.

Perspectron Controls

Upper Left - Controls the upper-left corner of the warp

Upper Right - Controls the upper-right corner of the warp

Lower Left - Controls the lower-left corner of the warp

Lower Right - Controls the lower-right corner of the warp

Include Source - Shows the source image underneath the effect.

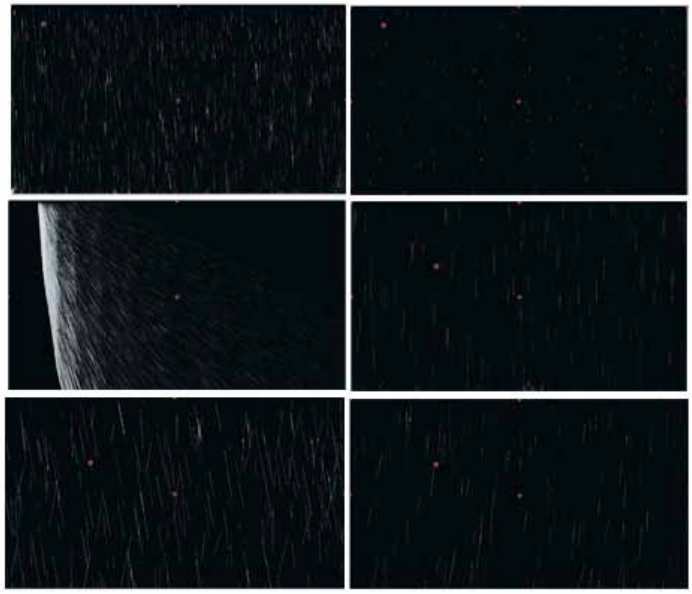
Wrap Around - Allows the effect to wrap around to the opposite side, filling in the source layer.

Blend - This controls the overall blend of the effect with the underlying layer.

Rainfall

This plug-in simulates a weather pattern similar to a summer rainstorm

Rainfall is a particle system that easily and elegantly handles rain effects through a realistic rain simulation.



Varying types of rain fall.

Rainfall Controls

Splash Mode - Determines if and how the rain drops will splash in the footage.

- **Don't Splash -** When selected, there will be no splashing of the rain drops anywhere in the footage.
- **Splash On Bottom -** When selected, Splash on Bottom will make the rain drops splash as they hit the bottom of the layer to which the effect is applied.
- **Splash on Alpha > Threshold via Vert Height -** This will cause the rain to splash on the first vertical pixel detected in the alpha channel. The threshold control will determine which pixels in the alpha channel will be detected as the first pixel
- **Splash on RBG > Threshold via Vert Height -** This will cause the rain to splash on the first vertical pixel in the image detected.
- **Splash on RGB > Threshold via 2D -** Creates a mask that works in all directions to define areas of the layer where the rain will splash.

Splash via Layer - Defines the layer that controls if a rain drop will splash at a specific location.

Splash Threshold - Defines the minimum value for a pixel in order for a droplet to splash on the source image or Splash Via Layer image.

Rain Generate - Determines how much rain will fall per frame. This could be considered the volume control.

Min Size - Determines the smallest possible size for a rain drop.

Max Size - Determines the largest possible size for a rain drop.

Min Opacity - Determines the amount of transparency that the drops can have. The lower the value, the more transparent the drops.

Max Opacity - Determines how opaque the rain drops can be.

Gravity - Determines how fast the rain will fall. The higher the value, the faster the raindrops will fall and become longer due to a motion blur applied to the rain drops.

Wind Horiz - Determines the speed at which the rain drops will move to the sides. When the value is positive, the rain will fall from left to right.

Wind Vert - Increases or decreases the vertical speed of the rainfall. This can be used to increase the initial speed which starts at zero in many cases.

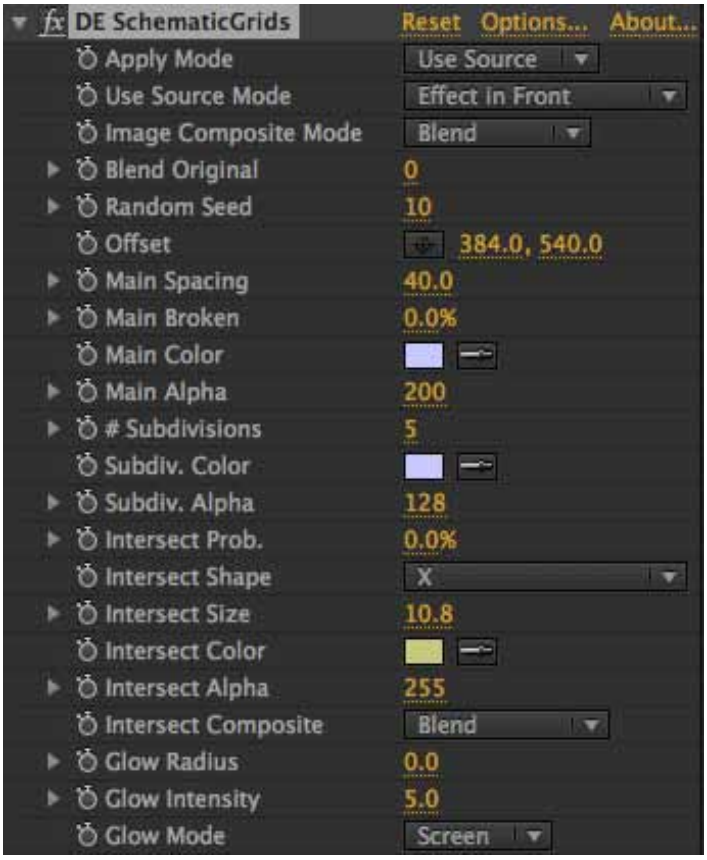
Gust Probability - Determines the likelihood of a gust occurring at any given time.

Gust Max Duration - Determines how long the gusts will last once they do occur.

Gust Max Speed - Determines how far the gust will move the raindrops horizontally.

Schematic Grids

This plug-in is used to create dual-resolution grids that can be subdivided, have broken lines and have objects placed on their intersections.



Grid Parameters

Offset - Determines the location of the grid in the composition. Animating this parameter allows for moving the position of the grid across the layer.

Main Spacing - Determines the space between the lines in the grid. The higher the value, the greater the amount of space between the lines in the grid.

Main Broken - Gives a probability that any given segment in the main grid pattern will be missing.

Main Color - Determines the color of the main grid pattern.

Main Alpha - Determines the transparency of the lines that make up the main grid.

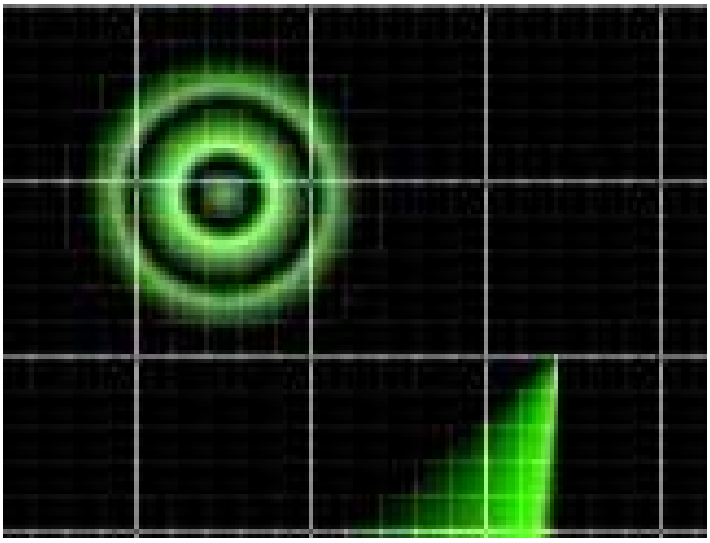
 # Subdivisions - Determines the number of lines that will be generated between each line in the main grid. This number is always a whole number. Do not animate this value as it will cause popping. Instead, animate the main spacing.

Subdiv Color - Determines the color of the subdivision lines.

Subdiv Alpha - Determines the transparency of the subdivision lines.

Schematic Grid

Intersections



Intersections are objects placed on the points on the grid where main grid lines intersect.

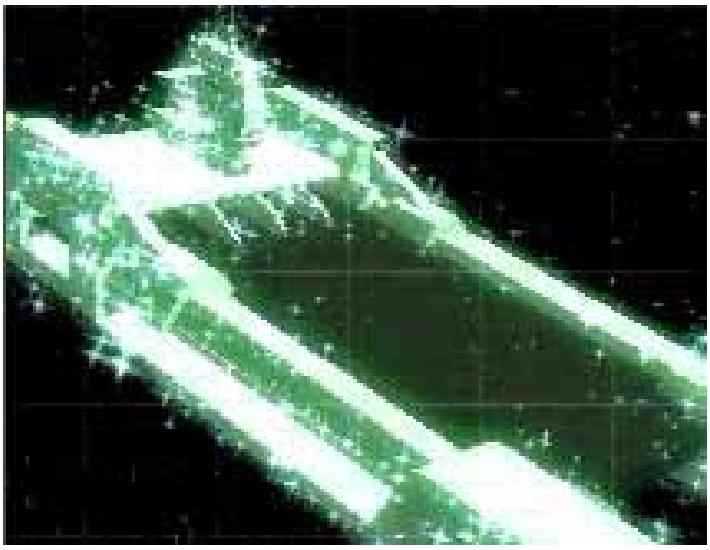
Intersect Prob - Determines the likelihood of the intersect shape appearing on any given intersection.

Intersect Shape - The various objects or shapes that can appear on the intersections.

Intersect Size - Determines the size of the intersect shapes that appear on the intersections.

Intersect Color - Determines the color of the intersect shapes.

Intersect Alpha - Determines the transparency of the intersect shapes. Smaller values give a more transparent Intersect Shape.



Intersect Composite - Defines how the intersect image blends with the grid.

Glow Radius - Determines the distance from the lines in the grid that the glow will extend.

Glow Intensity - Determines how brightly the grid will glow.

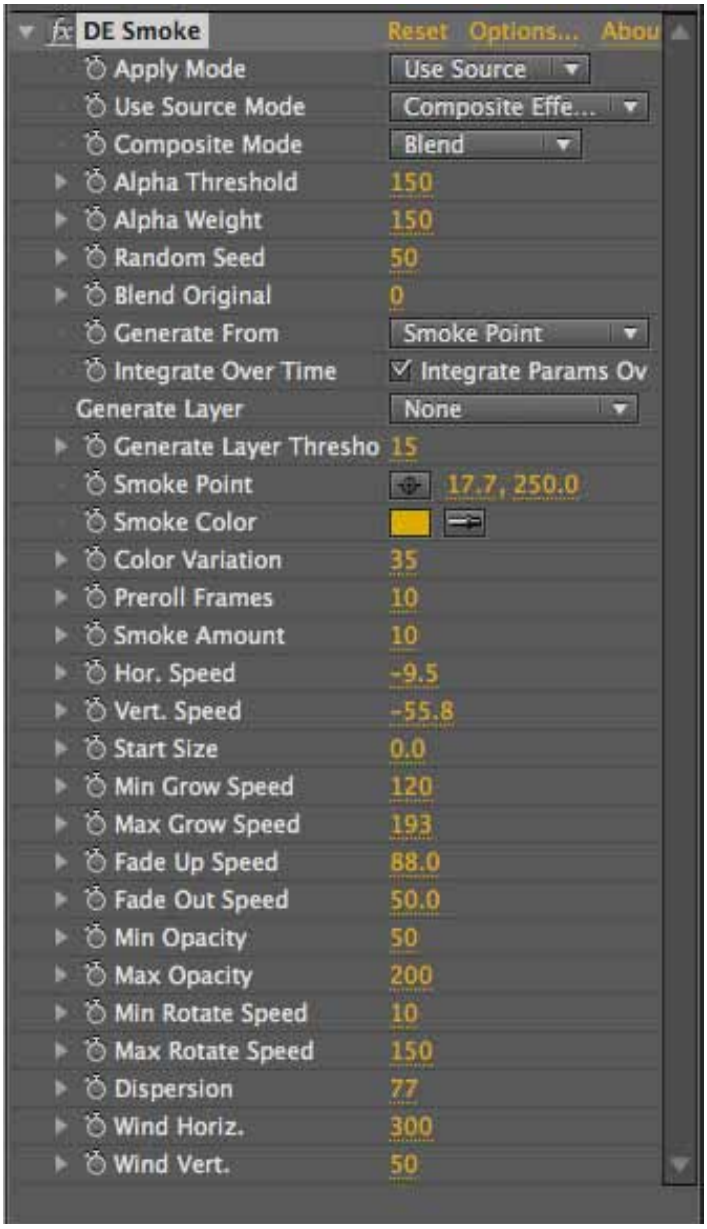
Glow Mode

Add - Combines the color values of the layer and the underlying colors. The resulting color is lighter than the original.

Screen - Multiplies the inverse brightness values of the colors in all layers. The resulting color is never darker than the original.

Smoke

This plug-in creates a realistic, billowing, colored smoke effect.



Smoke Controls

Smoke Color - Determines the color of the smoke.

Color Variation - Varies the brightness of the color of the smoke.

Smoke Amount - Determines how much smoke will be generated per frame.

Vert. Speed - Determines the rate at which the smoke rises. The higher the value, the faster the speed of the smoke. Negative numbers will make the smoke rise and positive numbers will make the smoke fall.

Min Grow Speed - Determines the slowest speed at which the smoke can grow.

Max Grow Speed - Determines the fastest speed at which any of the smoke can grow.

Fade Up Speed - Determines the rate at which the smoke changes from completely transparent to its maximum opacity.

Fade Out Speed - Determines the rate at which the smoke changes from its maximum opacity to completely transparent. Smoke life is determined by the sum of Fade Up Speed and Fade Out Speed.

Min Rotate Speed - Determines the slowest rate at which the smoke will rotate.

Max Rotate Speed - Determines the fastest rate at which the smoke will rotate.

Min Opacity - Determines the minimum transparency of the smoke.

Max Opacity - Determines the maximum opacity of the smoke.

Smoke

Smoke Controls

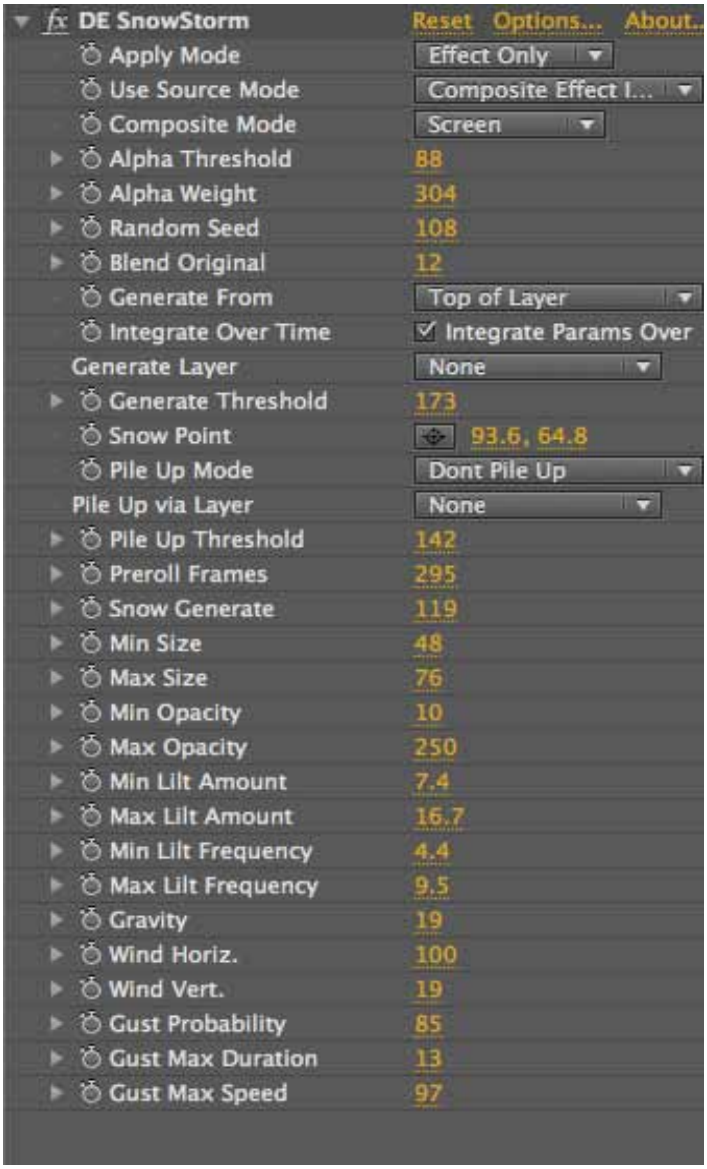
Horiz Dispersion - Controls how much the smoke will randomly drift horizontally. When set to zero, the smoke will drift straight up. The higher the value, the more the smoke will drift.

Wind Horiz - Provides the capability of allowing air flow to interact with the smoke. This determines the degree of horizontal movement in a particular direction as opposed to Horiz Dispersion which is random.

Wind Vert - Increases or decreases the vertical speed of the smoke. This can be used to increase the initial speed, which in many cases starts at zero.

SnowStorm

This plug-in creates a realistic simulation of a winter storm with complete control.



NOTE: Snow will not stick to moving objects.

The snow plug-in has been designed so that the snow drifts in a particular direction, but also includes a great deal of chaotic motion.

SnowStorm Controls

Pile Up Mode

Don't Pile Up - When selected, this will allow the snow to disappear as it hits the bottom of the layer.

Pile Up On Bottom - When selected, the snow will stick and pile up as it hits the bottom of the layer.

Pile Up on Alpha > Threshold via Vert Height - This will cause the snow to pile up on the first vertical pixel detected in the alpha channel . The threshold control will determine the minimum brightness level of the pixels in the image as the first pixel on which to pile up.

Pile on RBG > Threshold via Vert Height - This will cause the snow to pileup on the first vertical pixel detected in the image. The threshold control will determine the minimum brightness level of the pixels in the image as the first pixel on which to pile up.

Pile on Alpha > Threshold via 2D - Creates a mask that works in all directions to define areas of the layer that snow will stick and pile-up over.

Pile Up Threshold - Cuts off the darker parts as areas that the snow can pile upon. The higher this value, the lighter the pixels must be to allow the snow to pile up.

Preroll Frames - Allows for the start of the effect before the first frame of the clip. This control is designed to give you the ability to have the effect already generating snow before the clip shows. The value corresponds to the number of frames before the first frame that the effect starts generating the snow.

Snow Generate - Determines how much snow will be created per frame.

Min Size - Determines the size of the smallest flakes created by the plug-in.

SnowStorm

SnowStorm Controls

Max Size - Determines the size of the largest flakes created by the plug-in.

Min Opacity - Determines the most transparent that any part of any flake can be.

Max Opacity - Determines the most opaque that any part of any flake can be.

Lilt - The random motion of individual snow-flakes.

Min Lilt Amount - Determines the minimal distance that the lilt will move the flake.

Max Lilt Amount - Determines the maximum distance that the lilt will move the flake.

Min Lilt Frequency - Determines the minimum speed at which the snow flake will move due to the lilt.

Max Lilt Frequency - Determines the maximum speed at which the snow flake will move due to the lilt.

Gravity - Determines how quickly the snow will fall. The higher the value, the faster the snow will fall.

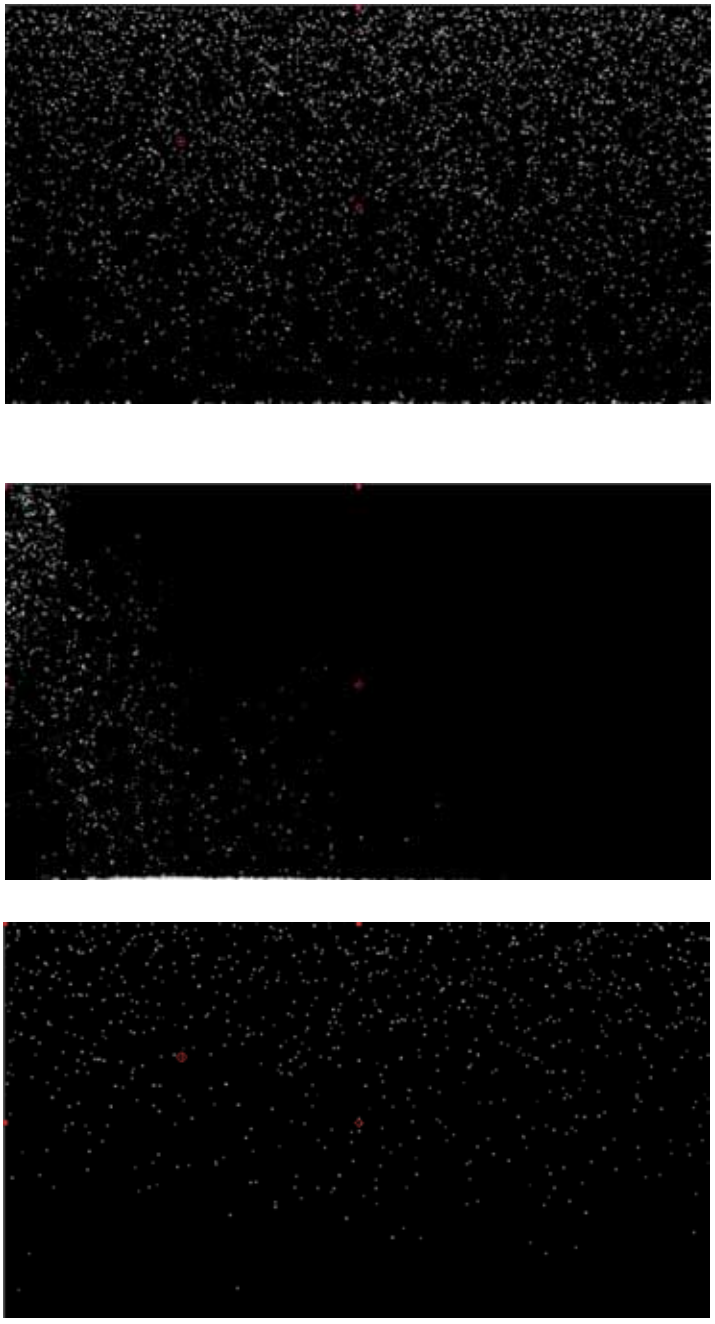
Wind Horiz. - Determines how much horizontal push can be applied to the snow to give the appearance of horizontal wind.

Wind Vert - Increases or decreases the vertical speed of the snow.

Gust Probability - Defines the likelihood that a gust of wind will occur at any given time in the composition.

Gust Max Duration - Determines the greatest number of frames that a gust can last.

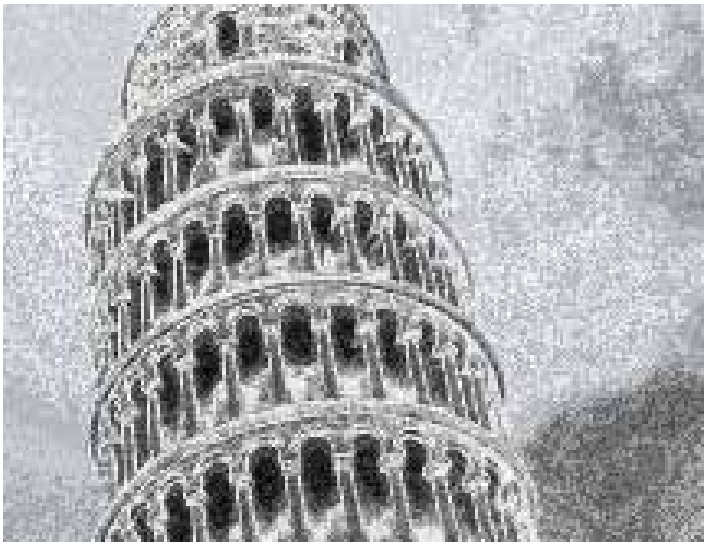
Gust Max Speed - Determines the maximum at which a gust can push the snow when a gust does occur.



Varying types of snow.

Solarize

This plug-in is a photographic process simulation for creating the look of double exposed photographic paper



Solarize Controls

Invert - Applies the solarize effect to the layer after the layer to which the effect has been applied has been inverted.

Tint Color - Allows for color tinting of this grayscale effect. When this is set to white, the effect will strictly be a grayscale effect.

Contrast - Adjusts the tonal range of the image before Solarize is applied. When these values are high, the difference between light and dark becomes exaggerated. Small (between 5 and 35) amounts of contrast will often enhance the solarize effect.

Rotate - Controls the appearance of the solarize effect.

Solar Grain - Adds a grain pattern to the footage. If a portion of the image appears to be posterizing after applying Solarize, it is probably due to the grain settings. Try turning the grain to zero and see if the posterization is still visibile.

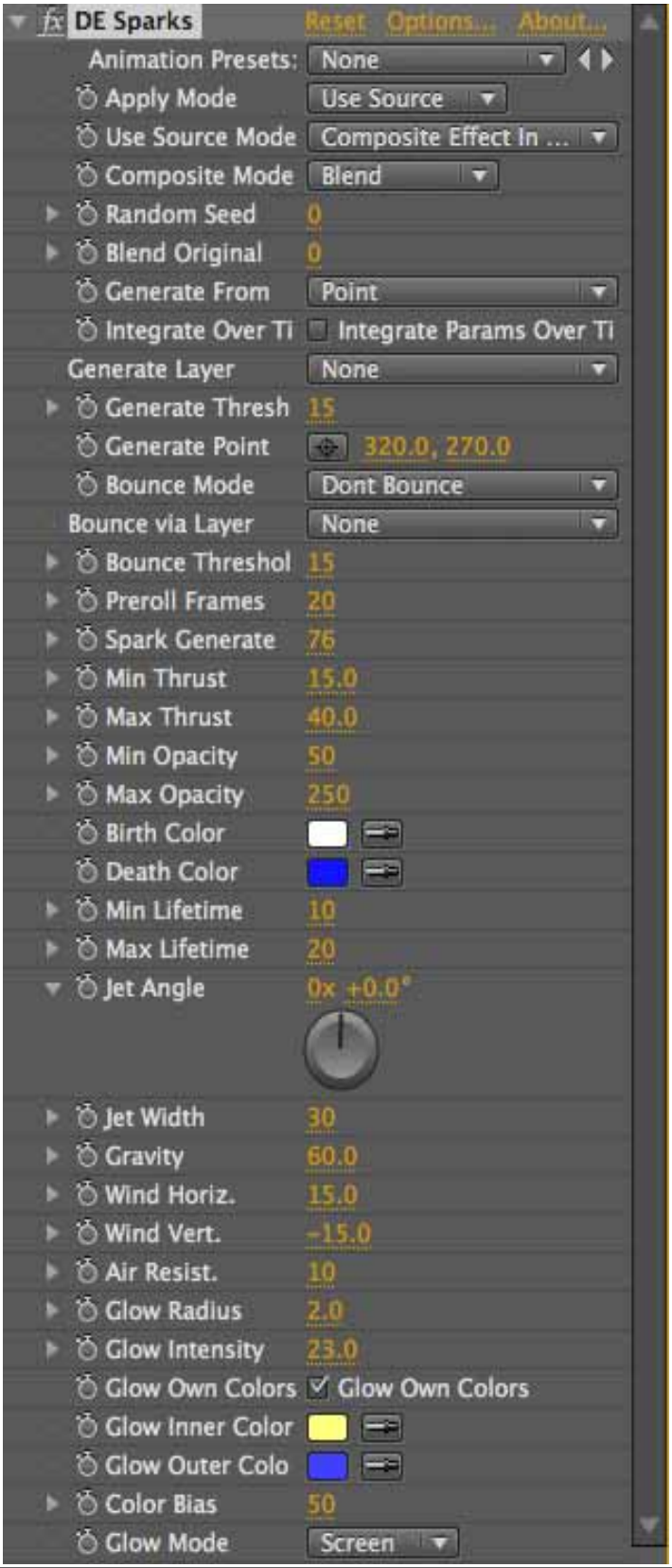
Blend Original - This will blend the unaffected original layer with the affected layer. The higher this value, the more the original layer will be blended with the affected footage.

TIP: This effect is typically fast enough to hold down the option key during adjustment in order to see real-time updates.

Sparks

This plug-in performs a complete physics simulation of sparks.

The sparks plug-in controls how the sparks will be cast, from where, and what they will look like once cast. This effect can be used to cast sparks from a cutting tool, create fountain-style fireworks, or even simulate the eruption of a volcano.



Sparks Controls

Bounce Mode - Gives the appearance that the particles can bounce off of other objects.

Don't Bounce - When selected, the particles will fall through the bottom of the layer.

Bounce on Bottom - When selected, if the sparks reach the bottom they will bounce off of it.

Bounce on Alpha > Threshold via Vert Height - When this is selected, the sparks will be bounced in areas that are inside the alpha or mask. As the value increases, more transparent areas of the alpha will no longer be able to bounce sparks.

Bounce on RGB > Threshold via Vert Height - When selected, the sparks will be bounced in areas that are brighter than the threshold setting. As the value increases, darker areas of the image will no longer be able to bounce sparks.

Bounce on Alpha > Threshold via 2D - This bases where the sparks bounce on the mask values.

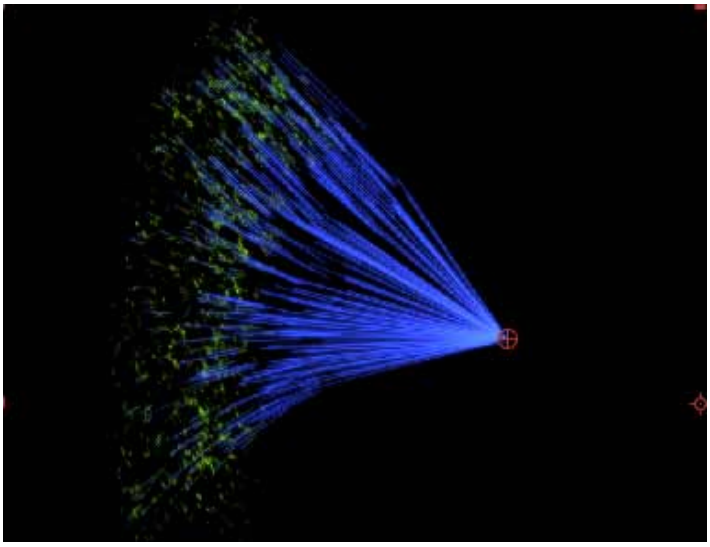
Bounce on RGB > Threshold via 2D - This bases where the sparks bounce on the RGB values.

Bounce Via layer - Can be used to assign a different image for the bounce controls values.

Bounce Threshold - When the value is low, any luminance level or alpha level can bounce sparks. As the value increases, only the brightest luminance levels or alpha levels bounce sparks.

Preroll Frame - The effect will generate sparks before the first frame in the layer. This value corresponds to the number of frames before the first frame of the clip to start generating the sparks.

Sparks



Sparks Controls

Spark Generate - Determines the number of sparks that are to be generated per frame.

Min Thrust - Determines the speed of the slowest sparks that are generated.

Max Thrust - Determines the speed of the fastest sparks.

Min Opacity - Determines the least opaque (most transparent) that a spark can be.

Max Opacity - Determines the most opaque that a spark can be.

Birth Color - Determines the color of the spark when it is first created.

Death Color - Determines the color of the sparks just before they disappear. The spark colors will transition from birth to death color.

Min Lifetime - Determines the shortest amount of time that a spark can exist.

Max Lifetime - Determines the longest time that a spark will exist.

Jet Angle - Determines the general direction of the flow of sparks.

Jet Width - Determines how far from the jet angle that the particles can be projected.

Gravity - Pulls the particles down towards the bottom of the layer.

Wind Horiz - Determines the amount of horizontal push that wind can give to the sparks.

Wind Vert - Increases or decreases the vertical speed of the sparks.

Air Resistance - Determines the amount of deceleration that the air will drag on the sparks.

Sparks

Sparks Controls

Glow radius - Determines the maximum distance that a glow will extend from the spark particles.

Glow Intensity - Controls the brightness level of the glow.

Glow Inner Color - Defines the glow color closest to the arc.

Glow Outer Color - Defines the glow color that is outside edge of the glow.

Color Bias - Defines the balance of Glow Inner Color and Glow Outer Color. Lower numbers will increase the value of the Glow Inner Color in the overall appearance of the glow. Larger numbers tip the balance towards the outer color.

Glow Mode

Screen - Multiplies the inverse brightness values of the colors in all layers. The resulting color is never darker than the original.

Add - Combines the color values of the layer and the underlying colors. The resulting color is lighter than the original.

Specular Lighting

This effect simulates a single-colored light source shining on an image as if it were a piece of plastic.

Light Source

Light Type - Determines the Light modeling mode.

> **Point Light -** Light emanates from a point close to the surface.
>
> **Directional Light -** Light is reflected at an angle from a light source infinitely far away.

Light Color - Determines the color of the light source.

Light Intensity - Controls the overall brightness level of the light source.

Light Pos. X - Determines the horizontal light location.

Light Pos. Y - Determines the vertical light location.

Light Pos Z - Determines the height of the light source above the surface of the image.

Light Dir X - Determines the horizontal direction of the light source.

Light Dir. Y - Determines the vertical direction of the light source.

Light Dir. Z - Determines the outward direction of the light source.

Material

The material parameters define the kind of material of which the surface is made, allowing the effect to determine the reflective properties of the surface.

Mater Amb Norm. - Determines the ambient light reflection amount.

Material Diff Norm - Determines the diffuse light reflection amount.

Specular Lighting

Material

Mater Diff Env - Determines the diffuse light envelope amount.

Mater Spec Env - Determines the specular reflection envelope amount. This controls the amount of bright specks in the high parts of the image.

Mater High Env - Determines the highlight envelope amount. This controls the reflectiveness of the highlight areas just below the specular areas.

Bump Map

Bump Map Type

None - No bump map applied.

Logarithmic - A plateau look.

Sine - Smoothly curving, straight in the middle.

Spherical - Smoothly curved, no straight lines.

Linear - Slanted

Bump Map Depth - Determines the depth of the bump map effect.

Bump Map Smooth - Determines the softness of the bump map effect.

Bump Map Stretch - The source bump map image can be stretched if the size of the source image and the bump map image are different.

Don't Stretch - This will clip the bump map layer to the upper-right of its image to match the size of the source image.

Stretch - This will stretch or will squish the bump map layer to fit the size of the source image.

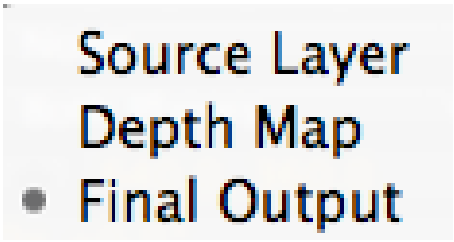
Environment Map

It is possible to use another image as a color look-up table for an environment-mapping effect and it can be chosen here.

Environment Layer - The layer selected here is used as a 2-dimensional spherical color-lookup table for the environment mapping effect.

Stargate

This plug-in simulates the slit scan process used in the stargate sequence of the classic movie, "2001: A Space Odyssey"



View Mode

Source Layer - This displays the unaltered source layer. If none is selected,the layer on which the effect is applied will be used.

Depth Map - Use this mode to see the depth map rendered by itself. The depth map will have an alpha channel and will be rendered in color.

Final Output - Render the complete effect using this mode. Only in this mode will all effect controls be available.

Stargate Controls

Source Layer - Specifies the input layer for Stargate. If none is selected then the layer on which the effect is applied will be used. If using a large source layer, it is most efficient to apply Stargate to a solid that is the same size as the composition and use the source layer menu to select the larger image.

Display Mode - Controls what portion of the effect is rendered.

> **Both Planes -** Each plane has independent offset controls, but share the same horizon.
>
> **Upper Plane Only -** Using this mode will cause only the top portion of the effect to render. This can be useful if you want to build the Stargate effect in pieces to create more elaborate effects.
>
> **Lower Plane Only -** This mode will render only the lower plane.

Position - Determines the center of the Stargate horizon.

Rotation - Controls the angle of the horizon.

Direction - Determines which direction the slit scan traverses over the image. The default direction is top to bottom.

Stargate

Stargate Controls

Width - Controls the apparent size of the upper and lower planes. Larger values will create more distortion and will appear to make the perspective more dramatic.

Length - Controls how much the image is stretched from the horizon. The larger the value, the more streaky the effect will become.

Speed - Controls the automatic animation of Stargate and controls how fast the image is passing by. Motion blur can be used to help smooth out fast motion.

Offset - Controls the starting point of the scan along the direction vector.

Taper - Increasing Taper will deepen the perspective and distort the image more.

Curvature - Works in conjunction with Taper to produce an arc to the shape of the planes. Negative values will give the planes a concave feeling, while positive values will bend the planes outward and away.

Upper Offset & Lower Offset - These controls effectively move the position of the slit scan to different points on the image to produce different results.

Edge Behavior - Controls how the layer behaves when the edges are reached.

Depth Map - To further aid in the illusion of perspective and depth, Depth Map can produce a fog-like effect.

Size - Controls how far from the horizon the map covers.

Bias - Used in conjunction with Size to produce a more gradual falloff of the depth map.

Apply To Alpha - Depth Map will be rendered directly to the transparency of the layer and will not affect the color channels.

Color - Determines the color of the depth map.

Composite Mode - Determines how the depth map is combined with Stargate.

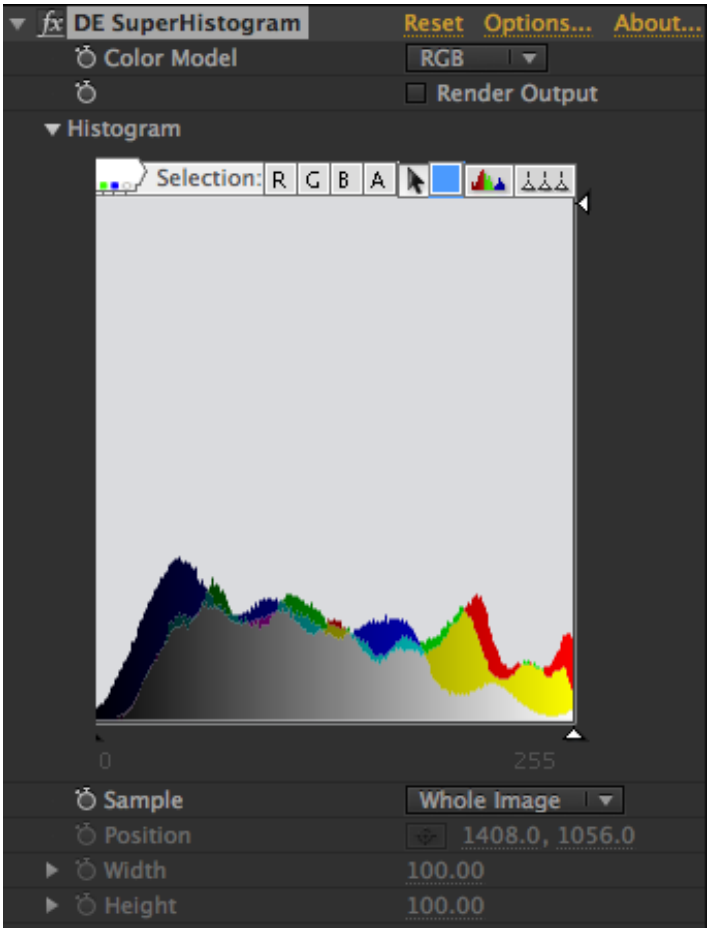
Preserve Transparency - When enabled, the depth map will not modify the alpha channel of the layer.

Opacity - The final affect of the depth map is controlled by this slider. If set to 0, the depth map will not render.

Motion Blur Samples - Can be used with Stargate to help smooth motion and create more fluid effects.

Super Histogram

This plug-in is a useful tool for inspecting image data and viewing color distribution.



Correcting Problems

Super Histogram provides a method of visualizing and diagnosing issues with color space and channel data, however it is really beyond the scope of this plug-in to fix problems that may be encountered. For example, if an image that is supposed to be 16 bit is discovered to have been converted down to 8 bit, there is no post-process that can be applied to retrieve the lost information.

Ultimately, Super Histogram is a tool that will help make better production decisions and set up projects more efficiently. When working on a film project where 16 bit color is critical, this plug-in can be a very handy tool for checking the work and preventing wasted time and money caused by filming out incorrectly rendered sequences. Super Histogram can help to determine whether an image has 16 bit data, if gradients are smooth , and what the high and low ranges of each channel are. It can be used in conjunction with other color correction tools to more clearly see how adjustments are affecting the color range.

Super Histogram Controls

Color Model - Super Histogram allows viewing the channel data of all major color models, including RGB, HLS, CMYK and many others. Each color model provides its own unique view into the image, providing more insight into decisions on using particular filters or color corrections.

Render Output - When enabled, Super Histogram will render the image through the color model filter and render the highlighted selection into the image.

Histogram - The main histogram is a custom user interface with the ability to zoom, pan and select individual or ranges of data columns.

Histogram View - The histogram graph represents a count of pixels for each grayscale value of each component channel. The color depth your project is set to. For a regular 8 bit image there are 256 levels of gray, so the histogram would measure from 0 to 255 from left to right. For a 16 bit image it would measure from 0 to 32768.

Control Bar - Displays useful information about the current tool or describes a control when the mouse moves over it.

Channel Toggle Switches - Allow image channels to be viewed in isolation or in custom combinations. The names of each switch change

Super Histogram

based on the Color Model selected. When viewing more than one channel simultaneously, the histogram always favors the largest channel value. You may view a single channel in solo mode by holding the control key while clicking on the channel toggle switch.

Super Histogram Controls

Selection Tool - Provides a way of interacting with the histogram data. Click on the histogram to select individual data columns or click and drag to select a range of data. When data is selected, information regarding the selection is shown in the control bar. Also, if Render Output is enabled, the selected pixels in the image become visible.

Selection Color - Open the system color picker allowing selection of the color in which selected data and pixels are displayed.

Color Display - Provides the option to view the histogram in full color or as solid black. When displaying the histogram in color, the alpha channel is colored inversely to the background color of the display and is shown superimposed over the color channels as a series of black dots or lines. The display colors are designed to maximize visibility of all channels.

Reset

> **Single Click -** Automatically scales the view both horizontally and vertically to fit all the information in the view.
>
> **Double Click -** Also resets the histogram view, however it zooms out completely on the horizontal axis. This will set the black point to 0 and the white point to the highest value available.
>
> **Triple Click -** This will reset the histogram view as well as set all the controls back to their default settings.

Black and White Sliders - Allow interaction with the histogram view by zooming the data horizontally. There are also two modified modes for interacting with these sliders:

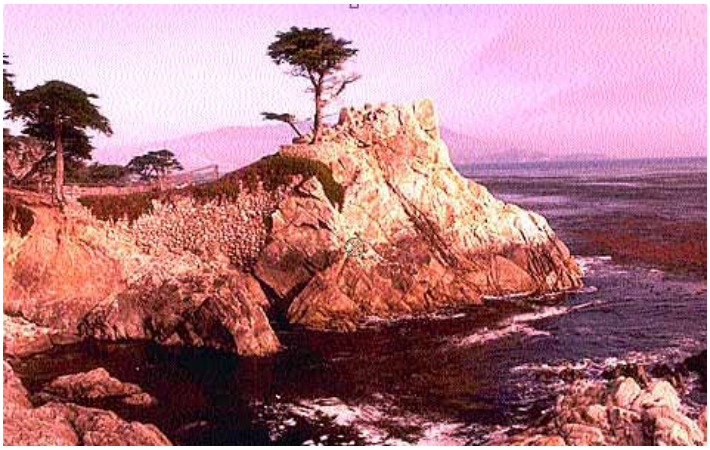
> **Option/Alt Key -** Holding down the option/alt key while dragging the slider will uniformly zoom the view in or out.
>
> **Control Key -** This will uniformly pan the view left or right.

Scale Slider - The slider control on the far right of the histogram display controls the vertical scale of the histogram.

Sample - Allows a choice between using the whole Image or just a region to build the histogram. When sample mode is set to Region,it allows the ability to specify the position, width and height of the region; measured in pixels located around the center position.

VanGoughist

This plug-in creates a painted effect by brushing the source image with a series of bit mapped brush strokes.



VanGoughist Controls

Include Source - Check this to paint over the source image.

Background Color - Controls the color to fill the background if Include Source is not checked.

Alpha Mode - Controls how the effect will use the alpha channel.

- **Ignore Alpha -** The alpha channel is replaced with full alpha.
- **Clip To Alpha -** The alpha channel is used as a mask. Alpha is not affected.
- **Use Brush's Alpha -** The alpha channel is replaced with the alpha channel of the brush.

Brush Type - Type of brush to use.

Randomize Per Frame - Randomizes the brush strokes for every frame.

Random Seed - If randomize per frame is yes, this controls the seed for the effect.

Horiz. Size - This is horizontal size of the brush stroke.

Vert. Size - This is vertical size of the brush stroke.

Number of Strokes - This is the number of strokes applied to the image.

Blend - This controls the overall blend of the effect with the underlying layer.

Hint: To create a smoothly animated effect over time, when Randomize Per Frame is checked, use this method:

1 - Render out the movie at half the speed that you will want the final animation.

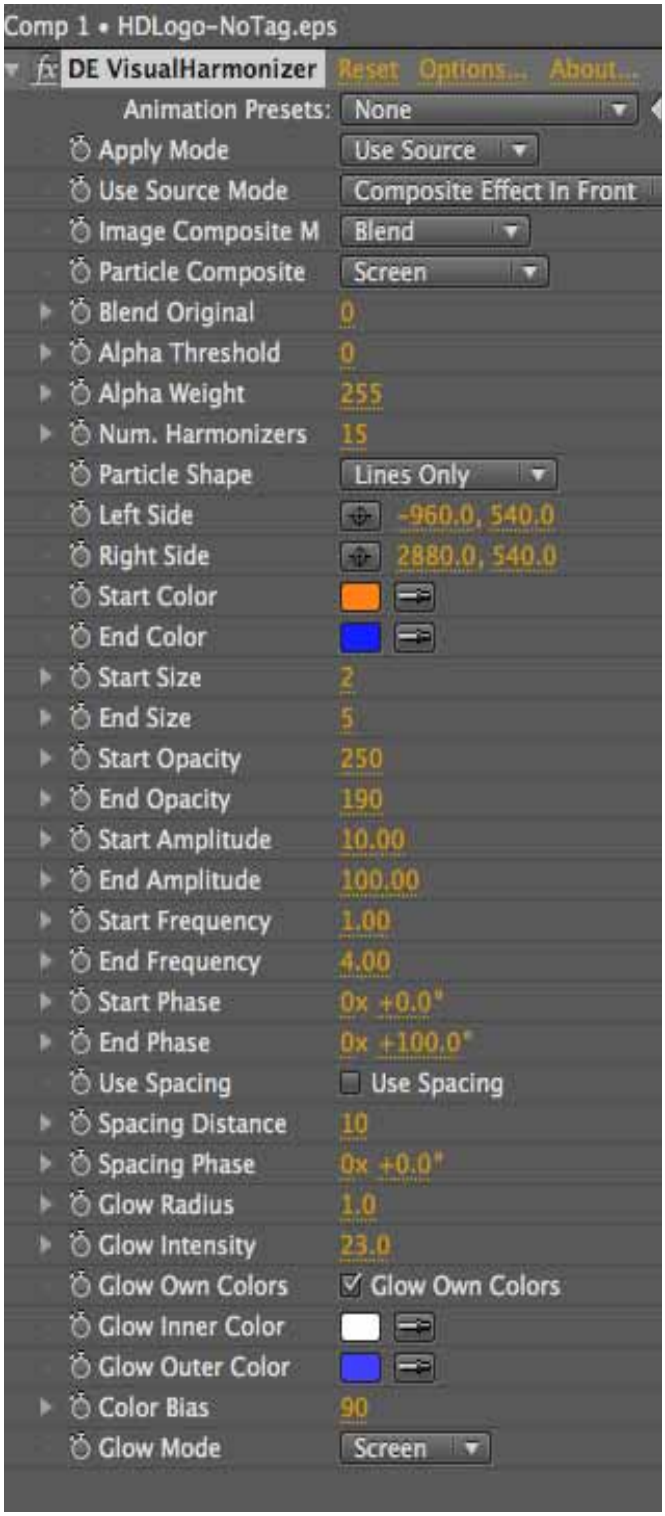
2 - Import the new movie into a new comp.

3 - Render out the movie at twice the speed, but be sure to turn on "Enable Frame Blending" in the comp time layout.

Visual Harmonizer

This plug-in creates stunning animated images based on a series of sine waves which are rendered as a series of particles or simple lines.

Each of the harmonizer shapes are controlled by the frequency, amplitude , and phase. Keyframe the start and end controls for each of these settings to determine moving wave patterns and experiment with differing numbers for the start and end values.



Visual Harmonizer Controls

Number of Harmonizers - Defines how many bars are created with Visual Harmonizer.

Particle Shape - Defines the basic look or appearance of the bars created with Visual Harmonizer. Each of these particle shapes gives a significantly different look, especially when Use Spacing is enabled.

Start Point / End Point - Defines the left side and right side of the effect. To run the harmonizer top to bottom, use Effect Only in the Apply Mode pop up, then rotate the rotation control under the Layer->Transform menu.

Start Color - The color of the first frequency or wave.

End Color - The color of the last frequency.

Start Size - The thickness of the first or start frequency.

End Size - The thickness of the last frequency.

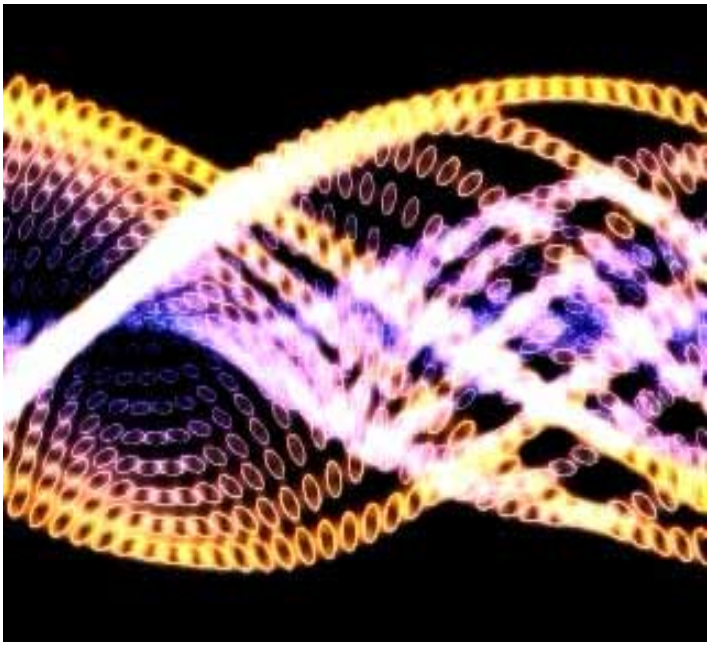
Start Opacity - Determines the transparency or opacity of the first frequency.

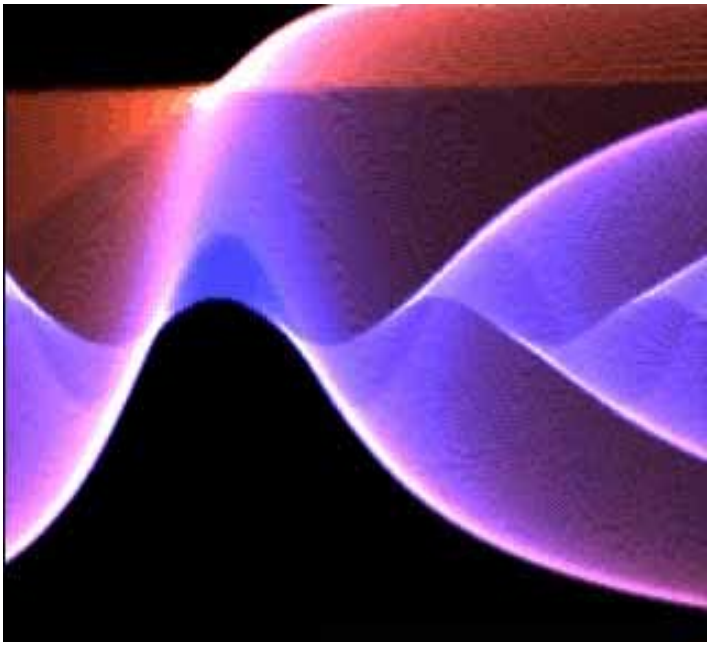
End Opacity - Determines the transparency or opacity of the last frequency.

Start Amplitude - Determines the height of the first frequency.

End Amplitude - Determines the height of the last frequency.

Visual Harmonizer





Visual Harmonizer Controls

Start Frequency - Determines how often the start frequency goes up and down in a wave form. The higher the value, the greater the number of wave forms.

End Frequency - Determines how often the end frequency goes up and down in a wave form.

Start Phase - Determines the alignment of the waves of the first frequency.

End Phase - Determines the alignment of the waves of the last frequency.

Use Spacing - Breaks the frequencies from solid lines into individual dots (depending on Particle Shape.)

Spacing Distance - Only valid when Use Spacing is checked. This determines the amount of space between the individual particles that make up the frequencies.

Spacing Phase - Determines the location of the particles that make up the frequencies.

Glow Radius - Controls the distance from the harmonizers edge that the glow colors will travel.

Glow Intensity - Controls the brightness level of the glow.

Glow Inner Color - Defines the glow color closest to the harmonizers.

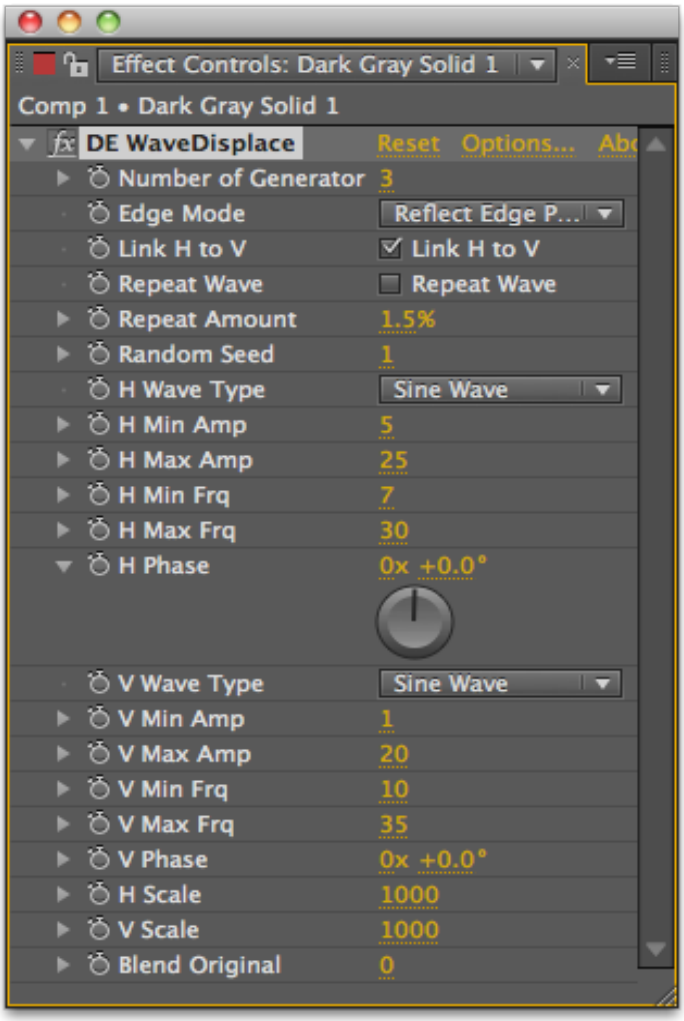
Glow Outer Color - Defines the glow color that is outside the harmonizers.

Color Bias - Defines the balance of Glow Inner Color and Glow Outer Color.

Wave Displace

This plug-in allows for complete control over wave distortion.

Wave Displace Controls



Number of Generators - Determines the number of distortions that are used in the wave patterns. The higher the value, the greater the distortion.

Edge Mode - Determines how the pixels will be filled along the edges of the image when the distortion moves the footage such that the footage below or background color can be viewed. By using one of these methods, the footage below will not show through.

> **Repeat Edge pixels -** Repeats the pixel closest to the uncovered area. This will give a stretched look from the edge of the distorted footage to the edge of the comp.
>
> **Wrap Around -** Uses pixels from the opposite side of the footage that have been distorted to replace the empty areas.
>
> **Reflect Edge Pixels -** Uses a reflection of the closest pixels to the edge of the areas that are uncovered due to the effect. This is the setting used most often

Link H to V - Disables the horizontal controls and base the horizontal values off of the vertical controls.

Repeat Wave - Uses a wave shape to distort an image multiple times. For example, the wave effect will be applied once to the first frame, twice to the second frame, three to the third frame and so on. When enabled, quality must be set to High.

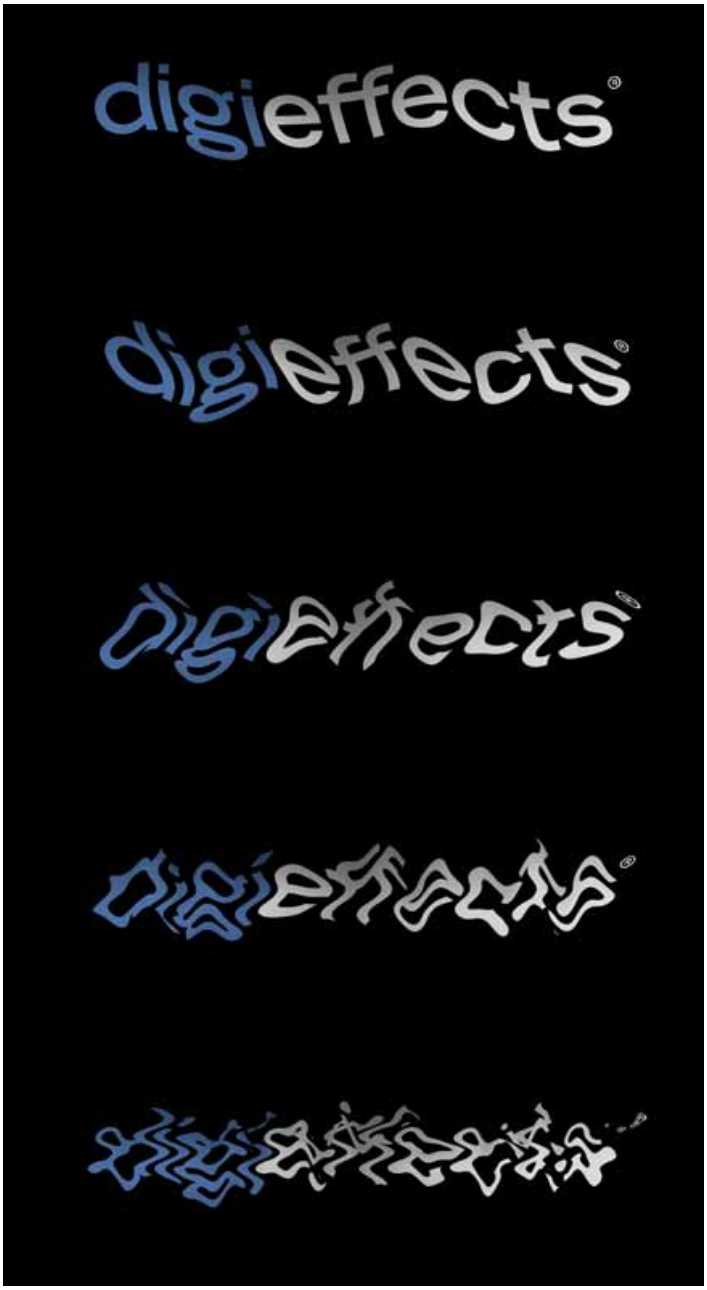
Repeat Amount - Determines the strength of the wave that is applied when Repeat Wave is enabled.

Random Seed - The seed value (start point) for any randomization that occurs in the plug-in. Do not animate this as it will cause the effect to jump or randomly change values and the animation will not be smooth.

H Wave Type - This defines the wave shape for the distortion.

> **Sine -** Uses a sine wave as a distortion shape.
>
> **Square -** A box wave distortion shape.
>
> **Triangle -** A tent-shaped wave distortion shape.

Wave Displace



Wave Displace Controls

H Min Amp - The minimum amplitude of the horizontal waves.

H Max Amp - The maximum amplitude of the horizontal waves.

H Min Frq - Determines the minimal number of times that the waves of distortion occur.

H Max Frq - Determines the maximum number of times that waves will occur along the horizontal axis. By using minimums and maximums for frequency and amplitude, non-uniform patterns of distortion can be created

H Phase - Determines the position of the waves' highs and lows (amplitude) along the lines of the waves (frequency).

V Min Amp - The minimum amplitude of the vertical waves

V Max Amp - The maximum amplitude of the vertical waves used in the distortion.

V Min Frq - Determines the minimal number of times that the waves of distortion occur.

V Max Frq - Determines the maximum number of times that waves will occur along the vertical axis.

V Phase - Determines the position of the waves' highs and lows (amplitude) along the lines of the waves (frequency).

H Scale - Zooms into or out of the wave distortion effect along the horizontal axis.

V Scale - Zooms into or out of the wave distortion effect along the vertical axis.

Blend Original - Blends the unaffected original layer with the affected layer. The higher the value, the more of the original layer will be blended in with the affected footage.