

• G E N A R T S •

S A P P H I R E • P L U G • I N S

User's Guide

Version 1.03 for
OpenFx Host Products

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Preface

Contact Information

GenArts, Inc.
955 Mass. Ave
Cambridge, MA 02139
USA

Tel: 1-617-492-2888
Fax: 1-617-492-2852
Email: info@genarts.com
www.genarts.com

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Introduction

Sapphire Plug-ins for OFX is a package of image processing and synthesis effects for use with Open FX compatible products such as Nuke, Toxic, Fusion, Baselight, and Film Master. It includes over 200 plug-ins, each with many options and parameters which can be adjusted and animated for an unlimited range of results.

This document corresponds to version 1.03 of 24-sep-2009. For updated information please check www.genarts.com. Also see our OFX [support page](#) for help with technical issues.



What's New in This Version

New in 1.03:

1. Mac OS 10.6 Snow Leopard is supported.

New in 1.02:

1. A problem with thresholds in Glow, Glint, Glare and Convolve is fixed. This gives improved but slightly different results from previous versions, and it makes the results compatible with Sapphire on other host products.
2. A problem with Flicker Match and Flicker Remove on Windows is fixed.
3. A problem with the Help dialog failing to open the documentation on Windows is fixed.

New in 1.01:

1. Problems with downsampled rendering of warp effects are fixed.
2. In Lensflare, a problem with the lens position shifting when downsampled is fixed.
3. A problem with Z effects on Nuke is fixed.
4. A problem with the Help Dialog hanging on Mac is fixed.
5. Node-locked RLM licenses now work correctly.
6. SGO Mistika (4.0 or later) is now supported.

Loading a Plug-in

When Sapphire Plug-ins have been installed and the host application has been restarted, the new plug-ins should appear in the host application's effects menus just like any other effects.

On Nuke: click on the GenArts Sapphire icon in the toolbar on the left-hand side of the screen. Select the desired Sapphire effects category, and click on an effect to add it to your project. Alternatively, you can right-click anywhere the Node Graph window and go to Sapphire -> Sapphire Category Name -> Effect Name in the context menu.

On Toxik: press the ~ key to open the Gate, and swipe right to Tools & Views. All the Sapphire effect categories such as "OFX S.Adjust", "OFX S.Blur+Sharpen", etc. should appear in the menu. Select the desired category and then drag an effect into your Composition window to add it.

On Fusion: in the Tools menu, select Sapphire and the desired Sapphire effects category, then click on an effect to add it to your Composition. Alternatively, you can right-click directly in the Comp Window and select Add Tool -> Sapphire -> Sapphire Category Name -> Effect Name.

On Baselight: using the Insert Menu, select the OFX Filter menu and select the desired Sapphire effects category. Then click on an effect to apply it to the currently selected clip. Instead of using the OFX Filter menu, you can alternatively use the OFX Transition menu to select amongst only transitions, or the OFX Source menu to select just generators.

On Film Master: select a clip in the timeline, and using the Effect menu on the right side of the timeline window, select the desired Sapphire effects category and effect plug-in. Then press the "Create new user effect" button (which looks like a square with a small 9-square grid overlaid) to apply the effect to the clip. The effects in the Sapphire Transition category can also be applied specially as usual transition effects in Film Master.

On Scratch: click on the "New.." button on the bottom left of the process screen, select the desired plug-in from the list, and then click on "Insert".

Resetting Parameters to Defaults

Host products should provide a way to reset all of a plug-in's parameters to their default values by clicking on a **Reset** button or selecting **Reset** from a context menu.

On Nuke: right-click on the properties panel and in the Context menu select Reset Knobs to Default. You can also choose Revert Knobs, which will undo all changes since you opened the properties panel.

On Toxik: press the Reset button on the right side of the parameters window.

On Fusion: right-click on the effect icon in the Comp, and choose Settings -> Load Default.

On Baselight: in the Edit menu, click on Reset Parameters.

On Film Master: press the Reset Effect button (which looks like a circle with a red dot in the center and a small white left-pointing triangle on the right).

On Scratch: press the Reset button located on the right side of the screen under the bin. To reset an individual parameter, click on that parameter's value/slider and in the resulting dialog, click on the "R" button.

Online Documentation

In OFX, all Sapphire Plug-ins include an **Help** button at the bottom of the plug-in parameters. Push this button to bring up a window showing the current version of Sapphire Plug-ins, your license status, some documentation about the current plug-in, and links to more detailed HTML documentation.

Online documentation is normally installed along with your software and can also be accessed directly.

On Windows: go to Start -> All Programs -> GenArts Sapphire OFX -> Online Help (HTML) or (PDF).

On Mac: go to the Applications/GenArtsSapphireOFX folder and double click on Online Help.html or .pdf.

On Linux: go to the RedHat Applications menu and select GenArts Sapphire OFX -> Sapphire Online Help (HTML) or (PDF).

About Mask Inputs

Many Sapphire Plug-ins accept an optional Mask input clip. Typically, this input can be used to provide more detailed control for where the effect should be applied and where it should not be applied.

Glint, Glow, Glare, and Rays, for example, take the main Source input and also an optional Mask input. For these, the source input is multiplied by the mask *before* generating the glints (or glows, glares), so where the mask is black no glints are

generated, and where it is white they are generated as usual. This method prevents the glints or glows themselves from being partially cropped by the mask. In addition these effects use the RGB colors of the Mask input to selectively colorize the resulting glows, glints, or glares. The red areas of the mask will produce red glows, glints, or glares, and so on.

In **Blur** effects, the areas which are masked out are never blurred, so they do not blur into the masked-in regions. If a mask were instead applied afterward, the pixels behind the mask would be blurred over the edge of the mask and into the final image. As an example, say you have a clip with white text over a black background. If you put that clip into both the Source and Mask inputs of Blur, the black background will *not* be blurred into the text, since the black pixels are all masked out.

Some OFX host products, such as Toxik and Fusion, have their own native masking inputs on every effect. These inputs simply composite the original source over the normal result where the mask is black. The plug-in doesn't use that input in its processing.

In Fusion, the native masking input is called Effect Mask and it's blue to distinguish it from the Sapphire Mask input, which is white. In Toxik, the native Masking input is always last and is colored black, whereas the Sapphire Mask input is gray like other inputs.

About Alpha Channel Processing

All Sapphire Plug-ins can handle RGBA inputs, and the Alpha of RGBA inputs is handled in one of three ways, depending on the effect:

1. Alpha is processed as just another input channel like R, G, and B. Effects in this category include: AutoPaint, Mosaic, Blur, BlurMotion, RackDefocus, all Wipes, all Dissolves, Distort, DistortBlur, DistortChroma, all Kaleidoscopes, all Warps, Shake, and MathOps.
2. Alpha is copied from the first input to the output. In this case the effect doesn't use the Alpha channel, but it is passed through unchanged from the first input to the output. Effects in this category include: BandPass, BlurChroma, ClampChroma, DuoTone, EdgeDetect, Embosses, Etching, HalfTones, Hotspots, DistortRGB, Monochrome, Pseudo_Color, Psykos, Sharpen, Sketch, Sparkles, Streaks, Threshold, and Zebrafy.
3. Some other effects pass the input Alpha channel through, and also add some opacity where the effects are applied. An Affect Alpha parameter is included in these effects which allows adjusting the amount that the alpha channel is affected. The effects in this category are: LensFlare, all Glows, all Glints, Glare, EdgeRays, Rays, and all Zaps.

Some OFX host products, such as Nuke and Fusion, represent RGBA images in pre-multiplied format, where the RGB are assumed to be scaled by the opacity. Other hosts such as Toxik, Baselight, and Film Master represent RGBA in non-premultiplied or straight format. Sapphire effects use pre-multiplied format internally, and will automatically convert as needed depending on the host product's format. The Affect Alpha parameter which is available in most lighting effects tends to be less necessary in hosts that use pre-multiplied RGBA format, and it defaults to 0.0 for these hosts, but defaults to 1.0 for hosts that use straight RGBA format.

About Pixel Aspect Ratios

For some image formats, the digital form of the image is scaled non-uniformly to produce the final viewed picture. For example NTSC resolution is normally 720x486 with an aspect ratio of 1.481. However, the final NTSC picture has an aspect ratio of 4/3 or 1.333. Thus the original digital image is scaled in the horizontal direction by a factor of 0.9 and shapes rendered as circles can end up squashed slightly into ovals. The original pixels are effectively rectangular shaped instead of squares, and have an aspect ratio of $1.481/1.333 = 1.111$. (Or $1.333/1.481 = 0.9$ if the inverse ratio is used.)

OFX allows you to adjust the pixel aspect ratio in the Composition Settings menu, and Sapphire Plug-ins read this value to give the appropriately scaled results.

If necessary, you can override the pixel aspect ratio for *all* Sapphire Plug-ins by changing the value of `force_pixel_aspect_ratio` in the `s_config.text` file.

The pixel aspect ratio makes no difference for basic pixel processing effects such as color processing or compositing.

Customizing Plug-ins

A number of parameters are available that can be adjusted to customize the behavior of all Sapphire plug-ins. You can disable multi-processing, force the pixel aspect ratio, or specify lookup tables for more accurate processing of log format images. A facility is also included with Sapphire Plug-ins that allows users with some programming experience to define and customize new plug-ins. For additional information on these, or to modify a parameter, see the `s_config.text` file.

On Mac the config file is: `/Applications/GenArtsSapphireOFX/config/s_config.text`

On Windows the config file is: `C:\Program Files\GenArts\SapphireOFX\s_config.text`.

On Linux the config file is: `/usr/genarts/SapphireOFX/s_config.text`.

Custom Lens Flare types can also be made by editing the `s_lensflares.text` file, in the same directory as the config file above. New flare types will automatically appear in the menu of the S_LensFlare plug-in.

Acknowledgements

We are grateful to our many customers who have made suggestions and taken time to beta test this software. The software for JpegDamage is based in part on the work of the Independent JPEG Group.

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SOFTWARE, EVEN IF ADVISED OF THE POSSIBILITY OF SUCH DAMAGE.

This product includes cryptographic software written by Eric Young (eay@cryptsoft.com). This product includes software written by Tim Hudson (tjh@cryptsoft.com).

Effects

The remainder of this User's Guide contains information about each effect in the Sapphire Plug-ins package. The effects are listed in alphabetical order by plug-in name.

Each effect's documentation describes the functionality of the effect, its inputs and parameters, and contains an example picture. This same documentation for each effect is also available directly from the Plug-in interface by clicking on the **Help** button while using any effect.

S_AutoPaint

Generates a 'paint-brushed' version of the source clip. Use the Frequency and Stroke Length parameters to adjust the density and shape of the brush strokes. You can set Jitter Frames to 1 if you want to re-randomize the brush stroke pattern for each frame.

In the Sapphire Stylize effects submenu.



Inputs:

Source: The clip to be processed.

Parameters:

Style: *Popup menu, Default: Van Gogh.*

Selects the style of brush strokes.

Van Gogh: the stroke directions align with the edges found within the image.

Hairy Paint: the strokes are perpendicular to the edges within the image.

Pointalize: the strokes are cellular pointy shapes with no direction.

Frequency: *Default: 50, Range: 1 or greater.*

The density of brush strokes in the frame. Increase for smaller strokes.

Stroke Length: *Default: 2, Range: any.*

Determines the length of the brush strokes along the directions of edges in the source clip. If this is negative you can switch from VanGogh to HairyPaint styles and vice versa.

Stroke Align: *Default: 0.2, Range: 0 or greater.*

Increase to smooth out the directions of the strokes so nearby strokes are more parallel.

Smooth Colors: *Default: 0, Range: 0 or greater.*

Blurs the source by this amount before generating the brush strokes. Increase to cause the colors of nearby strokes to be more consistent.

Seed: *Default: 0, Range: 0 or greater.*

Used to initialize the random number generator. The actual seed value is not significant, but different seeds give different results and the same value should give a repeatable result.

Jitter Frames: *Integer, Default: 0, Range: 0 or greater.*

If this is 0, the locations of the strokes will remain the same for every frame processed. If it is 1, the locations of the strokes are re-randomized for each frame. If it is 2, they are re-randomized every second frame, and so on.

Sharpen: *Default: 1, Range: any.*

The amount of post-process sharpening applied.

Sharpen Width: *Default: 0.1, Range: 0 or greater.*

The width at which to apply the post-process sharpening filter, relative to the stroke sizes. Higher values affect wider areas from the edges, lower values only affect areas near sharp edges.

See Also:

[Sketch](#)

[Etching](#)

[Sapphire](#)

[HalfTone](#)

[Plug-ins](#)

[HalfToneColor](#)

[Introduction](#)

[Mosaic](#)

[FlysEyeHex](#)

[Sharpen](#)

S_BandPass

Generates an X-ray-like effect using a band-pass filter. Two blurs are performed with different widths, and the result is the difference scaled and offset by a gray value. Frequencies above and below the cutoffs are attenuated, leaving only the middle band of frequencies.

In the Sapphire Stylize effects submenu.



Inputs:

Source: The clip to be processed.

Parameters:

Blur Amount1: *Default:* 0.028, *Range:* 0 or greater.

The width for the first blur. Sets the low frequency cutoff. This parameter can be adjusted using the Blur Amount1 Widget.

Blur Amount2: *Default:* 0.056, *Range:* 0 or greater.

The width for the second blur. Sets the high frequency cutoff. This parameter can be adjusted using the Blur Amount2 Widget.

Blur Rel: *X & Y, Default:* [1 1], *Range:* 0 or greater.

The relative horizontal and vertical blur widths. Set Blur Rel X to 0 for a vertical-only blur, or set Blur Rel Y to 0 for a horizontal-only blur. This parameter can be adjusted using the Blur Amount1 Widget.

Brightness: *Default:* 3, *Range:* any.

Scales the brightness of the result.

Saturation: *Default:* 1, *Range:* -2 to 8.

Scales the color saturation. Increase for more intense colors. Set to 0 for monochrome.

Offset Darks: *Default:* 0.5, *Range:* -5 to 5.

Adds this gray value to the darker regions of the result. This can be negative to increase contrast.

Show Blur Amount1: *Check-box, Default:* on.

Turns on or off the screen user interface for adjusting the Blur Amount1 parameter.

Show Blur Amount2: *Check-box, Default:* on.

Turns on or off the screen user interface for adjusting the Blur Amount2 parameter.

See Also:

[EdgeDetect](#)

[EdgesInDirection](#)

[EdgeColorize](#)

[Sharpen](#)

[Emboss](#)

[Blur](#)

[Sapphire Plug-ins](#)

[Introduction](#)

S_BleachBypass

Simulates a film process in which silver is not removed from the negative. The result has increased contrast and reduced color saturation.

In the Sapphire Stylize effects submenu.



Inputs:

Source: The clip to be processed.

Parameters:

Amount: *Default:* 1, *Range:* 0 or greater.

Controls the intensity of the effect by interpolating between the original source and the result.

Soft Focus: *Default:* 0, *Range:* 0 or greater.

If positive, a soft focus effect is also applied. Increase for a broader soft focus look.

Sharpen: *Default:* 0, *Range:* any.

The amount of post-process sharpening applied.

Saturation: *Default:* 1, *Range:* 0 to 10.

Scales the color saturation. Increase for more intense colors. Set to 0 for monochrome.

Scale Lights: *Default:* 1, *Range:* 0 or greater.

Scales the result by this value. Increase for a brighter result.

Offset Darks: *Default:* 0, *Range:* -8 to 2.

Adds this gray value to the darker regions of the result. This can be negative to increase contrast.

Grain Parameters:

Grain Amp: *Default:* 0, *Range:* 0 or greater.

Scales the amplitude of the film grain that is added to the result. Set this to 0 to disable all grain.

Grain Amp Red: *Default:* 0.9, *Range:* 0 or greater.

Scales the red grain amplitude.

Grain Amp Green: *Default:* 1, *Range:* 0 or greater.

Scales the green grain amplitude.

Grain Amp Blue: *Default:* 1.6, *Range:* 0 or greater.

Scales the blue grain amplitude. Note that grain is added and subtracted from the image, so for example, increasing Grain Amp Blue will amplify both the blue and yellow speckles.

Grain Amp Darks: *Default:* 0.2, *Range:* 0 to 2.

The relative amount of grain applied to the darkest regions of the image, per channel. This defaults to less than 1.0 because dark areas usually have less grain than midtones.

Grain Amp Brights: *Default:* 0, *Range:* 0 to 2.

The relative amount of grain applied to the brightest regions of the image, per channel. This defaults to zero because bright areas usually have less grain than midtones. Note that highly saturated colors can be affected by both Grain Amp Darks and Grain Amp Brights because they are dark in some color channels and bright in others.

Grain Blur: *Default:* 0, *Range:* 0 or greater.

The grain is smoothed by this amount. Increase for coarser grain.

Grain Blur Red: *Default:* 1, *Range:* 0 or greater.

The relative blur amount for the red grain.

Grain Blur Green: *Default:* 0.9, *Range:* 0 or greater.

The relative blur amount for the green grain.

Grain Blur Blue: *Default:* 1.2, *Range:* 0 or greater.

The relative blur amount for the blue grain.

Grain Mono: *Check-box, Default:* off.

When enabled, the same grain pattern is used for the red, green, and blue channels. To make truly monochrome grain you should also set Grain Amp Red/Green/Blue equal to each other, make sure Midtone Pos Red/Green/Blue are equal, and if GrainBlur is positive also set Grain Blur Red/Green/Blue equal

Grain Seed: *Default:* 0, *Range:* 0 or greater.

Initializes the random number generator for the grain generation. The actual seed value is not significant, but different seeds give different grain patterns and the same value should give a repeatable pattern.

Other Parameters:

Scale Colors: *Default rgb:* [1 1 1].

Scales the color of the result. For example, if it is yellow [1 1 0], the blue of the result will be 0.

See Also:

[FilmEffect](#)

[FilmDamage](#)

[Solarize](#)

[Grain](#)

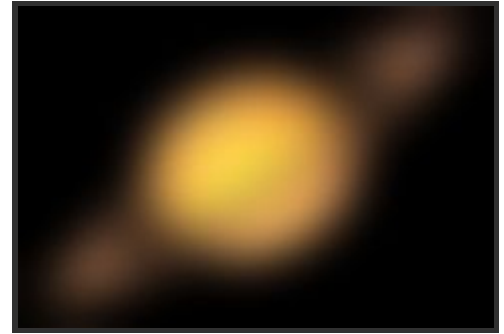
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S_Blur

Blurs the source clip by an arbitrary amount using a gaussian, triangle, or box filter. This effect should render quickly even with very large Width values. Use the Blur Rel X and Y parameters for a more horizontal or vertical blur direction.

In the Sapphire Blur+Sharpen effects submenu.



Inputs:

Source: The clip to be processed.

Mask: *Optional.* If provided, the blur is only performed on regions of the source clip specified by the bright areas of this input. Pixels outside this mask are not blurred, and do not contribute to the resulting blurred pixels within it. This input can be affected using the Invert Mask, or Mask Use parameters.

Parameters:

Effect: *Popup menu, Default: Blur Color.*

Selects between full color or monochrome result.

Blur Color: blurs all the channels of the source input.

Blur Mono: makes the source monochrome and then blurs the resulting single channel (faster).

Blur Amount: *Default: 0.1, Range: 0 or greater.*

Scales the width of the blur. This parameter can be adjusted using the Blur Amount Widget.

Blur Rel: *X & Y, Default: [1 1], Range: 0 or greater.*

The relative horizontal and vertical blur widths. Set Blur Rel X to 0 for a vertical-only blur, or set Blur Rel Y to 0 for a horizontal-only blur. This parameter can be adjusted using the Blur Amount Widget.

Brightness: *Default: 1, Range: 0 or greater.*

Scales the brightness of the result.

Scale Opacity: *Default: 1, Range: 0 to 10.*

Scales the opacity (alpha channel) of the result.

Offset Darks: *Default: 0, Range: -8 to 2.*

Adds this gray value to the darker regions of the result. This can be negative to increase contrast.

Mix With Source: *Default: 0, Range: 0 to 1.*

Interpolates between the blurred result (0) and the original source (1). 0.1 can give a nice misty effect since it mixes only a little of the source in.

Filter: *Popup menu, Default: Gauss.*

The type of convolution filter to blur with.

Box: uses a rectangular shaped filter.

Triangle: smoother, uses a pyramid shaped filter.

Gauss: smoothest, uses a gaussian shaped filter.

Subpixel: *Check-box, Default: off.*

Enables blurring by subpixel amounts. Use this for smoother animation of the Blur Amount or Blur Rel parameters.

Soft Borders: *Check-box, Default: off.*

If enabled, transparent borders are added to the input image before processing. This allows the result to include soft edges beyond the original image size. When off, the effect only occurs within the frame and the result will retain an edge at the borders. This parameter does not appear in FCP or DF because those applications don't support image expansion.

Invert Mask: *Check-box, Default: off.*

If on, inverts the mask input so the effect is applied to areas where the Mask is black instead of white. This has no effect unless the Mask input is provided.

Mask Use: *Popup menu, Default: Luma.*

Determines how the Mask input channels are used to make a monochrome mask.

Luma: the luminance of the RGB channels is used.

Alpha: only the Alpha channel is used.

Show Blur Amount: *Check-box, Default: on.*

Turns on or off the screen user interface for adjusting the blur amount parameters.

See Also:

[BlurChannels](#)

[BlurChroma](#)

[RackDefocus](#)

[DefocusPrism](#)

[EdgeBlur](#)

[BandPass](#)

[BlurMotion](#)

[Sapphire](#)

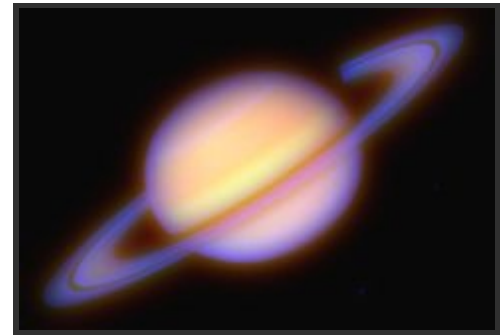
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S_BlurChannels

Blurs each channel of the source clip by an arbitrary amount using a gaussian, triangle, or box filter. This effect should render quickly even with very large Width values. Use the Blur Rel X and Y parameters for a more horizontal or vertical blur direction.

In the Sapphire Blur+Sharpen effects submenu.



Inputs:

Source: The clip to be processed.

Mask: *Optional.* If provided, the blur is only performed on regions of the source clip specified by the bright areas of this input. Pixels outside this mask are not blurred, and do not contribute to the resulting blurred pixels within it. This input can be affected using the Invert Mask, or Mask Use parameters.

Parameters:

Blur Amount: *Default:* 0.1, *Range:* 0 or greater.

Scales the width of the blur for all channels. This parameter can be adjusted using the Blur Amount Widget.

Blur Red: *Default:* 0, *Range:* 0 or greater.

The blur width of the red channel, relative to Blur Amount. This parameter can be adjusted using the Blur Amount Widget.

Blur Green: *Default:* 0.5, *Range:* 0 or greater.

The blur width of the green channel, relative to Blur Amount. This parameter can be adjusted using the Blur Amount Widget.

Blur Blue: *Default:* 1, *Range:* 0 or greater.

The blur width of the blue channel, relative to Blur Amount. This parameter can be adjusted using the Blur Amount Widget.

Blur Alpha: *Default:* 0, *Range:* 0 or greater.

The blur width of the alpha channel if present, relative to Blur Amount. This parameter can be adjusted using the Blur Amount Widget.

Blur Rel: *X & Y, Default:* [1 1], *Range:* 0 or greater.

The relative horizontal and vertical blur widths. Set Blur Rel X to 0 for a vertical-only blur, or set Blur Rel Y to 0 for a horizontal-only blur. This parameter can be adjusted using the Blur Amount Widget.

Brightness: *Default:* 1, *Range:* 0 or greater.

Scales the brightness of the result.

Scale Red: *Default:* 1, *Range:* 0 or greater.

Scales the blurred red channel.

Scale Green: *Default:* 1, *Range:* 0 or greater.

Scales the blurred green channel.

Scale Blue: *Default: 1, Range: 0 or greater.*
Scales the blurred blue channel.

Scale Alpha: *Default: 1, Range: 0 or greater.*
Scales the blurred alpha channel, if present.

Offset Darks: *Default: 0, Range: -8 to 2.*
Adds this gray value to the darker regions of the result. This can be negative to increase contrast.

Offset Red: *Default: 0, Range: -8 to 2.*
Adds this value to the red channel of the result.

Offset Green: *Default: 0, Range: -8 to 2.*
Adds this value to the green channel of the result.

Offset Blue: *Default: 0, Range: -8 to 2.*
Adds this value to the blue channel of the result.

Offset Alpha: *Default: 0, Range: -8 to 2.*
Adds this value to the alpha channel of the result, if present.

Mix With Source: *Default: 0, Range: 0 to 1.*
Interpolates between the blurred result (0) and the original source (1). 0.1 can give a nice misty effect since it mixes only a little of the source in.

Filter: *Popup menu, Default: Gauss.*
The type of convolution filter to blur with.

Box: uses a rectangular shaped filter.
Triangle: smoother, uses a pyramid shaped filter.
Gauss: smoothest, uses a gaussian shaped filter.

Subpixel: *Check-box, Default: off.*
Enables blurring by subpixel amounts. Use this for smoother animation of any of the blur amount parameters.

Soft Borders: *Check-box, Default: off.*
If enabled, transparent borders are added to the input image before processing. This allows the result to include soft edges beyond the original image size. When off, the effect only occurs within the frame and the result will retain an edge at the borders. This parameter does not appear in FCP or DF because those applications don't support image expansion.

Invert Mask: *Check-box, Default: off.*
If on, inverts the mask input so the effect is applied to areas where the Mask is black instead of white. This has no effect unless the Mask input is provided.

Mask Use: *Popup menu, Default: Luma.*
Determines how the Mask input channels are used to make a monochrome mask.

Luma: the luminance of the RGB channels is used.
Alpha: only the Alpha channel is used.

Show Blur Amount: *Check-box, Default: on.*
Turns on or off the screen user interface for adjusting the blur amount parameters.

See Also:

[RackDefocus
Glow](#)

[Sapphire Plug-ins
Introduction](#)

S_BlurChroma

Separates the source into luminance and chrominance components, blurs the chrominance and/or the luminance independently, and recombines them. You can also scale the luma and chroma independently to enhance or remove either.

In the Sapphire Blur+Sharpen effects submenu.



Inputs:

Source: The clip to be processed.

Mask: *Optional.* If provided, the blur is only performed on regions of the source clip specified by the bright areas of this input. Pixels outside this mask are not blurred, and do not contribute to the resulting blurred pixels within it. This input can be affected using the Invert Mask, or Mask Use parameters.

Parameters:

Blur Chroma: *Default:* 0.1, *Range:* 0 or greater.

The amount to blur the chrominance. This parameter can be adjusted using the Blur Chroma Widget.

Blur Luminance: *Default:* 0, *Range:* 0 or greater.

The amount to blur the luminance. This parameter can be adjusted using the Blur Luminance Widget.

Blur Rel: *X & Y, Default:* [1 1], *Range:* 0 or greater.

The relative horizontal and vertical blur widths. Set Blur Rel X to 0 for a vertical-only blur, or set Blur Rel Y to 0 for a horizontal-only blur. This parameter can be adjusted using the Blur Chroma Widget.

Scale Chroma: *Default:* 1, *Range:* 0 or greater.

Scales the chrominance by this amount. Increase for more intense colors, decrease for muted colors.

Scale Luminance: *Default:* 1, *Range:* 0 or greater.

Scales the brightness of the result.

Offset Result: *Default:* 0, *Range:* -8 to 2.

Adds this gray value to the result (or subtracts if negative). 0 has no effect, .5 is middle gray, and 1 is white.

Mix With Source: *Default:* 0, *Range:* 0 to 1.

Interpolates between the blurred result (0) and the original source (1). 0.1 can give a nice misty effect since it mixes only a little of the source in.

Filter: *Popup menu, Default:* Gauss.

The type of convolution filter to blur with.

Box: uses a rectangular shaped filter.

Triangle: smoother, uses a pyramid shaped filter.

Gauss: smoothest, uses a gaussian shaped filter.

Subpixel: *Check-box, Default:* off.

Enables blurring by subpixel amounts. Use this for smoother animation of the Blur Chroma or Blur Luminance parameters.

Invert Mask: *Check-box, Default: off.*

If on, inverts the mask input so the effect is applied to areas where the Mask is black instead of white. This has no effect unless the Mask input is provided.

Mask Use: *Popup menu, Default: Luma.*

Determines how the Mask input channels are used to make a monochrome mask.

Luma: the luminance of the RGB channels is used.

Alpha: only the Alpha channel is used.

Show Blur Chroma: *Check-box, Default: on.*

Turns on or off the screen user interface for adjusting the Blur Chroma parameter.

Show Blur Luminance: *Check-box, Default: on.*

Turns on or off the screen user interface for adjusting the Blur Luminance parameter.

See Also:

[RackDefocus](#)

[DefocusPrism](#)

[WarpChroma](#)

[Sapphire](#)

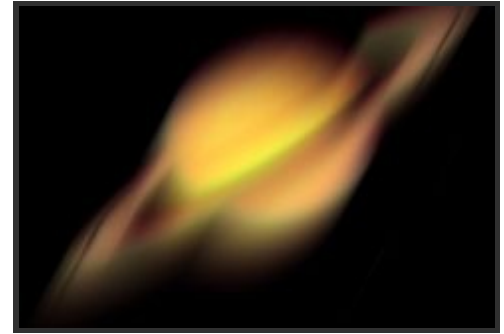
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S_BlurDirectional

Blurs the source clip in a given direction using a gaussian, triangle, or box filter. It can also blur each channel by different amounts.

In the Sapphire Blur+Sharpen effects submenu.



Inputs:

Source: The clip to be processed.

Mask: *Optional.* If provided, the blur is only performed on regions of the source clip specified by the bright areas of this input. Pixels outside this mask are not blurred, and do not contribute to the resulting blurred pixels within it. This input can be affected using the Invert Mask, or Mask Use parameters.

Parameters:

Blur Amount: *Default:* 0.1, *Range:* 0 or greater.

Scales the width of the blur. This parameter can be adjusted using the Blur Amount Widget.

Angle: *Default:* 45, *Range:* any.

The direction of the blur. An angle of 0 produces a horizontal blur, and an angle of 90 produces a vertical blur. This parameter can be adjusted using the Angle Widget.

Shift: *Default:* 0, *Range:* any.

Shifts the image in the direction of the blur. A negative shift amount shifts the image in the opposite direction.

Bias: *Default:* 0.5, *Range:* 0 to 1.

Varies the weight of the pixels along the path of the blur, which gives the appearance of trails or streaks in a single direction. A value of 0.5 weights all pixels evenly. A value of 1 causes the weight to increase toward the direction of the blur, while a value of 0 has the opposite effect.

Blur Red: *Default:* 1, *Range:* 0 or greater.

The blur width of the red channel, relative to Blur Amount.

Blur Green: *Default:* 1, *Range:* 0 or greater.

The blur width of the green channel, relative to Blur Amount.

Blur Blue: *Default:* 1, *Range:* 0 or greater.

The blur width of the blue channel, relative to Blur Amount.

Shift Red: *Default:* 0, *Range:* -1 or greater.

Additional amount to shift the red color channel.

Shift Green: *Default:* 0, *Range:* -1 or greater.

Additional amount to shift the green color channel.

Shift Blue: *Default:* 0, *Range:* -1 or greater.

Additional amount to shift the blue color channel.

Brightness: *Default:* 1, *Range:* 0 or greater.

Scales the brightness of the result.

Offset Darks: *Default: 0, Range: -8 to 2.*

Adds this gray value to the darker regions of the result. This can be negative to increase contrast.

Mix With Source: *Default: 0, Range: 0 to 1.*

Interpolates between the blurred result (0) and the original source (1). 0.1 can give a nice misty effect since it mixes only a little of the source in.

Filter: *Popup menu, Default: Box.*

The type of convolution filter to blur with.

Box: uses a rectangular shaped filter.

Triangle: smoother, uses a pyramid shaped filter.

Gauss: smoothest, uses a gaussian shaped filter.

Edge Mode: *Popup menu, Default: Reflect.*

Determines the behavior when accessing areas outside the source image.

Transparent: Areas outside the source image are treated as transparent, which can produce transparency around the edges of the image. Select this for fastest rendering.

Repeat: Repeats the last pixel outside the border of the image.

Reflect: Reflects the image outside the border.

Soft Borders: *Check-box, Default: off.*

If enabled, transparent borders are added to the input image before processing. This allows the result to include soft edges beyond the original image size. When off, the effect only occurs within the frame and the result will retain an edge at the borders. This parameter does not appear in FCP or DF because those applications don't support image expansion.

Invert Mask: *Check-box, Default: off.*

If on, inverts the mask input so the effect is applied to areas where the Mask is black instead of white. This has no effect unless the Mask input is provided.

Mask Use: *Popup menu, Default: Luma.*

Determines how the Mask input channels are used to make a monochrome mask.

Luma: the luminance of the RGB channels is used.

Alpha: only the Alpha channel is used.

Show Blur Amount: *Check-box, Default: on.*

Turns on or off the screen user interface for adjusting the blur amount parameters.

Show Angle: *Check-box, Default: on.*

Turns on or off the screen user interface for adjusting the Angle parameter.

See Also:

[Blur](#)

[BlurChannels](#)

[BlurChroma](#)

[RackDefocus](#)

[DefocusPrism](#)

[EdgeBlur](#)

[BandPass](#)

[BlurMotion](#)

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S_BlurMoCurves

Performs a motion blur and optionally transforms the source clip using the animated curves of the Z Dist, Rotate and Shift parameters. If these parameters are constant, no motion blur will occur.

In the Sapphire Blur+Sharpen effects submenu.



Inputs:

Source: The clip to be processed.

Parameters:

Effect: *Popup menu, Default: Transform & Blur.*

Allows disabling of the transformation.

Transform & Blur: transforms the Source as well as blurring.

Blur Only: this can be useful if the motions have already occurred. The curves are used only to apply the corresponding motion blur in place, and no transformation is performed.

Center: *X & Y, Default: [360 243], Range: any.*

The center of rotation and zooming, in screen coordinates relative to the center of the frame. The shift values should be zero for this location to make sense. This parameter can be adjusted using the Center Widget.

Z Dist: *Default: 1, Range: 0.001 or greater.*

The 'distance' of the image from the camera, about the Center position. The rate of change of this parameter is also used for the motion blur. Values greater than 1.0 move it farther away and make it smaller. Values less than 1.0 move the image closer and enlarge it. This parameter can be adjusted using the Transform Widget.

Rotate: *Default: 0, Range: any.*

Rotates the image by this amount in degrees, about the Center. The rate of change of this parameter is also used for the motion blur. Note that for high rotation speeds, the motion blur will become less accurate. This parameter can be adjusted using the Transform Widget.

Shift: *X & Y, Default: [0 0], Range: any.*

Translates the source image by this amount. The rate of change of this parameter is also used for the motion blur. It is in screen coordinates for easy use with tracker data. This parameter can be adjusted using the Transform Widget.

Shutter Duration: *Default: 1, Range: 0 or greater.*

The amount of time, in frames, to apply the motion blur over. Larger values cause more blurring, smaller values cause less. The curves are sampled at plus and minus half of this value.

Shutter Shift: *Default: 0, Range: any.*

The time-shift in frames of the motion blur. If the Shutter Speed is 1.0 and Shutter Shift is 0, the blur is calculated between the current frame -.5 and +.5. If the Shutter Shift is instead .5 then the motion blur would be calculated between the current frame and the next frame.

Exposure Bias: *Default: 0.5, Range: 0 to 1.*

Determines the variable amount of exposure along the path between the From and To transformations. A value of 0 causes more exposure at the From end, 0.5 causes equal exposure along the path, and 1.0 causes more exposure at the To end. If you have bright spots on a dark background, a 0 value would cause the processed spots to be brighter at the From end and dark at the To end, and a 1.0 value would cause the opposite.

Brightness: *Default: 1, Range: 0 or greater.*
Scales the brightness of the result.

Wrap: *X & Y, Popup menu, Default: [No No].*
Determines the method for accessing outside the borders of the source image.

No: gives black beyond the borders.

Tile: repeats a copy of the image.

Reflect: repeats a mirrored copy. Edges are often less visible with this method.

Blur Res: *Popup menu, Default: Full.*

Selects the resolution factor for the motion blur. This is similar to the general 'Res' factor parameter, but does a better job of averaging down to lower resolution and interpolating back up to the result. Higher resolutions give better quality, lower resolutions give faster processing.

Full: Full resolution is used.

1/2: The motion blurring is performed at half resolution.

1/4: The motion blurring is performed at quarter resolution.

Subpixel: *Check-box, Default: on.*

If enabled, uses a better quality but slightly slower method for performing the blur.

Crop Input Parameters: *Default: 0, Range: 0 or greater.*

These 4 parameters, **Crop Top**, **Crop Bottom**, **Crop Left**, and **Crop Right**, allow selecting a rectangular subsection of the input image to be processed. If the Wrap parameters are set to "No" the exposed borders will be transparent. If the Wrap is "Tile" or "Reflect" the source image is wrapped on the new cropped borders to fill the frame. This can make it easier to avoid artifacts due to distorting an image with bad edges.

Show Center: *Check-box, Default: on.*

Turns on or off the screen user interface for adjusting the Center parameter.

Show Transform: *Check-box, Default: on.*

Turns on or off the screen user interface for adjusting the Z Dist and Rotate parameters.

Show Shift: *Check-box, Default: off.*

Turns on or off the screen user interface for adjusting the Center parameter.

See Also:

[BlurMotion](#)

[Blur](#)

[Streaks](#)

[WarpRepeat](#)

[WarpChroma](#)

[EdgeRays](#)

[Sapphire Plug-ins](#)

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S_BlurMotion

Performs a motion blur of the source clip between the specified From and To transformations. This can be used to perform radial zoom blurs, rotate blurs, directional blurs, or any combination of these. The From and To parameters do not refer to time. They describe the two transformations in space that determine the style of blur applied to each frame.

In the Sapphire Blur+Sharpen effects submenu.



Inputs:

Source: The clip to be processed.

Mask: *Optional.* If provided, the amount of motion blur is scaled by this input for each destination pixel. This input can be affected using the Blur Mask, Invert Mask, or Mask Use parameters.

Parameters:

Effect: *Popup menu, Default: Blur Color.*

Selects between full color or monochrome result.

Blur Color: blurs all the channels of the source input.

Blur Mono: makes the source monochrome and then blurs the resulting single channel (faster).

Center: *X & Y, Default: [360 243], Range: any.*

The center of rotation and zooming, in screen coordinates relative to the center of the frame. The shift values should be zero for this location to make sense. This parameter can be adjusted using the Center Widget.

From Z Dist: *Default: 1, Range: 0.001 or greater.*

The 'distance' of the From transformation. This zooms about the Center location when Shift is 0. Increase to zoom out, decrease to zoom in. This parameter can be adjusted using the From Transfm Widget.

From Rotate: *Default: 0, Range: any.*

The rotation angle of the From transformation, in degrees, about the center. This parameter can be adjusted using the From Transfm Widget.

From Shift: *X & Y, Default: [0 0], Range: any.*

The horizontal and vertical translations of the From transformation. This can be used for directional motion. If it is non-zero the center location becomes less meaningful. This parameter can be adjusted using the From Transfm Widget.

To Z Dist: *Default: 0.8, Range: 0.001 or greater.*

The 'distance' of the To transformation. Increase to zoom out, or decrease to zoom in. This parameter can be adjusted using the To Transform Widget.

To Rotate: *Default: 0, Range: any.*

The rotation angle of the To transformation, in degrees, about the center. Note that if the From and To Rotate angles are very different, the interpolation between them will become less accurate. This parameter can be adjusted using the To Transform Widget.

To Shift: *X & Y, Default: [0 0], Range: any.*

The horizontal and vertical translations of the To transformation. This can be used for directional motion. If it is non-zero the center location becomes less meaningful. This parameter can be adjusted using the To Transform Widget.

Exposure Bias: *Default: 0.5, Range: 0 to 1.*

Determines the variable amount of exposure along the path between the From and To transformations. A value of 0 causes more exposure at the From end, 0.5 causes equal exposure along the path, and 1.0 causes more exposure at the To end. If you have bright spots on a dark background, a 0 value would cause the processed spots to be brighter at the From end and dark at the To end, and a 1.0 value would cause the opposite.

Brightness: *Default: 1, Range: 0 or greater.*

Scales the brightness of the result.

Wrap: *X & Y, Popup menu, Default: [No No].*

Determines the method for accessing outside the borders of the source image.

No: gives black beyond the borders.

Tile: repeats a copy of the image.

Reflect: repeats a mirrored copy. Edges are often less visible with this method.

Blur Res: *Popup menu, Default: Full.*

Selects the resolution factor for the motion blur. This is similar to the general 'Res' factor parameter, but does a better job of averaging down to lower resolution and interpolating back up to the result. Higher resolutions give better quality, lower resolutions give faster processing.

Full: Full resolution is used.

1/2: The motion blurring is performed at half resolution.

1/4: The motion blurring is performed at quarter resolution.

Subpixel: *Check-box, Default: on.*

If enabled, uses a better quality but slightly slower method for performing the blur.

Blur Mask: *Default: 0, Range: 0 or greater.*

Blurs the Mask input by this amount before using. This can provide a smoother transition between the masked and unmasked areas. It has no effect unless the Mask input is provided.

Invert Mask: *Check-box, Default: off.*

If on, inverts the mask input so the effect is applied to areas where the Mask is black instead of white. This has no effect unless the Mask input is provided.

Mask Use: *Popup menu, Default: Luma.*

Determines how the Mask input channels are used to make a monochrome mask.

Luma: the luminance of the RGB channels is used.

Alpha: only the Alpha channel is used.

Crop Input Parameters: *Default: 0, Range: 0 or greater.*

These 4 parameters, **Crop Top**, **Crop Bottom**, **Crop Left**, and **Crop Right**, allow selecting a rectangular subsection of the input image to be processed. If the Wrap parameters are set to "No" the exposed borders will be transparent. If the Wrap is "Tile" or "Reflect" the source image is wrapped on the new cropped borders to fill the frame. This can make it easier to avoid artifacts due to distorting an image with bad edges.

Show Center: *Check-box, Default: on.*

Turns on or off the screen user interface for adjusting the Center parameter.

Show From Transfm: *Check-box, Default: on.*

Turns on or off the screen user interface for adjusting the From Z Dist and From Rotate parameters.

Show To Transform: *Check-box, Default: on.*

Turns on or off the screen user interface for adjusting the To Z Dist and To Rotate parameters.

Show From Shift: *Check-box, Default: off.*

Turns on or off the screen user interface for adjusting the Center parameter.

Show To Shift: *Check-box, Default: off.*

Turns on or off the screen user interface for adjusting the Center parameter.

See Also:

[BlurMoCurves](#)

[Blur](#)

[Streaks](#)

[WarpRepeat](#)

[WarpChroma](#)

[EdgeRays](#)

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S_Cartoon

Generates a version of the source clip with a cartoon look. Finds the edges in the image and draws new outlines for those edges. Smooths the colors of the areas between the edges, and optionally posterizes the colors into fewer color values.

In the Sapphire Stylize effects submenu.



Inputs:

Source: The clip to be processed.

Parameters:

Edge Width: *Default:* 0.011, *Range:* 0 or greater.
The width of the outlined edges. Increase for thicker outlines.

Edge Strength: *Default:* 2, *Range:* 0 or greater.
Scales the strength of the outlined edges by this amount. Increase for heavier edges.

Edge Threshold: *Default:* 0.1, *Range:* 0 or greater.
Subtracts this value from outline image. Increase to remove unwanted noise and minor edges.

Edge Color: *Default rgb:* [0 0 0].
Outline the edges of the clip in this color.

Suppress Small Edges: *Default:* 0.5, *Range:* 0 or greater.
Increase this value to remove smaller edges while keeping the larger edges.

Edge Sharpen: *Default:* 0, *Range:* 0 or greater.
Amount to sharpen the outlines. Increase this value for sharper sides to the edges.

Smooth: *Default:* 0.002, *Range:* 0 or greater.
The amount to blur the colors in the non-edge regions.

Posterize Parameters:

Posterize Amount: *Default:* 0, *Range:* 0 to 1.
If positive, generates a posterized look by limiting the number of colors in the result. Increase this for fewer and larger regions of solid colors. Decrease for more colors and more steps between colors.

Posterize Smooth: *Default:* 0.1, *Range:* 0 to 1.
Amount to smooth the edges between color regions when posterizing. Increase this value to reduce aliasing between the colored areas. If set to 1, the areas will be completely smoothed together and no posterize effect will occur.

Posterize Phase: *Default:* 0, *Range:* any.
Amount to shift color boundaries when posterizing. Adjust this to fine-tune the location of the edges between the color regions. A phase of 1 is equivalent to 0.

Color Correct Parameters:

Saturation: *Default:* 1, *Range:* -2 to 8.

Scales the color saturation. Increase for more intense colors. Set to 0 for monochrome.

Scale Lights: *Default:* 1, *Range:* 0 or greater.

Scales the result by this value. Increase for a brighter result.

Tint Lights: *Default rgb:* [1 1 1].

Scales the result by this color, thus tinting the lighter regions.

Tint Darks: *Default rgb:* [0 0 0].

Adds this color to the darker regions of the source.

Offset Darks: *Default:* 0, *Range:* -8 to 2.

Adds this gray value to the darker regions of the source. This can be negative to increase contrast.

See Also:

[CartoonPaint](#)

[Posterize](#)

[AutoPaint](#)

[Sketch](#)

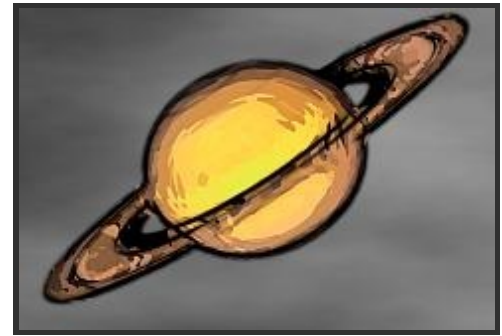
[Sapphire Plug-ins](#)

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S_CartoonPaint

Auto-generates a version of the source clip with a cartoon paint-brushed look. Finds the edges in the image and draws new outlines for those edges. Replaces the colors of the areas between the edges with paint brush shapes.

In the Sapphire Stylize effects submenu.



Inputs:

Source: The clip to be processed.

Parameters:

Edge Width: *Default:* 0.011, *Range:* 0 or greater.
The width of the outlined edges. Increase for thicker outlines.

Edge Strength: *Default:* 2, *Range:* 0 or greater.
Scales the strength of the outlined edges by this amount. Increase for heavier edges.

Edge Threshold: *Default:* 0.1, *Range:* 0 or greater.
Subtracts this value from outline image. Increase to remove unwanted noise and minor edges.

Edge Color: *Default rgb:* [0 0 0].
Outline the edges of the clip in this color.

Suppress Small Edges: *Default:* 0.5, *Range:* 0 or greater.
Increase this value to remove smaller edges while keeping the larger edges.

Edge Sharpen: *Default:* 0, *Range:* 0 or greater.
Amount to sharpen the outlines. Increase this value for sharper sides to the edges.

Paint Parameters:

Frequency: *Default:* 50, *Range:* 1 or greater.
The density of brush strokes in the frame. Increase for smaller strokes.

Stroke Length: *Default:* 2, *Range:* any.
Determines the length of the brush strokes along the directions of edges in the source clip. If this is negative you can switch from VanGogh to HairyPaint styles and vice versa.

Stroke Align: *Default:* 0.2, *Range:* 0 or greater.
Increase to smooth out the directions of the strokes so nearby strokes are more parallel.

Smooth Colors: *Default:* 0, *Range:* 0 or greater.
Blurs the source by this amount before generating the brush strokes. Increase to cause the colors of nearby strokes to be more consistent.

Seed: *Default:* 0, *Range:* 0 or greater.
Used to initialize the random number generator. The actual seed value is not significant, but different seeds give different results and the same value should give a repeatable result.

Jitter Frames: *Integer, Default:* 0, *Range:* 0 or greater.
If this is 0, the locations of the strokes will remain the same for every frame processed. If it is 1, the locations of the

stokes are re-randomized for each frame. If it is 2, they are re-randomized every second frame, and so on.

Posterize Parameters:

Posterize Amount: *Default: 0, Range: 0 to 1.*

If positive, generates a posterized look by limiting the number of colors in the result. Increase this for fewer and larger regions of solid colors. Decrease for more colors and more steps between colors.

Posterize Smooth: *Default: 0.1, Range: 0 to 1.*

Amount to smooth the edges between color regions when posterizing. Increase this value to reduce aliasing between the colored areas. If set to 1, the areas will be completely smoothed together and no posterize effect will occur.

Posterize Phase: *Default: 0, Range: any.*

Amount to shift color boundaries when posterizing. Adjust this to fine-tune the location of the edges between the color regions. A phase of 1 is equivalent to 0.

Color Correct Parameters:

Saturation: *Default: 1, Range: -2 to 8.*

Scales the color saturation. Increase for more intense colors. Set to 0 for monochrome.

Scale Lights: *Default: 1, Range: 0 or greater.*

Scales the result by this value. Increase for a brighter result.

Offset Darks: *Default: 0, Range: -8 to 2.*

Adds this gray value to the darker regions of the source. This can be negative to increase contrast.

Tint Lights: *Default rgb: [1 1 1].*

Scales the result by this color, thus tinting the lighter regions.

Tint Darks: *Default rgb: [0 0 0].*

Adds this color to the darker regions of the source.

See Also:

[Cartoon](#)

[Posterize](#)

[AutoPaint](#)

[Sketch](#)

[Sapphire Plug-ins](#)

[Introduction](#)

S_ChannelSwitcher

Reorders the RGBA channels of the source clip. Allows mapping any source channel into any output channel, with scaling and offset for each output channel.

In the Sapphire Adjust effects submenu.



Inputs:

Source: The clip to be processed.

Parameters:

Red <-: *Popup menu, Default: Red.*

Selects which channel of the source to use as the output red channel.

Red: Use the red input channel as the source for this output channel.

Green: Use the green input channel as the source for this output channel.

Blue: Use the blue input channel as the source for this output channel.

Alpha: Use the alpha input channel as the source for this output channel. If the input has no alpha, uses 1 (fully on).

Luma: Use the input luminance as the source for this output channel.

1: Use a constant 1 value (fully on) as the source for this output channel.

0: Use a constant 0 value (fully off) as the source for this output channel.

Green <-: *Popup menu, Default: Green.*

Selects which channel of the source to use as the output green channel.

Blue <-: *Popup menu, Default: Blue.*

Selects which channel of the source to use as the output blue channel.

Alpha <-: *Popup menu, Default: Alpha.*

Selects which channel of the source to use as the output alpha channel.

Scale Lights Red: *Default: 1, Range: -2 or greater.*

Scales the brightness of the output red channel by this amount.

Scale Lights Green: *Default: 1, Range: -2 or greater.*

Scales the brightness of the output green channel by this amount.

Scale Lights Blue: *Default: 1, Range: -2 or greater.*

Scales the brightness of the output blue channel by this amount.

Scale Lights Alpha: *Default: 1, Range: -2 or greater.*

Scales the brightness of the output alpha channel by this amount.

Offset Darks Red: *Default: 0, Range: -8 to 2.*

Adds this value to the darker regions of the red output channel. This can be negative to increase contrast.

Offset Darks Green: *Default: 0, Range: -8 to 2.*

Adds this value to the darker regions of the green output channel. This can be negative to increase contrast.

Offset Darks Blue: *Default: 0, Range: -8 to 2.*

Adds this value to the darker regions of the blue output channel. This can be negative to increase contrast.

Offset Darks Alpha: *Default: 0, Range: -8 to 2.*

Adds this value to the darker regions of the alpha output channel. This can be negative to increase contrast.

Output Premult: *Check-box, Default: off.*

If enabled, the output RGB is scaled by the output alpha. Where the output alpha is zero, the final RGB output will be zero.

See Also:

[HueSatBright](#)

[Monochrome](#)

[ClampChroma](#)

[PseudoColor](#)

[DuoTone](#)

[TriTone](#)

[QuadTone](#)

[Tint](#)

[Threshold](#)

[Hotspots](#)

[Gamma](#)

[Solarize](#)

[ShowBadColors](#)

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S_ClampChroma

Reduces the chrominance of the input clip if necessary so it is not above a specified maximum. This effect can be used to make 'broadcast safe' colors. It also can be used to scale the chrominance, clamp the luminance, or scale the luminance.

In the Sapphire Adjust effects submenu.



Inputs:

Source: The clip to be processed.

Parameters:

Clamp Chroma: *Default: 0.5, Range: 0 to 1.*

The maximum chrominance value. 1 is fully saturated and 0 is with no color. Source chrominance values below this will not be affected, but those above it will be reduced to it.

Scale Chroma: *Default: 1, Range: 0 or greater.*

Scales the chrominance of all pixels. If this is 1 it will have no effect.

Clamp Luma: *Default: 1, Range: 0 to 1.*

The maximum luminance value. Source pixels brighter than this limit will be reduced to it. Values below it will not be affected. If this is 1 it will have no effect.

Scale Luma: *Default: 1, Range: 0 or greater.*

Scales the brightness of all pixels. If this is 1 it will have no effect.

See Also:

[HueSatBright](#)

[Monochrome](#)

[PseudoColor](#)

[DuoTone](#)

[TriTone](#)

[QuadTone](#)

[Tint](#)

[Threshold](#)

[Hotspots](#)

[Gamma](#)

[Solarize](#)

[ChannelSwitcher](#)

[ShowBadColors](#)

[Invert](#)

[BlurChroma](#)

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S_Clouds

Generates a procedural noise texture. Use the Frequency parameter to zoom in and out of the texture. The Shift Speed parameters cause the texture to automatically translate over time.

In the Sapphire Render effects submenu.



Inputs:

Background: *Optional.* The clip to combine the clouds image with. This may be ignored if the Combine option is set to Clouds Only.

Parameters:

Frequency: *Default: 2, Range: 0.01 or greater.*

The spatial frequency of the clouds. Increase to zoom out, decrease to zoom in. Very high values of Frequency are clamped internally so the grain size is no smaller than a few pixels. If you want even finer grain use S_Grain or S_Clouds:Perspective instead.

Frequency Rel X: *Default: 0.4, Range: 0.01 or greater.*

The relative horizontal frequency of the texture. Increase to stretch it vertically or decrease to stretch it horizontally.

Octaves: *Integer, Default: 8, Range: 1 to 10.*

The number of summed layers of noise. Each octave is twice the frequency and half the amplitude of the previous. A single octave gives a smooth texture. Adding octaves makes the result approach a fractal (1/f) noise texture.

Seed: *Default: 0.234, Range: 0 or greater.*

Used to initialize the random number generator. The actual seed value is not significant, but different seeds give different results and the same value should give a repeatable result.

Shift Start: *X & Y, Default: [0 0], Range: any.*

Translation offset of the texture. Since the texture is procedurally generated it can be shifted with no repeating units or seams occurring. This parameter can be adjusted using the Shift Start Widget.

Shift Speed: *X & Y, Default: [0.5 0], Range: any.*

Translation speed of the texture. If non-zero, the result is automatically animated to shift at this rate. The result of animated Speed values may not be intuitive, so for variable speed motion it is usually best to set this to 0 and animate the Shift Start values instead.

Brightness1: *Default: 1, Range: 0 or greater.*

Scales the brightness of Color1. Increase for more contrast.

Color1: *Default rgb: [1 1 1].*

The color of the 'brighter' parts of the texture. The colors of the result are determined by an interpolation between Color0 and Color1.

Color0: *Default rgb: [0 0 0].*

The color of the 'darker' parts of the texture.

Offset0: *Default: 0, Range: any.*

Adds this value to color0. Decrease to a negative value for more contrast.

Bg Brightness: *Default: 1, Range: 0 or greater.*

The background brightness is scaled by this value before being combined with the clouds.

Combine: *Popup menu, Default: Screen.*

Determines how the texture is combined with the Background.

Clouds Only: gives only the clouds texture with no Background.

Mult: the texture is multiplied by the Background.

Add: the texture is added to the Background.

Screen: the texture is blended with the Background using a screen operation.

Difference: the result is the difference between the texture and Background.

Overlay: the texture is combined with the Background using an overlay function.

Show Shift Start: *Check-box, Default: on.*

Turns on or off the screen user interface for adjusting the Shift Start parameter.

See Also:

[CloudsPerspective](#)

[CloudsVortex](#)

[CloudsMultColor](#)

[CloudsColorSmooth](#)

[CloudsPsyko](#)

[Grain](#)

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S_CloudsColorSmooth

Generates a full color clouds texture. Procedural noise texture is independently generated for each of the red, green, and blue output channels. The Shift Speed parameters cause the texture to automatically translate over time.

In the Sapphire Render effects submenu.



Inputs:

Background: *Optional.* The clip to combine the clouds image with. This may be ignored if the Combine option is set to Clouds Only.

Parameters:

Frequency: *Default: 8, Range: 0.01 or greater.*

The spatial frequency of the clouds. Increase to zoom out, decrease to zoom in. Very high values of Frequency are clamped internally so the grain size is no smaller than a few pixels. If you want even finer grain use S_Grain or S_Clouds:Perspective instead.

Frequency Rel X: *Default: 0.2, Range: 0.01 or greater.*

The relative horizontal frequency of the texture. Increase to stretch it vertically or decrease to stretch it horizontally.

Octaves: *Integer, Default: 1, Range: 1 to 10.*

The number of summed layers of noise. Each octave is twice the frequency and half the amplitude of the previous. A single octave gives a smooth texture. Adding octaves makes the result approach a fractal (1/f) noise texture.

Seed: *Default: 0.6, Range: 0 or greater.*

Used to initialize the random number generator. The actual seed value is not significant, but different seeds give different results and the same value should give a repeatable result.

Shift Start: *X & Y, Default: [0 0], Range: any.*

Translation offset of the texture. Since the texture is procedurally generated it can be shifted with no repeating units or seams occurring. This parameter can be adjusted using the Shift Start Widget.

Shift Speed: *X & Y, Default: [0.5 0], Range: any.*

Translation speed of the texture. If non-zero, the result is automatically animated to shift at this rate. The result of animated Speed values may not be intuitive, so for variable speed motion it is usually best to set this to 0 and animate the Shift Start values instead.

Brightness: *Default: 1, Range: 0 or greater.*

Scales the brightness of the result.

Scale Colors: *Default rgb: [1 1 1].*

Scales the color of the result. For example, if it is yellow [1 1 0], the blue of the result will be 0.

Saturation: *Default: 1, Range: 0 to 10.*

Scales the color saturation. Increase for more intense colors. Set to 0 for monochrome.

Offset: *Default: 0, Range: -8 to 2.*

Adds this gray value to the result (or subtracts if negative). 0 has no effect, .5 is middle gray, and 1 is white.

Bg Brightness: *Default: 1, Range: 0 or greater.*

The background brightness is scaled by this value before being combined with the clouds.

Combine: *Popup menu, Default: Screen.*

Determines how the texture is combined with the Background.

Clouds Only: gives only the clouds texture with no Background.

Mult: the texture is multiplied by the Background.

Add: the texture is added to the Background.

Screen: the texture is blended with the Background using a screen operation.

Difference: the result is the difference between the texture and Background.

Overlay: the texture is combined with the Background using an overlay function.

Show Shift Start: *Check-box, Default: on.*

Turns on or off the screen user interface for adjusting the Shift Start parameter.

See Also:

[Clouds](#)

[CloudsPerspective](#)

[CloudsVortex](#)

[CloudsMultColor](#)

[CloudsPsyko](#)

[Grain](#)

[Sapphire Plug-ins](#)

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S_CloudsMultColor

Generates a procedural noise texture like S_Clouds and tints the colors using an additional color noise texture. The Shift Speed parameters cause the texture to automatically translate over time.

In the Sapphire Render effects submenu.



Inputs:

Background: *Optional.* The clip to combine the clouds image with. This may be ignored if the Combine option is set to Clouds Only.

Parameters:

Frequency: *Default: 2, Range: 0.01 or greater.*

The spatial frequency of the clouds. Increase to zoom out, decrease to zoom in. Very high values of Frequency are clamped internally so the grain size is no smaller than a few pixels. If you want even finer grain use S_Grain or S_Clouds:Perspective instead.

Frequency Rel X: *Default: 0.4, Range: 0.01 or greater.*

The relative horizontal frequency of the texture. Increase to stretch it vertically or decrease to stretch it horizontally.

Octaves: *Integer, Default: 8, Range: 1 to 10.*

The number of summed layers of noise. Each octave is twice the frequency and half the amplitude of the previous. A single octave gives a smooth texture. Adding octaves makes the result approach a fractal (1/f) noise texture.

Seed: *Default: 0.234, Range: 0 or greater.*

Used to initialize the random number generator. The actual seed value is not significant, but different seeds give different results and the same value should give a repeatable result.

Color Amount: *Default: 0.5, Range: 0 or greater.*

The amplitude of the color tinting.

Color Freq: *Default: 1, Range: 0.01 or greater.*

The frequency of the colors. Increase for finer color variation, decrease for softer color changes.

Color Freq Relx: *Default: 0.4, Range: 0.01 or greater.*

The relative horizontal frequency of the colors. Increase to stretch vertically, decrease to stretch horizontally.

Color Octaves: *Integer, Default: 1, Range: 1 to 10.*

The number of octaves of color noise to include. Each octave is twice the frequency and half the amplitude of the previous.

Color Seed: *Default: 0.345, Range: 0 or greater.*

The random number generator seed to use for the color noise. The actual seed value is not significant, but different values give different results.

Shift Start: *X & Y, Default: [0 0], Range: any.*

Translation offset of the texture. Since the texture is procedurally generated it can be shifted with no repeating units or seams occurring. This parameter can be adjusted using the Shift Start Widget.

Shift Speed: *X & Y, Default: [0.5 0], Range: any.*

Translation speed of the texture. If non-zero, the result is automatically animated to shift at this rate. The result of animated Speed values may not be intuitive, so for variable speed motion it is usually best to set this to 0 and animate the Shift Start values instead.

Brightness: *Default: 1, Range: 0 or greater.*

Scales the brightness of the result.

Color: *Default rgb: [1 1 1].*

Scales the color of the result.

Offset: *Default: 0, Range: -8 to 2.*

Adds this gray value to the result (or subtracts if negative). 0 has no effect, .5 is middle gray, and 1 is white.

Bg Brightness: *Default: 1, Range: 0 or greater.*

The background brightness is scaled by this value before being combined with the clouds.

Combine: *Popup menu, Default: Screen.*

Determines how the texture is combined with the Background.

Clouds Only: gives only the clouds texture with no Background.

Mult: the texture is multiplied by the Background.

Add: the texture is added to the Background.

Screen: the texture is blended with the Background using a screen operation.

Difference: the result is the difference between the texture and Background.

Overlay: the texture is combined with the Background using an overlay function.

Show Shift Start: *Check-box, Default: on.*

Turns on or off the screen user interface for adjusting the Shift Start parameter.

See Also:

[Clouds](#)

[CloudsPerspective](#)

[CloudsVortex](#)

[CloudsColorSmooth](#)

[CloudsPsyko](#)

[Grain](#)

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S_CloudsPerspective

Generates a procedural noise texture transformed onto a 3D plane with perspective. Adjust the Latitude, Swing, and Roll parameters to rotate the image on various axes, each axis, and use the Frequency parameter to zoom in and out of the texture. Shift Speed causes the texture to automatically translate over time.

In the Sapphire Render effects submenu.



Inputs:

Background: *Optional.* The clip to combine the texture image with. This may be ignored if the Combine option is set to Texture Only.

Parameters:

Frequency: *Default: 2, Range: 0.01 or greater.*

The spatial frequency of the texture. Increase to zoom out, decrease to zoom in.

Frequency Rel X: *Default: 0.4, Range: 0.01 or greater.*

The relative horizontal frequency of the texture. Increase to stretch it vertically or decrease to stretch it horizontally.

Octaves: *Integer, Default: 6, Range: 1 to 10.*

The number of summed layers of noise. Each octave is twice the frequency and half the amplitude of the previous. A single octave gives a smooth texture. Adding octaves makes the result approach a fractal (1/f) noise texture.

Seed: *Default: 0.234, Range: 0 or greater.*

Used to initialize the random number generator. The actual seed value is not significant, but different seeds give different results and the same value should give a repeatable result.

Z Dist: *Default: 1, Range: 0.001 or greater.*

Scales the 'distance' of the image. Values greater than 1.0 move it farther away and make it smaller. Values less than 1.0 move the image closer and enlarge it.

Latitude: *Default: -35, Range: -80 to 80.*

Positive latitude tilts the image down and negative tilts it up. Keep latitude in the range of around -35 to 35 degrees to avoid aliasing towards the horizon.

Swing: *Default: 0, Range: any.*

Rotation of the image in degrees in its initial frame.

Roll: *Default: 0, Range: any.*

Tilts the result from side to side, in counter-clockwise degrees.

Tele Lens Width: *Default: 1, Range: 0.2 to 3.*

The amount of lens telescoping. Increase to zoom in with less perspective, decrease for a wider viewing angle with more perspective.

Shift Start: *X & Y, Default: [0 0], Range: any.*

Translation offset of the clouds in their initial plane. This parameter can be adjusted using the Shift Start Widget.

Shift Speed: *X & Y, Default: [0.5 0], Range: any.*

Translation speed of the texture. If non-zero, the result is automatically animated to shift at this rate. The result of animated Speed values may not be intuitive, so for variable speed motion it is usually best to set this to 0 and animate the Shift Start values instead.

Brightness1: *Default: 1, Range: 0 or greater.*

Scales the brightness of Color1. Increase for more contrast.

Color1: *Default rgb: [1 1 1].*

The color of the 'brighter' parts of the texture. The colors of the result are determined by an interpolation between Color0 and Color1.

Color0: *Default rgb: [0 0 0].*

The color of the 'darker' parts of the texture.

Offset0: *Default: 0, Range: any.*

Adds this value to color0. Decrease to a negative value for more contrast.

Bg Brightness: *Default: 1, Range: 0 or greater.*

The background brightness is scaled by this value before being combined with the texture.

Combine: *Popup menu, Default: Screen.*

Determines how the texture is combined with the Background.

***Clouds Only:** gives only the clouds texture with no Background.*

***Mult:** the texture is multiplied by the Background.*

***Add:** the texture is added to the Background.*

***Screen:** the texture is blended with the Background using a screen operation.*

***Difference:** the result is the difference between the texture and Background.*

***Overlay:** the texture is combined with the Background using an overlay function.*

Show Shift Start: *Check-box, Default: on.*

Turns on or off the screen user interface for adjusting the Shift Start parameter.

See Also:

[Clouds](#)

[CloudsVortex](#)

[CloudsMultColor](#)

[CloudsColorSmooth](#)

[CloudsPsyko](#)

[WarpPerspective](#)

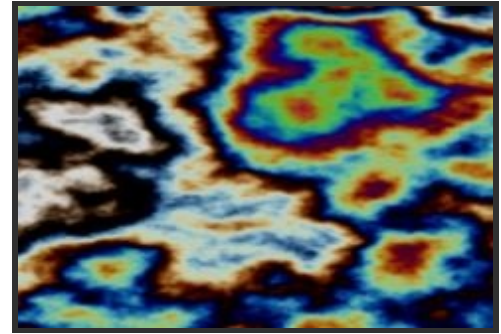
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S_CloudsPsyko

Generates a procedural noise texture, and passes this through a colorizing process. The Shift Speed parameters cause the pattern to automatically translate over time, and Phase Speed causes the colors to rotate over time.

In the Sapphire Render effects submenu.



Inputs:

Background: *Optional.* The clip to combine the clouds image with. This may be ignored if the Combine option is set to Clouds Only.

Parameters:

Frequency: *Default: 2, Range: 0.01 or greater.*

The spatial frequency of the clouds. Increase to zoom out, decrease to zoom in. Very high values of Frequency are clamped internally so the grain size is no smaller than a few pixels. If you want even finer grain use S_Grain or S_Clouds:Perspective instead.

Frequency Rel X: *Default: 0.4, Range: 0.01 or greater.*

The relative horizontal frequency of the texture. Increase to stretch it vertically or decrease to stretch it horizontally.

Octaves: *Integer, Default: 8, Range: 1 to 10.*

The number of summed layers of noise. Each octave is twice the frequency and half the amplitude of the previous. A single octave gives a smooth texture. Adding octaves makes the result approach a fractal (1/f) noise texture.

Seed: *Default: 0.23, Range: 0 or greater.*

Used to initialize the random number generator. The actual seed value is not significant, but different seeds give different results and the same value should give a repeatable result.

Color Freq: *Default: 4, Range: 0.01 or greater.*

The frequency of the color pattern. Increase for a busier texture with more cycles through the spectrum.

Freq Red: *Default: 1, Range: 0 or greater.*

The frequency of the red color component. Increase for more cycles in the red channel.

Freq Green: *Default: 1.1, Range: 0 or greater.*

The frequency of the green color component. Increase for more cycles in the green channel.

Freq Blue: *Default: 1.2, Range: 0 or greater.*

The frequency of the blue color component. Increase for more cycles in the blue channel.

Shift Start: *X & Y, Default: [0 0], Range: any.*

Translation offset of the texture. Since the texture is procedurally generated it can be shifted with no repeating units or seams occurring. This parameter can be adjusted using the Shift Start Widget.

Shift Speed: *X & Y, Default: [0.5 0], Range: any.*

Translation speed of the texture. If non-zero, the result is automatically animated to shift at this rate. The result of animated Speed values may not be intuitive, so for variable speed motion it is usually best to set this to 0 and animate the Shift Start values instead.

Phase Start: *Default: -0.5, Range: any.*

The phase offset of the color patterns.

Phase Speed: *Default: 0.3, Range: any.*

The phase speed of the color patterns. If non-zero, the phase is automatically animated to give the color pattern a boiling look.

Brightness: *Default: 1, Range: 0 or greater.*

Scales the brightness of the result.

Scale Color: *Default rgb: [1 1 1].*

Scales the color of the result. For example, if it is yellow [1 1 0], the blue of the result will be 0.

Saturation: *Default: 1, Range: 0 to 10.*

Scales the strength of the colors. Increase for more intense colors, or decrease for muted colors.

Offset: *Default: 0, Range: -8 to 2.*

Adds this gray value to the result (or subtracts if negative). 0 has no effect, .5 is middle gray, and 1 is white.

Bg Brightness: *Default: 1, Range: 0 or greater.*

The background brightness is scaled by this value before being combined with the clouds.

Combine: *Popup menu, Default: Screen.*

Determines how the texture is combined with the Background.

***Clouds Only:** gives only the clouds texture with no Background.*

***Mult:** the texture is multiplied by the Background.*

***Add:** the texture is added to the Background.*

***Screen:** the texture is blended with the Background using a screen operation.*

***Difference:** the result is the difference between the texture and Background.*

***Overlay:** the texture is combined with the Background using an overlay function.*

Show Shift Start: *Check-box, Default: on.*

Turns on or off the screen user interface for adjusting the Shift Start parameter.

See Also:

[Clouds](#)

[CloudsPerspective](#)

[CloudsVortex](#)

[CloudsMultColor](#)

[CloudsColorSmooth](#)

[ZebraFyColor](#)

[PseudoColor](#)

[PsykoBlobs](#)

[PsykoStripes](#)

[Sapphire](#)

[Plug-ins](#)

[Introduction](#)

S_CloudsVortex

Generates a procedural noise texture twisting into a vortex. The Vortex Speed parameter causes the amount of vortex rotation to automatically animate over time.

In the Sapphire Render effects submenu.



Inputs:

Background: *Optional.* The clip to combine the texture image with. This may be ignored if the Combine option is set to Texture Only.

Parameters:

Frequency: *Default: 2, Range: 0.01 or greater.*

The spatial frequency of the texture. Increase to zoom out, decrease to zoom in.

Frequency Rel X: *Default: 1, Range: 0.01 or greater.*

The relative horizontal frequency of the texture. Increase to stretch it vertically or decrease to stretch it horizontally.

Octaves: *Integer, Default: 6, Range: 1 to 10.*

The number of summed layers of noise. Each octave is twice the frequency and half the amplitude of the previous. A single octave gives a smooth texture. Adding octaves makes the result approach a fractal (1/f) noise texture.

Seed: *Default: 0.234, Range: 0 or greater.*

Used to initialize the random number generator. The actual seed value is not significant, but different seeds give different results and the same value should give a repeatable result.

Center: *X & Y, Default: [360 243], Range: any.*

The center of the vortex, in screen coordinates relative to the center of the frame. This parameter can be adjusted using the Center Widget.

Z Dist: *Default: 1, Range: 0.001 or greater.*

Scales the 'distance' of the image. Values greater than 1.0 move it farther away and make it smaller. Values less than 1.0 move the image closer and enlarge it.

Latitude: *Default: 30, Range: -80 to 80.*

Positive latitude tilts the image down and negative tilts it up. Keep latitude in the range of around -35 to 35 degrees to avoid aliasing towards the horizon.

Vortex Start: *Default: 72, Range: any.*

The amount of vortex rotation, in approximate counter-clockwise degrees at the edge of the frame.

Vortex Speed: *Default: 30, Range: any.*

The speed of the vortex rotation, in approximate degrees per second at the edge of the frame. If non-zero, the vortexing is automatically animated at this rate.

Angle Offset: *Default: 0, Range: any.*

If non-zero, a rotation is combined with the vortex. Make negative to rotate the inner and outer regions in opposite directions.

Inner Radius: *Default:* 0.042, *Range:* 0 or greater.

The radius from the center at which the vortexing is phased in. This can be used to reduce excessive distortion and aliasing at the very center of the vortex.

Brightness1: *Default:* 1, *Range:* 0 or greater.

Scales the brightness of Color1. Increase for more contrast.

Color1: *Default rgb:* [1 1 1].

The color of the 'brighter' parts of the texture. The colors of the result are determined by an interpolation between Color0 and Color1.

Color0: *Default rgb:* [0 0 0].

The color of the 'darker' parts of the texture.

Offset0: *Default:* 0, *Range:* any.

Adds this value to color0. Decrease to a negative value for more contrast.

Bg Brightness: *Default:* 1, *Range:* 0 or greater.

The background brightness is scaled by this value before being combined with the texture.

Combine: *Popup menu, Default:* Screen.

Determines how the texture is combined with the Background.

Clouds Only: gives only the clouds texture with no Background.

Mult: the texture is multiplied by the Background.

Add: the texture is added to the Background.

Screen: the texture is blended with the Background using a screen operation.

Difference: the result is the difference between the texture and Background.

Overlay: the texture is combined with the Background using an overlay function.

Show Center: *Check-box, Default:* on.

Turns on or off the screen user interface for adjusting the Center parameter.

See Also:

[Clouds](#)

[CloudsPerspective](#)

[CloudsMultColor](#)

[CloudsColorSmooth](#)

[CloudsPsyko](#)

[WarpVortex](#)

[Sapphire Plug-ins](#)

[Introduction](#)

S_Convolve

Convolves a source image with a kernel. Convolution is a mathematical operator which uses one image, the kernel, as a filter shape for another image (the source). Convolution effectively stamps a copy of the kernel at each point of the source, using the source's brightness at that point. The effect is that a copy of the kernel will appear over all the bright spots of the source. A kernel image shaped like a circle or polygon will give an effect similar to RackDefocus; a kernel image shaped like a starburst can give something like Glare.



In the Sapphire Blur+Sharpen effects submenu.

Inputs:

Source: The clip to be processed.

Kernel: *Optional.* The filter kernel or shape for the convolution. This should normally be all black around the edges (outside the specified Kernel Crop region), with a non-black central part. A larger shape normally produces blurrier results. Only the part of the kernel within the two Kernel Crop params is considered; the part outside that boundary is ignored.

Parameters:

Kernel Size: *Default:* 1, *Range:* 0 or greater.

Kernel Size resizes the kernel larger or smaller. 1.0 is the original size. This parameter can be adjusted using the Kernel Size Widget.

Kernel Rel Width: *Default:* 1, *Range:* 0 or greater.

Increase to make the kernel fatter or wider without changing its height. Decrease to shrink it horizontally, making it thinner.

Kernel Rel Height: *Default:* 1, *Range:* 0 or greater.

Increase to make the kernel taller without changing its width. Decrease to shrink it vertically, making it flatter.

Kernel Center: *X & Y, Default:* [0 0], *Range:* any.

The center point of the kernel; if you think of convolution as repeated stamping of the kernel at each point of the source, the center is where the stamp aligns with the source pixels it's stamped over. If you move the center to the right in the kernel, the whole result image will move to the left, and similarly up and down. This parameter is ignored if AutoCenter is on. It may be helpful to turn on Show Kernel while adjusting this parameter. Note that if AutoCenter is off, the center point is always included in the kernel no matter what this param is set to. This parameter can be adjusted using the Kernel Center Widget.

Autocenter: *Check-box, Default:* on.

Automatically finds the center of the kernel image. Turning this on makes the effect ignore the Kernel Center param.

Use Color Kernel: *Check-box, Default:* off.

Use each color channel of the kernel independently. Turn this on if your kernel is not just black and white and you want the colors of the kernel to be used in the convolution. Turn off for fastest rendering.

Show Kernel: *Check-box, Default:* off.

Show the kernel over the result, for easier adjustment of kernel parameters. Turn this off for final rendering.

Use Gamma: *Default: 1, Range: 0.1 to 10.*

Values above 1 cause highlights in the source clip to keep their brightness after the convolution filter is applied.

Boost Highlights: *Default: 0, Range: 0 or greater.*

The amount to increase the luma of the highlights in the source clip. Increase this parameter to blow out the highlights without affecting the darks or mid-tones.

Hilight Threshold: *Default: 0.9, Range: 0 to 1.*

The minimum luma value for highlights. Pixels brighter than this will be brightened according to the Boost Highlights parameter.

Brightness: *Default: 1, Range: 0 or greater.*

Scales the brightness of the result.

Threshold: *Default: 0, Range: 0 or greater.*

Any source value below this will be treated as black. When combining the convolved result with the original, you can increase this value to only convolve bright areas of the source. Typically when using this parameter, you will also set Combine to Screen or Add to get a glare-like effect.

Threshold Add Color: *Default rgb: [0 0 0].*

This can be used to raise the threshold on a specific color and thereby reduce the convolved result generated on areas of the source clip containing that color.

Combine: *Popup menu, Default: Convolve Only.*

Determines how the convolved image is combined with the original source.

Convolve Only: Only show the convolved image. Use this option for a blur or defocus-like effect

Screen: Screen the convolved image with the original source. Use this option for a glow or glare-like effect.

Add: Add the convolved image to the original source.

Difference: Show the difference between the convolved image and the source.

Mix With Source: *Default: 0, Range: 0 to 1.*

Interpolates between the convolved result (0) and the original source (1). 0.1 can give a nice misty effect since it mixes only a little of the source in.

Edge Mode: *X & Y, Popup menu, Default: [Transparent Transparent].*

Determines the behavior when accessing areas outside the source image.

Transparent: Areas outside the source image are treated as transparent, which can produce transparency around the edges of the image. Select this for fastest rendering.

Repeat: Repeats the last pixel outside the border of the image.

Reflect: Reflects the image outside the border.

Kernel Threshold: *Default: 0.001, Range: 0 to 1.*

Any kernel value below this will be treated as black. It's important for the edges of the kernel image to be completely black, or the result will have a grayish cast to it. If your kernel image may have a little noise in the black areas, turn up threshold a little to remove that background noise.

Clamp Below Thresh: *Check-box, Default: on.*

When turned on, values below the threshold are clamped to zero. This usually gives the best result. For certain special cases with partially-negative kernels, turning this off gives you additional flexibility in designing your kernel.

Kernel Crop1: *X & Y, Default: [1 1], Range: any.*

The upper left corner of the kernel area. Parts of the kernel image outside the rectangle defined by Kernel Crop1 and Kernel Crop2 are assumed to be black. Making this area smaller to avoid processing the kernel's black edges can speed up the convolution somewhat. It may be helpful to turn on Show Kernel while adjusting this parameter. Note

that if Autocenter is off, the center point is always included in the kernel no matter what this param is set to.

Kernel Crop2: *X & Y, Default: [719 485], Range: any.*

The lower right corner of the kernel area.

Autoscale Mode: *Popup menu, Default: Max Channel.*

In convolution, either a larger or brighter kernel will make the result image brighter. The kernel must be auto-scaled or normalized so the result is, on average, as bright as the input. The autoscaling can be done in several ways, each of which is best in certain circumstances. With a monochrome kernel or with Color Kernel turned off, Max Channel, Luma, and Indep Channels all give the same result.

Max Channel: Autoscales the kernel by summing the elements of each channel, and using whichever is brightest as the overall kernel scale factor. This normalizes a dim kernel to full brightness, and generally preserves the color of the kernel, but allows brightness variations in the dimmer channels to show in the result.

Luma: Autoscales the kernel by summing the luminances of each kernel pixel. This method preserves changes in the kernel's hue, but normalizes the luma, so a brighter or darker kernel will have no effect. Use the Scale parameter to adjust the result brightness.

Indep Channels: Independently normalizes each color channel of the kernel. A colored kernel will give a white/gray result with this method. Use this method if your kernel channels are independent of each other (i.e. different things going on in each of R, G, and B) but you want normalized results in each channel.

Count Nonzero: Count how many kernel pixels are nonzero (brighter than black), but otherwise ignore how bright they are. This method is best if you want variations in kernel hue and luma to show up in the result. But blurring the kernel will give a dimmer result, since there will be more nonzero pixels.

Kernel Size: Ignore the pixel *values* entirely; only use the size of the kernel rectangle to auto-scale. Use this if you want all kernel variations to show up in the result, but don't use it if you intend to animate Kernel Crop1 and Crop2, as that would affect the result's brightness.

Show Kernel Size: *Check-box, Default: on.*

Turns on or off the screen user interface for adjusting the Kernel Size parameter.

Show Kernel Center: *Check-box, Default: off.*

Turns on or off the screen user interface for adjusting the Kernel Center parameter.

Show Kernel Crop: *Check-box, Default: off.*

Turns on or off the screen user interface for adjusting the Kernel Crop1 parameter.

See Also:

[ConvolveComp](#)

[RackDefocus](#)

[Glare](#)

[Glint](#)

[Sapphire Plug-ins](#)

[Introduction](#)

S_ConvolveComp

Convolves front and back images with a kernel, and composites them using a matte. Convolution is a mathematical operator which uses one image, the kernel, as a filter shape for another image (the source). Convolution effectively stamps a copy of the kernel at each point of the source, using the source's brightness at that point. The effect is that a copy of the kernel will appear over all the bright spots of the source. A kernel image shaped like a circle or polygon will give an effect similar to RackDefocusComp; a kernel image shaped like a starburst can give something like GlareComp.



The kernel size can vary between front and back so either or both can be blurred.

In the Sapphire Blur+Sharpen effects submenu.

Inputs:

Foreground: The clip to use as foreground.

Background: The clip to use as background.

Matte: *Optional.* The alpha channel of this input specifies the opacities of the Foreground input. If this input is not provided, the alpha channel of the Foreground input is used instead. This input can be affected by the Invert Matte or Matte Use parameters.

Kernel: *Optional.* The filter kernel or shape for the convolution. This should normally be all black around the edges (outside the specified Kernel Crop region), with a non-black central part. A larger shape normally produces blurrier results. Only the part of the kernel within the two Kernel Crop params is considered; the part outside that boundary is ignored.

Parameters:

Size Front: *Default:* 1, *Range:* 0 or greater.

Size Front resizes the kernel larger or smaller when convolving the Front clip. 1.0 is the original size. This parameter can be adjusted using the Size Front Widget.

Size Back: *Default:* 0, *Range:* 0 or greater.

Size Back resizes the kernel larger or smaller when convolving the Back clip. This parameter can be adjusted using the Size Back Widget.

Size Rel X: *Default:* 1, *Range:* 0 or greater.

Increase to make the kernel fatter or wider without changing its height. Decrease to shrink it horizontally, making it thinner.

Size Rel Y: *Default:* 1, *Range:* 0 or greater.

Increase to make the kernel taller without changing its weight. Decrease to shrink it vertically, making it flatter.

Kernel Center: *X & Y, Default:* [0 0], *Range:* any.

The center point of the kernel; if you think of convolution as repeated stamping of the kernel at each point of the

source, the center is where the stamp aligns with the source pixels it's stamped over. If you move the center to the right in the kernel, the whole result image will move to the left, and similarly up and down. This parameter is ignored if AutoCenter is on. It may be helpful to turn on Show Kernel while adjusting this parameter. Note that if Autocenter is off, the center point is always included in the kernel no matter what this param is set to. This parameter can be adjusted using the Kernel Center Widget.

Autocenter: *Check-box, Default: on.*

Automatically finds the center of the kernel image. Turning this on makes the effect ignore the Kernel Center param.

Use Color Kernel: *Check-box, Default: off.*

Use each color channel of the kernel independently. Turn this on if your kernel is not just black and white and you want the colors of the kernel to be used in the convolution. Turn off for fastest rendering.

Show Kernel: *Check-box, Default: off.*

Show the kernel over the result, for easier adjustment of kernel parameters. Turn this off for final rendering.

Use Gamma: *Default: 2, Range: 0.1 or greater.*

Values above 1 cause highlights in the source clip to keep their brightness after the convolution filter is applied.

Matte Gamma: *Default: 1, Range: 0.1 or greater.*

The gamma value to use for the defocus of the Matte.

Boost Highlights: *Default: 0, Range: 0 or greater.*

The amount to increase the luma of the highlights in the source clip. Increase this parameter to blow out the highlights without affecting the darks or mid-tones.

Hilight Threshold: *Default: 0.9, Range: 0 to 1.*

The minimum luma value for highlights. Pixels brighter than this will be brightened according to the Boost Highlights parameter.

Comp Premult: *Check-box, Default: on.*

Disable this if you have provided a separate Matte input and the Foreground pixel values have not been pre-multiplied by this Matte.

Front Brightness: *Default: 1, Range: 0 or greater.*

Scale the brightness of the convolved Front clip.

Front Opacity: *Default: 1, Range: 0 to 1.*

Scale the opacity of the front clip before compositing over the back.

Front Threshold: *Default: 0, Range: 0 or greater.*

In the Front clip, any source value below this will be treated as black. When combining the convolved result with the original, you can increase this value to only convolve bright areas of the source. Typically when using this parameter, you will also set Combine to Screen or Add to get a glare-like effect.

Threshold Add Color: *Default rgb: [0 0 0].*

This can be used to raise the threshold on a specific color and thereby reduce the convolved result generated on areas of the source clip containing that color.

Back Brightness: *Default: 1, Range: 0 or greater.*

Scale the brightness of the convolved Back clip.

Combine: *Popup menu, Default: Convolve Only.*

Determines how the front, back, and convolved images are combined.

Convolve Only: Convolve the Front and Back and composite them together. Use this option for a blur or defocus-like effect

Screen: Composite the Front over the convolved back, then screen with the convolved front. Use this

option for a glow or glare-like effect.

Add: Composite the Front over the convolved back, then add the convolved front.

Difference: Composite the Front over the convolved back, then show the difference with the convolved front.

Edge Mode: *X & Y, Popup menu, Default: [Transparent Transparent].*

Determines the behavior when accessing areas outside the source image.

Transparent: Areas outside the source image are treated as transparent, which can produce transparency around the edges of the image. Select this for fastest rendering.

Repeat: Repeats the last pixel outside the border of the image.

Reflect: Reflects the image outside the border.

Kernel Threshold: *Default: 0.001, Range: 0 to 1.*

Any kernel value below this will be treated as black. It's important for the edges of the kernel image to be completely black, or the result will have a grayish cast to it. If your kernel image may have a little noise in the black areas, turn up threshold a little to remove that background noise.

Clamp Below Thresh: *Check-box, Default: on.*

When turned on, values below the threshold are clamped to zero. This usually gives the best result. For certain special cases with partially-negative kernels, turning this off gives you additional flexibility in designing your kernel.

Kernel Crop1: *X & Y, Default: [1 1], Range: any.*

The upper left corner of the kernel area. Parts of the kernel image outside the rectangle defined by Kernel Crop1 and Kernel Crop2 are assumed to be black. Making this area smaller to avoid processing the kernel's black edges can speed up the convolution somewhat. It may be helpful to turn on Show Kernel while adjusting this parameter. Note that if Autocenter is off, the center point is always included in the kernel no matter what this param is set to.

Kernel Crop2: *X & Y, Default: [719 485], Range: any.*

The lower right corner of the kernel area.

Autoscale Mode: *Popup menu, Default: Max Channel.*

In convolution, either a larger or brighter kernel will make the result image brighter. The kernel must be auto-scaled or normalized so the result is, on average, as bright as the input. The autoscaling can be done in several ways, each of which is best in certain circumstances. With a monochrome kernel or with Color Kernel turned off, Max Channel, Luma, and Indep Channels all give the same result.

Max Channel: Autoscales the kernel by summing the elements of each channel, and using whichever is brightest as the overall kernel scale factor. This normalizes a dim kernel to full brightness, and generally preserves the color of the kernel, but allows brightness variations in the dimmer channels to show in the result.

Luma: Autoscales the kernel by summing the luminances of each kernel pixel. This method preserves changes in the kernel's hue, but normalizes the luma, so a brighter or darker kernel will have no effect. Use the Scale parameter to adjust the result brightness.

Indep Channels: Independently normalizes each color channel of the kernel. A colored kernel will give a white/gray result with this method. Use this method if your kernel channels are independent of each other (i.e. different things going on in each of R, G, and B) but you want normalized results in each channel.

Count Nonzero: Count how many kernel pixels are nonzero (brighter than black), but otherwise ignore how bright they are. This method is best if you want variations in kernel hue and luma to show up in the result. But blurring the kernel will give a dimmer result, since there will be more nonzero pixels.

Kernel Size: Ignore the pixel *values* entirely; only use the size of the kernel rectangle to auto-scale. Use this if you want all kernel variations to show up in the result, but don't use it if you intend to animate Kernel Crop1 and Crop2, as that would affect the result's brightness.

Matte Use: *Popup menu, Default: Alpha.*

Determines how the Matte input channels are used to make a monochrome matte.

Luma: the luminance of the RGB channels is used.

Alpha: only the Alpha channel is used.

Invert Matte: *Check-box, Default: off.*

If enabled, the black and white of the matte are inverted before use.

Show Size Front: *Check-box, Default: on.*

Turns on or off the screen user interface for adjusting the Size Front parameter.

Show Size Back: *Check-box, Default: on.*

Turns on or off the screen user interface for adjusting the Size Back parameter.

Show Kernel Center: *Check-box, Default: off.*

Turns on or off the screen user interface for adjusting the Kernel Center parameter.

Show Kernel Crop: *Check-box, Default: off.*

Turns on or off the screen user interface for adjusting the Kernel Crop1 parameter.

See Also:

[Convolve](#)

[RackDefocus](#)

[Glare](#)

[Glint](#)

[Sapphire Plug-ins](#)

[Introduction](#)

S_Deband

Removes banding artifacts from a clip by diffusing pixels across the banded areas, while keeping the original edges intact. To use this effect, first select Show:Edges and adjust the edge threshold until the banding edges just disappear, leaving only the desired real edges. Then select Show:Result to see the result. If you still see some banding, increase Diffuse Threshold and/or Diffuse Radius.

In the Sapphire Blur+Sharpen effects submenu.



Inputs:

Source: The clip to be processed.

Parameters:

Edge Threshold: *Default: 2, Range: 0 to 255.*

The amount by which adjacent pixels must differ to constitute a real desired edge. A value of 1.0 represents the smallest possible difference at 8 bits. This parameter should be set high enough that none of the bands appear as edges, but low enough that all the real edges are still detected.

Grow Edges: *Default: 0, Range: 0 or greater.*

Amount to grow the detected edges in approximate pixels. Increasing this parameter can prevent diffusion in areas that are near edges, but not on an edge.

Show: *Popup menu, Default: Result.*

Selects the type of output.

Result: Shows the final result.

Edges: Shows the edges of the image, where adjacent pixels differ by more than Edge Threshold. Use this mode to help fine-tune the edge detection parameters.

Diffuse Threshold: *Default: 1, Range: 0 or greater.*

The maximum color difference allowed when diffusing pixels. This parameter is automatically scaled by the edge threshold. Increasing it can give better results when there is a gradient within the bands. Decreasing it will reduce diffusion in areas where there are no edges.

Diffuse Radius: *Default: 12, Range: 0 or greater.*

The maximum radius of pixel diffusion, in approximate pixels. A larger value will remove banding more effectively in large areas with uniform colors, while a smaller value will give a better result in areas with many small color regions.

Pre Blur: *Default: 0, Range: 0 or greater.*

Blurs the source before diffusing pixels.

Post Blur: *Default: 0.5, Range: 0 or greater.*

Blurs the result after diffusing pixels. Use this parameter to reduce noisiness in the result.

See Also:

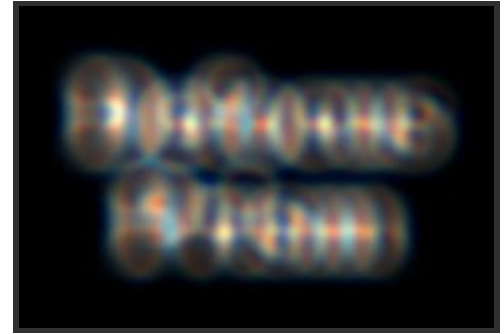
[GrainRemove](#)

[Sapphire Plug-ins](#)
[Introduction](#)

S_DefocusPrism

Defocuses the color channels of the source clip into rings of different widths.

In the Sapphire Blur+Sharpen effects submenu.



Inputs:

Source: The clip to be processed.

Parameters:

Defocus Width: *Default:* 0.022, *Range:* 0 or greater.

The width of the defocus. This parameter can be adjusted using the Defocus Width Widget.

Rel Height: *Default:* 1, *Range:* 0.01 or greater.

The relative height of the iris shape. If it is not 1, circles become ellipses, etc.

Shape: *Popup menu, Default:* Circle.

Determines the shape of the simulated camera iris.

Circle: round.

3 sides: triangle.

4 sides: square.

5 sides: pentagon.

6 sides: hexagon.

7 sides: etc.

Show Shape: *Check-box, Default:* off.

Show the iris shape instead of the defocused image.

Roundness: *Default:* 0, *Range:* any.

Modifies the shape of the simulated camera iris. A value of 1 produces a circle; 0 gives a flat-sided polygon with a number of sides given by the Shape parameter. Less than 0 causes the sides to squeeze inward giving a star shape, while a value greater than 1 causes the corners to squeeze inward, giving a flowery shape. Has no effect if the Shape is set to Circle.

Rotate: *Default:* 0, *Range:* any.

Rotates the iris shape.

Bokeh: *Default:* 0, *Range:* any.

Softens the outer edge of the iris shape, which gives a softer look to the defocused highlights. A negative value darkens the center of the iris shape, producing a ring-like defocus shape.

Lens Noise: *Default:* 0, *Range:* 0 or greater.

Increase to add noise to the iris shape, dirtying up the defocus a little. Can make the result more realistic. Turn up past 1 for a more stylistic result.

Noise Freq: *Default:* 40, *Range:* 0.01 or greater.

The frequency of the added noise. Ignored if Lens Noise is zero.

Noise Freq Rel X: *Default:* 1, *Range:* 0.01 or greater.

The relative horizontal frequency of the added iris noise. Increase to stretch it vertically or decrease to stretch it

horizontally.

Noise Seed: *Default:* 0.123, *Range:* 0 or greater.

The seed value for the added noise. To make the noise appear different on each frame, animate this to be different on each frame. The actual value doesn't matter; only that it's different.

Gauss Blur: *Default:* 0, *Range:* 0 or greater.

If positive, a gaussian blur is also applied which smooths out the edges of the shapes. This might also darken the highlights because Gamma is not considered in the gaussian blur.

Use Gamma: *Default:* 1, *Range:* 0.1 or greater.

Values above 1 cause highlights in the source clip to keep their brightness after the defocus is applied.

Boost Highlights: *Default:* 0, *Range:* 0 or greater.

The amount to increase the luma of the highlights in the source clip. Increase this parameter to blow out the highlights without affecting the darks or mid-tones.

Hilight Threshold: *Default:* 0.9, *Range:* 0 to 1.

The minimum luma value for highlights. Pixels brighter than this will be brightened according to the Boost Highlights parameter.

Brightness: *Default:* 1, *Range:* 0 or greater.

Scales the brightness of the result.

Offset Darks: *Default:* 0, *Range:* -8 to 2.

Adds this gray value to the darker regions of the result. This can be negative to increase contrast.

Scale Color: *Default rgb:* [1 1 1].

Scales the color of the result. For example, if it is yellow [1 1 0], the blue of the result will be 0.

Chroma Sep: *Default:* 0.3, *Range:* -1 to 1.

The amount of separation between the three color channel rings.

Chroma Ringthick: *Default:* 0.3, *Range:* 0.01 or greater.

The thickness of each of the three color channel rings.

Mix With Source: *Default:* 0, *Range:* 0 to 1.

Interpolates between the defocused result and the original source. Set this to 1 for the original source.

Edge Mode: *Popup menu, Default:* Reflect.

Determines the behavior when accessing areas outside the source image.

Transparent: Areas outside the source image are treated as transparent, which can produce transparency around the edges of the image. Select this for fastest rendering.

Repeat: Repeats the last pixel outside the border of the image.

Reflect: Reflects the image outside the border.

Show Defocus Width: *Check-box, Default:* on.

Turns on or off the screen user interface for adjusting the Defocus Width parameter.

See Also:

[RackDefocus](#)

[RackDfComp](#)

[Sapphire](#)

[Blur](#)

[Plug-ins](#)

[BlurChannels](#)

[Introduction](#)

[BlurChroma](#)

WarpChroma
Convolve

S_DeinterlaceAuto

Can automatically detect an interlaced pulldown pattern, and deinterlace or reinterlace a clip. To deinterlace, first click on the Find Pattern button. If the effect fails to find a pattern, move to a frame with plenty of motion and click Find Pattern again. If the pulldown pattern seems longer than usual, increase the Max Pattern Fields accordingly. Once the pattern is found, the plug-in will output progressive frames. To reinterlace back to the original pattern, copy the node (or create a new node and copy the pattern parameters). Then change the mode to Reinterlace and connect the progressive footage to the Source input. The plug-in will output reinterlaced frames using the original pulldown pattern. Note that the output of this effect may be longer or shorter than the input clip, depending on the pattern.



In the Sapphire Time effects submenu.

Inputs:

Source: The clip to be processed.

Parameters:

Effect: *Popup menu, Default: Deinterlace.*

Switches between Deinterlace and Reinterlace modes.

Deinterlace: Convert interlaced source footage into unique progressive frames, using the specified pattern.

Reinterlace: Convert progressive source footage into interlaced frames using the specified pattern.

Find Pattern: *Push-button.*

Clicking on this will search for a pulldown pattern in the source clip, starting at the current frame. This fills in parameter values for the Pattern, Pattern Phase, and optionally the Field Dominance.

Detect Dominance: *Check-box, Default: on.*

If enabled, Find Pattern will also automatically set the Field Dominance value. Otherwise Field Dominance can be set manually and will remain as is.

Pattern: *Default: 0, Range: 0 or greater.*

Describes the pulldown pattern found in the clip. This pattern refers to the source clip when deinterlacing, but when reinterlacing it describes the desired pattern to recreate in the destination clip. Thus the pattern should remain the same for deinterlace and reinterlace. The pattern shows how many fields comprise each progressive frame. A pattern of '3 2' indicates a typical 3:2 pulldown pattern. A pattern of just '1' would indicate all fields are unique. A pattern of just '2' indicates normal progressive frames with no interlacing, and causes the result clip to equal the source clip. Negative values in a pattern indicate out-of-order fields that match a previous progressive frame. Note that a problem with Toxik 2008 causes this Pattern string parameter to be invisible to the user.

Pattern Phase: *Integer, Default: 0, Range: any.*

Shows the field number of the clip where the pattern begins. This parameter is set automatically when the Find Pattern button is clicked.

Field Dominance: *Popup menu, Default: 1.*

The field dominance of the source footage. This is set automatically by Find Pattern if Detect Dominance is enabled.

1: Field 1 occurs first in time, then field 2.

2: Field 2 occurs first in time, then field 1.

Max Pattern Fields: *Integer, Default: 10, Range: 5 to 100.*

The maximum number of fields expected in the repeating pulldown pattern. Decreasing this value will cause it to inspect fewer frames and speed up the pattern finding. Increasing it will allow the detection of longer pulldown patterns.

See Also:

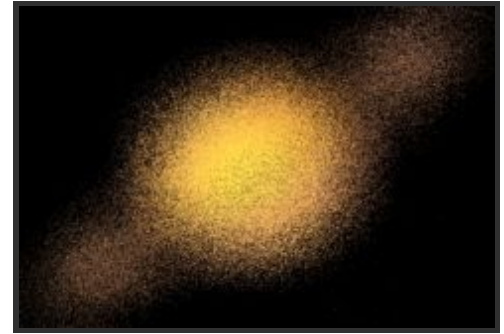
[FieldRemove](#)

[Sapphire Plug-ins
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S_Diffuse

Scrambles the pixels of the source input within an area determined by the Diffuse Amount. Use the Blur Rel X and Y parameters for a more horizontal or vertical diffuse direction. The pixelated look of this effect depends on the image resolution, so it is recommended to test your final resolution before processing.

In the Sapphire Stylize effects submenu.



Inputs:

Source: The clip to be processed.

Mask: *Optional.* If provided, this determines which areas of the image receive diffusing pixels. Gray values internally scale the Diffuse Amount parameter rather than simply cross-fading between the effect and the original source. This can allow more continuous results at the mask edges and more detailed control over the diffusion amounts. This input can be affected using the Blur Mask, Invert Mask, or Mask Use parameters.

Parameters:

Diffuse Amount: *Default:* 0.1, *Range:* 0 or greater.

The amplitude of the pixel diffusion process. This parameter can be adjusted using the Diffuse Amount Widget.

Rel Amount: *X & Y, Default:* [1 1], *Range:* 0 or greater.

Scales the relative horizontal and vertical amounts of diffusion. This parameter can be adjusted using the Diffuse Amount Widget.

Wrap: *X & Y, Popup menu, Default:* [Reflect Reflect].

Determines the method for accessing outside the borders of the source image.

No: gives black beyond the borders.

Tile: repeats a copy of the image.

Reflect: repeats a mirrored copy. Edges are often less visible with this method.

Blur Mask: *Default:* 0, *Range:* 0 or greater.

Blurs the Mask input by this amount before using. This can be used to soften the edges of the mask and provide a smoother transition between the masked and unmasked areas. It has no effect unless the Mask input is connected.

Invert Mask: *Check-box, Default:* off.

If on, inverts the mask input so the effect is applied to areas where the Mask is black instead of white. This has no effect unless the Mask input is provided.

Mask Use: *Popup menu, Default:* Luma.

Determines how the Mask input channels are used to make a monochrome mask.

Luma: the luminance of the RGB channels is used.

Alpha: only the Alpha channel is used.

Crop Input Parameters: *Default:* 0, *Range:* 0 or greater.

These 4 parameters, **Crop Top**, **Crop Bottom**, **Crop Left**, and **Crop Right**, allow selecting a rectangular

subsection of the input image to be processed. If the Wrap parameters are set to "No" the exposed borders will be transparent. If the Wrap is "Tile" or "Reflect" the source image is wrapped on the new cropped borders to fill the frame. This can make it easier to avoid artifacts due to distorting an image with bad edges.

Show Diffuse Amount: *Check-box, Default: on.*

Turns on or off the screen user interface for adjusting the Diffuse Amount parameter.

See Also:

[WipeDiffuse](#)

[DissolveDiffuse](#)

[GrainStatic](#)

[Grain](#)

[FilmEffect](#)

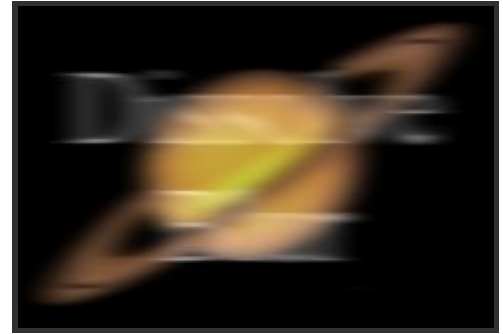
[Sapphire Plug-ins](#)

[Introduction](#)

S_DissolveBlur

Transitions between two input clips while blurring each. The first clip is blurred and faded out while the second clip is unblurred and faded in. The Dissolve Amount parameter should be animated to control the transition speed.

In the Sapphire Transitions effects submenu.



Inputs:

From: Starts the transition with this clip.

To: Ends the transition with this clip.

Parameters:

Dissolve Amount: *Default: 0, Range: -0.5 to 1.5.*

The transition ratio between the From and To inputs. A value of 0 gives only the From input and a value of 1 gives only the To input. By default this parameter automatically animates from 0 to 1 to perform a complete transition.

Blur Amount: *Default: 0.5, Range: 0 or greater.*

Scales the width of the blur.

Blur Rel: *X & Y, Default: [1 0], Range: 0 or greater.*

The relative horizontal and vertical blur widths. Set Blur Rel X to 0 for a vertical-only blur, or set Blur Rel Y to 0 for a horizontal-only blur.

Blur Rel From: *Default: 1, Range: 0 or greater.*

Scales the amount of blur applied to the first clip. Set to 0 to fade out with no blur.

Blur Rel To: *Default: 1, Range: 0 or greater.*

Scales the amount of blur applied to the second clip. Set to 0 to fade in with no blur.

Blur Filter: *Popup menu, Default: Gauss.*

The type of convolution filter to blur with.

Box: uses a rectangular shaped filter.

Triangle: smoother, uses a pyramid shaped filter.

Gauss: smoothest, uses a gaussian shaped filter.

See Also:

[DissolveBubble](#)

[DissolveDiffuse](#)

[DissolveFilm](#)

[DissolveGlow](#)

[DissolveLuma](#)

[DissolvePuddle](#)

[DissolveSpeckle](#)

[DissolveStatic](#)

[DissolveVortex](#)

[Blur](#)

[Sapphire Plug-ins](#)

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S_DissolveBubble

Transitions between two input clips using a bubble warping function. The first clip is warped away and faded out while the second clip is unwarped into place and faded in. The Dissolve Amount parameter should be animated to control the transition speed.

In the Sapphire Transitions effects submenu.



Inputs:

From: Starts the transition with this clip.

To: Ends the transition with this clip.

Parameters:

Dissolve Amount: *Default:* 0, *Range:* -0.5 to 1.5.

The transition ratio between the From and To inputs. A value of 0 gives only the From input and a value of 1 gives only the To input. By default this parameter automatically animates from 0 to 1 to perform a complete transition.

Frequency: *Default:* 8, *Range:* 0.01 or greater.

The frequency of the bubble warping pattern. Increase for smaller bubbles, decrease for larger.

Frequency Rel Y: *Default:* 1, *Range:* 0.01 or greater.

The relative vertical frequency of the bubbles. Decrease for taller bubbles, increase for wider ones.

Octaves: *Integer, Default:* 1, *Range:* 1 to 10.

The number of summed layers of noise. Each octave is twice the frequency and half the amplitude of the previous. A single octave gives a smooth texture. Adding octaves makes the result approach a fractal (1/f) noise texture.

Seed: *Default:* 0.23, *Range:* 0 or greater.

Used to initialize the random number generator. The actual seed value is not significant, but different seeds give different results and the same value should give a repeatable result.

Amplitude: *Default:* 1, *Range:* any.

Scales the amount of warping distortion.

Rel Amp2: *Default:* -1, *Range:* any.

The relative amplitude of the second input clip warping distortion. If this is positive instead of negative, the clip will be unwarped from the opposite direction.

Slow In: *Default:* 0.5, *Range:* 0 to 1.

If positive, causes the transition to start more gradually.

Slow Out: *Default:* 0.5, *Range:* 0 to 1.

If positive, causes the transition to end more gradually.

Wrap: *X & Y, Popup menu, Default:* [Reflect Reflect].

Determines the method for accessing outside the borders of the source images.

No: gives black beyond the borders.

Tile: repeats a copy of the image.

Reflect: repeats a mirrored copy. Edges are often less visible with this method.

Filter: *Check-box, Default: on.*

The type of convolution filter to blur with.

Crop Input Parameters: *Default: 0, Range: 0 or greater.*

These 4 parameters, **Crop Top**, **Crop Bottom**, **Crop Left**, and **Crop Right**, allow selecting a rectangular subsection of the input image to be processed. If the Wrap parameters are set to "No" the exposed borders will be transparent. If the Wrap is "Tile" or "Reflect" the source image is wrapped on the new cropped borders to fill the frame. This can make it easier to avoid artifacts due to distorting an image with bad edges.

See Also:

[DissolveBlur](#)

[DissolveDiffuse](#)

[DissolveFilm](#)

[DissolveGlow](#)

[DissolveLuma](#)

[DissolvePuddle](#)

[DissolveSpeckle](#)

[DissolveStatic](#)

[DissolveVortex](#)

[DissolveWaves](#)

[WarpBubble](#)

[WipeBubble](#)

[Sapphire](#)

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S_DissolveDiffuse

Transitions between two input clips by scrambling the pixels of the inputs within an area determined by Max Amount. The first clip is diffused away while the second clip is diffused into place. The Dissolve Amount parameter should be animated to control the transition speed. The pixelated look of this effect depends on the image resolution, so it is recommended to test your final resolution before processing.

In the Sapphire Transitions effects submenu.



Inputs:

From: Starts the transition with this clip.

To: Ends the transition with this clip.

Parameters:

Dissolve Amount: *Default:* 0, *Range:* -0.5 to 1.5.
Scales the magnitudes of the diffusion distances.

Max Amount: *Default:* 0.2, *Range:* 0 or greater.
Scales the magnitudes of the diffusion distances.

Rel Amount: *X & Y, Default:* [1 1], *Range:* 0 or greater.
Scales the relative horizontal and vertical amounts of diffusion.

Wrap: *X & Y, Popup menu, Default:* [Reflect Reflect].
Determines the method for accessing outside the borders of the source images.

No: gives black beyond the borders.

Tile: repeats a copy of the image.

Reflect: repeats a mirrored copy. Edges are often less visible with this method.

Crop Input Parameters: *Default:* 0, *Range:* 0 or greater.

These 4 parameters, **Crop Top**, **Crop Bottom**, **Crop Left**, and **Crop Right**, allow selecting a rectangular subsection of the input image to be processed. If the Wrap parameters are set to "No" the exposed borders will be transparent. If the Wrap is "Tile" or "Reflect" the source image is wrapped on the new cropped borders to fill the frame. This can make it easier to avoid artifacts due to distorting an image with bad edges.

Show Max Amount: *Check-box, Default:* on.

Turns on or off the screen user interface for adjusting the Max Amount parameter.

See Also:

[DissolveBlur](#)
[DissolveBubble](#)
[DissolveFilm](#)
[DissolveGlow](#)
[DissolveLuma](#)
[DissolvePuddle](#)

[Diffuse](#)
[WipeDiffuse](#)

[Sapphire](#)
[Plug-ins](#)
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DissolveSpeckle
DissolveStatic
DissolveVortex
DissolveWaves

S_DissolveFilm

Transitions between two input clips using a film dissolve with selectable gamma. Film dissolve preserves the highlights in the clips longer compared to a regular dissolve. The Dissolve Amount parameter should be animated to control the transition speed.

In the Sapphire Transitions effects submenu.



Inputs:

From: Starts the transition with this clip.

To: Ends the transition with this clip.

Parameters:

Dissolve Amount: *Default:* 0, *Range:* -0.5 to 1.5.

The transition ratio between the From and To inputs. A value of 0 gives only the From input and a value of 1 gives only the To input. By default this parameter automatically animates from 0 to 1 to perform a complete transition.

Gamma: *Default:* 2, *Range:* 0.1 or greater.

The film gamma to use for the dissolve. Higher values preserve more highlights.

See Also:

[DissolveBlur](#)
[DissolveBubble](#)
[DissolveDiffuse](#)
[DissolveGlow](#)
[DissolveLuma](#)
[DissolvePuddle](#)
[DissolveSpeckle](#)
[DissolveStatic](#)
[DissolveVortex](#)
[DissolveWaves](#)

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S_DissolveGlow

Transitions between two input clips using a bright glowing flash. The clips dissolve into each other, while each one gets a glow which ramps up and down over the duration of the effect. The Dissolve Amount parameter should be animated to control the transition speed.

In the Sapphire Transitions effects submenu.



Inputs:

From: Starts the transition with this clip.

To: Ends the transition with this clip.

Parameters:

Dissolve Amount: *Default:* 0, *Range:* -0.5 to 1.5.

The transition ratio between the From and To inputs. A value of 0 gives only the From input and a value of 1 gives only the To input. By default this parameter automatically animates from 0 to 1 to perform a complete transition.

Dissolve Speed: *Default:* 3, *Range:* 1 or greater.

When set to 1, the actual dissolve between the outgoing and incoming clips takes place over the entire duration of the effect. When set higher, the actual dissolve is shorter, although the glow ramp-up and ramp-down still takes the entire duration. Setting this to 10 can make the transition snappier and more like a flash-frame cut.

Glow Brightness: *Default:* 6, *Range:* 0 or greater.

Overall maximum brightness of the glow.

Glow Threshold: *Default:* 0.2, *Range:* 0 to 1.

Parts of the source clip that are brighter than this value get glow. A value of 0.9 makes only the brightest spots glow. A value of 0 make every non-black area glow.

Glow Color: *Default rgb:* [1 1 1].

Overall color of the glow.

Glow Width: *Default:* 0.1, *Range:* 0 or greater.

The width of the glow. This and all the width parameters can be adjusted with the Width widget. Note that a zero glow width still enhances the bright areas; set the glow brightness parameter to zero if you want to pass the sources through unchanged.

Width X: *Default:* 1, *Range:* 0 or greater.

Scales the horizontal glow width. Set to 0 for vertical only.

Width Y: *Default:* 1, *Range:* 0 or greater.

Scales the vertical glow width. Set to 0 for horizontal only.

Width Red: *Default:* 1, *Range:* 0 or greater.

Scales the red glow width. If the red, green, and blue widths are equal, the glows will match the color of the source clip. If they are not equal, the glows will vary in color with distance.

Width Green: *Default:* 1.2, *Range:* 0 or greater.

Scales the green glow width.

Width Blue: *Default: 1.4, Range: 0 or greater.*

Scales the blue glow width.

Rel From Brightness: *Default: 1, Range: 0 to 2.*

Relative brightness of the glow on the outgoing (From) clip.

Rel From Width: *Default: 1, Range: 0 to 2.*

Relative width of the glow on the outgoing (From) clip.

From Offset Threshold: *Default: 0, Range: -1 to 1.*

Extra threshold to apply to the glow on the outgoing (From) clip.

Rel From Color: *Default rgb: [1 1 1].*

Relative color of the glow on the outgoing (From) clip.

Rel To Brightness: *Default: 1, Range: 0 to 2.*

Relative brightness of the glow on the incoming (To) clip.

Rel To Width: *Default: 1, Range: 0 to 2.*

Relative brightness of the glow on the incoming (To) clip.

To Offset Threshold: *Default: 0, Range: -1 to 1.*

Extra threshold to apply to the glow on the incoming (To) clip.

Rel To Color: *Default rgb: [1 1 1].*

Relative color of the glow on the incoming (To) clip.

Show Glow Width: *Check-box, Default: on.*

Turns on or off the screen user interface for adjusting the Glow Width parameter.

See Also:

[DissolveBlur](#)

[DissolveBubble](#)

[DissolveDiffuse](#)

[DissolveFilm](#)

[DissolveLuma](#)

[DissolvePuddle](#)

[DissolveSpeckle](#)

[DissolveStatic](#)

[DissolveVortex](#)

[DissolveWaves](#)

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S_DissolveLuma

Transitions between two input clips using a pattern derived from their luminances. One clip often appears to emerge through the other. The Dissolve Amount parameter should be animated to control the transition speed.

In the Sapphire Transitions effects submenu.



Inputs:

From: Starts the transition with this clip.

To: Ends the transition with this clip.

Parameters:

Dissolve Amount: *Default:* 0, *Range:* -0.5 to 1.5.

The transition ratio between the From and To inputs. A value of 0 gives only the From input and a value of 1 gives only the To input. By default this parameter automatically animates from 0 to 1 to perform a complete transition.

Softness: *Default:* 0.1, *Range:* 0 to 1.

Increase for softer and slower transitions.

Use Luma Of: *Popup menu, Default:* Difference.

Determines how the transition pattern is generated from the clips' luminance values.

Difference: similar areas transition first, different areas last.

Subtract: areas where the first clip is brighter transition first, and areas where the second clip is brighter transition last.

Mult: areas where both images are bright transition first, and areas where either is dark are last.

Screen: areas where either image is bright transition first, and areas where both are dark transition last.

Foreground: dark areas of the first clip disappear first, bright areas last.

Background: bright areas of the second clip appear first, dark areas last.

Invert Pattern: *Check-box, Default:* off.

If enabled, the transition pattern is reversed in time.

Smooth Pattern: *Default:* 0, *Range:* 0 or greater.

If positive, a blur is applied to the transition pattern. This can reduce noise and give clearer edges to transition lines.

See Also:

[DissolveBlur](#)
[DissolveBubble](#)
[DissolveDiffuse](#)
[DissolveFilm](#)
[DissolveGlow](#)
[DissolvePuddle](#)
[DissolveSpeckle](#)
[DissolveStatic](#)
[DissolveVortex](#)

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DissolveWaves

S_DissolvePuddle

Transitions between two input clips while warping by a circular pattern of waves. The first clip is warped away and faded out while the second clip is unwarped into place and faded in. The Dissolve Amount parameter should be animated to control the transition speed.

In the Sapphire Transitions effects submenu.



Inputs:

From: Starts the transition with this clip.

To: Ends the transition with this clip.

Parameters:

Dissolve Amount: *Default:* 0, *Range:* -0.5 to 1.5.

The transition ratio between the From and To inputs. A value of 0 gives only the From input and a value of 1 gives only the To input. By default this parameter automatically animates from 0 to 1 to perform a complete transition.

Center: *X & Y, Default:* [360 243], *Range:* any.

The location of the puddle center in screen coordinates relative to the center of the frame. This parameter can be set by enabling and moving the Center Widget. Note that moving the puddle center can also cause the puddle size to change so that the current value of Wipe Amt remains correct.

Frequency: *Default:* 5, *Range:* 0.01 or greater.

The frequency of the puddle pattern. Increase for more and smaller puddle, or decrease for fewer and larger.

Rel Height: *Default:* 0.75, *Range:* 0.01 or greater.

The relative height of the concentric wave pattern.

Amplitude: *Default:* 0.2, *Range:* any.

Scales the amount of warping distortion.

Rel Amp2: *Default:* -1, *Range:* any.

The relative amplitude of the second input clip warping distortion. If this is positive instead of negative, the clip will be unwarped from the opposite direction.

Rotate Puddle: *Default:* 0, *Range:* any.

Rotates the puddle pattern by this many counter-clockwise degrees after the Rel Height stretching has been applied. This has no effect when Rel Height is 1.

Phase Start: *Default:* 0, *Range:* any.

The phase shift of the waves.

Phase Speed: *Default:* 1, *Range:* any.

The speed of the waves. If this is positive the waves automatically travel outwards from the center at this rate.

Inner Radius: *Default:* 0, *Range:* any.

The distance from the puddle center where the wave distortion is phased in. No waves are generated inside this radius.

Inner Softness: *Default: 0.1, Range: 0.0056 or greater.*

The width of the region at the Inner Radius over which the wave distortion is phased in.

Outer Radius: *Default: 1.4, Range: 0 or greater.*

The distance from the puddle center where the wave distortion is phased out. No waves are generated outside this radius.

Outer Softness: *Default: 0.42, Range: 0.0056 or greater.*

The width of the region at the Outer Radius over which the wave distortion is phased out.

Slow In: *Default: 0.2, Range: 0 to 1.*

If positive, causes the transition to start more gradually.

Slow Out: *Default: 0.2, Range: 0 to 1.*

If positive, causes the transition to end more gradually.

Wrap: *X & Y, Popup menu, Default: [Reflect Reflect].*

Determines the method for accessing outside the borders of the source images.

No: gives black beyond the borders.

Tile: repeats a copy of the image.

Reflect: repeats a mirrored copy. Edges are often less visible with this method.

Filter: *Check-box, Default: on.*

If enabled, the image is adaptively filtered when it is resampled. This gives a better quality result when parts of the image are warped smaller.

Crop Input Parameters: *Default: 0, Range: 0 or greater.*

These 4 parameters, **Crop Top**, **Crop Bottom**, **Crop Left**, and **Crop Right**, allow selecting a rectangular subsection of the input image to be processed. If the Wrap parameters are set to "No" the exposed borders will be transparent. If the Wrap is "Tile" or "Reflect" the source image is wrapped on the new cropped borders to fill the frame. This can make it easier to avoid artifacts due to distorting an image with bad edges.

Show Outer Radius: *Check-box, Default: on.*

Turns on or off the screen user interface for adjusting the Center parameter.

Show Inner Radius: *Check-box, Default: on.*

Turns on or off the screen interface parameter for adjusting the Inner Radius. The value of the Inner Radius parameter must first be positive for this widget to be visible.

Show Rotate Puddle: *Check-box, Default: on.*

Turns on or off the screen user interface for adjusting the Center parameter.

Show Frequency: *Check-box, Default: on.*

Turns on or off the screen user interface for adjusting the Center parameter.

Show Center: *Check-box, Default: on.*

Turns on or off the screen user interface for adjusting the Center parameter.

See Also:

[DissolveBlur](#)

[DissolveBubble](#)

[DissolveDiffuse](#)

[DissolveFilm](#)

[DissolveGlow](#)

[WarpPuddle](#)

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DissolveLuma
DissolveSpeckle
DissolveStatic
DissolveVortex
DissolveWaves

S_DissolveSpeckle

Transition between two input clips using a speckled noise pattern. The Dissolve Amount parameter should be animated to control the transition speed.

In the Sapphire Transitions effects submenu.



Inputs:

From: Starts the transition with this clip.

To: Ends the transition with this clip.

Parameters:

Dissolve Amount: *Default: 0, Range: -0.5 to 1.5.*

The transition ratio between the From and To inputs. A value of 0 gives only the From input and a value of 1 gives only the To input. By default this parameter automatically animates from 0 to 1 to perform a complete transition.

Frequency: *Default: 40, Range: 0.01 or greater.*

The frequency of the speckle pattern. Increase for smaller speckles, decrease for larger.

Frequency Rel Y: *Default: 1, Range: 0.01 or greater.*

The relative vertical frequency of the speckles pattern. Increase for wider speckles, decrease for taller speckles.

Octaves: *Integer, Default: 1, Range: 1 to 10.*

The number of summed layers of noise. Each octave is twice the frequency and half the amplitude of the previous. A single octave gives a smooth texture. Adding octaves makes the result approach a fractal (1/f) noise texture.

Seed: *Default: 0.23, Range: 0 or greater.*

Used to initialize the random number generator. The actual seed value is not significant, but different seeds give different results and the same value should give a repeatable result.

See Also:

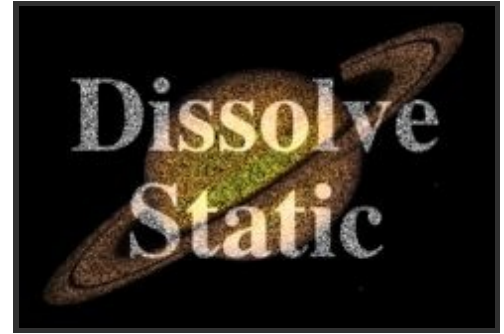
[DissolveBlur](#)
[DissolveBubble](#)
[DissolveDiffuse](#)
[DissolveFilm](#)
[DissolveGlow](#)
[DissolveLuma](#)
[DissolvePuddle](#)
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S_DissolveStatic

Transitions between two input clips using random pixel static. The Dissolve Amount parameter should be animated to control the transition speed. The pixelated look of this effect depends on the image resolution, so it is recommended to test your final resolution before processing.

In the Sapphire Transitions effects submenu.



Inputs:

From: Starts the transition with this clip.

To: Ends the transition with this clip.

Parameters:

Dissolve Amount: *Default:* 0, *Range:* -0.5 to 1.5.

The transition ratio between the From and To inputs. A value of 0 gives only the From input and a value of 1 gives only the To input. By default this parameter automatically animates from 0 to 1 to perform a complete transition.

See Also:

[DissolveBlur](#)
[DissolveBubble](#)
[DissolveDiffuse](#)
[DissolveFilm](#)
[DissolveGlow](#)
[DissolveLuma](#)
[DissolvePuddle](#)
[DissolveSpeckle](#)
[DissolveVortex](#)
[DissolveWaves](#)

[GrainStatic](#)
[FilmEffect](#)

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S_DissolveVortex

Transitions between two input clips using a vortex warping function. The first clip is warped away and faded out while the second clip is unwarped into place and faded in. The Dissolve Amount parameter should be animated to control the transition speed.

In the Sapphire Transitions effects submenu.



Inputs:

From: Starts the transition with this clip.

To: Ends the transition with this clip.

Parameters:

Dissolve Amount: *Default:* 0, *Range:* -0.5 to 1.5.

The transition ratio between the From and To inputs. A value of 0 gives only the From input and a value of 1 gives only the To input. By default this parameter automatically animates from 0 to 1 to perform a complete transition.

Center: *X & Y, Default:* [360 243], *Range:* any.

The location of the vortex center in screen coordinates relative to the center of the frame. This parameter can be set by enabling and moving the Center Widget. Note that moving the vortex center can also cause the vortex size to change so that the current value of Wipe Amt remains correct.

Vortex Amount: *Default:* 72, *Range:* any.

The amount of vortex rotation, in approximate degrees at the edge of the frame.

Rel Amount2: *Default:* -1, *Range:* any.

The relative amount of the second clip vortex rotation. If this is positive instead of negative the second clip will be unvortexed from the opposite direction.

Rotate Amount: *Default:* 0, *Range:* any.

If non-zero, a rotation is also added to the warping. Make negative to rotate the inner and outer regions in different directions.

Inner Radius: *Default:* 0.042, *Range:* 0 or greater.

The radius from the center at which the vortexing is phased in. This can be used to reduce excessive distortion and aliasing at the very center of the vortex.

Slow In: *Default:* 0.5, *Range:* 0 to 1.

If positive, causes the transition to start more gradually.

Slow Out: *Default:* 0.5, *Range:* 0 to 1.

If positive, causes the transition to end more gradually.

Wrap: *X & Y, Popup menu, Default:* [Reflect Reflect].

Determines the method for accessing outside the borders of the source images.

No: gives black beyond the borders.

Tile: repeats a copy of the image.

Reflect: repeats a mirrored copy. Edges are often less visible with this method.

Filter: *Check-box, Default: on.*

If enabled, the image is adaptively filtered when it is resampled. This gives a better quality result when parts of the image are warped smaller.

Crop Input Parameters: *Default: 0, Range: 0 or greater.*

These 4 parameters, **Crop Top**, **Crop Bottom**, **Crop Left**, and **Crop Right**, allow selecting a rectangular subsection of the input image to be processed. If the Wrap parameters are set to "No" the exposed borders will be transparent. If the Wrap is "Tile" or "Reflect" the source image is wrapped on the new cropped borders to fill the frame. This can make it easier to avoid artifacts due to distorting an image with bad edges.

Show Center: *Check-box, Default: on.*

Turns on or off the screen user interface for adjusting the Center parameter.

See Also:

[DissolveBlur](#)

[DissolveBubble](#)

[DissolveDiffuse](#)

[DissolveFilm](#)

[DissolveGlow](#)

[DissolveLuma](#)

[DissolvePuddle](#)

[DissolveSpeckle](#)

[DissolveStatic](#)

[DissolveWaves](#)

[WarpVortex](#)

[Sapphire Plug-ins](#)

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S_DissolveWaves

Transitions between two input clips using a waves warping function. The first clip is warped away and faded out while the second clip is unwarped into place and faded in. The Dissolve Amount parameter should be animated to control the transition speed.

In the Sapphire Transitions effects submenu.



Inputs:

From: Starts the transition with this clip.

To: Ends the transition with this clip.

Parameters:

Dissolve Amount: *Default: 0, Range: -0.5 to 1.5.*

The transition ratio between the From and To inputs. A value of 0 gives only the From input and a value of 1 gives only the To input. By default this parameter automatically animates from 0 to 1 to perform a complete transition.

Frequency: *Default: 3, Range: 0.01 or greater.*

The frequency of the waves pattern. Increase for more and smaller waves, or decrease for fewer and larger.

Amplitude: *Default: 0.3, Range: any.*

Scales the amount of warping distortion.

Rel Amp2: *Default: -1, Range: any.*

The relative amplitude of the second input clip warping distortion. If this is positive instead of negative, the clip will be unwarped from the opposite direction.

Angle: *Default: -45, Range: any.*

The rotation of the overall waves pattern used for the wipe, in counter-clockwise degrees.

Displace Angle: *Default: 90, Range: any.*

The warping direction in degrees relative to the angle of the waves. 0 gives compression-expansion waves, and 90 gives side to side waves.

Phase Start: *Default: 0, Range: any.*

The phase shift of the waves. The wave pattern is translated in the direction of Angle by this amount.

Phase Speed: *Default: 0, Range: any.*

The phase speed of the waves. If this is non-zero the wave pattern automatically travels at this rate.

Slow In: *Default: 0.5, Range: 0 to 1.*

If positive, causes the transition to start more gradually.

Slow Out: *Default: 0.5, Range: 0 to 1.*

If positive, causes the transition to end more gradually.

Wrap: *X & Y, Popup menu, Default: [Reflect Reflect].*

Determines the method for accessing outside the borders of the source images.

No: gives black beyond the borders.

Tile: repeats a copy of the image.

Reflect: repeats a mirrored copy. Edges are often less visible with this method.

Filter: *Check-box, Default: on.*

If enabled, the image is adaptively filtered when it is resampled. This gives a better quality result when parts of the image are warped smaller.

Crop Input Parameters: *Default: 0, Range: 0 or greater.*

These 4 parameters, **Crop Top**, **Crop Bottom**, **Crop Left**, and **Crop Right**, allow selecting a rectangular subsection of the input image to be processed. If the Wrap parameters are set to "No" the exposed borders will be transparent. If the Wrap is "Tile" or "Reflect" the source image is wrapped on the new cropped borders to fill the frame. This can make it easier to avoid artifacts due to distorting an image with bad edges.

See Also:

[DissolveBlur](#)

[DissolveBubble](#)

[DissolveDiffuse](#)

[DissolveFilm](#)

[DissolveGlow](#)

[DissolveLuma](#)

[DissolvePuddle](#)

[DissolveSpeckle](#)

[DissolveStatic](#)

[DissolveVortex](#)

[WarpWaves](#)

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S_Distort

Warp the source input clip using the gradient of the Lens input clip. This can generate optical glass-like effects as if the source clip were being viewed through an arbitrarily shaped lens. It is best demonstrated when the lens image contains just a few bold shapes or a simple texture.

In the Sapphire Distort effects submenu.



Inputs:

Source: The clip to be processed.

Lens: *Optional.* Distorts the source using the brightness values of this input clip.

Mask: *Optional.* If provided, the amount of lens distortion is scaled by this input, so the Source is unaffected where the Mask is black. This input can be affected using the Blur Mask, Invert Mask, or Mask Use parameters.

Parameters:

Amount: *Default:* 1, *Range:* any.

The severity of the lens distortions. Make negative to invert the direction of the distortions.

Fine: *Check-box, Default:* off.

If enabled, the warping amount is reduced by a factor of 100. This mode is meant to allow subtle expansion or contraction of the source image near the edges of its matte given as the Lens input.

Blur Lens: *Default:* 0.1, *Range:* 0 or greater.

Smooths out the edges in the lens image by this amount before using it.

Rotate Warp Dir: *Default:* 0, *Range:* any.

Rotates the warping direction by this many degrees. If non-zero, this can add some unusual twisting effects to the lens distortion.

Amount Rel: *X & Y, Default:* [1 1], *Range:* 0 or greater.

The relative amounts of horizontal and vertical distortion. This has no effect unless Amount is positive.

Wrap: *X & Y, Popup menu, Default:* [Reflect Reflect].

Determines the method for accessing outside the borders of the source image.

No: gives black beyond the borders.

Tile: repeats a copy of the image.

Reflect: repeats a mirrored copy. Edges are often less visible with this method.

Filter: *Check-box, Default:* on.

If enabled, the image is adaptively filtered when it is resampled. This gives a better quality result when parts of the image are warped smaller.

Blur Mask: *Default:* 0, *Range:* 0 or greater.

Blurs the Mask input by this amount before using. This can provide a smoother transition between the masked and unmasked areas. It has no effect unless the Mask input is provided.

Invert Mask: *Check-box, Default: off.*

If on, inverts the mask input so the effect is applied to areas where the Mask is black instead of white. This has no effect unless the Mask input is provided.

Mask Use: *Popup menu, Default: Luma.*

Determines how the Mask input channels are used to make a monochrome mask.

***Luma:** the luminance of the RGB channels is used.*

***Alpha:** only the Alpha channel is used.*

Crop Input Parameters: *Default: 0, Range: 0 or greater.*

These 4 parameters, **Crop Top**, **Crop Bottom**, **Crop Left**, and **Crop Right**, allow selecting a rectangular subsection of the input image to be processed. If the Wrap parameters are set to "No" the exposed borders will be transparent. If the Wrap is "Tile" or "Reflect" the source image is wrapped on the new cropped borders to fill the frame. This can make it easier to avoid artifacts due to distorting an image with bad edges.

See Also:

[DistortBlur](#)

[DistortChroma](#)

[DistortRGB](#)

[EmbossDistort](#)

[WarpFishEye](#)

[Sapphire](#)

[Plug-ins](#)

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S_DistortBlur

Blurs the source input clip in the direction of the gradient of the Lens input clip. It is best demonstrated when the lens image contains just a few simple shapes.

In the Sapphire Distort effects submenu.



Inputs:

Source: The clip to be processed.

Lens: *Optional.* Distorts the source using the brightness values of this input clip.

Mask: *Optional.* If provided, the amount of lens distortion is scaled by this input, so the Source is unaffected where the Mask is black. This input can be affected using the Blur Mask, Invert Mask, or Mask Use parameters.

Parameters:

Blur Amount: *Default:* 1, *Range:* 0 or greater.
The magnitude of the blur distortions.

Warp Amount: *Default:* 0, *Range:* any.
Adds some additional non-blurred lens distortion if non-zero.

Blur Lens: *Default:* 0.1, *Range:* 0 or greater.
Smooths out the edges in the lens image by this amount before using it.

Rotate Blur Dir: *Default:* 0, *Range:* any.
Rotates the blurring direction by this many degrees. If non-zero, this can add some unusual twisting effects to the blurring.

Amount Rel: *X & Y, Default:* [1 1], *Range:* 0 or greater.
The relative amounts of horizontal and vertical distortion. This has no effect unless Amount is positive.

Wrap: *X & Y, Popup menu, Default:* [Reflect Reflect].
Determines the method for accessing outside the borders of the source image.

No: gives black beyond the borders.

Tile: repeats a copy of the image.

Reflect: repeats a mirrored copy. Edges are often less visible with this method.

Subpixel: *Check-box, Default:* on.
If enabled, uses a better quality but slightly slower method for performing the blur.

Blur Mask: *Default:* 0, *Range:* 0 or greater.
Blurs the Mask input by this amount before using. This can provide a smoother transition between the masked and unmasked areas. It has no effect unless the Mask input is provided.

Invert Mask: *Check-box, Default:* off.
If on, inverts the mask input so the effect is applied to areas where the Mask is black instead of white. This has no

effect unless the Mask input is provided.

Mask Use: *Popup menu, Default: Luma.*

Determines how the Mask input channels are used to make a monochrome mask.

Luma: the luminance of the RGB channels is used.

Alpha: only the Alpha channel is used.

Crop Input Parameters: *Default: 0, Range: 0 or greater.*

These 4 parameters, **Crop Top**, **Crop Bottom**, **Crop Left**, and **Crop Right**, allow selecting a rectangular subsection of the input image to be processed. If the Wrap parameters are set to "No" the exposed borders will be transparent. If the Wrap is "Tile" or "Reflect" the source image is wrapped on the new cropped borders to fill the frame. This can make it easier to avoid artifacts due to distorting an image with bad edges.

See Also:

[Distort](#)

[DistortChroma](#)

[DistortRGB](#)

[Blur](#)

[BlurMotion](#)

[Sapphire](#)

[Plug-ins](#)

[Introduction](#)

S_DistortChroma

Warp the chrominance of the source input by different amounts using the gradient of the Lens input clip. This can generate optical glass-like effects as if the source clip were being viewed through an arbitrarily shaped or textured prism. It is best demonstrated when the lens image contains just a few simple bold shapes.

In the Sapphire Distort effects submenu.



Inputs:

Source: The clip to be processed.

Lens: *Optional.* Distorts the source using the brightness values of this input clip.

Mask: *Optional.* If provided, the amount of lens distortion is scaled by this input, so the Source is unaffected where the Mask is black. This input can be affected using the Blur Mask, Invert Mask, or Mask Use parameters.

Parameters:

Amount: *Default:* 1, *Range:* any.

The severity of the lens distortions. Make negative to invert the direction of the distortions.

Blur Lens: *Default:* 0.1, *Range:* 0 or greater.

Smooths out the edges in the lens image by this amount before using it.

Rotate Warp Dir: *Default:* 0, *Range:* any.

Rotates the warping direction by this many degrees. If non-zero, this can add some unusual twisting effects to the lens distortion.

Warp Red: *Default:* 0.5, *Range:* any.

The magnitude of lens distortion for the red end of the spectrum. Make negative to invert the direction of the red distortions.

Warp Blue: *Default:* 1, *Range:* any.

The magnitude of lens distortion for the blue end of the spectrum. Make negative to invert the direction of the blue distortions.

Steps: *Integer, Default:* 8, *Range:* 3 to 100.

The number of color samples along the spectrum to include. More steps give a smoother result, but require more time to process.

Color1: *Default rgb:* [1 0 0].

The color at the 'red' end of the spectrum.

Color2: *Default rgb:* [0 1 0].

The color in the middle of the spectrum.

Color3: *Default rgb:* [0 0 1].

The color at the 'blue' end of the spectrum.

White Balance: *Check-box, Default: off.*

When enabled, the three colors are adjusted internally so they sum to white. In this case, the colors of unwarped regions are not affected and the average color of the result remains the same.

Amount Rel: *X & Y, Default: [1 1], Range: 0 or greater.*

The relative amounts of horizontal and vertical distortion. This has no effect unless Amount is positive.

Wrap: *X & Y, Popup menu, Default: [Reflect Reflect].*

Determines the method for accessing outside the borders of the source image.

No: gives black beyond the borders.

Tile: repeats a copy of the image.

Reflect: repeats a mirrored copy. Edges are often less visible with this method.

Filter: *Check-box, Default: on.*

If enabled, the image is adaptively filtered when it is resampled. This gives a better quality result when parts of the image are warped smaller.

Blur Mask: *Default: 0, Range: 0 or greater.*

Blurs the Mask input by this amount before using. This can provide a smoother transition between the masked and unmasked areas. It has no effect unless the Mask input is provided.

Invert Mask: *Check-box, Default: off.*

If on, inverts the mask input so the effect is applied to areas where the Mask is black instead of white. This has no effect unless the Mask input is provided.

Mask Use: *Popup menu, Default: Luma.*

Determines how the Mask input channels are used to make a monochrome mask.

Luma: the luminance of the RGB channels is used.

Alpha: only the Alpha channel is used.

Crop Input Parameters: *Default: 0, Range: 0 or greater.*

These 4 parameters, **Crop Top**, **Crop Bottom**, **Crop Left**, and **Crop Right**, allow selecting a rectangular subsection of the input image to be processed. If the Wrap parameters are set to "No" the exposed borders will be transparent. If the Wrap is "Tile" or "Reflect" the source image is wrapped on the new cropped borders to fill the frame. This can make it easier to avoid artifacts due to distorting an image with bad edges.

See Also:

[Distort](#)

[DistortBlur](#)

[DistortRGB](#)

[EmbossGlass](#)

[WarpChroma](#)

[Sapphire](#)

[Plug-ins](#)

[Introduction](#)

S_DistortRGB

Warp the red, green, and blue color channels of the source input by different amounts using the gradient of the Lens input clip. It is best demonstrated when the lens image contains just a few simple bold shapes.

In the Sapphire Distort effects submenu.



Inputs:

Source: The clip to be processed.

Lens: *Optional.* Distorts the source using the brightness values of this input clip.

Mask: *Optional.* If provided, the amount of lens distortion is scaled by this input, so the Source is unaffected where the Mask is black. This input can be affected using the Blur Mask, Invert Mask, or Mask Use parameters.

Parameters:

Amount: *Default:* 1, *Range:* any.

Scales the magnitude of the lens distortion for all channels. Make negative to invert the direction of the distortions.

Blur Lens: *Default:* 0.1, *Range:* 0 or greater.

Smooths out the edges in the lens image by this amount before using it.

Rotate Warp Dir: *Default:* 0, *Range:* any.

Rotates the warping direction by this many degrees. If non-zero, this can add some unusual twisting effects to the lens distortion.

Warp Red: *Default:* 0.5, *Range:* any.

Scales the amount of lens distortion for the red channel. Negate to invert the direction.

Warp Green: *Default:* 0.75, *Range:* any.

Scales the amount of lens distortion for the green channel. Negate to invert the direction.

Warp Blue: *Default:* 1, *Range:* any.

Scales the amount of lens distortion for the blue channel. Negate to invert the direction.

Amount Rel: *X & Y, Default:* [1 1], *Range:* 0 or greater.

The relative amounts of horizontal and vertical distortion. This has no effect unless Amount is positive.

Wrap: *X & Y, Popup menu, Default:* [Reflect Reflect].

Determines the method for accessing outside the borders of the source image.

No: gives black beyond the borders.

Tile: repeats a copy of the image.

Reflect: repeats a mirrored copy. Edges are often less visible with this method.

Filter: *Check-box, Default:* on.

If enabled, the image is adaptively filtered when it is resampled. This gives a better quality result when parts of the image are warped smaller.

Blur Mask: *Default: 0, Range: 0 or greater.*

Blurs the Mask input by this amount before using. This can provide a smoother transition between the masked and unmasked areas. It has no effect unless the Mask input is provided.

Invert Mask: *Check-box, Default: off.*

If on, inverts the mask input so the effect is applied to areas where the Mask is black instead of white. This has no effect unless the Mask input is provided.

Mask Use: *Popup menu, Default: Luma.*

Determines how the Mask input channels are used to make a monochrome mask.

***Luma:** the luminance of the RGB channels is used.*

***Alpha:** only the Alpha channel is used.*

Crop Input Parameters: *Default: 0, Range: 0 or greater.*

These 4 parameters, **Crop Top**, **Crop Bottom**, **Crop Left**, and **Crop Right**, allow selecting a rectangular subsection of the input image to be processed. If the Wrap parameters are set to "No" the exposed borders will be transparent. If the Wrap is "Tile" or "Reflect" the source image is wrapped on the new cropped borders to fill the frame. This can make it easier to avoid artifacts due to distorting an image with bad edges.

See Also:

[Distort](#)

[DistortBlur](#)

[DistortChroma](#)

[EmbossGlass](#)

[WarpChroma](#)

[Sapphire](#)

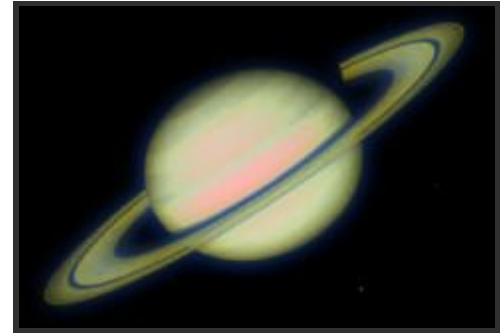
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S_DogVision

Generates a dual color-channel version of the input image, as might be perceived by the limited color vision system of dogs. Humans have three color receptors (for red, green, and blue) while dogs have only two receptors (for yellow and blue).

In the Sapphire Stylize effects submenu.



Inputs:

Source: The clip to be processed.

Parameters:

Channels: *Popup menu, Default: Yellow-Blue.*

Selects which two complementary color channels to use.

Yellow-Blue: the result is made using yellow and blue.

Cyan-Red: the result is made using cyan and red.

Magenta-Green: the result is made using magenta and purple.

Rotate Channels: *Default: 0, Range: any.*

Allows hue shifting the two color channels selected above. Note that when this is non-zero, the channels may no longer match the name selected.

Blur Channel1: *Default: 0, Range: 0 or greater.*

Smooths the first color channel by this amount.

Blur Channel2: *Default: 0, Range: 0 or greater.*

Smooths the second color channel by this amount.

Mix Original: *Default: 0, Range: any.*

Interpolates between the 2-color result and the original source. Set this to 1 for the original, or use negative values to exaggerate the dog vision effect.

Brightness: *Default: 1, Range: 0 or greater.*

Scales the brightness of the result.

Offset Darks: *Default: 0, Range: -8 to 2.*

Adds this gray value to the darker regions of the result. This can be negative to increase contrast.

Saturation: *Default: 1, Range: -2 to 8.*

Scales the color saturation. Increase for more intense colors. Set to 0 for monochrome.

Weight Source R: *Default: 1, Range: any.*

Scales the red of the input clip before processing.

Weight Source G: *Default: 1, Range: any.*

Scales the green of the input clip before processing.

Weight Source B: *Default: 1, Range: any.*

Scales the blue of the input clip before processing.

See Also:

[HueSatBright](#)

[Monochrome](#)

[PseudoColor](#)

[DuoTone](#)

[Tint](#)

[Solarize](#)

[Sapphire Plug-ins](#)

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S_DropShadow

Generates a shadow on the Background clip using the alpha channel of the Foreground or an optional Matte, then composites the Foreground over the Background to give the final result.

In the Sapphire Lighting effects submenu.



Inputs:

Foreground: The clip to use as foreground, and the alpha channel of this clip is used as the matte to generate the shadow.

Background: *Optional.* The shadow is drawn onto this Background clip.

Matte: *Optional.* If this is provided, its alpha channel is used instead of the Foreground to generate the shadow. This input can be affected by the Invert Matte or Matte Use parameters.

Parameters:

Shadow Color: *Default rgb: [0 0 0].*
The color of the shadow.

Shadow Opacity: *Default: 1, Range: 0 or greater.*
The opacity of the shadow, use values near 0 for subtle transparent shadows, or values near 1.0 for stronger shadows.

Shadow Blur: *Default: 0.022, Range: 0 or greater.*
Determines the softness of the shadow. This parameter can be adjusted using the Shift Widget.

Shift: *X & Y, Default: [0.042 -0.042], Range: any.*
The horizontal and vertical offset of the shadow. This parameter can be adjusted using the Shift Widget.

Fg Opacity: *Default: 1, Range: 0 to 1.*
Scales the opacity of the Foreground without affecting the shadow. Lowering this can be used to fade out the Foreground, or setting it to zero prevents the Foreground from being composited over the result at all.

Expand Borders: *Check-box, Default: on.*
If enabled, transparent borders are added to the input image before processing. This allows the result to include soft edges beyond the original image size. When off, the effect only occurs within the frame and the result will retain an edge at the borders. This parameter does not appear in FCP or DF because those applications don't support image expansion.

Comp Premult: *Check-box, Default: on.*
Disable this if you have provided a separate Matte input and the Foreground pixel values have not been pre-multiplied by this Matte.

Matte Use: *Popup menu, Default: Alpha.*
Determines which Foreground or Matte input channels are used to make the shadow.

Luma: the luminance of the RGB channels is used.

Alpha: only the Alpha channel is used.

Invert Matte: *Check-box, Default: off.*

If enabled, the black and white of the Foreground alpha channel are inverted before use.

Show Shift: *Check-box, Default: on.*

Turns on or off the screen user interface for adjusting the Shadow Blur parameter.

See Also:

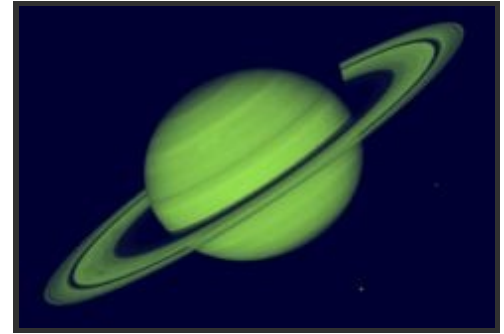
[Blur](#)

[Sapphire Plug-ins Introduction](#)

S_DuoTone

Performs an interpolation between two specified colors using the brightness of the source clip.

In the Sapphire Adjust effects submenu.



Inputs:

Source: The clip to be processed.

Parameters:

Color1: *Default rgb:* [1 0.9 0.8].

The color to use at the brighter source regions.

Color0: *Default rgb:* [0 0 0.2].

The color to use at the darker source regions.

Invert: *Check-box, Default:* off.

If enabled, the resulting texture colors are inverted. This is similar to swapping Color0 and Color1.

Threshold: *Default:* 0.5, *Range:* -0.5 to 1.5.

The source brightness value to use as the mid-point of the color interpolation. This is often a middle gray around 0.5.

Softness: *Default:* 1, *Range:* 0.001 or greater.

The source brightness distance over which to perform the Color0 to Color1 interpolation. Decrease for sharper transitions between the two colors.

See Also:

[HueSatBright](#)

[Monochrome](#)

[ClampChroma](#)

[PseudoColor](#)

[TriTone](#)

[QuadTone](#)

[Tint](#)

[Threshold](#)

[Hotspots](#)

[Gamma](#)

[Solarize](#)

[ChannelSwitcher](#)

[ShowBadColors](#)

[Invert](#)

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S_EdgeBlur

Finds the edges within the Matte clip, and blurs the Source clip at those edges. Use the Show Edges option to view which areas will receive the blur while adjusting the edge parameters. Then adjust Blur Width to control the amount of blur.

In the Sapphire Blur+Sharpen effects submenu.



Inputs:

Source: The clip to be processed.

Matte: *Optional.* The clip used to determine the edge locations where the Source should be blurred. If this input is not connected, the main Source clip is used instead to determine the edges.

Parameters:

Blur Width: *Default:* 0.028, *Range:* 0 or greater.

The width of the blur. This should normally not be much greater than the Edge Width. This parameter can be adjusted using the Blur Width Widget.

Edge Width: *Default:* 0.028, *Range:* 0 or greater.

The width of the edge area to blur within.

Edge Strength: *Default:* 0.5, *Range:* 0 or greater.

The strength of the edges determines the amount of the blurred source that replaces the edges.

Edge Threshold: *Default:* 0, *Range:* 0 or greater.

Determines which edges are blurred. Increase to remove minor edges or speckles.

Show: *Popup menu, Default:* Result.

Selects between output options.

Result: outputs the Source image with blurred edges.

Edges: outputs only the edge image. This can be useful during the adjustment of the edge parameters.

Subpixel: *Check-box, Default:* off.

Enables blurring by subpixel amounts. Use this for smoother animation of the Blur Width or Edge Width parameters.

Matte Use: *Popup menu, Default:* Luma.

Determines how the Matte input channels are used to make a monochrome matte.

Luma: the luminance of the RGB channels is used.

Alpha: only the Alpha channel is used.

Show Blur Width: *Check-box, Default:* on.

Turns on or off the screen user interface for adjusting the Blur Width parameter.

See Also:

[Blur](#)

[EdgeFlash](#)

[EdgeDetect](#)

[Sapphire Plug-ins](#)

[Introduction](#)

S_EdgeColorize

Assigns different colors to the edges of the source clip depending on their direction. Increase the Edge Smooth parameter for thicker edges.

In the Sapphire Stylize effects submenu.



Inputs:

Source: The clip to be processed.

Parameters:

Edge Smooth: *Default:* 0.0056, *Range:* 0 or greater.
Increase for thicker and smoother edges.

Subpixel Smooth: *Check-box, Default:* off.
Enables smoothing the edges by subpixel amounts. Use this for smoother animation of the Edge Smooth parameter.

Brightness: *Default:* 1, *Range:* 0 or greater.
Scales the edge colors by this amount.

Rotate Colors: *Default:* 0, *Range:* any.
Causes the Top, Left, Right, and Bottom colors to be rotated to different edge directions, in counter-clockwise degrees.

Background: *Default rgb:* [0 0 0].
The color to use as a background.

Top: *Default rgb:* [1 0.85 0.5].
The color of upwards facing edges.

Right: *Default rgb:* [0 0.1 0.5].
The color of right facing edges.

Bottom: *Default rgb:* [0.3 0.3 0.3].
The color of downwards facing edges.

Left: *Default rgb:* [0.5 0 0].
The color of left facing edges.

See Also:

[EdgeDetect](#)
[EdgesInDirection](#)
[EdgeDetectDouble](#)

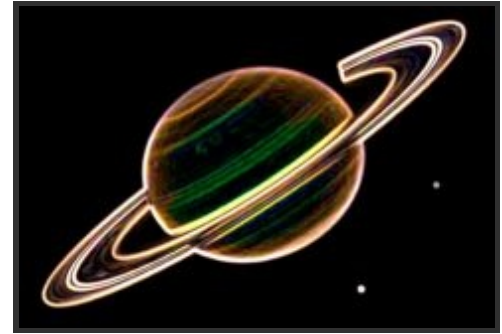
[BandPass](#)
[Sharpen](#)
[Emboss](#)

[Sapphire](#)
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S_EdgeDetect

Finds the edges within the source clip. Increase the Edge Smooth parameter for thicker edges. Select Mono or Chroma mode to show only edges in Luminance or Chroma.

In the Sapphire Stylize effects submenu.



Inputs:

Source: The clip to be processed.

Parameters:

Effect: *Popup menu, Default: RGB Edges.*
Selects between variations of the effect.

RGB Edges: full color edges are found.

Chroma Edges: luminance edges are ignored, and only the edges in the Source's chrominance are found. This option can sometimes be helpful for use with matte extraction.

Mono Edges: finds the luminance edges only and gives a monochrome result.

Edge Smooth: *Default: 0.0056, Range: 0 or greater.*
Increase for thicker and smoother edges.

Subpixel Smooth: *Check-box, Default: off.*
Enables smoothing the edges by subpixel amounts. Use this for smoother animation of the Edge Smooth parameter.

Brightness: *Default: 1, Range: 0 or greater.*
Scales the brightness of the result.

Saturation: *Default: 1, Range: 0 to 10.*
Scales the color saturation of the result. Increase for more intense colors. Set to 0 for monochrome.

Threshold: *Default: 0, Range: 0 or greater.*
Subtracts this value from the result. Increase to remove unwanted noise from minor edges.

Weight Red: *Default: 1, Range: 0 or greater.*
Scale the edges of the red source channel.

Weight Green: *Default: 1, Range: 0 or greater.*
Scale the edges of the green source channel.

Weight Blue: *Default: 1, Range: 0 or greater.*
Scale the edges of the blue source channel.

See Also:

[EdgesInDirection](#)
[EdgeDetectDouble](#)
[EdgeColorize](#)

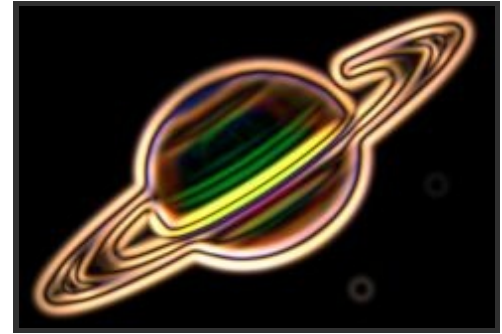
[BandPass](#)
[Sharpen](#)
[Emboss](#)

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S_EdgeDetectDouble

Performs an edge detect operation twice giving a double stranded edge effect. Increase the Edge Smooth parameters for thicker edges.

In the Sapphire Stylize effects submenu.



Inputs:

Source: The clip to be processed.

Parameters:

Edge Smooth1: *Default: 0.022, Range: 0 or greater.*
Increase for smoother edges for the first edge-detect.

Edge Smooth2: *Default: 0, Range: 0 or greater.*
Increase for smoother edges for the second edge-detect.

Subpixel Smooth: *Check-box, Default: off.*
Enables smoothing the edges by subpixel amounts. Use this for smoother animation of the Edge Smooth parameter.

Brightness1: *Default: 1, Range: 0 or greater.*
Scales the brightness of the initial edges.

Brightness2: *Default: 1.5, Range: 0 or greater.*
Scales the brightness of the result.

Saturation: *Default: 1, Range: 0 to 10.*
Scales the color saturation of the result. Increase for more intense colors. Set to 0 for monochrome.

Threshold1: *Default: 0, Range: 0 or greater.*
Subtract this value from the initial edges.

Threshold2: *Default: 0, Range: 0 or greater.*
Subtracts this value from the result. Increase to remove unwanted noise from minor edges.

Show: *Popup menu, Default: Edges2.*
Selects the output option.

Edges1: shows just the first edge-detect. This can be useful for adjusting the Edge1 parameters without performing the second edge-detect.

Edges2: shows the result of the double edge-detect.

See Also:

[EdgeDetect](#)
[EdgesInDirection](#)
[EdgeColorize](#)

[BandPass](#)
[Sharpen](#)

[Sapphire](#)
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S_EdgeFlash

Adds a glow from the Front clip onto the Back clip, and vice versa, then composites the Front over the Back. This can be used to make a composite look more natural with light flashing between the layers as if exposed on film together.

In the Sapphire Composite effects submenu.



Inputs:

Foreground: The clip to use as foreground.

Background: The clip to use as background.

Matte: *Optional.* The alpha channel of this input specifies the opacities of the Foreground input. If this input is not provided, the alpha channel of the Foreground input is used instead. This input can be affected by the Invert Matte or Matte Use parameters.

Parameters:

Fg Flash Amp: *Default: 0.8, Range: 0 or greater.*
The amount of flashing from the Front onto the Back.

Bg Flash Amp: *Default: 0.8, Range: 0 or greater.*
The amount of flashing from the Front onto the Back.

Flash Width: *Default: 0.022, Range: 0 or greater.*
The width of the flashing. This parameter can be adjusted using the Flash Width Widget.

Fg Lights: *Default: 1, Range: any.*
Scales the Front input by this value. Increase for a brighter result

Fg Darks: *Default: 0, Range: any.*
Adds this gray value to the darker regions of the Front input. This can be negative to increase contrast.

Fg Saturation: *Default: 1, Range: 0 or greater.*
Scales the color saturation of the Front input. Increase for more intense colors. Set to 0 for monochrome.

Bg Lights: *Default: 1, Range: any.*
Scales the Back input by this value. Increase for a brighter result

Bg Darks: *Default: 0, Range: any.*
Adds this gray value to the darker regions of the Back input. This can be negative to increase contrast.

Bg Saturation: *Default: 1, Range: 0 or greater.*
Scales the color saturation of the Back input. Increase for more intense colors. Set to 0 for monochrome.

Output: *Popup menu, Default: Comp.*
Selects between different output options.

Foreground: outputs only the Front clip with flashing from the Back.

Background: outputs only the Back clip with flashing from the Front.

Comp: flashes both, composites the Front over the Back, and outputs the result.

Subpixel Widths: *Check-box, Default: off.*

Enables flashing by subpixel amounts. Use this for smoother animation of the flash width.

Comp Premult: *Check-box, Default: on.*

Disable this if you have provided a separate Matte input and the Foreground pixel values have not been pre-multiplied by this Matte.

Matte Use: *Popup menu, Default: Alpha.*

Determines how the Matte input channels are used to make a monochrome matte.

Luma: the luminance of the RGB channels is used.

Alpha: only the Alpha channel is used.

Invert Matte: *Check-box, Default: off.*

If enabled, the black and white of the matte are inverted before use.

Show Flash Width: *Check-box, Default: on.*

Turns on or off the screen user interface for adjusting the Flash Width parameter.

See Also:

[Blur](#)

[EdgeBlur](#)

[EdgeDetect](#)

[Glow](#)

[Sapphire Plug-ins](#)

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S_EdgeRays

Generates beams of light emitting from the edges of an input clip. You can provide a Matte input to selectively scale the colors of the rays. If Matte Type is set to Color, you can also use the Matte input to colorize the rays differently in different regions. Set the Rays Res parameter to 1/2 for faster rendering with slightly softer rays.

In the Sapphire Lighting effects submenu.



Inputs:

Source: The clip to be processed.

Background: *Optional.* The clip to use as background.

Mask: *Optional.* If provided, the ray colors are scaled by this input. A monochrome mask can be used to choose a subset of areas that will generate rays. If the Mask Type is set to Color, a color mask input can be used to selectively adjust the ray colors in different regions. This input can optionally be blurred or inverted using the Blur Mask or Invert Mask parameters.

Parameters:

Center: *X & Y, Default: [360 243], Range: any.*

The location from which the rays beam outwards. This parameter can be adjusted using the Center Widget.

Rays Length: *Default: 0.25, Range: -5 to 1.*

The length of the rays. A length of 1.0 gives rays that continue forever, although they may still fade out as they go. To make the rays look longer you can also increase the Rel Outer Bright parameter. If Rays Length is negative the rays can beam inwards instead of outwards. Note that processing times increase for longer rays. This parameter can be adjusted using the Center Widget.

Rays Brightness: *Default: 2, Range: 0 or greater.*

Scales the brightness of the ray beams.

Rays Color: *Default rgb: [1 1 1].*

Scales the color of the ray beams.

Bias Outer Bright: *Default: 0, Range: 0 to 1.*

Determines the variable amount of brightness along the rays. This is normally near 0 so the rays fade away at their outer ends, 0.5 causes equal brightness along the rays, and 1.0 causes maximum brightness at the ends.

Rays Res: *Popup menu, Default: Full.*

Selects the resolution factor for the rays. Higher resolutions give sharper rays, lower resolutions give smoother rays and faster processing. This 'Res' factor only affects the rays: the background is still combined with the rays at full resolution.

Full: Full resolution is used.

1/2: The rays are calculated at half resolution.

1/4: The rays are calculated at quarter resolution.

Show: *Popup menu, Default: Result.*

Selects between output options.

Result: outputs the rays over the Background.

Edges: outputs only the edge image. This can be useful during the adjustment of the edge or shimmer parameters.

Edge Thickness: *Default: 0.011, Range: 0 or greater.*

The thickness of the edges which generate the rays.

Edge Brightness: *Default: 1, Range: 0 or greater.*

Scales the brightness of the edges which generate the rays.

Edge Subpixel: *Check-box, Default: off.*

Enables subpixel Edge Thickness amounts. Turn this on if you are animating Edge Thickness or if you want finer control of small values.

Shimmer Amp: *Default: 0.5, Range: 0 or greater.*

Modulates the ray source image with this amount of noise texture to give the rays a shimmering look.

Shimmer Freq: *Default: 40, Range: 0.1 or greater.*

The frequency of the shimmer texture. Increase for a finer grained shimmer effect, decrease for larger, softer shimmer. This has no effect unless Shimmer Amp is positive.

Shimmer Seed: *Default: 0.123, Range: 0 or greater.*

Used to initialize the random number generator for the shimmer texture. The actual seed value is not significant, but different seeds give different results and the same value should give a repeatable result.

Shimmer Shift: *X & Y, Default: [0 0], Range: any.*

Translation of the shimmer texture. This has no effect unless Shimmer Amp is positive.

Shimmer Speed: *X & Y, Default: [0 0], Range: any.*

Translation speed of the shimmer texture. If non-zero, the shimmering is automatically animated to shift at this rate.

Affect Alpha: *Default: 0, Range: 0 or greater.*

If this value is positive the output Alpha channel will include some opacity from the rays. The maximum of the red, green, and blue ray brightness is scaled by this value and combined with the background Alpha at each pixel.

Rays From Alpha: *Default: 0, Range: 0 to 1.*

Set to 1 to generate rays from the edges of the source's alpha channel instead of its RGB channels. This will typically reduce the rays generated from internal edges. Values between 0 and 1 interpolate between using the RGB and the Alpha.

Rays Under Source: *Default: 0, Range: 0 to 1.*

Set to 1 to composite the Source input over the rays.

Source Opacity: *Default: 1, Range: 0 to 1.*

Scales the opacity of the Source input when combined with the rays. This does not affect the generation of the rays themselves.

Bg Brightness: *Default: 1, Range: 0 or greater.*

Scales the brightness of the background before combining with the rays. This parameter only has an effect if the background input is provided.

Mask Type: *Popup menu, Default: Luma.*

This setting is ignored unless the Mask input is connected.

Luma: uses the luminance of the Mask input to scale the brightness of the rays.

Color: uses the RGB channels of the Mask input to scale the colors of the rays.
Alpha: uses the alpha channel of the Mask input to scale the brightness of the rays.

Blur Mask: *Default:* 0, *Range:* 0 or greater.

Blurs the Mask input by this amount before using. This can provide a smoother transition between the masked and unmasked areas. It has no effect unless the Mask input is provided.

Invert Mask: *Check-box, Default:* off.

If on, inverts the mask input so the effect is applied to areas where the Mask is black instead of white. This has no effect unless the Mask input is provided.

Show Center: *Check-box, Default:* on.

Turns on or off the screen user interface widget for adjusting the Center and Rays Length parameters.

See Also:

[Rays](#)

[Streaks](#)

[BlurMotion](#)

[WarpChroma](#)

[EdgeDetect](#)

[Glow](#)

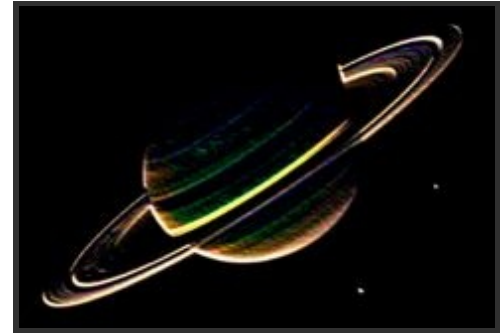
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S_EdgesInDirection

Finds the edges of the source input that are aligned in a specified direction. Increase the Edge Smooth parameter for thicker edges.

In the Sapphire Stylize effects submenu.



Inputs:

Source: The clip to be processed.

Parameters:

Edge Smooth: *Default:* 0.0056, *Range:* 0 or greater.
Increase for thicker and smoother edges.

Subpixel Smooth: *Check-box, Default:* off.
Enables smoothing the edges by subpixel amounts. Use this for smoother animation of the Edge Smooth parameter.

Brightness: *Default:* 1, *Range:* 0 or greater.
Scales the brightness of the result.

Saturation: *Default:* 1, *Range:* 0 to 10.
Scales the color saturation of the result. Increase for more intense colors. Set to 0 for monochrome.

Offset Color: *Default rgb:* [0 0 0].
The color to add to the result. Make this gray to allow the darker side of edges away from the given Direction to also be visible.

Direction: *X & Y, Default:* [500 360], *Range:* any.
Edges are found which are perpendicular to this direction vector. This parameter can be adjusted using the Direction Widget.

Bidirectional: *Check-box, Default:* off.
If enabled, edges towards and away from the Direction vector are treated equally.

Show Direction: *Check-box, Default:* on.
Turns on or off the screen user interface for adjusting the Direction parameter.

See Also:

[EdgeDetect](#)
[EdgeDetectDouble](#)
[EdgeColorize](#)

[BandPass](#)
[Sharpen](#)
[Emboss](#)

[Sapphire](#)
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S_Emboss

Embosses the Source clip using the brightness of the Bumps input as a relief map. Increase the Bumps Smooth parameter for bolder bumps, and adjust the Light Dir to illuminate the bumps from different angles.

In the Sapphire Stylize effects submenu.



Inputs:

Source: The clip to be processed.

Bumps: *Optional.* The bump map for the emboss. Only the luminance of this input is used.

Mask: *Optional.* If provided, the emboss is applied only at the areas specified by this input. This input can be affected using the Blur Mask, Invert Mask, or Mask Use parameters.

Parameters:

Light Dir: *X & Y, Default: [180 360], Range: any.*

The direction vector for the light source. Surface shading is calculated using light from this direction shining onto the Bumps input. This parameter can be adjusted using the Light Dir Widget.

Brightness: *Default: 1, Range: 0 or greater.*

Scales the brightness of the result.

Light Color: *Default rgb: [1 1 1].*

The color of the light source that creates the embossed result.

Bumps Scale: *Default: 1, Range: any.*

Scales the amplitude of the bump map.

Bumps Threshold: *Default: 0, Range: 0 to 1.*

This value is subtracted from the Bumps input before it is used.

Bumps Smooth: *Default: 0, Range: 0 or greater.*

If positive, the Bumps input is blurred by this amount before being used. Increase for a softer emboss effect.

Subpixel Smooth: *Check-box, Default: off.*

If enabled, the amount of pre-smoothing of the Bumps input is performed at subpixel accuracy. It can be helpful if Bumps Smooth is very small or is being animated. This parameter has no effect unless Bumps Smooth is positive.

Blur Mask: *Default: 0, Range: 0 or greater.*

Blurs the Mask input by this amount before using. This can provide a smoother transition between the masked and unmasked areas. It has no effect unless the Mask input is provided.

Invert Mask: *Check-box, Default: off.*

If on, inverts the mask input so the effect is applied to areas where the Mask is black instead of white. This has no effect unless the Mask input is provided.

Mask Use: *Popup menu, Default: Luma.*

Determines how the Mask input channels are used to make a monochrome mask.

Luma: the luminance of the RGB channels is used.

Alpha: only the Alpha channel is used.

Show Light Dir: *Check-box, Default:* on.

Turns on or off the screen user interface for adjusting the Light Dir parameter.

See Also:

[EmbossShiny](#)
[EmbossDistort](#)
[EmbossGlass](#)

[Distort](#)
[EdgesInDirection](#)

[Sapphire](#)
[Plug-ins](#)
[Introduction](#)

S_EmbossDistort

Embosses and warps the Source clip using the Bumps input as a relief map and also distorts the result using the Bumps as a 'lens' image. Increase the Bumps Smooth parameter for bolder bumps, and adjust the Light Dir to illuminate the bumps from different angles.

In the Sapphire Stylize effects submenu.



Inputs:

Source: The clip to be processed.

Bumps: *Optional.* The bump map and lens source for the emboss.

Mask: *Optional.* If provided, the emboss is applied only at the areas specified by this input. This input can be affected using the Blur Mask, Invert Mask, or Mask Use parameters.

Parameters:

Light Dir: *X & Y, Default: [180 360], Range: any.*

The direction vector for the light source. Surface shading is calculated using light from this direction shining onto the Bumps input. This parameter can be adjusted using the Light Dir Widget.

Brightness: *Default: 1, Range: 0 or greater.*

Scales the brightness of the result.

Light Color: *Default rgb: [1 1 1].*

The color of the light source that creates the embossed result.

Bumps Scale: *Default: 1, Range: any.*

Scales the amplitude of the bump map.

Bumps Threshold: *Default: 0, Range: 0 to 1.*

This value is subtracted from the Bumps input before it is used.

Bumps Smooth: *Default: 0.022, Range: 0 or greater.*

If positive, the Bumps input is blurred by this amount before being used. Increase for a softer emboss effect.

Subpixel Smooth: *Check-box, Default: off.*

If enabled, the amount of pre-smoothing of the Bumps input is performed at subpixel accuracy. It can be helpful if Bumps Smooth is very small or is being animated. This parameter has no effect unless Bumps Smooth is positive.

Hilight Brightness: *Default: 0.5, Range: 0 to 1.*

Scales the brightness of the specular highlights.

Hilight Size: *Default: 0.5, Range: 0.1 or greater.*

Adjusts the size of the specular highlights.

Distort Amount: *Default: 1, Range: any.*

The severity of the lens warping distortion. Make negative to invert the direction of the distortions.

Filter: *Check-box, Default: on.*

If enabled, the image is adaptively filtered when it is resampled. This gives a better quality result when parts of the image are warped smaller.

Blur Mask: *Default: 0, Range: 0 or greater.*

Blurs the Mask input by this amount before using. This can provide a smoother transition between the masked and unmasked areas. It has no effect unless the Mask input is provided.

Invert Mask: *Check-box, Default: off.*

If on, inverts the mask input so the effect is applied to areas where the Mask is black instead of white. This has no effect unless the Mask input is provided.

Mask Use: *Popup menu, Default: Luma.*

Determines how the Mask input channels are used to make a monochrome mask.

***Luma:** the luminance of the RGB channels is used.*

***Alpha:** only the Alpha channel is used.*

Crop Input Parameters: *Default: 0, Range: 0 or greater.*

These 4 parameters, **Crop Top**, **Crop Bottom**, **Crop Left**, and **Crop Right**, allow selecting a rectangular subsection of the input image to be processed. If the Wrap parameters are set to "No" the exposed borders will be transparent. If the Wrap is "Tile" or "Reflect" the source image is wrapped on the new cropped borders to fill the frame. This can make it easier to avoid artifacts due to distorting an image with bad edges.

Show Light Dir: *Check-box, Default: on.*

Turns on or off the screen user interface for adjusting the Light Dir parameter.

See Also:

[Emboss](#)

[EmbossShiny](#)

[EmbossGlass](#)

[Distort](#)

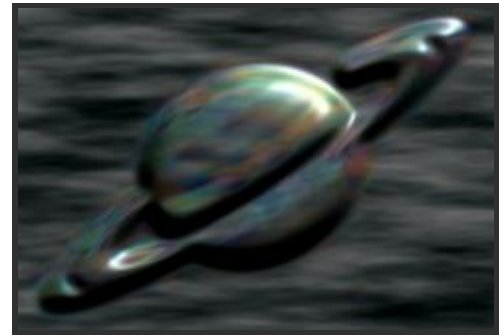
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S_EmbossGlass

The Source is embossed and warped using the Bumps input as a relief map and lens image. A chrominance distortion is also performed, separating the spectrum for a 'prismatic' look. Increase the Bumps Smooth parameter for bolder bumps, and adjust the Light Dir to illuminate the bumps from different angles.

In the Sapphire Stylize effects submenu.



Inputs:

Source: The clip to be processed.

Bumps: *Optional.* The bump map and lens source for the emboss.

Mask: *Optional.* If provided, the emboss is applied only at the areas specified by this input. This input can be affected using the Blur Mask, Invert Mask, or Mask Use parameters.

Parameters:

Light Dir: *X & Y, Default: [180 360], Range: any.*

The direction vector for the light source. Surface shading is calculated using light from this direction shining onto the Bumps input. This parameter can be adjusted using the Light Dir Widget.

Brightness: *Default: 1, Range: 0 or greater.*

Scales the brightness of the result.

Light Color: *Default rgb: [1 1 1].*

The color of the light source that creates the embossed result.

Bumps Scale: *Default: 1, Range: any.*

Scales the amplitude of the bump map.

Bumps Threshold: *Default: 0, Range: 0 to 1.*

This value is subtracted from the Bumps input before it is used.

Bumps Smooth: *Default: 0.022, Range: 0 or greater.*

If positive, the Bumps input is blurred by this amount before being used. Increase for a softer emboss effect.

Subpixel Smooth: *Check-box, Default: off.*

If enabled, the amount of pre-smoothing of the Bumps input is performed at subpixel accuracy. It can be helpful if Bumps Smooth is very small or is being animated. This parameter has no effect unless Bumps Smooth is positive.

Hilight Brightness: *Default: 0.5, Range: 0 to 1.*

Scales the brightness of the specular highlights.

Hilight Size: *Default: 0.5, Range: 0.1 or greater.*

Adjusts the size of the specular highlights.

Distort Amount: *Default: 1, Range: any.*

The severity of the lens warping distortion. Make negative to invert the direction of the distortions.

Filter: *Check-box, Default: on.*

If enabled, the image is adaptively filtered when it is resampled. This gives a better quality result when parts of the image are warped smaller.

Warp Red: *Default: 0.5, Range: any.*

The magnitude of lens distortion for the red end of the spectrum. Make negative to invert the direction of the red distortions.

Warp Blue: *Default: 1, Range: any.*

The magnitude of lens distortion for the blue end of the spectrum. Make negative to invert the direction of the blue distortions.

Steps: *Integer, Default: 5, Range: 3 to 100.*

The number of color samples along the spectrum to include. More steps give a smoother result, but require more time to process.

Blur Mask: *Default: 0, Range: 0 or greater.*

Blurs the Mask input by this amount before using. This can provide a smoother transition between the masked and unmasked areas. It has no effect unless the Mask input is provided.

Invert Mask: *Check-box, Default: off.*

If on, inverts the mask input so the effect is applied to areas where the Mask is black instead of white. This has no effect unless the Mask input is provided.

Mask Use: *Popup menu, Default: Luma.*

Determines how the Mask input channels are used to make a monochrome mask.

***Luma:** the luminance of the RGB channels is used.*

***Alpha:** only the Alpha channel is used.*

Crop Input Parameters: *Default: 0, Range: 0 or greater.*

These 4 parameters, **Crop Top**, **Crop Bottom**, **Crop Left**, and **Crop Right**, allow selecting a rectangular subsection of the input image to be processed. If the Wrap parameters are set to "No" the exposed borders will be transparent. If the Wrap is "Tile" or "Reflect" the source image is wrapped on the new cropped borders to fill the frame. This can make it easier to avoid artifacts due to distorting an image with bad edges.

Show Light Dir: *Check-box, Default: on.*

Turns on or off the screen user interface for adjusting the Light Dir parameter.

See Also:

[Emboss](#)

[EmbossShiny](#)

[EmbossDistort](#)

[DistortChroma](#)

[Sapphire Plug-ins](#)

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S_EmbossShiny

Embosses the Source clip using the Bumps input as a relief map. A lighting model is used which includes highlights from specular reflections. Increase the Bumps Smooth parameter for bolder bumps, and adjust the Light Dir to illuminate the bumps from different angles.

In the Sapphire Stylize effects submenu.



Inputs:

Source: The clip to be processed.

Bumps: *Optional.* The bump map for the emboss. Only the luminance of this input is used.

Mask: *Optional.* If provided, the emboss is applied only at the areas specified by this input. This input can be affected using the Blur Mask, Invert Mask, or Mask Use parameters.

Parameters:

Light Dir: *X & Y, Default: [180 360], Range: any.*

The direction vector for the light source. Surface shading is calculated using light from this direction shining onto the Bumps input. This parameter can be adjusted using the Light Dir Widget.

Brightness: *Default: 1, Range: 0 or greater.*

Scales the brightness of the result.

Light Color: *Default rgb: [1 1 1].*

The color of the light source that creates the embossed result.

Bumps Scale: *Default: 1, Range: any.*

Scales the amplitude of the bump map.

Bumps Threshold: *Default: 0, Range: 0 to 1.*

This value is subtracted from the Bumps input before it is used.

Bumps Smooth: *Default: 0.0056, Range: 0 or greater.*

If positive, the Bumps input is blurred by this amount before being used. Increase for a softer emboss effect.

Subpixel Smooth: *Check-box, Default: off.*

If enabled, the amount of pre-smoothing of the Bumps input is performed at subpixel accuracy. It can be helpful if Bumps Smooth is very small or is being animated. This parameter has no effect unless Bumps Smooth is positive.

Hilight Brightness: *Default: 0.8, Range: 0 to 1.*

Scales the brightness of the specular highlights.

Hilight Size: *Default: 0.5, Range: 0.1 or greater.*

Adjusts the size of the specular highlights.

Blur Mask: *Default: 0, Range: 0 or greater.*

Blurs the Mask input by this amount before using. This can provide a smoother transition between the masked and unmasked areas. It has no effect unless the Mask input is provided.

Invert Mask: *Check-box, Default: off.*

If on, inverts the mask input so the effect is applied to areas where the Mask is black instead of white. This has no effect unless the Mask input is provided.

Mask Use: *Popup menu, Default: Luma.*

Determines how the Mask input channels are used to make a monochrome mask.

Luma: the luminance of the RGB channels is used.

Alpha: only the Alpha channel is used.

Show Light Dir: *Check-box, Default: on.*

Turns on or off the screen user interface for adjusting the Light Dir parameter.

See Also:

[Emboss](#)

[EmbossDistort](#)

[EmbossGlass](#)

[TextureNoiseEmboss](#)

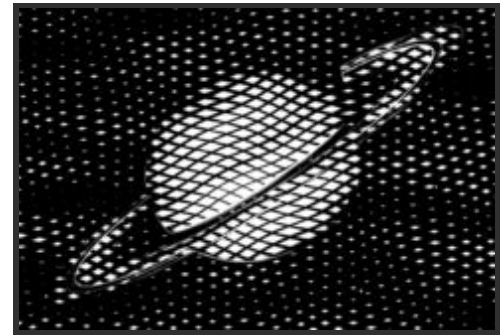
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S_Etching

Generates a version of the source clip using two sets of black and white lines of varying thickness to give an 'etching' or 'lithograph' look. Use the Smooth Source parameter to remove some details and make the lines more evenly shaped. Use the Lines Frequency parameter to adjust the density of all lines.

In the Sapphire Stylize effects submenu.



Inputs:

Source: The clip to be processed.

Parameters:

Lines Frequency: *Default: 50, Range: 0 or greater.*

The frequency of the etched lines. Increase for a finer line pattern, decrease for fewer lines.

Lines1 Frequency: *Default: 1, Range: 0 or greater.*

Scales the frequency of the first set of etched lines. Increase for a finer line pattern, decrease for fewer lines.

Lines2 Frequency: *Default: 1, Range: 0 or greater.*

Scales the frequency of the second set of etched lines.

Lines Angle: *Default: 0, Range: any.*

Rotation of the etched lines pattern in counter-clockwise degrees.

Lines1 Angle: *Default: -30, Range: any.*

The relative angle of the first set of etched lines in counter-clockwise degrees.

Lines2 Angle: *Default: 20, Range: any.*

The relative angle of the second set of etched lines in counter-clockwise degrees.

Lines Shift: *X & Y, Default: [0 0], Range: any.*

Shifts the pattern of lines. This location will also be the center of rotation when the line angle parameters are adjusted. This parameter can be adjusted using the Lines Shift Widget.

Lines Sharpness: *Default: 4, Range: 0 or greater.*

The sharpness of the etched lines. Decrease for softer edges.

Lines Add Width: *Default: 0, Range: any.*

Increase for thicker lines.

Smooth Source: *Default: 0, Range: 0 or greater.*

If positive, the source is blurred by this amount before the etching is applied.

Color1: *Default rgb: [1 1 1].*

The 'brighter' color of the lines pattern.

Color0: *Default rgb: [0 0 0].*

The 'darker' color of the lines pattern.

Wave Amp: *Default: 0.1, Range: 0 or greater.*
The amplitude of the waviness of the sets of etched lines.

Wave Frequency: *Default: 2, Range: 0 or greater.*
The frequency of the waviness of the etched lines. Increase for more waves.

Warp Amp: *Default: 0.04, Range: any.*
The amount the output is warped using the source brightness.

Warp Smooth: *Default: 0.011, Range: 0 or greater.*
The smoothness of the warping. This has no effect if Warp Amp is 0.

Edges Scale: *Default: 0.5, Range: 0 or greater.*
Adjusts the amount of source edges to be included in the result. If positive, edges in the source image are found and added to the etching pattern.

Edges Threshold: *Default: 0.3, Range: 0 or greater.*
Determines which edges are included in the result. Increase to remove minor edges and speckles. This has no effect unless Edges Scale is positive.

Edges Width: *Default: 0, Range: 0 or greater.*
The width of the edges added to the result. Increase for wider edges. This has no effect unless Edges Scale is positive.

Edges Sharpness: *Default: 3, Range: 0 or greater.*
Increase for sharper edges, decrease for softer edges. This has no effect unless Edges Scale is positive.

Show Lines Shift: *Check-box, Default: on.*
Turns on or off the screen user interface for adjusting the Lines Shift parameter.

See Also:

[ScanLines](#)

[AutoPaint](#)

[Sketch](#)

[Mosaic](#)

[FlysEyeHex](#)

[JpegDamage](#)

[Sapphire Plug-ins](#)

[Introduction](#)

S_Feedback

The previous frames of the input clip are transformed and combined with the current frame to give a variety of effects inspired by video feedback. The output of each processed frame is stored and then combined with the next frame. The feedback is reinitialized whenever any non-consecutive frame is processed: either the first frame, reprocessing a given frame, or jumping to another frame. You must process multiple frames of a clip in a row to observe the effect, and clearing your image cache before rendering may sometimes be necessary.



In the Sapphire Time effects submenu.

Inputs:

Source: The clip to be processed.

Parameters:

Prev Brightness: *Default:* 0.8, *Range:* 0 or greater.

For each frame, the previous output is scaled by this amount before it is combined with the new input frame. Normally this value should be less than 1.0 which causes previous frames to fade out over time. A value of 1.0 causes no fading, and values greater than 1.0 cause previous frames to become brighter over time.

Prev Color: *Default rgb:* [1 1 1].

For each frame, the previous output is scaled by this color before it is combined with the new input frame. This is similar to Prev Brightness but affects the colors of the previous frames instead of just the brightness.

Prev Hue Shift: *Default:* 0, *Range:* -1 to 1.

Shifts the hue of the previous frames' colors, for each new frame.

Combine New: *Popup menu, Default:* Ave.

Selects the method for combining previous frames with the current frame.

Ave: The current frame is averaged with the previous output, smearing moving objects out over time. The output is scaled by Fade and the input is scaled by 1.0-Fade for a weighted average, so Fade must be less than 1.0 for this to work properly. Unlike the other combine options, Ave should never affect the brightness of stationary objects in the clip.

Max: The colors of the current frame and previous frames are combined with a maximum function. This makes the output frame at least as bright as the current frame, and will make brighter 'trails' for example if you have bright objects moving on a dark background.

Screen: The colors of the current frame and previous frames are combined with a blend function. This can be used to accumulate the colors of a moving clip. However, non-black regions will become brighter with each frame.

Add: The colors of the current frame and previous frames are added. This can also be used to accumulate the colors of a moving clip, with the non-black regions becoming brighter at each frame.

Over: The current frame is composited over the previous frames using its Alpha channel. This uses pre-multiplied compositing, so where the alpha is black the Source image should normally also be black. If the input clip contains no Alpha channel, the luminance is used instead.

Under: The current frame is composited under the previous frames.

Min: The colors of the current frame and previous frames are combined with a minimum function. This makes the output frame no brighter than the current frame, and will often fade quickly to a black frame.

New Color: *Default rgb: [1 1 1].*

Scales the color of the current frame. Set this to the complement of Old Color to offset overly colored trails.

New Opacity: *Default: 1, Range: 0 to 10.*

Scales the opacity and brightness of the current frame.

Blur Amount: *Default: 0, Range: 0 or greater.*

The previous frames are blurred by this amount for each new frame. This has no effect unless it is positive.

Diffuse Amount: *Default: 0, Range: 0 or greater.*

The previous frames are passed through a pixel-diffusion process of this magnitude, for each new frame. This has no effect unless it is positive.

Amount Rel: *X & Y, Default: [1 1], Range: 0 or greater.*

The relative amounts of horizontal and vertical blurring and/or diffusing. This has no effect unless Blur Amount or Diffuse Amount are positive.

Center: *X & Y, Default: [360 243], Range: any.*

The center position for rotation and scaling, in screen coordinates relative to the center of the frame. This parameter can be adjusted using the Center Widget.

Z Dist: *Default: 0.95, Range: 0.001 to 10.*

For each new frame, the 'distance' of the previous frames is scaled by this amount. This causes zooming during the feedback process. Values greater than 1.0 zoom out and make the previous frames smaller, and values less than 1.0 zoom in and enlarge them. This parameter can be adjusted using the Transform Widget.

Rotate: *Default: 3, Range: any.*

For each new frame, the amount of rotation in degrees to apply to the previous frames. This parameter can be adjusted using the Transform Widget.

Shift: *X & Y, Default: [0 0], Range: any.*

Shifts the previous frames by this amount for each new frame. If this is non-zero the Center location is less meaningful. This parameter can be adjusted using the Transform Widget.

Wrap: *X & Y, Popup menu, Default: [No No].*

Determines the method for accessing outside the borders of the source image.

No: gives black beyond the borders.

Tile: repeats a copy of the image.

Reflect: repeats a mirrored copy. Edges are often less visible with this method.

Show Center: *Check-box, Default: on.*

Turns on or off the screen user interface for adjusting the Center parameter.

Show Transform: *Check-box, Default: on.*

Turns on or off the screen user interface for adjusting the Z Dist and Rotate parameters.

Show Shift: *Check-box, Default: off.*

Turns on or off the screen user interface for adjusting the Center parameter.

See Also:

[Trails](#)

[TrailsDiffuse](#)

[FeedbackDistort](#)

[TimeAverage](#)

[NearestColor](#)

[FeedbackBubble](#)

[WarpRepeat](#)

[WarpChroma](#)

[Sapphire](#)

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S_FeedbackBubble

The previous frames of the input clip are distorted by a solid noise pattern, transformed, and combined with the current frame to give a variety of possible effects. The output of each processed frame is stored and then combined with the next frame. The feedback is reinitialized whenever any non-consecutive frame is processed, either the first frame, reprocessing a given frame, or jumping to another frame. You must process multiple frames of a clip in a row to observe the effect, and clearing your image cache before rendering may sometimes be necessary.



In the Sapphire Time effects submenu.

Inputs:

Source: The clip to be processed.

Parameters:

Prev Brightness: *Default:* 0.8, *Range:* 0 or greater.

For each frame, the previous output is scaled by this amount before it is combined with the new input frame. Normally this value should be less than 1.0 which causes previous frames to fade out over time. A value of 1.0 causes no fading, and values greater than 1.0 cause previous frames to become brighter over time.

Prev Color: *Default rgb:* [1 1 1].

For each frame, the previous output is scaled by this color before it is combined with the new input frame. This is similar to Prev Brightness but affects the colors of the previous frames instead of just the brightness.

Prev Hue Shift: *Default:* 0, *Range:* -1 to 1.

Shifts the hue of the previous frames' colors, for each new frame.

Combine New: *Popup menu, Default:* Ave.

Selects the method for combining previous frames with the current frame.

Ave: The current frame is averaged with the previous output, smearing moving objects out over time. The output is scaled by Fade and the input is scaled by 1.0-Fade for a weighted average, so Fade must be less than 1.0 for this to work properly. Unlike the other combine options, Ave should never affect the brightness of stationary objects in the clip.

Max: The colors of the current frame and previous frames are combined with a maximum function. This makes the output frame at least as bright as the current frame, and will make brighter 'trails' for example if you have bright objects moving on a dark background.

Screen: The colors of the current frame and previous frames are combined with a blend function. This can be used to accumulate the colors of a moving clip. However, non-black regions will become brighter with each frame.

Add: The colors of the current frame and previous frames are added. This can also be used to accumulate the colors of a moving clip, with the non-black regions becoming brighter at each frame.

Over: The current frame is composited over the previous frames using its Alpha channel. This uses pre-multiplied compositing, so where the alpha is black the Source image should normally also be black. If the input clip contains no Alpha channel, the luminance is used instead.

Under: The current frame is composited under the previous frames.

Min: The colors of the current frame and previous frames are combined with a minimum function. This makes the output frame no brighter than the current frame, and will often fade quickly to a black frame.

New Color: *Default rgb: [1 1 1].*

Scales the color of the current frame. Set this to the complement of Old Color to offset overly colored trails.

New Opacity: *Default: 1, Range: 0 to 10.*

Scales the opacity and brightness of the current frame.

Bubble Amount: *Default: 0.05, Range: any.*

The amplitude of the noise pattern used to create the distortion.

Bubble Freq: *Default: 16, Range: 0.01 or greater.*

The spatial frequency of the initial noise pattern. Increase to zoom out, decrease to zoom in.

Bubble Freq Rel X: *Default: 1, Range: 0.01 or greater.*

The relative horizontal frequency of the noise pattern. Increase to stretch it vertically or decrease to stretch it horizontally.

Bubble Shift: *X & Y, Default: [0 0], Range: -1 or greater.*

The horizontal and vertical translation of the noise pattern.

Bubble Shift Speed: *X & Y, Default: [0 -0.069], Range: -1 or greater.*

If non-zero, the bubble pattern is automatically animated to shift at this speed.

Bubble Octaves: *Integer, Default: 1, Range: 1 to 10.*

The number of summed layers of noise. Each octave is twice the frequency and half the amplitude of the previous. A single octave gives a smooth texture. Adding octaves makes the result approach a fractal (1/f) noise texture.

Bubble Seed: *Default: 0.123, Range: 0 or greater.*

Used to initialize the random number generator for the noise pattern. The actual seed value is not significant, but different seeds give different results and the same value should give a repeatable result.

Blur Amount: *Default: 0, Range: 0 or greater.*

The previous frames are blurred by this amount for each new frame. This has no effect unless it is positive.

Diffuse Amount: *Default: 0, Range: 0 or greater.*

The previous frames are passed through a pixel-diffusion process of this magnitude, for each new frame. This has no effect unless it is positive.

Amount Rel: *X & Y, Default: [1 1], Range: 0 or greater.*

The relative amounts of horizontal and vertical blurring and/or diffusing. This has no effect unless Blur Amount or Diffuse Amount are positive.

Center: *X & Y, Default: [360 243], Range: any.*

The center position for rotation and scaling, in screen coordinates relative to the center of the frame. This parameter can be adjusted using the Center Widget.

Z Dist: *Default: 0.95, Range: 0.001 to 10.*

For each new frame, the 'distance' of the previous frames is scaled by this amount. This causes zooming during the feedback process. Values greater than 1.0 zoom out and make the previous frames smaller, and values less than 1.0 zoom in and enlarge them. This parameter can be adjusted using the Transform Widget.

Rotate: *Default: 0, Range: any.*

For each new frame, the amount of rotation in degrees to apply to the previous frames. This parameter can be adjusted using the Transform Widget.

Shift: *X & Y, Default: [0 0], Range: any.*

Shifts the previous frames by this amount for each new frame. If this is non-zero the Center location is less meaningful. This parameter can be adjusted using the Shift Widget.

Wrap: *X & Y, Popup menu, Default: [No No].*

Determines the method for accessing outside the borders of the source image.

No: gives black beyond the borders.

Tile: repeats a copy of the image.

Reflect: repeats a mirrored copy. Edges are often less visible with this method.

Show Shift: *Check-box, Default: off.*

Turns on or off the screen user interface for adjusting the Center parameter.

Show Transform: *Check-box, Default: on.*

Turns on or off the screen user interface for adjusting the Z Dist and Rotate parameters.

Show Center: *Check-box, Default: on.*

Turns on or off the screen user interface for adjusting the Center parameter.

See Also:

[Feedback](#)

[Trails](#)

[TrailsDiffuse](#)

[FeedbackDistort](#)

[TimeAverage](#)

[NearestColor](#)

[WarpRepeat](#)

[WarpChroma](#)

[Sapphire](#)

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S_FeedbackDistort

The previous frames of the input clip are distorted by the gradient of a given Lens input clip and combined with the current frame to give a variety of possible effects. The output of each processed frame is stored and then combined with the next frame. The feedback is reinitialized whenever any non-consecutive frame is processed, either the first frame, reprocessing a given frame, or jumping to another frame. You must process multiple frames of a clip in a row to observe the effect, and clearing your image cache before rendering may sometimes be necessary.



In the Sapphire Time effects submenu.

Inputs:

Source: The clip to be processed.

Lens: *Optional.* Distorts the previous frames using the brightness values of this input clip.

Parameters:

Prev Brightness: *Default:* 0.8, *Range:* 0 or greater.

For each frame, the previous output is scaled by this amount before it is combined with the new input frame. Normally this value should be less than 1.0 which causes previous frames to fade out over time. A value of 1.0 causes no fading, and values greater than 1.0 cause previous frames to become brighter over time.

Prev Color: *Default rgb:* [1 1 1].

For each frame, the previous output is scaled by this color before it is combined with the new input frame. This is similar to Prev Brightness but affects the colors of the previous frames instead of just the brightness.

Prev Hue Shift: *Default:* 0, *Range:* -1 to 1.

Shifts the hue of the previous frames' colors, for each new frame.

Combine New: *Popup menu, Default:* Ave.

Selects the method for combining previous frames with the current frame.

Ave: The current frame is averaged with the previous output, smearing moving objects out over time. The output is scaled by Fade and the input is scaled by 1.0-Fade for a weighted average, so Fade must be less than 1.0 for this to work properly. Unlike the other combine options, Ave should never affect the brightness of stationary objects in the clip.

Max: The colors of the current frame and previous frames are combined with a maximum function. This makes the output frame at least as bright as the current frame, and will make brighter 'trails' for example if you have bright objects moving on a dark background.

Screen: The colors of the current frame and previous frames are combined with a blend function. This can be used to accumulate the colors of a moving clip. However, non-black regions will become brighter with each frame.

Add: The colors of the current frame and previous frames are added. This can also be used to accumulate the colors of a moving clip, with the non-black regions becoming brighter at each frame.

Over: The current frame is composited over the previous frames using its Alpha channel. This uses pre-multiplied compositing, so where the alpha is black the Source image should normally also be black. If the input clip contains no Alpha channel, the luminance is used instead.

Under: The current frame is composited under the previous frames.

Min: The colors of the current frame and previous frames are combined with a minimum function. This makes the output frame no brighter than the current frame, and will often fade quickly to a black frame.

New Color: *Default rgb: [1 1 1].*

Scales the color of the current frame. Set this to the complement of Old Color to offset overly colored trails.

New Opacity: *Default: 1, Range: 0 to 10.*

Scales the opacity and brightness of the current frame.

Distort Amount: *Default: 0.1, Range: any.*

The severity of the feedback distortions. Make negative to invert the direction of the distortions.

Blur Lens: *Default: 0.02, Range: 0 or greater.*

Smooths the lens image by this amount before using it. Increase this for smoother more continuous feedback directions.

Rotate Distort: *Default: 90, Range: any.*

Rotates the distortion direction by this many degrees. If non-zero, this can create some twisting distortions.

Blur Amount: *Default: 0, Range: 0 or greater.*

The previous frames are blurred by this amount for each new frame. This has no effect unless it is positive.

Diffuse Amount: *Default: 0, Range: 0 or greater.*

The previous frames are passed through a pixel-diffusion process of this magnitude, for each new frame. This has no effect unless it is positive.

Amount Rel: *X & Y, Default: [1 1], Range: 0 or greater.*

The relative amounts of horizontal and vertical blurring and/or diffusing. This has no effect unless Blur Amount or Diffuse Amount are positive.

Center: *X & Y, Default: [360 243], Range: any.*

The center position for rotation and scaling, in screen coordinates relative to the center of the frame. This parameter can be adjusted using the Center Widget.

Z Dist: *Default: 1, Range: 0.001 to 10.*

For each new frame, the 'distance' of the previous frames is scaled by this amount. This causes zooming during the feedback process. Values greater than 1.0 zoom out and make the previous frames smaller, and values less than 1.0 zoom in and enlarge them. This parameter can be adjusted using the Transform Widget.

Rotate: *Default: 0, Range: -90 or greater.*

For each new frame, the amount of rotation in degrees to apply to the previous frames. This parameter can be adjusted using the Transform Widget.

Shift: *X & Y, Default: [0 0], Range: any.*

Shifts the previous frames by this amount for each new frame. If this is non-zero the Center location is less meaningful. This parameter can be adjusted using the Shift Widget.

Wrap: *X & Y, Popup menu, Default: [No No].*

Determines the method for accessing outside the borders of the source image.

No: gives black beyond the borders.

Tile: repeats a copy of the image.

Reflect: repeats a mirrored copy. Edges are often less visible with this method.

Show Shift: *Check-box, Default:* off.

Turns on or off the screen user interface for adjusting the Center parameter.

Show Transform: *Check-box, Default:* off.

Turns on or off the screen user interface for adjusting the Z Dist and Rotate parameters.

Show Center: *Check-box, Default:* off.

Turns on or off the screen user interface for adjusting the Center parameter.

See Also:

[Feedback](#)

[Trails](#)

[TrailsDiffuse](#)

[TimeAverage](#)

[NearestColor](#)

[FeedbackBubble](#)

[WarpRepeat](#)

[WarpChroma](#)

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S_FieldRemove

Adaptively removes video field interlacing artifacts from areas with motion, without blurring the stationary parts of the image. A 'Motion Matte' is generated internally and the moving areas are deinterlaced with the usual loss of vertical resolution, but the stationary areas are not deinterlaced and should remain sharp.

In the Sapphire Time effects submenu.



Inputs:

Source: The clip to be processed.

Parameters:

Mode: *Popup menu, Default: Same Speed.*

Selects speed-change options.

Same Speed: No change in speed.

NTSC to Film: Converts 60 field/sec input to 24 frame/sec output. Every 5 frames of input are converted to 4 frames of output, so in this mode only 4/5 of your output clip will be useful.

Half Speed: Every field of input is converted to one frame of output. In this mode, you should normally first pad your input clip to make it twice as long, so the correct number of output frames will be generated.

Scale Mo Matte: *Default: 4, Range: 0 or greater.*

Increase to remove more field artifacts, or decrease to remove fewer and keep the image sharper.

Threshold Matte: *Default: 0.05, Range: 0 or greater.*

This value is subtracted from the Motion Matte and can be increased to reduce unwanted deinterlacing due just to noise.

Blur Mo Matte: *Default: 0.028, Range: 0 or greater.*

Determines how much the Motion Matte is smoothed out to avoid sharp transitions between the interlaced and deinterlaced areas.

Show: *Popup menu, Default: Result.*

Selects the output option.

Result: output the deinterlaced result normally.

MotionMatte: this allows viewing the Motion Matte itself, and can be helpful when adjusting the other parameters above.

Use Field: *Popup menu, Default: Lower.*

Selects which field to preserve in areas with field artifacts. This parameter only has an affect when using Same Speed mode.

Lower: keeps the lower field.

Upper: keeps the upper field.

Merge: Uses the average of both fields.

Field Dominance: *Popup menu, Default: Lower First.*

Selects the ordering of the output fields. This parameter only has an affect when NOT using Same Speed mode.

Lower First: The lower field is first in time.
Upper First: The upper field is first in time.

See Also:

[GetFrame](#)
[DeinterlaceAuto](#)

[Sapphire Plug-ins](#)
[Introduction](#)

S_FilmDamage

Simulates damaged film with many options, including dust, hairs, stains, scratches, defocusing, flicker, and shake. Each option has a master control and a set of detailed controls for adjusting the look of that type of damage.

In the Sapphire Stylize effects submenu.



Inputs:

Source: The clip to be processed.

Grain Parameters:

Grain Amp: *Default:* 0.1, *Range:* 0 to 2.

Scales the amplitude of the film grain that is added to the result. Set this to 0 to disable all grain.

Grain Amp Red: *Default:* 0.9, *Range:* 0 or greater.

Scales the red grain amplitude.

Grain Amp Green: *Default:* 1, *Range:* 0 or greater.

Scales the green grain amplitude.

Grain Amp Blue: *Default:* 1.6, *Range:* 0 or greater.

Scales the blue grain amplitude. Note that grain is added and subtracted from the image, so for example, increasing Grain Amp Blue will amplify both the blue and yellow speckles.

Grain Amp Darks: *Default:* 0.2, *Range:* 0 to 2.

The relative amount of grain applied to the darkest regions of the image, per channel. This defaults to less than 1.0 because dark areas usually have less grain than midtones.

Grain Amp Brights: *Default:* 0, *Range:* 0 to 2.

The relative amount of grain applied to the brightest regions of the image, per channel. This defaults to zero because bright areas usually have less grain than midtones. Note that highly saturated colors can be affected by both Grain Amp Darks and Grain Amp Brights because they are dark in some color channels and bright in others.

Grain Blur: *Default:* 0, *Range:* 0 or greater.

The grain is smoothed by this amount. Increase for coarser grain.

Grain Blur Red: *Default:* 1, *Range:* 0 or greater.

The relative blur amount for the red grain.

Grain Blur Green: *Default:* 0.9, *Range:* 0 or greater.

The relative blur amount for the green grain.

Grain Blur Blue: *Default:* 1.2, *Range:* 0 or greater.

The relative blur amount for the blue grain.

Grain Mono: *Check-box, Default:* off.

When enabled, the same grain pattern is used for the red, green, and blue channels. To make truly monochrome grain you should also set Grain Amp Red/Green/Blue equal to each other, make sure Midtone Pos Red/Green/Blue are equal, and if GrainBlur is positive also set Grain Blur Red/Green/Blue equal

Grain Hold: *Popup menu, Default: Frame.*

Indicates how often a new grain pattern should be generated. You will probably only notice a difference between these options if Grain Blur is positive to make the grain size larger than one pixel.

Field: holds the grain pattern for one field.

Frame: holds the grain pattern for one frame (2 fields).

3:2 Pulldown at 0: holds the grain in a 3:2 pulldown pattern with the first pulldown frame at 0. These options are appropriate if your clip was created at 24 fps but is now in 30 fps pulldown form. They will not make sense if your clip is 24P. A 3:2 pulldown pattern repeats every 5 frames, so if frame 1:00:23 is the first frame with field artifacts after three normal frames, then you should specify 3 as the first pulldown frame.

3:2 Pulldown at 1: holds the grain in a 3:2 pulldown pattern with the first pulldown frame at 1.

3:2 Pulldown at 2: holds the grain in a 3:2 pulldown pattern with the first pulldown frame at 2.

3:2 Pulldown at 3: holds the grain in a 3:2 pulldown pattern with the first pulldown frame at 3.

3:2 Pulldown at 4: holds the grain in a 3:2 pulldown pattern with the first pulldown frame at 4.

Color Correct Parameters:

Saturation: *Default: 1, Range: -2 to 8.*

Scales the color saturation. Increase for more intense colors. Set to 0 for monochrome.

Scale Lights: *Default: 1, Range: 0 or greater.*

Scales the result by this gray value. Increase for a brighter result.

Offset Darks: *Default: 0, Range: -8 to 2.*

Adds this gray value to the darker regions of the source. This can be negative to increase contrast.

Tint Lights: *Default rgb: [1 1 1].*

Scales the result by this color, thus tinting the lighter regions.

Tint Darks: *Default rgb: [0 0 0].*

Adds this color to the darker regions of the source.

Stains Parameters:

Stain Density: *Default: 0.2, Range: 0 to 500.*

The number of stains on each frame. A fractional value is treated as the probability of a single stain appearing on any given frame.

Vary Stain Density: *Default: 0.2, Range: 0 or greater.*

Amount to vary the stain density from frame to frame.

Stain Print: *Default: 1, Range: 0 to 1.*

Relative density of stains on the print.

Stain Negative: *Default: 0, Range: 0 to 1.*

Relative density of stains on the negative.

Stain Size: *Default: 1, Range: 0 or greater.*

Scales the width and height of stains.

Vary Stain Size: *Default: 0.5, Range: 0 or greater.*

Amount to vary the size from one stain to the next.

Stain Opacity: *Default: 0.5, Range: 0 to 1.*

Scales the opacity of the stains.

Vary Stain Opacity: *Default: 0.5, Range: 0 or greater.*

Amount to vary opacity from one stain to the next.

Vary Stain Brightness: *Default: 0, Range: 0 or greater.*

Amount to vary brightness from one stain to the next.

Vary Stain Color: *Default: 0, Range: 0 or greater.*

Amount of additional, random color variation for each stain. If this parameter is greater than zero, stain colors can vary outside the range defined by color1 and color2.

Stain Color1: *Default rgb: [0 0 0].*

Beginning of the range of colors for stains.

Stain Color2: *Default rgb: [0.25 0.125 0].*

End of the range of colors for stains. Each stain will have a random color between color1 and color2.

Dust Parameters:

Dust Density: *Default: 30, Range: 0 or greater.*

The average number of dust pieces on each frame. A fractional value is treated as the probability of a single dust speck appearing on any given frame.

Vary Dust Density: *Default: 0.2, Range: 0 or greater.*

Amount to vary the dust density from frame to frame.

Dust On Print: *Default: 1, Range: 0 to 1.*

Relative density of dust on the print.

Dust On Negative: *Default: 0, Range: 0 to 1.*

Relative density of dust on the negative.

Dust Size: *Default: 1, Range: 0 or greater.*

Scales the width and height of dust.

Vary Dust Size: *Default: 0.5, Range: 0 or greater.*

Amount to vary the size from one piece of dust to the next.

Dust Opacity: *Default: 0.8, Range: 0 to 1.*

Scales the opacity of the dust.

Vary Dust Opacity: *Default: 0.5, Range: 0 or greater.*

Amount to vary opacity from one piece of dust to the next.

Vary Dust Brightness: *Default: 0, Range: 0 or greater.*

Amount to vary brightness from one piece of dust to the next.

Vary Dust Color: *Default: 0, Range: 0 or greater.*

Amount of additional, random color variation for each piece of dust. If this parameter is greater than zero, dust colors can vary outside the range defined by color1 and color2.

Dust Color1: *Default rgb: [0 0 0].*

Beginning of the range of colors for dust.

Dust Color2: *Default rgb: [0 0 0].*

End of the range of colors for dust. Each piece of dust will have a random color between color1 and color2.

Hairs Parameters:

Hairs: *Default: 2, Range: 0 or greater.*

Number of hairs stuck in the projector gate.

Hair Persistence: *Default: 3, Range: 0.1 or greater.*

Controls the length of time that hairs persist, and the frequency with which new hairs appear. Increase this value for long-lived hairs, and decrease it to get new hairs more often.

Hair Wiggle Amp: *Default: 0.1, Range: 0 or greater.*

Controls the amount of random movement and stretching that each hair exhibits.

Hair Wiggle Freq: *Default: 1, Range: 0 or greater.*

Controls the frequency of the hair wiggle.

Hair Opacity: *Default: 1, Range: 0 to 1.*

Scales the opacity of the hairs.

Hair Size: *Default: 1, Range: 0 or greater.*

Scales the width and height of the hairs.

Vary Hair Size: *Default: 1, Range: 0 or greater.*

Amount to vary the size from one hair to the next.

Hair Color: *Default rgb: [0 0 0].*

The color of the hairs.

Scratches Parameters:

Scratches: *Integer, Default: 5, Range: 0 or greater.*

Controls the number of scratches on each frame, on average.

Black Scratches: *Default: 1, Range: 0 to 1.*

Number of black scratches, relative to the Scratches parameter value.

White Scratches: *Default: 0.1, Range: 0 to 1.*

Number of white scratches, relative to the Scratches parameter value.

Black Scratch Length: *Default: 10, Range: 0 or greater.*

The length of the black scratches in frames, on average.

White Scratch Length: *Default: 2, Range: 0 or greater.*

The length of the white scratches in frames, on average.

Scratch Width: *Default: 0.25, Range: 0 or greater.*

Width of the average scratch, in approximate NTSC-sized pixels.

Vary Scratches Width: *Default: 1, Range: 0 to 1.*

If this is 0 all the scratches will be the same width. Increase to let each scratch have its own width.

Scratches Taper: *Default: 0.1, Range: 0 to 1.*

Controls the pointiness of the ends of each scratch. Larger value makes a longer taper on each end.

Scratch Opacity: *Default: 1, Range: 0 to 1.*

Maximum opacity of the scratches. Setting this to 0 will fade the scratches out.

Scratch Roughness: *Default: 1, Range: 0 or greater.*

Amount to roughen the edges of each scratch to simulate the random character of a real scratch.

Scratch Rough Freq: *Default: 150, Range: 0.01 or greater.*

Sets the frequency of the roughness on the scratch edges.

Gaps: *Default: 0.28, Range: 0 to 1.*

Like real analog scratches, the dust particle creating the scratch sometimes rolls around and the scratch 'skips'. This controls how much that happens.

Gaps Freq: *Default: 120, Range: 0 or greater.*

How often do the scratch gaps occur.

Scratch Area Center: *Default: 0, Range: -2 or greater.*

The center coordinate of the area of the screen covered by the scratches. 0 is in the middle of the screen, -1 is the left edge, and 1 is the right edge.

Scratch Area Width: *Default: 1, Range: 0 or greater.*

The width of the area of the screen covered by scratches. 1 means the scratches cover the full screen area. To get scratches only in one strip, adjust scratch area width smaller.

Weave Amount: *Default: 1, Range: 0 or greater.*

How much does each scratch weave around on the screen, on average. This is in frame-widths, so 1.0 will let a scratch wander all over the screen. If set to zero, the scratches will all be straight vertical.

Weave Frequency: *Default: 0.1, Range: 0.01 or greater.*

How fast do the scratches weave around on the screen, in cycles per frame. Normally less than one.

Shake Parameters:

Shake Amplitude: *Default: 0, Range: 0 or greater.*

Amount of vertical shaking to add.

Shake Frequency: *Default: 1, Range: 0 or greater.*

Scales the frequency of the shaking. Increase for faster shaking with more frequent hops and changes in direction.

Shake Jumpiness: *Default: 1, Range: 0 or greater.*

Amount of large-scale, jumpy shaking.

Shake Random: *Default: 0.1, Range: 0 or greater.*

Amount of small-scale, random shaking.

Shake Always: *Default: 0.5, Range: 0 to 1.*

Controls how often shaking occurs. If set to 1, the clip shakes constantly. If set to 0, the clip never shakes. Values in between cause the clip to shake some of the time, and to stay still at other times.

Interframe Border Height: *Default: 0.1, Range: 0 or greater.*

Size of the black bar in between frames (the unexposed part of the film).

Shake Time Offset: *Default: 0, Range: any.*

Offsets the shake pattern in time. Adjust this value to control the exact time when shaking occurs.

Shake Motion Blur: *Default: 0.1, Range: 0 or greater.*

Blurs the result proportionally to the amount of shaking.

Flicker Parameters:

Flicker: *Default: 0.2, Range: 0 or greater.*

Scales the colors of the source clip by different amounts over time for a flickering effect. The pattern of flickering can be random, a periodic wave, or a combination of the two.

Flicker Rand Amp: *Default: 1, Range: 0 or greater.*

The amplitude of random brightness flickering.

Flicker Rand Freq: *Default: 10, Range: 0 or greater.*

The frequency of the random flickering. Increase for more variation between frames. Decrease for slower flickering.

Flicker Wave Amp: *Default: 0, Range: 0 or greater.*

The amplitude of periodic wave flickering.

Flicker Wave Freq: *Default: 5, Range: 0 or greater.*

The frequency of the wave flickering. Increase for faster flickering, decrease for slower. This has no effect if Wave Amp is 0.

Defocus Parameters:

Defocus: *Default: 0, Range: 0 or greater.*

Blurs the source clip by different amounts over time to simulate focus problems in the projector. The pattern of defocus can be random, a periodic wave, or a combination of the two.

Defocus Rand Amp: *Default: 1, Range: 0 or greater.*

The amplitude of defocusing that changes randomly over time.

Defocus Rand Freq: *Default: 10, Range: 0 or greater.*

Scales the frequency of the random defocus. Increase for more variation between frames. Decrease for slower defocus changes over time.

Defocus Wave Amp: *Default: 0, Range: 0 or greater.*

The amplitude of periodic wave defocus.

Defocus Wave Freq: *Default: 5, Range: 0 or greater.*

The frequency of the wave defocus. Increase for more variation between frames.

Vignette Parameters:

Vignette Darkness: *Default: 0.1, Range: 0 to 1.*

Vignetting is darkening of the image towards the corners and sides of the image. This parameter controls how much the outer corners of the screen should be darkened (vignetted). 0 gives no vignetting, 1 gives maximum darkening.

Vignette Radius: *Default: 1, Range: 0 or greater.*

Distance from the center to apply the vignette.

Vignette Edge Softness: *Default: 0.5, Range: 0 or greater.*

The width of the vignette's soft edge. Larger values give softer, less visible edges.

Vignette Rel Height: *Default: 0.75, Range: 0.1 or greater.*

Controls the aspect ratio of the vignette ellipse. This should normally be set to the aspect ratio of the image, e.g. .75 for NTSC.

Other Parameters:

Seed: *Default: 0, Range: 0 or greater.*

Used to initialize the random number generator. The actual seed value is not significant, but different seeds give different results and the same value should give a repeatable result.

See Also:

[FilmEffect](#)
[BleachBypass](#)
[Vignette](#)
[Flicker](#)
[JpegDamage](#)
[ScanLines](#)

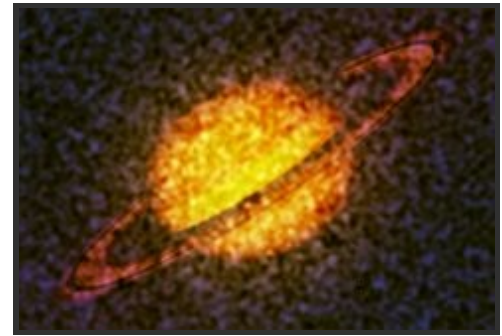
[FlickerRemove](#)
[FlickerMatch](#)
[Shake](#)
[HueSatBright](#)

[Sapphire](#)
[Plug-ins](#)
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S_FilmEffect

Provides a physically accurate model of film exposure and processing to make your video footage look like it was shot on film. It can remove field artifacts, perform color correction for specific film types, add film grain, and apply glow or soft focus effects. The color correction and grain can be selectively disabled using the Scale CC and Grain Amp parameters.

In the Sapphire Stylize effects submenu.



Inputs:

Source: The clip to be processed.

Parameters:

Neg Film: *Popup menu, Default: Kodak 5245.*

Selects the negative film stock.

None: Ignore any effect of negative film. This is not normally useful unless you also select None for the print film to disable both.

Kodak 5245: Eastman EXR 50D, low speed, daylight balanced, very fine grain.

Kodak 5246: Kodak VISION 250D, higher contrast, medium speed, daylight balanced, fine grain.

Kodak 5248: Eastman EXR 100T, medium speed, tungsten light balanced, very fine grain.

Kodak 5274: Kodak VISION 200T, medium speed, tungsten light balanced, fine grain.

Kodak 5277: Kodak VISION 320T, lower contrast, medium speed, tungsten light balanced, medium-fine grain.

Kodak 5279: Kodak VISION 500T, high speed, tungsten light balanced, somewhat grainy.

Kodak 5284: Kodak VISION Expression 500T, lower contrast, high speed, tungsten light balanced, medium grain.

Kodak 5289: Kodak VISION 800T, very fast, tungsten light balanced, grainy.

Kodak 5293: Eastman EXR 200T, reduced contrast, tungsten light balanced, medium grain.

Kodak 5298: Eastman EXR 500T, high speed, tungsten light balanced, grainy.

K SFX200T: Special effects film, medium grain.

Kodak 5217: Kodak Vision2 200T, tungsten light balanced, fine grain.

Kodak 5218: Kodak Vision2 500T, tungsten light balanced, fine grain.

Print Film: *Popup menu, Default: Kodak 2383.*

Selects the print film stock.

None: Ignore any effect of the print film. This causes the negative to be output directly. If the negative film is also set to None, the color correction and grain are disabled.

Kodak 2383: Kodak VISION Color Print Film, rich blacks.

Kodak 2393: Kodak VISION Premier Color Print Film, rich blacks, some grain.

Kodak 2395: Kodak VISION Color Teleprint Film, low contrast.

Kodak 5386: Eastman EXR Color Print Film (discontinued by Kodak, replaced by 2383).

Kodak 5285 Rev: Ektachrome 100D Reversal film, daylight balanced, high contrast and grainy. Note that the negative film is ignored when using reversal film.

Kodak 7270 Rev: Kodachrome 40 Movie Film, tungsten balanced reversal film, high contrast and somewhat grainy. Note that the negative film is ignored when using reversal film.

Blur Input: *Default: 0, Range: 0 or greater.*

The input is smoothed by this amount. This can be used to remove video noise or compression artifacts before processing.

Color Correct Parameters:

Scale CC: *Default: 1, Range: 0 to 5.*

Scales the amount of color correction performed due to the film types, gamma values, and exposure values. Set to 0 to disable color correction. If you increase this above 1.0 it exaggerates the color correction, which normally increases the contrast.

Input Gamma: *Default: 2.2, Range: 0.1 to 10.*

The gamma that your original clip was shot for. For video this is normally 2.2; for synthetic computer graphics it may be less.

Output Gamma: *Default: 2.2, Range: 0.1 to 10.*

The intended viewing gamma of the output.

Neg Exposure: *Default: 0, Range: any.*

Adjusts the simulated exposure of the negative film, in stops. Increase for over-exposed and brighter.

Print Exposure: *Default: 0, Range: any.*

Adjusts the simulated exposure of the print film, in stops. Increase for over-exposed and darker.

Print Lights Red: *Default: 25, Range: 0 to 50.*

Adjusts the red exposure of the print film, in printer light points. 1 light point is 1/12 stop. Increase to over-expose red and give a more cyan result.

Print Lights Green: *Default: 25, Range: 0 to 50.*

Adjusts the green exposure of the print film, in printer light points. 1 light point is 1/12 stop. Increase to over-expose green and give a more magenta result.

Print Lights Blue: *Default: 25, Range: 0 to 50.*

Adjusts the blue exposure of the print film, in printer light points. 1 light point is 1/12 stop. Increase to over-expose blue and give a more yellow result.

Scale Brights: *Default: 1, Range: 0 or greater.*

Scales the bright areas of the final result after the other color correction, glow, and grain are applied. (This parameter is not affected by Scale CC.)

Offset Darks: *Default: 0, Range: -8 to 2.*

Adds this gray value to the darker regions of the final result after the other color correction, glow, and grain are applied. This can be negative to increase contrast. (This parameter is not affected by Scale CC.)

Glow Parameters:

Glow Brightness: *Default: 0, Range: 0 or greater.*

If positive, the image is combined with a blurred version of itself to give a glowing look. Increase for a brighter glow.

Glow Soft Focus: *Default: 0, Range: 0 to 1.*

If positive, the image is mixed with a blurred version of itself to give a soft focus look. The effect of this parameter is similar to Glow Brightness, but this does not brighten the overall result. Increase this to mix in more of the blurred version and less of the original. If this is 1 and Glow Brightness is 0 you will get only the blurred version.

Glow Width: *Default: 0.056, Range: 0 or greater.*

The width of the blur used by the glow and/or soft focus.

Glow Width Red: *Default: 1, Range: 0 or greater.*

The relative glow width for the red channel.

Glow Width Green: *Default: 1, Range: 0 or greater.*
The relative glow width for the green channel.

Glow Width Blue: *Default: 1, Range: 0 or greater.*
The relative glow width for the blue channel.

Grain Parameters:

Grain Amp: *Default: 1, Range: 0 or greater.*
Scales the amplitude of the film grain that is added to the result. Set this to 0 to disable all grain.

Grain Amp Red: *Default: 0.9, Range: 0 or greater.*
Scales the red grain amplitude.

Grain Amp Green: *Default: 1, Range: 0 or greater.*
Scales the green grain amplitude.

Grain Amp Blue: *Default: 1.6, Range: 0 or greater.*
Scales the blue grain amplitude. Note that grain is added and subtracted from the image, so for example, increasing Grain Amp Blue will amplify both the blue and yellow speckles.

Grain Amp Darks: *Default: 0.2, Range: 0 to 2.*
The relative amount of grain applied to the darkest regions of the image, per channel. This defaults to less than 1.0 because dark areas usually have less grain than midtones.

Grain Amp Brights: *Default: 0, Range: 0 to 2.*
The relative amount of grain applied to the brightest regions of the image, per channel. This defaults to zero because bright areas usually have less grain than midtones. Note that highly saturated colors can be affected by both Grain Amp Darks and Grain Amp Brights because they are dark in some color channels and bright in others.

Midtone Pos Red: *Default: 0.5, Range: 0 to 1.*
The position of the midtones in the red channel that will normally receive the maximum amount of grain. The red grain amplitude is interpolated from Grain Amp Darks at black, up to 1.0 at this midtone position, then down to Grain Amp Brights at white. This whole curve is then scaled by the Grain Amp Red parameter.

Midtone Pos Green: *Default: 0.5, Range: 0 to 1.*
The position of the midtones in the green channel that will normally receive the maximum amount of grain. The green grain amplitude is interpolated from Grain Amp Darks at black, up to 1.0 at this midtone position, then down to Grain Amp Brights at white. This whole curve is then scaled by the Grain Amp Green parameter.

Midtone Pos Blue: *Default: 0.5, Range: 0 to 1.*
The position of the midtones in the blue channel that will normally receive the maximum amount of grain. The blue grain amplitude is interpolated from Grain Amp Darks at black, up to 1.0 at this midtone position, then down to Grain Amp Brights at white. This whole curve is then scaled by the Grain Amp Blue parameter.

Grain Blur: *Default: 0, Range: 0 or greater.*
The grain is smoothed by this amount. Increase for coarser grain.

Grain Blur Red: *Default: 1, Range: 0 or greater.*
The relative blur amount for the red grain.

Grain Blur Green: *Default: 0.9, Range: 0 or greater.*
The relative blur amount for the green grain.

Grain Blur Blue: *Default: 1.2, Range: 0 or greater.*
The relative blur amount for the blue grain.

Grain Mono: *Check-box, Default: off.*

When enabled, the same grain pattern is used for the red, green, and blue channels. To make truly monochrome grain you should also set Grain Amp Red/Green/Blue equal to each other, make sure Midtone Pos Red/Green/Blue are equal, and if GrainBlur is positive also set Grain Blur Red/Green/Blue equal

Grain Hold: *Popup menu, Default: Frame.*

Indicates how often a new grain pattern should be generated. You will probably only notice a difference between these options if Grain Blur is positive to make the grain size larger than one pixel.

Field: holds the grain pattern for one field.

Frame: holds the grain pattern for one frame (2 fields).

3:2 Stutter at 0: holds the grain in a 3:2 pulldown pattern with the first pulldown frame at 0. These options are appropriate if your clip was created at 24 fps but is now in 30 fps pulldown form. They will not make sense if your clip is 24P. A 3:2 pulldown pattern repeats every 5 frames, so if frame 1:00:23 is the first frame with field artifacts after three normal frames, then you should specify 3 as the first pulldown frame.

3:2 Stutter at 1: holds the grain in a 3:2 pulldown pattern with the first pulldown frame at 1.

3:2 Stutter at 2: holds the grain in a 3:2 pulldown pattern with the first pulldown frame at 2.

3:2 Stutter at 3: holds the grain in a 3:2 pulldown pattern with the first pulldown frame at 3.

3:2 Stutter at 4: holds the grain in a 3:2 pulldown pattern with the first pulldown frame at 4.

Grain Seed: *Default: 0.123, Range: 0 or greater.*

Initializes the random number generator for the grain generation. The actual seed value is not significant, but different seeds give different grain patterns and the same value should give a repeatable pattern.

Field Parameters:

Fields: *Popup menu, Default: As Is.*

Allows removing field artifacts from the input clip. This is useful if you want the clip to look like it was shot on frames instead of fields. You can show a single field, merge the two together, or simulate a 3:2 pulldown stutter pattern.

As Is: leaves the fields unchanged.

Keep Lower Only: shows the lower field only, removes the upper field.

Keep Upper Only: shows the upper field only, removes the lower field.

Merge Fields: blends both fields together to remove interlacing artifacts.

3:2 Stutter at 0: Simulates a temporal stutter effect as if the clip had been transferred from 24P to NSTC video using 3:2 pulldown, with the first pulldown frame at 0. If you are using this option with non-zero Grain Blur, you may want to also set Grain Hold to the corresponding value.

3:2 Stutter at 1: Simulates a 3:2 pulldown effect with the first pulldown frame at 1.

3:2 Stutter at 2: Simulates a 3:2 pulldown effect with the first pulldown frame at 2.

3:2 Stutter at 3: Simulates a 3:2 pulldown effect with the first pulldown frame at 3.

3:2 Stutter at 4: Simulates a 3:2 pulldown effect with the first pulldown frame at 4.

Field Dominance: *Popup menu, Default: Lower First.*

Specifies which field should come first in time when simulating 3:2 pulldown patterns. This is only used if a 3:2 stutter option is selected in the Fields and/or the Grain Hold options.

Lower First: the lower field is first in time.

Upper First: the upper field is first in time.

See Also:

[FilmDamage](#)
[BleachBypass](#)
[Grain](#)
[GrainStatic](#)

[Sapphire](#)
[Plug-ins](#)
[Introduction](#)

Diffuse
FieldRemove

S_Flicker

Scales the colors of the source clip by different amounts over time for a flickering effect. The pattern of flickering can be random, a periodic wave, or a combination of the two.

In the Sapphire Time effects submenu.



Inputs:

Source: The clip to be processed.

Parameters:

Amplitude: *Default: 0.2, Range: 0 or greater.*

Scales the amplitude of all flickering.

Rand Luma Amp: *Default: 1, Range: 0 or greater.*

The amplitude of smooth but random flickering affecting the brightness.

Rand Color Amp: *Default: 0, Range: 0 or greater.*

The amplitude of random flickering affecting the color channels independently.

Rand Freq: *Default: 30, Range: 0 or greater.*

The frequency of the random flickering. Increase for more variation between frames. Decrease for slower flickering.

Wave Amp: *Default: 0, Range: 0 or greater.*

The amplitude of periodic wave flickering.

Wave Freq: *Default: 5, Range: 0 or greater.*

The frequency of the wave flickering. Increase for faster flickering, decrease for slower. This has no effect if Wave Amp is 0.

Wave R Phase: *Default: 0, Range: any.*

Shifts the wave pattern in time, for the red channel.

Wave G Phase: *Default: 0, Range: any.*

Shifts the wave pattern in time, for the green channel.

Wave B Phase: *Default: 0, Range: any.*

Shifts the wave pattern in time, for the blue channel.

Red Amp: *Default: 1, Range: 0 or greater.*

Scales the amount of flicker applied to the red channel.

Green Amp: *Default: 1, Range: 0 or greater.*

Scales the amount of flicker applied to the green channel.

Blue Amp: *Default: 1, Range: 0 or greater.*

Scales the amount of flicker applied to the blue channel.

Brightness: *Default: 1, Range: 0 or greater.*

Scales the brightness of the result.

Seed: *Default:* 0.123, *Range:* 0 or greater.

Used to initialize the random number generator. The actual seed value is not significant, but different seeds give different results and the same value should give a repeatable result.

See Also:

[FlickerRemove](#)

[FlickerMatch](#)

[Shake](#)

[HueSatBright](#)

[Sapphire](#)

[Plug-ins](#)

[Introduction](#)

S_FlickerMatch

Adds flicker to the Source clip using the flicker from a second Match clip. For example, a clip can be brightened in synchrony with a flashing light in another clip. To use this effect, first position the corners of the rectangle over an area of the Match clip which has brightness changes you want to copy. A middle or light gray area is best for this. Then select a frame where you want the Source brightness unchanged, and hit the Set Match Level button. When other frames are processed, the Source brightness will be scaled by the average Match brightness within the rectangle, relative to the Match Level.



In the Sapphire Time effects submenu.

Inputs:

Source: The clip to add flicker to.

Match: The clip to copy flicker from.

Parameters:

Rect Corner1: *X & Y, Default: [150 100], Range: any.*

The upper left corner of the rectangle which is used to measure the flicker, in screen coordinates.

Rect Corner2: *X & Y, Default: [570 386], Range: any.*

The lower right corner of the rectangle which is used to measure the flicker, in screen coordinates.

Match Level: *Default: 0.5, Range: 0.01 to 2.*

The average Match brightness in the rectangle for which the Source input is unchanged.

Set Match Level: *Push-button.*

Pressing this button sets the Match Level parameter to the average Match clip brightness in the rectangle at the current frame. It causes the output to equal the Source at this frame.

Show Rect: *Check-box, Default: on.*

Turns on or off the screen user interface widget for adjusting the Rect Corner corner parameters.

See Also:

[FlickerMatchColor](#)

[FlickerRemove](#)

[Sapphire](#)

[FlickerRemoveColor](#)

[Plug-ins](#)

[FlickerRemoveMatte](#)

[Introduction](#)

[FlickerRmMatteColor](#)

[FlickerMatchMatte](#)

[FlickerMchMatteColor](#)

[Flicker](#)

S_FlickerMatchMatte

Adds flicker to the Source clip using the flicker from a second Match clip, in the areas specified by a Matte. To use this effect, select a frame where you want the Source brightness unchanged, and hit the Set Match Level button. When other frames are processed, the Source brightness will be scaled by the average Match brightness within the Matte, relative to the Match Level.

In the Sapphire Time effects submenu.



Inputs:

Source: The clip to add flicker to.

Match: The clip to copy flicker from.

Matte: *Optional.* This clip specifies which Source areas to measure the flicker from. If this input is not provided, the Alpha of the Match input is used as the Matte instead. It can be inverted with the Invert Matte parameter.

Parameters:

Match Level: *Default:* 0.5, *Range:* 0.01 to 2.

The average Match brightness in the Matte for which the Source input is unchanged.

Set Match Level: *Push-button.*

Pressing this button sets the Match Level parameter to the average Match clip brightness within the Matte at the current frame. It causes the output to equal the Source at this frame.

Matte Use: *Popup menu, Default:* Alpha.

Determines how the Matte input channels are used to make a monochrome matte.

Luma: the luminance of the RGB channels is used.

Alpha: only the Alpha channel is used.

Invert Matte: *Check-box, Default:* off.

If enabled, the black and white of the matte are inverted before use.

See Also:

[FlickerMchMatteColor](#)

[FlickerRemove](#)
[FlickerRemoveColor](#)
[FlickerRemoveMatte](#)
[FlickerRmMatteColor](#)
[FlickerMatch](#)
[FlickerMatchColor](#)
[Flicker](#)

[Sapphire](#)
[Plug-ins](#)
[Introduction](#)

S_FlickerMatchColor

Adds color changes to the Source clip using the color changes from a second Match clip. Similar to FlickerMatch but the process is applied to each color channel. To use this effect, first position the corners of the rectangle over an area of the Match clip which has color changes you want to copy. A middle or light gray area is best for this. Then select a frame for which you want the Source color unchanged, and hit the Set Match Level button. When you process other frames, the Source colors will be scaled by the average Match color within the rectangle, relative to the Match Color.



In the Sapphire Time effects submenu.

Inputs:

Source: The clip to add color changes to.

Match: The clip to copy color changes from.

Parameters:

Rect Corner1: *X & Y, Default: [150 100], Range: any.*

The upper left corner of the rectangle which is used to measure the flicker, in screen coordinates.

Rect Corner2: *X & Y, Default: [570 386], Range: any.*

The lower right corner of the rectangle which is used to measure the flicker, in screen coordinates.

Match Color: *Default rgb: [0.5 0.5 0.5].*

The average Match color in the rectangle for which the Source input is unchanged.

Set Match Color: *Push-button.*

Pressing this button sets the Match Color parameter to the average Match clip color in the rectangle at the current frame. It causes the output to equal the Source at this frame.

Show Rect: *Check-box, Default: on.*

Turns on or off the screen user interface widget for adjusting the Rect Corner corner parameters.

See Also:

[FlickerMatch](#)

[FlickerRemove](#)

[Sapphire](#)

[FlickerRemoveColor](#)

[Plug-ins](#)

[FlickerRemoveMatte](#)

[Introduction](#)

[FlickerRmMatteColor](#)

[FlickerMatchMatte](#)

[FlickerMchMatteColor](#)

[Flicker](#)

S_FlickerMchMatteColor

Adds color changes to the Source clip using the color changes from a second Match clip, in the areas specified by a Matte. To use this effect, select a frame where you want the Source color unchanged, and hit the Set Match Color button. When other frames are processed, the Source color will be scaled by the average Match color within the Matte, relative to the Match Color.

In the Sapphire Time effects submenu.



Inputs:

Source: The clip to add flicker to.

Match: The clip to copy flicker from.

Matte: *Optional.* This clip specifies which Source areas to measure the flicker from. If this input is not provided, the Alpha of the Match input is used as the Matte instead. It can be inverted with the Invert Matte parameter.

Parameters:

Match Color: *Default rgb:* [0.5 0.5 0.5].

The average Match color in the Matte for which the Source input is unchanged.

Set Match Color: *Push-button.*

Pressing this button sets the Match Color parameter to the average Match clip color within the Matte at the current frame. It causes the output to equal the Source at this frame.

Matte Use: *Popup menu, Default:* Alpha.

Determines how the Matte input channels are used to make a monochrome matte.

Luma: the luminance of the RGB channels is used.

Alpha: only the Alpha channel is used.

Invert Matte: *Check-box, Default:* off.

If enabled, the black and white of the matte are inverted before use.

See Also:

[FlickerMatchMatte](#)

[FlickerRemove](#)

[Sapphire](#)

[FlickerRemoveColor](#)

[Plug-ins](#)

[FlickerRemoveMatte](#)

[Introduction](#)

[FlickerRmMatteColor](#)

[FlickerMatch](#)

[FlickerMatchColor](#)

[Flicker](#)

S_FlickerRemove

Removes temporal flickering from the Source clip. For example, old footage with uneven exposure times can be smoothed out with this effect. To use this effect, first position the corners of the rectangle over an area where the average brightness should remain constant. A middle or light gray area is best for this. Then select a Source frame that has the desired brightness within the rectangle, and hit the Set Hold Level button. When other frames are processed, their brightness will be scaled so the average brightness within the rectangle is equal to the Hold Level. You can keyframe different Hold Level values over time to account for desirable brightness changes.



In the Sapphire Time effects submenu.

Inputs:

Source: The clip to remove flicker from.

Parameters:

Rect Corner1: *X & Y, Default: [150 100], Range: any.*

The upper left corner of the rectangle which is used to measure the flicker, in screen coordinates.

Rect Corner2: *X & Y, Default: [570 386], Range: any.*

The lower right corner of the rectangle which is used to measure the flicker, in screen coordinates.

Hold Level: *Default: 0.5, Range: 0.01 to 2.*

The requested average output brightness for the area within the rectangle.

Set Hold Level: *Push-button.*

Pressing this button has a side effect of setting the Hold Level parameter to the average Source brightness in the rectangle at the current frame. It causes the output to equal the Source at this frame. This button retains no value itself, and is turned back off immediately after being pushed.

Show Rect: *Check-box, Default: on.*

Turns on or off the screen user interface widget for adjusting the Rect Corner corner parameters.

See Also:

[FlickerRemoveColor](#)

[FlickerRemoveMatte](#)

[Sapphire](#)

[FlickerRmMatteColor](#)

[Plug-ins](#)

[FlickerMatch](#)

[Introduction](#)

[FlickerMatchColor](#)

[FlickerMatchMatte](#)

[FlickerMchMatteColor](#)

[Flicker](#)

S_FlickerRemoveMatte

Removes temporal flickering from the Source clip using a Matte clip to specify the area where the average brightness should remain constant. To use this effect, select a Source frame that has the desired brightness within the Matte, and hit the Set Hold Level button. When other frames are processed, their brightness will be scaled so the average brightness within the Matte is equal to the Hold Level. You can keyframe different Hold Level values over time to account for desirable brightness changes.

In the Sapphire Time effects submenu.



Inputs:

Source: The clip to remove flicker from.

Matte: *Optional.* This clip specifies which Source areas to measure the flicker from. If this input is not provided, the Alpha of the Source input is used as the Matte instead. It can be inverted with the Invert Matte parameter.

Parameters:

Hold Level: *Default:* 0.5, *Range:* 0.01 to 2.

The requested average output brightness for the area within the Matte.

Set Hold Level: *Push-button.*

Pressing this button has a side effect of setting the Hold Level parameter to the average Source brightness within the Matte at the current frame. It causes the output to equal the Source at this frame. This button retains no value itself, and is turned back off immediately after being pushed.

Matte Use: *Popup menu, Default:* Alpha.

Determines how the Matte input channels are used to make a monochrome matte.

Luma: the luminance of the RGB channels is used.

Alpha: only the Alpha channel is used.

Invert Matte: *Check-box, Default:* off.

If enabled, the black and white of the matte are inverted before use.

See Also:

[FlickerRmMatteColor](#)

[FlickerRemove](#)

[Sapphire](#)

[FlickerRemoveColor](#)

[Plug-ins](#)

[FlickerMatch](#)

[Introduction](#)

[FlickerMatchColor](#)

[FlickerMatchMatte](#)

[FlickerMchMatteColor](#)

[Flicker](#)

S_FlickerRemoveColor

Removes temporal color changes from the Source clip. Similar to FlickerRemove but the process is applied to each color channel. To use this effect, first position the corners of the rectangle over an area where the average color should remain constant. A middle or light gray area is best for this. Then select a Source frame that has the desired color within the rectangle, and hit the Set Hold Color button. When other frames are processed, their colors will be scaled so the average color within the rectangle is equal to the Hold Color.



In the Sapphire Time effects submenu.

Inputs:

Source: The clip to remove color changes from.

Parameters:

Rect Corner1: *X & Y, Default: [150 100], Range: any.*

The upper left corner of the rectangle which is used to measure the flicker, in screen coordinates.

Rect Corner2: *X & Y, Default: [570 386], Range: any.*

The lower right corner of the rectangle which is used to measure the flicker, in screen coordinates.

Hold Color: *Default rgb: [0.5 0.5 0.5].*

The requested average output color for the area within the rectangle.

Set Hold Color: *Push-button.*

Pressing this button has a side effect of setting the Hold Color parameter to the average Source color in the rectangle at the current frame. It causes the output to equal the Source at this frame. This button retains no value itself, and is turned back off immediately after being pushed.

Show Rect: *Check-box, Default: on.*

Turns on or off the screen user interface widget for adjusting the Rect Corner corner parameters.

See Also:

[FlickerRemove](#)

[FlickerRemoveMatte](#)

[Sapphire](#)

[FlickerRmMatteColor](#)

[Plug-ins](#)

[FlickerMatch](#)

[Introduction](#)

[FlickerMatchColor](#)

[FlickerMatchMatte](#)

[FlickerMchMatteColor](#)

[Flicker](#)

S_FlickerRmMatteColor

Removes temporal color changes from the Source clip using a Matte clip to specify the area where the average color should remain constant. To use this effect, select a Source frame that has the desired color within the Matte, and hit the Set Hold Color button. When other frames are processed, their color will be scaled so the average color within the Matte is equal to the Hold Color.

In the Sapphire Time effects submenu.



Inputs:

Source: The clip to remove color changes from.

Matte: *Optional.* This clip specifies which Source areas to measure the flicker from. If this input is not provided, the Alpha of the Source input is used as the Matte instead. It can be inverted with the Invert Matte parameter.

Parameters:

Hold Color: *Default rgb:* [0.5 0.5 0.5].

The requested average output color for the area within the Matte.

Set Hold Color: *Push-button.*

Pressing this button has a side effect of setting the Hold Color parameter to the average Source color within the Matte at the current frame. It causes the output to equal the Source at this frame. This button retains no value itself, and is turned back off immediately after being pushed.

Matte Use: *Popup menu, Default: Alpha.*

Determines how the Matte input channels are used to make a monochrome matte.

Luma: the luminance of the RGB channels is used.

Alpha: only the Alpha channel is used.

Invert Matte: *Check-box, Default: off.*

If enabled, the black and white of the matte are inverted before use.

See Also:

[FlickerRemoveMatte](#)

[FlickerRemove](#)

[FlickerRemoveColor](#)

[FlickerMatch](#)

[FlickerMatchColor](#)

[FlickerMatchMatte](#)

[FlickerMchMatteColor](#)

[Flicker](#)

[Sapphire](#)

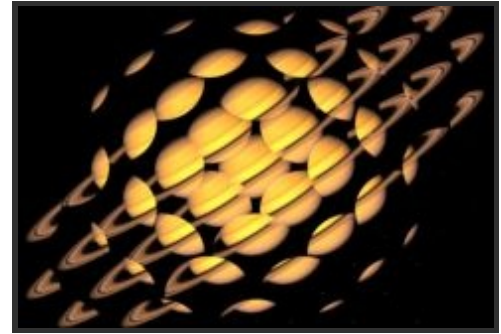
[Plug-ins](#)

[Introduction](#)

S_FlyEyeCircles

Breaks the image into circle shaped tiles and transforms the image within each shape, to create a fly's eye view effect. The Overlap options allow the circles to be combined in different ways where they overlap. The 'Inside' parameters transform the Source image before it is tiled into the pattern, and the 'Tile' parameters transform the entire fly's eye pattern.

In the Sapphire Stylize effects submenu.



Inputs:

Source: The clip to be processed.

Parameters:

Tile Frequency: *Default: 12, Range: 0.1 or greater.*

The frequency of the tile pattern, increase for more smaller tiles. This parameter can be adjusted using the Tile Freq Widget.

Tile Rel Height: *Default: 1, Range: 0.01 or greater.*

The relative height of the tile shapes, increase for taller tiles.

Tile Shift: *X & Y, Default: [0 0], Range: any.*

Translates the tile pattern. This parameter can be adjusted using the Tile Shift Widget.

Circle Overlap: *Popup menu, Default: Ave.*

Determines the method used to combine the overlapping regions of the circles.

Ave: uses a weighted average across the overlapping region for a smooth transition.

Screen: uses a screen operation.

Max: uses the lighter.

Min: uses the darker.

Mult: uses a multiply operation.

Circle Radius: *Default: 1, Range: 0 to 1.*

The radius of the circles relative to each other. If this is less than 1.0 you will get empty spaces between the circles. The color of these empty spaces will be either transparent, black, or white depending on the combine mode.

Edge Softness: *Default: 0, Range: 0 to 1.*

The softness of the edges of the circles. If this is increased, it may also be necessary to lower the Circle Radius to avoid rectangular artifacts where the soft edges overlap.

Inside Zdist: *Default: 2, Range: 0 or greater.*

Determines the zoom factor of the image inside each tile. Values greater than 1 zoom out, values less than 1 zoom in. If this is 1, Inside Rotate is 0, and Overall Zdist is 1, the result should be the same as the input image.

Inside Rotate: *Default: 0, Range: any.*

The rotation angle of the image inside each tile, in degrees.

Overall Zdist: *Default: 1, Range: any.*

Creates an overall zooming effect by making each tile look toward or away from the image center. Decrease to zoom in, increase to zoom out. When 0 all tiles should contain identical images.

Wrap: *Popup menu, Default: Reflect.*

Determines the method for accessing outside the borders of the source image.

No: gives black beyond the borders.

Tile: repeats a copy of the image.

Reflect: repeats a mirrored copy. Edges are often less visible with this method.

Filter: *Check-box, Default: on.*

If enabled, the Source image is resampled using pixel averaging. This removes aliasing and gives a higher quality result especially when Inside Zdist is large. It may not be necessary if your input image is smooth or Inside Zdist is small.

Crop Input Parameters: *Default: 0, Range: 0 or greater.*

These 4 parameters, **Crop Top**, **Crop Bottom**, **Crop Left**, and **Crop Right**, allow selecting a rectangular subsection of the input image to be processed. If the Wrap parameters are set to "No" the exposed borders will be transparent. If the Wrap is "Tile" or "Reflect" the source image is wrapped on the new cropped borders to fill the frame. This can make it easier to avoid artifacts due to distorting an image with bad edges.

Show Tile Freq: *Check-box, Default: off.*

Turns on or off the screen user interface for adjusting the Tile Frequency parameter.

Show Tile Shift: *Check-box, Default: off.*

Turns on or off the screen user interface for adjusting the Tile Shift parameter.

See Also:

[FlysEyeHex](#)
[FlysEyeRect](#)

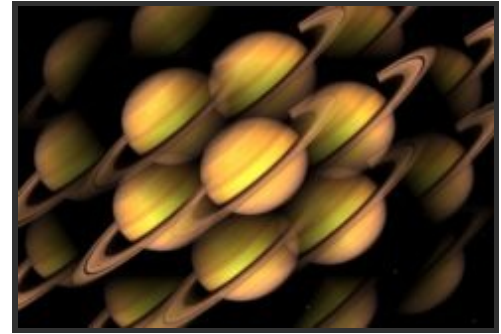
[Mosaic](#)
[HalfTone](#)
[ScanLines](#)
[JpegDamage](#)
[AutoPaint](#)

[Sapphire](#)
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S_FlyEyeHex

Breaks the image into hexagon shaped tiles and transforms the image within each shape, to create a fly's eye view effect. Increase Edge Softness for a smoother overlap between the tiles. The 'Inside' parameters transform the Source image before it is tiled into the pattern, and the 'Tile' parameters transform the entire fly's eye pattern.

In the Sapphire Stylize effects submenu.



Inputs:

Source: The clip to be processed.

Parameters:

Tile Frequency: *Default: 12, Range: 0.1 or greater.*

The frequency of the tile pattern, increase for more smaller tiles. This parameter can be adjusted using the Tile Freq Widget.

Tile Rel Height: *Default: 1, Range: 0.01 or greater.*

The relative height of the tile shapes, increase for taller tiles.

Tile Shift: *X & Y, Default: [0 0], Range: any.*

Translates the tile pattern. This parameter can be adjusted using the Tile Shift Widget.

Tile Rotate: *Default: 0, Range: any.*

The rotation angle of the tile pattern, in degrees.

Edge Softness: *Default: 0, Range: 0 to 1.*

The softness of the edges between the tile shapes. Increase for smoother blending between the shapes.

Inside Zdist: *Default: 2, Range: 0 or greater.*

Determines the zoom factor of the image inside each tile. Values greater than 1 zoom out, values less than 1 zoom in. If this is 1, Inside Rotate is 0, and Overall Zdist is 1, the result should be the same as the input image.

Inside Rotate: *Default: 0, Range: any.*

The rotation angle of the image inside each tile, in degrees.

Overall Zdist: *Default: 1, Range: any.*

Creates an overall zooming effect by making each tile look toward or away from the image center. Decrease to zoom in, increase to zoom out. When 0 all tiles should contain identical images.

Wrap: *Popup menu, Default: Reflect.*

Determines the method for accessing outside the borders of the source image.

No: gives black beyond the borders.

Tile: repeats a copy of the image.

Reflect: repeats a mirrored copy. Edges are often less visible with this method.

Filter: *Check-box, Default: on.*

If enabled, the Source image is resampled using pixel averaging. This removes aliasing and gives a higher quality result especially when Inside Zdist is large. It may not be necessary if your input image is smooth or Inside Zdist is small.

Crop Input Parameters: *Default:* 0, *Range:* 0 or greater.

These 4 parameters, **Crop Top**, **Crop Bottom**, **Crop Left**, and **Crop Right**, allow selecting a rectangular subsection of the input image to be processed. If the Wrap parameters are set to "No" the exposed borders will be transparent. If the Wrap is "Tile" or "Reflect" the source image is wrapped on the new cropped borders to fill the frame. This can make it easier to avoid artifacts due to distorting an image with bad edges.

Show Tile Freq: *Check-box, Default:* off.

Turns on or off the screen user interface for adjusting the Tile Frequency parameter.

Show Tile Shift: *Check-box, Default:* off.

Turns on or off the screen user interface for adjusting the Tile Shift parameter.

See Also:

[FlysEyeRect](#)

[FlysEyeCircles](#)

[Mosaic](#)

[HalfTone](#)

[ScanLines](#)

[JpegDamage](#)

[AutoPaint](#)

[Sapphire](#)

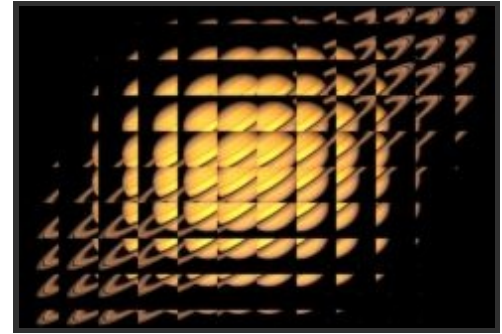
[Plug-ins](#)

[Introduction](#)

S_FlyEyeRect

Breaks the image into rectangle shaped tiles and transforms the image within each shape, to create a fly's eye view effect. The 'Inside' parameters transform the Source image before it is tiled into the pattern, and the 'Tile' parameters transform the entire fly's eye pattern.

In the Sapphire Stylize effects submenu.



Inputs:

Source: The clip to be processed.

Parameters:

Tile Frequency: *Default:* 12, *Range:* 0.1 or greater.

The frequency of the tile pattern, increase for more smaller tiles. This parameter can be adjusted using the Tile Freq Widget.

Tile Rel Height: *Default:* 1, *Range:* 0.01 or greater.

The relative height of the tile shapes, increase for taller tiles.

Tile Shift: *X & Y, Default:* [0 0], *Range:* any.

Translates the tile pattern. This parameter can be adjusted using the Tile Shift Widget.

Inside Zdist: *Default:* 2, *Range:* 0 or greater.

Determines the zoom factor of the image inside each tile. Values greater than 1 zoom out, values less than 1 zoom in. If this is 1, Inside Rotate is 0, and Overall Zdist is 1, the result should be the same as the input image.

Inside Rotate: *Default:* 0, *Range:* any.

The rotation angle of the image inside each tile, in degrees.

Overall Zdist: *Default:* 1, *Range:* any.

Creates an overall zooming effect by making each tile look toward or away from the image center. Decrease to zoom in, increase to zoom out. When 0 all tiles should contain identical images.

Wrap: *Popup menu, Default:* Reflect.

Determines the method for accessing outside the borders of the source image.

No: gives black beyond the borders.

Tile: repeats a copy of the image.

Reflect: repeats a mirrored copy. Edges are often less visible with this method.

Filter: *Check-box, Default:* on.

If enabled, the Source image is resampled using pixel averaging. This removes aliasing and gives a higher quality result especially when Inside Zdist is large. It may not be necessary if your input image is smooth or Inside Zdist is small.

Crop Input Parameters: *Default:* 0, *Range:* 0 or greater.

These 4 parameters, **Crop Top**, **Crop Bottom**, **Crop Left**, and **Crop Right**, allow selecting a rectangular subsection of the input image to be processed. If the Wrap parameters are set to "No" the exposed borders will be transparent. If the Wrap is "Tile" or "Reflect" the source image is wrapped on the new cropped borders to fill the frame. This can make it easier to avoid artifacts due to distorting an image with bad edges.

Show Tile Freq: *Check-box, Default:* off.

Turns on or off the screen user interface for adjusting the Tile Frequency parameter.

Show Tile Shift: *Check-box, Default:* off.

Turns on or off the screen user interface for adjusting the Tile Shift parameter.

See Also:

[FlysEyeHex](#)

[FlysEyeCircles](#)

[Mosaic](#)

[HalfTone](#)

[ScanLines](#)

[JpegDamage](#)

[AutoPaint](#)

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S_FreezeFrame

Freezes motion for each duration of Freeze Frames. For example if Freeze Frames is 5 and the source frames are:

1 2 3 4 5 6 7 8 9 10 11 . . . the output frames would be:
1 1 1 1 1 6 6 6 6 6 11 . . .

In the Sapphire Time effects submenu.

Inputs:

Source: The clip to be processed.

Parameters:

Freeze Frames: *Integer, Default: 5, Range: 1 or greater.*
The number of frames for each hold.

Frame Start: *Integer, Default: 0, Range: 0 or greater.*
The offset of the start and stop frames for each freeze. For example if this were 3, the output frames would be:
1 1 3 3 3 3 3 8 8 8 8 . . .

See Also:

[GetFrame](#)
[TimeWarpRGB](#)
[MotionDetect](#)
[TimeSlice](#)
[JitterFrames](#)
[RandomEdits](#)
[ReverseEdits](#)
[ReverseClip](#)

[Sapphire Plug-ins](#)
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S_Gamma

Applies a gamma correction to the input clip. The red, green, and blue channels can be adjusted independently. From Gamma just causes the inverse effect of adjusting Gamma.

In the Sapphire Adjust effects submenu.



Inputs:

Source: The clip to be processed.

Parameters:

Gamma: *Default:* 1, *Range:* 0.1 to 10.

Values greater than 1.0 make the mid-tones brighter, values less than 1.0 make them darker, 1.0 leaves the input unchanged.

Gamma Red: *Default:* 1, *Range:* 0.1 to 10.

Brightens or darkens the red mid-tones.

Gamma Green: *Default:* 1, *Range:* 0.1 to 10.

Brightens or darkens the green mid-tones.

Gamma Blue: *Default:* 1, *Range:* 0.1 to 10.

Brightens or darkens the blue mid-tones.

From Gamma: *Default:* 1, *Range:* 0.1 to 10.

Divides the Gamma by this value before processing. This can be useful if your image was correct at this gamma, but needs to be adjusted from this to a new gamma.

From Gamma Red: *Default:* 1, *Range:* 0.1 to 10.

Darkens or brightens the red mid-tones.

From Gamma Green: *Default:* 1, *Range:* 0.1 to 10.

Darkens or brightens the green mid-tones.

From Gamma Blue: *Default:* 1, *Range:* 0.1 to 10.

Darkens or brightens the blue mid-tones.

Scale Lights: *Default:* 1, *Range:* 0 or greater.

Scales the brightness by this amount after the gamma correction. Increase for a brighter result.

Scale Lights Red: *Default:* 1, *Range:* 0 or greater.

Scales the red by this amount after the gamma correction.

Scale Lights Green: *Default:* 1, *Range:* 0 or greater.

Scales the green by this amount after the gamma correction.

Scale Lights Blue: *Default:* 1, *Range:* 0 or greater.

Scales the blue by this amount after the gamma correction.

Offset Darks: *Default:* 0, *Range:* -8 to 2.

Adds this gray value to the darker regions after the gamma correction. This can be negative to increase contrast.

Offset Darks Red: *Default: 0, Range: -8 to 2.*

Adds this red value to the darker red regions after the gamma correction. This can be negative to increase contrast.

Offset Darks Green: *Default: 0, Range: -8 to 2.*

Adds this green value to the darker green regions after the gamma correction. This can be negative to increase contrast.

Offset Darks Blue: *Default: 0, Range: -8 to 2.*

Adds this blue value to the darker blue regions after the gamma correction. This can be negative to increase contrast.

See Also:

[HueSatBright](#)

[Monochrome](#)

[ClampChroma](#)

[PseudoColor](#)

[DuoTone](#)

[TriTone](#)

[QuadTone](#)

[Tint](#)

[Threshold](#)

[Hotspots](#)

[Solarize](#)

[ChannelSwitcher](#)

[ShowBadColors](#)

[Invert](#)

[Sapphire Plug-ins](#)

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S_GetFrame

Retrieves a specified frame from the source clip for each destination frame. This is meant to be used by animating the value of Get Frame to speed up, slow down, or reverse the input clip in an arbitrary way as desired.

In the Sapphire Time effects submenu.

Inputs:

Source: The clip to be processed.

Parameters:

Get Frame: *Default:* 0, *Range:* 0 or greater.

The frame number of the source clip to access. This parameter should be animated to control the desired changes in motion. (If the Get Frame parameter is not animated it will just give a single still frame of that number for the entire clip.)

Interp Frames: *Check-box, Default:* off.

Selects the method to use for non-integer frame number references. If disabled, the nearest integer frame number is used with no interpolation. If enabled, it performs a weighted interpolation between the two nearest integer frame numbers and usually gives smoother results for slow motions.

See Also:

[TimeWarpRGB](#)

[MotionDetect](#)

[TimeSlice](#)

[FreezeFrame](#)

[JitterFrames](#)

[RandomEdits](#)

[ReverseEdits](#)

[ReverseClip](#)

[Sapphire Plug-ins](#)

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S_Glare

Composites rainbow halos and/or glint-like rays at locations where the Source clip is brighter than the threshold. Lower the threshold parameter to produce glares in more areas. Use the Style menu to select different glare types. Set the Glare Res parameter to 1/2 for faster rendering with slightly softer glares. Use the Convolve option for smoother results. Glares are best observed on dark images with a few bright spots.

In the Sapphire Lighting effects submenu.



Inputs:

Source: The input clip that determines the glare locations and colors.

Background: *Optional.* The clip to combine the glares with. If no background is given, the Source is also used as the Background.

Mask: *Optional.* If provided, the source glare colors are scaled by this input. A monochrome mask can be used to choose a subset of Source areas that will generate glares. A color mask can be used to selectively adjust the glare colors in different regions. The mask is applied to the source before the glares are generated so it will not clip the resulting glares.

Parameters:

Style: *Popup menu, Default: Rainbow Rays.*

The style of glare to apply. Custom glare types can also be made, or existing types modified, by editing the "s_glare.text" file.

Rainbow Rays: rays with rainbow.

Rainbow Rays 2: rays with larger rainbow.

Rays 60: cluster of 60 rays.

Rays 20: cluster of 20 rays.

Rays 16: cluster of 16 rays.

Rays 12 Rand: 12 rays with random orientations.

Rays 6: cluster of 6 rays.

Rays 4: cluster of 4 rays.

Rays 4 Ring: 4 rays with ring and glow.

Rays Multi: several clusters of rays together.

Rainbow Only: rainbow.

Rainbow 2 Only: larger rainbow.

Rainbow Double: 2 rainbows.

Round Coin: simple solid circle.

Glint Rays: similar to the default settings of Glint.

Rainbow Rays 3: a cross with a spray of rays and a textured rainbow ring.

Streaky Rainbow: rainbow ring with radial texture.

CCD Saturation: bright vertical white line, simulating digital camera CCD saturation or overdrive.

Convolve: *Check-box, Default: off.*

Determines the method for applying the glares to the Background.

Brightness: *Default: 1, Range: 0 or greater.*

Scales the brightness of all the glares.

Scale Colors: *Default rgb: [1 1 1].*

Scales the color of the glares. The colors and brightnesses of the glares are also affected by the Source and Mask inputs.

Saturation: *Default: 1, Range: -2 to 8.*

Scales the color saturation of the glare elements. Increase for more intense colors. Set to 0 for monochrome glares.

Threshold: *Default: 0.8, Range: 0 or greater.*

Glares are generated from locations in the source clip that are brighter than this value. A value of 0.9 causes glares at only the brightest spots. A value of 0 causes glares for every non-black area.

Threshold Add Color: *Default rgb: [0 0 0].*

This can be used to raise the threshold on a specific color and thereby reduce the glares generated on areas of the source clip containing that color.

Threshold Blur: *Default: 0.0056, Range: 0 or greater.*

Increase to smooth out the areas creating glares. This can be used to eliminate glares generated from small speckles or to simply soften the glares. Increasing this may put more highlights below the threshold and darken the resulting glares, but you can decrease the Threshold parameter to compensate.

Size: *Default: 0.2, Range: 0 or greater.*

Scales the size of the glares. This parameter can be adjusted using the Size Widget.

Rel Height: *Default: 1, Range: 0 or greater.*

Scales the vertical dimension of the glares, making them elliptical instead of circular.

Rotate: *Default: 0, Range: any.*

Rotates the ray elements of the glares, if any, in degrees.

Rays Num Scale: *Default: 1, Range: 0 or greater.*

Increases or decreases the number of rays.

Rays Length: *Default: 1, Range: 0 or greater.*

Adjusts the length of the rays without changing their thickness.

Rays Thickness: *Default: 1, Range: 0 or greater.*

Adjusts the thickness of the individual rays.

Blur Glare: *Default: 0, Range: 0 or greater.*

The glare is blurred by this amount before being combined with the background.

Hue Shift: *Default: 0, Range: -1 to 1.*

Shifts the hue of the glare, in revolutions from red to green to blue to red.

Glare Res: *Popup menu, Default: Full.*

Selects the resolution factor for the glares. Higher resolutions give sharper glares, lower resolutions give smoother glares and faster processing. This 'Res' factor only affects the glares: the background is still combined with the glares at full resolution.

***Full:** Full resolution is used.*

***1/2:** The glares are calculated at half resolution.*

***1/4:** The glares are calculated at quarter resolution.*

Affect Alpha: *Default: 0, Range: 0 or greater.*

If this value is positive the output Alpha channel will include some opacity from the glares. The maximum of the

red, green, and blue glare brightness is scaled by this value and combined with the background Alpha at each pixel.

Glare From Alpha: *Default: 0, Range: 0 to 1.*

Set to 1 to generate glares from the alpha channel of the source input instead of the RGB channels. In this case the glares will not pick up color from the source and will typically be brighter. Values between 0 and 1 interpolate between using the RGB and the Alpha.

Glare Under Source: *Default: 0, Range: 0 to 1.*

Set to 1 to composite the Source input over the glares.

Source Opacity: *Default: 1, Range: 0 to 1.*

Scales the opacity of the Source input when combined with the glares. This does not affect the generation of the glares themselves.

Bg Brightness: *Default: 1, Range: 0 or greater.*

Scales the brightness of the background. This parameter only has an effect if the background input is provided, and is visible due to a partially transparent Source image or a reduced Source Opacity parameter value.

Expand Borders: *Check-box, Default: off.*

If enabled, transparent borders are added to the input image before processing. This allows the result to include soft edges beyond the original image size. When off, the effect only occurs within the frame and the result will retain an edge at the borders. This parameter does not appear in FCP or DF because those applications don't support image expansion.

Invert Mask: *Check-box, Default: off.*

If on, inverts the mask input so the effect is applied to areas where the Mask is black instead of white. This has no effect unless the Mask input is provided.

Show Size: *Check-box, Default: on.*

Turns on or off the screen user interface widget for adjusting the Size and Rel Height parameters.

See Also:

[Glint](#)

[Glow](#)

[LensFlare](#)

[Convolve](#)

[Sapphire Plug-ins](#)

[Introduction](#)

S_Glint

Generates star shaped glints at locations where the Source clip is brighter than the threshold. Lower the threshold parameter to produce glints in more areas. Adjust the size and brightness parameters to make different types of glints. Glints are best observed on dark images with a few bright spots.

In the Sapphire Lighting effects submenu.



Inputs:

Source: The input clip that determines the glint locations and colors.

Background: *Optional.* The clip to combine the glints with. If no background is given, the Source is also used as the Background.

Mask: *Optional.* If provided, the source glint colors are scaled by this input. A monochrome mask can be used to choose a subset of Source areas that will generate glints. A color mask can be used to selectively adjust the glint colors in different regions. The mask is applied to the source before the glints are generated so it will not clip the resulting glints.

Parameters:

Brightness: *Default: 1, Range: 0 or greater.*
Scales the brightness of all the glints.

Scale Colors: *Default rgb: [1 1 1].*
Scales the color of the glints. The colors and brightnesses of the glints are also affected by the Source and Mask inputs.

Brightness X: *Default: 1, Range: 0 or greater.*
Scales the brightness of the horizontal glint rays.

Brightness Y: *Default: 1, Range: 0 or greater.*
Scales the brightness of the vertical glint rays.

Brightness Diag1: *Default: 1, Range: 0 or greater.*
Scales the brightness of the diagonal rays from top right to bottom left.

Brightness Diag2: *Default: 1, Range: 0 or greater.*
Scales the brightness of the diagonal rays from top left to bottom right.

Threshold: *Default: 0.7, Range: 0 or greater.*
Glints are generated from locations in the source clip that are brighter than this value. A value of 0.9 causes glints at only the brightest spots. A value of 0 causes glints for every non-black area.

Threshold Add Color: *Default rgb: [0 0 0].*
This can be used to raise the threshold on a specific color and thereby reduce the glints generated on areas of the source clip containing that color.

Threshold Blur: *Default: 0.0056, Range: 0 or greater.*

Increase to smooth out the areas creating glints. This can be used to eliminate glints generated from small speckles or to simply soften the glints. Increasing this may put more highlights below the threshold and darken the resulting glints, but you can decrease the Threshold parameter to compensate.

Size: *Default: 0.5, Range: 0 or greater.*

Scales the length of all glint rays. This and all the size parameters can be adjusted using the Size Widget. Note that a zero glint size still enhances the bright areas; set the brightness parameter to zero if you want to pass the Source through unchanged.

Size X: *Default: 1, Range: 0 or greater.*

Scales the length of the horizontal glint rays.

Size Y: *Default: 1, Range: 0 or greater.*

Scales the length of the vertical glint rays.

Size Diag1: *Default: 0.75, Range: 0 or greater.*

Scales the length of the diagonal rays from top right to bottom left.

Size Diag2: *Default: 0.75, Range: 0 or greater.*

Scales the length of the diagonal rays from top left to bottom right.

Size Red: *Default: 0.5, Range: 0 or greater.*

Scales the length of the red component of the rays. If the red, green, and blue sizes are equal the glints will be uniform in color and will match the color of the source clip. If they are not equal, the glint colors can vary along the lengths of the rays.

Size Green: *Default: 1, Range: 0 or greater.*

Scales the length of the green component of the rays.

Size Blue: *Default: 1.5, Range: 0 or greater.*

Scales the length of the blue component of the rays.

Blur Glint: *Default: 0, Range: 0 or greater.*

The glints are blurred by this amount before being combined with the background.

Hue Shift: *Default: 0, Range: -1 to 1.*

Shifts the hue of the glint, in revolutions from red to green to blue to red.

Affect Alpha: *Default: 0, Range: 0 or greater.*

If this value is positive the output Alpha channel will include some opacity from the glints. The maximum of the red, green, and blue glint brightness is scaled by this value and combined with the background Alpha at each pixel.

Glint From Alpha: *Default: 0, Range: 0 to 1.*

Set to 1 to generate glints from the alpha channel of the source input instead of the RGB channels. In this case the glints will not pick up color from the source and will typically be brighter. Values between 0 and 1 interpolate between using the RGB and the Alpha.

Glint Under Source: *Default: 0, Range: 0 to 1.*

Set to 1 to composite the Source input over the glints.

Source Opacity: *Default: 1, Range: 0 to 1.*

Scales the opacity of the Source input when combined with the glints. This does not affect the generation of the glints themselves.

Bg Brightness: *Default: 1, Range: 0 or greater.*

Scales the brightness of the background. This parameter only has an effect if the background input is provided, and is visible due to a partially transparent Source image or a reduced Source Opacity parameter value.

Expand Borders: *Check-box, Default: off.*

If enabled, transparent borders are added to the input image before processing. This allows the result to include soft edges beyond the original image size. When off, the effect only occurs within the frame and the result will retain an edge at the borders. This parameter does not appear in FCP or DF because those applications don't support image expansion.

Invert Mask: *Check-box, Default: off.*

If on, inverts the mask input so the effect is applied to areas where the Mask is black instead of white. This has no effect unless the Mask input is provided.

Show Size: *Check-box, Default: on.*

Turns on or off the screen user interface for adjusting the size parameters.

See Also:

[GlintRainbow](#)

[Glare](#)

[Sapphire](#)

[Sparkles](#)

[Plug-ins](#)

[Glow](#)

[Introduction](#)

S_GlintRainbow

Generates star shaped rainbow colored glints at locations where the Source clip is brighter than the threshold. Lower the threshold parameter to produce glints in more areas. Adjust the Shift Out, Size, and Brightness parameters to make different types of glints. Glints are best observed on dark images with a few bright spots.

In the Sapphire Lighting effects submenu.



Inputs:

Source: The input clip that determines the glint locations and colors.

Background: *Optional.* The clip to combine the glints with. If no background is given, the Source is also used as the Background.

Mask: *Optional.* If provided, the source glint colors are scaled by this input. A monochrome mask can be used to choose a subset of Source areas that will generate glints. A color mask can be used to selectively adjust the glint colors in different regions. The mask is applied to the source before the glints are generated so it will not clip the resulting glints.

Parameters:

Brightness: *Default: 1, Range: 0 or greater.*
Scales the brightness of all the glints.

Scale Colors: *Default rgb: [1 1 1].*
Scales the color of the glints. The colors and brightnesses of the glints are also affected by the Source and Mask inputs.

Brightness X: *Default: 1, Range: 0 or greater.*
Scales the brightness of the horizontal glint rays.

Brightness Y: *Default: 1, Range: 0 or greater.*
Scales the brightness of the vertical glint rays.

Brightness Diag1: *Default: 1, Range: 0 or greater.*
Scales the brightness of the diagonal rays from top right to bottom left.

Brightness Diag2: *Default: 1, Range: 0 or greater.*
Scales the brightness of the diagonal rays from top left to bottom right.

Threshold: *Default: 0.7, Range: 0 or greater.*
Glints are generated from locations in the source clip that are brighter than this value. A value of 0.9 causes glints at only the brightest spots. A value of 0 causes glints for every non-black area.

Threshold Add Color: *Default rgb: [0 0 0].*
This can be used to raise the threshold on a specific color and thereby reduce the glints generated on areas of the source clip containing that color.

Threshold Blur: *Default: 0.0056, Range: 0 or greater.*

Increase to smooth out the areas creating glints. This can be used to eliminate glints generated from small speckles or to simply soften the glints. Increasing this may put more highlights below the threshold and darken the resulting glints, but you can decrease the Threshold parameter to compensate.

Size: *Default: 0.5, Range: 0 or greater.*

Scales the length of all glint rays. This and all the size parameters can be adjusted using the Size Widget. Note that a zero glint size still enhances the bright areas; set the brightness parameter to zero if you want to pass the Source through unchanged.

Size X: *Default: 1, Range: 0 or greater.*

Scales the length of the horizontal glint rays.

Size Y: *Default: 1, Range: 0 or greater.*

Scales the length of the vertical glint rays.

Size Diag1: *Default: 0.75, Range: 0 or greater.*

Scales the length of the diagonal rays from top right to bottom left.

Size Diag2: *Default: 0.75, Range: 0 or greater.*

Scales the length of the diagonal rays from top left to bottom right.

Shift Out: *Default: 1, Range: any.*

Shifts the glint rays outwards from their source highlights by this amount relative to the glint size.

Shift Red: *Default: 0.3, Range: any.*

Shifts the red component of the glints in or out relative to the blue. The green is centered between blue and red for a complete spectrum.

Shift Blue: *Default: -0.3, Range: any.*

Shifts the blue component of the glints in or out relative to the red and green. This can be used with Shift Red to adjust the range of hues in the glints.

Blur Glint: *Default: 0, Range: 0 or greater.*

The glints are blurred by this amount before being combined with the background.

Hue Shift: *Default: 0, Range: -1 to 1.*

Shifts the hue of the glint, in revolutions from red to green to blue to red.

Affect Alpha: *Default: 0, Range: 0 or greater.*

If this value is positive the output Alpha channel will include some opacity from the glints. The maximum of the red, green, and blue glint brightness is scaled by this value and combined with the background Alpha at each pixel.

Glint From Alpha: *Default: 0, Range: 0 to 1.*

Set to 1 to generate glints from the alpha channel of the source input instead of the RGB channels. In this case the glints will not pick up color from the source and will typically be brighter. Values between 0 and 1 interpolate between using the RGB and the Alpha.

Glint Under Source: *Default: 0, Range: 0 to 1.*

Set to 1 to composite the Source input over the glints.

Source Opacity: *Default: 1, Range: 0 to 1.*

Scales the opacity of the Source input when combined with the glints. This does not affect the generation of the glints themselves.

Bg Brightness: *Default: 1, Range: 0 or greater.*

Scales the brightness of the background. This parameter only has an effect if the background input is provided, and is visible due to a partially transparent Source image or a reduced Source Opacity parameter value.

Expand Borders: *Check-box, Default: off.*

If enabled, transparent borders are added to the input image before processing. This allows the result to include soft edges beyond the original image size. When off, the effect only occurs within the frame and the result will retain an edge at the borders. This parameter does not appear in FCP or DF because those applications don't support image expansion.

Invert Mask: *Check-box, Default: off.*

If on, inverts the mask input so the effect is applied to areas where the Mask is black instead of white. This has no effect unless the Mask input is provided.

Show Size: *Check-box, Default: on.*

Turns on or off the screen user interface for adjusting the size parameters.

See Also:

[Glint](#)

[Glare](#)

[Sapphire](#)

[Sparkles](#)

[Plug-ins](#)

[Glow](#)

[Introduction](#)

S_Glow

Generates glowing light from areas of the source clip that are brighter than the given threshold. Raise the threshold parameter to produce glows in fewer areas. Adjust the Width RGB parameters to make glows with different color falloffs, and adjust the Width XY parameters to make horizontal or vertical glows.

In the Sapphire Lighting effects submenu.



Inputs:

Source: The input clip that determines the glow locations and colors.

Background: *Optional.* The clip to combine the glows with. If no background is given, the Source is also used as the Background.

Mask: *Optional.* If provided, the source glow colors are scaled by this input. A monochrome mask can be used to choose a subset of Source areas that will generate glows. A color mask can be used to selectively adjust the glow colors in different regions. The mask is applied to the source before the glows are generated so it will not clip the resulting glows.

Parameters:

Brightness: *Default: 2, Range: 0 or greater.*
Scales the brightness of all the glows.

Color: *Default rgb: [1 1 1].*
Scales the color of the glows. The colors and brightnesses of the glows are also affected by the Source and Mask inputs.

Threshold: *Default: 0, Range: 0 or greater.*
Glows are generated from locations in the source clip that are brighter than this value. A value of 0.9 causes glows at only the brightest spots. A value of 0 causes glows for every non-black area.

Threshold Add Color: *Default rgb: [0 0 0].*
This can be used to raise the threshold on a specific color and thereby reduce the glows generated on areas of the source clip containing that color.

Glow Width: *Default: 0.1, Range: 0 or greater.*
Scales the glow distance. This and all the width parameters can be adjusted using the Width Widget. Note that a zero glow width still enhances the bright areas; set the brightness parameter to zero if you want to pass the Source through unchanged.

Width X: *Default: 1, Range: 0 or greater.*
Scales the horizontal glow width. Set to 0 for vertical only.

Width Y: *Default: 1, Range: 0 or greater.*
Scales the vertical glow width. Set to 0 for horizontal only.

Width Red: *Default: 1, Range: 0 or greater.*

Scales the red glow width. If the red, green, and blue widths are equal, the glows will match the color of the source clip. If they are not equal, the glows will vary in color with distance.

Width Green: *Default: 1.2, Range: 0 or greater.*

Scales the green glow width.

Width Blue: *Default: 1.4, Range: 0 or greater.*

Scales the blue glow width.

Subpixel: *Check-box, Default: off.*

Enables glowing by subpixel widths. Use this for smoother animation of the Width parameters.

Show: *Popup menu, Default: Result.*

Selects the type of output

Result: Shows the final result of combining the glow, source, and background.

Threshold: Shows the thresholded image that is used to generate the glow.

Affect Alpha: *Default: 0, Range: 0 or greater.*

If this value is positive the output Alpha channel will include some opacity from the glows. The maximum of the red, green, and blue glow brightness is scaled by this value and combined with the background Alpha at each pixel.

Glow From Alpha: *Default: 0, Range: 0 to 1.*

Set to 1 to generate glows from the alpha channel of the source input instead of the RGB channels. In this case the glows will not pick up color from the source and will typically be brighter. Values between 0 and 1 interpolate between using the RGB and the Alpha.

Glow Under Source: *Default: 0, Range: 0 to 1.*

Set to 1 to composite the Source input over the glows.

Light Background: *Default: 0, Range: 0 to 1.*

Increase this to give a look of the glow casting light onto the background image. To see this more clearly you can also lower the Scale Background parameter or raise the Brightness parameter.

Source Opacity: *Default: 1, Range: 0 to 1.*

Scales the opacity of the Source input when combined with the glows. This does not affect the generation of the glows themselves.

Combine: *Popup menu, Default: Screen.*

Determines how the glow is combined with the Source or Background. This parameter has no effect if Light BG is set to 1.

Mult: the source or background is multiplied by the glow.

Add: the glow is added to the source or background.

Screen: the glow is blended with the source or background using a screen operation.

Difference: the result is the difference between the glow and the source or background.

Overlay: the glow is combined with the source or background using an overlay function.

Bg Brightness: *Default: 1, Range: 0 or greater.*

Scales the brightness of the background. This parameter only has an effect if the background input is provided, and is visible due to a partially transparent Source image or a reduced Source Opacity parameter value.

Expand Borders: *Check-box, Default: off.*

If enabled, transparent borders are added to the input image before processing. This allows the result to include soft edges beyond the original image size. When off, the effect only occurs within the frame and the result will retain an edge at the borders. This parameter does not appear in FCP or DF because those applications don't support image expansion.

Invert Mask: *Check-box, Default: off.*

If on, inverts the mask input so the effect is applied to areas where the Mask is black instead of white. This has no effect unless the Mask input is provided.

Show Glow Width: *Check-box, Default: on.*

Turns on or off the screen user interface for adjusting the Glow Width parameter.

See Also:

[GlowDist](#)

[GlowRainbow](#)

[GlowAura](#)

[GlowRings](#)

[GlowDarks](#)

[GlowOrthicon](#)

[GlowEdges](#)

[GlowNoise](#)

[Glint](#)

[Sapphire Plug-ins](#)

[Introduction](#)

S_GlowAura

Generates radial colored aura lines following the gradient of the source clip. Raise the threshold parameter to produce glows in fewer areas. Adjust the Width, Frequency, Phase, and Twist parameters to make glows with different aura patterns.

In the Sapphire Lighting effects submenu.



Inputs:

Source: The input clip that determines the glow locations and directions.

Background: *Optional.* The clip to combine the glows with. If no background is given, the Source is also used as the Background.

Mask: *Optional.* If provided, the source glow colors are scaled by this input. A monochrome mask can be used to choose a subset of Source areas that will generate glows. A color mask can be used to selectively adjust the glow colors in different regions. The mask is applied to the source before the glows are generated so it will not clip the resulting glows.

Parameters:

Brightness: *Default:* 0.8, *Range:* 0 or greater.
Scales the brightness of the glows.

Color: *Default rgb:* [1 1 1].
Scales the color of the glows.

Outer Brightness: *Default:* 1, *Range:* 0 or greater.
Scales the brightness of the glows at further distances from the source.

Glow Saturation: *Default:* 1, *Range:* -2 to 8.
Scales the saturation of the glow colors. Increase for more intense colors. Set to 0 for monochrome.

Threshold: *Default:* 0, *Range:* 0 or greater.
Glows will be generated from locations in the source clip that are brighter than this value. A value of 0.9 causes glows at only the brightest spots. A value of 0 causes glows on every non-black area.

Threshold Add Color: *Default rgb:* [0 0 0].
This can be used to raise the threshold on a specific color and thereby reduce the glows generated on areas of the source clip containing that color.

Glow Width: *Default:* 0.1, *Range:* 0 or greater.
Scales the glow distance. This parameter can be adjusted using the Width Widget. Note that a zero glow width still enhances the bright areas; set the brightness parameter to zero if you want to pass the Source through unchanged.

Subpixel: *Check-box, Default:* off.
Enables glowing by subpixel widths. Use this for smoother animation of the Width parameters.

Frequency: *Default: 8, Range: 0 or greater.*

The frequency of the color pattern. Increase for more cycles through the spectrum.

Frequency Red: *Default: 1, Range: 0 or greater.*

Scales the red frequency.

Frequency Green: *Default: 1, Range: 0 or greater.*

Scales the green frequency.

Frequency Blue: *Default: 1, Range: 0 or greater.*

Scales the blue frequency.

Phase: *Default: 0, Range: -5 to 5.*

Shifts the color pattern.

Phase Speed: *Default: 1, Range: any.*

If non-zero, the color phase is automatically animated at this speed, causing the color pattern to flow over time.

Phase Red: *Default: 0.2, Range: -5 to 5.*

Shifts the red phase.

Phase Green: *Default: 0.1, Range: -5 to 5.*

Shifts the green phase.

Phase Blue: *Default: 0, Range: -5 to 5.*

Shifts the blue phase.

Twist: *Default: 1, Range: any.*

Adjusts the spiral direction of the radial lines.

Show: *Popup menu, Default: Result.*

Selects the type of output

Result: Shows the final result of combining the glow, source, and background.

Threshold: Shows the thresholded image that is used to generate the glow.

Affect Alpha: *Default: 0, Range: 0 or greater.*

If this value is positive the output Alpha channel will include some opacity from the glows. The maximum of the red, green, and blue glow brightness is scaled by this value and combined with the background Alpha at each pixel.

Glow From Alpha: *Default: 0, Range: 0 to 1.*

Set to 1 to generate glows from the alpha channel of the source input instead of the RGB channels. In this case the glows will not pick up color from the source and will typically be brighter. Values between 0 and 1 interpolate between using the RGB and the Alpha.

Glow Under Source: *Default: 0, Range: 0 to 1.*

Set to 1 to composite the Source input over the glows.

Light Background: *Default: 0, Range: 0 to 1.*

Increase this to give a look of the glow casting light onto the background image. To see this more clearly you can also lower the Scale Background parameter or raise the Brightness parameter.

Source Opacity: *Default: 1, Range: 0 to 1.*

Scales the opacity of the Source input when combined with the glows. This does not affect the generation of the glows themselves.

Combine: *Popup menu, Default: Screen.*

Determines how the glow is combined with the Source or Background. This parameter has no effect if Light BG is

set to 1.

Mult: the source or background is multiplied by the glow.

Add: the glow is added to the source or background.

Screen: the glow is blended with the source or background using a screen operation.

Difference: the result is the difference between the glow and the source or background.

Overlay: the glow is combined with the source or background using an overlay function.

Bg Brightness: *Default:* 1, *Range:* 0 or greater.

Scales the brightness of the background. This parameter only has an effect if the background input is provided, and is visible due to a partially transparent Source image or a reduced Source Opacity parameter value.

Expand Borders: *Check-box, Default:* off.

If enabled, transparent borders are added to the input image before processing. This allows the result to include soft edges beyond the original image size. When off, the effect only occurs within the frame and the result will retain an edge at the borders. This parameter does not appear in FCP or DF because those applications don't support image expansion.

Invert Mask: *Check-box, Default:* off.

If on, inverts the mask input so the effect is applied to areas where the Mask is black instead of white. This has no effect unless the Mask input is provided.

Show Glow Width: *Check-box, Default:* on.

Turns on or off the screen user interface for adjusting the Glow Width parameter.

See Also:

[Glow](#)

[GlowDist](#)

[GlowRainbow](#)

[GlowRings](#)

[GlowDarks](#)

[GlowOrthicon](#)

[GlowEdges](#)

[GlowNoise](#)

[Glint](#)

[PsykoStripes](#)

[PseudoColor](#)

[Sapphire](#)

[Plug-ins](#)

[Introduction](#)

S_GlowDarks

Areas of the source clip darker than the given threshold are blurred and combined with the input clip to give a deep smoky look. Adjust the Darkness, Width, and Threshold parameters to give different types of looks.

In the Sapphire Lighting effects submenu.



Inputs:

Source: The input clip that determines the glow locations and colors.

Background: *Optional.* The clip to combine the glows with. If no background is given, the Source is also used as the Background.

Mask: *Optional.* If provided, the source glow colors are scaled by this input. A monochrome mask can be used to choose a subset of Source areas that will generate glows. A color mask can be used to selectively adjust the glow colors in different regions. The mask is applied to the source before the glows are generated so it will not clip the resulting glows.

Parameters:

Darkness: *Default: 0.5, Range: 0 or greater.*
The magnitude of the dark glows.

Threshold: *Default: 0.5, Range: 0 or greater.*
Dark glows will be generated from locations in the source clip that are darker than this value. A value of 0.1 causes glows at only the darkest areas. A value of 1.0 causes glows on every non-white area.

Glow Saturation: *Default: 1, Range: -2 to 8.*
Scales the saturation of the dark colors. Increase for more intense colors.

Glow Width: *Default: 0.00028, Range: 0 or greater.*
Scales the glow distance. This and all the width parameters can be adjusted using the Width Widget. Note that a zero glow width still affects the dark areas; set the darkness parameter to zero if you want to pass the Source through unchanged.

Width X: *Default: 1, Range: 0 or greater.*
Scales the horizontal glow width. Set to 0 for vertical only.

Width Y: *Default: 1, Range: 0 or greater.*
Scales the vertical glow width. Set to 0 for horizontal only.

Subpixel: *Check-box, Default: off.*
Enables glowing by subpixel widths. Use this for smoother animation of the Width parameters.

Show: *Popup menu, Default: Result.*
Selects the type of output

Result: Shows the final result of combining the glow, source, and background.

Darks: Outputs the dark areas of the source which will generate the glow. Colors are inverted, so darks will appear bright and vice versa.

Glow From Alpha: *Default: 0, Range: 0 to 1.*

Set to 1 to generate glows from the alpha channel of the source input instead of the RGB channels. In this case the glows will not pick up color from the source and will typically be brighter. Values between 0 and 1 interpolate between using the RGB and the Alpha.

Glow Under Source: *Default: 0, Range: 0 to 1.*

Set to 1 to composite the Source input over the glows.

Source Opacity: *Default: 1, Range: 0 to 1.*

Scales the opacity of the Source input when combined with the glows. This does not affect the generation of the glows themselves.

Bg Brightness: *Default: 1, Range: 0 or greater.*

Scales the brightness of the background input clip.

Invert Mask: *Check-box, Default: off.*

If on, inverts the mask input so the effect is applied to areas where the Mask is black instead of white. This has no effect unless the Mask input is provided.

Show Glow Width: *Check-box, Default: on.*

Turns on or off the screen user interface for adjusting the Glow Width parameter.

See Also:

[Glow](#)

[GlowDist](#)

[GlowRainbow](#)

[GlowAura](#)

[GlowRings](#)

[GlowOrthicon](#)

[GlowEdges](#)

[GlowNoise](#)

[Glint](#)

[Sapphire Plug-ins](#)

[Introduction](#)

S_GlowDist

Generates glows based on the distances from the edges of the source input. Any edges in the input image, where the brightness crosses the given threshold value, will generate an equally bright glow into the darker side of the edges. This is best observed when used on images with dark backgrounds.

In the Sapphire Lighting effects submenu.



Inputs:

Source: The input clip that determines the glow locations and colors.

Background: *Optional.* The clip to combine the glows with. If no background is given, the Source is also used as the Background.

Mask: *Optional.* If provided, the source glow colors are scaled by this input. A monochrome mask can be used to choose a subset of Source areas that will generate glows. A color mask can be used to selectively adjust the glow colors in different regions. The mask is applied to the source before the glows are generated so it will not clip the resulting glows.

Parameters:

Brightness: *Default:* 0.8, *Range:* 0 or greater.
Scales the brightness of the glows.

Color: *Default rgb:* [1 1 1].
Scales the color of the glows.

Threshold: *Default:* 0.5, *Range:* 0 or greater.
Glows are generated at the edges of areas in the source clip that are brighter than this value. A value of 0.9 causes glows from only the brightest spots. A value of 0 causes glows for every non-black area.

Threshold Add Color: *Default rgb:* [0 0 0].
This can be used to raise the threshold on a specific color and thereby reduce the glows generated on areas of the source clip containing that color.

Glow Width: *Default:* 0.1, *Range:* 0 or greater.
Scales the glow distance. This and all the width parameters can be adjusted using the Width Widget. Note that a zero glow width still enhances the bright areas; set the brightness parameter to zero if you want to pass the Source through unchanged.

Width Red: *Default:* 1, *Range:* 0 or greater.
Scales the red glow distance. If the red, green, and blue widths are equal, the glows will be a single color given by the Color parameter. If they are not equal, the glows will vary in color with distance.

Width Green: *Default:* 1.2, *Range:* 0 or greater.
Scales the green glow width.

Width Blue: *Default: 1.4, Range: 0 or greater.*
Scales the blue glow width.

Show: *Popup menu, Default: Result.*
Selects the type of output

Result: Shows the final result of combining the glow, source, and background.

Threshold: Shows the thresholded image that is used to generate the glow.

Affect Alpha: *Default: 0, Range: 0 or greater.*

If this value is positive the output Alpha channel will include some opacity from the glows. The maximum of the red, green, and blue glow brightness is scaled by this value and combined with the background Alpha at each pixel.

Glow From Alpha: *Default: 0, Range: 0 to 1.*

Set to 1 to generate glows from the alpha channel of the source input instead of the RGB channels. In this case the glows will not pick up color from the source and will typically be brighter. Values between 0 and 1 interpolate between using the RGB and the Alpha.

Glow Under Source: *Default: 0, Range: 0 to 1.*

Set to 1 to composite the Source input over the glows.

Light Background: *Default: 0, Range: 0 to 1.*

Increase this to give a look of the glow casting light onto the background image. To see this more clearly you can also lower the Scale Background parameter or raise the Brightness parameter.

Source Opacity: *Default: 1, Range: 0 to 1.*

Scales the opacity of the Source input when combined with the glows. This does not affect the generation of the glows themselves.

Combine: *Popup menu, Default: Screen.*

Determines how the glow is combined with the Source or Background. This parameter has no effect if Light BG is set to 1.

Mult: the source or background is multiplied by the glow.

Add: the glow is added to the source or background.

Screen: the glow is blended with the source or background using a screen operation.

Difference: the result is the difference between the glow and the source or background.

Overlay: the glow is combined with the source or background using an overlay function.

Bg Brightness: *Default: 1, Range: 0 or greater.*

Scales the brightness of the background. This parameter only has an effect if the background input is provided, and is visible due to a partially transparent Source image or a reduced Source Opacity parameter value.

Invert Mask: *Check-box, Default: off.*

If on, inverts the mask input so the effect is applied to areas where the Mask is black instead of white. This has no effect unless the Mask input is provided.

Show Glow Width: *Check-box, Default: on.*

Turns on or off the screen user interface for adjusting the Glow Width parameter.

See Also:

[Glow](#)

[GlowRainbow](#)

[GlowAura](#)

[GlowRings](#)

[Glint](#)

[Sapphire Plug-ins](#)

[Introduction](#)

GlowDarks
GlowOrthicon
GlowEdges
GlowNoise

S_GlowEdges

Creates glowing light from the edges of the source clip. This differs from the default Glow in that small or thin objects generate as much glow around their edges as large objects. Also the glow colors are not affected by the colors of the source clip.

In the Sapphire Lighting effects submenu.



Inputs:

Source: Edges are extracted from this input clip to determine the glow locations.

Background: *Optional.* The clip to combine the glows with. If no background is given, the Source is also used as the Background.

Mask: *Optional.* If provided, the source glow colors are scaled by this input. A monochrome mask can be used to choose a subset of Source areas that will generate glows. A color mask can be used to selectively adjust the glow colors in different regions. The mask is applied to the source before the glows are generated so it will not clip the resulting glows.

Parameters:

Glow Brightness: *Default: 2, Range: 0 or greater.*
Controls the overall glow brightness. Set to zero to get no glow.

Color: *Default rgb: [1 1 1].*
Scales the color of the glows.

Glow Width: *Default: 0.056, Range: 0 or greater.*
Scales the glow distance. This and all the width parameters can be adjusted using the Width Widget. Note that a zero glow width still enhances the bright areas; set the brightness parameter to zero if you want to pass the Source through unchanged.

Width X: *Default: 1, Range: 0 or greater.*
Scales the horizontal glow width. Set to 0 for vertical only.

Width Y: *Default: 1, Range: 0 or greater.*
Scales the vertical glow width. Set to 0 for horizontal only.

Width Red: *Default: 1, Range: 0 or greater.*
Scales the red glow width. If the red, green, and blue widths are equal, the glow colors be uniform with distance. If they are not equal, the glows will vary in color with distance.

Width Green: *Default: 1.2, Range: 0 or greater.*
Scales the green glow width.

Width Blue: *Default: 1.4, Range: 0 or greater.*
Scales the blue glow width.

Subpixel: *Check-box, Default: off.*

Enables glowing by subpixel widths. Use this for smoother animation of the Width parameters.

Edges Smooth: *Default: 0, Range: 0 or greater.*

Determines the width of the extracted edges which generate the glows.

Edges Brightness: *Default: 1, Range: 0 or greater.*

Scales the brightness of the edges before the glows are applied.

Edges Threshold: *Default: 0.5, Range: 0 or greater.*

Increase to remove glows on the less sharp edges.

Show: *Popup menu, Default: Result.*

Selects the type of output.

Result: Normally the glows are combined with the source or background, and output.

Edges: The edge image only is output, before any glows are applied. This can be helpful while adjusting the various edge parameters.

Affect Alpha: *Default: 0, Range: 0 or greater.*

If this value is positive the output Alpha channel will include some opacity from the glows. The maximum of the red, green, and blue glow brightness is scaled by this value and combined with the background Alpha at each pixel.

Glow From Alpha: *Default: 0, Range: 0 to 1.*

Set to 1 to generate glows from the alpha channel of the source input instead of the RGB channels. In this case the glows will not pick up color from the source and will typically be brighter. Values between 0 and 1 interpolate between using the RGB and the Alpha.

Glow Under Source: *Default: 0, Range: 0 to 1.*

Set to 1 to composite the Source input over the glows.

Light Background: *Default: 0, Range: 0 to 1.*

Increase this to give a look of the glow casting light onto the background image. To see this more clearly you can also lower the Scale Background parameter or raise the Brightness parameter.

Source Opacity: *Default: 1, Range: 0 to 1.*

Scales the opacity of the Source input when combined with the glows. This does not affect the generation of the glows themselves.

Combine: *Popup menu, Default: Screen.*

Determines how the glow is combined with the Source or Background. This parameter has no effect if Light BG is set to 1.

Mult: the source or background is multiplied by the glow.

Add: the glow is added to the source or background.

Screen: the glow is blended with the source or background using a screen operation.

Difference: the result is the difference between the glow and the source or background.

Overlay: the glow is combined with the source or background using an overlay function.

Bg Brightness: *Default: 1, Range: 0 or greater.*

Scales the brightness of the background. This parameter only has an effect if the background input is provided, and is visible due to a partially transparent Source image or a reduced Source Opacity parameter value.

Expand Borders: *Check-box, Default: off.*

If enabled, transparent borders are added to the input image before processing. This allows the result to include soft edges beyond the original image size. When off, the effect only occurs within the frame and the result will retain an edge at the borders. This parameter does not appear in FCP or DF because those applications don't support image expansion.

Invert Mask: *Check-box, Default: off.*

If on, inverts the mask input so the effect is applied to areas where the Mask is black instead of white. This has no effect unless the Mask input is provided.

Show Glow Width: *Check-box, Default: on.*

Turns on or off the screen user interface for adjusting the Glow Width parameter.

See Also:

[Glow](#)

[GlowDist](#)

[GlowRainbow](#)

[GlowAura](#)

[GlowRings](#)

[GlowDarks](#)

[GlowOrthicon](#)

[GlowNoise](#)

[Glint](#)

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S_GlowNoise

Generates glowing light from areas of the source clip that are brighter than the given threshold. The glows are also attenuated by a solid noise texture to give them a noisy or grainy effect. If the Jitter Frames parameter is positive, the noise will be regenerated for each frame for a fizzling look. If Jitter Frames is zero, two noise textures are combined and slide over each other at a rate depending on the Spread Speed.

In the Sapphire Lighting effects submenu.



Inputs:

Source: The input clip that determines the glow locations and colors.

Background: *Optional.* The clip to combine the glows with. If no background is given, the Source is also used as the Background.

Mask: *Optional.* If provided, the source glow colors are scaled by this input. A monochrome mask can be used to choose a subset of Source areas that will generate glows. A color mask can be used to selectively adjust the glow colors in different regions. The mask is applied to the source before the glows are generated so it will not clip the resulting glows.

Parameters:

Brightness: *Default: 2, Range: 0 or greater.*
Scales the brightness of all the glows.

Color: *Default rgb: [1 1 1].*
Scales the color of the glows. The colors and brightnesses of the glows are also affected by the Source and Mask inputs.

Threshold: *Default: 0, Range: 0 or greater.*
Glows are generated from locations in the source clip that are brighter than this value. A value of 0.9 causes glows at only the brightest spots. A value of 0 causes glows for every non-black area.

Threshold Add Color: *Default rgb: [0 0 0].*
This can be used to raise the threshold on a specific color and thereby reduce the glows generated on areas of the source clip containing that color.

Glow Width: *Default: 0.1, Range: 0 or greater.*
Scales the glow distance. This and all the width parameters can be adjusted using the Width Widget. Note that a zero glow width still enhances the bright areas; set the brightness parameter to zero if you want to pass the Source through unchanged.

Width X: *Default: 1, Range: 0 or greater.*
Scales the horizontal glow width. Set to 0 for vertical only.

Width Y: *Default: 1, Range: 0 or greater.*
Scales the vertical glow width. Set to 0 for horizontal only.

Width Red: *Default: 1, Range: 0 or greater.*

Scales the red glow width. If the red, green, and blue widths are equal, the glows will match the color of the source clip. If they are not equal, the glows will vary in color with distance.

Width Green: *Default: 1.2, Range: 0 or greater.*

Scales the green glow width.

Width Blue: *Default: 1.4, Range: 0 or greater.*

Scales the blue glow width.

Subpixel: *Check-box, Default: off.*

Enables glowing by subpixel widths. Use this for smoother animation of the Width parameters.

Noise Amplitude: *Default: 1, Range: 0 or greater.*

The amplitude of noise to include in the glows.

Noise Frequency: *Default: 40, Range: 0.1 or greater.*

The spatial frequency of the noise texture. Increase for finer grain, decrease for coarser grain.

Noise Freq Rel Y: *Default: 1, Range: 0.02 or greater.*

The relative vertical frequency of the noise texture. Increase to stretch it horizontally or decrease to stretch it vertically.

Noise Octaves: *Integer, Default: 1, Range: 1 to 10.*

The number of octaves of noise to include. Each octave is twice the frequency and half the amplitude of the previous.

Noise Seed: *Default: 0.123, Range: 0 or greater.*

Used to initialize the random number generator. The actual seed value is not significant, but different seeds give different results and the same value should give a repeatable result.

Noise Shift: *X & Y, Default: [0 0], Range: any.*

The horizontal and vertical translation of the noise texture. This can only be observed if Jitter Frames is zero.

Spread Speed: *X & Y, Default: [0.2 0], Range: any.*

The rate and direction that two noise textures slide over each other. This has no effect unless Jitter Frames is zero.

Jitter Frames: *Integer, Default: 1, Range: 0 or greater.*

If this is 0, the noise texture will remain the same for every frame processed. If it is 1, a new noise texture is used for each frame. If it is 2, a new noise texture is used for every other frame, and so on.

Show: *Popup menu, Default: Result.*

Selects the type of output

Result: Shows the final result of combining the glow, source, and background.

Threshold: Shows the thresholded image that is used to generate the glow.

Affect Alpha: *Default: 0, Range: 0 or greater.*

If this value is positive the output Alpha channel will include some opacity from the glows. The maximum of the red, green, and blue glow brightness is scaled by this value and combined with the background Alpha at each pixel.

Glow From Alpha: *Default: 0, Range: 0 to 1.*

Set to 1 to generate glows from the alpha channel of the source input instead of the RGB channels. In this case the glows will not pick up color from the source and will typically be brighter. Values between 0 and 1 interpolate between using the RGB and the Alpha.

Glow Under Source: *Default: 0, Range: 0 to 1.*

Set to 1 to composite the Source input over the glows.

Light Background: *Default: 0, Range: 0 to 1.*

Increase this to give a look of the glow casting light onto the background image. To see this more clearly you can also lower the Scale Background parameter or raise the Brightness parameter.

Source Opacity: *Default: 1, Range: 0 to 1.*

Scales the opacity of the Source input when combined with the glows. This does not affect the generation of the glows themselves.

Combine: *Popup menu, Default: Screen.*

Determines how the glow is combined with the Source or Background. This parameter has no effect if Light BG is set to 1.

Mult: the source or background is multiplied by the glow.

Add: the glow is added to the source or background.

Screen: the glow is blended with the source or background using a screen operation.

Difference: the result is the difference between the glow and the source or background.

Overlay: the glow is combined with the source or background using an overlay function.

Bg Brightness: *Default: 1, Range: 0 or greater.*

Scales the brightness of the background. This parameter only has an effect if the background input is provided, and is visible due to a partially transparent Source image or a reduced Source Opacity parameter value.

Expand Borders: *Check-box, Default: off.*

If enabled, transparent borders are added to the input image before processing. This allows the result to include soft edges beyond the original image size. When off, the effect only occurs within the frame and the result will retain an edge at the borders. This parameter does not appear in FCP or DF because those applications don't support image expansion.

Invert Mask: *Check-box, Default: off.*

If on, inverts the mask input so the effect is applied to areas where the Mask is black instead of white. This has no effect unless the Mask input is provided.

Show Glow Width: *Check-box, Default: on.*

Turns on or off the screen user interface for adjusting the Glow Width parameter.

See Also:

[Glow](#)

[GlowDist](#)

[GlowRainbow](#)

[GlowAura](#)

[GlowRings](#)

[GlowDarks](#)

[GlowOrthicon](#)

[GlowEdges](#)

[Glint](#)

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S_GlowOrthicon

The source clip is darkened at areas around parts of the source clip that are brighter than the given threshold, to give an 'orthicon' or 'dark glow' look. Lower the Threshold parameter to produce the orthicon effect in more areas. Adjust the Darkness and Width parameters to give different types of looks.

In the Sapphire Lighting effects submenu.



Inputs:

Source: The input clip that determines the locations to be darkened.

Background: *Optional.* The clip to combine the glows with. If no background is given, the Source is also used as the Background.

Mask: *Optional.* If provided, the source glow colors are scaled by this input. A monochrome mask can be used to choose a subset of Source areas that will generate glows. A color mask can be used to selectively adjust the glow colors in different regions. The mask is applied to the source before the glows are generated so it will not clip the resulting glows.

Parameters:

Darkness: *Default: 1, Range: 0 or greater.*
Scales the amount of darkening.

Color: *Default rgb: [0 0 0].*
Scales the color of the glows. The colors and brightnesses of the glows are also affected by the Source and Mask inputs.

Threshold: *Default: 0.7, Range: 0 or greater.*
Darkening will occur around locations in the source clip that are brighter than this value. A value of 0.9 causes dark glows from only the brightest spots. A value of 0 causes glows for every non-black area.

Threshold Add Color: *Default rgb: [0 0 0].*
This can be used to raise the threshold on a specific color and thereby reduce the glows generated on areas of the source clip containing that color.

Darks Width: *Default: 0.056, Range: 0 or greater.*
Scales the dark glow distance. This and all the width parameters can be adjusted using the Width Widget.

Protect Width: *Default: 0.1, Range: 0 or greater.*
The distance around the bright areas that is protected from darkening. This should normally be less than the value of Darks Width.

Protect Amount: *Default: 1, Range: 0 or greater.*
The amount that the bright areas are protected from darkening.

Width X: *Default: 1, Range: 0 or greater.*
Scales the horizontal glow width. Set to 0 for vertical only.

Width Y: *Default: 1, Range: 0 or greater.*
Scales the vertical glow width. Set to 0 for horizontal only.

Subpixel: *Check-box, Default: off.*
Enables glowing by subpixel widths. Use this for smoother animation of the Width parameters.

Show: *Popup menu, Default: Result.*
Selects the type of output

Result: Shows the final result of combining the glow, source, and background.

Threshold: Shows the thresholded image that is used to generate the glow.

Glow From Alpha: *Default: 0, Range: 0 to 1.*
Set to 1 to generate glows from the alpha channel of the source input instead of the RGB channels. In this case the glows will not pick up color from the source and will typically be brighter. Values between 0 and 1 interpolate between using the RGB and the Alpha.

Glow Under Source: *Default: 0, Range: 0 to 1.*
Set to 1 to composite the Source input over the glows.

Source Opacity: *Default: 1, Range: 0 to 1.*
Scales the opacity of the Source input when combined with the glows. This does not affect the generation of the glows themselves.

Bg Brightness: *Default: 1, Range: 0 or greater.*
Scales the brightness of the background. This parameter only has an effect if the background input is provided, and is visible due to a partially transparent Source image or a reduced Source Opacity parameter value.

Invert Mask: *Check-box, Default: off.*
If on, inverts the mask input so the effect is applied to areas where the Mask is black instead of white. This has no effect unless the Mask input is provided.

Show Darks Width: *Check-box, Default: on.*
Turns on or off the screen user interface for adjusting the Darks Width parameter.

See Also:

[Glow](#)

[GlowDist](#)

[GlowRainbow](#)

[GlowAura](#)

[GlowRings](#)

[GlowDarks](#)

[GlowEdges](#)

[GlowNoise](#)

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S_GlowRainbow

Generates rainbow colored glows based on the distances from the edges of the source input. Any edges in the input image, where the brightness crosses the given threshold value, will generate an equal glow into the darker side of the edges. This is best observed when used on images with dark backgrounds.

In the Sapphire Lighting effects submenu.



Inputs:

Source: The input clip that determines the glow locations and colors.

Background: *Optional.* The clip to combine the glows with. If no background is given, the Source is also used as the Background.

Mask: *Optional.* If provided, the source glow colors are scaled by this input. A monochrome mask can be used to choose a subset of Source areas that will generate glows. A color mask can be used to selectively adjust the glow colors in different regions. The mask is applied to the source before the glows are generated so it will not clip the resulting glows.

Parameters:

Brightness: *Default:* 0.8, *Range:* 0 or greater.
Scales the brightness of the glows.

Color: *Default rgb:* [1 1 1].
Scales the color of the glows.

Glow Saturation: *Default:* 1, *Range:* -2 to 8.
Scales the saturation of the glow colors. Increase for more intense colors. Set to 0 for monochrome.

Threshold: *Default:* 0.5, *Range:* 0 or greater.
Glow is generated at the edges of areas in the source clip that are brighter than this value. A value of 0.9 causes glows from only the brightest spots. A value of 0 causes glows for every non-black area.

Threshold Add Color: *Default rgb:* [0 0 0].
This can be used to raise the threshold on a specific color and thereby reduce the glows generated on areas of the source clip containing that color.

Glow Width: *Default:* 0.42, *Range:* 0 or greater.
Scales the glow distance. This and all the width parameters can be adjusted using the Width Widget. Note that a zero glow width still enhances the bright areas; set the brightness parameter to zero if you want to pass the Source through unchanged.

Frequency: *Default:* 12, *Range:* 0 or greater.
The frequency of the color pattern. Increase for more cycles through the spectrum.

Frequency Red: *Default: 1, Range: 0 or greater.*
Scales the red frequency.

Frequency Green: *Default: 0.9, Range: 0 or greater.*
Scales the green frequency.

Frequency Blue: *Default: 0.8, Range: 0 or greater.*
Scales the blue frequency.

Phase: *Default: 0, Range: -5 to 5.*
Shifts the color pattern.

Phase Speed: *Default: 1, Range: any.*
If non-zero, the color phase is automatically animated at this speed, causing the color pattern to flow over time.

Phase Red: *Default: 0, Range: -5 to 5.*
Shifts the red phase.

Phase Green: *Default: 0, Range: -5 to 5.*
Shifts the green phase.

Phase Blue: *Default: 0, Range: -5 to 5.*
Shifts the blue phase.

Show: *Popup menu, Default: Result.*
Selects the type of output

Result: Shows the final result of combining the glow, source, and background.
Threshold: Shows the thresholded image that is used to generate the glow.

Affect Alpha: *Default: 0, Range: 0 or greater.*
If this value is positive the output Alpha channel will include some opacity from the glows. The maximum of the red, green, and blue glow brightness is scaled by this value and combined with the background Alpha at each pixel.

Glow From Alpha: *Default: 0, Range: 0 to 1.*
Set to 1 to generate glows from the alpha channel of the source input instead of the RGB channels. In this case the glows will not pick up color from the source and will typically be brighter. Values between 0 and 1 interpolate between using the RGB and the Alpha.

Glow Under Source: *Default: 0, Range: 0 to 1.*
Set to 1 to composite the Source input over the glows.

Light Background: *Default: 0, Range: 0 to 1.*
Increase this to give a look of the glow casting light onto the background image. To see this more clearly you can also lower the Scale Background parameter or raise the Brightness parameter.

Source Opacity: *Default: 1, Range: 0 to 1.*
Scales the opacity of the Source input when combined with the glows. This does not affect the generation of the glows themselves.

Combine: *Popup menu, Default: Screen.*
Determines how the glow is combined with the Source or Background. This parameter has no effect if Light BG is set to 1.

Mult: the source or background is multiplied by the glow.
Add: the glow is added to the source or background.
Screen: the glow is blended with the source or background using a screen operation.
Difference: the result is the difference between the glow and the source or background.

Overlay: the glow is combined with the source or background using an overlay function.

Bg Brightness: *Default:* 1, *Range:* 0 or greater.

Scales the brightness of the background. This parameter only has an effect if the background input is provided, and is visible due to a partially transparent Source image or a reduced Source Opacity parameter value.

Invert Mask: *Check-box, Default:* off.

If on, inverts the mask input so the effect is applied to areas where the Mask is black instead of white. This has no effect unless the Mask input is provided.

Show Glow Width: *Check-box, Default:* on.

Turns on or off the screen user interface for adjusting the Glow Width parameter.

See Also:

[Glow](#)

[GlowDist](#)

[GlowAura](#)

[GlowRings](#)

[GlowDarks](#)

[GlowOrthicon](#)

[GlowEdges](#)

[GlowNoise](#)

[Glint](#)

[PsykoStripes](#)

[PseudoColor](#)

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S_GlowRings

Generates glows of colored rings around the areas of the source clip that are brighter than the given threshold. Raise the threshold parameter to produce glows in fewer areas. Adjust the Width and Thickness RGB parameters to make glows with different color patterns, and adjust the Width XY parameters to make horizontal or vertical glows.

In the Sapphire Lighting effects submenu.



Inputs:

Source: The input clip that determines the glow locations and colors.

Background: *Optional.* The clip to combine the glows with. If no background is given, the Source is also used as the Background.

Mask: *Optional.* If provided, the source glow colors are scaled by this input. A monochrome mask can be used to choose a subset of Source areas that will generate glows. A color mask can be used to selectively adjust the glow colors in different regions. The mask is applied to the source before the glows are generated so it will not clip the resulting glows.

Parameters:

Brightness: *Default: 1, Range: 0 or greater.*
Scales the brightness of all the glows.

Color: *Default rgb: [1 1 1].*
Scales the color of the glows. The colors and brightnesses of the glows are also affected by the Source and Mask inputs.

Threshold: *Default: 0, Range: 0 or greater.*
Glows are generated from locations in the source clip that are brighter than this value. A value of 0.9 causes glows at only the brightest spots. A value of 0 causes glows for every non-black area.

Threshold Add Color: *Default rgb: [0 0 0].*
This can be used to raise the threshold on a specific color and thereby reduce the glows generated on areas of the source clip containing that color.

Glow Width: *Default: 0.1, Range: 0 or greater.*
Scales the glow distance. This and all the width parameters can be adjusted using the Width Widget. Note that a zero glow width still enhances the bright areas; set the brightness parameter to zero if you want to pass the Source through unchanged.

Width X: *Default: 1, Range: 0 or greater.*
Scales the horizontal glow width. Set to 0 for vertical only.

Width Y: *Default: 1, Range: 0 or greater.*
Scales the vertical glow width. Set to 0 for horizontal only.

Width Red: *Default: 0.5, Range: 0 or greater.*

Scales the red glow width. If the red, green, and blue widths are equal, the glows will match the color of the source clip. If they are not equal, the glows will vary in color with distance.

Width Green: *Default: 0.75, Range: 0 or greater.*

Scales the green glow width.

Width Blue: *Default: 1, Range: 0 or greater.*

Scales the blue glow width.

Subpixel: *Check-box, Default: off.*

Enables glowing by subpixel widths. Use this for smoother animation of the Width parameters.

Thickness Red: *Default: 0.5, Range: 0 to 1.*

Scales the thickness of the red region.

Thickness Green: *Default: 0.5, Range: 0 to 1.*

Scales the thickness of the green region.

Thickness Blue: *Default: 0.5, Range: 0 to 1.*

Scales the thickness of the blue region.

Show: *Popup menu, Default: Result.*

Selects the type of output

Result: Shows the final result of combining the glow, source, and background.

Threshold: Shows the thresholded image that is used to generate the glow.

Affect Alpha: *Default: 0, Range: 0 or greater.*

If this value is positive the output Alpha channel will include some opacity from the glows. The maximum of the red, green, and blue glow brightness is scaled by this value and combined with the background Alpha at each pixel.

Glow From Alpha: *Default: 0, Range: 0 to 1.*

Set to 1 to generate glows from the alpha channel of the source input instead of the RGB channels. In this case the glows will not pick up color from the source and will typically be brighter. Values between 0 and 1 interpolate between using the RGB and the Alpha.

Glow Under Source: *Default: 0, Range: 0 to 1.*

Set to 1 to composite the Source input over the glows.

Light Background: *Default: 0, Range: 0 to 1.*

Increase this to give a look of the glow casting light onto the background image. To see this more clearly you can also lower the Scale Background parameter or raise the Brightness parameter.

Source Opacity: *Default: 1, Range: 0 to 1.*

Scales the opacity of the Source input when combined with the glows. This does not affect the generation of the glows themselves.

Combine: *Popup menu, Default: Screen.*

Determines how the glow is combined with the Source or Background. This parameter has no effect if Light BG is set to 1.

Mult: the source or background is multiplied by the glow.

Add: the glow is added to the source or background.

Screen: the glow is blended with the source or background using a screen operation.

Difference: the result is the difference between the glow and the source or background.

Overlay: the glow is combined with the source or background using an overlay function.

Bg Brightness: *Default: 1, Range: 0 or greater.*

Scales the brightness of the background. This parameter only has an effect if the background input is provided, and is visible due to a partially transparent Source image or a reduced Source Opacity parameter value.

Expand Borders: *Check-box, Default: off.*

If enabled, transparent borders are added to the input image before processing. This allows the result to include soft edges beyond the original image size. When off, the effect only occurs within the frame and the result will retain an edge at the borders. This parameter does not appear in FCP or DF because those applications don't support image expansion.

Invert Mask: *Check-box, Default: off.*

If on, inverts the mask input so the effect is applied to areas where the Mask is black instead of white. This has no effect unless the Mask input is provided.

Show Glow Width: *Check-box, Default: on.*

Turns on or off the screen user interface for adjusting the Glow Width parameter.

See Also:

[Glow](#)

[GlowDist](#)

[GlowRainbow](#)

[GlowAura](#)

[GlowDarks](#)

[GlowOrthicon](#)

[GlowEdges](#)

[GlowNoise](#)

[Glint](#)

[Sapphire Plug-ins](#)

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S_Gradient

Makes a smooth color gradient across the screen using given Start and End locations and colors, then optionally combines the gradient with a background clip. Increase Add Noise to reduce banding artifacts in the gradient due to color quantization.

In the Sapphire Render effects submenu.



Inputs:

Background: *Optional.* The clip to combine the gradient with.

Parameters:

Start: *X & Y, Default: [360 436], Range: any.*

The starting location of the gradient. This parameter can be adjusted using the Start Widget.

End: *X & Y, Default: [360 50], Range: any.*

The ending location of the gradient. This parameter can be adjusted using the End Widget.

Start Color: *Default rgb: [1 1 1].*

The color of the gradient at the Start location.

End Color: *Default rgb: [0 0 0].*

The color of the gradient at the End location

Brightness: *Default: 1, Range: 0 or greater.*

Scales the brightness of the gradient image (both the Start Color and End Color).

Add Noise: *Default: 0, Range: 0 or greater.*

If positive, this amount of noise is added to the gradient. This can create a grainy effect and eliminate banding in the gradient due to quantization. Set this to 1.0 to enable effective debanding for 8 bit results.

Smooth Curve: *Default: 0, Range: 0 to 1.*

If zero, a linear interpolation is used across the screen between the Start and End Color. Increase this value to use a smoother 'S' shaped curve for interpolation which can reduce the visual perception of the gradient's Start and End locations.

Bg Brightness: *Default: 1, Range: 0 or greater.*

Scales the brightness of the background before combining it with the gradient.

Combine: *Popup menu, Default: Screen.*

Determines how the gradient is combined with the background.

Grad Only: gives the gradient image alone with no background.

Mult: the background is multiplied by the gradient.

Add: the background is added to the gradient.

Screen: the background is blended with the gradient using a screen operation.

Difference: the result is the difference between the background and gradient.

Overlay: combines gradient and background using an overlay function.

Show Start: *Check-box, Default: on.*

Turns on or off the screen user interface for adjusting the Start parameter.

Show End: *Check-box, Default:* on.

Turns on or off the screen user interface for adjusting the End parameter.

See Also:

[GradientRadial](#)

[GradientMulti](#)

[WipeLine](#)

[Sapphire Plug-ins](#)

[Introduction](#)

S_GradientMulti

Generates a smooth multi-color gradient across the screen using multiple control points, and optionally combines the gradient with a background clip.

In the Sapphire Render effects submenu.



Inputs:

Background: *Optional.* The clip to combine the gradient with.

Parameters:

Softness: *Default: 1, Range: 0.01 or greater.*

The softness of the edges between color regions. Increasing this parameter will create a smoother gradient, while decreasing it will create sharper edges and more well-defined colors.

Softness Falloff: *Default: 0, Range: 0 or greater.*

Reduces the softness as the distance from the control points increases. Higher values will create more well-defined color regions near the edges of the image, while lower values will cause the colors to blend together more.

Point 1 Parameters:

Point 1 Enable: *Check-box, Default: on.*

Turns on or off the first control point.

Color 1: *Default rgb: [1 0 0].*

The color at Point 1.

Point 1: *X & Y, Default: [10 10], Range: any.*

First control point. This parameter can be adjusted using the Point 1 Widget.

Softness 1: *Default: 1, Range: 0.1 or greater.*

The relative softness of color 1.

Size 1: *Default: 1, Range: 0.1 or greater.*

Scales the size of the color centered at Point 1.

Point 2 Parameters:

Point 2 Enable: *Check-box, Default: on.*

Turns on or off the second control point.

Color 2: *Default rgb: [0 1 0].*

The color at Point 2.

Point 2: *X & Y, Default: [10 470], Range: any.*

Second control point. This parameter can be adjusted using the Point 2 Widget.

Softness 2: *Default: 1, Range: 0.1 or greater.*

The relative softness of color 2.

Size 2: *Default:* 1, *Range:* 0.1 or greater.
Scales the size of the color centered at Point 2.

Point 3 Parameters:

Point 3 Enable: *Check-box, Default:* on.
Turns on or off the third control point.

Color 3: *Default rgb:* [0 0 1].
The color at Point 3.

Point 3: *X & Y, Default:* [710 470], *Range:* any.
Third control point. This parameter can be adjusted using the Point 3 Widget.

Softness 3: *Default:* 1, *Range:* 0.1 or greater.
The relative softness of color 3.

Size 3: *Default:* 1, *Range:* 0.1 or greater.
Scales the size of the color centered at Point 3.

Point 4 Parameters:

Point 4 Enable: *Check-box, Default:* off.
Turns on or off the fourth control point.

Color 4: *Default rgb:* [1 1 1].
The color at Point 4.

Point 4: *X & Y, Default:* [710 10], *Range:* any.
Fourth control point. This parameter can be adjusted using the Point 4 Widget.

Softness 4: *Default:* 1, *Range:* 0.1 or greater.
The relative softness of color 4.

Size 4: *Default:* 1, *Range:* 0.1 or greater.
Scales the size of the color centered at Point 4.

Point 5 Parameters:

Point 5 Enable: *Check-box, Default:* off.
Turns on or off the fifth control point.

Color 5: *Default rgb:* [1 1 0].
The color at Point 5.

Point 5: *X & Y, Default:* [300 240], *Range:* any.
Fifth control point. This parameter can be adjusted using the Point 5 Widget.

Softness 5: *Default:* 1, *Range:* 0.1 or greater.
The relative softness of color 5.

Size 5: *Default:* 1, *Range:* 0.1 or greater.
Scales the size of the color centered at Point 5.

Point 6 Parameters:

Point 6 Enable: *Check-box, Default:* off.
Turns on or off the sixth control point.

Color 6: *Default rgb:* [0 1 1].

The color at Point 6.

Point 6: *X & Y, Default:* [420 240], *Range:* any.

Sixth control point. This parameter can be adjusted using the Point 6 Widget.

Softness 6: *Default:* 1, *Range:* 0.1 or greater.

The relative softness of color 6.

Size 6: *Default:* 1, *Range:* 0.1 or greater.

Scales the size of the color centered at Point 6.

Bg Brightness: *Default:* 1, *Range:* 0 or greater.

Scales the brightness of the background before combining it with the gradient.

Combine: *Popup menu, Default:* Screen.

Determines how the gradient is combined with the background.

Grad Only: gives the gradient image alone with no background.

Mult: the background is multiplied by the gradient.

Add: the background is added to the gradient.

Screen: the background is blended with the gradient using a screen operation.

Difference: the result is the difference between the background and gradient.

Overlay: combines gradient and background using an overlay function.

Show Point 1: *Check-box, Default:* on.

Turns on or off the screen user interface for adjusting the Point 1 parameter.

Show Point 2: *Check-box, Default:* on.

Turns on or off the screen user interface for adjusting the Point 2 parameter.

Show Point 3: *Check-box, Default:* on.

Turns on or off the screen user interface for adjusting the Point 3 parameter.

Show Point 4: *Check-box, Default:* on.

Turns on or off the screen user interface for adjusting the Point 4 parameter.

Show Point 5: *Check-box, Default:* on.

Turns on or off the screen user interface for adjusting the Point 5 parameter.

Show Point 6: *Check-box, Default:* on.

Turns on or off the screen user interface for adjusting the Point 6 parameter.

See Also:

[Gradient](#)

[GradientRadial](#)

[Sapphire Plug-ins](#)

[Introduction](#)

S_GradientRadial

Makes a smooth radial color gradient in an ellipse shape, given Center, Inner Radius, and Outer Radius parameters, and optionally combines the gradient with a background clip. Increase Add Noise to reduce banding artifacts in the gradient due to color quantization.

In the Sapphire Render effects submenu.



Inputs:

Background: *Optional.* The clip to combine the gradient with.

Parameters:

Center: *X & Y, Default: [360 243], Range: any.*

The center location of the ellipse shape. This parameter can be adjusted using the Center Widget.

Inner Radius: *Default: 0.14, Range: 0 or greater.*

Distance from the center that the gradient starts. This parameter can be adjusted using the Inner Radius Widget.

Outer Radius: *Default: 1, Range: 0 or greater.*

Distance from the center that the gradient ends. This parameter can be adjusted using the Outer Radius Widget.

Rel Height: *Default: 0.75, Range: 0.1 or greater.*

The relative vertical size of the ellipse shape. Increase for a taller ellipse, decrease for a wider one.

Rel Width: *Default: 1, Range: 0.1 or greater.*

The relative horizontal size of the ellipse shape. Increase for a wider ellipse, decrease for a taller one.

Rotate: *Default: 0, Range: any.*

Rotation in degrees of the ellipse. Note that rotation will have no effect when Rel Width and Rel Height are equal and the shape is a perfect circle. This parameter can be adjusted using the Rotate Widget.

Inner Color: *Default rgb: [1 1 1].*

The gradient color at the Inner Radius.

Outer Color: *Default rgb: [0 0 0].*

The gradient color at the Outer Radius.

Brightness: *Default: 1, Range: 0 or greater.*

Scales the brightness of the gradient image (both the Inner Color and Outer Color).

Add Noise: *Default: 0, Range: 0 or greater.*

If positive, this amount of noise is added to the gradient. This can create a grainy effect and eliminate banding in the gradient due to quantization. Set this to 1.0 to enable effective debanding for 8 bit results.

Smooth Curve: *Default: 0, Range: 0 to 1.*

If zero, a linear interpolation is used across the screen between the Start and End Color. Increase this value to use a smoother 'S' shaped curve for interpolation which can reduce the visual perception of the gradient's Start and End locations.

Bg Brightness: *Default: 1, Range: 0 or greater.*

Scales the brightness of the background before combining it with the gradient.

Combine: *Popup menu, Default: Screen.*

Determines how the gradient is combined with the background.

Grad Only: gives the gradient image alone with no background.

Mult: the background is multiplied by the gradient.

Add: the background is added to the gradient.

Screen: the background is blended with the gradient using a screen operation.

Difference: the result is the difference between the background and gradient.

Overlay: combines gradient and background using an overlay function.

Show Outer Radius: *Check-box, Default: on.*

Turns on or off the screen user interface for adjusting the Center parameter.

Show Inner Radius: *Check-box, Default: on.*

Turns on or off the screen user interface for adjusting the Center parameter.

Show Center: *Check-box, Default: on.*

Turns on or off the screen user interface for adjusting the Center parameter.

Show Rotate: *Check-box, Default: on.*

Turns on or off the screen user interface for adjusting the Center parameter.

See Also:

[Gradient](#)

[GradientMulti](#)

[Gradient](#)

[GradientMulti](#)

[SpotLight](#)

[Vignette](#)

[Sapphire](#)

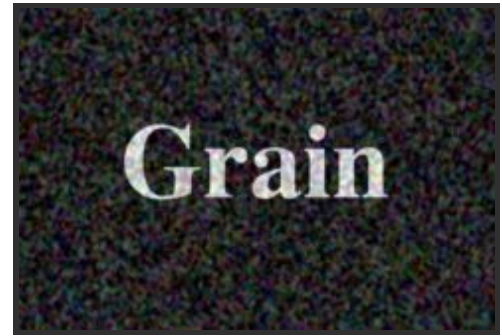
[Plug-ins](#)

[Introduction](#)

S_Grain

Adds color and/or monochrome grain to the source clip. Amplitude and frequency parameters allow adjusting the grain texture independently for all colors together, each color channel, or black and white grain.

In the Sapphire Stylize effects submenu.



Inputs:

Source: The clip to be processed.

Parameters:

Color Scale: *Default rgb: [1 1 1].*

Scales the color of the grain by this value. The grain will include both positive and negative values of this color.

Color Amplitude: *Default: 0.1, Range: 0 or greater.*

The amplitude of color grain to include.

Color Frequency: *Default: 100, Range: 0.1 or greater.*

The frequency of the color grain. Increase for finer color grain, decrease for coarser color grain.

Color Octaves: *Integer, Default: 1, Range: 1 to 10.*

The number of octaves of color grain to include. Each octave is twice the frequency and half the amplitude of the previous.

Red Freq: *Default: 1, Range: 0.01 or greater.*

The relative frequency of the red channel grain.

Green Freq: *Default: 1, Range: 0.01 or greater.*

The relative frequency of the green channel grain.

Blue Freq: *Default: 1, Range: 0.01 or greater.*

The relative frequency of the blue channel grain.

Bw Amplitude: *Default: 0, Range: 0 or greater.*

The amplitude of black and white grain to include.

Bw Frequency: *Default: 100, Range: 0.1 or greater.*

The frequency of the black and white grain. Increase for finer grain, decrease for coarser grain.

Bw Octaves: *Integer, Default: 1, Range: 1 to 10.*

The number of octaves of black and white grain to include. Each octave is twice the frequency and half the amplitude of the previous.

Seed: *Default: 0.123, Range: 0 or greater.*

Used to initialize the random number generator. The actual seed value is not significant, but different seeds give different results and the same value should give a repeatable result.

Jitter Frames: *Integer, Default: 1, Range: 0 or greater.*

If this is 0, the noise texture will remain the same for every frame processed. If it is 1, a new noise texture is used for each frame. If it is 2, a new noise texture is used for every other frame, and so on.

See Also:

[GrainStatic](#)
[GrainRemove](#)
[FilmEffect](#)

[FilmEffect](#)
[FilmDamage](#)
[Diffuse](#)
[Clouds](#)
[DissolveSpeckle](#)

[Sapphire](#)
[Plug-ins](#)
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S_GrainRemove

Smooths the source clip while retaining the edges. To adjust the parameters in this effect, first use the Show:Edges option to inspect which edges will be retained and adjust Edges Threshold, Edges Width, and Edges Scale until the important edges are fairly sharp and bright but not jaggy. Then return to Show:Result and adjust the smooth parameters to remove the appropriate amount of grain.

In the Sapphire Blur+Sharpen effects submenu.



Inputs:

Source: The clip to be processed.

Parameters:

Smooth: *Default:* 0.022, *Range:* 0 or greater.
The amount of smoothing to apply to the non-edge regions.

Smooth Luma: *Default:* 0.5, *Range:* 0 or greater.
Scales the smoothing amount for the luminance component.

Smooth Chroma: *Default:* 1, *Range:* 0 or greater.
Scales the smoothing amount for the chrominance component.

Edges Width: *Default:* 0.0056, *Range:* 0 or greater.
The width of the edges to be retained.

Edges Scale: *Default:* 0.25, *Range:* 0 or greater.
The brightness of the edges to be retained.

Edges Threshold: *Default:* 0.3, *Range:* 0 or greater.
This value is subtracted from the initial edge image. Increasing it can help remove minor edges and speckles that should not be retained.

Show: *Popup menu, Default:* Result.
Selects between output options.

Result: outputs the final result.

Edges: outputs an image showing which edges are to be retained.

See Also:

[Grain](#)
[GrainStatic](#)
[FilmEffect](#)

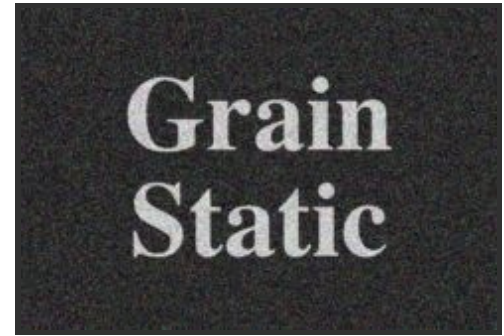
[Blur](#)
[Sharpen](#)

[Sapphire](#)
[Plug-ins](#)
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S_GrainStatic

Adds color and/or monochrome random noise of given amplitudes to every pixel of the source clip. Unlike the other Grain effects, there is no coherency of the grain between pixels, so the resulting look will vary with different output resolutions.

In the Sapphire Stylize effects submenu.



Inputs:

Source: The clip to be processed.

Parameters:

Color Scale: *Default rgb: [1 1 1].*

Scales the color of the static by this value. The static will include both positive and negative values of this color.

Color Amplitude: *Default: 0.1, Range: 0 or greater.*

The amplitude of the color static to include.

Bw Amplitude: *Default: 0, Range: 0 or greater.*

The amplitude of the black and white static to include.

See Also:

[Grain](#)

[GrainRemove](#)

[FilmEffect](#)

[FilmEffect](#)

[FilmDamage](#)

[Diffuse](#)

[Clouds](#)

[DissolveSpeckle](#)

[Sapphire](#)

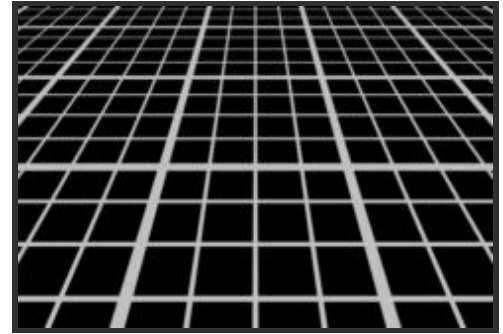
[Plug-ins](#)

[Introduction](#)

S_Grid

Generates a grid of lines and combines it with a background clip. Adjust the Latitude, Swing, and Roll parameters to rotate the grid on various axes, and adjust Shift and Z Dist to translate and zoom.

In the Sapphire Render effects submenu.



Inputs:

Background: *Optional.* The clip to draw the grid on.

Parameters:

Boxes: *X & Y, Integer, Default: [24 16], Range: 1 to 200.*

The total number of grid cells in the horizontal and vertical directions.

Grid Size: *Default: 2, Range: 0 or greater.*

Scales the size of the grid object.

Grid Size X: *Default: 1, Range: 0 or greater.*

Scales the relative horizontal size of the grid.

Grid Size Y: *Default: 0.75, Range: 0 or greater.*

Scales the relative vertical size of the grid.

Shift: *X & Y, Default: [0 0], Range: any.*

Translates the grid by this amount. This parameter can be adjusted using the Shift Widget.

Line Width: *Default: 0.0028, Range: 0 or greater.*

Scales the thickness of all the grid lines.

H Line Rel Width: *Default: 1, Range: 0 or greater.*

Scales the relative thickness of the horizontal lines.

V Line Rel Width: *Default: 1, Range: 0 or greater.*

Scales the relative thickness of the vertical lines.

Major Line Spacing: *Integer, Default: 4, Range: 0 to 200.*

Thicker lines are drawn at each interval of this many lines. If zero, the major lines are disabled and all lines will be equal width.

Major Line Width: *Default: 2.5, Range: 1 or greater.*

The relative thickness of the major lines.

Brightness: *Default: 1, Range: 0 to 10.*

Scales the brightness of the grid color.

Color: *Default rgb: [1 1 1].*

The color of the grid.

Grid Opacity: *Default: 1, Range: 0 to 1.*

The opacity of the grid. Lower values allow more background to show through.

Latitude: *Default: 0, Range: -89 to 89.*

Tilts the grid up or down by this many degrees.

Swing: *Default: 0, Range: any.*

Rotation of the grid in counter-clockwise degrees in its initial frame.

Roll: *Default: 0, Range: any.*

Tilts the grid from side to side, in counter-clockwise degrees. If Latitude is 0, the effects of Swing and Roll are the same.

Z Dist: *Default: 1, Range: 0.01 or greater.*

Scales the 'distance' of the grid. Values greater than 1.0 move it farther away and make it smaller. Values less than 1.0 move it closer and enlarge it.

Tele Lens Width: *Default: 1, Range: 0.2 to 3.*

The amount of lens telescoping. Increase to zoom in with less perspective, decrease for a wider viewing angle with more perspective.

Bg Brightness: *Default: 1, Range: 0 or greater.*

Scales the brightness of the background before combining with the grid. If 0, the result will contain only the grid image over black.

Combine: *Popup menu, Default: Over.*

Determines how the grid is combined with the Background.

Over: composites the grid over the background.

Exclusion: combines the grid and the Background with a difference operator.

Show Shift: *Check-box, Default: on.*

Turns on or off the screen user interface for adjusting the Shift parameter.

See Also:

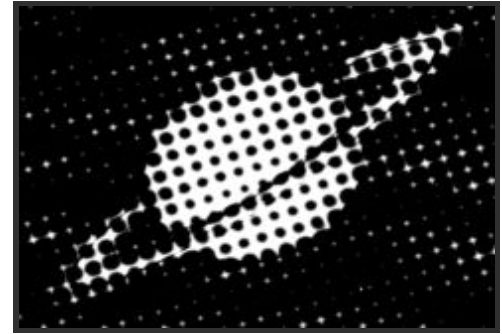
[WipeChecker](#)

[Sapphire Plug-ins Introduction](#)

S_HalfTone

Generates a duotone version of the source clip using a black and white pattern of dots. Use the Smooth Source parameter to remove some details and make the dots more consistently round.

In the Sapphire Stylize effects submenu.



Inputs:

Source: The clip to be processed.

Parameters:

Dots: *Popup menu, Default: Black.*
Selects the dots' color model.

Black: dark dots are used on a bright background.

White: bright dots are used on a dark background.

Dots Frequency: *Default: 50, Range: 0 or greater.*
The frequency of the dots pattern. Increase for finer dots, decrease for larger dots.

Dots Angle: *Default: 30, Range: any.*
The angle of the overall dots pattern, in counter-clockwise degrees.

Dots Rel Width: *Default: 1, Range: 0.01 or greater.*
The relative width of the dots. Increase for wider dots, decrease for taller ones.

Dots Sharpness: *Default: 4, Range: 0 or greater.*
Scales the sharpness of the edges of the dots.

Dots Lighten: *Default: 0, Range: -1 to 1.*
Increase to lighten the resulting dot pattern.

Smooth Source: *Default: 0, Range: 0 or greater.*
If positive, the source is blurred by this amount before the halftone is applied. This can be used to remove some detail in the dots and make them more consistently round.

Color1: *Default rgb: [1 1 1].*
The 'bright' color to use for the dots pattern.

Color0: *Default rgb: [0 0 0].*
The 'dark' color to use for the dots pattern.

Dots Shift: *X & Y, Default: [0 0], Range: any.*
The horizontal and vertical translation of the dots pattern

See Also:

[HalfToneColor](#)
[HalfToneRings](#)

[ScanLines](#)
[WipeDots](#)

[Sapphire](#)
[Plug-ins](#)

Etching

AutoPaint

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Sketch

Mosaic

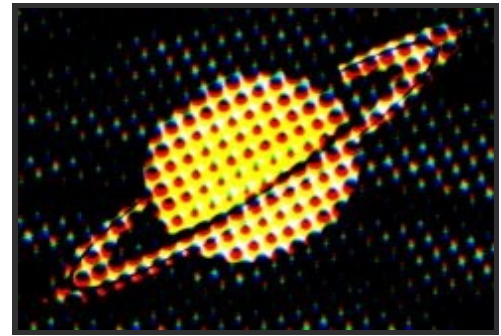
FlysEyeHex

JpegDamage

S_HalfToneColor

Generates a version of the source clip using a colored dot pattern. Use the Smooth Source parameter to remove some details and make the dots more consistently round. You can invert the dots pattern from CMY to RGB using the Dots menu.

In the Sapphire Stylize effects submenu.



Inputs:

Source: The clip to be processed.

Parameters:

Dots Color: *Popup menu, Default: CMY.*

Selects the dots' color model.

CMY: cyan, magenta, and yellow dots are used on a white background.

RGB: red, green, and blue dots are used on a black background.

Dots Frequency: *Default: 50, Range: 0 or greater.*

The frequency of the dots pattern. Increase for finer dots, decrease for larger dots.

Dots Angle: *Default: 30, Range: any.*

The angle of the overall dots pattern, in counter-clockwise degrees.

Dots Rel Width: *Default: 1, Range: 0.01 or greater.*

The relative width of the dots. Increase for wider dots, decrease for taller ones.

Dots Sharpness: *Default: 4, Range: 0 or greater.*

Scales the sharpness of the edges of the dots.

Dots Lighten: *Default: 0, Range: -1 to 1.*

Increase to lighten the resulting dot pattern.

Smooth Source: *Default: 0, Range: 0 or greater.*

If positive, the source is blurred by this amount before the halftone is applied. This can be used to remove some detail in the dots and make them more consistently round.

Saturation: *Default: 1, Range: 0 to 10.*

Scales the color saturation. Increase for more intense colors. Set to 0 for monochrome.

Dots Shift: *X & Y, Default: [0 0], Range: any.*

The horizontal and vertical translation of the dots pattern

Shift Red: *X & Y, Default: [0 0.5], Range: any.*

The translation of the red color channel.

Shift Green: *X & Y, Default: [0 0], Range: any.*

The translation of the green color channel.

Shift Blue: *X & Y, Default: [0 -0.5], Range: any.*

The translation of the blue color channel.

See Also:

[HalfTone](#)
[HalfToneRings](#)
[Etching](#)

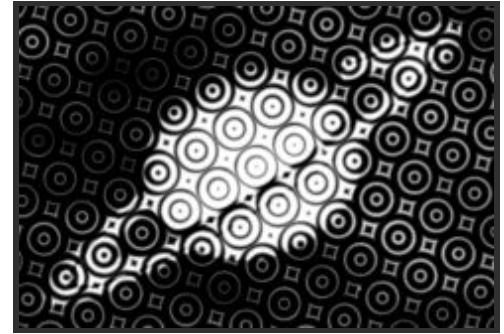
[ScanLines](#)
[WipeDots](#)
[AutoPaint](#)
[Sketch](#)
[Mosaic](#)
[FlysEyeHex](#)
[JpegDamage](#)

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S_HalfToneRings

Generates a duotone version of the source clip using a repeating pattern of concentric rings. Use the Smooth Source parameter to remove some details and make the dots more consistently shaped.

In the Sapphire Stylize effects submenu.



Inputs:

Source: The clip to be processed.

Parameters:

Center: *Popup menu, Default: Black.*

Selects the rings' color model.

Black: dark rings are used on a bright background.

White: bright rings are used on a dark background.

Rings Frequency: *Default: 20, Range: 0 or greater.*

The frequency of the overall rings pattern. Increase for smaller rings, decrease for larger rings.

Rings Angle: *Default: 30, Range: any.*

The angle of the overall rings pattern, in counter-clockwise degrees.

Rings Rel Width: *Default: 1, Range: 0.01 or greater.*

The relative width of the rings. Increase for wider rings, decrease for taller ones.

Rings Sharpness: *Default: 2, Range: -1 or greater.*

Scales the sharpness of the edges of the rings.

Rings Lighten: *Default: 0, Range: -1 to 1.*

Increase to lighten the resulting rings pattern.

Ring Number: *Default: 2, Range: 1 or greater.*

Determines the number of concentric rings in each tile of the repeating pattern.

Ring Phase: *Default: 0, Range: -5 to 5.*

Shifts the rings in or out within each tile of the pattern.

Rings Shift: *X & Y, Default: [0 0], Range: any.*

The horizontal and vertical translation of the overall rings pattern

Smooth Source: *Default: 0, Range: 0 or greater.*

If positive, the source is blurred by this amount before the halftone is applied. This can be used to remove some detail in the dots and make them more consistently round.

Color1: *Default rgb: [1 1 1].*

The 'bright' color to use for the dots pattern.

Color0: *Default rgb: [0 0 0].*

The 'dark' color to use for the dots pattern.

See Also:

[HalfTone](#)
[HalfToneColor](#)
[Etching](#)

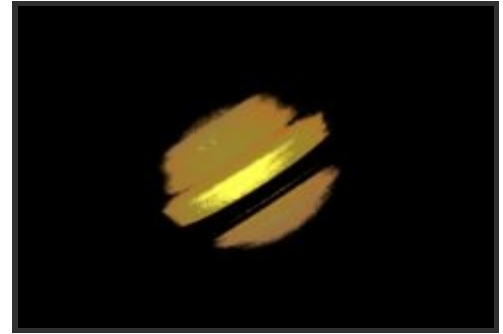
[ScanLines](#)
[WipeDots](#)
[AutoPaint](#)
[Sketch](#)
[Mosaic](#)
[FlysEyeHex](#)
[JpegDamage](#)

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S_Hotspots

Generates a hotspot image containing areas of the source clip brighter than a given threshold. The colors of the hotspots should match the original source. This can be used for increasing contrast or finding the bright areas of a clip, but without changing the color saturation or hue of the result.

In the Sapphire Adjust effects submenu.



Inputs:

Source: The clip to be processed.

Parameters:

Blur Input: *Default:* 0, *Range:* 0 or greater.

Allows smaller spots to be smoothed away before the hotspots are determined.

Threshold: *Default:* 0.7, *Range:* 0 or greater.

Include hotspots at any source areas that are brighter than this value.

Threshold Add Color: *Default rgb:* [0 0 0].

This can be used to raise the threshold on a specific color and thereby reduce the hotspots generated on areas of the source clip containing that color.

Saturation: *Default:* 1, *Range:* -2 to 8.

Scales the color saturation. Increase for more intense colors. Set to 0 for monochrome.

Brightness: *Default:* 1, *Range:* 0 or greater.

Scales the brightness of the result.

See Also:

[HueSatBright](#)

[Monochrome](#)

[ClampChroma](#)

[PseudoColor](#)

[DuoTone](#)

[TriTone](#)

[QuadTone](#)

[Tint](#)

[Threshold](#)

[Gamma](#)

[Solarize](#)

[ChannelSwitcher](#)

[ShowBadColors](#)

[Invert](#)

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S_HueSatBright

Adjusts the hue, saturation, brightness, and/or offset of the input clip.

In the Sapphire Adjust effects submenu.



Inputs:

Source: The clip to be processed.

Parameters:

Hue Shift: *Default: 0, Range: -1 to 1.*

Shifts the hue of the source colors, in revolutions from red to green to blue to red.

Preserve Luma: *Check-box, Default: off.*

Enable this to preserve the brightness values of the input image after the hue is shifted.

Saturation: *Default: 1, Range: -2 to 8.*

Scales the color saturation of the result. Increase for more intense colors. Set to 0 for monochrome. You can also invert the chroma of the result by making this negative.

Brightness: *Default: 1, Range: 0 or greater.*

Scales the brightness of the result.

Scale Colors: *Default rgb: [1 1 1].*

Scales the color of the result. For example, if it is yellow [1 1 0], the blue of the result will be 0.

Offset Darks: *Default: 0, Range: -8 to 2.*

Adds this gray value to the darker regions of the result. This can be negative to increase contrast.

See Also:

[Monochrome](#)

[ClampChroma](#)

[PseudoColor](#)

[DuoTone](#)

[TriTone](#)

[QuadTone](#)

[Tint](#)

[Threshold](#)

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S_Invert

Inverts the colors of the source clip, so black becomes white, and white becomes black. This can optionally also invert luma, chroma, RGB and alpha channels independently and do some basic color correction on the inverted result.

In the Sapphire Adjust effects submenu.



Inputs:

Source: The clip to be processed.

Parameters:

Invert Luma: *Check-box, Default: on.*

Inverts the brightness if this is enabled. Unselect to invert only the chroma.

Invert Chroma: *Check-box, Default: on.*

Inverts the chroma if this is enabled. Unselect to invert only the luma.

Invert Red: *Check-box, Default: off.*

Inverts the red channel if this is enabled. If Invert Luma/Chroma are also selected, the red channel is un-inverted.

Invert Green: *Check-box, Default: off.*

Inverts the green channel if this is enabled. If Invert Luma/Chroma are also selected, the green channel is un-inverted.

Invert Blue: *Check-box, Default: off.*

Inverts the blue channel if this is enabled. If Invert Luma/Chroma are also selected, the blue channel is un-inverted.

Invert Alpha: *Check-box, Default: off.*

Inverts the alpha channel if an alpha channel exists.

Remult By Alpha: *Check-box, Default: on.*

Scales the new RGB colors by the alpha channel if an alpha channel exists. This can prevent adding the inverted colors to transparent areas when compositing over a background clip.

Scale Lights: *Default: 1, Range: 0 or greater.*

Scales the result by this value. Increase for a brighter result.

Tint Lights: *Default rgb: [1 1 1].*

Scales the result by this color, thus tinting the lighter regions.

Tint Darks: *Default rgb: [0 0 0].*

Adds this color to the darker regions of the result. Set this to a dark red-orange color for a negative-film effect look.

Offset Darks: *Default: 0, Range: -8 to 2.*

Adds this gray value to the darker regions of the result. This can be negative to increase contrast.

Saturation: *Default: 1, Range: -2 to 8.*

Scales the chroma saturation of the result. If this is zero you will see only color from the tint colors.

See Also:

[HueSatBright](#)

[Monochrome](#)

[ClampChroma](#)

[PseudoColor](#)

[DuoTone](#)

[TriTone](#)

[QuadTone](#)

[Tint](#)

[Threshold](#)

[Hotspots](#)

[Gamma](#)

[Solarize](#)

[ChannelSwitcher](#)

[ShowBadColors](#)

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S_JitterFrames

Each output frame receives a random frame between the current frame plus and minus the Jitter Frame Dist. The jittering is random but repeatable.

In the Sapphire Time effects submenu.

Inputs:

Source: The clip to be processed.

Parameters:

Edit Frame Length: *Integer, Default: 1, Range: 1 or greater.*

If greater than 1, groups of frames of this size are jittered together instead of individually.

Jitter Frame Dist: *Default: 10, Range: 0 or greater.*

The magnitude of jittering.

Seed: *Default: 0.123, Range: 0 or greater.*

Used to initialize the random number generator. The actual seed value is not significant, but different seeds give different results and the same value should give a repeatable result.

See Also:

[GetFrame](#)
[TimeWarpRGB](#)
[MotionDetect](#)
[TimeSlice](#)
[FreezeFrame](#)
[RandomEdits](#)
[ReverseEdits](#)
[ReverseClip](#)

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S_JpegDamage

Creates a version of the Source input that is subjected to Jpeg compression artifacts and errors. This can be used to give various looks of low quality digital transmissions. Three methods for manipulating your image are provided: the Jpeg quality can be adjusted, various internal frequencies can be scaled, and random decompression errors can be introduced. In all cases it can also be useful to lower the resolution factor to create larger, more obvious Jpeg blocks.



In the Sapphire Stylize effects submenu.

Inputs:

Source: The clip to be processed.

Parameters:

Quality: *Default:* 0.1, *Range:* 0.01 to 1.

Determines the amount of normal Jpeg artifacts. Use lower values for more compression.

Res Factor: *Integer, Default:* 1, *Range:* 1 or greater.

Downres the result by the inverse of this amount, so 1 is full resolution, 2 is 1/2, 3 is 1/3, etc. The pixel shapes will be larger when this is increased. You won't notice the result of this parameter unless its value is beyond then the current viewing downres factor.

Res Rel X: *Default:* 1, *Range:* 0.01 or greater.

Downres the result by the inverse of this amount in the horizontal direction. The jpeg block shapes will become rectangular if this is not 1.

All Freq Scale: *Default:* 1, *Range:* 0 or greater.

Scales the frequencies for all Jpeg coefficients. Values other than 1 cause abnormal results, and create unusual looking blocky versions of your input.

X Freq Scale: *Default:* 1, *Range:* 0 or greater.

Scales the horizontal Jpeg frequencies. Values other than 1 cause abnormal results.

Y Freq Scale: *Default:* 1, *Range:* 0 or greater.

Scales the vertical Jpeg frequencies.

Low Freq Scale: *Default:* 1, *Range:* 0 or greater.

Scales the softer low frequencies.

Mid Freq Scale: *Default:* 1, *Range:* 0 or greater.

Scales the middle range frequencies.

High Freq Scale: *Default:* 1, *Range:* 0 or greater.

Scales the sharper high frequencies. You may need a high Quality setting to see the high frequencies at all.

Affect Luma: *Default:* 1, *Range:* 0 or greater.

Determines how much the Freq Scale parameters above affect the luminance channel. A zero value causes no luminance change. Values greater than 1.0 exaggerate the change.

Affect Chroma: *Default: 0.5, Range: 0 or greater.*

Determines how much the Freq Scale parameters above affect the chroma channels. A zero value causes no chroma change. Values greater than 1.0 exaggerate the change.

Error Rate: *Default: 0, Range: 0 or greater.*

If positive, random decompression errors are introduced. The value determines the average number of errors in those blocks that receive errors. Larger values give a more even grainy look.

Err Block Density: *Default: 0.75, Range: 0 to 1.*

Determines the percentage of Jpeg blocks with errors. A value of .5 will give errors in half of the blocks and 1.0 will give errors in all blocks.

Error Amp: *Default: 1, Range: 0 or greater.*

The amplitude of the decompression errors. Larger values give more visually obvious errors. This has no effect unless the Error Rate is also positive.

Error Coherence: *Default: 1, Range: 0 or greater.*

Determines how much the blocks with errors are grouped together. When zero, the errors are evenly distributed throughout the frame. When increased, the errors are clustered into larger groups. This has no effect unless the Error Rate is positive and the Err Block Density is less than 1.

Jitter Frames: *Integer, Default: 1, Range: 0 or greater.*

If this is 0, the random errors will remain the same for every frame processed. If it is 1, different errors are used for each frame. If it is 2, new errors are used for every other frame, and so on. This has no effect unless the Error Rate is also positive.

Rand Seed: *Default: 0.123, Range: 0 or greater.*

Used to initialize the random number generator. The actual seed value is not significant, but different seeds give different random error patterns, and the same value should give a repeatable result. This has no effect unless the Error Rate is also positive.

Scale Lights: *Default: 1, Range: 0 or greater.*

Scales the brightness of the result by this amount.

Offset Darks: *Default: 0, Range: -8 to 2.*

Adds this gray value to the darker regions of the source. This can be negative to increase contrast.

Saturation: *Default: 1, Range: -2 to 8.*

Scales the color saturation. Increase for more intense colors. Set to 0 for monochrome.

See Also:

[ScanLines](#)

[HalfTone](#)

[Mosaic](#)

[FlysEyeRect](#)

[AutoPaint](#)

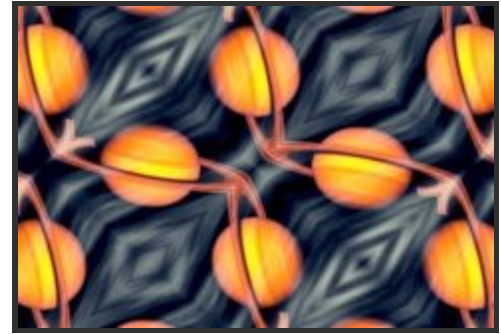
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S_Kaleido:Diamonds

Reflects the source clip into a pattern of diamonds. The 'Inside' parameters transform the Source image before it is reflected into the pattern. The Center and Z Dist transform the entire result including the reflection pattern, and the Rotate affects only the reflecting 'mirrors'.

In the Sapphire Stylize effects submenu.
In the S_Kaleido Plugin.



Inputs:

Source: The clip to be processed.

Parameters:

Center: *X & Y, Default: [360 243], Range: any.*

Center location of the kaleidoscoped image in screen coordinates relative to the center of the frame. The entire result will be shifted by this amount.

Z Dist: *Default: 2, Range: 0.001 or greater.*

Scales the 'distance' of the entire result in or out from the Center. Increase to zoom out, decrease to zoom in.

Rotate: *Default: 0, Range: any.*

Rotates the kaleidoscope's reflection pattern about the Center by this many counter-clockwise degrees.

Inside Shift: *X & Y, Default: [0 0], Range: any.*

Translates the source image inside the kaleidoscope before it is reflected.

Inside Z Dist: *Default: 1, Range: 0.001 or greater.*

Zooms the source image in or out inside the kaleidoscope before it is reflected.

Inside Rotate: *Default: 0, Range: any.*

Rotates the source image inside the kaleidoscope before it is reflected.

Wrap: *X & Y, Popup menu, Default: [Reflect Reflect].*

Determines the method for accessing outside the borders of the source image. This is used only if the image inside the kaleidoscope is not contained within the shape of mirrors.

No: gives black beyond the borders.

Tile: repeats a copy of the image.

Reflect: repeats a mirrored copy. Edges are often less visible with this method.

Filter: *Check-box, Default: on.*

If enabled, the Source image is resampled using pixel averaging. This removes aliasing and gives a higher quality result, although it may not be necessary if your input image is smooth with no sharp edges or high frequencies.

Crop Input Parameters: *Default: 0, Range: 0 or greater.*

These 4 parameters, **Crop Top**, **Crop Bottom**, **Crop Left**, and **Crop Right**, allow selecting a rectangular subsection of the input image to be processed. If the Wrap parameters are set to "No" the exposed borders will be transparent. If the Wrap is "Tile" or "Reflect" the source image is wrapped on the new cropped borders to fill the frame. This can make it easier to avoid artifacts due to distorting an image with bad edges.

See Also:

[KaleidoTriangles](#)

[KaleidoSquares](#)

[KaleidoOct](#)

[KaleidoPolar](#)

[FlysEyeHex](#)

[FlysEyeCircles](#)

[FlysEyeRect](#)

[Sapphire](#)

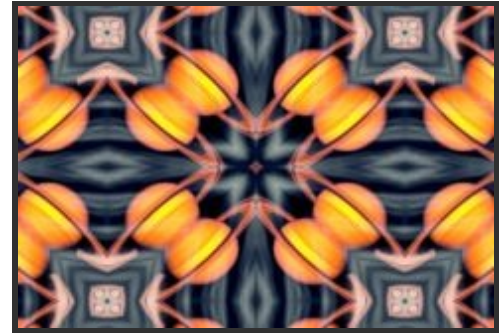
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S_Kaleido:Oct

Reflects the source clip into an octagonal pattern of right triangles. The 'Inside' parameters transform the Source image before it is reflected into the pattern. The Center and Z Dist transform the entire result including the reflection pattern, and the Rotate affects only the reflecting 'mirrors'.

In the Sapphire Stylize effects submenu.
In the S_Kaleido Plugin.



Inputs:

Source: The clip to be processed.

Parameters:

Center: *X & Y, Default: [360 243], Range: any.*

Center location of the kaleidoscoped image in screen coordinates relative to the center of the frame. The entire result will be shifted by this amount.

Z Dist: *Default: 2, Range: 0.001 or greater.*

Scales the 'distance' of the entire result in or out from the Center. Increase to zoom out, decrease to zoom in.

Rotate: *Default: 0, Range: any.*

Rotates the kaleidoscope's reflection pattern about the Center by this many counter-clockwise degrees.

Inside Shift: *X & Y, Default: [0 0], Range: any.*

Translates the source image inside the kaleidoscope before it is reflected.

Inside Z Dist: *Default: 1, Range: 0.001 or greater.*

Zooms the source image in or out inside the kaleidoscope before it is reflected.

Inside Rotate: *Default: 0, Range: any.*

Rotates the source image inside the kaleidoscope before it is reflected.

Wrap: *X & Y, Popup menu, Default: [Reflect Reflect].*

Determines the method for accessing outside the borders of the source image. This is used only if the image inside the kaleidoscope is not contained within the shape of mirrors.

No: gives black beyond the borders.

Tile: repeats a copy of the image.

Reflect: repeats a mirrored copy. Edges are often less visible with this method.

Filter: *Check-box, Default: on.*

If enabled, the Source image is resampled using pixel averaging. This removes aliasing and gives a higher quality result, although it may not be necessary if your input image is smooth with no sharp edges or high frequencies.

Crop Input Parameters: *Default: 0, Range: 0 or greater.*

These 4 parameters, **Crop Top**, **Crop Bottom**, **Crop Left**, and **Crop Right**, allow selecting a rectangular subsection of the input image to be processed. If the Wrap parameters are set to "No" the exposed borders will be transparent. If the Wrap is "Tile" or "Reflect" the source image is wrapped on the new cropped borders to fill the frame. This can make it easier to avoid artifacts due to distorting an image with bad edges.

See Also:

[KaleidoTriangles](#)

[KaleidoSquares](#)

[KaleidoDiamonds](#)

[KaleidoPolar](#)

[FlysEyeHex](#)

[FlysEyeCircles](#)

[FlysEyeRect](#)

[Sapphire](#)

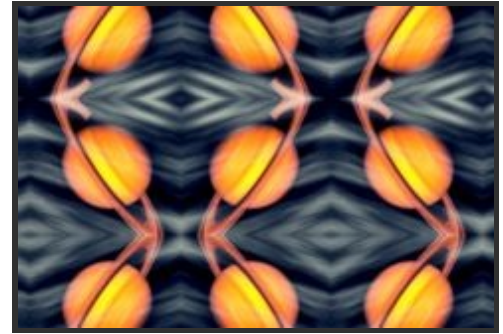
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S_Kaleido:Squares

Reflects the source clip into a pattern of squares. The 'Inside' parameters transform the Source image before it is reflected into the pattern. The Center and Z Dist transform the entire result including the reflection pattern, and the Rotate affects only the reflecting 'mirrors'.

In the Sapphire Stylize effects submenu.
In the S_Kaleido Plugin.



Inputs:

Source: The clip to be processed.

Parameters:

Center: *X & Y, Default: [360 243], Range: any.*

Center location of the kaleidoscoped image in screen coordinates relative to the center of the frame. The entire result will be shifted by this amount.

Z Dist: *Default: 2, Range: 0.001 or greater.*

Scales the 'distance' of the entire result in or out from the Center. Increase to zoom out, decrease to zoom in.

Rotate: *Default: 0, Range: any.*

Rotates the kaleidoscope's reflection pattern about the Center by this many counter-clockwise degrees.

Inside Shift: *X & Y, Default: [0 0], Range: any.*

Translates the source image inside the kaleidoscope before it is reflected.

Inside Z Dist: *Default: 1, Range: 0.001 or greater.*

Zooms the source image in or out inside the kaleidoscope before it is reflected.

Inside Rotate: *Default: 0, Range: any.*

Rotates the source image inside the kaleidoscope before it is reflected.

Wrap: *X & Y, Popup menu, Default: [Reflect Reflect].*

Determines the method for accessing outside the borders of the source image. This is used only if the image inside the kaleidoscope is not contained within the shape of mirrors.

No: gives black beyond the borders.

Tile: repeats a copy of the image.

Reflect: repeats a mirrored copy. Edges are often less visible with this method.

Filter: *Check-box, Default: on.*

If enabled, the Source image is resampled using pixel averaging. This removes aliasing and gives a higher quality result, although it may not be necessary if your input image is smooth with no sharp edges or high frequencies.

Crop Input Parameters: *Default: 0, Range: 0 or greater.*

These 4 parameters, **Crop Top**, **Crop Bottom**, **Crop Left**, and **Crop Right**, allow selecting a rectangular subsection of the input image to be processed. If the Wrap parameters are set to "No" the exposed borders will be transparent. If the Wrap is "Tile" or "Reflect" the source image is wrapped on the new cropped borders to fill the frame. This can make it easier to avoid artifacts due to distorting an image with bad edges.

See Also:

[KaleidoTriangles](#)
[KaleidoDiamonds](#)
[KaleidoOct](#)
[KaleidoPolar](#)

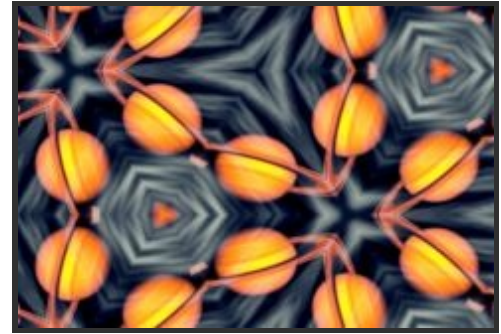
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[FlysEyeCircles](#)
[FlysEyeRect](#)

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S_Kaleido:Triangles

Reflects the source clip into a pattern of equilateral triangles. The 'Inside' parameters transform the Source image before it is reflected into the pattern. The Center and Z Dist transform the entire result including the reflection pattern, and the Rotate affects only the reflecting 'mirrors'.

In the Sapphire Stylize effects submenu.
In the S_Kaleido Plugin.



Inputs:

Source: The clip to be processed.

Parameters:

Center: *X & Y, Default: [360 243], Range: any.*

Center location of the kaleidoscoped image in screen coordinates relative to the center of the frame. The entire result will be shifted by this amount. This parameter can be adjusted using the Center Widget.

Z Dist: *Default: 2, Range: 0.001 or greater.*

Scales the 'distance' of the entire result in or out from the Center. Increase to zoom out, decrease to zoom in.

Rotate: *Default: 0, Range: any.*

Rotates the kaleidoscope's reflection pattern about the Center by this many counter-clockwise degrees.

Inside Shift: *X & Y, Default: [0 0], Range: any.*

Translates the source image inside the kaleidoscope before it is reflected.

Inside Z Dist: *Default: 1, Range: 0.001 or greater.*

Zooms the source image in or out inside the kaleidoscope before it is reflected.

Inside Rotate: *Default: 0, Range: any.*

Rotates the source image inside the kaleidoscope before it is reflected.

Wrap: *X & Y, Popup menu, Default: [Reflect Reflect].*

Determines the method for accessing outside the borders of the source image. This is used only if the image inside the kaleidoscope is not contained within the shape of mirrors.

No: gives black beyond the borders.

Tile: repeats a copy of the image.

Reflect: repeats a mirrored copy. Edges are often less visible with this method.

Filter: *Check-box, Default: on.*

If enabled, the Source image is resampled using pixel averaging. This removes aliasing and gives a higher quality result, although it may not be necessary if your input image is smooth with no sharp edges or high frequencies.

Crop Input Parameters: *Default: 0, Range: 0 or greater.*

These 4 parameters, **Crop Top**, **Crop Bottom**, **Crop Left**, and **Crop Right**, allow selecting a rectangular subsection of the input image to be processed. If the Wrap parameters are set to "No" the exposed borders will be transparent. If the Wrap is "Tile" or "Reflect" the source image is wrapped on the new cropped borders to fill the frame. This can make it easier to avoid artifacts due to distorting an image with bad edges.

Show Center: *Check-box, Default:* on.

Turns on or off the screen user interface for adjusting the Center parameter.

See Also:

[KaleidoSquares](#)

[KaleidoDiamonds](#)

[KaleidoOct](#)

[KaleidoPolar](#)

[FlysEyeHex](#)

[FlysEyeCircles](#)

[FlysEyeRect](#)

[Sapphire](#)

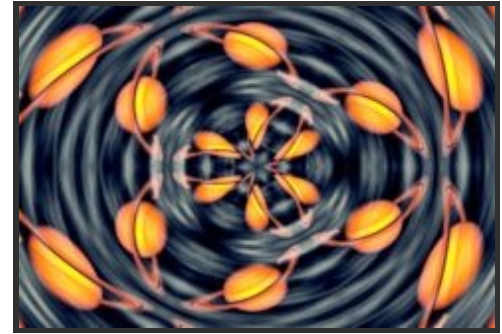
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S_KaleidoPolar

Warpes the source clip around in a disk shape and reflects radially as if viewed through a reflecting cylinder.

In the Sapphire Stylize effects submenu.



Inputs:

Source: The input clip to be warped.

Parameters:

Center: *X & Y, Default: [360 243], Range: any.*

Center location of the kaleidoscoped image in screen coordinates relative to the center of the frame. The entire result will be shifted by this amount. This parameter can be adjusted using the Center Widget.

Z Dist: *Default: 1, Range: 0.001 or greater.*

Scales the 'distance' of the entire result in or out from the Center. Increase to zoom out, decrease to zoom in.

Rotate: *Default: 0, Range: any.*

Rotates the kaleidoscope's reflection pattern about the Center by this many counter-clockwise degrees.

Stretch: *X & Y, Default: [1 1], Range: 0.1 or greater.*

Scales the horizontal or vertical size of the result.

Inside Shift Y: *Default: 0, Range: any.*

Shifts the source image up by this amount before it is reflected. This causes the resulting pattern of images to radiate outward from the center.

Angle Repeats: *Default: 6, Range: 0.01 or greater.*

The number of copies of the source image to wrap around. This should be an even integer to avoid a seam where the first copy connects to the last.

Filter: *Check-box, Default: on.*

If enabled, the image is adaptively filtered when it is resampled. This gives a better quality result when parts of the image are warped smaller.

Show Center: *Check-box, Default: on.*

Turns on or off the screen user interface for adjusting the Center parameter.

See Also:

[KaleidoTriangles](#)

[KaleidoSquares](#)

[KaleidoDiamonds](#)

[KaleidoOct](#)

[WarpPolar](#)

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S_Layer

Layers the Foreground image over the Background using one of a variety of blending operations. The colors of each input can also be adjusted using the lights, darks, and saturation parameters.

In the Sapphire Composite effects submenu.



Inputs:

Foreground: The clip to use as foreground.

Background: The clip to use as background.

Matte: *Optional.* Specifies the opacities of the Foreground clip. If this input is not provided the Foreground is assumed fully opaque. These values are scaled by the Opacity parameter before being used.

Parameters:

Mode: *Popup menu, Default: Normal.*

Determines which blending method is used to combine the foreground and background pixel colors.

Normal: a normal composite. This will just give the foreground as the result unless the Opacity is below 1.0 or an alpha channel is given.

Dissolve: randomly replaces background pixels with foreground. The opacity determines the probability, so the foreground is more likely to replace the background for higher values of Opacity.

Multiply: this can be used as an 'intersection' operation on matte images. White is the identity for Multiply, where one image contains white the other is not affected, so the result only contains white where both inputs are white.

Screen: this can be useful for combining the bright areas of two clips. It can also be used as a 'union' operation on matte images. Black is the identity for Screen, where one image contains black the other is not affected, so the result is white where either of the input images is white.

Overlay: combines foreground and background using an overlay function.

Soft Light: darkens or lightens the background depending on the foreground.

Hard Light: similar to overlay but with foreground and background swapped.

Color Dodge: brightens the background depending on the foreground.

Color Burn: darkens the background depending on the foreground.

Darken: the minimum of foreground and background. This can also be used as an 'intersection' operation with slightly different results than Multiply.

Lighten: the maximum of foreground and background. This can also be used as a 'union' operation with slightly different results than Screen.

Add: adds the foreground to the background.

Subtract: subtracts the foreground from the background.

Difference: similar to Subtract but the absolute value of the result is used, which tends to give more resulting colors in bounds. This can be used to select the regions of two matte images where one or the other is white, but not both.

Exclusion: similar to Difference but with smoother results.

Hue: combines the hue of the foreground with the saturation and luminance of the background.

Saturation: combines the saturation of the foreground with the hue and luminance of the background.

Chroma: combines the hue and saturation of the foreground with the luminance of the background.

Luminance: combines the luminance of the foreground with the hue and saturation of the background.

Linear Dodge: adds foreground and background and clamps the result at white.

Linear Burn: adds foreground and background but offsets to make the result darker. Similar to multiply in that combining with white gives no change and combining with black gives black.

Linear Light: performs a linear burn or linear dodge depending on if the foreground is more or less than 50 percent gray.

Vivid Light: performs a color burn or color dodge depending on if the foreground is more or less than 50 percent gray.

Pin Light: performs a lighten or darken depending on if the foreground is more or less than 50 percent gray.

Swap Inputs: *Check-box, Default: off.*

If enabled, effectively swaps the Background and Foreground inputs, and can be helpful for non-commutative operations like subtract. Note that this also causes parameters labeled 'Front' to affect the 'Back' input instead, and vice versa.

Fg Opacity: *Default: 1, Range: 0 to 1.*

Scales the opacity of the effect. When this is decreased the result approaches the background. At zero, the result will equal the background.

Fg Lights: *Default: 1, Range: any.*

Scales the Foreground before performing the effect.

Fg Darks: *Default: 0, Range: -8 to 2.*

Offsets the darker regions of the Foreground before performing the effect. This can be negative to increase contrast.

Fg Saturation: *Default: 1, Range: 0 to 10.*

Scales the color saturation of the Foreground before performing the effect. 0.0 makes it monochromatic, 1.0 has no effect.

Fg Hue Shift: *Default: 0, Range: -1 to 1.*

Shifts the hue of the colors in the Front clip, in revolutions from red to green to blue to red.

Fg Blur: *Default: 0, Range: 0 or greater.*

Amount to blur the foreground.

Bg Lights: *Default: 1, Range: any.*

Scales the Background before performing the effect.

Bg Darks: *Default: 0, Range: -8 to 2.*

Offsets the darker regions of the Background before performing the effect. This can be negative to increase contrast.

Bg Saturation: *Default: 1, Range: 0 to 10.*

Scales the color saturation of the Background before performing the effect. 0.0 makes it monochromatic, 1.0 has no effect.

Bg Hue Shift: *Default: 0, Range: -1 to 1.*

Shifts the hue of the colors in the Back clip, in revolutions from red to green to blue to red.

Bg Blur: *Default: 0, Range: 0 or greater.*

Amount to blur the background.

Result Lights: *Default: 1, Range: any.*

Scales the result after performing the effect.

Result Darks: *Default: 0, Range: -8 to 2.*

Offsets the darker regions of the result after performing the effect. This can be negative to increase contrast.

Result Saturation: *Default: 1, Range: 0 to 10.*

Scales the color saturation of the result after performing the effect. 0.0 makes it monochromatic, 1.0 has no effect.

Result Hue Shift: *Default: 0, Range: -1 to 1.*

Shifts the hue of the colors in the result, in revolutions from red to green to blue to red.

Blur Subpixel: *Check-box, Default: on.*

Enables blurring by subpixel amounts. Use this for smoother animation of the Blur Front and Blur Back parameters.

Soft Borders: *Check-box, Default: off.*

If enabled, transparent borders are added to the input image before processing. This allows the result to include soft edges beyond the original image size. When off, the effect only occurs within the frame and the result will retain an edge at the borders. This parameter does not appear in FCP or DF because those applications don't support image expansion.

Comp Premult: *Check-box, Default: on.*

Disable this if you have provided a separate Matte input and the Foreground pixel values have not been pre-multiplied by this Matte. This has no effect if Use Alpha is off.

Matte Use: *Popup menu, Default: Alpha.*

Determines how the Matte input channels are used to make a monochrome matte.

Luma: the luminance of the RGB channels is used.

Alpha: only the Alpha channel is used.

All Opaque: an alpha of 1.0 is used as if the Matte were fully opaque.

See Also:

[MathOps](#)

[Sapphire Plug-ins Introduction](#)

S_LensFlare

Renders a lens flare image over the background clip, aligning various flare elements between the hotspot and pivot locations. Use the Lens menu to select different types of lensflares.

In the Sapphire Lighting effects submenu.



Inputs:

Background: *Optional.* The clip to apply the lens flare over.

Mask: *Optional.* The color of the flare is scaled by the color of this clip at the flare's hotspot location. A black and white mask can be used to create a flare that is obscured by foreground objects. A color mask will colorize the flare, which can give the appearance of the light source passing behind a partially-transparent object.

Parameters:

Lens: *Popup menu, Default: 50 300mm Zoom.*

The type of lens flare to apply. Custom lens flare types can also be made, or existing types modified, by editing the "s_lensflares.text" file.

50 300mm Zoom: hotspot with ray cluster, red glow and red ring, and many other elements.

35mm Prime: hotspot with ray cluster, red glow and red ring, and a few other elements.

105mm Prime: hotspot with ray cluster, blue ring, blue glow, and other elements.

Anamorphic 1: horizontal blue rays, diagonal blue ray, red glow and red ring.

Anamorphic 2: horizontal blue rays and red glow.

Anamorphic Blue: horizontal and diagonal blue rays with hexagonal blue/white glow.

Rays Only: ray cluster with no other flare elements.

Rays Only 2: ray cluster like 105mm_prime, but with no other flare elements.

Rays Only 3: ray cluster like anamorphic1, but with no other flare elements.

Simple Hex: four simple red and blue hexagon elements.

Blue Star Burst: many long blue rays with a white-hot center and various reflection elements.

Orange Rays 6: orange star with six rays and other elements.

California Sun: yellow-orange hotspot with long soft double rays and reflection ring.

Space Telescope: four pointed star with halo.

Red Laser: intense red rays.

DVcam Vertical: vertical CCD burnout effect.

White Sun: white cluster of many rays with a rainbow reflection.

Hex Reflections: bright center and rays with many blue-green reflection elements.

Diffraction Star: six pointed white star with rainbow colored rays for a diffraction look.

Diffraction Rays: white star with many rainbow diffraction rays.

Diffraction Rings: multiple rings of textured rainbows around a hotspot.

Chroma Ring: textured rainbow ring that scales with distance between hotspot and pivot.

Chroma Arc: textured rainbow arc that scales with distance between hotspot and pivot.

Chroma Arc 2: double rainbow arcs that scale with distance between hotspot and pivot.

Glint Rays: similar to the default settings of Glint.

Scale Widths: *Default: 0.42, Range: 0 or greater.*

Scales the sizes of all the flare elements. This parameter can be adjusted using the Scale Widths Widget.

Rel Heights: *Default: 1, Range: 0 or greater.*

Scales the vertical dimension of all the flare elements, making them elliptical instead of circular. This can also be adjusted using the Scale Widths Widget.

Blur Flare: *Default: 0, Range: 0 or greater.*

If positive, the flare image is blurred by this amount before being combined with the background.

Hotspot: *X & Y, Default: [200 300], Range: any.*

The location of the brightest spot in the flare in screen coordinates. It can be set by enabling and moving the hotspot widget.

Pivot: *X & Y, Default: [0 0], Range: any.*

The elements of the flare will be in a line between the Hotspot and the Pivot locations. The Pivot location is in screen coordinates.

Brightness: *Default: 1, Range: 0 or greater.*

Scales the brightness of all the flare elements.

Color: *Default rgb: [1 1 1].*

Scales the color of all flare elements.

Gamma: *Default: 1, Range: 0 to 10.*

Increasing gamma brightens the flare, and especially boosts the darker elements.

Saturation: *Default: 1, Range: -2 to 8.*

Scales the color saturation of the flare elements. Increase for more intense colors. Set to 0 for a monochrome lens flare.

Hue Shift: *Default: 0, Range: -1 to 1.*

Shifts the hue of the flare, in revolutions from red to green to blue to red.

Rays Brightness: *Default: 1, Range: 0 or greater.*

Scales the brightness of the ray elements only.

Rays Rotate: *Default: 0, Range: any.*

Rotates the ray elements of the lens flare, if any, in counter-clockwise degrees.

Rays Num Scale: *Default: 1, Range: 0 or greater.*

Increases or decreases the number of rays.

Rays Length: *Default: 1, Range: 0 or greater.*

Adjusts the length of the rays without changing their thickness, or changing the size of the other flare elements.

Rays Thickness: *Default: 1, Range: 0 or greater.*

Adjusts the thickness of the individual rays within the flare.

Hotspot Bright: *Default: 1, Range: 0 or greater.*

Scales the brightness of the hotspot elements only.

Hotspot Color: *Default rgb: [1 1 1].*

Scales the color of the hotspot elements only.

Other Brightness: *Default: 1, Range: 0 or greater.*

Scales the brightness of all flare elements that are NOT at the hotspot location.

Other Color: *Default rgb: [1 1 1].*

Scales the color of all flare elements that are NOT at the hotspot location.

Other Width: *Default: 1, Range: 0 or greater.*

Scales the width of all flare elements that are NOT at the hotspot location.

Bg Brightness: *Default: 1, Range: 0 or greater.*

Scales the brightness of the background before combining with the flare. If 0, the result will contain only the flare image over black.

Combine: *Popup menu, Default: Screen.*

Determines how the flare image is combined with the Background.

***Screen:** performs a blend function which can help prevent overly bright results.*

***Add:** causes the flare image to be added to the background.*

Tint Bg Whites: *Check-box, Default: off.*

If this is enabled, the chroma of the flare is added only after the result is clamped to the maximum brightness. This allows the color of the flare image to still be visible even over bright white backgrounds. For the majority of backgrounds there will be no observable difference.

Affect Alpha: *Default: 0, Range: 0 or greater.*

If this value is positive the output Alpha channel will include some opacity from the flare. The maximum of the red, green, and blue flare brightness is scaled by this value and combined with the Background Alpha at each pixel.

Blur Mask: *Default: 0.0028, Range: 0 or greater.*

Blurs the Mask input by this amount before using. This can provide a smoother transition between the masked and unmasked areas. It has no effect unless the Mask input is provided.

Invert Mask: *Check-box, Default: off.*

If on, inverts the mask input so the effect is applied to areas where the Mask is black instead of white. This has no effect unless the Mask input is provided.

Mask Type: *Popup menu, Default: Color.*

This setting is ignored unless the Mask input is provided.

***Luma:** uses the luminance of the Mask input to scale the brightness of the flares.*

***Color:** uses the RGB channels of the Mask input to scale the colors of the flares.*

***Alpha:** uses the alpha channel of the Mask input to scale the brightness of the flares.*

Show Scale Widths: *Check-box, Default: on.*

Turns on or off the screen interface widget for adjusting the Scale Widths and Rel Heights parameters.

Show Hotspot: *Check-box, Default: on.*

Turns on or off the screen user interface for adjusting the Hotspot parameter.

Show Pivot: *Check-box, Default: on.*

Turns on or off the screen user interface for adjusting the Pivot parameter.

See Also:

[LensFlareAutoTrack](#)

[Glint](#)

[Glare](#)

[Sapphire](#)

[Plug-ins](#)

[Introduction](#)

S_LensFlareAutoTrack

Renders one or more lens flare images over the background clip, aligning various flare elements between the hotspot and pivot locations. In this AutoTrack version of LensFlare, the hotspots are automatically positioned on the brightest areas of the background clip. Increasing Blur For Auto will cause the input to be smoothed before the brightest locations are found and can help remove the effect of secondary bright spots.

In the Sapphire Lighting effects submenu.



Inputs:

Background: The clip to apply the lens flare over.

Track: *Optional.* The lensflare hotspot is positioned on the brightest part of this image. If this input is not selected, the Background input (current layer) is also used for the tracking.

Mask: *Optional.* The color of the flare is scaled by the color of this clip at the flare's hotspot location. A black and white mask can be used to create a flare that is obscured by foreground objects. A color mask will colorize the flare, which can give the appearance of the light source passing behind a partially-transparent object.

Parameters:

Lens: *Popup menu, Default: 50 300mm Zoom.*

The type of lens flare to apply. Custom lens flare types can also be made, or existing types modified, by editing the "s_lensflares.text" file.

50 300mm Zoom: hotspot with ray cluster, red glow and red ring, and many other elements.

35mm Prime: hotspot with ray cluster, red glow and red ring, and a few other elements.

105mm Prime: hotspot with ray cluster, blue ring, blue glow, and other elements.

Anamorphic 1: horizontal blue rays, diagonal blue ray, red glow and red ring.

Anamorphic 2: horizontal blue rays and red glow.

Anamorphic Blue: horizontal and diagonal blue rays with hexagonal blue/white glow.

Rays Only: ray cluster with no other flare elements.

Rays Only 2: ray cluster like 105mm_prime, but with no other flare elements.

Rays Only 3: ray cluster like anamorphic1, but with no other flare elements.

Simple Hex: four simple red and blue hexagon elements.

Blue Star Burst: many long blue rays with a white-hot center and various reflection elements.

Orange Rays 6: orange star with six rays and other elements.

California Sun: yellow-orange hotspot with long soft double rays and reflection ring.

Space Telescope: four pointed star with halo.

Red Laser: intense red rays.

DVcam Vertical: vertical CCD burnout effect.

White Sun: white cluster of many rays with a rainbow reflection.

Hex Reflections: bright center and rays with many blue-green reflection elements.

Diffraction Star: six pointed white star with rainbow colored rays for a diffraction look.

Diffraction Rays: white star with many rainbow diffraction rays.

Diffraction Rings: multiple rings of textured rainbows around a hotspot.

Chroma Ring: textured rainbow ring that scales with distance between hotspot and pivot.

Chroma Arc: textured rainbow arc that scales with distance between hotspot and pivot.

Chroma Arc 2: double rainbow arcs that scale with distance between hotspot and pivot.

Glint Rays: similar to the default settings of Glint.

Scale Widths: *Default:* 0.42, *Range:* 0 or greater.

Scales the sizes of all the flare elements. This parameter can be adjusted using the Scale Widths Widget.

Rel Heights: *Default:* 1, *Range:* 0 or greater.

Scales the vertical dimension of all the flare elements, making them elliptical instead of circular. This can also be adjusted using the Scale Widths Widget.

Blur Flare: *Default:* 0, *Range:* 0 or greater.

If positive, the flare image is blurred by this amount before being combined with the background.

Max Hotspots: *Integer, Default:* 1, *Range:* 1 to 100.

Maximum number of flares to render. Rendering multiple flares can give different tracking results than rendering a single flare.

Hotspot Threshold: *Default:* 0.6, *Range:* 0 or greater.

When rendering multiple flares, flares are drawn at locations in the source clip that are brighter than this value. If Max Flares is 1, has no effect.

Hotspot Shift: *X & Y, Default:* [0 0], *Range:* any.

Adds this amount to the hotspot locations. This allows for a relative adjustment of the hotspots away from the auto-tracked locations if necessary.

Pivot: *X & Y, Default:* [0 0], *Range:* any.

The elements of the flare will be in a line between the Hotspot and the Pivot locations. The Pivot location is in screen coordinates.

Blur For Auto: *Default:* 0.014, *Range:* 0 or greater.

The input is blurred by this amount before finding the brightest location.

Brightness: *Default:* 1, *Range:* 0 or greater.

Scales the brightness of all the flare elements.

Color: *Default rgb:* [1 1 1].

Scales the color of all flare elements.

Gamma: *Default:* 1, *Range:* 0 to 10.

Increasing gamma brightens the flare, and especially boosts the darker elements.

Saturation: *Default:* 1, *Range:* -2 to 8.

Scales the color saturation of the flare elements. Increase for more intense colors. Set to 0 for a monochrome lens flare.

Hue Shift: *Default:* 0, *Range:* -1 to 1.

Shifts the hue of the flare, in revolutions from red to green to blue to red.

Rays Rotate: *Default:* 0, *Range:* any.

Rotates the ray elements of the lens flare, if any, in counter-clockwise degrees.

Rays Brightness: *Default:* 1, *Range:* 0 or greater.

Scales the brightness of the ray elements only.

Rays Num Scale: *Default:* 1, *Range:* 0 or greater.

Increases or decreases the number of rays.

Rays Length: *Default: 1, Range: 0 or greater.*

Adjusts the length of the rays without changing their thickness, or changing the size of the other flare elements.

Rays Thickness: *Default: 1, Range: 0 or greater.*

Adjusts the thickness of the individual rays within the flare.

Hotspot Bright: *Default: 1, Range: 0 or greater.*

Scales the brightness of the hotspot elements only.

Hotspot Color: *Default rgb: [1 1 1].*

Scales the color of the hotspot elements only.

Other Brightness: *Default: 1, Range: 0 or greater.*

Scales the brightness of all flare elements that are NOT at the hotspot location.

Other Color: *Default rgb: [1 1 1].*

Scales the color of all flare elements that are NOT at the hotspot location.

Other Width: *Default: 1, Range: 0 or greater.*

Scales the width of all flare elements that are NOT at the hotspot location.

Bg Brightness: *Default: 1, Range: 0 or greater.*

Scales the brightness of the background before combining with the flare. If 0, the result will contain only the flare image over black.

Combine: *Popup menu, Default: Screen.*

Determines how the flare image is combined with the Background.

Screen: performs a blend function which can help prevent overly bright results.

Add: causes the flare image to be added to the background.

Tint Bg Whites: *Check-box, Default: off.*

If this is enabled, the chroma of the flare is added only after the result is clamped to the maximum brightness. This allows the color of the flare image to still be visible even over bright white backgrounds. For the majority of backgrounds there will be no observable difference.

Affect Alpha: *Default: 0, Range: 0 or greater.*

If this value is positive the output Alpha channel will include some opacity from the flare. The maximum of the red, green, and blue flare brightness is scaled by this value and combined with the Background Alpha at each pixel.

Blur Mask: *Default: 0.0028, Range: 0 or greater.*

Blurs the Mask input by this amount before using. This can provide a smoother transition between the masked and unmasked areas. It has no effect unless the Mask input is provided.

Invert Mask: *Check-box, Default: off.*

If on, inverts the mask input so the effect is applied to areas where the Mask is black instead of white. This has no effect unless the Mask input is provided.

Mask Type: *Popup menu, Default: Color.*

This setting is ignored unless the Mask input is provided.

Luma: uses the luminance of the Mask input to scale the brightness of the flares.

Color: uses the RGB channels of the Mask input to scale the colors of the flares.

Alpha: uses the alpha channel of the Mask input to scale the brightness of the flares.

Show Scale Widths: *Check-box, Default: on.*

Turns on or off the screen interface widget for adjusting the Scale Widths and Rel Heights parameters.

Show Pivot: *Check-box, Default:* on.

Turns on or off the screen user interface for adjusting the Pivot parameter.

See Also:

[LensFlare](#)

[Glint](#)

[Sapphire](#)

[Glare](#)

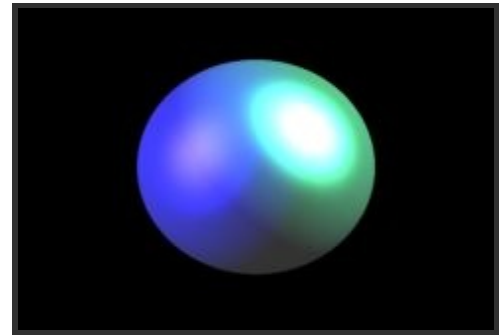
[Plug-ins](#)

[Introduction](#)

S_Light3D

Performs 3D relighting with up to 4 individually controlled light sources. The Source input is usually an ambient or diffuse pass from a 3d renderer that shows the surface colors. The Normal vector input determines the surface direction at each pixel. The source and normals should be generated together by the 3d program so they match.

In the Sapphire Lighting effects submenu.



Inputs:

Source: The 3d surface colors.

Normals: Contains the normal vectors matching the Source clip. Typically the red channel will have the X component of the normal, green will have Y, and blue will have Z, but you can adjust this mapping using the Normal Offset and Invert parameters on the second page.

Mask: *Optional.* Used to interpolate between the original image and the result. Where the mask is black, no lighting is applied and the original Source image is visible.

Parameters:

Brightness: *Default: 1, Range: 0 or greater.*
Scales the brightness of all lights together.

Ambient Bright: *Default: 0.2, Range: any.*
The amount of ambient light included in the entire frame. This allows parts of the source where no light is falling to be visible.

Diffuse Bright: *Default: 0.5, Range: 0.1 or greater.*
Scales the diffuse light from all light sources.

Hilight Bright: *Default: 0.8, Range: 0 or greater.*
Scales the brightness of all specular highlights.

Hilight Size: *Default: 0.5, Range: 0.1 or greater.*
Adjusts the size of all specular highlights.

Light1 Parameters:

Light1 Enable: *Check-box, Default: on.*
Enables the first light source.

Light1 Dir: *X & Y, Default: [70 440], Range: any.*
The x and y position of the first light source. This parameter can be adjusted using the Light1 Dir Widget.

Show Light1 Dir: *Check-box, Default: on.*
Turns on or off the screen user interface for adjusting the Light1 Dir parameter.

Light1 Z: *Default: 0.5, Range: any.*

The z position of the first light source.

Diffuse Bright 1: *Default: 0.5, Range: 0.1 or greater.*

Scales the diffuse brightness for Light 1 only.

Hilight Bright 1: *Default: 1, Range: 0 or greater.*

Scales the brightness of the specular highlights for Light 1 only.

Hilight Size 1: *Default: 1, Range: 0 or greater.*

Adjusts the size of the specular highlights for Light 1 only.

Light1 Color: *Default rgb: [1 1 1].*

The color of the first light source.

Light2 Parameters:

Light2 Enable: *Check-box, Default: off.*

Enables the second light source.

Light2 Dir: *X & Y, Default: [650 440], Range: any.*

The x and y position of the second light source. This parameter can be adjusted using the Light2 Dir Widget.

Show Light2 Dir: *Check-box, Default: off.*

Turns on or off the screen user interface for adjusting the Light2 Dir parameter.

Light2 Z: *Default: 0.5, Range: any.*

The z position of the second light source.

Diffuse Bright 2: *Default: 0.5, Range: 0.1 or greater.*

Scales the diffuse brightness for Light 2 only.

Hilight Bright 2: *Default: 1, Range: 0 or greater.*

Scales the brightness of the specular highlights for Light 2 only.

Hilight Size 2: *Default: 1, Range: 0 or greater.*

Adjusts the size of the specular highlights for Light 2 only.

Light2 Color: *Default rgb: [1 1 1].*

The color of the second light source.

Light3 Parameters:

Light3 Enable: *Check-box, Default: off.*

Enables the third light source.

Light3 Dir: *X & Y, Default: [70 40], Range: any.*

The x and y position of the third light source. This parameter can be adjusted using the Light3 Dir Widget.

Show Light3 Dir: *Check-box, Default: off.*

Turns on or off the screen user interface for adjusting the Light3 Dir parameter.

Light3 Z: *Default: 0.5, Range: any.*

The z position of the third light source.

Diffuse Bright 3: *Default: 0.5, Range: 0.1 or greater.*

Scales the diffuse brightness for Light 3 only.

Hilight Bright 3: *Default: 1, Range: 0 or greater.*
Scales the brightness of the specular highlights for Light 3 only.

Hilight Size 3: *Default: 1, Range: 0 or greater.*
Adjusts the size of the specular highlights for Light 3 only.

Light3 Color: *Default rgb: [1 1 1].*
The color of the third light source.

Light4 Parameters:

Light4 Enable: *Check-box, Default: off.*
Enables the fourth light source.

Light4 Dir: *X & Y, Default: [650 40], Range: any.*
The x and y position of the fourth light source. This parameter can be adjusted using the Light4 Dir Widget.

Show Light4 Dir: *Check-box, Default: off.*
Turns on or off the screen user interface for adjusting the Light4 Dir parameter.

Light4 Z: *Default: 0.5, Range: any.*
The z position of the fourth light source.

Diffuse Bright 4: *Default: 0.5, Range: 0.1 or greater.*
Scales the diffuse brightness for Light 4 only.

Hilight Bright 4: *Default: 1, Range: 0 or greater.*
Scales the brightness of the specular highlights for Light 4 only.

Hilight Size 4: *Default: 1, Range: 0 or greater.*
Adjusts the size of the specular highlights for Light 4 only.

Light4 Color: *Default rgb: [1 1 1].*
The color of the fourth light source.

Normal Offset: *Default: -0.5, Range: any.*
Added to the values in the Normal input.

Normal X <-: *Popup menu, Default: Red.*
Determines which color channel is used for the horizontal component of the normal vectors.

Red: Use Red channel.
Green: Use Green channel.
Blue: Use Blue channel.

Normal Y <-: *Popup menu, Default: Green.*
Determines which color channel is used for the vertical component of the normal vectors.

Red: Use Red channel.
Green: Use Green channel.
Blue: Use Blue channel.

Normal Z <-: *Popup menu, Default: Blue.*
Determines which color channel is used for the depth component of the normal vectors.

Red: Use Red channel.
Green: Use Green channel.
Blue: Use Blue channel.

Invert X: *Check-box, Default: off.*

If checked, inverts the horizontal component of the normal vectors.

Invert Y: *Check-box, Default: off.*

If checked, inverts the vertical component of the normal vectors.

Invert Z: *Check-box, Default: off.*

If checked, inverts the depth component of the normal vectors.

Blur Mask: *Default: 0, Range: 0 or greater.*

Blurs the Mask input by this amount before using. This can provide a smoother transition between the masked and unmasked areas. It has no effect unless the Mask input is provided.

Invert Mask: *Check-box, Default: off.*

If on, inverts the mask input so the effect is applied to areas where the Mask is black instead of white. This has no effect unless the Mask input is provided.

Mask Use: *Popup menu, Default: Luma.*

Determines how the Mask input channels are used to make a monochrome mask.

***Luma:** the luminance of the RGB channels is used.*

***Alpha:** only the Alpha channel is used.*

See Also:

[Emboss](#)

[EmbossShiny](#)

[SpotLight](#)

[Sapphire Plug-ins](#)

[Introduction](#)

S_MathOps

Combines two clips using one of a variety of mathematical operations. The colors of each input can also be adjusted using the lights, darks, and saturation parameters.

In the Sapphire Composite effects submenu.



Inputs:

SourceA: The first input clip to be processed.

SourceB: The second input clip to be processed.

Parameters:

Operation: *Popup menu, Default: Add.*

Determines which mathematical operation is applied to combine the pixel colors of the two source inputs.

Add: $A + B$.

Subtract: $A - B$.

Multiply: $A * B$. This can be used as an 'intersection' operation on matte images. The result only contains white where both inputs are white.

Divide: A / B . This can be used to 'un-premultiply' an image by using its matte as the second input.

Screen: $A + B - AB$. This can be useful in combining the bright areas of two clips. It can also be used as a 'union' operation on matte images. The result is white where either of the input images is white.

Average: $(A + B) / 2$.

Overlay: combines A over B with an overlay function.

Minimum: the smallest value for each color channel of each pixel. This can also be used as an 'intersection' operation with slightly different results than Multiply.

Maximum: the largest value for each color channel of each pixel. This can also be used as a 'union' operation with slightly different results than Screen.

Difference: similar to Subtract but the absolute value of the result is used, which tends to give more resulting colors in bounds. This can be used to select the regions of two matte images where one or the other is white, but not both.

Xor: performs an 'exclusive-or' operation on the colors of the source clips. This can also be used to select the regions of two matte images where one or the other is white, but not both, with slightly different results than Difference.

Xor Bits: performs a bitwise exclusive-or on the colors of the source clips. This can produce some interesting contour effects although the results are often difficult to predict.

And Bits: performs a bitwise logical and on the colors of the source clips. Similar to XorBits but tends to produce darker results.

Or Bits: performs a bitwise logical or on the colors of the source clips. Similar to XorBits but tends to produce brighter results.

Mod: gives the remainder after dividing the colors of the first source clip by the second. Set the A Scale parameter to a high value for some unusual pixel banding effects.

Round: the colors of the first source clip are rounded using the values of the second input as the step size.

Bounce: similar to Mod but the result contains fewer jagged edges. Set the A Scale parameter to a high value for some striping effects.

Swap Inputs: *Check-box, Default: off.*

If enabled, effectively swaps the A and B Source inputs, and can be helpful for non-commutative operations like subtract. Note that this also causes parameters labeled 'A' to affect the 'B' input instead, and vice versa.

A Lights: *Default: 1, Range: 0 or greater.*

Scales the brightness of SourceA before performing the operation.

A Darks: *Default: 0, Range: -8 to 2.*

Offsets the darker regions of the first input before performing the effect. This can be negative to increase contrast.

A Saturation: *Default: 1, Range: 0 to 10.*

Adjusts the color intensity of SourceA before performing the operation. 0.0 makes it monochromatic, 1.0 has no effect.

B Lights: *Default: 1, Range: 0 or greater.*

Scales the brightness of SourceB before performing the operation.

B Darks: *Default: 0, Range: -8 to 2.*

Offsets the darker regions of the second input before performing the effect. This can be negative to increase contrast.

B Saturation: *Default: 1, Range: 0 to 10.*

Adjusts the color intensity of SourceB before performing the operation. 0.0 makes it monochromatic, 1.0 has no effect.

Dest Lights: *Default: 1, Range: 0 or greater.*

Scales the brightness of the result after performing the operation.

Dest Darks: *Default: 0, Range: -8 to 2.*

Offsets the darker regions of the result after performing the effect. This can be negative to increase contrast.

Dest Saturation: *Default: 1, Range: 0 to 10.*

Scales the color intensity of the result after performing the operation. 0.0 makes it monochromatic, 1.0 has no effect.

See Also:

[Layer](#)

[Sapphire Plug-ins Introduction](#)

S_MatteOps

Grows, shrinks, or adds noise to the alpha channel of the Source input. This can be useful for removing blue or green spill from a chroma key.

In the Sapphire Composite effects submenu.



Inputs:

Source: The input clip containing the matte to process. The matte is assumed to have anti-aliased but hard edges, because very soft edges might not be affected in a useful way.

Parameters:

Shrink- Grow+: *Default: 0, Range: any.*

Amount to grow the matte edges in approximate pixels, or shrink if negative.

Edge Softness: *Default: 1, Range: 0.01 or greater.*

The resulting softness of the edges.

Post Blur: *Default: 0, Range: 0 or greater.*

If positive, the result is blurred by this amount. This is an alternative method for softening the edges.

Filter: *Popup menu, Default: Triangle.*

The type of blur filter to use for the shrink or grow process.

Box: uses a rectangular shaped filter.

Triangle: smoother, uses a pyramid shaped filter.

Gauss: smoothest, uses a gaussian shaped filter.

Matte Use: *Popup menu, Default: Alpha.*

Determines how the Matte input channels are used to make a monochrome matte.

Luma: the luminance of the RGB channels is used.

Alpha: only the Alpha channel is used.

Invert Matte: *Check-box, Default: off.*

If enabled, the black and white of the output matte are inverted.

Output: *Popup menu, Default: RGBA.*

Selects the format of the output.

Matte: the processed Matte is output as white.

RGBA: the Alpha output channel receives the processed Matte, and the RGB channels are passed through from the input unchanged.

RGBA Premult: the Alpha output channel receives the processed Matte, and the RGB channels receive the input multiplied by the new Matte. This option can be appropriate if you are shrinking a matte and need an RGBA result for pre-multiplied compositing.

Matte Premult: the processed Matte is output on all channels.

Noise Amplitude: *Default: 0, Range: 0 or greater.*

The amount of noise texture to add to the edges.

Noise Width: *Default:* 0.0056, *Range:* 0 or greater.

The width of the area at the matte edges where the noise is included. This has no effect unless Noise Amplitude is positive

Frequency: *Default:* 100, *Range:* 0.1 or greater.

The frequency of the noise. Increase for finer grain noise, decrease for coarser noise. This has no effect unless Noise Amplitude is positive.

Frequency Rel X: *Default:* 1, *Range:* 0.01 or greater.

The relative horizontal frequency of the noise. Increase to stretch the noise vertically, decrease to stretch it horizontally. This has no effect unless Noise Amplitude is positive.

Octaves: *Integer, Default:* 1, *Range:* 1 to 10.

The number of summed layers of noise. Each octave is twice the frequency and half the magnitude of the previous. This has no effect unless Noise Amplitude is positive.

Seed: *Default:* 0.23, *Range:* 0 or greater.

Used to initialize the random number generator. The actual seed value is not significant, but different seeds give different results and the same value should give a repeatable result.

Noise Shift: *X & Y, Default:* [0 0], *Range:* any.

The horizontal and vertical translation of the noise texture.

Jitter Frames: *Integer, Default:* 1, *Range:* 0 or greater.

If this is 0, the noise texture will remain the same for every frame processed. If it is 1, a new noise texture is used for each frame. If it is 2, a new noise texture is used for every other frame, and so on.

See Also:

[MatteOpsComp](#)

[Distort](#)

[Sapphire](#)

[WarpBubble](#)

[Plug-ins](#)

[Diffuse](#)

[Introduction](#)

S_MatteOpsComp

Grows, shrinks, or adds noise to the edges of the Foreground alpha channel, then uses that result to composite the Foreground over the Background. This can be useful for removing blue or green spill from a chroma key.

In the Sapphire Composite effects submenu.



Inputs:

Foreground: The clip to use as foreground.

Background: The clip to use as background.

Matte: *Optional.* The matte input clip to process. If this input is not provided, the Foreground input is used instead. The Matte is assumed to have anti-aliased but hard edges, because very soft edges might not be affected in a useful way. This input can be affected by the Invert Matte or Matte Use parameters.

Parameters:

Shrink- Grow+: *Default: 0, Range: any.*

Amount to grow the matte edges in approximate pixels, or shrink if negative.

Edge Softness: *Default: 1, Range: 0.01 or greater.*

The resulting softness of the edges.

Post Blur: *Default: 0, Range: 0 or greater.*

If positive, the result is blurred by this amount. This is an alternative method for softening the edges.

Filter: *Popup menu, Default: Triangle.*

The type of blur filter to use for the shrink or grow process.

Box: uses a rectangular shaped filter.

Triangle: smoother, uses a pyramid shaped filter.

Gauss: smoothest, uses a gaussian shaped filter.

Matte Use: *Popup menu, Default: Alpha.*

Determines how the Matte input channels are used to make a monochrome matte.

Luma: the luminance of the RGB channels is used.

Alpha: only the Alpha channel is used.

Invert Matte: *Check-box, Default: off.*

If enabled, the black and white of the output matte are inverted.

Noise Amplitude: *Default: 0, Range: 0 or greater.*

The amount of noise texture to add to the edges.

Noise Width: *Default: 0.0056, Range: 0 or greater.*

The width of the area at the matte edges where the noise is included. This has no effect unless Noise Amplitude is positive

Frequency: *Default:* 100, *Range:* 0.1 or greater.

The frequency of the noise. Increase for finer grain noise, decrease for coarser noise. This has no effect unless Noise Amplitude is positive.

Frequency Rel X: *Default:* 1, *Range:* 0.01 or greater.

The relative horizontal frequency of the noise. Increase to stretch the noise vertically, decrease to stretch it horizontally. This has no effect unless Noise Amplitude is positive.

Octaves: *Integer, Default:* 1, *Range:* 1 to 10.

The number of summed layers of noise. Each octave is twice the frequency and half the magnitude of the previous. This has no effect unless Noise Amplitude is positive.

Seed: *Default:* 0.23, *Range:* 0 or greater.

Used to initialize the random number generator. The actual seed value is not significant, but different seeds give different results and the same value should give a repeatable result.

Noise Shift: *X & Y, Default:* [0 0], *Range:* any.

The horizontal and vertical translation of the noise texture.

Jitter Frames: *Integer, Default:* 1, *Range:* 0 or greater.

If this is 0, the noise texture will remain the same for every frame processed. If it is 1, a new noise texture is used for each frame. If it is 2, a new noise texture is used for every other frame, and so on.

See Also:

[MatteOps](#)

[Distort](#)

[Sapphire](#)

[WarpBubble](#)

[Plug-ins](#)

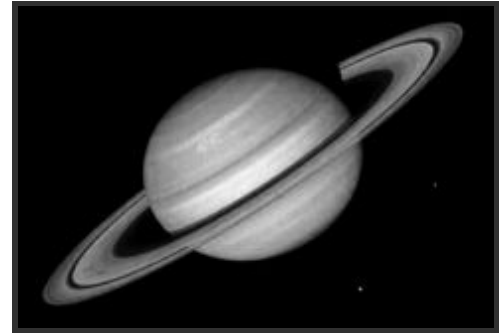
[Diffuse](#)

[Introduction](#)

S_Monochrome

Generates a monochrome version of the source clip using adjustable weights for the red, green, and blue channels. This can simulate the use of a color filter applied to the lens of a black and white camera. For example, use more red weight to darken blue sky areas of the input. The weights are scaled so they sum to 1 before being used to reduce overall brightness changes when they are adjusted.

In the Sapphire Adjust effects submenu.



Inputs:

Source: The clip to be processed.

Parameters:

Weight Red: *Default:* 0.3, *Range:* -1 to 1.

The relative contribution of the source's red channel. To simulate a black and white exposure using a red filter, set this to 1 and set the green and blue weights to 0.

Weight Green: *Default:* 0.5, *Range:* -1 to 1.

The relative contribution of the source's green channel.

Weight Blue: *Default:* 0.2, *Range:* -1 to 1.

The relative contribution of the source's blue channel

Brightness: *Default:* 1, *Range:* 0 or greater.

Scales the brightness of the result.

See Also:

[HueSatBright](#)

[ClampChroma](#)

[PseudoColor](#)

[DuoTone](#)

[TriTone](#)

[QuadTone](#)

[Tint](#)

[Threshold](#)

[Hotspots](#)

[Gamma](#)

[Solarize](#)

[ChannelSwitcher](#)

[ShowBadColors](#)

[Invert](#)

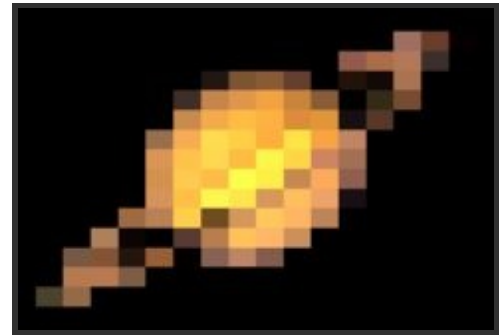
[Sapphire Plug-ins](#)

[Introduction](#)

S_Mosaic

Generates a pixelated version of the source clip. Adjust the size and shape of the blocks using the Pixel Frequency and Pixel Rel Height parameters. Increase the Smooth Colors parameter to cause the colors of nearby pixel blocks to be more consistent, and less flickery over time.

In the Sapphire Stylize effects submenu.



Inputs:

Source: The clip to be processed.

Mask: *Optional.* If provided, the effect is applied only at Source areas specified by this input. For gray values in the mask, the pixel blocks are mixed with the original source such that the blocks fade but remain whole. This input can be affected using the Blur Mask, Invert Mask, or Mask Use parameters.

Parameters:

Pixel Frequency: *Default:* 40, *Range:* 1 or greater.

The frequency of the pixel blocks. Increase for more numerous, smaller pixels.

Pixel Rel Height: *Default:* 1, *Range:* 0.01 or greater.

The relative height of the pixel blocks. Increase for taller blocks, decrease for wider ones.

Pixel Shift: *X & Y, Default:* [0 0], *Range:* any.

The translation of the pixel pattern.

Smooth Colors: *Default:* 0, *Range:* 0 or greater.

Blurs the source before pixelating. Increase to cause the colors of nearby pixel blocks to be more consistent, and less flickery over time.

Blur Mask: *Default:* 0, *Range:* 0 or greater.

Blurs the Mask input by this amount before using. This can provide a smoother transition between the masked and unmasked areas. It has no effect unless the Mask input is provided.

Invert Mask: *Check-box, Default:* off.

If on, inverts the mask input so the effect is applied to areas where the Mask is black instead of white. This has no effect unless the Mask input is provided.

Mask Use: *Popup menu, Default:* Luma.

Determines how the Mask input channels are used to make a monochrome mask.

Luma: the luminance of the RGB channels is used.

Alpha: only the Alpha channel is used.

Crop Input Parameters: *Default:* 0, *Range:* 0 or greater.

These 4 parameters, **Crop Top**, **Crop Bottom**, **Crop Left**, and **Crop Right**, allow selecting a rectangular subsection of the input image to be processed. If the Wrap parameters are set to "No" the exposed borders will be transparent. If the Wrap is "Tile" or "Reflect" the source image is wrapped on the new cropped borders to fill the frame. This can make it easier to avoid artifacts due to distorting an image with bad edges.

See Also:

[AutoPaint](#)

[Sketch](#)

[HalfTone](#)

[HalfToneColor](#)

[Etching](#)

[ScanLines](#)

[FlysEyeHex](#)

[JpegDamage](#)

[Sapphire](#)

[Plug-ins](#)

[Introduction](#)

S_MotionDetect

Shows areas of motion in a clip. For each frame, finds the difference between the current frame and a previous frame.

In the Sapphire Time effects submenu.



Inputs:

Source: The clip to be processed.

Parameters:

Delay Frames: *Integer, Default: 1, Range: any.*

The number of frames back to get the previous frame which is compared to the current frame.

Brightness: *Default: 1, Range: 0 or greater.*

Scales the brightness of the motion image.

Offset Darks: *Default: 0, Range: -8 to 2.*

Adds this gray value to the darker regions of the motion image. This can be negative to increase contrast.

Saturation: *Default: 1, Range: 0 to 10.*

Scales the color saturation of the motion image. Increase for more intense colors. Set to 0 for monochrome.

Motion: *Popup menu, Default: All.*

Selects between different motion types to detect.

All: shows all motion, both increasing and decreasing brightness levels.

Brighter: shows only motion in which the brightness is increasing, for example the leading edge of an object moving over a darker background.

Darker: shows only motion in which the brightness is decreasing, for example the trailing edge of an object moving over a darker background.

Combine: *Popup menu, Default: Motion Only.*

Determines how the motion image is combined with the original source.

Motion Only: gives the motion alone.

Mult: the motion is multiplied by the source.

Add: the motion is added to the source.

Screen: the motion is blended with the source using a screen operation.

Difference: the result is the difference between the motion and source.

Overlay: combines the motion and source using an overlay function.

Subtract: subtracts the motion image from the source darkening those areas.

See Also:

[GetFrame](#)
[TimeWarpRGB](#)
[TimeSlice](#)
[FreezeFrame](#)
[JitterFrames](#)

[Sapphire Plug-ins](#)
[Introduction](#)

RandomEdits
ReverseEdits
ReverseClip

S_NearestColor

Collects pixel colors from the input clip's frames that are closest to the given Match Color. This can create, for example, a background-only image from a clip with objects moving over a blue or green-screen background. It can also be used to accumulate the color of a moving object over a non-colored background. The collected colors are reinitialized whenever any non-consecutive frame is processed, either the first frame, reprocessing a given frame, or jumping to another frame. You must process multiple frames of a clip in a row to observe the effect, and clearing your image cache before rendering may sometimes be necessary.



In the Sapphire Time effects submenu.

Inputs:

Source: The clip to be processed.

Parameters:

Match Color: *Default rgb: [0 0 1].*
Pixel colors are kept that are 'nearest' to this color.

Chroma Weight: *Default: 1, Range: 0 or greater.*
The amount of influence hue has on the color matching. If this is 0, the pixels with the closest brightness to Match Color will be kept; if it is 2, the hue will have more influence and the brightness will have less.

See Also:

[Feedback](#)
[Trails](#)
[TrailsDiffuse](#)
[FeedbackDistort](#)
[TimeAverage](#)
[FeedbackBubble](#)

[WarpRepeat](#)
[WarpChroma](#)

[Sapphire](#)
[Plug-ins](#)
[Introduction](#)

S_Posterize

Generates a posterized version of the input by limiting the number of colors in the source, and replacing detailed texture and noise with solid colors.

In the Sapphire Stylize effects submenu.



Inputs:

Source: The clip to be processed.

Parameters:

Amount: *Default:* 0.1, *Range:* 0 to 1.

Increase this for fewer and larger regions of solid colors. Decrease for more colors and more steps between colors.

Preserve Chroma: *Default:* 1, *Range:* 0 to 1.

If set to 1, posterizes only the luma of the clip, leaving chroma unchanged. If set to 0, posterizes the RGB, affecting both luma and chroma which usually results in more color fringes between regions. Intermediate values interpolate between the two results.

Smooth Edges: *Default:* 0.1, *Range:* 0 to 1.

Amount to smooth the edges between color regions when posterizing. Increase this value to reduce aliasing between the colored areas. If set to 1, the areas will be completely smoothed together and no posterize effect will occur.

Smooth Source: *Default:* 0.002, *Range:* 0 or greater.

Amount to blur the input clip before posterizing. Increase this value to reduce noise or jagged edges.

Color Phase: *Default:* 0, *Range:* any.

Amount to shift color boundaries when posterizing. Adjust this to fine-tune the location of the edges between the color regions. A phase of 1 is equivalent to 0.

Phase Red: *Default:* 0, *Range:* any.

Amount to shift the red channel boundaries when not preserving chroma. If Preserve Chroma is 1.0 this has no effect.

Phase Green: *Default:* 0, *Range:* any.

Amount to shift the green channel boundaries when not preserving chroma.

Phase Blue: *Default:* 0, *Range:* any.

Amount to shift the blue channel boundaries when not preserving chroma.

Scale Lights: *Default:* 1, *Range:* 0 or greater.

Scales the result by this value. Increase for a brighter result.

Offset Darks: *Default:* 0, *Range:* -8 to 2.

Adds this gray value to the darker regions of the result. This can be negative to increase contrast.

Saturation: *Default:* 1, *Range:* -2 to 8.

Scales the color saturation. Increase for more intense colors. Set to 0 for monochrome.

See Also:

[Cartoon](#)

[CartoonPaint](#)

[Threshold](#)

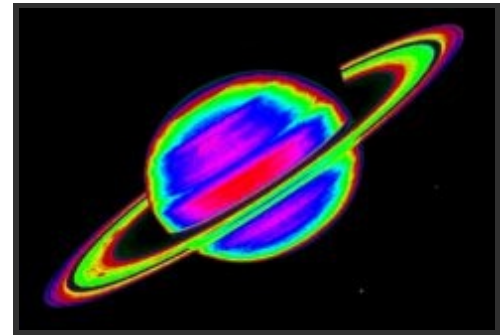
[Sapphire Plug-ins](#)

[Introduction](#)

S_PseudoColor

Colorizes the source image. The hue is calculated from the brightness of the source.

In the Sapphire Stylize effects submenu.



Inputs:

Source: The clip to be processed.

Parameters:

Frequency: *Default: 2, Range: 0 or greater.*

The frequency of the colorization. Increase for more cycles of hue through the spectrum, decrease for fewer.

Hue Shift: *Default: 0, Range: -1 to 1.*

Shift the color hues by this amount.

Saturation: *Default: 1, Range: -2 to 8.*

Scales the color saturation. Increase for more intense colors. Set to 0 for monochrome.

Brightness: *Default: 1, Range: 0 or greater.*

Scales the brightness of the result.

Scale By Source: *Default: 1, Range: 0 to 1.*

The brightness of the output is scaled down by the original source brightness as this is increased to 1.

Scale By Src Amp: *Default: 1, Range: 0 or greater.*

This amplifies the effect of Scale By Source, so if increased above 1, the middle grays can still retain their full brightness. It has no effect unless Scale By Source is positive.

See Also:

[HueSatBright](#)

[Monochrome](#)

[ClampChroma](#)

[DuoTone](#)

[TriTone](#)

[QuadTone](#)

[Tint](#)

[Threshold](#)

[Hotspots](#)

[Gamma](#)

[Solarize](#)

[ChannelSwitcher](#)

[ShowBadColors](#)

[Invert](#)

[Zebrafy](#)

[ZebrafyColor](#)

[PsykoBlobs](#)

[PsykoStripes](#)

[Sapphire](#)

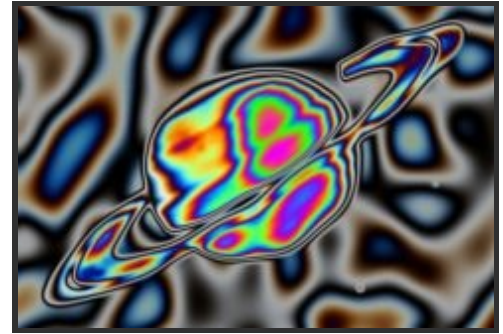
[Plug-ins](#)

[Introduction](#)

S_PsykoBlobs

Combines the source clip with a field of 'blob' shapes and then passes them through a colorization process. The Phase Speed parameter causes the colors to automatically rotate over time.

In the Sapphire Stylize effects submenu.



Inputs:

Source: The clip to be processed.

Parameters:

Noise Freq: *Default:* 4, *Range:* 0.01 or greater.

The spatial frequency of the 'blobs' noise texture. Increase for more blobs, decrease for fewer.

Noise Freq Relx: *Default:* 1, *Range:* 0.01 or greater.

The relative horizontal frequency of the noise texture. Increase to stretch it vertically or decrease to stretch it horizontally.

Noise Octaves: *Integer, Default:* 1, *Range:* 1 to 10.

The number of summed layers of noise. Each octave is twice the frequency and half the amplitude of the previous. A single octave gives a smooth texture. Adding octaves makes the result approach a fractal (1/f) noise texture.

Noise Seed: *Default:* 0.23, *Range:* 0 or greater.

Used to initialize the random number generator. The actual seed value is not significant, but different seeds give different results and the same value should give a repeatable result.

Noise Shift: *X & Y, Default:* [0 0], *Range:* any.

Translation offset of the noise texture.

Source Blur: *Default:* 0.022, *Range:* 0 or greater.

If positive, smooths out the edges of the source by this amount before applying the colorization.

Source Scale: *Default:* 1, *Range:* 0 or greater.

Scales the source values but not the added blobs.

Freq Colors: *Default:* 4, *Range:* 0 or greater.

The frequency of the color pattern. Increase for a busier texture with more cycles through the spectrum.

Freq Red: *Default:* 1, *Range:* 0 or greater.

The frequency of the red color component. Increase for more cycles in the red channel.

Freq Green: *Default:* 1.1, *Range:* 0 or greater.

The frequency of the green color component. Increase for more cycles in the green channel.

Freq Blue: *Default:* 1.2, *Range:* 0 or greater.

The frequency of the blue color component. Increase for more cycles in the blue channel.

Phase Start: *Default:* 0.5, *Range:* any.

The phase offset of the color patterns.

Phase Speed: *Default: 1, Range: any.*

The phase speed of the color patterns. If non-zero, the phase is automatically animated to give the color pattern a boiling look.

Phase Red: *Default: 0, Range: any.*

The phase offset of the red color component.

Phase Green: *Default: 0, Range: any.*

The phase offset of the green color component.

Phase Blue: *Default: 0, Range: any.*

The phase offset of the blue color component.

Brightness: *Default: 1, Range: 0 or greater.*

Scales the brightness of the result.

Color: *Default rgb: [1 1 1].*

Scales the color of the result. For example, if it is yellow [1 1 0], the blue of the result will be 0.

Offset: *Default: 0, Range: -8 to 2.*

Adds this gray value to the result (or subtracts if negative). 0 has no effect, .5 is middle gray, and 1 is white.

Saturation: *Default: 1, Range: 0 to 10.*

Scales the strength of the colors. Increase for more intense colors, or decrease for muted colors.

Scale By Source: *Default: 0, Range: 0 to 1.*

The brightness of the output is scaled down by the original source brightness as this is increased to 1.

Scale By Src Amp: *Default: 1, Range: 0 or greater.*

This amplifies the effect of Scale By Source, so if increased above 1, the middle grays can still retain their full brightness. It has no effect unless Scale By Source is positive.

See Also:

[PsykoStripes](#)

[PseudoColor](#)

[Sapphire](#)

[ZebrafyColor](#)

[Plug-ins](#)

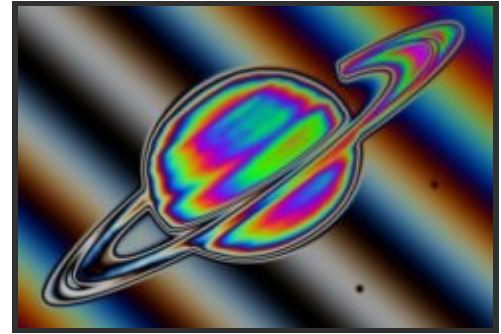
[CloudsPsyko](#)

[Introduction](#)

S_PsykoStripes

Combines the source clip with a stripe pattern and then passes them through a colorization process. The Phase Speed parameter causes the colors to automatically rotate over time.

In the Sapphire Stylize effects submenu.



Inputs:

Source: The clip to be processed.

Parameters:

Stripe Dir: *Default: -45, Range: any.*

The direction of the stripes, in counter-clockwise degrees from vertical.

Stripe Mag: *Default: 0.5, Range: 0 or greater.*

The magnitude of the stripes. Increase for more cycles of the colors in the stripe direction.

Source Blur: *Default: 0.022, Range: 0 or greater.*

If positive, smooths out the edges of the source by this amount before applying the colorization.

Source Scale: *Default: 1, Range: 0 or greater.*

Scales the source values but not the added stripes.

Freq Colors: *Default: 3, Range: 0 or greater.*

The frequency of the color pattern. Increase for a busier texture with more cycles through the spectrum.

Freq Red: *Default: 1, Range: 0 or greater.*

The frequency of the red color component. Increase for more cycles in the red channel.

Freq Green: *Default: 1.1, Range: 0 or greater.*

The frequency of the green color component. Increase for more cycles in the green channel.

Freq Blue: *Default: 1.2, Range: 0 or greater.*

The frequency of the blue color component. Increase for more cycles in the blue channel.

Phase Start: *Default: 0.5, Range: any.*

The phase offset of the color patterns.

Phase Speed: *Default: 1, Range: any.*

The phase speed of the color patterns. If non-zero, the phase is automatically animated to give the color pattern a boiling look.

Phase Red: *Default: 0, Range: any.*

The phase offset of the red color component.

Phase Green: *Default: 0, Range: any.*

The phase offset of the green color component.

Phase Blue: *Default: 0, Range: any.*

The phase offset of the blue color component.

Brightness: *Default:* 1, *Range:* 0 or greater.

Scales the brightness of the result.

Color: *Default rgb:* [1 1 1].

Scales the color of the result. For example, if it is yellow [1 1 0], the blue of the result will be 0.

Offset: *Default:* 0, *Range:* -8 to 2.

Adds this gray value to the result (or subtracts if negative). 0 has no effect, .5 is middle gray, and 1 is white.

Saturation: *Default:* 1, *Range:* 0 to 10.

Scales the strength of the colors. Increase for more intense colors, or decrease for muted colors.

Scale By Source: *Default:* 0, *Range:* 0 to 1.

The brightness of the output is scaled down by the original source brightness as this is increased to 1.

Scale By Src Amp: *Default:* 1, *Range:* 0 or greater.

This amplifies the effect of Scale By Source, so if increased above 1, the middle grays can still retain their full brightness. It has no effect unless Scale By Source is positive.

See Also:

[PsykoBlobs](#)

[PseudoColor](#)

[Sapphire](#)

[ZebrafyColor](#)

[Plug-ins](#)

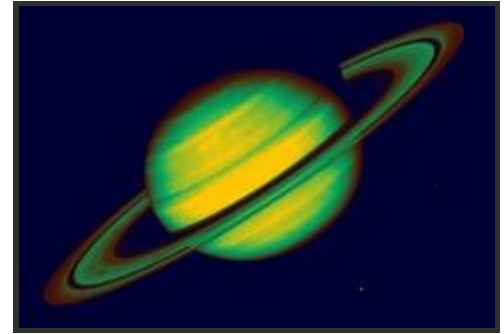
[CloudsPsyko](#)

[Introduction](#)

S_QuadTone

Performs an interpolation between four specified colors using the brightness of the source clip.

In the Sapphire Adjust effects submenu.



Inputs:

Source: The clip to be processed.

Parameters:

Color3: *Default rgb:* [1 1 1].

The color to use at the brighter source regions.

Color2: *Default rgb:* [0.66 0.66 0.66].

The color to use at the light gray source regions.

Color1: *Default rgb:* [0.33 0.33 0.33].

The color to use at the dark gray source regions.

Color0: *Default rgb:* [0 0 0].

The color to use at the darker source regions.

Softness: *Default:* 1, *Range:* 0.001 or greater.

The softness of the interpolation between the three colors. Use lower values for sharper contours between more solid regions of color.

Softness 23: *Default:* 1, *Range:* 0.001 or greater.

Scales the softness of the interpolation between color2 and color3.

Softness 12: *Default:* 1, *Range:* 0.001 or greater.

Scales the softness of the interpolation between color1 and color2.

Softness 01: *Default:* 1, *Range:* 0.001 or greater.

Scales the softness of the interpolation between color0 and color1.

Color3 At Bright: *Default:* 1, *Range:* any.

The source brightness value to replace with color3.

Color2 At Bright: *Default:* 0.66, *Range:* any.

The source brightness value to replace with color2. This value should normally be in between the color1 and color3 At Bright values.

Color1 At Bright: *Default:* 0.33, *Range:* any.

The source brightness value to replace with color1. This value should normally be in between the color0 and color2 At Bright values.

Color0 At Bright: *Default:* 0, *Range:* any.

The source brightness value to replace with color0.

See Also:

[DuoTone](#)

[TriTone](#)

[Tint](#)

[Sapphire Plug-ins](#)

[Introduction](#)

S_RackDefocus

Generates a defocused version of the source clip using a 'circle of confusion' convolution. This effect is often preferable to a gaussian blur for simulating a real defocused camera lens, because bright spots can be defocused into clean shapes instead of being smoothed away. The iris shape can be controlled using Points, Pointiness and Rotate, and the Use Gamma parameter can adjust the relative brightness of the blurred highlights.



In the Sapphire Blur+Sharpen effects submenu.

Inputs:

Source: The clip to be processed.

Parameters:

Effect: *Popup menu, Default: Defocus Color.*
Selects between full color or monochrome defocus.

Defocus Color: defocuses all channels of the source input.

Defocus Mono: makes the source monochrome and then applies the defocus (faster).

Defocus Width: *Default: 0.022, Range: 0 or greater.*

The width of the defocus. This parameter can be adjusted using the Defocus Width Widget.

Rel Height: *Default: 1, Range: 0.01 or greater.*

The relative height of the iris shape. If it is not 1, circles become ellipses, etc.

Shape: *Popup menu, Default: Circle.*

Determines the shape of the simulated camera iris.

Circle: round.

3 sides: triangle.

4 sides: square.

5 sides: pentagon.

6 sides: hexagon.

7 sides: etc.

Show Shape: *Check-box, Default: off.*

Show the iris shape instead of the defocused image.

Roundness: *Default: 0, Range: any.*

Modifies the shape of the simulated camera iris. A value of 1 produces a circle; 0 gives a flat-sided polygon with a number of sides given by the Shape parameter. Less than 0 causes the sides to squeeze inward giving a star shape, while a value greater than 1 causes the corners to squeeze inward, giving a flowery shape. Has no effect if the Shape is set to Circle.

Rotate: *Default: 0, Range: any.*

Rotates the iris shape.

Bokeh: *Default: 0, Range: any.*

Softens the outer edge of the iris shape, which gives a softer look to the defocused highlights. A negative value

darkens the center of the iris shape, producing a ring-like defocus shape.

Lens Noise: *Default: 0, Range: 0 or greater.*

Increase to add noise to the iris shape, dirtying up the defocus a little. Can make the result more realistic. Turn up past 1 for a more stylistic result.

Noise Freq: *Default: 40, Range: 0.01 or greater.*

The frequency of the added noise. Ignored if Lens Noise is zero.

Noise Freq Rel X: *Default: 1, Range: 0.01 or greater.*

The relative horizontal frequency of the added iris noise. Increase to stretch it vertically or decrease to stretch it horizontally.

Noise Seed: *Default: 0.123, Range: 0 or greater.*

The seed value for the added noise. To make the noise appear different on each frame, animate this to be different on each frame. The actual value doesn't matter; only that it's different.

Gauss Blur: *Default: 0, Range: 0 or greater.*

If positive, a gaussian blur is also applied which smooths out the edges of the shapes. This might also darken the highlights because Gamma is not considered in the gaussian blur.

Use Gamma: *Default: 2, Range: 0.1 or greater.*

Values above 1 cause highlights in the source clip to keep their brightness after the defocus is applied.

Boost Highlights: *Default: 0, Range: 0 or greater.*

The amount to increase the luma of the highlights in the source clip. Increase this parameter to blow out the highlights without affecting the darks or mid-tones.

Hilight Threshold: *Default: 0.9, Range: 0 to 1.*

The minimum luma value for highlights. Pixels brighter than this will be brightened according to the Boost Highlights parameter.

Brightness: *Default: 1, Range: 0 or greater.*

Scales the brightness of the result.

Offset Darks: *Default: 0, Range: -8 to 2.*

Adds this gray value to the darker regions of the result. This can be negative to increase contrast.

Mix With Source: *Default: 0, Range: 0 to 1.*

Interpolates between the defocused result and the original source. Set this to 1 for the original source.

Edge Mode: *Popup menu, Default: Reflect.*

Determines the behavior when accessing areas outside the source image.

Transparent: Areas outside the source image are treated as transparent, which can produce transparency around the edges of the image. Select this for fastest rendering.

Repeat: Repeats the last pixel outside the border of the image.

Reflect: Reflects the image outside the border.

Soft Borders: *Check-box, Default: off.*

If enabled, transparent borders are added to the input image before processing. This allows the result to include soft edges beyond the original image size. When off, the effect only occurs within the frame and the result will retain an edge at the borders. This parameter does not appear in FCP or DF because those applications don't support image expansion.

Show Defocus Width: *Check-box, Default: on.*

Turns on or off the screen user interface for adjusting the Defocus Width parameter.

See Also:

[DefocusPrism](#)

[RackDfComp](#)

[Sapphire](#)

[Blur](#)

[Plug-ins](#)

[BlurChannels](#)

[Introduction](#)

[BlurChroma](#)

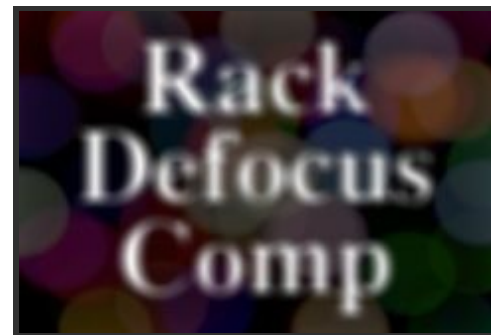
[ZDefocus](#)

[Convolve](#)

S_RackDfComp

Composites the Foreground over the Background using a Matte while defocusing both layers by different amounts.

In the Sapphire Blur+Sharpen effects submenu.



Inputs:

Foreground: The clip to use as foreground.

Background: The clip to use as background.

Matte: *Optional.* The alpha channel of this input specifies the opacities of the Foreground input. If this input is not provided, the alpha channel of the Foreground input is used instead. This input can be affected by the Invert Matte or Matte Use parameters.

Parameters:

Defocus Foreground: *Default:* 0.022, *Range:* 0 or greater.

The amount to defocus the Foreground and its Matte. This parameter can be adjusted using the Fg Defocus Widget.

Defocus Background: *Default:* 0, *Range:* 0 or greater.

The amount to defocus the Background. This parameter can be adjusted using the Bg Defocus Widget.

Rel Height: *Default:* 1, *Range:* 0.01 or greater.

The relative height of the iris shape. If it is not 1, circles become ellipses, etc.

Shape: *Popup menu, Default:* Circle.

Determines the shape of the simulated camera iris.

Circle: round.

3 sides: triangle.

4 sides: square.

5 sides: pentagon.

6 sides: hexagon.

7 sides: etc.

Roundness: *Default:* 0, *Range:* any.

Modifies the shape of the simulated camera iris. A value of 1 produces a circle; 0 gives a flat-sided polygon with a number of sides given by the Shape parameter. Less than 0 causes the sides to squeeze inward giving a star shape, while a value greater than 1 causes the corners to squeeze inward, giving a flowery shape. Has no effect if the Shape is set to Circle.

Rotate: *Default:* 0, *Range:* any.

Rotates the iris shape.

Bokeh: *Default:* 0, *Range:* any.

Softens the outer edge of the iris shape, which gives a softer look to the defocused highlights. A negative value darkens the center of the iris shape, producing a ring-like defocus shape.

Lens Noise: *Default:* 0, *Range:* 0 or greater.

Increase to add noise to the iris shape, dirtying up the defocus a little. Can make the result more realistic. Turn up

past 1 for a more stylistic result.

Noise Freq: *Default: 40, Range: 0.01 or greater.*

The frequency of the added noise. Ignored if Lens Noise is zero.

Noise Freq Rel X: *Default: 1, Range: 0.01 or greater.*

The relative horizontal frequency of the added iris noise. Increase to stretch it vertically or decrease to stretch it horizontally.

Noise Seed: *Default: 0.123, Range: 0 or greater.*

The seed value for the added noise. To make the noise appear different on each frame, animate this to be different on each frame. The actual value doesn't matter; only that it's different.

Use Gamma: *Default: 2, Range: 0.1 or greater.*

Values above 1 cause highlights in the source clip to keep their brightness after the defocus is applied.

Matte Gamma: *Default: 1, Range: 0.1 or greater.*

The gamma value to use for the defocus of the Matte.

Boost Highlights: *Default: 0, Range: 0 or greater.*

The amount to increase the luma of the highlights in the source clip. Increase this parameter to blow out the highlights without affecting the darks or mid-tones.

Hilight Threshold: *Default: 0.9, Range: 0 to 1.*

The minimum luma value for highlights. Pixels brighter than this will be brightened according to the Boost Highlights parameter.

Comp Premult: *Check-box, Default: on.*

Disable this if you have provided a separate Matte input and the Foreground pixel values have not been pre-multiplied by this Matte.

Matte Use: *Popup menu, Default: Alpha.*

Determines how the Foreground or Matte input channels are used to make a monochrome matte.

***Luma:** the luminance of the RGB channels is used.*

***Alpha:** only the Alpha channel is used.*

Invert Matte: *Check-box, Default: off.*

If enabled, the black and white of the matte are inverted before use.

Edge Mode: *Popup menu, Default: Reflect.*

Determines the behavior when accessing areas outside the source image.

***Transparent:** Areas outside the source image are treated as transparent, which can produce transparency around the edges of the image. Select this for fastest rendering.*

***Repeat:** Repeats the last pixel outside the border of the image.*

***Reflect:** Reflects the image outside the border.*

Soft Borders: *Check-box, Default: off.*

If enabled, transparent borders are added to the input image before processing. This allows the result to include soft edges beyond the original image size. When off, the effect only occurs within the frame and the result will retain an edge at the borders. This parameter does not appear in FCP or DF because those applications don't support image expansion.

Show Fg Defocus: *Check-box, Default: on.*

Turns on or off the screen user interface for adjusting the Defocus Foreground parameter. Its value should first be made positive to adjust this more easily.

Show Bg Defocus: *Check-box, Default: on.*

Turns on or off the screen user interface for adjusting the Defocus Background parameter. Its value should first be made positive to adjust this more easily.

See Also:

[RackDefocus](#)

[DefocusPrism](#)

[Blur](#)

[Convolve](#)

[ConvolveComp](#)

[Sapphire Plug-ins](#)

[Introduction](#)

S_RandomEdits

Randomly re-edits the entire source clip. The shuffling is random but repeatable.

In the Sapphire Time effects submenu.

Inputs:

Source: The clip to be processed.

Parameters:

Edit Frame Length: *Default:* 2, *Range:* 1 or greater.
Segments of this duration are randomly rearranged.

Seed: *Default:* 0.123, *Range:* 0 or greater.
Used to initialize the random number generator. The actual seed value is not significant, but different seeds give different results and the same value should give a repeatable result.

See Also:

[GetFrame](#)
[TimeWarpRGB](#)
[MotionDetect](#)
[TimeSlice](#)
[FreezeFrame](#)
[JitterFrames](#)
[ReverseEdits](#)
[ReverseClip](#)

[Sapphire Plug-ins](#)
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S_Rays

Generates beams of light emitting from the bright areas of the source clip. Lower the Threshold parameter to generate rays from more areas or raise it to generate rays from only the brightest areas. Set the Rays Res parameter to 1/2 for faster rendering with slightly softer rays.

In the Sapphire Lighting effects submenu.



Inputs:

Source: The clip to be processed.

Background: *Optional.* The clip to use as background.

Mask: *Optional.* If provided, the ray colors are scaled by this input. A monochrome mask can be used to choose a subset of areas that will generate rays. If the Mask Type is set to Color, a color mask input can be used to selectively adjust the ray colors in different regions. This input can optionally be blurred or inverted using the Blur Mask or Invert Mask parameters.

Parameters:

Center: *X & Y, Default: [360 243], Range: any.*

The location from which the rays beam outwards. This parameter can be adjusted using the Center Widget.

Rays Length: *Default: 0.25, Range: -5 to 1.*

The length of the rays. A length of 1.0 gives rays that continue forever, although they may still fade out as they go. To make the rays look longer you can also increase the Rel Outer Bright parameter. If Rays Length is negative the rays can beam inwards instead of outwards. Note that processing times increase for longer rays. This parameter can be adjusted using the Center Widget.

Rays Brightness: *Default: 3, Range: 0 or greater.*

Scales the brightness of the ray beams.

Rays Color: *Default rgb: [1 1 1].*

Scales the color of the ray beams.

Bias Outer Bright: *Default: 0, Range: 0 to 1.*

Determines the variable amount of brightness along the rays. This is normally near 0 so the rays fade away at their outer ends, 0.5 causes equal brightness along the rays, and 1.0 causes maximum brightness at the ends.

Rays Res: *Popup menu, Default: Full.*

Selects the resolution factor for the rays. Higher resolutions give sharper rays, lower resolutions give smoother rays and faster processing. This 'Res' factor only affects the rays: the background is still combined with the rays at full resolution.

Full: Full resolution is used.

1/2: The rays are calculated at half resolution.

1/4: The rays are calculated at quarter resolution.

Threshold: *Default: 0.5, Range: 0 or greater.*

Rays are generated from locations in the source clip that are brighter than this value. A value of 0.9 causes rays at

only the brightest spots. A value of 0 causes rays for every non-black area.

Threshold Add Color: *Default rgb: [0 0 0].*

This can be used to raise the threshold on a specific color and thereby reduce the rays generated on areas of the source clip containing that color.

Shimmer Amp: *Default: 0.5, Range: 0 or greater.*

Modulates the ray source image with this amount of noise texture to give the rays a shimmering look.

Shimmer Freq: *Default: 40, Range: 0.1 or greater.*

The frequency of the shimmer texture. Increase for a finer grained shimmer effect, decrease for larger, softer shimmer. This has no effect unless Shimmer Amp is positive.

Shimmer Seed: *Default: 0.123, Range: 0 or greater.*

Used to initialize the random number generator for the shimmer texture. The actual seed value is not significant, but different seeds give different results and the same value should give a repeatable result.

Shimmer Shift: *X & Y, Default: [0 0], Range: any.*

Translation of the shimmer texture. This has no effect unless Shimmer Amp is positive.

Shimmer Speed: *X & Y, Default: [0 0], Range: any.*

Translation speed of the shimmer texture. If non-zero, the shimmering is automatically animated to shift at this rate.

Affect Alpha: *Default: 0, Range: 0 or greater.*

If this value is positive the output Alpha channel will include some opacity from the rays. The maximum of the red, green, and blue ray brightness is scaled by this value and combined with the background Alpha at each pixel.

Rays From Alpha: *Default: 0, Range: 0 to 1.*

Set to 1 to generate rays from the source's alpha channel instead of its RGB channels. This will typically cause many more rays to be generated. Values between 0 and 1 interpolate between using the RGB and the Alpha.

Rays Under Source: *Default: 0, Range: 0 to 1.*

Set to 1 to composite the Source input over the rays.

Source Opacity: *Default: 1, Range: 0 to 1.*

Scales the opacity of the Source input when combined with the rays. This does not affect the generation of the rays themselves.

Bg Brightness: *Default: 1, Range: 0 or greater.*

Scales the brightness of the background before combining with the rays. This parameter only has an effect if the background input is provided.

Use Source Chroma: *Default: 1, Range: 0 or greater.*

If this is 1, the chroma of the Source input affects the chroma of the resulting rays. If it is 0, only the brightness of the Source input affects the brightness of the rays, and the rendering speed should also be faster. Values between 0 and 1 interpolate between these two options.

Mask Type: *Popup menu, Default: Luma.*

This setting is ignored unless the Mask input is connected.

***Luma:** uses the luminance of the Mask input to scale the brightness of the rays.*

***Color:** uses the RGB channels of the Mask input to scale the colors of the rays.*

***Alpha:** uses the alpha channel of the Mask input to scale the brightness of the rays.*

Blur Mask: *Default: 0, Range: 0 or greater.*

Blurs the Mask input by this amount before using. This can provide a smoother transition between the masked and unmasked areas. It has no effect unless the Mask input is provided.

Invert Mask: *Check-box, Default: off.*

If on, inverts the mask input so the effect is applied to areas where the Mask is black instead of white. This has no effect unless the Mask input is provided.

Show Center: *Check-box, Default: on.*

Turns on or off the screen user interface widget for adjusting the Center and Rays Length parameters.

See Also:

[EdgeRays](#)

[Streaks](#)

[BlurMotion](#)

[WarpChroma](#)

[EdgeDetect](#)

[Glow](#)

[Sapphire Plug-ins](#)

[Introduction](#)

S_ReverseClip

Reverses the frame order of a clip, and optionally also reverses the fields of each frame.

In the Sapphire Time effects submenu.

Inputs:

Source: The clip to be processed.

Parameters:

Swap Fields: *Popup menu, Default: Yes Up1.*

Enables and selects the method for also reversing the fields of the result.

NO: Fields are not swapped.

Yes Ave: Fields are swapped by averaging up 1 pixel and down 1 pixel. This method causes slight vertical blurring, but the result is not shifted.

Yes Up1: Fields are swapped by shifting the result up 1 pixel. This method avoids vertical blurring.

Yes Down1: Fields are swapped by shifting the result down 1 pixel. This method also avoids vertical blurring.

See Also:

[GetFrame](#)
[TimeWarpRGB](#)
[MotionDetect](#)
[TimeSlice](#)
[FreezeFrame](#)
[JitterFrames](#)
[RandomEdits](#)
[ReverseEdits](#)

[Sapphire Plug-ins](#)
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S_ReverseEdits

Independently reverses segments of the input clip. For example if Edit Frame Length is 5, and the input clip frames are:

1 2 3 4 5 6 7 8 9 10 11 . . . the output frames would be:
5 4 3 2 1 10 9 8 7 6 15 . . .

In the Sapphire Time effects submenu.

Inputs:

Source: The clip to be processed.

Parameters:

Edit Frame Length: *Integer, Default: 5, Range: 1 or greater.*
The duration of each segment to be reversed.

Edits Start: *Integer, Default: 0, Range: 0 or greater.*
The offset of the start and stop frames for each segment.

Reverse All: *Check-box, Default: off.*
If enabled, reverses the entire result, so each segment plays forwards again but the segments are in backwards order.

Swap Fields: *Popup menu, Default: NO.*
Enables and selects the method for also reversing the fields of the result.

NO: Fields are not swapped.

Yes Ave: Fields are swapped by averaging up 1 pixel and down 1 pixel. This method causes slight vertical blurring, but the result is not shifted.

Yes Up1: Fields are swapped by shifting the result up 1 pixel. This method avoids vertical blurring.

Yes Down1: Fields are swapped by shifting the result down 1 pixel. This method also avoids vertical blurring.

See Also:

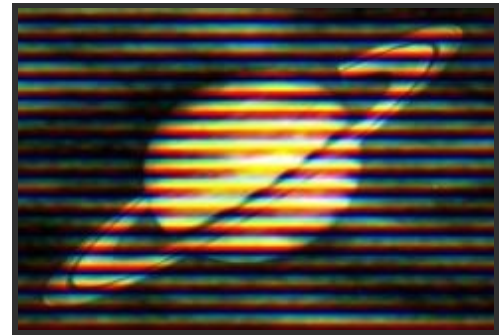
[GetFrame](#)
[TimeWarpRGB](#)
[MotionDetect](#)
[TimeSlice](#)
[FreezeFrame](#)
[JitterFrames](#)
[RandomEdits](#)
[ReverseClip](#)

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S_ScanLines

Creates a version of the source clip with a scan line pattern resembling a color TV monitor. Increase the Add Noise parameter to also add a grainy effect to the result.

In the Sapphire Stylize effects submenu.



Inputs:

Source: The clip to be processed.

Parameters:

Lines Frequency: *Default:* 50, *Range:* 1 or greater.

The frequency of scan lines on the screen. Increase for more lines, decrease for fewer.

Lines Sharpness: *Default:* 1, *Range:* 0 or greater.

Scales the severity of the lines. Increase for sharper edges, or decrease for a more subtle effect. A sharpness of zero reduces the scan line effect to nothing.

Lines Angle: *Default:* 0, *Range:* any.

The angle in degrees of the scan lines. Set to 90 for vertical lines instead of horizontal. This parameter can be adjusted using the Lines Angle Widget.

Lines Shift: *Default:* 0, *Range:* -5 to 5.

Offsets the position of the pattern of lines. A value of 1.0 shifts one entire scan line over, giving the same result as 0.

Shift Red: *Default:* 0, *Range:* -5 to 5.

Shifts the red scan lines by this amount, relative to the other lines. Set the red, green, and blue shifts to -.33, .0, and .33 for an out-of-alignment television set look.

Shift Green: *Default:* 0, *Range:* -5 to 5.

Shifts the green scan lines by this amount.

Shift Blue: *Default:* 0, *Range:* -5 to 5.

Shifts the blue scan lines by this amount.

Add Noise: *Default:* 0, *Range:* 0 or greater.

If positive, this much color noise is added to the image.

Noise Freq Rel: *Default:* 1, *Range:* 0.01 or greater.

The frequency of the noise, relative to the frequency of lines. This has no effect unless the Add Noise parameter above is positive.

Brightness: *Default:* 1, *Range:* 0 or greater.

Scales the brightness of the result.

Scale Color: *Default rgb:* [1 1 1].

Scales the color of the result. For example, if it is yellow [1 1 0], the blue of the result will be 0.

Offset: *Default:* 0, *Range:* -8 to 2.

Adds this gray value to the result (or subtracts if negative). 0 has no effect, .5 is middle gray, and 1 is white.

Gamma: *Default:* 1.5, *Range:* 0.1 to 10.

Scales the brightness of the image by a curve using this gamma value, allowing adjustment of the middle gray values in the scan lines. This can help make the average brightness of the output match the input.

Saturation: *Default:* 1, *Range:* 0 to 10.

Scales the color saturation. Increase for more intense colors. Set to 0 for monochrome.

Smooth Source: *Default:* 0, *Range:* 0 or greater.

If positive, the source clip is blurred by this amount before being processed.

Show Lines Angle: *Check-box, Default:* off.

Turns on or off the screen user interface for adjusting the Lines Angle parameter.

See Also:

[ScanLinesMono](#)

[HalfTone](#)

[Sapphire](#)

[HalfToneColor](#)

[Plug-ins](#)

[Etching](#)

[Introduction](#)

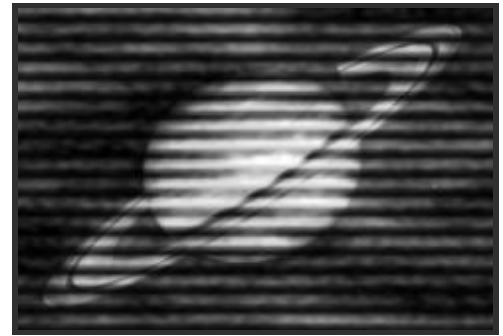
[WipeStripes](#)

[JpegDamage](#)

S_ScanLinesMono

A monochrome version of ScanLines. Creates a version of the source clip with a scan lines pattern resembling a black and white TV monitor. Increase the Add Noise parameter to also add a grainy effect to the result.

In the Sapphire Stylize effects submenu.



Inputs:

Source: The clip to be processed.

Parameters:

Lines Frequency: *Default:* 50, *Range:* 1 or greater.

The frequency of scan lines on the screen. Increase for more lines, decrease for fewer.

Lines Sharpness: *Default:* 1, *Range:* 0 or greater.

Scales the severity of the lines. Increase for sharper edges, or decrease for a more subtle effect. A sharpness of zero reduces the scan line effect to nothing.

Lines Angle: *Default:* 0, *Range:* any.

The angle in degrees of the scan lines. Set to 90 for vertical lines instead of horizontal. This parameter can be adjusted using the Lines Angle Widget.

Lines Shift: *Default:* 0, *Range:* -5 to 5.

Offsets the position of the pattern of lines. A value of 1.0 shifts one entire scan line over, giving the same result as 0.

Add Noise: *Default:* 0, *Range:* 0 or greater.

If positive, this much black and white noise is added to the image.

Noise Freq Rel: *Default:* 1, *Range:* 0.01 or greater.

The frequency of the noise, relative to the frequency of lines. This has no effect unless the Add Noise parameter above is positive.

Brightness: *Default:* 1, *Range:* 0 or greater.

Scales the brightness of the result.

Color1: *Default rgb:* [1 1 1].

The 'brighter' color of the scan lines pattern.

Color0: *Default rgb:* [0 0 0].

The 'darker' color of the scan lines pattern.

Offset: *Default:* 0, *Range:* -8 to 2.

Adds this gray value to the result (or subtracts if negative). 0 has no effect, .5 is middle gray, and 1 is white.

Gamma: *Default:* 1.5, *Range:* 0.1 to 10.

Scales the brightness of the image by a curve using this gamma value, allowing adjustment of the middle gray values in the scan lines. This can help make the average brightness of the output match the input.

Smooth Source: *Default:* 0, *Range:* 0 or greater.

If positive, the source clip is blurred by this amount before being processed.

Show Lines Angle: *Check-box, Default:* off.

Turns on or off the screen user interface for adjusting the Lines Angle parameter.

See Also:

[ScanLines](#)

[HalfTone](#)

[Sapphire](#)

[HalfToneColor](#)

[Plug-ins](#)

[Etching](#)

[Introduction](#)

[WipeStripes](#)

[JpegDamage](#)

S_Shake

Applies a shaking motion to the source clip over time with translation, zooming, and/or rotation. The shaking is random but repeatable, so with the same parameters the same shaking motion is generated each time. Turn on Motion Blur and adjust the Mo Blur Length for different amounts of blur. Adjust the Amplitude and Frequency for different shaking speeds and amounts. The Rand parameters give detailed control of the random non-periodic shaking, and the Wave parameters adjust the regular periodic shaking. The X, Y, Z, and Tilt parameters control the horizontal, vertical, zoom, and rotation amounts of shaking respectively.



In the Sapphire Distort effects submenu.

Inputs:

Source: The clip to shake.

Parameters:

Amplitude: *Default:* 1, *Range:* 0 or greater.
Scales the amplitude of the shaking motion.

Frequency: *Default:* 8, *Range:* 0 or greater.
Increase for faster shaking, decrease for slower shaking. (Be careful if you animate frequency values because the resulting shake frequency is also affected by the rate of change of the value.)

Phase: *Default:* 0, *Range:* any.
Time shift of the shaking motions. (If you animate this value, its rate of change will also affect the apparent frequency.)

Z Dist: *Default:* 1, *Range:* 0.001 or greater.
Scales the 'distance' of the image. Values greater than 1.0 move it farther away and make it smaller. Values less than 1.0 move the image closer and enlarge it. Zooming in slightly can sometimes be used to hide edge artifacts.

Motion Blur: *Check-box, Default:* off.
Options for motion blur of the shaking motion.

Mo Blur Length: *Default:* 1, *Range:* 0 or greater.
Scales the amount of motion blur. Use around .5 when processing on fields or 1.0 for frames to give realistic motion blur. This parameter has no effect if Motion Blur is *No*.

Seed: *Default:* 0, *Range:* 0 or greater.
Used to initialize the random number generator. The actual seed value is not significant, but different seeds give different results and the same value should give a repeatable result.

Wrap: *X & Y, Popup menu, Default:* [Reflect Reflect].
Determines the method for accessing outside the borders of the source image.

No: gives black beyond the borders.

Tile: repeats a copy of the image.

Reflect: repeats a mirrored copy. Edges are often less visible with this method.

X Shake Parameters:

X Rand Amp: *Default: 0.2, Range: 0 or greater.*
Amplitude of horizontal random shaking.

X Rand Freq: *Default: 1, Range: 0 or greater.*
Frequency of horizontal random shaking.

X Wave Amp: *Default: 0, Range: 0 or greater.*
Amplitude of horizontal regular wave shaking.

X Wave Freq: *Default: 0.5, Range: 0 or greater.*
Frequency of horizontal regular wave shaking, in cycles per second.

X Phase: *Default: 0, Range: any.*
Time shift of the horizontal shaking.

Y Shake Parameters:

Y Rand Amp: *Default: 0.1, Range: 0 or greater.*
Amplitude of the vertical random shaking.

Y Rand Freq: *Default: 1, Range: 0 or greater.*
Frequency of the vertical random shaking.

Y Wave Amp: *Default: 0, Range: 0 or greater.*
Amplitude of the vertical regular wave shaking.

Y Wave Freq: *Default: 0.5, Range: 0 or greater.*
Frequency of the vertical regular wave shaking, in cycles per second.

Y Phase: *Default: 0, Range: any.*
Time shift of the vertical shaking.

Z Shake Parameters:

Z Rand Amp: *Default: 0, Range: 0 or greater.*
Amplitude of the zoom random shaking.

Z Rand Freq: *Default: 1, Range: 0 or greater.*
Frequency of the zoom random shaking.

Z Wave Amp: *Default: 0, Range: 0 or greater.*
Amplitude of the zoom regular wave shaking.

Z Wave Freq: *Default: 0.5, Range: 0 or greater.*
Frequency of the zoom regular wave shaking, in cycles per second.

Z Phase: *Default: 0, Range: any.*
Time shift of the zoom shaking.

Tilt Shake Parameters:

Tilt Rand Amp: *Default: 5, Range: 0 or greater.*
Amplitude of the rotational random shaking, in degrees.

Tilt Rand Freq: *Default: 1, Range: 0 or greater.*
Frequency of the rotational random shaking.

Tilt Wave Amp: *Default: 0, Range: 0 or greater.*
Amplitude of the rotational regular wave shaking, in degrees.

Tilt Wave Freq: *Default: 0.5, Range: 0 or greater.*
Frequency of the rotational regular wave shaking, in cycles per second.

Tilt Phase: *Default: 0, Range: any.*
Time shift of the rotational shaking.

Crop Input Parameters: *Default: 0, Range: 0 or greater.*
These 4 parameters, **Crop Top**, **Crop Bottom**, **Crop Left**, and **Crop Right**, allow selecting a rectangular subsection of the input image to be processed. If the Wrap parameters are set to "No" the exposed borders will be transparent. If the Wrap is "Tile" or "Reflect" the source image is wrapped on the new cropped borders to fill the frame. This can make it easier to avoid artifacts due to distorting an image with bad edges.

See Also:

[Flicker](#)
[WarpTransform](#)
[BlurMotion](#)
[BlurMoCurves](#)

[Sapphire Plug-ins](#)
[Introduction](#)

S_Shape

Draws a shape into the image. It can give a wide variety of shapes, from polygons and circles to stars, flower shapes, and swirled starfish shapes. The main parameters to look at are Points, Pointiness, Roundness, and Swirl.

In the Sapphire Render effects submenu.



Inputs:

Background: *Optional.* The clip to use as background.

Parameters:

Center: *X & Y, Default: [360 243], Range: any.*

The center point of the shape. This parameter can be adjusted using the Center Widget.

Size: *Default: 0.5, Range: 0 or greater.*

The overall size of the shape. This parameter can be adjusted using the Size Widget.

Rel Width: *Default: 1, Range: 0 or greater.*

Increase to make the shape wider.

Rel Height: *Default: 1, Range: 0 or greater.*

Increase to make the shape taller.

Blur: *Default: 0, Range: 0 or greater.*

Blurs the whole shape.

Points: *Integer, Default: 5, Range: 3 to 500.*

The number of points in the shape. Unless Pointiness is zero, the shape will have this many points around the edge.

Pointiness: *Default: 2.15, Range: any.*

How pointy the shape is. 0 gives a circle (as long as Roundness is 1); 1 gives a regular polygon. Greater than 1 gives starlike shapes, and less than zero gives flower-like shapes with outward-facing lobes.

Roundness: *Default: 0, Range: 0 to 1.*

How rounded the edges of the shape are between the points. 0 means straight lines, and 1 means smoothly curved. When Pointiness is 1, this has no effect.

Swirl: *Default: 0, Range: -5 to 5.*

Setting this to nonzero swirls the whole shape around; the outward edge is rotated more than the center to give a vortex-like appearance. Try it with large pointiness.

Rotate: *Default: 0, Range: any.*

Rotates the whole shape around its center. This parameter can be adjusted using the Rotate Widget.

Rotate Pre Scale: *Default: 0, Range: any.*

Rotates the figure around its center before the Rel Width and Rel Height are applied. You can use both rotations to get interesting effects.

Brightness1: *Default: 1, Range: 0 or greater.*

Scales the brightness of the shape.

Color1: *Default rgb: [1 1 1].*

The color of the shape.

Color0: *Default rgb: [0 0 0].*

The color of the background of the shape image.

Offset0: *Default: 0, Range: any.*

Adds this value to color0.

Bg Brightness: *Default: 1, Range: 0 or greater.*

Scales the brightness of the background before combining with the shapes. If 0, the result will contain only the shape image over black.

Combine: *Popup menu, Default: Over.*

Determines how the shape image is combined with the Background.

***Shape Only:** gives only the shape image with no Background.*

***Mult:** the shape image is multiplied by the Background.*

***Add:** the shape image is added to the Background.*

***Screen:** the shape image is blended with the Background using a screen operation.*

***Difference:** the result is the difference between the shape image and Background.*

***Overlay:** the shape image is combined with the Background using an overlay function.*

***Over:** composites the shape image over the background.*

Show Size: *Check-box, Default: on.*

Turns on or off the screen user interface for adjusting the Center parameter.

Show Rotate: *Check-box, Default: on.*

Turns on or off the screen user interface for adjusting the Center parameter.

Show Center: *Check-box, Default: on.*

Turns on or off the screen user interface for adjusting the Center parameter.

See Also:

[WipeStar](#)

[SpotLight](#)

[TextureTiles](#)

[Sapphire](#)

[Plug-ins](#)

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S_Sharpener

Amplifies the high frequencies in the source clip such as edges and details. Increase the Sharpen Width parameter to sharpen more of the mid range frequencies, and adjust Sharpen Amp to control the amount of sharpening applied.

In the Sapphire Blur+Sharpen effects submenu.



Inputs:

Source: The clip to be processed.

Parameters:

Sharpen Amp: *Default: 1, Range: any.*
The amount of sharpening to apply.

Sharpen Width: *Default: 0.028, Range: 0 or greater.*
The width in pixels to perform the sharpen. Increase to sharpen softer edges, decrease to sharpen only the sharper edges.

Sharpen Luma: *Default: 1, Range: 0 or greater.*
The relative amount of sharpening to apply to the luminance of the source.

Sharpen Chroma: *Default: 1, Range: 0 or greater.*
The relative amount of sharpening to apply to the chroma of the source.

Sharpen Red: *Default: 1, Range: any.*
The relative amount of sharpening to apply to the red color channel.

Sharpen Green: *Default: 1, Range: any.*
The relative amount of sharpening to apply to the green color channel.

Sharpen Blue: *Default: 1, Range: any.*
The relative amount of sharpening to apply to the blue color channel.

See Also:

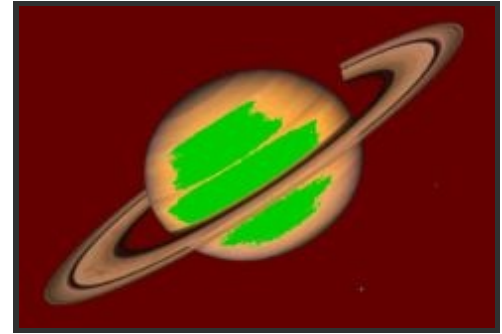
[EdgeDetect](#)
[BandPass](#)
[Threshold](#)

[Sapphire Plug-ins](#)
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S_ShowBadColors

Identifies all pixels that fall outside a given color range, and flags them with the same color so they can be seen easily.

In the Sapphire Adjust effects submenu.



Inputs:

Source: The clip to be processed.

Parameters:

Min: *Default:* 0, *Range:* 0 to 1.

Minimum color value. Pixels where any color channel is less than this value will be marked with Low Color.

Max: *Default:* 1, *Range:* 0 to 1.

Maximum color value. Pixels where any color channel is less than this value will be marked with High Color.

Min Luma: *Default:* 0, *Range:* 0 to 1.

Minimum luminance value. Pixels where the luminance is less than this value will be marked with Low Color.

Max Luma: *Default:* 1, *Range:* 0 to 1.

Maximum luminance value. Pixels where the luminance is less than this value will be marked with High Color.

Min Chroma: *Default:* 0, *Range:* 0 to 1.

Minimum chrominance value. Pixels where the chroma is less than this value will be marked with Low Color.

Max Chroma: *Default:* 1, *Range:* 0 to 1.

Maximum chrominance value. Pixels where the chroma is less than this value will be marked with High Color.

Min Rgb: *Default rgb:* [0 0 0].

Minimum values per color channel. Pixels where any color channel is below the corresponding channel of this parameter will be marked with Low Color.

Max Rgb: *Default rgb:* [1 1 1].

Maximum values per color channel. Pixels where any color channel is above the corresponding channel of this parameter will be marked with High Color.

High Color: *Default rgb:* [1 0 0].

Color to mark high pixels with. Any pixel that is above one of the Max parameters will be set to this color.

Low Color: *Default rgb:* [0 0 1].

Color to mark low pixels with. Any pixel that is below one of the Min parameters will be set to this color.

Output Matte: *Check-box, Default:* off.

If enabled, output a matte which is set to white for bad pixels and black otherwise.

Invert Matte: *Check-box, Default:* off.

If enabled, the matte is inverted to show black for bad pixels and white otherwise. Has no effect unless Output Matte is also enabled.

See Also:

[HueSatBright](#)

[Monochrome](#)

[ClampChroma](#)

[PseudoColor](#)

[DuoTone](#)

[TriTone](#)

[QuadTone](#)

[Tint](#)

[Threshold](#)

[Hotspots](#)

[Gamma](#)

[Solarize](#)

[ChannelSwitcher](#)

[Invert](#)

[Sapphire Plug-ins](#)

[Introduction](#)

S_Sketch

Generates a version of the input with a hand drawn sketched look. The results of this effect can depend on the image resolution, so it is recommended to test your final resolution before processing a clip.

In the Sapphire Stylize effects submenu.



Inputs:

Source: The clip to be processed.

Parameters:

Style: *Popup menu, Default: Sketch.*

Selects the style of the sketched strokes.

Sketch: the stroke directions align with the edges found within the image.

Bumpy Sketch: the strokes are perpendicular to the edges within the image.

Frequency: *Default: 50, Range: 1 or greater.*

The density of brush strokes in the frame. Increase for smaller strokes.

Stroke Length: *Default: 2, Range: any.*

Determines the length of the strokes along the directions of edges in the source clip. If this is negative you can switch between Sketch and BumpySketch styles and vice versa.

Stroke Align: *Default: 0.2, Range: 0 or greater.*

Increase to smooth out the directions of the strokes so nearby strokes are more parallel.

Smooth Colors: *Default: 0, Range: 0 or greater.*

Blurs the source by this amount before generating the brush strokes. Increase to cause the colors of nearby strokes to be more consistent.

Seed: *Default: 0, Range: 0 or greater.*

Used to initialize the random number generator. The actual seed value is not significant, but different seeds give different results and the same value should give a repeatable result.

Jitter Frames: *Integer, Default: 0, Range: 0 or greater.*

If this is 0, the locations of the strokes will remain the same for every frame processed. If it is 1, the locations of the strokes are re-randomized for each frame. If it is 2, they are re-randomized every second frame, and so on.

Background Color: *Default rgb: [0.8 0.8 0.8].*

The color of the background over which the sketched lines are applied.

Line Thickness: *Default: 0.04, Range: 0 or greater.*

The thickness of the sketched lines.

Line Strength: *Default: 0.3, Range: 0 or greater.*

The strength of the sketched lines. Increase for brighter lines, decrease for softer lines.

See Also:

[AutoPaint](#)

[HalfTone](#)

[Sapphire](#)

[Mosaic](#)

[Plug-ins](#)

[FlyEyeHex](#)

[Introduction](#)

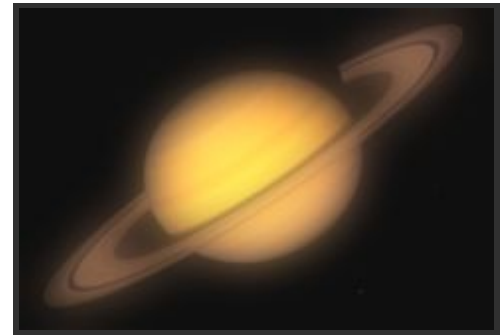
[EdgeDetect](#)

[JpegDamage](#)

S_SoftFocus

Combines a blurred version of the source with the original to give a 'soft focus' effect. Adjust the Width and Mix parameters to give different types of looks.

In the Sapphire Blur+Sharpen effects submenu.



Inputs:

Source: The clip to be processed.

Parameters:

Soft Width: *Default:* 0.056, *Range:* 0 or greater.

Scales the width of the soft focus blur. This parameter can be adjusted using the Soft Width Widget.

Width Rel: *X & Y, Default:* [1 1], *Range:* 0 or greater.

The relative horizontal and vertical blur widths. Set Width Rel X to 0 for a vertical-only blur, or set Width Rel Y to 0 for a horizontal-only blur. This parameter can be adjusted using the Soft Width Widget.

Mix With Blurred: *Default:* 0, *Range:* 0 to 1.

If positive, mixes in more of the blurred version of the source.

Mix With Source: *Default:* 0, *Range:* 0 to 1.

If positive, increases the amount of original source in the result.

Brightness: *Default:* 1, *Range:* 0 or greater.

Scales the brightness of the result.

Offset Darks: *Default:* 0, *Range:* -8 to 2.

Adds this gray value to the darker regions of the result. This can be negative to increase contrast.

Subpixel: *Check-box, Default:* off.

Enables blurring by subpixel amounts. Use this for smoother animation of the Width parameters.

Show Soft Width: *Check-box, Default:* on.

Turns on or off the screen user interface for adjusting the Soft Width parameter.

See Also:

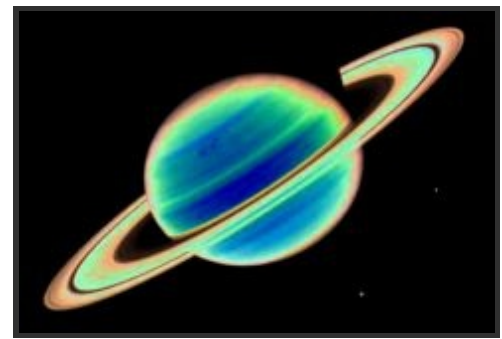
[Blur](#)
[Glow](#)

[Sapphire Plug-ins](#)
[Introduction](#)

S_Solarize

Inverts the colors of the input clip that are brighter than the Threshold value, to create a 'solarization' effect.

In the Sapphire Stylize effects submenu.



Inputs:

Source: The clip to be processed.

Parameters:

Threshold: *Default: 0.5, Range: 0 or greater.*

Colors above this value are inverted. If this is 0, all colors are inverted to produce a negative. If this is 1, no colors are inverted and the result should equal the input.

Saturation: *Default: 1, Range: -2 to 8.*

Scales the color saturation of the result. Increase for more intense colors. Set to 0 for monochrome. You can also invert the chroma of the result by making this negative.

Invert: *Check-box, Default: off.*

If enabled, the result is inverted. The invert is applied before the Brightness and Offset are used, so you may need to readjust those parameters when you change the invert option.

Brightness: *Default: 2, Range: 0 or greater.*

Scales the brightness of the result. Note that if a Threshold of .5 is used, no colors will be more than half the maximum brightness, so the contrast is increased by setting the Brightness to 2.

Offset Darks: *Default: 0, Range: -8 to 2.*

Adds this gray value to the darker regions after the solarize effect. This can be negative to increase contrast.

See Also:

[HueSatBright](#)

[Monochrome](#)

[ClampChroma](#)

[PseudoColor](#)

[DuoTone](#)

[TriTone](#)

[QuadTone](#)

[Tint](#)

[Threshold](#)

[Hotspots](#)

[Gamma](#)

[ChannelSwitcher](#)

[ShowBadColors](#)

[Invert](#)

[ZebrafyColor](#)

[Sapphire Plug-ins](#)

[Introduction](#)

S_Sparkles

Generates a field of sparkling glint effects. Adjust the Frequency, Density, and Size parameters for different types of sparkling patterns. Use the Matte input to only generate sparkles in specified areas.

In the Sapphire Render effects submenu.



Inputs:

Background: *Optional.* The clip to combine the sparkles with.

Mask: *Optional.* If provided, the sparkle colors are scaled by this input. A monochrome mask can be used to choose the areas that will generate sparkles. A color mask can be used to selectively adjust the sparkle colors in different regions. The mask is applied before the sparkles are generated so it will not clip the resulting glint rays.

Parameters:

Frequency: *Default: 25, Range: 0.01 or greater.*

The frequency of the sparkles. Increase to zoom out, decrease to zoom in.

Density: *Default: 0.65, Range: 0 to 1.*

Increase to add more sparkles.

Seed: *Default: 0.23, Range: 0 or greater.*

Used to initialize the random number generator. The actual seed value is not significant, but different seeds give different results and the same value should give a repeatable result.

Brightness: *Default: 1, Range: 0 or greater.*

Scales the brightness of all the sparkles.

Color: *Default rgb: [1 1 1].*

Scales the color of all the sparkles.

Brightness X: *Default: 1, Range: 0 or greater.*

Scales the brightness of the horizontal glint rays.

Brightness Y: *Default: 1, Range: 0 or greater.*

Scales the brightness of the vertical glint rays.

Brightness Diag1: *Default: 1, Range: 0 or greater.*

Scales the brightness of the diagonal rays from top right to bottom left.

Brightness Diag2: *Default: 1, Range: 0 or greater.*

Scales the brightness of the diagonal rays from top left to bottom right.

Size: *Default: 0.25, Range: 0 or greater.*

Scales the length of all the glint rays. This and all the size parameters can be adjusted using the Size Widget.

Size X: *Default: 1, Range: 0 or greater.*

Scales the length of the horizontal glint rays.

Size Y: *Default: 1, Range: 0 or greater.*
Scales the length of the vertical glint rays.

Size Diag1: *Default: 0.5, Range: 0 or greater.*
Scales the length of the diagonal rays from top right to bottom left.

Size Diag2: *Default: 0.5, Range: 0 or greater.*
Scales the length of the diagonal rays from top left to bottom right.

Size Red: *Default: 0.6, Range: 0 or greater.*
Scales the length of the red component of the rays. If the red, green, and blue sizes are equal the sparkles will be monochrome.

Size Green: *Default: 0.8, Range: 0 or greater.*
Scales the length of the green component of the rays.

Size Blue: *Default: 1, Range: 0 or greater.*
Scales the length of the blue component of the rays.

Shift Start: *X & Y, Default: [0 0], Range: any.*
Translation offset of the result.

Shift Speed: *X & Y, Default: [0 0], Range: any.*
Translation speed of the result. If non-zero, the result is automatically animated to shift at this rate. The result of animated Speed values may not be intuitive, so for variable speed motion it is usually best to set this to 0 and animate the Shift Start values instead.

Sparkle Speed: *X & Y, Default: [0.1 0], Range: any.*
If non-zero, the sparkles automatically twinkle on and off at this rate.

Affect Alpha: *Default: 0, Range: 0 or greater.*
If this value is positive the output Alpha channel will include some opacity from the sparkles. The maximum of the red, green, and blue sparkle brightness is scaled by this value and combined with the background Alpha at each pixel.

Bg Brightness: *Default: 1, Range: 0 or greater.*
Scales the brightness of the background before combining with the Sparkles. If 0, the result will contain only the sparkles image over black.

Smooth Anim: *Check-box, Default: off.*
Enable for more steady animation, especially at high values of Frequency.

Invert Mask: *Check-box, Default: off.*
If on, inverts the mask input so the effect is applied to areas where the Mask is black instead of white. This has no effect unless the Mask input is provided.

Show Size: *Check-box, Default: on.*
Turns on or off the screen user interface for adjusting the size parameters.

Show Shift Start: *Check-box, Default: on.*
Turns on or off the screen user interface for adjusting the Shift Start parameter.

See Also:

[SparklesColor](#)

[Glint](#)

[Sapphire Plug-ins](#)

Introduction

S_SparklesColor

Generates a field of sparkling Glint effects with varying colors. Adjust the Frequency, Density, and Size parameters for different types of sparkling patterns. Use the Matte input to only generate sparkles in specified areas.

In the Sapphire Render effects submenu.



Inputs:

Background: *Optional.* The clip to combine the sparkles with.

Mask: *Optional.* If provided, the sparkle colors are scaled by this input. A monochrome mask can be used to choose the areas that will generate sparkles. A color mask can be used to selectively adjust the sparkle colors in different regions. The mask is applied before the sparkles are generated so it will not clip the resulting glint rays.

Parameters:

Frequency: *Default: 25, Range: 0.01 or greater.*

The frequency of the sparkles. Increase to zoom out, decrease to zoom in.

Density: *Default: 0.65, Range: 0 to 1.*

Increase to add more sparkles.

Seed: *Default: 0.23, Range: 0 or greater.*

Used to initialize the random number generator. The actual seed value is not significant, but different seeds give different results and the same value should give a repeatable result.

Brightness: *Default: 1, Range: 0 or greater.*

Scales the brightness of all the sparkles.

Color: *Default rgb: [1 1 1].*

Scales the color of all the sparkles.

Color Variation: *Default: 1, Range: 0 or greater.*

Scales the saturation of the sparkles. Increase for more intense colors, decrease for more subtle colors.

Brightness X: *Default: 1, Range: 0 or greater.*

Scales the brightness of the horizontal glint rays.

Brightness Y: *Default: 1, Range: 0 or greater.*

Scales the brightness of the vertical glint rays.

Brightness Diag1: *Default: 1, Range: 0 or greater.*

Scales the brightness of the diagonal rays from top right to bottom left.

Brightness Diag2: *Default: 1, Range: 0 or greater.*

Scales the brightness of the diagonal rays from top left to bottom right.

Size: *Default: 0.25, Range: 0 or greater.*

Scales the length of all the glint rays. This and all the size parameters can be adjusted using the Size Widget.

Size X: *Default: 1, Range: 0 or greater.*
Scales the length of the horizontal glint rays.

Size Y: *Default: 1, Range: 0 or greater.*
Scales the length of the vertical glint rays.

Size Diag1: *Default: 0.5, Range: 0 or greater.*
Scales the length of the diagonal rays from top right to bottom left.

Size Diag2: *Default: 0.5, Range: 0 or greater.*
Scales the length of the diagonal rays from top left to bottom right.

Size Red: *Default: 0.6, Range: 0 or greater.*
Scales the length of the red component of the rays. If the red, green, and blue sizes are equal the sparkles will be monochrome.

Size Green: *Default: 0.8, Range: 0 or greater.*
Scales the length of the green component of the rays.

Size Blue: *Default: 1, Range: 0 or greater.*
Scales the length of the blue component of the rays.

Shift Start: *X & Y, Default: [0 0], Range: any.*
Translation offset of the result.

Shift Speed: *X & Y, Default: [0 0], Range: any.*
Translation speed of the result. If non-zero, the result is automatically animated to shift at this rate. The result of animated Speed values may not be intuitive, so for variable speed motion it is usually best to set this to 0 and animate the Shift Start values instead.

Sparkle Speed: *X & Y, Default: [0.1 0], Range: any.*
If non-zero, the sparkles automatically twinkle on and off at this rate.

Affect Alpha: *Default: 0, Range: 0 or greater.*
If this value is positive the output Alpha channel will include some opacity from the sparkles. The maximum of the red, green, and blue sparkle brightness is scaled by this value and combined with the background Alpha at each pixel.

Bg Brightness: *Default: 1, Range: 0 or greater.*
Scales the brightness of the background before combining with the Sparkles. If 0, the result will contain only the sparkles image over black.

Smooth Anim: *Check-box, Default: off.*
Enable for more steady animation, especially at high values of Frequency.

Invert Mask: *Check-box, Default: off.*
If on, inverts the mask input so the effect is applied to areas where the Mask is black instead of white. This has no effect unless the Mask input is provided.

Show Size: *Check-box, Default: on.*
Turns on or off the screen user interface for adjusting the size parameters.

Show Shift Start: *Check-box, Default: on.*
Turns on or off the screen user interface for adjusting the Shift Start parameter.

See Also:

[Sparkles](#)

[Glint](#)

[Sapphire Plug-ins](#)

[Introduction](#)

S_SpotLight

Lights the input clip using one or two spotlights. For each enabled light, the intersection of a 3D light cone with the image plane is calculated using the given light source position, aim location, and beam angle. Ambient light can also be applied to affect the entire source image evenly. A wide variety of lighting shapes can be created by adjusting the parameters provided.

In the Sapphire Lighting effects submenu.



Inputs:

Background: The clip to combine the light with.

Parameters:

Light1 Enable: *Check-box, Default: on.*
Turns on or off this spotlight.

Light1 Bright: *Default: 0.8, Range: any.*
Scales the brightness of this spotlight. This value can be made negative for a 'dark' spotlight effect.

Light1 Color: *Default rgb: [1 1 1].*
Determines the color of this spotlight.

Light1: *X & Y, Default: [180 360], Range: any.*
The position of this light source relative to the image plane. This parameter can be adjusted using the Light1 Widget.

Light1 Z: *Default: 0.5, Range: 0.028 or greater.*
The distance of this light source from the image plane. Decreasing this brings the light source closer to the surface and causes the direction of the beam to be more parallel to the surface, which can stretch the spot into an ellipse or hyperbola shape.

Aim1: *X & Y, Default: [300 243], Range: any.*
This spotlight is directed at this location on the image plane. If this is directly under the Light Source a circular spot will result. When moved away from the Light Source it can also cause the spot to change to an ellipse or hyperbola shape. This parameter can be adjusted using the Aim1 Widget.

Spread Angle1: *Default: 45, Range: 0 to 360.*
The spread angle of this spotlight beam in degrees. Larger values open up the beam for a larger spot.

Softness1: *Default: 0.3, Range: 0.01 to 1.*
Determines the amount of penumbra or the softness of the spotlight edges, relative to the Spread Angle. Lower values make crisp edged shapes, higher values make softer shapes.

Falloff Power1: *Default: 0, Range: 0 or greater.*
Determines how much the spotlight brightness fades with distance. A value of 0 causes no fading, 1 fades the light as distance increases, and 2 fades it faster with distance. A value of 2 is correct for a physically realistic point light.

Light2 Enable: *Check-box, Default: off.*
Turns on or off the second spotlight.

The remainder of the Light2 parameters are the same as those described above for Light1, but control the second spotlight instead.

Ambient Bright: *Default: 0.2, Range: any.*

The amount of ambient light included in the entire frame. This allows parts of the Background outside of the spotlights to still be visible if desired.

Ambient Color: *Default rgb: [1 1 1].*

Determines the color of the ambient light.

All Lights Bright: *Default: 1, Range: any.*

Scales the brightness of all the spotlights together.

All Lights Color: *Default rgb: [1 1 1].*

Scales the color of all the spotlights together.

All Aims Shift: *X & Y, Default: [0 0], Range: any.*

Adds this amount to all lights Aim parameters. This can be used to easily make all lights aim at the same location. This parameter can be adjusted using the All Aims Shift Widget.

All Shift: *X & Y, Default: [0 0], Range: any.*

Shifts the entire spotlight pattern without changing their shapes by adding this amount to all light and aim positions.

Combine: *Popup menu, Default: Mult.*

Determines how the light is combined with the Background.

Lights Only: gives only the light image with no Background.

Mult: the light is multiplied by the Background. This is the effect that a real light would typically have.

Add: the light is added to the Background.

Screen: the light is blended with the Background using a screen operation.

Overlay: the light is combined with the Background using an overlay function.

Show Light1: *Check-box, Default: on.*

Turns on or off the screen user interface for adjusting the Light1 parameter.

Show Aim1: *Check-box, Default: on.*

Turns on or off the screen user interface for adjusting the Aim1 parameter.

Show Light2: *Check-box, Default: off.*

Turns on or off the screen user interface for adjusting the Light2 parameter.

Show Aim2: *Check-box, Default: off.*

Turns on or off the screen user interface for adjusting the Aim2 parameter.

Show All Aims Shift: *Check-box, Default: off.*

Turns on or off the screen user interface for adjusting the All Aims Shift parameter.

See Also:

[LensFlare](#)
[Emboss](#)

[Sapphire Plug-ins](#)
[Introduction](#)

S_Streaks

Motion blurs the bright areas of the source into streaks between the From and To transformations. This can be used to create an extended film exposure effect, or simulate soft beams of light. From and To parameters do not refer to time. They describe the two transformations in space that determine the style of blur applied to each frame.

In the Sapphire Lighting effects submenu.



Inputs:

Source: The clip to be processed.

Mask: *Optional.* If provided, the Source is scaled by the values of this input clip before the areas that get streaked are determined. This can be used to selectively remove or reduce the streaks applied to specific areas of the Source.

Parameters:

Streaks Brightness: *Default:* 1, *Range:* 0 or greater.
Scales the brightness of the streaks.

Exposure Bias: *Default:* 0, *Range:* 0 to 1.

Determines the variable amount of exposure along the path between the From and To transformations. A value of 0 causes more exposure at the From end, 0.5 causes equal exposure along the path, and 1.0 causes more exposure at the To end. If you have bright spots on a dark background, a 0 value would cause the processed spots to be brighter at the From end and dark at the To end, and a 1.0 value would cause the opposite.

Threshold: *Default:* 0.5, *Range:* 0 or greater.

Streaks are generated from locations in the source clip that are brighter than this value. A value of 0.9 causes streaks at only the brightest spots. A value of 0 causes streaks for every non-black area.

Threshold Add Color: *Default rgb:* [0 0 0].

This can be used to raise the threshold on a specific color and thereby reduce the streaks generated on areas of the source clip containing that color.

Center: *X & Y, Default:* [360 243], *Range:* any.

The center of rotation and zooming, in screen coordinates relative to the center of the frame. The shift values should be zero for this location to make sense. This parameter can be adjusted using the Center Widget.

From Z Dist: *Default:* 1, *Range:* 0.001 or greater.

The 'distance' of the From transformation. This zooms about the Center location when Shift is 0. Increase to zoom out, decrease to zoom in. This parameter can be adjusted using the From Transfm Widget.

From Rotate: *Default:* 0, *Range:* any.

The rotation angle of the From transformation, in degrees, about the center. This parameter can be adjusted using the From Transfm Widget.

From Shift: *X & Y, Default:* [0 0], *Range:* any.

The horizontal and vertical translations of the From transformation. This can be used for directional motion. If it is non-zero the center location becomes less meaningful. This parameter can be adjusted using the From Transfm Widget.

To Z Dist: *Default: 0.8, Range: 0.001 or greater.*

The 'distance' of the To transformation. Increase to zoom out, or decrease to zoom in. This parameter can be adjusted using the To Transform Widget.

To Rotate: *Default: 0, Range: any.*

The rotation angle of the To transformation, in degrees, about the center. Note that if the From and To Rotate angles are very different, the interpolation between them will become less accurate. This parameter can be adjusted using the To Transform Widget.

To Shift: *X & Y, Default: [0 0], Range: any.*

The horizontal and vertical translations of the To transformation. This can be used for directional motion. If it is non-zero the center location becomes less meaningful. This parameter can be adjusted using the To Transform Widget.

Mix Source Darks: *Default: 1, Range: 0 to 1.*

The dark non-streaked components of the Source are scaled by this amount and added to the result. This allows combining the streaked and non-streaked versions of the source clip.

Mix Source Brights: *Default: 0, Range: 0 to 1.*

The original bright components of the Source that were used to generate the streaks are scaled by this amount and added to the result. This allows combining some non-streaked bright areas of the source clip with the output.

Result Brightness: *Default: 1, Range: 0 or greater.*

Scales the brightness of the result.

Combine: *Popup menu, Default: Add.*

Determines how the streaks are combined with the background.

Add: causes the streaks to be added to the background.

Screen: performs a blend function which can help prevent overly bright results.

Wrap: *Popup menu, Default: No.*

Determines the method for accessing outside the borders of the source image.

No: gives black beyond the borders.

Tile: repeats a copy of the image.

Reflect: repeats a mirrored copy. Edges are often less visible with this method.

Streaks Res: *Popup menu, Default: Full.*

Selects the resolution factor for the streaks. This is similar to the general 'Res' factor parameter, but it only affects the streaks: the original mixed with the streaks remains at full resolution. Higher resolutions give better quality, lower resolutions give faster processing.

Full: Full resolution is used.

1/2: The streaks are calculated at half resolution.

1/4: The streaks are calculated at quarter resolution.

Subpixel: *Check-box, Default: on.*

If enabled, uses a better quality but slightly slower method for rendering the streaks.

Blur Mask: *Default: 0, Range: 0 or greater.*

Blurs the Mask input by this amount before using. This can provide a smoother transition between the masked and unmasked areas. It has no effect unless the Mask input is provided.

Invert Mask: *Check-box, Default: off.*

If on, inverts the mask input so the effect is applied to areas where the Mask is black instead of white. This has no effect unless the Mask input is provided.

Mask Use: *Popup menu, Default: Luma.*

Determines how the Mask input channels are used to make a monochrome mask.

Luma: the luminance of the RGB channels is used.

Alpha: only the Alpha channel is used.

Show Center: *Check-box, Default: on.*

Turns on or off the screen user interface for adjusting the Center parameter.

Show From Transform: *Check-box, Default: on.*

Turns on or off the screen user interface for adjusting the From Z Dist and From Rotate parameters.

Show To Transform: *Check-box, Default: on.*

Turns on or off the screen user interface for adjusting the To Z Dist and To Rotate parameters.

Show From Shift: *Check-box, Default: off.*

Turns on or off the screen user interface for adjusting the Center parameter.

Show To Shift: *Check-box, Default: off.*

Turns on or off the screen user interface for adjusting the Center parameter.

See Also:

[Rays](#)

[EdgeRays](#)

[BlurMotion](#)

[WarpRepeat](#)

[WarpChroma](#)

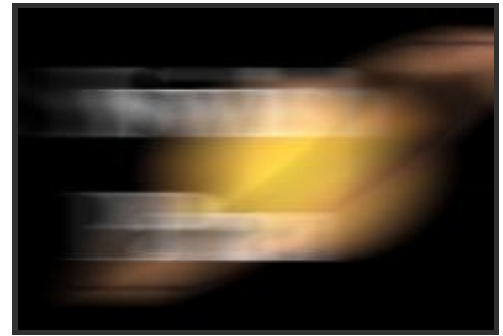
[Sapphire Plug-ins](#)

[Introduction](#)

S_SwishPan

Transitions between two input clips by sliding one clip off the frame and the other clip on, and adding motion blur to give the appearance of a quick pan. This works best when the duration of the transition is short.

In the Sapphire Transitions effects submenu.



Inputs:

From: Starts the transition with this clip.

To: Ends the transition with this clip.

Parameters:

Wipe Amount: *Default: 0, Range: -0.5 to 1.5.*

Determines the transition ratio between the From and To inputs, and would normally be animated from 0 to 1 to perform a complete transition. The curve controlling this parameter can be adjusted for more detailed control over the timing of the wipe.

Direction: *Popup menu, Default: Left.*

Direction that the clips move during the transition.

***Left:** Moves right-to-left*

***Right:** Moves left-to-right*

***Up:** Moves upward.*

***Down:** Moves downward.*

Blur Amount: *Default: 0.4, Range: 0 or greater.*

Amount of motion blur to use. If the direction is left or right, the blur is horizontal. If the direction is up or down, the blur is vertical.

Overlap: *Default: 0, Range: any.*

Amount to overlap the two clips. Where the clips overlap, they will be screened together. This is useful for eliminating bad edges.

Slow In: *Default: 0.5, Range: 0 to 1.*

If positive, causes the transition to start more gradually.

Slow Out: *Default: 0.5, Range: 0 to 1.*

If positive, causes the transition to end more gradually.

See Also:

[WipeLine](#)

[WipeCircle](#)

[WipeRectangle](#)

[WipeStar](#)

[WipeClock](#)

[WipeWedge](#)

[WipeDoubleWedge](#)

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WipeFourWedges

WipeDots

WipeChecker

WipeStripes

WipeRings

WipeBlobs

WipeCells

WipeTiles

WipePixelate

WipeDiffuse

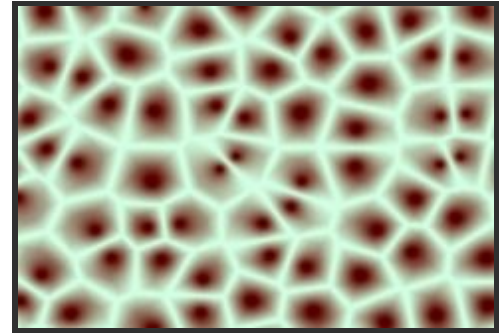
WipeBubble

WipeClouds

S_TextureCells

Generates an image of procedural cellular shapes. The Rotate Speed parameter causes the cell centers to rotate within each cell over time.

In the Sapphire Render effects submenu.



Inputs:

Background: *Optional.* The clip to combine the texture image with. This may be ignored if the Combine option is set to Texture Only.

Parameters:

Frequency: *Default:* 16, *Range:* 0.01 or greater.

The spatial frequency of the texture. Increase to zoom out, decrease to zoom in.

Frequency Rel X: *Default:* 1, *Range:* 0.01 or greater.

The relative horizontal frequency of the texture. Increase to stretch it vertically or decrease to stretch it horizontally.

Seed: *Default:* 0.234, *Range:* 0 or greater.

Used to initialize the random number generator. The actual seed value is not significant, but different seeds give different results and the same value should give a repeatable result.

Rotate Centers: *Default:* 0, *Range:* any.

Rotation offset of the cell centers, in counter-clockwise degrees.

Rotate Speed: *Default:* 90, *Range:* any.

The speed of cell center rotation, in counter-clockwise degrees per second. If non-zero, the cell centers are automatically animated to wiggle at this rate.

Shift: *X & Y, Default:* [0 0], *Range:* any.

Translation offset of the texture. Since the texture is procedurally generated it can be shifted with no repeating units or seams occurring. This parameter can be adjusted using the Shift Widget.

Brightness1: *Default:* 1, *Range:* 0 or greater.

Scales the brightness of Color1. Increase for more contrast.

Color1: *Default rgb:* [1 1 1].

The color of the 'brighter' parts of the texture. The colors of the result are determined by an interpolation between Color0 and Color1.

Color0: *Default rgb:* [0 0 0].

The color of the 'darker' parts of the texture.

Offset0: *Default:* 0, *Range:* any.

Adds this value to color0. Decrease to a negative value for more contrast.

Invert: *Check-box, Default:* off.

If enabled, the resulting texture colors are inverted. This is similar to swapping Color0 and Color1.

Bg Brightness: *Default:* 1, *Range:* 0 or greater.

The background brightness is scaled by this value before being combined with the texture.

Combine: *Popup menu, Default: Screen.*

Determines how the texture is combined with the Background.

Texture Only: gives only the texture image with no Background.

Mult: the texture is multiplied by the Background.

Add: the texture is added to the Background.

Screen: the texture is blended with the Background using a screen operation.

Difference: the result is the difference between the texture and Background.

Overlay: the texture is combined with the Background using an overlay function.

Show Shift: *Check-box, Default: on.*

Turns on or off the screen user interface for adjusting the Shift parameter.

See Also:

[TextureFolded](#)

[TextureWeave](#)

[TexturePlasma](#)

[TextureNoiseEmboss](#)

[TextureNoisePaint](#)

[TextureSpots](#)

[TextureChromaSpiral](#)

[TextureMoire](#)

[TextureTiles](#)

[TextureNeurons](#)

[TextureLoops](#)

[TextureFlux](#)

[WipeCells](#)

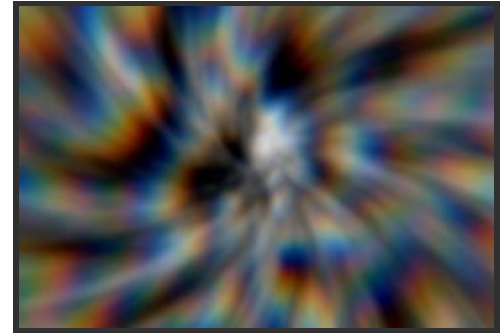
[Sapphire Plug-ins](#)

[Introduction](#)

S_TextureChromaSpiral

Creates an abstract texture by applying a WarpChroma effect to a procedurally generated noise texture.

In the Sapphire Render effects submenu.



Inputs:

Background: *Optional.* The clip to combine the texture image with. This may be ignored if the Combine option is set to Texture Only.

Parameters:

Noise Frequency: *Default:* 6, *Range:* 0.01 or greater.

The spatial frequency of the initial noise texture. Increase to zoom out, decrease to zoom in.

Noise Octaves: *Integer, Default:* 3, *Range:* 1 to 10.

The number of summed layers of noise. Each octave is twice the frequency and half the amplitude of the previous. A single octave gives a smooth texture. Adding octaves makes the result approach a fractal (1/f) noise texture.

Noise Shift: *X & Y, Default:* [0 0], *Range:* any.

Translation offset of the initial noise texture.

Noise Seed: *Default:* 0.23, *Range:* 0 or greater.

Used to initialize the random number generator. The actual seed value is not significant, but different seeds give different results and the same value should give a repeatable result.

Center: *X & Y, Default:* [360 243], *Range:* any.

The center location of the chroma warp, in screen coordinates relative to the center of the frame. This parameter can be adjusted using the Center Widget.

Z Dist: *Default:* 0.7, *Range:* 0.001 or greater.

The distance that the chroma warp effect is applied over.

Rotate: *Default:* -8, *Range:* any.

The rotation of the spiral, in degrees. Set to 0 for a straight zoom.

Steps: *Integer, Default:* 12, *Range:* 3 to 100.

The number of color samples along the spectrum to include. More steps give a smoother result, but require more time to process.

Brightness: *Default:* 1, *Range:* 0 or greater.

Scales the brightness of the result.

Color: *Default rgb:* [1 1 1].

Scales the color of the result. For example, if it is yellow [1 1 0], the blue of the result will be 0.

Offset: *Default:* 0, *Range:* -8 to 2.

Adds this gray value to the result (or subtracts if negative). 0 has no effect, .5 is middle gray, and 1 is white.

Bg Brightness: *Default:* 1, *Range:* 0 or greater.

The background brightness is scaled by this value before being combined with the texture.

Combine: *Popup menu, Default: Screen.*

Determines how the texture is combined with the Background.

Texture Only: gives only the texture image with no Background.

Mult: the texture is multiplied by the Background.

Add: the texture is added to the Background.

Screen: the texture is blended with the Background using a screen operation.

Difference: the result is the difference between the texture and Background.

Overlay: the texture is combined with the Background using an overlay function.

Show Center: *Check-box, Default: on.*

Turns on or off the screen user interface for adjusting the Center parameter.

See Also:

[TextureFolded](#)

[TextureWeave](#)

[TexturePlasma](#)

[TextureNoiseEmboss](#)

[TextureNoisePaint](#)

[TextureSpots](#)

[TextureCells](#)

[TextureMoire](#)

[TextureTiles](#)

[TextureNeurons](#)

[TextureLoops](#)

[TextureFlux](#)

[WarpChroma](#)

[Clouds](#)

[CloudsVortex](#)

[Sapphire](#)

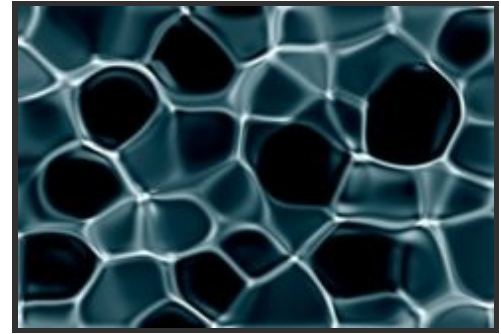
[Plug-ins](#)

[Introduction](#)

S_TextureFlux

Creates abstract textures of fluctuating liquid or cellular patterns. The Morph Speed parameter causes the pattern to automatically undulate over time.

In the Sapphire Render effects submenu.



Inputs:

Background: *Optional.* The clip to combine the texture image with. This may be ignored if the Combine option is set to Texture Only.

Parameters:

Frequency: *Default: 4, Range: 0.01 to 100.*

The spatial frequency of the texture. Increase to zoom out, decrease to zoom in.

Frequency Rel X: *Default: 1, Range: 0.01 or greater.*

The relative horizontal frequency of the texture. Increase to stretch it vertically or decrease to stretch it horizontally.

Octaves: *Integer, Default: 2, Range: 1 to 10.*

The number of summed layers of noise. Each octave is twice the frequency and half the amplitude of the previous. A single octave gives a smooth texture. Adding octaves makes the result approach a fractal (1/f) noise texture.

Seed: *Default: 0.234, Range: 0 or greater.*

Used to initialize the random number generator. The actual seed value is not significant, but different seeds give different results and the same value should give a repeatable result.

Shift: *X & Y, Default: [0 0], Range: any.*

Translation offset of the texture. Since the texture is procedurally generated it can be shifted with no repeating units or seams occurring. This parameter can be adjusted using the Shift Widget.

Bubble Amount: *Default: 1, Range: any.*

Amplitude of warping applied to generate the bubble shapes. This can be negative to generate brighter bubble shapes with dark edges.

Bubble Smooth: *Default: 0.05, Range: 2.8e-05 or greater.*

Smooths the warping pattern by this amount.

Rotate Warp Dir: *Default: 0, Range: any.*

Rotates the direction of the warping. This can cause a twisting effect or an inverted effect when set to 180.

Morph Speed: *Default: 0.3, Range: any.*

Speed to automatically undulate the underlying noise pattern over time.

Morph: *X & Y, Default: [0 1], Range: any.*

The horizontal and vertical directions to undulate the underlying noise pattern, when using Morph Speed.

Brightness1: *Default: 1, Range: 0 or greater.*

Scales the brightness of Color1. Increase for more contrast.

Color1: *Default rgb:* [1 1 1].

The color of the 'brighter' parts of the texture. The colors of the result are determined by an interpolation between Color0 and Color1.

Color0: *Default rgb:* [0 0.12 0.15].

The color of the 'darker' parts of the texture.

Offset0: *Default:* 0, *Range:* any.

Adds this value to color0. Decrease to a negative value for more contrast.

Filter: *Check-box, Default:* off.

The type of convolution filter to blur with.

Bg Brightness: *Default:* 1, *Range:* 0 or greater.

The background brightness is scaled by this value before being combined with the texture.

Combine: *Popup menu, Default:* Screen.

Determines how the texture is combined with the Background.

Texture Only: gives only the texture image with no Background.

Mult: the texture is multiplied by the Background.

Add: the texture is added to the Background.

Screen: the texture is blended with the Background using a screen operation.

Difference: the result is the difference between the texture and Background.

Overlay: the texture is combined with the Background using an overlay function.

Show Shift: *Check-box, Default:* on.

Turns on or off the screen user interface for adjusting the Shift parameter.

See Also:

[TextureFolded](#)

[TextureWeave](#)

[TexturePlasma](#)

[TextureNoiseEmboss](#)

[TextureNoisePaint](#)

[TextureSpots](#)

[TextureCells](#)

[TextureChromaSpiral](#)

[TextureMoire](#)

[TextureTiles](#)

[TextureNeurons](#)

[TextureLoops](#)

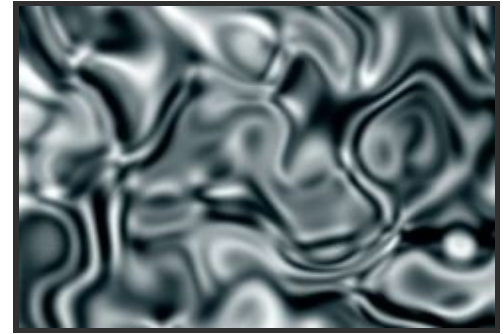
[Sapphire Plug-ins](#)

[Introduction](#)

S_TextureFolded

Creates an abstract texture resembling folded cloth or liquid that can be animated to give a dynamic turbulent effect. The Fold Speed parameters cause the pattern to automatically undulate over time.

In the Sapphire Render effects submenu.



Inputs:

Background: *Optional.* The clip to combine the texture image with. This may be ignored if the Combine option is set to Texture Only.

Parameters:

Frequency: *Default: 4, Range: 0.01 or greater.*

The spatial frequency of the texture. Increase to zoom out, decrease to zoom in.

Frequency Rel X: *Default: 1, Range: 0.01 or greater.*

The relative horizontal frequency of the texture. Increase to stretch it vertically or decrease to stretch it horizontally.

Octaves: *Integer, Default: 1, Range: 1 to 10.*

The number of summed layers of noise. Each octave is twice the frequency and half the amplitude of the previous. A single octave gives a smooth texture. Adding octaves makes the result approach a fractal (1/f) noise texture.

Seed: *Default: 0.432, Range: 0 or greater.*

Used to initialize the random number generator. The actual seed value is not significant, but different seeds give different results and the same value should give a repeatable result.

Fold Amp: *Default: 72, Range: any.*

The angle of the folding distortions.

Fold Freq: *Default: 0.5, Range: 0.01 or greater.*

The frequency of the noise used for the folding distortions.

Fold Octaves: *Integer, Default: 1, Range: 1 to 10.*

The number of octaves of noise to use for the folding distortions.

Shift: *X & Y, Default: [0 0], Range: any.*

Translation offset of the texture. Since the texture is procedurally generated it can be shifted with no repeating units or seams occurring. This parameter can be adjusted using the Shift Widget.

Fold Start: *X & Y, Default: [0 0], Range: any.*

The offset of the folding effect.

Fold Speed: *X & Y, Default: [1 0], Range: any.*

The speed of the animated folding effect. If non-zero, the folding effect automatically undulates at this rate.

Brightness1: *Default: 1, Range: 0 or greater.*

Scales the brightness of Color1. Increase for more contrast.

Color1: *Default rgb: [1 1 1].*

The color of the 'brighter' parts of the texture. The colors of the result are determined by an interpolation between

Color0 and Color1.

Color0: *Default rgb:* [0 0 0].

The color of the 'darker' parts of the texture.

Offset0: *Default:* 0, *Range:* any.

Adds this value to color0. Decrease to a negative value for more contrast.

Bg Brightness: *Default:* 1, *Range:* 0 or greater.

The background brightness is scaled by this value before being combined with the texture.

Combine: *Popup menu, Default:* Screen.

Determines how the texture is combined with the Background.

Texture Only: gives only the texture image with no Background.

Mult: the texture is multiplied by the Background.

Add: the texture is added to the Background.

Screen: the texture is blended with the Background using a screen operation.

Difference: the result is the difference between the texture and Background.

Overlay: the texture is combined with the Background using an overlay function.

Show Shift: *Check-box, Default:* on.

Turns on or off the screen user interface for adjusting the Shift parameter.

See Also:

[TextureWeave](#)

[TexturePlasma](#)

[TextureNoiseEmboss](#)

[TextureNoisePaint](#)

[TextureSpots](#)

[TextureCells](#)

[TextureChromaSpiral](#)

[TextureMoire](#)

[TextureTiles](#)

[TextureNeurons](#)

[TextureLoops](#)

[TextureFlux](#)

[Clouds](#)

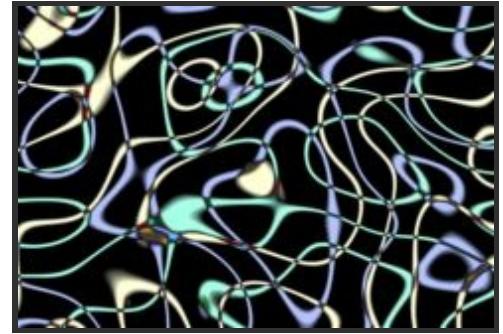
[Sapphire Plug-ins](#)

[Introduction](#)

S_TextureLoops

Creates an abstract texture of overlapping loop shapes. Three sets of shapes can be separately adjusted, colored, and then combined together. The Phase Speed parameter causes the pattern to automatically change over time.

In the Sapphire Render effects submenu.



Inputs:

Background: *Optional.* The clip to combine the texture image with. This may be ignored if the Combine option is set to Texture Only.

Parameters:

Frequency: *Default: 3, Range: 0.01 or greater.*

The spatial frequency of the texture. Increase to zoom out, decrease to zoom in.

Frequency Rel X: *Default: 1, Range: 0.01 or greater.*

The relative horizontal frequency of the texture. Increase to stretch it vertically or decrease to stretch it horizontally.

Loop Freq: *Default: 4, Range: 1 or greater.*

Frequency of the loops within the noise patterns. Increase for more concentric loops, decrease for fewer.

Phase Start: *Default: 0, Range: any.*

The phase of the ring loops. Shifts inwards or outwards.

Phase Speed: *Default: 0.1, Range: any.*

The automatic change in phase over time.

Seed: *Default: 1, Range: 0 or greater.*

Used to initialize the random number generator. The actual seed value is not significant, but different seeds give different results and the same value should give a repeatable result.

Thickness: *Default: 0.1, Range: -1 to 2.*

Controls the thickness of the loops.

Softness: *Default: 0.2, Range: 0.01 or greater.*

The softness of the edges of the loop shapes. Increase for smoother edges or to reduce aliasing.

Smooth: *Default: 0, Range: 0 or greater.*

Amount to blur the loop shapes before combining. Increase for a defocus look, or to help remove aliasing artifacts.

Shift: *X & Y, Default: [0 0], Range: any.*

Translation offset of the texture. Since the texture is procedurally generated it can be shifted with no repeating units or seams occurring. This parameter can be adjusted using the Shift Widget.

Brightness1: *Default: 1, Range: 0 or greater.*

Scales the brightness of Color1. Increase for more contrast.

Color1: *Default rgb: [1 1 1].*

The color of the 'brighter' parts of the texture. The colors of the result are determined by an interpolation between

Color0 and Color1.

Color0: *Default rgb:* [0 0 0].

The color of the 'darker' parts of the texture.

Offset0: *Default:* 0, *Range:* any.

Adds this value to color0. Decrease to a negative value for more contrast.

Saturation: *Default:* 1, *Range:* -2 to 8.

Scales the color saturation. Increase for more intense colors. Set to 0 for monochrome.

Loops1 Freq: *Default:* 1, *Range:* 0.01 or greater.

Relative frequency of the first set of loops.

Loops2 Freq: *Default:* 1, *Range:* 0.01 or greater.

Relative frequency of the second set of loops.

Loops3 Freq: *Default:* 1, *Range:* 0.01 or greater.

Relative frequency of the third set of loops.

Loops1 Thick: *Default:* 0, *Range:* -1 to 1.

Adds this amount to the thickness of the first set of loops.

Loops2 Thick: *Default:* 0, *Range:* -1 to 1.

Adds this amount to the thickness of the second set of loops.

Loops3 Thick: *Default:* 0, *Range:* -1 to 1.

Adds this amount to the thickness of the third set of loops.

Loops1 Bright: *Default:* 1, *Range:* 0 or greater.

Scales the brightness of the first set of loops. Set to zero to remove them.

Loops2 Bright: *Default:* 1, *Range:* 0 or greater.

Scales the brightness of the second set of loops. Set to zero to remove them.

Loops3 Bright: *Default:* 1, *Range:* 0 or greater.

Scales the brightness of the third set of loops. Set to zero to remove them.

Loops1 Color: *Default rgb:* [1 1 1].

Color of the first set of loops.

Loops2 Color: *Default rgb:* [1 1 1].

Color of the second set of loops.

Loops3 Color: *Default rgb:* [1 1 1].

Color of the third set of loops.

Invert: *Check-box, Default:* off.

If enabled, the resulting texture colors are inverted. This is similar to swapping Color0 and Color1.

Combine Loops: *Popup menu, Default:* Diff.

Operation used to combine the colors of the three sets of loops.

Add: adds them together.

Screen: uses a screen transfer mode to combine them.

Diff: uses a difference operator to combine them.

Comp: composites the second over the third, and the first over that.

Bg Brightness: *Default: 1, Range: 0 or greater.*

The background brightness is scaled by this value before being combined with the texture.

Combine: *Popup menu, Default: Screen.*

Determines how the texture is combined with the Background.

Texture Only: gives only the texture image with no Background.

Mult: the texture is multiplied by the Background.

Add: the texture is added to the Background.

Screen: the texture is blended with the Background using a screen operation.

Difference: the result is the difference between the texture and Background.

Overlay: the texture is combined with the Background using an overlay function.

Show Shift: *Check-box, Default: on.*

Turns on or off the screen user interface for adjusting the Shift parameter.

See Also:

[TextureFolded](#)

[TextureWeave](#)

[TexturePlasma](#)

[TextureNoiseEmboss](#)

[TextureNoisePaint](#)

[TextureSpots](#)

[TextureCells](#)

[TextureChromaSpiral](#)

[TextureMoire](#)

[TextureTiles](#)

[TextureNeurons](#)

[TextureFlux](#)

[WipeBlobs](#)

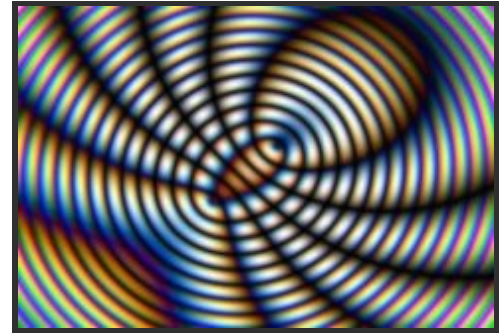
[Sapphire Plug-ins](#)

[Introduction](#)

S_TextureMoire

Creates an abstract Moire texture by adding together two patterns of concentric rings. The Phase Speed and Moire Speed parameters cause the rings to automatically animate over time.

In the Sapphire Render effects submenu.



Inputs:

Background: *Optional.* The clip to combine the texture image with. This may be ignored if the Combine option is set to Texture Only.

Parameters:

A Center: *X & Y, Default: [330 213], Range: any.*

The center location of the A ring pattern. This parameter can be adjusted using the A Center Widget.

B Center: *X & Y, Default: [390 273], Range: any.*

The center location of the B ring pattern. This parameter can be adjusted using the B Center Widget.

Frequency: *Default: 20, Range: 0.5 or greater.*

The frequency of the rings. Increase for more and smaller rings, or decrease for fewer larger rings.

Rel Freq Red: *Default: 1, Range: 0.1 or greater.*

Scales the ring frequencies for the red color channel only.

Rel Freq Green: *Default: 1, Range: 0.1 or greater.*

Scales the ring frequencies for the green color channel only.

Rel Freq Blue: *Default: 1, Range: 0.1 or greater.*

Scales the ring frequencies for the blue color channel only.

Double Space Rings: *Check-box, Default: off.*

If checked, every other ring is negative giving a double spaced look. If unchecked, the absolute value of the wave form is used which gives twice as many visible rings.

Phase Start: *Default: 0, Range: -5 to 5.*

The phase of the ring patterns. Increase to shift outwards from the centers, or decrease to shift inwards toward the centers. The phase parameters are relative to the period of the rings (1/frequency) so changing any by exactly 1 should give the same result again.

Phase Speed: *Default: 1, Range: any.*

The automatic change in phase, per second.

Phase Red: *Default: 0.2, Range: -5 to 5.*

Shifts the ring phases for the red color channel only.

Phase Green: *Default: 0.1, Range: -5 to 5.*

Shifts the ring phases for the green color channel only.

Phase Blue: *Default: 0, Range: -5 to 5.*

Shifts the ring phases for the blue color channel only.

Moire Phase: *Default: 0, Range: -5 to 5.*

The relative start phase of the two ring patterns. Shifts the A ring pattern out and the B ring pattern in by the same amount, causing changes in the moire pattern itself.

Moire Speed: *Default: 1, Range: any.*

Automatic change per second in the relative phase of the two ring patterns.

A Brightness: *Default: 1, Range: 0 or greater.*

Scales the brightness of the A ring pattern. Set this to zero to disable and view only the B rings.

A Color: *Default rgb: [0.5 0.5 0.5].*

Scales the color of the A ring pattern.

A Rel Freq: *Default: 1, Range: 0.1 or greater.*

Scales the ring frequencies of the A ring pattern.

A Rel Width: *Default: 1, Range: 0.2 or greater.*

The relative horizontal size of the A ring pattern. Increase for wider ring shapes, decrease for taller ones.

A Rotate: *Default: 0, Range: any.*

Rotation in degrees of the A ring pattern. Note that this will have no effect when A Rel Width is 1.

B Brightness: *Default: 1, Range: 0 or greater.*

Scales the brightness of the B ring pattern. Set this to zero to disable and view only the A rings.

B Color: *Default rgb: [0.5 0.5 0.5].*

Scales the color of the B ring pattern.

B Rel Freq: *Default: 1, Range: 0.1 or greater.*

Scales the ring frequencies of the B ring pattern.

B Rel Width: *Default: 1, Range: 0.2 or greater.*

The relative horizontal size of the B ring pattern. Increase for wider ring shapes, decrease for taller ones.

B Rotate: *Default: 0, Range: any.*

Rotation in degrees of the B ring pattern. Note that this will have no effect when A Rel Width is 1.

Brightness1: *Default: 1, Range: 0 or greater.*

Scales the brightness of Color1. Increase for more contrast.

Color1: *Default rgb: [1 1 1].*

The color of the 'brighter' parts of the texture. The colors of the result are determined by an interpolation between Color0 and Color1.

Color0: *Default rgb: [0 0 0].*

The color of the 'darker' parts of the texture.

Offset0: *Default: 0, Range: any.*

Adds this value to color0. Decrease to a negative value for more contrast.

Saturation: *Default: 1, Range: 0 to 10.*

Scales the color saturation. Increase for more intense colors. Set to 0 for monochrome.

Bg Brightness: *Default: 1, Range: 0 or greater.*

The background brightness is scaled by this value before being combined with the texture.

Combine: *Popup menu, Default: Screen.*

Determines how the texture is combined with the Background.

Texture Only: gives only the texture image with no Background.
Mult: the texture is multiplied by the Background.
Add: the texture is added to the Background.
Screen: the texture is blended with the Background using a screen operation.
Difference: the result is the difference between the texture and Background.
Overlay: the texture is combined with the Background using an overlay function.

Show A Center: *Check-box, Default:* on.

Turns on or off the screen user interface for adjusting the A Center parameter.

Show B Center: *Check-box, Default:* on.

Turns on or off the screen user interface for adjusting the B Center parameter.

See Also:

[TextureFolded](#)

[TextureWeave](#)

[TexturePlasma](#)

[TextureNoiseEmboss](#)

[TextureNoisePaint](#)

[TextureSpots](#)

[TextureCells](#)

[TextureChromaSpiral](#)

[TextureTiles](#)

[TextureNeurons](#)

[TextureLoops](#)

[TextureFlux](#)

[WipeRings](#)

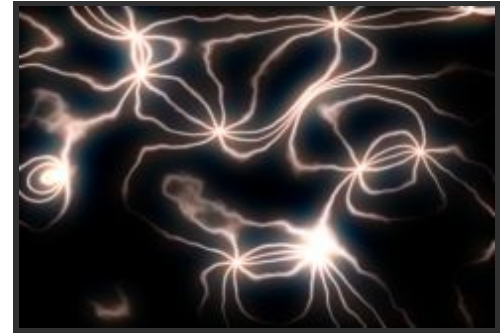
[Sapphire Plug-ins](#)

[Introduction](#)

S_TextureNeurons

Creates an abstract texture resembling moving nerve cell tendrils. The Phase Speed and Morph Speed parameters cause the pattern to automatically change over time.

In the Sapphire Render effects submenu.



Inputs:

Background: *Optional.* The clip to combine the texture image with. This may be ignored if the Combine option is set to Texture Only.

Parameters:

Frequency: *Default: 3, Range: 0.01 or greater.*

The spatial frequency of the texture. Increase to zoom out, decrease to zoom in.

Frequency Rel X: *Default: 1, Range: 0.01 or greater.*

The relative horizontal frequency of the texture. Increase to stretch it vertically or decrease to stretch it horizontally.

Arms: *Integer, Default: 9, Range: 0 to 50.*

The number of tendrils emanating from each center point in the texture.

Softness: *Default: 0.5, Range: 0.01 or greater.*

Decrease for sharper line edges. Increase for smoother line edges or to reduce aliasing.

Thickness: *Default: 1.1, Range: 0 or greater.*

Decrease for thinner lines. Increase for stronger brighter lines.

Outer Bright: *Default: 0.4, Range: 0.01 to 1.*

Scales the brightness of the regions away from the neuron centers. Decrease to remove the connecting lines and leave only the star shapes at the centers.

Seed: *Default: 1, Range: 0 or greater.*

Used to initialize the random number generator. The actual seed value is not significant, but different seeds give different results and the same value should give a repeatable result.

Shift: *X & Y, Default: [0 0], Range: any.*

Translation offset of the texture. Since the texture is procedurally generated it can be shifted with no repeating units or seams occurring. This parameter can be adjusted using the Shift Widget.

Phase Start: *Default: 0, Range: any.*

Amount to rotate the arms about their centers.

Phase Speed: *Default: 0.05, Range: any.*

Speed to automatically rotate the arms and move the lines over time.

Morph Speed: *Default: 0.05, Range: any.*

Speed to automatically undulate the underlying noise pattern over time.

Morph: *X & Y, Default: [1 0], Range: any.*

The horizontal and vertical directions to undulate the underlying noise pattern, when using Morph Speed.

Twist: *Default: 0, Range: any.*

Amount to rotate the centers to cause a twisting effect.

Wiggle Amp: *Default: 0.1, Range: 0 or greater.*

Amount of additional noise too apply along the pattern of lines. Turn down to get smoother lines.

Wiggle Freq Rel: *Default: 2, Range: 0 or greater.*

Frequency of the additional noise.

Wiggle Octaves: *Integer, Default: 4, Range: 1 to 10.*

The number of octaves to use for the additional noise.

Smooth: *Default: 0, Range: 0 or greater.*

Amount to blur the line pattern. Increase for a defocus look, or to help remove aliasing artifacts.

Brightness: *Default: 1, Range: 0 or greater.*

Brightness of the result.

Color: *Default rgb: [1 1 1].*

Scales the color of the result.

Glow Brightness: *Default: 2, Range: 0 or greater.*

Brightness of the glow applied to the texture.

Glow Color: *Default rgb: [1 0.8 0.8].*

Color of the glow applied to the texture.

Glow Width: *Default: 1, Range: 0 or greater.*

The width of the glow applied to the texture.

Glow Width Red: *Default: 0.4, Range: 0 or greater.*

The relative red width of the glow.

Glow Width Grn: *Default: 0.6, Range: 0 or greater.*

The relative green width of the glow.

Glow Width Blue: *Default: 0.8, Range: 0 or greater.*

The relative blue width of the glow.

Bg Brightness: *Default: 1, Range: 0 or greater.*

The background brightness is scaled by this value before being combined with the texture.

Combine: *Popup menu, Default: Screen.*

Determines how the texture is combined with the Background.

Texture Only: gives only the texture image with no Background.

Mult: the texture is multiplied by the Background.

Add: the texture is added to the Background.

Screen: the texture is blended with the Background using a screen operation.

Difference: the result is the difference between the texture and Background.

Overlay: the texture is combined with the Background using an overlay function.

Show Shift: *Check-box, Default: on.*

Turns on or off the screen user interface for adjusting the Shift parameter.

See Also:

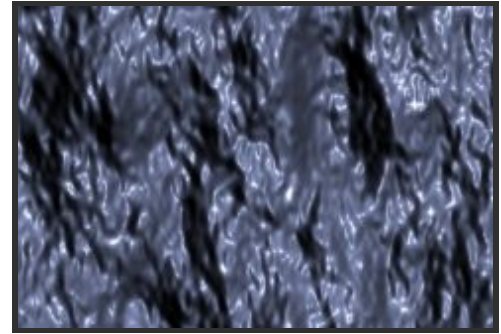
[TextureFolded](#)
[TextureWeave](#)
[TexturePlasma](#)
[TextureNoiseEmboss](#)
[TextureNoisePaint](#)
[TextureSpots](#)
[TextureCells](#)
[TextureChromaSpiral](#)
[TextureMoire](#)
[TextureTiles](#)
[TextureLoops](#)
[TextureFlux](#)

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S_TextureNoiseEmboss

Creates an abstract texture by applying a EmbossShiny effect to a procedurally generated noise texture. Adjust the Light Dir to illuminate the pattern from different angles.

In the Sapphire Render effects submenu.



Inputs:

Background: *Optional.* The clip to combine the texture image with. This may be ignored if the Combine option is set to Texture Only.

Parameters:

Frequency: *Default: 2, Range: 0.1 or greater.*

The spatial frequency of the texture. Increase to zoom out, decrease to zoom in.

Frequency Rel X: *Default: 1.5, Range: 0.01 or greater.*

The relative horizontal frequency of the texture. Increase to stretch it vertically or decrease to stretch it horizontally.

Octaves: *Integer, Default: 5, Range: 1 to 10.*

The number of summed layers of noise. Each octave is twice the frequency and half the amplitude of the previous. A single octave gives a smooth texture. Adding octaves makes the result approach a fractal (1/f) noise texture.

Seed: *Default: 0.23, Range: 0 or greater.*

Used to initialize the random number generator. The actual seed value is not significant, but different seeds give different results and the same value should give a repeatable result.

Bumps Scale: *Default: 2.5, Range: any.*

Scales the amplitude of the bump map.

Bumps Threshold: *Default: 0, Range: 0 or greater.*

This value is subtracted from the Bumps input before it is used. It can be used to create flat areas resembling 'lakes.'

Bumps Smooth: *Default: 0, Range: 0 or greater.*

Smooths the noise texture before applying the Emboss. This can be helpful in removing unwanted artifacts from the noise generation algorithm.

Shift: *X & Y, Default: [0 0], Range: any.*

Translation offset of the texture. Since the texture is procedurally generated it can be shifted with no repeating units or seams occurring.

Light Dir: *X & Y, Default: [500 350], Range: any.*

The direction vector for the light source. Surface shading is calculated using light from this direction shining onto the generated bump map. This parameter can be adjusted using the Light Dir Widget.

Hilight Brightness: *Default: 0.5, Range: 0 to 1.*

Scales the brightness of the specular highlights.

Hilight Size: *Default: 0.5, Range: 0.1 or greater.*

Adjusts the size of the specular highlights.

Brightness: *Default: 1, Range: 0 or greater.*

Scales the brightness of the result.

Surface Color: *Default rgb: [0.75 0.75 0.75].*

The color of the surface. The final color is affected by both this and the Light Color.

Light Color: *Default rgb: [1 1 1].*

The color of the light source that creates the embossed result.

Bg Brightness: *Default: 1, Range: 0 or greater.*

The background brightness is scaled by this value before being combined with the texture.

Combine: *Popup menu, Default: Screen.*

Determines how the texture is combined with the Background.

Texture Only: gives only the texture image with no Background.

Mult: the texture is multiplied by the Background.

Add: the texture is added to the Background.

Screen: the texture is blended with the Background using a screen operation.

Difference: the result is the difference between the texture and Background.

Overlay: the texture is combined with the Background using an overlay function.

Show Light Dir: *Check-box, Default: on.*

Turns on or off the screen user interface for adjusting the Light Dir parameter.

See Also:

[TextureFolded](#)

[TextureWeave](#)

[TexturePlasma](#)

[TextureNoisePaint](#)

[TextureSpots](#)

[TextureCells](#)

[TextureChromaSpiral](#)

[TextureMoire](#)

[TextureTiles](#)

[TextureNeurons](#)

[TextureLoops](#)

[TextureFlux](#)

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S_TextureNoisePaint

Creates an abstract texture by applying an AutoPaint effect to a procedurally generated noise texture.

In the Sapphire Render effects submenu.



Inputs:

Background: *Optional.* The clip to combine the texture image with. This may be ignored if the Combine option is set to Texture Only.

Parameters:

Noise Frequency: *Default: 5, Range: 0.1 or greater.*

The spatial frequency of the initial noise texture. Increase to zoom out, decrease to zoom in.

Noise Freq Rel X: *Default: 1, Range: 0.01 or greater.*

The relative horizontal frequency of the initial noise texture. Increase to stretch it vertically or decrease to stretch it horizontally.

Noise Octaves: *Integer, Default: 1, Range: 1 to 10.*

The number of summed layers of noise. Each octave is twice the frequency and half the amplitude of the previous. A single octave gives a smooth texture. Adding octaves makes the result approach a fractal (1/f) noise texture.

Noise Seed: *Default: 0.23, Range: 0 or greater.*

Used to initialize the random number generator. The actual seed value is not significant, but different seeds give different results and the same value should give a repeatable result.

Noise Shift: *X & Y, Default: [0 0], Range: any.*

Translation offset of the initial noise texture.

Stroke Frequency: *Default: 30, Range: 0.1 or greater.*

The density of brush strokes in the frame. Increase for smaller strokes.

Stroke Length: *Default: -5, Range: any.*

Determines the length of the brush strokes along the directions of edges in the source clip. If this is negative the strokes will align perpendicular to the edges for a 'HairyPaint' style.

Stroke Align: *Default: 0, Range: 0 or greater.*

Increase to smooth out the directions of the strokes so nearby strokes are more parallel.

Sharpen: *Default: 2, Range: any.*

The amount of post-process sharpening applied.

Sharpen Width: *Default: 0.1, Range: 0 or greater.*

The width at which to apply the post-process sharpening filter, relative to the stroke sizes. Higher values affect wider areas from the edges, lower values only affect areas near sharp edges.

Jitter Frames: *Integer, Default: 0, Range: 0 or greater.*

If this is 0, the locations of the strokes will remain the same for every frame processed. If it is 1, the locations of the strokes are re-randomized for each frame. If it is 2, they are re-randomized every second frame, and so on.

Brightness: *Default: 1, Range: 0 or greater.*

Scales the brightness of the result.

Color: *Default rgb: [1 1 1].*

Scales the color of the result. For example, if it is yellow [1 1 0], the blue of the result will be 0.

Saturation: *Default: 0.8, Range: 0 to 10.*

Scales the color saturation. Increase for more intense colors. Set to 0 for monochrome.

Offset: *Default: 0, Range: -8 to 2.*

Adds this gray value to the result (or subtracts if negative). 0 has no effect, .5 is middle gray, and 1 is white.

Bg Brightness: *Default: 1, Range: 0 or greater.*

The background brightness is scaled by this value before being combined with the texture.

Combine: *Popup menu, Default: Screen.*

Determines how the texture is combined with the Background.

Texture Only: gives only the texture image with no Background.

Mult: the texture is multiplied by the Background.

Add: the texture is added to the Background.

Screen: the texture is blended with the Background using a screen operation.

Difference: the result is the difference between the texture and Background.

Overlay: the texture is combined with the Background using an overlay function.

See Also:

[TextureFolded](#)

[TextureWeave](#)

[TexturePlasma](#)

[TextureNoiseEmboss](#)

[TextureSpots](#)

[TextureCells](#)

[TextureChromaSpiral](#)

[TextureMoiré](#)

[TextureTiles](#)

[TextureNeurons](#)

[TextureLoops](#)

[TextureFlux](#)

[CloudsColorSmooth](#)

[AutoPaint](#)

[Sapphire](#)

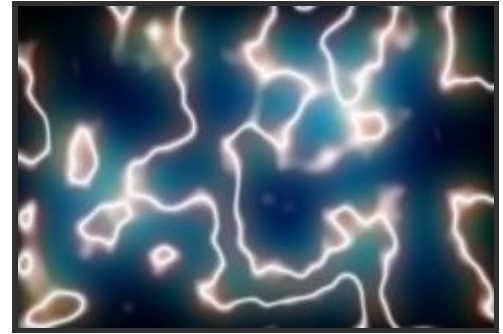
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S_TexturePlasma

Creates an abstract texture resembling an electrical plasma effect. The Phase Speed parameter causes the pattern to automatically undulate over time.

In the Sapphire Render effects submenu.



Inputs:

Background: *Optional.* The clip to combine the texture image with. This may be ignored if the Combine option is set to Texture Only.

Parameters:

Noise Frequency: *Default:* 1.2, *Range:* 0.01 or greater.

The spatial frequency of the initial noise texture. Increase to zoom out, decrease to zoom in.

Noise Freq Rel X: *Default:* 1, *Range:* 0.01 or greater.

The relative horizontal frequency of the initial noise texture. Increase to stretch it vertically or decrease to stretch it horizontally.

Noise Octaves: *Integer, Default:* 4, *Range:* 1 to 10.

The number of summed layers of noise. Each octave is twice the frequency and half the amplitude of the previous. A single octave gives a smooth texture. Adding octaves makes the result approach a fractal (1/f) noise texture.

Noise Seed: *Default:* 0.12, *Range:* 0 or greater.

Used to initialize the random number generator. The actual seed value is not significant, but different seeds give different results and the same value should give a repeatable result.

Add Grad: *X & Y, Default:* [0.1 0], *Range:* any.

Determines the amplitude and direction of a gradient which orients the plasma lines. Increasing X makes the lines more vertical, and increasing Y makes them horizontal.

Layers: *Default:* 4.5, *Range:* 0 or greater.

The number of layers of plasma lines. Increase for a more striped effect.

Threshold: *Default:* 0.5, *Range:* 0 or greater.

Determines the thickness of the plasma lines. Increase for thinner lines, decrease for thicker and brighter ones.

Shift: *X & Y, Default:* [0 0], *Range:* any.

Translation offset of the texture. Since the texture is procedurally generated it can be shifted with no repeating units or seams occurring. This parameter can be adjusted using the Shift Widget.

Phase Start: *Default:* 0, *Range:* any.

Phase offset of the plasma lines.

Phase Speed: *Default:* 1, *Range:* any.

Phase speed of the plasma lines. If non-zero, the lines are automatically animated to undulate at this rate.

Brightness: *Default:* 1, *Range:* 0 or greater.

Scales the brightness of the result.

Color: *Default rgb:* [1 1 1].

Scales the color of the result. For example, if it is yellow [1 1 0], the blue of the result will be 0.

Glow Brightness: *Default:* 3, *Range:* 0 or greater.

Scales the brightness of the glow applied to the plasma texture.

Glow Color: *Default rgb:* [0.6 0.8 1].

Scales the color of the glow applied to the plasma texture.

Glow Width: *Default:* 0.25, *Range:* 0 or greater.

The width of the glow applied to the plasma texture.

Glow Width Red: *Default:* 0.6, *Range:* 0 or greater.

The relative red width of the glow.

Glow Width Grn: *Default:* 1.2, *Range:* 0 or greater.

The relative green width of the glow.

Glow Width Blue: *Default:* 1.8, *Range:* 0 or greater.

The relative blue width of the glow.

Bg Brightness: *Default:* 1, *Range:* 0 or greater.

The background brightness is scaled by this value before being combined with the texture.

Combine: *Popup menu, Default:* Screen.

Determines how the texture is combined with the Background.

Texture Only: gives only the texture image with no Background.

Mult: the texture is multiplied by the Background.

Add: the texture is added to the Background.

Screen: the texture is blended with the Background using a screen operation.

Difference: the result is the difference between the texture and Background.

Overlay: the texture is combined with the Background using an overlay function.

Show Shift: *Check-box, Default:* on.

Turns on or off the screen user interface for adjusting the Shift parameter.

See Also:

[TextureFolded](#)

[TextureWeave](#)

[TextureNoiseEmboss](#)

[TextureNoisePaint](#)

[TextureSpots](#)

[TextureCells](#)

[TextureChromaSpiral](#)

[TextureMoiré](#)

[TextureTiles](#)

[TextureNeurons](#)

[TextureLoops](#)

[TextureFlux](#)

[Clouds](#)

[Glow](#)

[Sapphire](#)

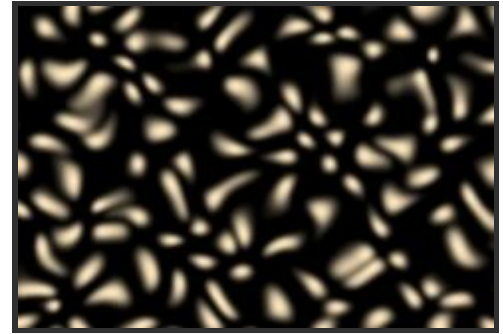
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S_TextureSpots

Creates a field of spots that can be distorted and animated. The Warp Speed parameter causes the spots to be distorted over time by a random warping pattern.

In the Sapphire Render effects submenu.



Inputs:

Background: *Optional.* The clip to combine the texture image with. This may be ignored if the Combine option is set to Texture Only.

Parameters:

Frequency: *Default: 8, Range: 0.01 or greater.*

The spatial frequency of the texture. Increase to zoom out, decrease to zoom in.

Radius: *Default: 1, Range: 0 to 2.*

The radius of the spots. Adjust this to change the size of the spots without changing the number of spots.

Seed: *Default: 0.23, Range: 0 or greater.*

Used to initialize the random number generator. The actual seed value is not significant, but different seeds give different results and the same value should give a repeatable result.

Rand Warp Amp: *Default: 0.2, Range: 0 or greater.*

The amplitude of a bubble warping distortion applied to the spots.

Rand Warp Freq: *Default: 1, Range: 0.01 or greater.*

The spatial frequency of the noise used for the warping distortion. This has no effect unless Rand Warp Amp is positive.

Shift: *X & Y, Default: [0 0], Range: any.*

Translation offset of the texture. Since the texture is procedurally generated it can be shifted with no repeating units or seams occurring.

Warp Start: *X & Y, Default: [0 0], Range: any.*

The translation offset warping pattern. This has no effect unless Rand Warp Amp is positive.

Warp Speed: *X & Y, Default: [0.5 0], Range: any.*

The translation speed of the warping pattern. If non-zero the spots are animated to wiggle at this rate. This has no effect unless Rand Warp Amp is positive.

Brightness1: *Default: 1, Range: 0 or greater.*

Scales the brightness of Color1. Increase for more contrast.

Color1: *Default rgb: [1 1 1].*

The color of the 'brighter' parts of the texture. The colors of the result are determined by an interpolation between Color0 and Color1.

Color0: *Default rgb: [0 0 0].*

The color of the 'darker' parts of the texture.

Offset0: *Default: 0, Range: any.*

Adds this value to color0. Decrease to a negative value for more contrast.

Invert: *Check-box, Default: off.*

If enabled, the resulting texture colors are inverted. This is similar to swapping Color0 and Color1.

Bg Brightness: *Default: 1, Range: 0 or greater.*

The background brightness is scaled by this value before being combined with the texture.

Combine: *Popup menu, Default: Screen.*

Determines how the texture is combined with the Background.

Texture Only: gives only the texture image with no Background.

Mult: the texture is multiplied by the Background.

Add: the texture is added to the Background.

Screen: the texture is blended with the Background using a screen operation.

Difference: the result is the difference between the texture and Background.

Overlay: the texture is combined with the Background using an overlay function.

See Also:

[TextureFolded](#)

[TextureWeave](#)

[TexturePlasma](#)

[TextureNoiseEmboss](#)

[TextureNoisePaint](#)

[TextureCells](#)

[TextureChromaSpiral](#)

[TextureMoiré](#)

[TextureTiles](#)

[TextureNeurons](#)

[TextureLoops](#)

[TextureFlux](#)

[WarpBubble](#)

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S_TextureTiles

TextureTiles draws a repeating pattern of tiles. The shapes can be hexagons, triangles, diamonds, stars, or variations on those, depending on the Morph parameters.

In the Sapphire Render effects submenu.



Inputs:

Background: *Optional.* The clip to combine the texture image with. This may be ignored if the Combine option is set to Texture Only.

Parameters:

Size: *Default:* 0.5, *Range:* 0 or greater.

The size of each tile, within its cell. Zero will give all color0, one will give all color1. This doesn't change the overall size of the pattern; use Frequency for that.

Frequency: *Default:* 5, *Range:* 0.1 or greater.

Spatial frequency of the tile pattern; increase for many smaller tiles, decrease for fewer large tiles. This parameter can be adjusted using the Frequency Widget.

Angle: *Default:* 0, *Range:* any.

Rotates the whole pattern around the center point. Use Shift to adjust the center of rotation.

Rel Width: *Default:* 1, *Range:* 0.2 or greater.

Squashes or stretches the pattern.

Rel Wid Pre Rot: *Default:* 1, *Range:* 0.1 or greater.

Squashes or stretches the pattern *before* rotating by Angle. Use this if you want to squash or stretch and have the whole squashed/stretched pattern rotate around the center. If Angle is zero, this has the same effect as Rel Width.

Shift: *X & Y, Default:* [0 0], *Range:* any.

Shift the whole pattern on the screen. Also sets the center point for rotation, Morph Radial, and Size Radial. This parameter can be adjusted using the Shift Widget.

Morph Shapes: *Default:* 0, *Range:* any.

Changes the shapes of the tiles smoothly, from hexagons to triangles, diamonds, and stars.

Morph Speed: *Default:* 0.5, *Range:* any.

Automatically animates the shape morphing over time. A value of one means a complete morph cycle once per second.

Morph Grad Add: *Default:* 0, *Range:* any.

Change the shape morphing across the image, so the left side has one shape, and the right side another. See Morph Grad Angle to change the angle of this gradient.

Morph Grad Angle: *Default:* 0, *Range:* any.

Angle of the morph gradient. If Morph Grad Add is zero, this has no effect.

Morph Radial: *Default:* 0, *Range:* any.

Morph the shapes radially away from the center point; the shapes will be (for instance) hexagons in the center,

smoothly becoming different toward the edges of the image. Morph Shapes and Morph Speed also interact with this parameter.

Size Grad Add: *Default: 0, Range: -10 to 10.*

Change the size of the shapes (like the Size parameter) differently across the image.

Size Grad Angle: *Default: 0, Range: any.*

Angle of the size gradient. If Size Grad Add is zero, this has no effect.

Size Radial: *Default: 0, Range: any.*

Change the size of the shapes (like the Size parameter) according to the distance from the center point. Increase to make the sizes smaller around the edges.

Edge Softness: *Default: 0.083, Range: 0 or greater.*

Softens the edges of each tile. If Softness Red/Green/Blue are not one, there will be some color fringing around the edges of the tiles when this is on.

Softness Red: *Default: 0, Range: 0 or greater.*

Relative softness of the red channel; see Edge Softness. To remove the color fringing around the edges of the tiles, set all the Softness Red/Green/Blue to one.

Softness Green: *Default: 1, Range: 0 or greater.*

Relative softness of the green channel; see Edge Softness. To remove the color fringing around the edges of the tiles, set all the Softness Red/Green/Blue to one.

Softness Blue: *Default: 2, Range: 0 or greater.*

Relative softness of the blue channel; see Edge Softness. To remove the color fringing around the edges of the tiles, set all the Softness Red/Green/Blue to one.

Invert: *Check-box, Default: off.*

Invert the whole pattern, swapping the dark and bright areas.

Brightness1: *Default: 1, Range: 0 or greater.*

Scales the brightness of Color1. Increase for more contrast.

Color1: *Default rgb: [1 1 1].*

The color of the 'brighter' parts of the texture. The colors of the result are determined by an interpolation between Color0 and Color1.

Color0: *Default rgb: [0 0 0].*

The color of the 'darker' parts of the texture.

Offset0: *Default: 0, Range: any.*

Adds this value to color0. Decrease to a negative value for more contrast.

Bg Brightness: *Default: 1, Range: 0 or greater.*

The background brightness is scaled by this value before being combined with the texture.

Combine: *Popup menu, Default: Screen.*

Determines how the texture is combined with the Background.

Texture Only: gives only the texture image with no Background.

Mult: the texture is multiplied by the Background.

Add: the texture is added to the Background.

Screen: the texture is blended with the Background using a screen operation.

Difference: the result is the difference between the texture and Background.

Overlay: the texture is combined with the Background using an overlay function.

Show Frequency: *Check-box, Default: on.*

Turns on or off the screen user interface for adjusting the Frequency parameter.

Show Shift: *Check-box, Default: on.*

Turns on or off the screen user interface for adjusting the Shift parameter.

See Also:

[TextureFolded](#)

[TextureWeave](#)

[TexturePlasma](#)

[TextureNoiseEmboss](#)

[TextureNoisePaint](#)

[TextureSpots](#)

[TextureCells](#)

[TextureChromaSpiral](#)

[TextureMoire](#)

[TextureNeurons](#)

[TextureLoops](#)

[TextureFlux](#)

[WipeTiles](#)

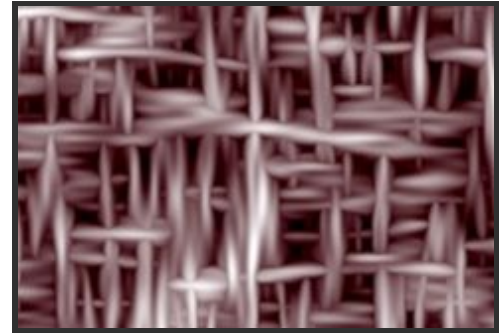
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S_TextureWeave

Creates an abstract texture resembling perpendicular woven strands. The two sets of strands, horizontal and vertical, can be adjusted independently using frequency, octaves, and speed parameters.

In the Sapphire Render effects submenu.



Inputs:

Background: *Optional.* The clip to combine the texture image with. This may be ignored if the Combine option is set to Texture Only.

Parameters:

Frequency: *Default: 20, Range: 0.01 or greater.*

The spatial frequency of the texture. Increase to zoom out, decrease to zoom in.

H Freq Rel X: *Default: 0.2, Range: 0.01 or greater.*

The relative horizontal frequency of the horizontal strands. Increase to make shorter, decrease to make longer.

H Octaves: *Integer, Default: 2, Range: 1 to 10.*

The number of noise octaves to use for the horizontal strands.

H Speed X: *Default: 0, Range: any.*

The horizontal speed of the horizontal strands. If non-zero, the horizontal strands will automatically crawl along their lengths at this rate.

V Frequency: *Default: 1, Range: 0.01 or greater.*

The relative frequency of the vertical strands. Increase to make smaller, decrease to make larger.

V Freq Rel Y: *Default: 0.2, Range: 0.01 or greater.*

The relative vertical frequency of the vertical strands. Increase to make shorter, decrease to make longer.

V Octaves: *Integer, Default: 2, Range: 1 to 10.*

The number of noise octaves to use for the vertical strands.

V Speed Y: *Default: 0, Range: any.*

The vertical speed of the vertical strands. If non-zero, the vertical strands will automatically crawl along their lengths at this rate.

Seed: *Default: 0.123, Range: 0 or greater.*

Used to initialize the random number generator. The actual seed value is not significant, but different seeds give different results and the same value should give a repeatable result.

Shift: *X & Y, Default: [0 0], Range: any.*

Translation offset of the texture. Since the texture is procedurally generated it can be shifted with no repeating units or seams occurring. This parameter can be adjusted using the Shift Widget.

Shift Speed: *X & Y, Default: [0 0], Range: any.*

Translation speed of the texture. If non-zero, the result is automatically animated to shift at this rate. The result of animated Speed values may not be intuitive, so for variable speed motion it is usually best to set this to 0 and animate the Shift Start values instead.

Sharpen: *Default:* 1, *Range:* any.
The amount of post-process sharpening applied.

Sharpen Width: *Default:* 0.1, *Range:* 0 or greater.
The width at which to apply the post-process sharpening filter, relative to the texture size. Higher values affect wider areas from the edges, lower values only affect areas near sharp edges.

Brightness1: *Default:* 1, *Range:* 0 or greater.
Scales the brightness of Color1. Increase for more contrast.

Color1: *Default rgb:* [1 1 1].
The color of the 'brighter' parts of the texture. The colors of the result are determined by an interpolation between Color0 and Color1.

Color0: *Default rgb:* [0 0 0].
The color of the 'darker' parts of the texture.

Offset0: *Default:* 0, *Range:* any.
Adds this value to color0. Decrease to a negative value for more contrast.

Bg Brightness: *Default:* 1, *Range:* 0 or greater.
The background brightness is scaled by this value before being combined with the texture.

Combine: *Popup menu, Default:* Screen.
Determines how the texture is combined with the Background.

Texture Only: gives only the texture image with no Background.

Mult: the texture is multiplied by the Background.

Add: the texture is added to the Background.

Screen: the texture is blended with the Background using a screen operation.

Difference: the result is the difference between the texture and Background.

Overlay: the texture is combined with the Background using an overlay function.

Show Shift: *Check-box, Default:* on.
Turns on or off the screen user interface for adjusting the Shift parameter.

See Also:

[TextureFolded](#)

[TexturePlasma](#)

[TextureNoiseEmboss](#)

[TextureNoisePaint](#)

[TextureSpots](#)

[TextureCells](#)

[TextureChromaSpiral](#)

[TextureMoiré](#)

[TextureTiles](#)

[TextureNeurons](#)

[TextureLoops](#)

[TextureFlux](#)

[Clouds](#)

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S_Threshold

Sets the color channels of the source clip to full on or full off using a given softness and threshold. This can be used to increase the contrast of each color channel independently.

In the Sapphire Adjust effects submenu.



Inputs:

Source: The clip to be processed.

Parameters:

Threshold: *Default:* 0.5, *Range:* 0 or greater.

The source brightness value to use as the mid-point of the thresholding. This is often a middle gray around .5.

Threshold Add Color: *Default rgb:* [0 0 0].

Raises the thresholds on each color channel using this color. It has no effect when black.

Softness: *Default:* 0.2, *Range:* 0.001 to 1.

The softness of the transition between full off and on. Increase for smoother transitions, decrease for sharper ones.

Soft Rel Red: *Default:* 1, *Range:* 0 or greater.

The relative softness of the red thresholding.

Soft Rel Green: *Default:* 1, *Range:* 0 or greater.

The relative softness of the red thresholding.

Soft Rel Blue: *Default:* 1, *Range:* 0 or greater.

The relative softness of the red thresholding.

Saturation: *Default:* 1, *Range:* -2 to 8.

Scales the color saturation. Increase for more intense colors. Set to 0 for monochrome.

See Also:

[HueSatBright](#)

[Monochrome](#)

[ClampChroma](#)

[PseudoColor](#)

[DuoTone](#)

[TriTone](#)

[QuadTone](#)

[Tint](#)

[Hotspots](#)

[Gamma](#)

[Solarize](#)

[ChannelSwitcher](#)

[ShowBadColors](#)

[Invert](#)

[Sharpen](#)

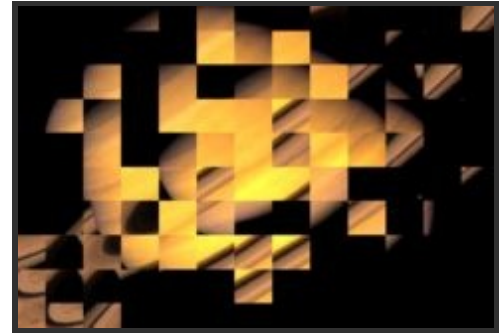
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S_TileScramble

Breaks the image into rectangular tiles and shifts the image within each tile to create an effect like a wall of small randomly oriented mirrors reflecting the source image. The amount and direction of shifting are controllable.

In the Sapphire Stylize effects submenu.



Inputs:

Source: The input clip to be warped.

Mask: *Optional.* If provided, the amplitude of warping is scaled by the values of this input clip. Gray values internally scale the warping amplitude rather than simply cross-fading between the effect and the original source to allow more continuous results at the mask edges and more detailed control over the warping amounts. This input can be affected using the Blur Mask, Invert Mask, or Mask Use parameters.

Parameters:

Amount: *Default:* 0.1, *Range:* any.

How much scrambling to apply to each tile. Zero gives the original image.

Amount Rel X: *Default:* 1, *Range:* 0 or greater.

Relative scramble amount in X. Set to zero to get only vertical scrambling.

Amount Rel Y: *Default:* 1, *Range:* 0 or greater.

Relative scramble amount in Y. Set to zero to get only horizontal scrambling.

Tiles: *Default:* 10, *Range:* 1 or greater.

How many tiles across the image. Increase for many tiny tiles; decrease for a few large ones.

Tile Rel Width: *Default:* 1, *Range:* 0.01 or greater.

Scales the height of each tile.

Tile Rel Height: *Default:* 1, *Range:* 0.01 or greater.

Scales the width of each tile.

Tile Shift: *X & Y, Default:* [0 0], *Range:* any.

shifts the edges of the tiles in X and Y. This doesn't shift the contents of the tiles, just the boundaries. Animate for an interesting effect. This parameter can be adjusted using the Tile Shift Widget.

Rotate Warp Dir: *Default:* 0, *Range:* any.

Rotates the warping direction by this many degrees. Animate to rotate the tiles around for an interesting effect.

Z Dist: *Default:* 1, *Range:* 0.01 or greater.

Scales the distance of the image in each tile in or out from its center. Increase to zoom out, decrease to zoom in.

Seed: *Default:* 0.123, *Range:* 0 or greater.

Used to initialize the random number generator. The actual seed value is not significant, but different seeds give different results and the same value should give a repeatable result.

Wrap: *Popup menu, Default: No.*

Determines the method for accessing outside the borders of the source image.

No: gives black beyond the borders.

Tile: repeats a copy of the image.

Reflect: repeats a mirrored copy. Edges are often less visible with this method.

Filter: *Check-box, Default: off.*

If enabled, the image is filtered when it is resampled smaller. This gives a better quality result when Z Dist is greater than 1. Has no effect when Z Dist is 1 or less.

Blur Mask: *Default: 0, Range: 0 or greater.*

Blurs the Mask input by this amount before using. This can provide a smoother transition between the masked and unmasked areas. It has no effect unless the Mask input is provided.

Invert Mask: *Check-box, Default: off.*

If on, inverts the mask input so the effect is applied to areas where the Mask is black instead of white. This has no effect unless the Mask input is provided.

Mask Use: *Popup menu, Default: Luma.*

Determines how the Mask input channels are used to make a monochrome mask.

Luma: the luminance of the RGB channels is used.

Alpha: only the Alpha channel is used.

Crop Input Parameters: *Default: 0, Range: 0 or greater.*

These 4 parameters, **Crop Top**, **Crop Bottom**, **Crop Left**, and **Crop Right**, allow selecting a rectangular subsection of the input image to be processed. If the Wrap parameters are set to "No" the exposed borders will be transparent. If the Wrap is "Tile" or "Reflect" the source image is wrapped on the new cropped borders to fill the frame. This can make it easier to avoid artifacts due to distorting an image with bad edges.

Show Tile Shift: *Check-box, Default: on.*

Turns on or off the screen user interface for adjusting the Tile Shift parameter.

See Also:

[FlyEyeRect](#)

[Mosaic](#)

[KaleidoSquares](#)

[WipeTiles](#)

[Sapphire](#)

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S_TimeAverage

Each output frame is the average of multiple input frames: from the current frame, back to a given number of previous frames. This is similar to the Trails effect, except all frames within the range are weighted equally instead of fading out, so the end points of the trails are abrupt. Each frame contributes only 1/n of the total brightness, so fast-moving objects against a dark background may seem dim.

The average is reinitialized whenever any non-consecutive frame is processed: either the first frame, reprocessing a given frame, or jumping to another frame. You must process multiple frames of a clip in a row to observe the effect.

In the Sapphire Time effects submenu.



Inputs:

Source: The clip to be processed.

Parameters:

Ave Over Frames: *Integer, Default: 10, Range: 1 or greater.*

The number of previous frames to average over, including the current frame. For correct results, this parameter should not be animated.

Brightness: *Default: 1, Range: 0 or greater.*

Scales the output brightness.

See Also:

[Feedback](#)

[Trails](#)

[TrailsDiffuse](#)

[FeedbackDistort](#)

[NearestColor](#)

[FeedbackBubble](#)

[WarpRepeat](#)

[WarpChroma](#)

[Sapphire](#)

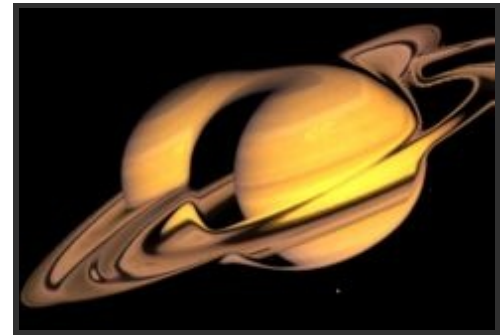
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S_TimeDisplace

Displaces the Source clip by variable amounts in time depending on the brightness values of a Displace input.

In the Sapphire Time effects submenu.



Inputs:

Source: The clip to be processed.

Displace: *Optional.* Determines the amount of time displacement. Where the Displace input is white the Source is time-shifted by a number of frames given by White Time Shift, and where it is black the Source is shifted by Black Time Shift. Gray areas are time-shifted by the appropriately interpolated amount. This input can be optionally blurred using the Blur Displace parameter. If this input is not provided, the Source input is used for the displacement matte instead.

Mask: *Optional.* Scales the amount of time displacement. Where the Mask is black, no displacement is done, and where the Mask is white, the source is displaced by the full amount according to the Displace input. Use this input to fade out the effect in certain areas of the clip.

Parameters:

Black Time Shift: *Default: -10, Range: any.*
Time shift by this many frames where the Matte is black.

White Time Shift: *Default: 10, Range: any.*
Time shift by this many frames where the Matte is white.

Shift Relative To: *Popup menu, Default: Current Frame.*
Selects relative or absolute time-shifting.

Frame 0: Time shift to an absolute frame number, relative to the first frame.

Current Frame: Time shift relative to the current frame.

Interp Frames: *Check-box, Default: off.*

Selects the method to use for non-integer frame number references. If disabled, the nearest integer frame number is used with no interpolation, which usually gives visible edges between the time slices. If enabled, a weighted interpolation is performed between the two nearest integer frame numbers, which smooths the results between the time slices.

Displace Use: *Popup menu, Default: Luma.*

Determines how the Displace input channels are monochromed to produce the time displacement matte.

Luma: the luminance of the RGB channels is used.

Alpha: only the Alpha channel is used.

Blur Displace: *Default: 0.056, Range: 0 or greater.*

Blurs the Displace input by this amount before using. This can be used to soften the edges or quantization artifacts

of the Displace input, and smooth out the time displacements.

Mask Use: *Popup menu, Default: Luma.*

Determines how the Mask input channels are used to make a monochrome mask.

Luma: the luminance of the RGB channels is used.

Alpha: only the Alpha channel is used.

Blur Mask: *Default: 0, Range: 0 or greater.*

Blurs the Mask input by this amount before using. This can be used to soften the edges or quantization artifacts of the mask, and smooth out the time displacements.

Invert Mask: *Check-box, Default: off.*

If on, inverts the mask input so the effect is applied to areas where the Mask is black instead of white. This has no effect unless the Mask input is provided.

See Also:

[GetFrame](#)

[TimeWarpRGB](#)

[MotionDetect](#)

[TimeSlice](#)

[FreezeFrame](#)

[JitterFrames](#)

[RandomEdits](#)

[ReverseEdits](#)

[ReverseClip](#)

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S_TimeSlice

Divides the output frame into slices, where each slice receives a different frame from the source clip. An example use of this effect might be to make a turning object twist into a helix shape instead of rigidly rotating. The slices are oriented depending on Slice Direction, and receive relative frame numbers between plus and minus half of Slice Number. For example if the current frame number is 30, Slice Direction is -90 degrees, Slice Number is 12, and Frame Offset is 0, the result will consist of horizontal slices containing approximately frames 30-6 to 30+6 from bottom to top.



In the Sapphire Time effects submenu.

Inputs:

Source: The clip to be processed.

Parameters:

Slice Direction: *Default: -90, Range: any.*

The orientation of the slices, in counter-clockwise degrees. If this is 0 the slices will go from left to right. If it is 90 they will go from top to bottom. This parameter can be adjusted using the Slice Widget.

Slice Number: *Default: 12, Range: 0 or greater.*

The number of time slices to slice the frame into. This parameter can be adjusted using the Slice Widget.

Frame Offset: *Default: 0, Range: any.*

Shifts all frame numbers in time that the slices receive. This parameter can be adjusted using the Slice Widget.

Interp Frames: *Check-box, Default: off.*

Selects the method to use for non-integer frame number references. If disabled, the nearest integer frame number is used with no interpolation, which usually gives visible edges between the time slices. If enabled, a weighted interpolation is performed between the two nearest integer frame numbers, which smooths the results between the time slices.

Show Slice: *Check-box, Default: on.*

Turns on or off the screen user interface for adjusting the Slice Direction, Slice Number, and Frame Offset parameters. This widget visually shows the single slice where the result equals the current frame of the source.

See Also:

[GetFrame](#)
[TimeWarpRGB](#)
[MotionDetect](#)
[FreezeFrame](#)
[JitterFrames](#)
[RandomEdits](#)
[ReverseEdits](#)
[ReverseClip](#)

[TimeDisplace](#)
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S_TimeWarpRGB

Shifts the red, green, and blue channels in time by different amounts, to give a temporal chroma distortion.

In the Sapphire Time effects submenu.



Inputs:

Source: The clip to be processed.

Parameters:

Red Shift Frames: *Integer, Default: 1, Range: any.*
The number of frames to shift the red channel.

Green Shift Frames: *Integer, Default: 0, Range: any.*
The number of frames to shift the green channel.

Blue Shift Frames: *Integer, Default: -1, Range: any.*
The number of frames to shift the blue channel.

Clamp Chroma: *Default: 1, Range: 0 to 1.*
If less than one, the chroma of the output is reduced to this value. This can help keep the output colors video safe.

See Also:

[GetFrame](#)
[MotionDetect](#)
[TimeSlice](#)
[FreezeFrame](#)
[JitterFrames](#)
[RandomEdits](#)
[ReverseEdits](#)
[ReverseClip](#)

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S_Tint

Tints the dark and light regions of the input clip towards given colors. The dark colors are tinted by the Tint Dark color, and the brighter colors are tinted by the Tint Lights color.

In the Sapphire Adjust effects submenu.



Inputs:

Source: The clip to be processed.

Parameters:

Tint Lights: *Default rgb: [1 1 1].*

Scales the result by this color, thus tinting the lighter regions.

Tint Darks: *Default rgb: [0 0 0].*

Adds this color to the darker regions of the source.

Source Saturation: *Default: 1, Range: -2 to 8.*

Scales the chroma saturation of the source. If this is zero you will see only color from the given tint colors.

Scale Lights: *Default: 1, Range: 0 or greater.*

Scales the result by this gray value. Increase for a brighter result.

Offset Darks: *Default: 0, Range: -8 to 2.*

Adds this gray value to the darker regions of the source. This can be negative to increase contrast.

See Also:

[HueSatBright](#)

[Monochrome](#)

[ClampChroma](#)

[PseudoColor](#)

[DuoTone](#)

[TriTone](#)

[QuadTone](#)

[Threshold](#)

[Hotspots](#)

[Gamma](#)

[Solarize](#)

[ChannelSwitcher](#)

[ShowBadColors](#)

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S_Trails

The previous frames of the input clip are combined with the current frame to give a variety of 'time trails' effects. The output of each processed frame is stored and then combined with the next frame. The trails are reinitialized whenever any non-consecutive frame is processed, either the first frame, reprocessing a given frame, or jumping to another frame. You must process multiple frames of a clip in a row to observe the effect, and clearing your image cache before rendering may sometimes be necessary.

In the Sapphire Time effects submenu.



Inputs:

Source: The clip to be processed.

Parameters:

Prev Brightness: *Default:* 0.8, *Range:* 0 or greater.

For each frame, the previous output is scaled by this amount before it is combined with the new input frame. Normally this value should be less than 1.0 which causes previous frames to fade out over time. A value of 1.0 causes no fading, and values greater than 1.0 cause previous frames to become brighter over time.

Prev Color: *Default rgb:* [1 1 1].

For each frame, the previous output is scaled by this color before it is combined with the new input frame. This is similar to Prev Brightness but affects the colors of the previous frames instead of just the brightness.

Prev Hue Shift: *Default:* 0, *Range:* -1 to 1.

Shifts the hue of the previous frames' colors, for each new frame.

Combine New: *Popup menu, Default:* Ave.

Selects the method for combining previous frames with the current frame.

Ave: The current frame is averaged with the previous output, smearing moving objects out over time. The output is scaled by Fade and the input is scaled by 1.0-Fade for a weighted average, so Fade must be less than 1.0 for this to work properly. Unlike the other combine options, Ave should never affect the brightness of stationary objects in the clip.

Max: The colors of the current frame and previous frames are combined with a maximum function. This makes the output frame at least as bright as the current frame, and will make brighter 'trails' for example if you have bright objects moving on a dark background.

Screen: The colors of the current frame and previous frames are combined with a blend function. This can be used to accumulate the colors of a moving clip. However, non-black regions will become brighter with each frame.

Add: The colors of the current frame and previous frames are added. This can also be used to accumulate the colors of a moving clip, with the non-black regions becoming brighter at each frame.

Over: The current frame is composited over the previous frames using its Alpha channel. This uses pre-multiplied compositing, so where the alpha is black the Source image should normally also be black. If the input clip contains no Alpha channel, the luminance is used instead.

Under: The current frame is composited under the previous frames.

Min: The colors of the current frame and previous frames are combined with a minimum function. This makes the output frame no brighter than the current frame, and will often fade quickly to a black frame.

New Color: *Default rgb: [1 1 1].*

Scales the color of the current frame. Set this to the complement of Old Color to offset overly colored trails.

New Opacity: *Default: 1, Range: 0 to 10.*

Scales the opacity and brightness of the current frame.

Blur Amount: *Default: 0, Range: 0 or greater.*

The previous frames are blurred by this amount for each new frame. This has no effect unless it is positive.

Blur Rel: *X & Y, Default: [1 1], Range: 0 or greater.*

The relative horizontal and vertical amounts of the blurring. This has no effect unless Blur Amount is positive.

See Also:

[Feedback](#)

[TrailsDiffuse](#)

[FeedbackDistort](#)

[TimeAverage](#)

[NearestColor](#)

[FeedbackBubble](#)

[WarpRepeat](#)

[WarpChroma](#)

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S_TrailsDiffuse

The previous frames of the input clip are processed with a pixel diffusion process and then combined with the current frame. The output of each processed frame is stored and then combined with the next frame. The trails are reinitialized whenever a non-consecutive frame is processed, either the first frame, reprocessing a given frame, or jumping to another frame. You must process multiple frames of a clip in a row to observe the effect, and clearing your image cache before rendering may sometimes be necessary.



In the Sapphire Time effects submenu.

Inputs:

Source: The clip to be processed.

Parameters:

Prev Brightness: *Default:* 0.8, *Range:* 0 or greater.

For each frame, the previous output is scaled by this amount before it is combined with the new input frame. Normally this value should be less than 1.0 which causes previous frames to fade out over time. A value of 1.0 causes no fading, and values greater than 1.0 cause previous frames to become brighter over time.

Prev Color: *Default rgb:* [1 1 1].

For each frame, the previous output is scaled by this color before it is combined with the new input frame. This is similar to Prev Brightness but affects the colors of the previous frames instead of just the brightness.

Prev Hue Shift: *Default:* 0, *Range:* -1 to 1.

Shifts the hue of the previous frames' colors, for each new frame.

Combine New: *Popup menu, Default:* Ave.

Selects the method for combining previous frames with the current frame.

Ave: The current frame is averaged with the previous output, smearing moving objects out over time. The output is scaled by Fade and the input is scaled by 1.0-Fade for a weighted average, so Fade must be less than 1.0 for this to work properly. Unlike the other combine options, Ave should never affect the brightness of stationary objects in the clip.

Max: The colors of the current frame and previous frames are combined with a maximum function. This makes the output frame at least as bright as the current frame, and will make brighter 'trails' for example if you have bright objects moving on a dark background.

Screen: The colors of the current frame and previous frames are combined with a blend function. This can be used to accumulate the colors of a moving clip. However, non-black regions will become brighter with each frame.

Add: The colors of the current frame and previous frames are added. This can also be used to accumulate the colors of a moving clip, with the non-black regions becoming brighter at each frame.

Over: The current frame is composited over the previous frames using its Alpha channel. This uses pre-multiplied compositing, so where the alpha is black the Source image should normally also be black. If the input clip contains no Alpha channel, the luminance is used instead.

Under: The current frame is composited under the previous frames.

Min: The colors of the current frame and previous frames are combined with a minimum function. This makes the output frame no brighter than the current frame, and will often fade quickly to a black frame.

New Color: *Default rgb:* [1 1 1].

Scales the color of the current frame. Set this to the complement of Old Color to offset overly colored trails.

New Opacity: *Default:* 1, *Range:* 0 to 10.

Scales the opacity and brightness of the current frame.

Diffuse Amount: *Default:* 0.028, *Range:* 0 or greater.

The previous frames are passed through a pixel-diffusion process of this magnitude, for each new frame. This has no effect unless it is positive.

Diffuse Rel: *X & Y, Default:* [1 1], *Range:* 0 or greater.

The relative horizontal and vertical amounts of the pixel diffusion process. This has no effect unless Diffuse Amount is positive.

Wrap: *X & Y, Popup menu, Default:* [Reflect Reflect].

Determines the method for accessing outside the borders of the source image.

No: gives black beyond the borders.

Tile: repeats a copy of the image.

Reflect: repeats a mirrored copy. Edges are often less visible with this method.

See Also:

[Feedback](#)

[Trails](#)

[FeedbackDistort](#)

[TimeAverage](#)

[NearestColor](#)

[FeedbackBubble](#)

[WarpRepeat](#)

[WarpChroma](#)

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S_TriTone

Performs an interpolation between three specified colors using the brightness of the source clip.

In the Sapphire Adjust effects submenu.



Inputs:

Source: The clip to be processed.

Parameters:

Color2: *Default rgb:* [1 1 1].

The color to use at the brighter source regions.

Color1: *Default rgb:* [0.5 0.5 0.5].

The color to use at the mid tone source regions.

Color0: *Default rgb:* [0 0 0].

The color to use at the darker source regions.

Softness: *Default:* 1, *Range:* 0.001 or greater.

The softness of the interpolation between the three colors. Use lower values for sharper contours between more solid regions of color.

Softness 12: *Default:* 1, *Range:* 0.001 or greater.

Scales the softness of the interpolation between color1 and color2.

Softness 01: *Default:* 1, *Range:* 0.001 or greater.

Scales the softness of the interpolation between color0 and color1.

Color2 At Bright: *Default:* 1, *Range:* any.

The source brightness value to replace with color2.

Color1 At Bright: *Default:* 0.5, *Range:* any.

The source brightness value to replace with color1. This value should normally be in between the other two.

Color0 At Bright: *Default:* 0, *Range:* any.

The source brightness value to replace with color0.

See Also:

[DuoTone](#)

[QuadTone](#)

[Tint](#)

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S_Vignette

Darkens the border areas of the source clip to create a vignette effect. Use the Squareness, Radius, and Edge Softness parameters to affect the shape of the vignette. Use the Opacity and Color parameters to adjust its strength and color.

In the Sapphire Stylize effects submenu.



Inputs:

Source: The clip to be processed.

Parameters:

Center: *X & Y, Default: [360 243], Range: any.*

The center location of the vignette effect. This parameter can be adjusted using the Center Widget.

Squareness: *Default: 0, Range: 0 to 1.*

Determines how square the vignette shape is. Set to 1.0 for a square or rectangle shape. Set to 0 for a circle or ellipse. Values in between give rectangles with rounded corners by varying amounts.

Radius: *Default: 0.9, Range: 0 or greater.*

Distance from the center to apply the vignette. This parameter can be adjusted using the Radius Widget.

Rel Height: *Default: 0.75, Range: 0.05 or greater.*

The relative vertical size of the vignette shape. Increase for a taller shape, decrease for a wider one.

Rel Width: *Default: 1, Range: 0.05 or greater.*

The relative horizontal size of the vignette shape. Increase for a wider shape, decrease for a taller one.

Rotate: *Default: 0, Range: any.*

Rotation in degrees of the vignette shape. Note that rotation will have no effect if Squareness is zero, and Rel Width and Rel Height are equal. This parameter can be adjusted using the Rotate Widget.

Edge Softness: *Default: 1, Range: 0 or greater.*

The width of the vignette's soft edge. Larger values give softer, less visible edges.

Smooth Curve: *Default: 0.4, Range: 0 to 1.*

If zero, a linear gradient is used across the screen in the soft edge area. Increase this value to use a smoother 'S' shaped curve for interpolation which can reduce the visual perception of the gradient's start and end locations.

Color: *Default rgb: [0 0 0].*

The color of the vignette.

Opacity: *Default: 1, Range: 0 or greater.*

The opacity of the vignette; animate to 0 to fade the vignette out.

Source Brightness: *Default: 1, Range: 0 or greater.*

Scales the brightness of the source clip. To see only the vignette, set this to zero.

Combine: *Popup menu, Default: Composite.*

Determines how the vignette is combined with the Source.

Composite: composites the vignette over the source clip.

Mult: the vignette color is multiplied by the source clip. If the Color is not black, this will selectively colorize the vignette area.

Add: the vignette color is added to the source clip. This will have no effect if the vignette color is black.

Screen: the vignette color is combined with the source clip using a screen operation. This will have no effect if the vignette color is black.

Subtract Inv: the inverse of the vignette color is subtracted from the source clip. Inverse means white for black, yellow for blue, and so on. This mode looks similar to Mult, but a bit more severe; it crushes the blacks and leaves the highlights more. This will have no effect if the vignette color is white.

Show Radius: *Check-box, Default: on.*

Turns on or off the screen user interface for adjusting the Center parameter.

Show Rotate: *Check-box, Default: on.*

Turns on or off the screen user interface for adjusting the Center parameter.

Show Center: *Check-box, Default: on.*

Turns on or off the screen user interface for adjusting the Center parameter.

See Also:

[SpotLight](#)

[GradientRadial](#)

[FilmDamage](#)

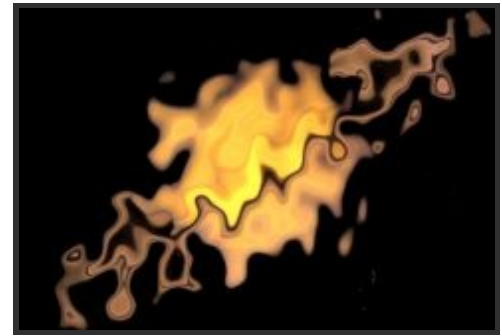
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S_WarpBubble

Warp the source clip by a smooth noise function. This can be used to create heat diffusion or under water types of effects. The Shift Speed parameters cause the noise pattern to automatically translate over time. Adjust the Amplitude and Frequency parameters to give different types of distortions.

In the Sapphire Distort effects submenu.



Inputs:

Source: The input clip to be warped.

Mask: *Optional.* If provided, the amplitude of warping is scaled by the values of this input clip. Gray values internally scale the warping amplitude rather than simply cross-fading between the effect and the original source to allow more continuous results at the mask edges and more detailed control over the warping amounts. This input can be affected using the Blur Mask, Invert Mask, or Mask Use parameters.

Parameters:

Amplitude: *Default:* 0.25, *Range:* any.

Scales the amount of warping distortion. Increase for more severe distortion.

Frequency: *Default:* 16, *Range:* 0.01 or greater.

The frequency of the noise pattern. Increase for more and smaller bubbles, decrease for fewer and larger bubbles.

Frequency Rel X: *Default:* 1, *Range:* 0.01 or greater.

The relative horizontal frequency of the bubble pattern. Increase for taller bubbles, decrease for wider ones.

Octaves: *Integer, Default:* 1, *Range:* 1 to 10.

The number of summed layers of noise. Each octave is twice the frequency and half the amplitude of the previous. A single octave gives a smooth texture. Adding octaves makes the result approach a fractal (1/f) noise texture.

Seed: *Default:* 0.23, *Range:* 0 or greater.

Used to initialize the random number generator. The actual seed value is not significant, but different seeds give different results and the same value should give a repeatable result.

Rotate Warp Dir: *Default:* 0, *Range:* any.

Rotation angle of the warping directions in counter-clockwise degrees.

Shift Start: *X & Y, Default:* [0 0], *Range:* any.

The translation of the bubble pattern.

Shift Speed: *X & Y, Default:* [0.1 0], *Range:* any.

If non-zero, the bubble pattern is automatically animated to shift at this speed. The result of animated Speed values may not be intuitive, so for variable speed motion it is usually best to set this to 0 and animate the Shift Start values instead.

Z Dist: *Default:* 1, *Range:* 0.001 or greater.

Scales the 'distance' of the image. Values greater than 1.0 move it farther away and make it smaller. Values less than

1.0 move the image closer and enlarge it. Zooming in slightly can sometimes be used to hide edge artifacts.

Wrap: *X & Y, Popup menu, Default: [Reflect Reflect].*

Determines the method for accessing outside the borders of the source image.

No: gives black beyond the borders.

Tile: repeats a copy of the image.

Reflect: repeats a mirrored copy. Edges are often less visible with this method.

Filter: *Check-box, Default: on.*

If enabled, the image is adaptively filtered when it is resampled. This gives a better quality result when parts of the image are warped smaller.

Blur Mask: *Default: 0, Range: 0 or greater.*

Blurs the Mask input by this amount before using. This can provide a smoother transition between the masked and unmasked areas. It has no effect unless the Mask input is provided.

Invert Mask: *Check-box, Default: off.*

If on, inverts the mask input so the effect is applied to areas where the Mask is black instead of white. This has no effect unless the Mask input is provided.

Mask Use: *Popup menu, Default: Luma.*

Determines how the Mask input channels are used to make a monochrome mask.

Luma: the luminance of the RGB channels is used.

Alpha: only the Alpha channel is used.

Crop Input Parameters: *Default: 0, Range: 0 or greater.*

These 4 parameters, **Crop Top**, **Crop Bottom**, **Crop Left**, and **Crop Right**, allow selecting a rectangular subsection of the input image to be processed. If the Wrap parameters are set to "No" the exposed borders will be transparent. If the Wrap is "Tile" or "Reflect" the source image is wrapped on the new cropped borders to fill the frame. This can make it easier to avoid artifacts due to distorting an image with bad edges.

See Also:

[DissolveBubble](#)

[WipeBubble](#)

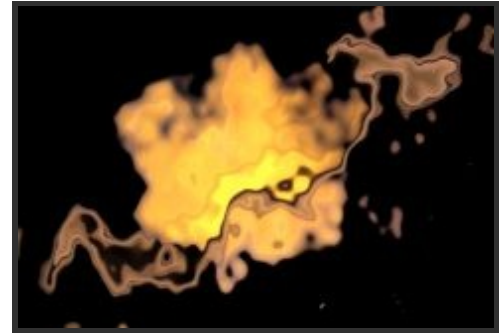
[Sapphire Plug-ins](#)

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S_WarpBubble2

Warp the source clip using two overlapping sets of bubble patterns. This can be used to create heat diffusion or under water types of effects. The Shift Speed parameters cause the noise pattern to automatically translate over time. Adjust the Amplitude and Frequency parameters to give different types of distortions.

In the Sapphire Distort effects submenu.



Inputs:

Source: The input clip to be warped.

Mask: *Optional.* If provided, the amplitude of warping is scaled by the values of this input clip. Gray values internally scale the warping amplitude rather than simply cross-fading between the effect and the original source to allow more continuous results at the mask edges and more detailed control over the warping amounts. This input can be affected using the Blur Mask, Invert Mask, or Mask Use parameters.

A Bubble Parameters:

A Amplitude: *Default:* 0.25, *Range:* any.

The distortion amplitude of the first set of bubbles.

A Frequency: *Default:* 4, *Range:* 0.01 or greater.

The frequency of the first set of bubbles.

A Octaves: *Integer, Default:* 1, *Range:* 1 to 10.

The number of noise octaves of the first set of bubbles.

A Seed: *Default:* 0.23, *Range:* 0 or greater.

The random number generator seed of the first set of bubbles.

A Shift Start: *X & Y, Default:* [0 0], *Range:* any.

The translation of the first set of bubbles.

A Speed: *X & Y, Default:* [0.1 0], *Range:* any.

Automatically animated shift for the first set of bubbles.

B Bubble Parameters:

B Amplitude: *Default:* 0.25, *Range:* any.

The distortion amplitude of the second set of bubbles.

B Frequency: *Default:* 4, *Range:* 0.01 or greater.

The frequency of the second set of bubbles.

B Octaves: *Integer, Default:* 1, *Range:* 1 to 10.

The number of noise octaves of the second set of bubbles.

B Seed: *Default:* 0.34, *Range:* 0 or greater.

The random number generator seed of the second set of bubbles.

B Shift Start: *X & Y, Default:* [0 0], *Range:* any.

The translation of the second set of bubbles.

B Speed: *X & Y, Default:* [-0.1 0], *Range:* any.

Automatically animated shift for the second set of bubbles.

Other Parameters:

Z Dist: *Default:* 1, *Range:* 0.001 or greater.

Scales the 'distance' of the image. Values greater than 1.0 move it farther away and make it smaller. Values less than 1.0 move the image closer and enlarge it. Zooming in slightly can sometimes be used to hide edge artifacts.

Wrap: *X & Y, Popup menu, Default:* [Reflect Reflect].

Determines the method for accessing outside the borders of the source image.

No: gives black beyond the borders.

Tile: repeats a copy of the image.

Reflect: repeats a mirrored copy. Edges are often less visible with this method.

Filter: *Check-box, Default:* on.

If enabled, the image is adaptively filtered when it is resampled. This gives a better quality result when parts of the image are warped smaller.

Blur Mask: *Default:* 0, *Range:* 0 or greater.

Blurs the Mask input by this amount before using. This can provide a smoother transition between the masked and unmasked areas. It has no effect unless the Mask input is provided.

Invert Mask: *Check-box, Default:* off.

If on, inverts the mask input so the effect is applied to areas where the Mask is black instead of white. This has no effect unless the Mask input is provided.

Mask Use: *Popup menu, Default:* Luma.

Determines how the Mask input channels are used to make a monochrome mask.

Luma: the luminance of the RGB channels is used.

Alpha: only the Alpha channel is used.

Crop Input Parameters: *Default:* 0, *Range:* 0 or greater.

These 4 parameters, **Crop Top**, **Crop Bottom**, **Crop Left**, and **Crop Right**, allow selecting a rectangular subsection of the input image to be processed. If the Wrap parameters are set to "No" the exposed borders will be transparent. If the Wrap is "Tile" or "Reflect" the source image is wrapped on the new cropped borders to fill the frame. This can make it easier to avoid artifacts due to distorting an image with bad edges.

See Also:

[DissolveBubble](#)

[WipeBubble](#)

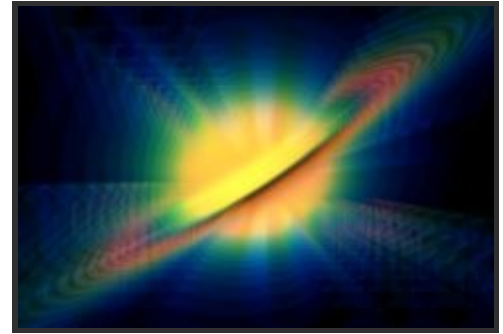
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S_WarpChroma

Separates the source clip into spectral bands and warps them by different amounts. The red is warped by the From transformation, the blue by the To transformation, with the other colors of the spectrum in between. The From and To parameters do not refer to time. They describe the two transformations in space that determine the sequence of warps applied to each color.

In the Sapphire Distort effects submenu.



Inputs:

Source: The input clip to be warped.

Mask: *Optional.* If provided, the amplitude of warping is scaled by the values of this input clip. Gray values internally scale the warping amplitude rather than simply cross-fading between the effect and the original source to allow more continuous results at the mask edges and more detailed control over the warping amounts. This input can be affected using the Blur Mask, Invert Mask, or Mask Use parameters.

Parameters:

Steps: *Integer, Default: 8, Range: 3 to 100.*

The number of spectrum samples to include along the path between the From (red) and To (blue) transformations. More steps give a smoother result, but require more time to process.

Center: *X & Y, Default: [360 243], Range: any.*

The center of rotation and zooming, in screen coordinates relative to the center of the frame. The shift values should be zero for this location to make sense. This parameter can be adjusted using the Center Widget.

From Z Dist: *Default: 1.5, Range: 0.001 or greater.*

The 'distance' of the From transformation. This zooms about the Center location when Shift is 0. Increase to zoom out, decrease to zoom in. This parameter can be adjusted using the From Transfm Widget.

From Rotate: *Default: 0, Range: any.*

The rotation angle of the From transformation, in degrees, about the center. This parameter can be adjusted using the From Transfm Widget.

From Shift: *X & Y, Default: [0 0], Range: any.*

The horizontal and vertical translations of the From transformation. This can be used for directional motion. If it is non-zero the center location becomes less meaningful. This parameter can be adjusted using the From Transfm Widget.

To Z Dist: *Default: 1, Range: 0.001 or greater.*

The 'distance' of the To transformation. Increase to zoom out, or decrease to zoom in. This parameter can be adjusted using the To Transform Widget.

To Rotate: *Default: 0, Range: any.*

The rotation angle of the To transformation, in degrees, about the center. Note that if the From and To Rotate angles are very different, the interpolation between them will become less accurate. This parameter can be adjusted using the To Transform Widget.

To Shift: *X & Y, Default: [0 0], Range: any.*

The horizontal and vertical translations of the To transformation. This can be used for directional motion. If it is non-zero the center location becomes less meaningful. This parameter can be adjusted using the To Transform Widget.

Brightness: *Default: 1, Range: 0 or greater.*

Scales the brightness of the result.

Color1: *Default rgb: [1 0 0].*

The color at the From transformation.

Color2: *Default rgb: [0 1 0].*

The color midway between the From and To transformations.

Color3: *Default rgb: [0 0 1].*

The color at the To transformation.

White Balance: *Check-box, Default: off.*

When enabled, the three colors are adjusted internally so they sum to white. In this case, the colors of unwrapped regions are not affected and the average color of the result remains the same.

Wrap: *X & Y, Popup menu, Default: [No No].*

Determines the method for accessing outside the borders of the source image.

No: gives black beyond the borders.

Tile: repeats a copy of the image.

Reflect: repeats a mirrored copy. Edges are often less visible with this method.

Filter: *Check-box, Default: off.*

If enabled, the image is adaptively filtered when it is resampled. This gives a better quality result when parts of the image are warped smaller.

Blur Mask: *Default: 0, Range: 0 or greater.*

Blurs the Mask input by this amount before using. This can provide a smoother transition between the masked and unmasked areas. It has no effect unless the Mask input is provided.

Invert Mask: *Check-box, Default: off.*

If on, inverts the mask input so the effect is applied to areas where the Mask is black instead of white. This has no effect unless the Mask input is provided.

Mask Use: *Popup menu, Default: Luma.*

Determines how the Mask input channels are used to make a monochrome mask.

Luma: the luminance of the RGB channels is used.

Alpha: only the Alpha channel is used.

Crop Input Parameters: *Default: 0, Range: 0 or greater.*

These 4 parameters, **Crop Top**, **Crop Bottom**, **Crop Left**, and **Crop Right**, allow selecting a rectangular subsection of the input image to be processed. If the Wrap parameters are set to "No" the exposed borders will be transparent. If the Wrap is "Tile" or "Reflect" the source image is wrapped on the new cropped borders to fill the frame. This can make it easier to avoid artifacts due to distorting an image with bad edges.

Show Center: *Check-box, Default: on.*

Turns on or off the screen user interface for adjusting the Center parameter.

Show From Transfm: *Check-box, Default: on.*

Turns on or off the screen user interface for adjusting the From Z Dist and From Rotate parameters.

Show To Transform: *Check-box, Default: on.*

Turns on or off the screen user interface for adjusting the To Z Dist and To Rotate parameters.

Show From Shift: *Check-box, Default: off.*

Turns on or off the screen user interface for adjusting the Center parameter.

Show To Shift: *Check-box, Default: off.*

Turns on or off the screen user interface for adjusting the Center parameter.

See Also:

[DistortChroma](#)

[DefocusPrism](#)

[BlurMotion](#)

[Streaks](#)

[EdgeRays](#)

[Sapphire](#)

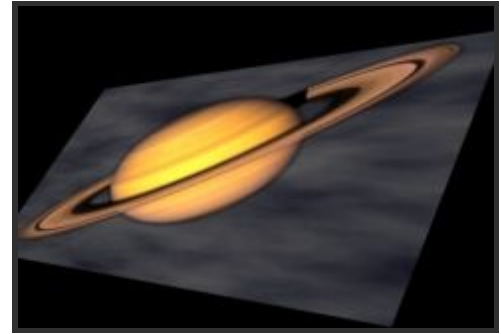
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S_WarpCornerPin

Performs a 3D perspective warp of the source image to align the corners with the four indicated points. This can be useful for positioning the source over an object in another clip, such as a billboard or computer screen.

In the Sapphire Distort effects submenu.



Inputs:

Source: The input clip to be warped.

Parameters:

Top Left: *X & Y, Default: [70 286], Range: any.*

Location of the upper-left corner of the source. This parameter can be adjusted using the Top Left Widget.

Top Right: *X & Y, Default: [500 430], Range: any.*

Location of the upper-right corner of the source. This parameter can be adjusted using the Top Right Widget.

Bottom Left: *X & Y, Default: [160 100], Range: any.*

Location of the lower-left corner of the source. This parameter can be adjusted using the Bottom Left Widget.

Bottom Right: *X & Y, Default: [580 86], Range: any.*

Location of the lower-right corner of the source. This parameter can be adjusted using the Bottom Right Widget.

Filter: *Check-box, Default: on.*

If enabled, the image is adaptively filtered when it is resampled. This gives a better quality result when parts of the image are warped smaller.

Bulge: *X & Y, Default: [0 0], Range: -1 to 1.*

Distorts the perspective of the warped image, so that it appears to bulge in one direction. A value of 1 gives no distortion. A value of less than one causes the image to stretch toward the upper/right corner, while a value of greater than one causes it to stretch to the lower/left corner.

Wrap: *X & Y, Popup menu, Default: [No No].*

Determines the method for accessing outside the borders of the source image.

No: gives black beyond the borders.

Tile: repeats a copy of the image.

Reflect: repeats a mirrored copy. Edges are often less visible with this method.

Crop Input Parameters: *Default: 0, Range: 0 or greater.*

These 4 parameters, **Crop Top**, **Crop Bottom**, **Crop Left**, and **Crop Right**, allow selecting a rectangular subsection of the input image to be processed. If the Wrap parameters are set to "No" the exposed borders will be transparent. If the Wrap is "Tile" or "Reflect" the source image is wrapped on the new cropped borders to fill the frame. This can make it easier to avoid artifacts due to distorting an image with bad edges.

Show Top Left: *Check-box, Default: on.*

Turns on or off the screen user interface for adjusting the Top Left parameter.

Show Top Right: *Check-box, Default: on.*

Turns on or off the screen user interface for adjusting the Top Right parameter.

Show Bottom Left: *Check-box, Default:* on.

Turns on or off the screen user interface for adjusting the Bottom Left parameter.

Show Bottom Right: *Check-box, Default:* on.

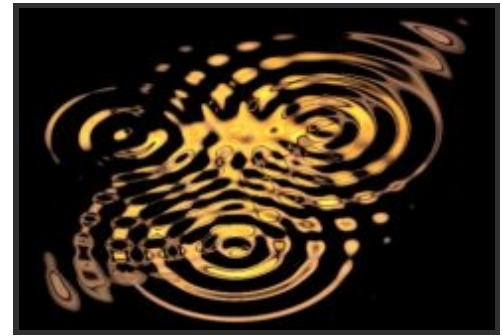
Turns on or off the screen user interface for adjusting the Bottom Right parameter.

See Also:

[Sapphire Plug-ins Introduction](#)

S_WarpDrops

Warp the source clip by multiple patterns of concentric waves emanating from multiple center locations. Each area in the Centers input clip brighter than the value of Threshold Cntrs, generates an independent pattern of concentric waves, and the total brightness of each area scales the warping magnitude of those waves. If the Centers image is complex, the number and locations of resulting centers can be fairly sensitive to the threshold value. Try using just solid black with a few white dots for the Centers input. If you only need a single set of waves, you can use the WarpPuddle effect instead.



In the Sapphire Distort effects submenu.

Inputs:

Source: The input clip to be warped.

Centers: *Optional.* Determines the centers of the wave patterns. Each area in this clip brighter than the value of Threshold Cntrs, generates an independent pattern of concentric waves. The total brightness of the area (brightness x area) scales the warping magnitude of those waves. This clip is often a painted image of dots of different sizes and brightnesses. If the painted centers move over time, the effect centers will move with them.

Mask: *Optional.* If provided, the amplitude of warping is scaled by the values of this input clip. Gray values internally scale the warping amplitude rather than simply cross-fading between the effect and the original source to allow more continuous results at the mask edges and more detailed control over the warping amounts. This input can be affected using the Blur Mask, Invert Mask, or Mask Use parameters.

Parameters:

Amplitude: *Default: 1, Range: any.*
Scales the amount of warping distortion. Increase for more severe distortion.

Frequency: *Default: 8, Range: 0.01 or greater.*
The frequency of the waves. Increase for more waves, decrease for fewer. This parameter can be adjusted using the Frequency Widget.

Rel Height: *Default: 1, Range: 0.01 or greater.*
The relative height of the concentric wave pattern.

Rotate Rel H: *Default: 0, Range: any.*
Rotation in degrees of the wave patterns, about each center. This has no effect if the Rel Height parameter is 1.0. This parameter can be adjusted using the Rotate Rel H Widget.

Threshold Cntrs: *Default: 0.6, Range: 0 to 1.*
Areas brighter than this value are used as centers for the waves. A center is generated from the centroid of each set of connected pixels above this value.

Max Centers: *Integer, Default: 20, Range: 1 or greater.*

The maximum total number of centers to use. This can be used for testing or to avoid overly large numbers of centers.

Phase Start: *Default: 0, Range: any.*

The phase shift of the waves.

Phase Speed: *Default: 0, Range: any.*

The speed of the waves. If this is positive the waves automatically travel outwards from the center at this rate.

Inner Radius: *Default: 0, Range: any.*

The distance from the puddle center where the wave distortion is phased in. No waves are generated inside this radius. This parameter can be adjusted using the Inner Radius Widget.

Inner Softness: *Default: 0.1, Range: 0.0028 or greater.*

The width of the region at the Inner Radius over which the wave distortion is phased in.

Outer Radius: *Default: 0.5, Range: 0 or greater.*

The distance from the puddle center where the wave distortion is phased out. No waves are generated outside this radius. This parameter can be adjusted using the Outer Radius Widget.

Outer Softness: *Default: 0.5, Range: 0.0056 or greater.*

The width of the region at the Outer Radius over which the wave distortion is phased out.

Z Dist: *Default: 1, Range: 0.001 or greater.*

Scales the 'distance' of the image. Values greater than 1.0 move it farther away and make it smaller. Values less than 1.0 move the image closer and enlarge it. Zooming in slightly can sometimes be used to hide edge artifacts.

Wrap: *X & Y, Popup menu, Default: [Reflect Reflect].*

Determines the method for accessing outside the borders of the source image.

No: gives black beyond the borders.

Tile: repeats a copy of the image.

Reflect: repeats a mirrored copy. Edges are often less visible with this method.

Filter: *Check-box, Default: on.*

If enabled, the image is adaptively filtered when it is resampled. This gives a better quality result when parts of the image are warped smaller.

Blur Mask: *Default: 0, Range: 0 or greater.*

Blurs the Mask input by this amount before using. This can provide a smoother transition between the masked and unmasked areas. It has no effect unless the Mask input is provided.

Invert Mask: *Check-box, Default: off.*

If on, inverts the mask input so the effect is applied to areas where the Mask is black instead of white. This has no effect unless the Mask input is provided.

Mask Use: *Popup menu, Default: Luma.*

Determines how the Mask input channels are used to make a monochrome mask.

Luma: the luminance of the RGB channels is used.

Alpha: only the Alpha channel is used.

Show Frequency: *Check-box, Default: on.*

Turns on or off the screen user interface for adjusting the Frequency parameter.

Show Outer Radius: *Check-box, Default: on.*

Turns on or off the screen user interface for adjusting the Rel Height parameter.

Show Inner Radius: *Check-box, Default: on.*

Turns on or off the screen interface parameter for adjusting the Inner Radius. The value of the Inner Radius parameter must first be positive for this widget to be visible.

Show Rotate Rel H: *Check-box, Default: on.*

Turns on or off the screen user interface for adjusting the Rotate Rel H parameter.

See Also:

[WarpPuddle](#)

[WarpWaves](#)

[Sapphire Plug-ins](#)

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S_WarpFishEye

Expands the center of the source clip as if viewed through a fish-eye lens. Adjust the Amount parameter to give more or less distortion. Turn off the Wrap options to give transparency beyond the borders of the input clip instead of reflected copies.

In the Sapphire Distort effects submenu.



Inputs:

Source: The input clip to be warped.

Mask: *Optional.* If provided, the amplitude of warping is scaled by the values of this input clip. Gray values internally scale the warping amplitude rather than simply cross-fading between the effect and the original source to allow more continuous results at the mask edges and more detailed control over the warping amounts. This input can be affected using the Blur Mask, Invert Mask, or Mask Use parameters.

Parameters:

Amount: *Default:* 1, *Range:* any.

The amplitude of the fish-eye warping. Try this negative with a large Z Dist for some wacky 'bug eye' distortions.

Center: *X & Y, Default:* [360 243], *Range:* any.

The center of the fish-eye warping function, in screen coordinates relative to the center of the frame. This parameter can be adjusted using the Center Widget.

Z Dist: *Default:* 1, *Range:* 0.001 or greater.

Scales the 'distance' of the image. Values greater than 1.0 move it farther away and make it smaller. Values less than 1.0 move the image closer and enlarge it. Zooming in slightly can sometimes be used to hide edge artifacts.

Rotate: *Default:* 0, *Range:* any.

Rotates the result about the center location by this many counter-clockwise degrees.

Shift Orig: *X & Y, Default:* [0 0], *Range:* any.

Translates the source image before the fish-eye warping is applied.

Wrap: *X & Y, Popup menu, Default:* [Reflect Reflect].

Determines the method for accessing outside the borders of the source image.

No: gives black beyond the borders.

Tile: repeats a copy of the image.

Reflect: repeats a mirrored copy. Edges are often less visible with this method.

Filter: *Check-box, Default:* on.

If enabled, the image is adaptively filtered when it is resampled. This gives a better quality result when parts of the image are warped smaller.

Blur Mask: *Default:* 0, *Range:* 0 or greater.

Blurs the Mask input by this amount before using. This can provide a smoother transition between the masked and unmasked areas. It has no effect unless the Mask input is provided.

Invert Mask: *Check-box, Default: off.*

If on, inverts the mask input so the effect is applied to areas where the Mask is black instead of white. This has no effect unless the Mask input is provided.

Mask Use: *Popup menu, Default: Luma.*

Determines how the Mask input channels are used to make a monochrome mask.

***Luma:** the luminance of the RGB channels is used.*

***Alpha:** only the Alpha channel is used.*

Crop Input Parameters: *Default: 0, Range: 0 or greater.*

These 4 parameters, **Crop Top**, **Crop Bottom**, **Crop Left**, and **Crop Right**, allow selecting a rectangular subsection of the input image to be processed. If the Wrap parameters are set to "No" the exposed borders will be transparent. If the Wrap is "Tile" or "Reflect" the source image is wrapped on the new cropped borders to fill the frame. This can make it easier to avoid artifacts due to distorting an image with bad edges.

Show Center: *Check-box, Default: on.*

Turns on or off the screen user interface for adjusting the Center parameter.

See Also:

[Distort](#)

[Sapphire Plug-ins Introduction](#)

S_WarpMagnify

Magnifies an elliptical region of the source to create a glass lens refraction effect.

In the Sapphire Distort effects submenu.



Inputs:

Source: The input clip to be warped.

Mask: *Optional.* If provided, the amplitude of warping is scaled by the values of this input clip. Gray values internally scale the warping amplitude rather than simply cross-fading between the effect and the original source to allow more continuous results at the mask edges and more detailed control over the warping amounts. This input can be affected using the Blur Mask, Invert Mask, or Mask Use parameters.

Parameters:

Magnify Amount: *Default: 2, Range: any.*

Amount to scale the image within the magnified region. Use values below 1.0 to shrink the image instead within the lens.

Magnify Rel: *X & Y, Default: [1 1], Range: 0 or greater.*

The relative horizontal and vertical magnification.

Lens Center: *X & Y, Default: [360 240], Range: any.*

The center of the lens shape. This parameter can be adjusted using the Lens Center Widget.

Lens Radius: *Default: 0.4, Range: 0 or greater.*

Radius of the inner part of the lens. Within this region, the source is scaled by the full magnify amount. This parameter can be adjusted using the Edge Width Widget.

Lens Edge Width: *Default: 0.5, Range: 0 or greater.*

The width of the lens edge, as a fraction of the inner radius. In the edge area of the lens, magnification tapers off from the full magnify amount to no magnification. This parameter can be adjusted using the Edge Width Widget.

Lens Rel Height: *Default: 1, Range: 0.1 or greater.*

The relative vertical size of the lens. Increase for a taller ellipse, decrease for a wider one.

Lens Rel Width: *Default: 1, Range: 0.1 or greater.*

The relative horizontal size of the lens. Increase for a wider ellipse, decrease for a taller one.

Lens Rotate: *Default: 0, Range: any.*

Rotation in degrees of the lens. Note that rotation will have no effect when Rel Width and Rel Height are equal and the shape is a perfect circle. This parameter can be adjusted using the Lens Rotate Widget.

Lens Edge Shape: *Default: 1, Range: -1 to 1.*

Determines the curve of the magnification amount within the edge of the lens. If set to zero, magnification tapers off linearly. If set to one, magnification tapers off in a smoother curve, which can reduce the visual perception of the border of the lens. Other values interpolate between the two.

Wrap: *X & Y, Popup menu, Default: [Reflect Reflect].*

Determines the method for accessing outside the borders of the source image.

No: gives black beyond the borders.

Tile: repeats a copy of the image.

Reflect: repeats a mirrored copy. Edges are often less visible with this method.

Filter: *Check-box, Default: on.*

If enabled, the image is adaptively filtered when it is resampled. This gives a better quality result when parts of the image are warped smaller.

Blur Mask: *Default: 0, Range: 0 or greater.*

Blurs the Mask input by this amount before using. This can provide a smoother transition between the masked and unmasked areas. It has no effect unless the Mask input is provided.

Invert Mask: *Check-box, Default: off.*

If on, inverts the mask input so the effect is applied to areas where the Mask is black instead of white. This has no effect unless the Mask input is provided.

Mask Use: *Popup menu, Default: Luma.*

Determines how the Mask input channels are used to make a monochrome mask.

Luma: the luminance of the RGB channels is used.

Alpha: only the Alpha channel is used.

Crop Input Parameters: *Default: 0, Range: 0 or greater.*

These 4 parameters, **Crop Top**, **Crop Bottom**, **Crop Left**, and **Crop Right**, allow selecting a rectangular subsection of the input image to be processed. If the Wrap parameters are set to "No" the exposed borders will be transparent. If the Wrap is "Tile" or "Reflect" the source image is wrapped on the new cropped borders to fill the frame. This can make it easier to avoid artifacts due to distorting an image with bad edges.

Show Edge Width: *Check-box, Default: on.*

Turns on or off the screen user interface for adjusting the Lens Center parameter.

Show Lens Radius: *Check-box, Default: on.*

Turns on or off the screen user interface for adjusting the Lens Center parameter.

Show Lens Rotate: *Check-box, Default: on.*

Turns on or off the screen user interface for adjusting the Lens Center parameter.

Show Lens Center: *Check-box, Default: on.*

Turns on or off the screen user interface for adjusting the Lens Center parameter.

See Also:

[Distort](#)

[WarpFishEye](#)

[Sapphire Plug-ins](#)

[Introduction](#)

S_WarpPerspective

Transforms the source clip onto a 3D plane with perspective. Adjust the Latitude, Swing, and Roll parameters to rotate the image on various axes, and adjust Shift and Z Dist to translate and zoom. Turn off the Wrap options to give a single non-repeated copy of the image.

In the Sapphire Distort effects submenu.



Inputs:

Source: The input clip to be warped.

Mask: *Optional.* If provided, the amplitude of warping is scaled by the values of this input clip. Gray values internally scale the warping amplitude rather than simply cross-fading between the effect and the original source to allow more continuous results at the mask edges and more detailed control over the warping amounts. This input can be affected using the Blur Mask, Invert Mask, or Mask Use parameters.

Parameters:

Latitude: *Default:* 35, *Range:* -89 to 89.

Tilts the image up or down in 3D. Positive latitude tilts the image down and negative tilts it up.

Swing: *Default:* 0, *Range:* any.

Rotation of the image in degrees in its initial frame.

Roll: *Default:* 0, *Range:* any.

Tilts the result from side to side, in counter-clockwise degrees.

Z Dist: *Default:* 3, *Range:* 0.001 or greater.

Scales the 'distance' of the image. Values greater than 1.0 move it farther away and make it smaller. Values less than 1.0 move the image closer and enlarge it.

Tele Lens Width: *Default:* 1, *Range:* 0.2 to 3.

The amount of lens telescoping. Increase to zoom in with less perspective, decrease for a wider viewing angle with more perspective.

Shift Orig: *X & Y, Default:* [0 0], *Range:* any.

Translates the image in its initial frame.

Wrap: *X & Y, Popup menu, Default:* [Tile Tile].

Determines the method for accessing outside the borders of the source image.

No: gives black beyond the borders.

Tile: repeats a copy of the image.

Reflect: repeats a mirrored copy. Edges are often less visible with this method.

Wrap Above Horizon: *Check-box, Default:* off.

When the image is sufficiently tilted using the Latitude parameter, a horizon can be seen. When Wrap Above Horizon is check, the image is repeated on both sides of the horizon.

Filter: *Check-box, Default: on.*

If enabled, the image is adaptively filtered when it is resampled. This gives a better quality result when parts of the image are warped smaller.

Blur Mask: *Default: 0, Range: 0 or greater.*

Blurs the Mask input by this amount before using. This can provide a smoother transition between the masked and unmasked areas. It has no effect unless the Mask input is provided.

Invert Mask: *Check-box, Default: off.*

If on, inverts the mask input so the effect is applied to areas where the Mask is black instead of white. This has no effect unless the Mask input is provided.

Mask Use: *Popup menu, Default: Luma.*

Determines how the Mask input channels are used to make a monochrome mask.

***Luma:** the luminance of the RGB channels is used.*

***Alpha:** only the Alpha channel is used.*

Crop Input Parameters: *Default: 0, Range: 0 or greater.*

These 4 parameters, **Crop Top**, **Crop Bottom**, **Crop Left**, and **Crop Right**, allow selecting a rectangular subsection of the input image to be processed. If the Wrap parameters are set to "No" the exposed borders will be transparent. If the Wrap is "Tile" or "Reflect" the source image is wrapped on the new cropped borders to fill the frame. This can make it easier to avoid artifacts due to distorting an image with bad edges.

See Also:

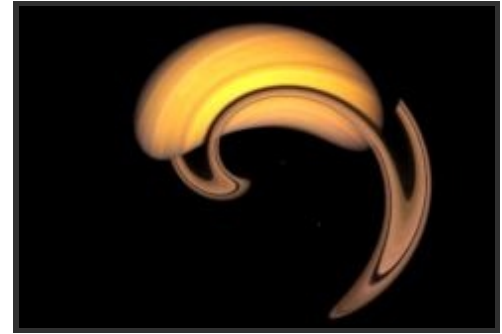
[CloudsPerspective](#)

[Sapphire Plug-ins Introduction](#)

S_WarpPolar

Warp the source clip into a rounded disk shape. The vertical direction of the source image is mapped between the Inner Radius and Outer Radius, and the horizontal direction is rotated about the center based on the number of Angle Repeats and offset by Angle.

In the Sapphire Distort effects submenu.



Inputs:

Source: The input clip to be warped.

Mask: *Optional.* If provided, the amplitude of warping is scaled by the values of this input clip. Gray values internally scale the warping amplitude rather than simply cross-fading between the effect and the original source to allow more continuous results at the mask edges and more detailed control over the warping amounts. This input can be affected using the Blur Mask, Invert Mask, or Mask Use parameters.

Parameters:

Angle: *Default:* 0, *Range:* any.

Rotation of the result, in counter-clockwise degrees. This parameter can be adjusted using the Angle Widget.

Angle Repeats: *Default:* 1, *Range:* 0.01 or greater.

The number of copies of the source image to wrap around. This should be an integer to avoid a seam where the first copy connects to the last.

Center: *X & Y, Default:* [360 243], *Range:* any.

The center of the disk, in screen coordinates relative to the center of the frame.

Stretch: *X & Y, Default:* [1 1], *Range:* 0.01 or greater.

Scales the horizontal or vertical size of the disk shape. This parameter can be adjusted using the Inner Radius Widget.

Inner Radius: *Default:* 0.028, *Range:* any.

The distance from the center where the bottom edge of the source clip is mapped. This parameter can be adjusted using the Inner Radius Widget.

Outer Radius: *Default:* 0.83, *Range:* any.

The distance from the center where the top edge of the input clip is mapped. This parameter can be adjusted using the Outer Radius Widget.

Wrap: *X & Y, Popup menu, Default:* [Tile No].

Determines the method for accessing outside the borders of the source image.

No: gives black beyond the borders.

Tile: repeats a copy of the image.

Reflect: repeats a mirrored copy. Edges are often less visible with this method.

Filter: *Check-box, Default:* on.

If enabled, the image is adaptively filtered when it is resampled. This gives a better quality result when parts of the

image are warped smaller.

Blur Mask: *Default: 0, Range: 0 or greater.*

Blurs the Mask input by this amount before using. This can provide a smoother transition between the masked and unmasked areas. It has no effect unless the Mask input is provided.

Invert Mask: *Check-box, Default: off.*

If on, inverts the mask input so the effect is applied to areas where the Mask is black instead of white. This has no effect unless the Mask input is provided.

Mask Use: *Popup menu, Default: Luma.*

Determines how the Mask input channels are used to make a monochrome mask.

***Luma:** the luminance of the RGB channels is used.*

***Alpha:** only the Alpha channel is used.*

Crop Input Parameters: *Default: 0, Range: 0 or greater.*

These 4 parameters, **Crop Top**, **Crop Bottom**, **Crop Left**, and **Crop Right**, allow selecting a rectangular subsection of the input image to be processed. If the Wrap parameters are set to "No" the exposed borders will be transparent. If the Wrap is "Tile" or "Reflect" the source image is wrapped on the new cropped borders to fill the frame. This can make it easier to avoid artifacts due to distorting an image with bad edges.

Show Angle: *Check-box, Default: on.*

Turns on or off the screen user interface for adjusting the Angle parameter.

Show Inner Radius: *Check-box, Default: on.*

Turns on or off the screen user interface for adjusting the Center parameter.

Show Outer Radius: *Check-box, Default: on.*

Turns on or off the screen user interface for adjusting the Center parameter.

See Also:

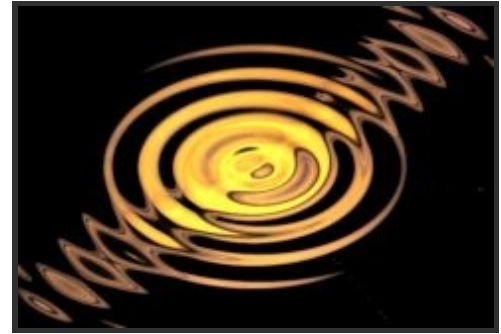
[KaleidoPolar](#)

[Sapphire Plug-ins Introduction](#)

S_WarpPuddle

Warp the source clip by a pattern of concentric waves. The Phase Speed parameter causes the waves to automatically move outwards from the center over time. Adjust the Inner and Outer Radius parameters to limit the area where the waves appear. Increase the Inner and Outer softness for smoother transitions between where the waves appear and do not appear.

In the Sapphire Distort effects submenu.



Inputs:

Source: The input clip to be warped.

Mask: *Optional.* If provided, the amplitude of warping is scaled by the values of this input clip. Gray values internally scale the warping amplitude rather than simply cross-fading between the effect and the original source to allow more continuous results at the mask edges and more detailed control over the warping amounts. This input can be affected using the Blur Mask, Invert Mask, or Mask Use parameters.

Parameters:

Amplitude: *Default:* 0.1, *Range:* any.

Scales the amount of warping distortion. Increase for more severe distortion.

Frequency: *Default:* 8, *Range:* 0.01 or greater.

The frequency of the waves. Increase for more waves, decrease for fewer. This parameter can be adjusted using the Frequency Widget.

Rel Height: *Default:* 0.75, *Range:* 0.01 or greater.

The relative height of the concentric wave pattern.

Rotate Puddle: *Default:* 0, *Range:* any.

Rotates the puddle pattern by this many counter-clockwise degrees after the Rel Height stretching has been applied. This has no effect when Rel Height is 1. This parameter can be adjusted using the Rotate Puddle Widget.

Center: *X & Y, Default:* [360 243], *Range:* any.

The center of the puddle, in screen coordinates relative to the center of the frame. This parameter can be adjusted using the Center Widget.

Phase Start: *Default:* 0, *Range:* any.

The phase shift of the waves.

Phase Speed: *Default:* 1, *Range:* any.

The speed of the waves. If this is positive the waves automatically travel outwards from the center at this rate.

Inner Radius: *Default:* 0, *Range:* any.

The distance from the puddle center where the wave distortion is phased in. No waves are generated inside this radius. This parameter can be adjusted using the Inner Radius Widget.

Inner Softness: *Default:* 0.1, *Range:* 0.0056 or greater.

The width of the region at the Inner Radius over which the wave distortion is phased in.

Outer Radius: *Default:* 1.4, *Range:* 0 or greater.

The distance from the puddle center where the wave distortion is phased out. No waves are generated outside this radius. This parameter can be adjusted using the Outer Radius Widget.

Outer Softness: *Default:* 0.42, *Range:* 0.0056 or greater.

The width of the region at the Outer Radius over which the wave distortion is phased out.

Z Dist: *Default:* 1, *Range:* 0.001 or greater.

Scales the 'distance' of the image. Values greater than 1.0 move it farther away and make it smaller. Values less than 1.0 move the image closer and enlarge it. Zooming in slightly can sometimes be used to hide edge artifacts.

Wrap: *X & Y, Popup menu, Default:* [Reflect Reflect].

Determines the method for accessing outside the borders of the source image.

No: gives black beyond the borders.

Tile: repeats a copy of the image.

Reflect: repeats a mirrored copy. Edges are often less visible with this method.

Filter: *Check-box, Default:* on.

If enabled, the image is adaptively filtered when it is resampled. This gives a better quality result when parts of the image are warped smaller.

Blur Mask: *Default:* 0, *Range:* 0 or greater.

Blurs the Mask input by this amount before using. This can provide a smoother transition between the masked and unmasked areas. It has no effect unless the Mask input is provided.

Invert Mask: *Check-box, Default:* off.

If on, inverts the mask input so the effect is applied to areas where the Mask is black instead of white. This has no effect unless the Mask input is provided.

Mask Use: *Popup menu, Default:* Luma.

Determines how the Mask input channels are used to make a monochrome mask.

Luma: the luminance of the RGB channels is used.

Alpha: only the Alpha channel is used.

Crop Input Parameters: *Default:* 0, *Range:* 0 or greater.

These 4 parameters, **Crop Top**, **Crop Bottom**, **Crop Left**, and **Crop Right**, allow selecting a rectangular subsection of the input image to be processed. If the Wrap parameters are set to "No" the exposed borders will be transparent. If the Wrap is "Tile" or "Reflect" the source image is wrapped on the new cropped borders to fill the frame. This can make it easier to avoid artifacts due to distorting an image with bad edges.

Show Frequency: *Check-box, Default:* on.

Turns on or off the screen user interface for adjusting the Frequency parameter.

Show Inner Radius: *Check-box, Default:* on.

Turns on or off the screen interface parameter for adjusting the Inner Radius. The value of the Inner Radius parameter must first be positive for this widget to be visible.

Show Outer Radius: *Check-box, Default:* on.

Turns on or off the screen user interface for adjusting the Rel Height parameter.

Show Center: *Check-box, Default:* on.

Turns on or off the screen user interface for adjusting the Center parameter.

Show Rotate Puddle: *Check-box, Default:* on.

Turns on or off the screen user interface for adjusting the Rotate Puddle parameter.

See Also:

[DissolvePuddle](#)

[Sapphire Plug-ins Introduction](#)

S_WarpPuff

Warpes the source clip based on its gradient. By default, brighter areas are puffed out and darker areas are shrunk. This is similar to applying Distort effect to an image using itself as the lens.

In the Sapphire Distort effects submenu.



Inputs:

Source: The input clip to be warped.

Mask: *Optional.* If provided, the amplitude of warping is scaled by the values of this input clip. Gray values internally scale the warping amplitude rather than simply cross-fading between the effect and the original source to allow more continuous results at the mask edges and more detailed control over the warping amounts. This input can be affected using the Blur Mask, Invert Mask, or Mask Use parameters.

Parameters:

Direction: *Popup menu, Default: Puff.*

Determines which type of areas of the source clip are puffed.

Puff: expands brighter areas and shrinks darker ones.

Shrivel: shrinks brighter areas and expands darker ones.

Amount: *Default: 0.5, Range: any.*

Scales the amount of distortion. This can also be negative to turn puffs into shrivels and vice versa.

Smoothness: *Default: 0.1, Range: 0 or greater.*

Blurs the source clip by this amount before determining the warp directions and amounts.

Rotate Warp Dir: *Default: 0, Range: any.*

Rotates the direction of the warping. This can cause areas of similar brightness to be twisted instead of just expanded or shrunk.

Wrap: *X & Y, Popup menu, Default: [Reflect Reflect].*

Determines the method for accessing outside the borders of the source image.

No: gives black beyond the borders.

Tile: repeats a copy of the image.

Reflect: repeats a mirrored copy. Edges are often less visible with this method.

Filter: *Check-box, Default: on.*

If enabled, the image is adaptively filtered when it is resampled. This gives a better quality result when parts of the image are warped smaller.

Blur Mask: *Default: 0, Range: 0 or greater.*

Blurs the Mask input by this amount before using. This can provide a smoother transition between the masked and unmasked areas. It has no effect unless the Mask input is provided.

Invert Mask: *Check-box, Default: off.*

If on, inverts the mask input so the effect is applied to areas where the Mask is black instead of white. This has no effect unless the Mask input is provided.

Mask Use: *Popup menu, Default: Luma.*

Determines how the Mask input channels are used to make a monochrome mask.

Luma: the luminance of the RGB channels is used.

Alpha: only the Alpha channel is used.

Crop Input Parameters: *Default: 0, Range: 0 or greater.*

These 4 parameters, **Crop Top**, **Crop Bottom**, **Crop Left**, and **Crop Right**, allow selecting a rectangular subsection of the input image to be processed. If the Wrap parameters are set to "No" the exposed borders will be transparent. If the Wrap is "Tile" or "Reflect" the source image is wrapped on the new cropped borders to fill the frame. This can make it easier to avoid artifacts due to distorting an image with bad edges.

See Also:

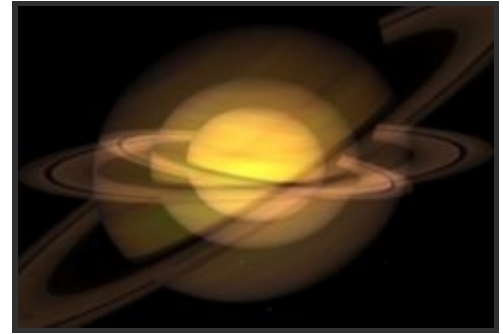
[Distort](#)

[Sapphire Plug-ins Introduction](#)

S_WarpRepeat

Transforms the source input multiple times and averages the results. The From and To parameters do not refer to time. They describe the two transformations in space that determine the sequence of repeated warps applied to each frame.

In the Sapphire Distort effects submenu.



Inputs:

Source: The input clip to be warped.

Mask: *Optional.* If provided, the amplitude of warping is scaled by the values of this input clip. Gray values internally scale the warping amplitude rather than simply cross-fading between the effect and the original source to allow more continuous results at the mask edges and more detailed control over the warping amounts. This input can be affected using the Blur Mask, Invert Mask, or Mask Use parameters.

Parameters:

Steps: *Integer, Default: 3, Range: 2 to 100.*

The number of times the input image is sampled along the path between the From and To transformations. More steps require more processing time.

Center: *X & Y, Default: [360 243], Range: any.*

The center of rotation and zooming, in screen coordinates relative to the center of the frame. The shift values should be zero for this location to make sense. This parameter can be adjusted using the Center Widget.

From Z Dist: *Default: 1.5, Range: 0.001 or greater.*

The 'distance' of the From transformation. This zooms about the Center location when Shift is 0. Increase to zoom out, decrease to zoom in. This parameter can be adjusted using the From Transfm Widget.

From Rotate: *Default: 0, Range: any.*

The rotation angle of the From transformation, in degrees, about the center. This parameter can be adjusted using the From Transfm Widget.

From Shift: *X & Y, Default: [0 0], Range: any.*

The horizontal and vertical translations of the From transformation. This can be used for directional motion. If it is non-zero the center location becomes less meaningful. This parameter can be adjusted using the From Transfm Widget.

To Z Dist: *Default: 1, Range: 0.001 or greater.*

The 'distance' of the To transformation. Increase to zoom out, or decrease to zoom in. This parameter can be adjusted using the To Transform Widget.

To Rotate: *Default: 0, Range: any.*

The rotation angle of the To transformation, in degrees, about the center. Note that if the From and To Rotate angles are very different, the interpolation between them will become less accurate. This parameter can be adjusted using the To Transform Widget.

To Shift: *X & Y, Default: [0 0], Range: any.*

The horizontal and vertical translations of the To transformation. This can be used for directional motion. If it is non-zero the center location becomes less meaningful. This parameter can be adjusted using the To Transform Widget.

Exposure Bias: *Default: 0.5, Range: 0 to 1.*

Determines the variable amount of exposure along the path between the From and To transformations. A value of 0 causes more exposure at the From end, 0.5 causes equal exposure along the path, and 1.0 causes more exposure at the To end. If you have bright spots on a dark background, a 0 value would cause the processed spots to be brighter at the From end and dark at the To end, and a 1.0 value would cause the opposite.

Wrap: *X & Y, Popup menu, Default: [No No].*

Determines the method for accessing outside the borders of the source image.

No: gives black beyond the borders.

Tile: repeats a copy of the image.

Reflect: repeats a mirrored copy. Edges are often less visible with this method.

Filter: *Check-box, Default: off.*

If enabled, the image is adaptively filtered when it is resampled. This gives a better quality result when parts of the image are warped smaller.

Blur Mask: *Default: 0, Range: 0 or greater.*

Blurs the Mask input by this amount before using. This can provide a smoother transition between the masked and unmasked areas. It has no effect unless the Mask input is provided.

Invert Mask: *Check-box, Default: off.*

If on, inverts the mask input so the effect is applied to areas where the Mask is black instead of white. This has no effect unless the Mask input is provided.

Mask Use: *Popup menu, Default: Luma.*

Determines how the Mask input channels are used to make a monochrome mask.

Luma: the luminance of the RGB channels is used.

Alpha: only the Alpha channel is used.

Crop Input Parameters: *Default: 0, Range: 0 or greater.*

These 4 parameters, **Crop Top**, **Crop Bottom**, **Crop Left**, and **Crop Right**, allow selecting a rectangular subsection of the input image to be processed. If the Wrap parameters are set to "No" the exposed borders will be transparent. If the Wrap is "Tile" or "Reflect" the source image is wrapped on the new cropped borders to fill the frame. This can make it easier to avoid artifacts due to distorting an image with bad edges.

Show Center: *Check-box, Default: on.*

Turns on or off the screen user interface for adjusting the Center parameter.

Show From Transfm: *Check-box, Default: on.*

Turns on or off the screen user interface for adjusting the From Z Dist and From Rotate parameters.

Show To Transform: *Check-box, Default: on.*

Turns on or off the screen user interface for adjusting the To Z Dist and To Rotate parameters.

Show From Shift: *Check-box, Default: off.*

Turns on or off the screen user interface for adjusting the Center parameter.

Show To Shift: *Check-box, Default: off.*

Turns on or off the screen user interface for adjusting the Center parameter.

See Also:

[BlurMotion](#)

[Streaks](#)

[EdgeRays](#)

[Sapphire Plug-ins](#)

[Introduction](#)

S_WarpTransform

Warp the source clip by a combination of linear transformations including scale, shear, zoom, rotation, and translation.

In the Sapphire Distort effects submenu.



Inputs:

Source: The input clip to be warped.

Mask: *Optional.* If provided, the amplitude of warping is scaled by the values of this input clip. Gray values internally scale the warping amplitude rather than simply cross-fading between the effect and the original source to allow more continuous results at the mask edges and more detailed control over the warping amounts. This input can be affected using the Blur Mask, Invert Mask, or Mask Use parameters.

Parameters:

Scale: *X & Y, Default: [1 1], Range: any.*

Scales the relative horizontal or vertical size of the source image.

Shift: *X & Y, Default: [0 0], Range: any.*

Translates the source image. This parameter can be adjusted using the Shift Widget.

Z Dist: *Default: 1, Range: 0.001 or greater.*

Scales the 'distance' of the image. Values greater than 1.0 move it farther away and make it smaller. Values less than 1.0 move the image closer and enlarge it. Note that Scale X and Y also scale the size of the image, but in an inverse way and on each axis.

Rotate: *Default: 0, Range: any.*

Rotates the source image by the specified angle in counter-clockwise degrees.

Swivel: *Default: 0, Range: any.*

Rotates the image left or right in 3D about the vertical axis.

Tilt: *Default: 0, Range: any.*

Rotates the image up or down in 3D about the horizontal axis. You can use Swivel and Tilt together to rotate about arbitrary diagonal axes.

Perspective Amount: *Default: 1, Range: 0.25 to 4.*

Controls the amount of lens telescoping while applying Swivel and Tilt. Increase for more 3D perspective.

Shear: *X & Y, Default: [0 0], Range: any.*

Shears the source image horizontally or vertically.

Wrap: *X & Y, Popup menu, Default: [No No].*

Determines the method for accessing outside the borders of the source image.

No: gives black beyond the borders.

Tile: repeats a copy of the image.

Reflect: repeats a mirrored copy. Edges are often less visible with this method.

Filter: *Check-box, Default: on.*

If enabled, the image is adaptively filtered when it is resampled. This gives a better quality result when parts of the image are warped smaller.

Blur Mask: *Default: 0, Range: 0 or greater.*

Blurs the Mask input by this amount before using. This can provide a smoother transition between the masked and unmasked areas. It has no effect unless the Mask input is provided.

Invert Mask: *Check-box, Default: off.*

If on, inverts the mask input so the effect is applied to areas where the Mask is black instead of white. This has no effect unless the Mask input is provided.

Mask Use: *Popup menu, Default: Luma.*

Determines how the Mask input channels are used to make a monochrome mask.

***Luma:** the luminance of the RGB channels is used.*

***Alpha:** only the Alpha channel is used.*

Crop Input Parameters: *Default: 0, Range: 0 or greater.*

These 4 parameters, **Crop Top**, **Crop Bottom**, **Crop Left**, and **Crop Right**, allow selecting a rectangular subsection of the input image to be processed. If the Wrap parameters are set to "No" the exposed borders will be transparent. If the Wrap is "Tile" or "Reflect" the source image is wrapped on the new cropped borders to fill the frame. This can make it easier to avoid artifacts due to distorting an image with bad edges.

Show Shift: *Check-box, Default: on.*

Turns on or off the screen user interface for adjusting the Shift parameter.

See Also:

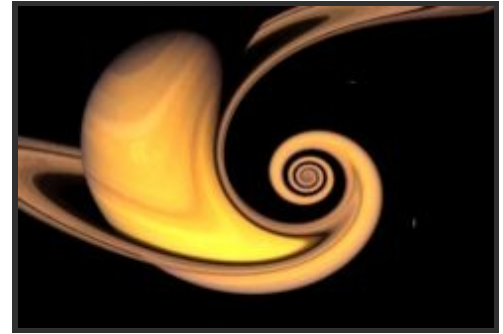
[Shake](#)

[Sapphire Plug-ins Introduction](#)

S_WarpVortex

Twists the source clip into a vortex, about a given Center location. Use the Vortex Start parameter to adjust the amount of vortexing, and use Angle Offset to also apply a normal rotation. Vortex Speed can be used to automatically animate the amount of vortexing.

In the Sapphire Distort effects submenu.



Inputs:

Source: The input clip to be warped.

Mask: *Optional.* If provided, the amplitude of warping is scaled by the values of this input clip. Gray values internally scale the warping amplitude rather than simply cross-fading between the effect and the original source to allow more continuous results at the mask edges and more detailed control over the warping amounts. This input can be affected using the Blur Mask, Invert Mask, or Mask Use parameters.

Parameters:

Vortex Start: *Default: 36, Range: any.*

The amount of vortex rotation, in approximate counter-clockwise degrees at the edge of the frame.

Vortex Speed: *Default: 0, Range: any.*

The speed of the vortex rotation, in approximate degrees per second at the edge of the frame. If non-zero, the vortexing is automatically animated at this rate.

Angle Offset: *Default: 0, Range: any.*

If non-zero, a rotation is combined with the vortex. Make negative to rotate the inner and outer regions in opposite directions.

Center: *X & Y, Default: [360 243], Range: any.*

The center of the vortex, in screen coordinates relative to the center of the frame. This parameter can be adjusted using the Center Widget.

Z Dist: *Default: 1, Range: 0.001 or greater.*

Scales the 'distance' of the image. Values greater than 1.0 move it farther away and make it smaller. Values less than 1.0 move the image closer and enlarge it.

Inner Radius: *Default: 0.042, Range: 0 or greater.*

The radius from the center at which the vortexing is phased in. This can be used to reduce excessive distortion and aliasing at the very center of the vortex.

Wrap: *X & Y, Popup menu, Default: [Reflect Reflect].*

Determines the method for accessing outside the borders of the source image.

No: gives black beyond the borders.

Tile: repeats a copy of the image.

Reflect: repeats a mirrored copy. Edges are often less visible with this method.

Filter: *Check-box, Default: on.*

If enabled, the image is adaptively filtered when it is resampled. This gives a better quality result when parts of the image are warped smaller.

Blur Mask: *Default: 0, Range: 0 or greater.*

Blurs the Mask input by this amount before using. This can provide a smoother transition between the masked and unmasked areas. It has no effect unless the Mask input is provided.

Invert Mask: *Check-box, Default: off.*

If on, inverts the mask input so the effect is applied to areas where the Mask is black instead of white. This has no effect unless the Mask input is provided.

Mask Use: *Popup menu, Default: Luma.*

Determines how the Mask input channels are used to make a monochrome mask.

***Luma:** the luminance of the RGB channels is used.*

***Alpha:** only the Alpha channel is used.*

Crop Input Parameters: *Default: 0, Range: 0 or greater.*

These 4 parameters, **Crop Top**, **Crop Bottom**, **Crop Left**, and **Crop Right**, allow selecting a rectangular subsection of the input image to be processed. If the Wrap parameters are set to "No" the exposed borders will be transparent. If the Wrap is "Tile" or "Reflect" the source image is wrapped on the new cropped borders to fill the frame. This can make it easier to avoid artifacts due to distorting an image with bad edges.

Show Center: *Check-box, Default: on.*

Turns on or off the screen user interface for adjusting the Center parameter.

See Also:

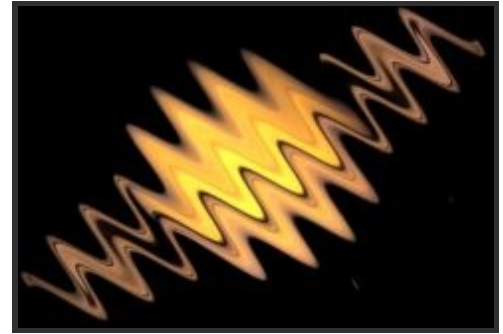
[DissolveVortex](#)

[Sapphire Plug-ins Introduction](#)

S_WarpWaves

Warp the source clip by a wave pattern. You can make the waves move over time by increasing the Phase Speed parameter, or by animating the value of Phase Start.

In the Sapphire Distort effects submenu.



Inputs:

Source: The input clip to be warped.

Mask: *Optional.* If provided, the amplitude of warping is scaled by the values of this input clip. Gray values internally scale the warping amplitude rather than simply cross-fading between the effect and the original source to allow more continuous results at the mask edges and more detailed control over the warping amounts. This input can be affected using the Blur Mask, Invert Mask, or Mask Use parameters.

Parameters:

Amplitude: *Default:* 0.1, *Range:* any.

Scales the amount of warping distortion. Increase for more severe distortion.

Frequency: *Default:* 8, *Range:* 0.1 or greater.

The frequency of the waves. Increase for more waves, decrease for fewer.

Angle: *Default:* -45, *Range:* any.

The rotation angle of the wave pattern in counter-clockwise degrees. If angle is 0, the waves move to the right and are aligned vertically.

Displace Angle: *Default:* 90, *Range:* any.

The warping direction in degrees relative to the angle of the waves. 0 gives compression-expansion waves, and 90 gives side to side waves.

Phase Start: *Default:* 0, *Range:* any.

The phase shift of the waves. The wave pattern is translated in the direction of Angle by this amount.

Phase Speed: *Default:* 0, *Range:* any.

The phase speed of the waves. If this is non-zero the wave pattern automatically travels at this rate.

Z Dist: *Default:* 1, *Range:* 0.001 or greater.

Scales the 'distance' of the image. Values greater than 1.0 move it farther away and make it smaller. Values less than 1.0 move the image closer and enlarge it. Zooming in slightly can sometimes be used to hide edge artifacts.

Wrap: *X & Y, Popup menu, Default:* [Reflect Reflect].

Determines the method for accessing outside the borders of the source image.

No: gives black beyond the borders.

Tile: repeats a copy of the image.

Reflect: repeats a mirrored copy. Edges are often less visible with this method.

Filter: *Check-box, Default: on.*

If enabled, the image is adaptively filtered when it is resampled. This gives a better quality result when parts of the image are warped smaller.

Blur Mask: *Default: 0, Range: 0 or greater.*

Blurs the Mask input by this amount before using. This can provide a smoother transition between the masked and unmasked areas. It has no effect unless the Mask input is provided.

Invert Mask: *Check-box, Default: off.*

If on, inverts the mask input so the effect is applied to areas where the Mask is black instead of white. This has no effect unless the Mask input is provided.

Mask Use: *Popup menu, Default: Luma.*

Determines how the Mask input channels are used to make a monochrome mask.

***Luma:** the luminance of the RGB channels is used.*

***Alpha:** only the Alpha channel is used.*

Crop Input Parameters: *Default: 0, Range: 0 or greater.*

These 4 parameters, **Crop Top**, **Crop Bottom**, **Crop Left**, and **Crop Right**, allow selecting a rectangular subsection of the input image to be processed. If the Wrap parameters are set to "No" the exposed borders will be transparent. If the Wrap is "Tile" or "Reflect" the source image is wrapped on the new cropped borders to fill the frame. This can make it easier to avoid artifacts due to distorting an image with bad edges.

See Also:

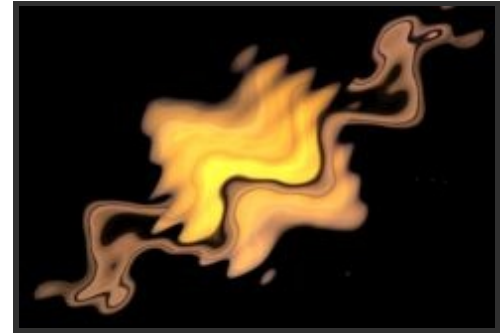
[DissolveWaves](#)

[Sapphire Plug-ins Introduction](#)

S_WarpWaves2

Warp the source clip using two sets of overlapping wave patterns. You can make the waves move over time by increasing the Phase Speed parameters, or by animating the value of the Phase Start parameters.

In the Sapphire Distort effects submenu.



Inputs:

Source: The input clip to be warped.

Mask: *Optional.* If provided, the amplitude of warping is scaled by the values of this input clip. Gray values internally scale the warping amplitude rather than simply cross-fading between the effect and the original source to allow more continuous results at the mask edges and more detailed control over the warping amounts. This input can be affected using the Blur Mask, Invert Mask, or Mask Use parameters.

A Waves Parameters:

A Amplitude: *Default:* 0.06, *Range:* any.

The amplitude of the first set of waves.

A Frequency: *Default:* 6, *Range:* 0.01 or greater.

The frequency of the first set of waves. Increase for more waves, decrease for fewer.

A Angle: *Default:* -45, *Range:* any.

The rotation angle of the first set of waves in degrees.

A Displace Angle: *Default:* 0, *Range:* any.

The warping direction of the first set of waves in degrees relative to their angle.

A Phase Start: *Default:* 0, *Range:* any.

The phase shift of the first set of waves.

A Phase Speed: *Default:* 1, *Range:* any.

If non-zero, the first set of wave automatically travels at this rate.

B Waves Parameters:

B Amplitude: *Default:* 0.12, *Range:* any.

The amplitude of the second set of waves.

B Frequency: *Default:* 3, *Range:* 0.01 or greater.

The frequency of the second set of waves. Increase for more waves, decrease for fewer.

B Angle: *Default:* -15, *Range:* any.

The rotation angle of the second set of waves in degrees.

B Displace Angle: *Default:* 0, *Range:* any.

The warping direction of the second set of waves in degrees relative to their angle.

B Phase Start: *Default: 0, Range: any.*
The phase shift of the second set of waves.

B Phase Speed: *Default: -1, Range: any.*
If non-zero, the second set of wave automatically travels at this rate.

Other Parameters:

Z Dist: *Default: 1, Range: 0.001 or greater.*
Scales the 'distance' of the image. Values greater than 1.0 move it farther away and make it smaller. Values less than 1.0 move the image closer and enlarge it. Zooming in slightly can sometimes be used to hide edge artifacts.

Wrap: *X & Y, Popup menu, Default: [Reflect Reflect].*
Determines the method for accessing outside the borders of the source image.

No: gives black beyond the borders.

Tile: repeats a copy of the image.

Reflect: repeats a mirrored copy. Edges are often less visible with this method.

Filter: *Check-box, Default: on.*

If enabled, the image is adaptively filtered when it is resampled. This gives a better quality result when parts of the image are warped smaller.

Blur Mask: *Default: 0, Range: 0 or greater.*

Blurs the Mask input by this amount before using. This can provide a smoother transition between the masked and unmasked areas. It has no effect unless the Mask input is provided.

Invert Mask: *Check-box, Default: off.*

If on, inverts the mask input so the effect is applied to areas where the Mask is black instead of white. This has no effect unless the Mask input is provided.

Mask Use: *Popup menu, Default: Luma.*

Determines how the Mask input channels are used to make a monochrome mask.

Luma: the luminance of the RGB channels is used.

Alpha: only the Alpha channel is used.

Crop Input Parameters: *Default: 0, Range: 0 or greater.*

These 4 parameters, **Crop Top**, **Crop Bottom**, **Crop Left**, and **Crop Right**, allow selecting a rectangular subsection of the input image to be processed. If the Wrap parameters are set to "No" the exposed borders will be transparent. If the Wrap is "Tile" or "Reflect" the source image is wrapped on the new cropped borders to fill the frame. This can make it easier to avoid artifacts due to distorting an image with bad edges.

See Also:

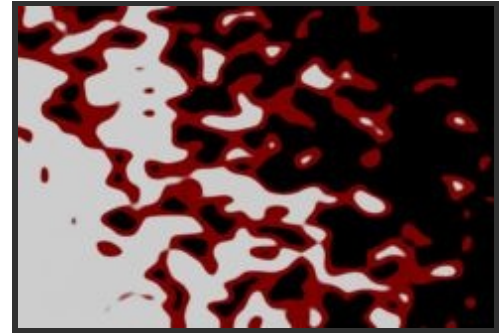
[DissolveWaves](#)

[Sapphire Plug-ins Introduction](#)

S_WipeBlobs

Performs a wipe transition between two input clips using a pattern of blobs generated by a noise function. The Wipe Amount parameter should be animated to control the transition speed. Increase the Grad Add parameter to make the timing of the blobs pattern move across the screen during the wipe. Increase the Border Width parameter to draw a border at the wipe transition edges.

In the Sapphire Transitions effects submenu.



Inputs:

From: Starts the transition with this clip.

To: Ends the transition with this clip.

Parameters:

Wipe Amount: *Default:* 0, *Range:* -0.5 to 1.5.

Determines the transition ratio between the From and To inputs, and would normally be animated from 0 to 1 to perform a complete transition. The curve controlling this parameter can be adjusted for more detailed control over the timing of the wipe.

Edge Softness: *Default:* 0, *Range:* 0 or greater.

The width of the transition edges. Larger values will cause softer, less visible edges in the wipe pattern.

Frequency: *Default:* 6, *Range:* 0.1 or greater.

The frequency of the blobs pattern. Increase for more and smaller blobs, or decrease for fewer and larger.

Rel Width: *Default:* 1, *Range:* 0.1 or greater.

The relative horizontal size of the blobs. Increase for wider blobs, decrease for taller ones.

Octaves: *Integer, Default:* 1, *Range:* 1 to 10.

The number of summed layers of noise. Each octave is twice the frequency and half the amplitude of the previous. A single octave gives a smooth texture. Adding octaves makes the result approach a fractal (1/f) noise texture.

Seed: *Default:* 0.432, *Range:* 0 or greater.

Used to initialize the random number generator. The actual seed value is not significant, but different seeds give different results and the same value should give a repeatable result.

Shift: *X & Y, Default:* [0 0], *Range:* any.

Translation of the blobs pattern.

Grad Add: *Default:* 0, *Range:* -10 to 10.

If positive, a gradient will be added to the timing of the transition pattern so it moves across the screen during the wipe. This parameter can be adjusted using the Wipe Widget if enabled, but the value must be positive to make this widget visible.

Grad Angle: *Default:* 0, *Range:* any.

The direction of the wipe gradient in counter-clockwise degrees. This will have no effect unless Grad Add is positive. The Wipe Widget also allows adjusting this parameter.

Border Width: *Default:* 0, *Range:* 0 or greater.

If positive, a colored border is drawn at the wipe transition edges, using the border color, opacity, softness, and shift parameters below.

Border Color: *Default rgb:* [0.75 0 0].

The color of the border. This has no effect unless Border Width is positive.

Border Opacity: *Default:* 1, *Range:* 0 to 1.

The opacity of the border. Decrease to make the border transparent and allow the image under it to show through.

This has no effect unless Border Width is positive.

Border Softness: *Default:* 0, *Range:* 0 or greater.

The softness of the border edges. This has no effect unless Border Width is positive.

Border Shift: *Default:* 0, *Range:* any.

Shifts the border ahead of or behind the transition edge. This has no effect unless Border Width is positive.

Show Wipe: *Check-box, Default:* on.

Turns on or off the screen user interface for adjusting the Wipe Amount parameter.

Show Shift: *Check-box, Default:* on.

Turns on or off the screen user interface widget for adjusting the Shift parameter, which translates the blobs pattern.

See Also:

[WipeLine](#)

[WipeCircle](#)

[WipeRectangle](#)

[WipeStar](#)

[WipeClock](#)

[WipeWedge](#)

[WipeDoubleWedge](#)

[WipeFourWedges](#)

[WipeDots](#)

[WipeChecker](#)

[WipeStripes](#)

[WipeRings](#)

[WipeCells](#)

[WipeTiles](#)

[WipePixelate](#)

[WipeDiffuse](#)

[WipeBubble](#)

[WipeClouds](#)

[SwishPan](#)

[Clouds](#)

[DissolveSpeckle](#)

[TextureLoops](#)

[Sapphire](#)

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S_WipeBubble

Wipes between two input clips with a bubble-warp process performed within the transition area. The Wipe Amount parameter should be animated to control the transition speed.

In the Sapphire Transitions effects submenu.



Inputs:

From: Starts the transition with this clip.

To: Ends the transition with this clip.

Parameters:

Wipe Amount: *Default:* 0, *Range:* -0.5 to 1.5.

Determines the transition ratio between the From and To inputs, and would normally be animated from 0 to 1 to perform a complete transition. The curve controlling this parameter can be adjusted for more detailed control over the timing of the wipe.

Edge Width: *Default:* 1.4, *Range:* 0.014 or greater.

The width of the transition area. This can be adjusted using the Wipe Widget.

Angle: *Default:* 0, *Range:* any.

The angle of the wipe direction in counter-clockwise degrees from the right. This can be adjusted using the Wipe Widget.

Bubble Amount: *Default:* 0.5, *Range:* 0 or greater.

The magnitude of the bubble distortion.

Frequency: *Default:* 8, *Range:* 0.1 or greater.

The frequency of the bubble pattern. Increase to zoom out, decrease to zoom in.

Frequency Rel X: *Default:* 1, *Range:* 0.01 or greater.

The relative horizontal frequency of the bubble pattern. Increase for taller bubbles, decrease for wider bubbles.

Octaves: *Integer, Default:* 8, *Range:* 1 to 10.

The number of summed layers of noise. Each octave is twice the frequency and half the amplitude of the previous. A single octave gives a smooth texture. Adding octaves makes the result approach a fractal (1/f) noise texture.

Seed: *Default:* 0.23, *Range:* 0 or greater.

Used to initialize the random number generator. The actual seed value is not significant, but different seeds give different results and the same value should give a repeatable result.

Crop Input Parameters: *Default:* 0, *Range:* 0 or greater.

These 4 parameters, **Crop Top**, **Crop Bottom**, **Crop Left**, and **Crop Right**, allow selecting a rectangular subsection of the input image to be processed. If the Wrap parameters are set to "No" the exposed borders will be transparent. If the Wrap is "Tile" or "Reflect" the source image is wrapped on the new cropped borders to fill the frame. This can make it easier to avoid artifacts due to distorting an image with bad edges.

Show Wipe: *Check-box, Default:* on.

Turns on or off the screen user interface widget for adjusting the Wipe Amt, Angle, and Edge Width parameters.

See Also:

[WipeLine](#)

[WipeCircle](#)

[WipeRectangle](#)

[WipeStar](#)

[WipeClock](#)

[WipeWedge](#)

[WipeDoubleWedge](#)

[WipeFourWedges](#)

[WipeDots](#)

[WipeChecker](#)

[WipeStripes](#)

[WipeRings](#)

[WipeBlobs](#)

[WipeCells](#)

[WipeTiles](#)

[WipePixelate](#)

[WipeDiffuse](#)

[WipeClouds](#)

[SwishPan](#)

[WarpBubble](#)

[DissolveBubble](#)

[Sapphire](#)

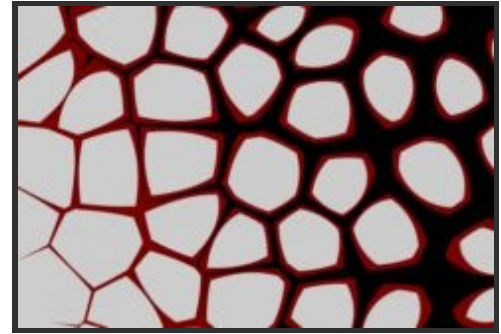
[Plug-ins](#)

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S_WipeCells

Performs a wipe transition between two input clips using a pattern of procedurally generated cellular shapes. The Wipe Amount parameter should be animated to control the transition speed. Increase the Grad Add parameter to make the timing of the cells pattern move across the screen during the wipe. Increase the Border Width parameter to draw a border at the wipe transition edges.

In the Sapphire Transitions effects submenu.



Inputs:

From: Starts the transition with this clip.

To: Ends the transition with this clip.

Parameters:

Wipe Amount: *Default:* 0, *Range:* -0.5 to 1.5.

Determines the transition ratio between the From and To inputs, and would normally be animated from 0 to 1 to perform a complete transition. The curve controlling this parameter can be adjusted for more detailed control over the timing of the wipe.

Cells: *Popup menu, Default:* Grow.

The direction of the cells transition.

Shrink: the cells start large and shrink inwards.

Grow: the cells start small and grow outwards.

Edge Softness: *Default:* 0, *Range:* 0 or greater.

The width of the transition edges. Larger values will cause softer, less visible edges in the wipe pattern.

Frequency: *Default:* 6, *Range:* 0.1 or greater.

The frequency of the cells pattern. Increase for more and smaller cells, or decrease for fewer and larger.

Rel Width: *Default:* 1, *Range:* 0.1 or greater.

The relative horizontal size of the cells. Increase for wider cells, decrease for taller ones.

Seed: *Default:* 0.432, *Range:* 0 or greater.

Used to initialize the random number generator. The actual seed value is not significant, but different seeds give different results and the same value should give a repeatable result.

Shift: *X & Y, Default:* [0 0], *Range:* any.

Translation of the cells pattern.

Grad Add: *Default:* 0, *Range:* -10 to 10.

If positive, a gradient will be added to the timing of the transition pattern so it moves across the screen during the wipe. This parameter can be adjusted using the Wipe Widget if enabled, but the value must be positive to make this widget visible.

Grad Angle: *Default:* 0, *Range:* any.

The direction of the wipe gradient in counter-clockwise degrees. This will have no effect unless Grad Add is positive. The Wipe Widget also allows adjusting this parameter.

Border Width: *Default:* 0, *Range:* 0 or greater.

If positive, a colored border is drawn at the wipe transition edges, using the border color, opacity, softness, and shift parameters below.

Border Color: *Default rgb:* [0.75 0 0].

The color of the border. This has no effect unless Border Width is positive.

Border Opacity: *Default:* 1, *Range:* 0 to 1.

The opacity of the border. Decrease to make the border transparent and allow the image under it to show through.

This has no effect unless Border Width is positive.

Border Softness: *Default:* 0, *Range:* 0 or greater.

The softness of the border edges. This has no effect unless Border Width is positive.

Border Shift: *Default:* 0, *Range:* any.

Shifts the border ahead of or behind the transition edge. This has no effect unless Border Width is positive.

Show Wipe: *Check-box, Default:* on.

Turns on or off the screen user interface for adjusting the Wipe Amount parameter.

Show Shift: *Check-box, Default:* on.

Turns on or off the screen user interface widget for adjusting the Shift parameter, which translates the cells pattern.

See Also:

[WipeLine](#)

[WipeCircle](#)

[WipeRectangle](#)

[WipeStar](#)

[WipeClock](#)

[WipeWedge](#)

[WipeDoubleWedge](#)

[WipeFourWedges](#)

[WipeDots](#)

[WipeChecker](#)

[WipeStripes](#)

[WipeRings](#)

[WipeBlobs](#)

[WipeTiles](#)

[WipePixelate](#)

[WipeDiffuse](#)

[WipeBubble](#)

[WipeClouds](#)

[SwishPan](#)

[TextureCells](#)

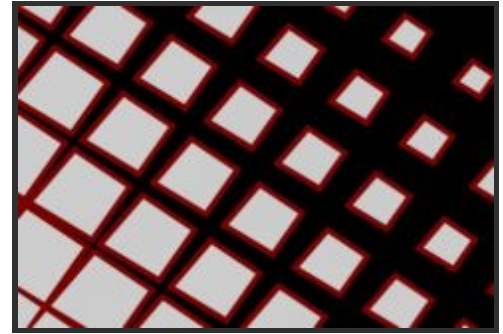
[Sapphire Plug-ins](#)

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S_WipeChecker

Performs a wipe transition between two input clips using a grid of growing or shrinking checkers. The Wipe Amount parameter should be animated to control the transition speed. Increase the Grad Add parameter to make the timing of the checker pattern move across the screen during the wipe. Increase the Border Width parameter to draw a border at the wipe transition edges.

In the Sapphire Transitions effects submenu.



Inputs:

From: Starts the transition with this clip.

To: Ends the transition with this clip.

Parameters:

Wipe Amount: *Default:* 0, *Range:* -0.5 to 1.5.

Determines the transition ratio between the From and To inputs, and would normally be animated from 0 to 1 to perform a complete transition. The curve controlling this parameter can be adjusted for more detailed control over the timing of the wipe.

Checkers: *Popup menu, Default:* Grow.

The direction of the checkers transition.

Shrink: the squares start large and shrink inwards.

Grow: the squares start small and grow outwards.

Edge Softness: *Default:* 0, *Range:* 0 or greater.

The width of the transition edges. Larger values will cause softer, less visible edges in the wipe pattern.

Angle: *Default:* 45, *Range:* any.

The rotation of the overall checker pattern used for the wipe, in counter-clockwise degrees.

Frequency: *Default:* 6, *Range:* 0.1 or greater.

The frequency of the checker pattern. Increase for more and smaller checker, or decrease for fewer and larger.

Rel Width: *Default:* 1, *Range:* 0.1 or greater.

The relative horizontal size of the checkers. Increase for wider checkers, decrease for taller ones.

Rel Wid Pre Rot: *Default:* 1, *Range:* 0.1 or greater.

The relative size of the checkers in the direction of the current rotation angle. If the Angle parameter is zero this will have the same effect as Rel Width.

Shift: *X & Y, Default:* [0 0], *Range:* any.

Translation of the checker pattern.

Grad Add: *Default:* 0, *Range:* -10 to 10.

If positive, a gradient will be added to the timing of the transition pattern so it moves across the screen during the wipe. This parameter can be adjusted using the Wipe Widget if enabled, but the value must be positive to make this widget visible.

Grad Angle: *Default: 0, Range: any.*

The direction of the wipe gradient in counter-clockwise degrees. This will have no effect unless Grad Add is positive. The Wipe Widget also allows adjusting this parameter.

Border Width: *Default: 0, Range: 0 or greater.*

If positive, a colored border is drawn at the wipe transition edges, using the border color, opacity, softness, and shift parameters below.

Border Color: *Default rgb: [0.75 0 0].*

The color of the border. This has no effect unless Border Width is positive.

Border Opacity: *Default: 1, Range: 0 to 1.*

The opacity of the border. Decrease to make the border transparent and allow the image under it to show through. This has no effect unless Border Width is positive.

Border Softness: *Default: 0, Range: 0 or greater.*

The softness of the border edges. This has no effect unless Border Width is positive.

Border Shift: *Default: 0, Range: any.*

Shifts the border ahead of or behind the transition edge. This has no effect unless Border Width is positive.

Show Wipe: *Check-box, Default: on.*

Turns on or off the screen user interface for adjusting the Wipe Amount parameter.

Show Shift: *Check-box, Default: on.*

Turns on or off the screen user interface widget for adjusting the Shift parameter, which translates the checker pattern.

See Also:

[WipeLine](#)

[WipeCircle](#)

[WipeRectangle](#)

[WipeStar](#)

[WipeClock](#)

[WipeWedge](#)

[WipeDoubleWedge](#)

[WipeFourWedges](#)

[WipeDots](#)

[WipeStripes](#)

[WipeRings](#)

[WipeBlobs](#)

[WipeCells](#)

[WipeTiles](#)

[WipePixelate](#)

[WipeDiffuse](#)

[WipeBubble](#)

[WipeClouds](#)

[SwishPan](#)

[Grid](#)

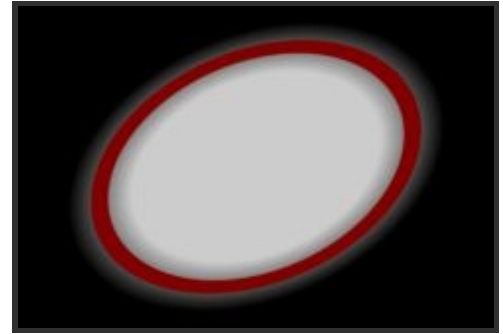
[Sapphire Plug-ins](#)

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S_WipeCircle

Performs a wipe transition between two input clips using a growing or shrinking circle. The Wipe Amount parameter should be animated to control the transition speed. Increase the Border Width parameter to draw a border at the wipe transition edges.

In the Sapphire Transitions effects submenu.



Inputs:

From: Starts the transition with this clip.

To: Ends the transition with this clip.

Parameters:

Wipe Amount: *Default:* 0, *Range:* -0.5 to 1.5.

Determines the transition ratio between the From and To inputs, and would normally be animated from 0 to 1 to perform a complete transition. The curve controlling this parameter can be adjusted for more detailed control over the timing of the wipe.

Wipe Direction: *Popup menu, Default:* Circle In.

The direction of the circle wipe.

Circle In: the circle contains the first image and shrinks inwards.

Circle Out: the circle contains the second image and grows outwards.

Edge Softness: *Default:* 0, *Range:* 0 or greater.

The width of the transition edges. Larger values will cause softer, less visible edges in the wipe pattern.

Rel Width: *Default:* 1, *Range:* 0.1 or greater.

The relative width of the 'circle' shape. Increase to make a wider oval, decrease to make a taller one.

Rotate: *Default:* 0, *Range:* any.

The rotation angle of the 'circle' in counter-clockwise degrees. This has no effect if the Rel Width parameter is 1.0.

Center: *X & Y, Default:* [360 243], *Range:* any.

The location of the circle center in screen coordinates relative to the center of the frame. This parameter can be set by enabling and moving the Center Widget. Note that moving the circle center can also cause the circle size to change so that the current value of Wipe Amt remains correct.

Border Width: *Default:* 0, *Range:* 0 or greater.

If positive, a colored border is drawn at the wipe transition edges, using the border color, opacity, softness, and shift parameters below.

Border Color: *Default rgb:* [0.75 0 0].

The color of the border. This has no effect unless Border Width is positive.

Border Opacity: *Default:* 1, *Range:* 0 to 1.

The opacity of the border. Decrease to make the border transparent and allow the image under it to show through. This has no effect unless Border Width is positive.

Border Softness: *Default:* 0, *Range:* 0 or greater.

The softness of the border edges. This has no effect unless Border Width is positive.

Border Shift: *Default:* 0, *Range:* any.

Shifts the border ahead of or behind the transition edge. This has no effect unless Border Width is positive.

Show Center: *Check-box, Default:* on.

Turns on or off the screen user interface for adjusting the Center parameter.

See Also:

[WipeLine](#)

[WipeRectangle](#)

[WipeStar](#)

[WipeClock](#)

[WipeWedge](#)

[WipeDoubleWedge](#)

[WipeFourWedges](#)

[WipeDots](#)

[WipeChecker](#)

[WipeStripes](#)

[WipeRings](#)

[WipeBlobs](#)

[WipeCells](#)

[WipeTiles](#)

[WipePixelate](#)

[WipeDiffuse](#)

[WipeBubble](#)

[WipeClouds](#)

[SwishPan](#)

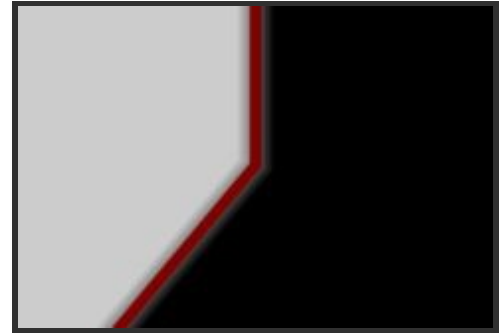
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S_WipeClock

Performs a clock wipe transition between two input clips. The Wipe Amount parameter should be animated to control the transition speed. Increase the Border Width parameter to draw a border at the wipe transition edges.

In the Sapphire Transitions effects submenu.



Inputs:

From: Starts the transition with this clip.

To: Ends the transition with this clip.

Parameters:

Wipe Amount: *Default:* 0, *Range:* -0.5 to 1.5.

Determines the transition ratio between the From and To inputs, and would normally be animated from 0 to 1 to perform a complete transition. The curve controlling this parameter can be adjusted for more detailed control over the timing of the wipe.

Direction: *Popup menu, Default:* Clockwise.

Selects the direction of the edge rotation.

Clockwise: wipes with an edge rotating clockwise.

CounterCW: wipes with an edge rotating counter clockwise.

Edge Softness: *Default:* 0, *Range:* 0 or greater.

The width of the transition edges. Larger values will cause softer, less visible edges in the wipe pattern.

Angle Open: *Default:* 0, *Range:* any.

The angle in degrees at which the wipe opens at the start.

Angle Close: *Default:* 0, *Range:* any.

The angle in degrees at which the wipe closes at the finish. If Angle Open and Close are not equal, both edges will rotate. For example for a double edged clock wipe set Angle Close to 180.

Center: *X & Y, Default:* [360 243], *Range:* any.

The location of the clock center in screen coordinates relative to the center of the frame. This parameter can be set by enabling and moving the Center Widget.

Border Width: *Default:* 0, *Range:* 0 or greater.

If positive, a colored border is drawn at the wipe transition edges, using the border color, opacity, softness, and shift parameters below.

Border Color: *Default rgb:* [0.75 0 0].

The color of the border. This has no effect unless Border Width is positive.

Border Opacity: *Default:* 1, *Range:* 0 to 1.

The opacity of the border. Decrease to make the border transparent and allow the image under it to show through. This has no effect unless Border Width is positive.

Border Softness: *Default:* 0, *Range:* 0 or greater.

The softness of the border edges. This has no effect unless Border Width is positive.

Border Shift: *Default:* 0, *Range:* any.

Shifts the border ahead of or behind the transition edge. This has no effect unless Border Width is positive. For the clock wipe pattern, the shift amount is limited to within the area of Edge Softness.

Show Center: *Check-box, Default:* on.

Turns on or off the screen user interface for adjusting the Center parameter.

See Also:

[WipeLine](#)

[WipeCircle](#)

[WipeRectangle](#)

[WipeStar](#)

[WipeWedge](#)

[WipeDoubleWedge](#)

[WipeFourWedges](#)

[WipeDots](#)

[WipeChecker](#)

[WipeStripes](#)

[WipeRings](#)

[WipeBlobs](#)

[WipeCells](#)

[WipeTiles](#)

[WipePixelate](#)

[WipeDiffuse](#)

[WipeBubble](#)

[WipeClouds](#)

[SwishPan](#)

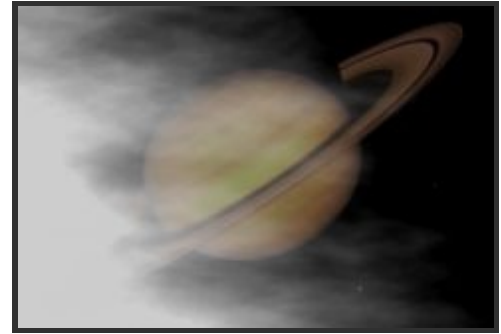
[Sapphire Plug-ins](#)

[Introduction](#)

S_WipeClouds

Transitions from the first clip to the second using a moving cloud texture. The Wipe Amount parameter should be animated to control the transition speed.

In the Sapphire Transitions effects submenu.



Inputs:

From: Starts the transition with this clip.

To: Ends the transition with this clip.

Parameters:

Wipe Amount: *Default:* 0, *Range:* -0.5 to 1.5.

Determines the transition ratio between the From and To inputs, and would normally be animated from 0 to 1 to perform a complete transition. The curve controlling this parameter can be adjusted for more detailed control over the timing of the wipe.

Frequency: *Default:* 2, *Range:* 0.1 or greater.

The frequency of the clouds pattern. Increase for more and smaller clouds, or decrease for fewer and larger.

Frequency Rel X: *Default:* 0.4, *Range:* 0.01 or greater.

The relative horizontal frequency of the texture. Increase to stretch it vertically or decrease to stretch it horizontally.

Octaves: *Integer, Default:* 8, *Range:* 1 to 10.

The number of summed layers of noise. Each octave is twice the frequency and half the amplitude of the previous. A single octave gives a smooth texture. Adding octaves makes the result approach a fractal (1/f) noise texture.

Seed: *Default:* 0.23, *Range:* 0 or greater.

Used to initialize the random number generator. The actual seed value is not significant, but different seeds give different results and the same value should give a repeatable result.

Shift Start: *X & Y, Default:* [0 0], *Range:* any.

Translation offset of the texture. Since the texture is procedurally generated it can be shifted with no repeating units or seams occurring.

Shift Speed: *X & Y, Default:* [2 0], *Range:* any.

Translation speed of the texture. If non-zero, the result is automatically animated to shift at this rate. The result of animated Speed values may not be intuitive, so for variable speed motion it is usually best to set this to 0 and animate the Shift Start values instead.

Grad Add: *Default:* 0, *Range:* -10 to 10.

If positive, a gradient will be added to the timing of the transition pattern so it moves across the screen during the wipe. This parameter can be adjusted using the Wipe Widget if enabled, but the value must be positive to make this widget visible.

Grad Angle: *Default:* 0, *Range:* any.

The direction of the wipe gradient in counter-clockwise degrees. This will have no effect unless Grad Add is positive. The Wipe Widget also allows adjusting this parameter.

Show Wipe: *Check-box, Default: on.*

Turns on or off the screen user interface for adjusting the Wipe Amount parameter.

Show Shift Start: *Check-box, Default: on.*

Turns on or off the screen user interface for adjusting the Shift Start parameter.

See Also:

[WipeLine](#)

[WipeCircle](#)

[WipeRectangle](#)

[WipeStar](#)

[WipeClock](#)

[WipeWedge](#)

[WipeDoubleWedge](#)

[WipeFourWedges](#)

[WipeDots](#)

[WipeChecker](#)

[WipeStripes](#)

[WipeRings](#)

[WipeBlobs](#)

[WipeCells](#)

[WipeTiles](#)

[WipePixelate](#)

[WipeDiffuse](#)

[WipeBubble](#)

[SwishPan](#)

[Clouds](#)

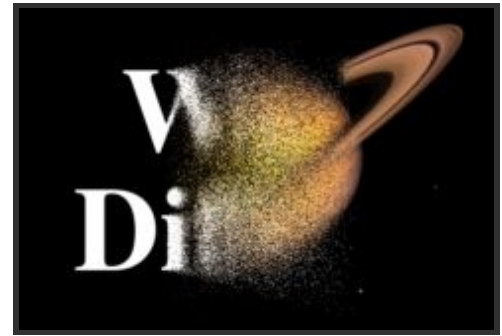
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S_WipeDiffuse

Wipes between two input clips with a pixel-diffusion process performed within the transition area. The Wipe Amount parameter should be animated to control the transition speed. The pixelated look of this effect depends on the image resolution, so it is recommended to test your final resolution before processing.

In the Sapphire Transitions effects submenu.



Inputs:

From: Starts the transition with this clip.

To: Ends the transition with this clip.

Parameters:

Wipe Amount: *Default: 0, Range: -0.5 to 1.5.*

Determines the transition ratio between the From and To inputs, and would normally be animated from 0 to 1 to perform a complete transition. The curve controlling this parameter can be adjusted for more detailed control over the timing of the wipe.

Edge Width: *Default: 1.4, Range: 0.014 or greater.*

The width of the transition area. This can be adjusted using the Wipe Widget.

Angle: *Default: 0, Range: any.*

The angle of the wipe direction in counter-clockwise degrees from the right. This can be adjusted using the Wipe Widget.

Diffuse Amount: *Default: 0.2, Range: 0 or greater.*

The magnitude of the pixel diffusion.

Crop Input Parameters: *Default: 0, Range: 0 or greater.*

These 4 parameters, **Crop Top**, **Crop Bottom**, **Crop Left**, and **Crop Right**, allow selecting a rectangular subsection of the input image to be processed. If the Wrap parameters are set to "No" the exposed borders will be transparent. If the Wrap is "Tile" or "Reflect" the source image is wrapped on the new cropped borders to fill the frame. This can make it easier to avoid artifacts due to distorting an image with bad edges.

Show Wipe: *Check-box, Default: on.*

Turns on or off the screen user interface widget for adjusting the Wipe Amt, Angle, and Edge Width parameters.

See Also:

[WipeLine](#)

[WipeCircle](#)

[WipeRectangle](#)

[WipeStar](#)

[WipeClock](#)

[WipeWedge](#)

[WipeDoubleWedge](#)

[WipeFourWedges](#)

[Diffuse](#)

[DissolveDiffuse](#)

[Sapphire](#)

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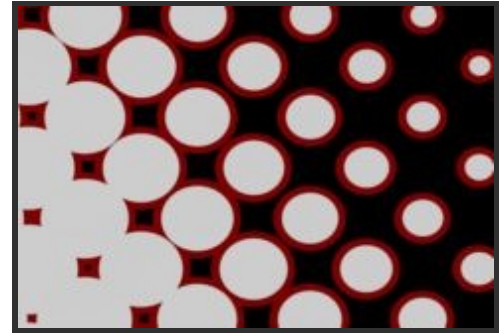
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WipeDots
WipeChecker
WipeStripes
WipeRings
WipeBlobs
WipeCells
WipeTiles
WipePixelate
WipeBubble
WipeClouds
SwishPan

S_WipeDots

Performs a wipe transition between two input clips using a grid of growing or shrinking dots. The Wipe Amount parameter should be animated to control the transition speed. Increase the Grad Add parameter to make the timing of the dots pattern move across the screen during the wipe. Increase the Border Width parameter to draw a border at the wipe transition edges.

In the Sapphire Transitions effects submenu.



Inputs:

From: Starts the transition with this clip.

To: Ends the transition with this clip.

Parameters:

Wipe Amount: *Default: 0, Range: -0.5 to 1.5.*

Determines the transition ratio between the From and To inputs, and would normally be animated from 0 to 1 to perform a complete transition. The curve controlling this parameter can be adjusted for more detailed control over the timing of the wipe.

Dots: *Popup menu, Default: Grow.*

The direction of the dots transition.

Shrink: the dots start large and shrink inwards.

Grow: the dots start small and grow outwards.

Edge Softness: *Default: 0, Range: 0 or greater.*

The width of the transition edges. Larger values will cause softer, less visible edges in the wipe pattern.

Angle: *Default: 45, Range: any.*

The rotation of the overall dots pattern used for the wipe, in counter-clockwise degrees.

Frequency: *Default: 6, Range: 0.1 or greater.*

The frequency of the dots pattern. Increase for more and smaller dots, or decrease for fewer and larger.

Rel Width: *Default: 1, Range: 0.1 or greater.*

The relative horizontal size of the dots. Increase for wider dots, decrease for taller ones.

Rel Wid Pre Rot: *Default: 1, Range: 0.1 or greater.*

The relative size of the dots in the direction of the current rotation angle. If the Angle parameter is zero this will have the same effect as Rel Width.

Shift: *X & Y, Default: [0 0], Range: any.*

Translation of the dots pattern.

Grad Add: *Default: 0, Range: -10 to 10.*

If positive, a gradient will be added to the timing of the transition pattern so it moves across the screen during the wipe. This parameter can be adjusted using the Wipe Widget if enabled, but the value must be positive to make this widget visible.

Grad Angle: *Default: 0, Range: any.*

The direction of the wipe gradient in counter-clockwise degrees. This will have no effect unless Grad Add is positive. The Wipe Widget also allows adjusting this parameter.

Border Width: *Default: 0, Range: 0 or greater.*

If positive, a colored border is drawn at the wipe transition edges, using the border color, opacity, softness, and shift parameters below.

Border Color: *Default rgb: [0.75 0 0].*

The color of the border. This has no effect unless Border Width is positive.

Border Opacity: *Default: 1, Range: 0 to 1.*

The opacity of the border. Decrease to make the border transparent and allow the image under it to show through. This has no effect unless Border Width is positive.

Border Softness: *Default: 0, Range: 0 or greater.*

The softness of the border edges. This has no effect unless Border Width is positive.

Border Shift: *Default: 0, Range: any.*

Shifts the border ahead of or behind the transition edge. This has no effect unless Border Width is positive.

Show Wipe: *Check-box, Default: on.*

Turns on or off the screen user interface for adjusting the Wipe Amount parameter.

Show Shift: *Check-box, Default: on.*

Turns on or off the screen user interface widget for adjusting the Shift parameter, which translates the dots pattern.

See Also:

[WipeLine](#)

[WipeCircle](#)

[WipeRectangle](#)

[WipeStar](#)

[WipeClock](#)

[WipeWedge](#)

[WipeDoubleWedge](#)

[WipeFourWedges](#)

[WipeChecker](#)

[WipeStripes](#)

[WipeRings](#)

[WipeBlobs](#)

[WipeCells](#)

[WipeTiles](#)

[WipePixelate](#)

[WipeDiffuse](#)

[WipeBubble](#)

[WipeClouds](#)

[SwishPan](#)

[HalfTone](#)

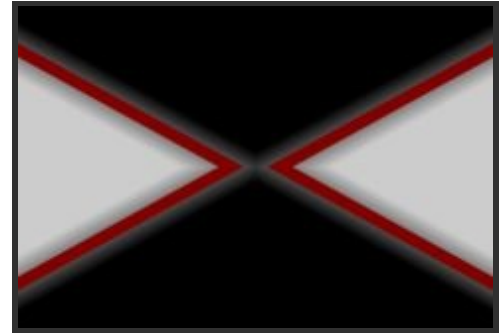
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S_WipeDoubleWedge

Performs a wipe transition between two input clips using two wedge shapes. The Wipe Amount parameter should be animated to control the transition speed. Increase the Border Width parameter to draw a border at the wipe transition edges.

In the Sapphire Transitions effects submenu.



Inputs:

From: Starts the transition with this clip.

To: Ends the transition with this clip.

Parameters:

Wipe Amount: *Default:* 0, *Range:* -0.5 to 1.5.

Determines the transition ratio between the From and To inputs, and would normally be animated from 0 to 1 to perform a complete transition. The curve controlling this parameter can be adjusted for more detailed control over the timing of the wipe.

Wipe Direction: *Popup menu, Default:* Wedge In.

Selects the direction of the motion of the wedges.

Wedge In: the wedge contains the first image and shrinks inwards.

Wedge Out: the wedge contains the second image and grows outwards.

Edge Softness: *Default:* 0, *Range:* 0 or greater.

The width of the transition edges. Larger values will cause softer, less visible edges in the wipe pattern.

Angle: *Default:* 0, *Range:* any.

The rotation angle of the wedge shapes in counter-clockwise degrees.

Pointiness: *Default:* 2, *Range:* 0 or greater.

The sharpness of the point of the wedges.

Border Width: *Default:* 0, *Range:* 0 or greater.

If positive, a colored border is drawn at the wipe transition edges, using the border color, opacity, softness, and shift parameters below.

Border Color: *Default rgb:* [0.75 0 0].

The color of the border. This has no effect unless Border Width is positive.

Border Opacity: *Default:* 1, *Range:* 0 to 1.

The opacity of the border. Decrease to make the border transparent and allow the image under it to show through. This has no effect unless Border Width is positive.

Border Softness: *Default:* 0, *Range:* 0 or greater.

The softness of the border edges. This has no effect unless Border Width is positive.

Border Shift: *Default:* 0, *Range:* any.

Shifts the border ahead of or behind the transition edge. This has no effect unless Border Width is positive.

Show Angle: *Check-box, Default: off.*

Turns on or off the screen user interface for adjusting the Angle parameter.

See Also:

[WipeLine](#)

[WipeCircle](#)

[WipeRectangle](#)

[WipeStar](#)

[WipeClock](#)

[WipeWedge](#)

[WipeFourWedges](#)

[WipeDots](#)

[WipeChecker](#)

[WipeStripes](#)

[WipeRings](#)

[WipeBlobs](#)

[WipeCells](#)

[WipeTiles](#)

[WipePixelate](#)

[WipeDiffuse](#)

[WipeBubble](#)

[WipeClouds](#)

[SwishPan](#)

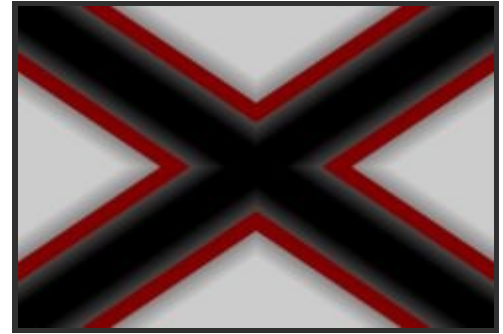
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S_WipeFourWedges

Performs a wipe transition between two input clips using a pattern of four wedges merging into an 'X' shape. The Wipe Amount parameter should be animated to control the transition speed. Increase the Border Width parameter to draw a border at the wipe transition edges.

In the Sapphire Transitions effects submenu.



Inputs:

From: Starts the transition with this clip.

To: Ends the transition with this clip.

Parameters:

Wipe Amount: *Default:* 0, *Range:* -0.5 to 1.5.

Determines the transition ratio between the From and To inputs, and would normally be animated from 0 to 1 to perform a complete transition. The curve controlling this parameter can be adjusted for more detailed control over the timing of the wipe.

Wipe Direction: *Popup menu, Default:* Wedge In.

Selects the direction of motion of the wedges.

Wedge In: the wedges contains the first image and shrinks inwards.

Wedge Out: the wedges contains the second image and grows outwards.

Edge Softness: *Default:* 0, *Range:* 0 or greater.

The width of the transition edges. Larger values will cause softer, less visible edges in the wipe pattern.

Angle: *Default:* 0, *Range:* any.

The rotation angle in counter-clockwise degrees of the wedge pattern.

Aspect Scale: *Default:* 1, *Range:* 0.01 or greater.

Scales the aspect ratio of the wedge pattern. Increase to stretch the shapes in the horizontal direction.

Border Width: *Default:* 0, *Range:* 0 or greater.

If positive, a colored border is drawn at the wipe transition edges, using the border color, opacity, softness, and shift parameters below.

Border Color: *Default rgb:* [0.75 0 0].

The color of the border. This has no effect unless Border Width is positive.

Border Opacity: *Default:* 1, *Range:* 0 to 1.

The opacity of the border. Decrease to make the border transparent and allow the image under it to show through. This has no effect unless Border Width is positive.

Border Softness: *Default:* 0, *Range:* 0 or greater.

The softness of the border edges. This has no effect unless Border Width is positive.

Border Shift: *Default:* 0, *Range:* any.

Shifts the border ahead of or behind the transition edge. This has no effect unless Border Width is positive.

Show Angle: *Check-box, Default: off.*

Turns on or off the screen user interface for adjusting the Angle parameter.

See Also:

[WipeLine](#)

[WipeCircle](#)

[WipeRectangle](#)

[WipeStar](#)

[WipeClock](#)

[WipeWedge](#)

[WipeDoubleWedge](#)

[WipeDots](#)

[WipeChecker](#)

[WipeStripes](#)

[WipeRings](#)

[WipeBlobs](#)

[WipeCells](#)

[WipeTiles](#)

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[WipeDiffuse](#)

[WipeBubble](#)

[WipeClouds](#)

[SwishPan](#)

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S_WipeLine

Performs a simple line wipe transition between two input clips. The Wipe Amount parameter should be animated to control the transition speed. Increase the Border Width parameter to draw a border at the wipe transition edges.

In the Sapphire Transitions effects submenu.



Inputs:

From: Starts the transition with this clip.

To: Ends the transition with this clip.

Parameters:

Wipe Amount: *Default:* 0, *Range:* -0.5 to 1.5.

Determines the transition ratio between the From and To inputs, and would normally be animated from 0 to 1 to perform a complete transition. The curve controlling this parameter can be adjusted for more detailed control over the timing of the wipe.

Edge Softness: *Default:* 0, *Range:* 0 or greater.

The width of the transition edges. Larger values will cause softer, less visible edges in the wipe pattern.

Angle: *Default:* -45, *Range:* any.

The angle of the wipe direction in degrees. Use 0 for a wipe from left to right, 90 or -90 for a vertical wipe, 180 for a wipe from right to left.

Border Width: *Default:* 0, *Range:* 0 or greater.

If positive, a colored border is drawn at the wipe transition edges, using the border color, opacity, softness, and shift parameters below.

Border Color: *Default rgb:* [0.75 0 0].

The color of the border. This has no effect unless Border Width is positive.

Border Opacity: *Default:* 1, *Range:* 0 to 1.

The opacity of the border. Decrease to make the border transparent and allow the image under it to show through. This has no effect unless Border Width is positive.

Border Softness: *Default:* 0, *Range:* 0 or greater.

The softness of the border edges. This has no effect unless Border Width is positive.

Border Shift: *Default:* 0, *Range:* any.

Shifts the border ahead of or behind the transition edge. This has no effect unless Border Width is positive.

Show Wipe: *Check-box, Default:* on.

Turns on or off the screen user interface widget for adjusting the Wipe Amt, Angle, and Edge Softness parameters.

See Also:

[WipeCircle](#)
[WipeRectangle](#)
[WipeStar](#)
[WipeClock](#)
[WipeWedge](#)
[WipeDoubleWedge](#)
[WipeFourWedges](#)
[WipeDots](#)
[WipeChecker](#)
[WipeStripes](#)
[WipeRings](#)
[WipeBlobs](#)
[WipeCells](#)
[WipeTiles](#)
[WipePixelate](#)
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[WipeClouds](#)
[SwishPan](#)

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S_WipePixelate

Transitions between two input clips by adding blocks of pixels of one clip onto another in a semi-random order. The Wipe Amount parameter should be animated to control the transition speed. Adjust the Edge Width and Chunky parameters for different pixelated patterns.

In the Sapphire Transitions effects submenu.



Inputs:

From: Starts the transition with this clip.

To: Ends the transition with this clip.

Parameters:

Wipe Amount: *Default:* 0, *Range:* -0.5 to 1.5.

Determines the transition ratio between the From and To inputs, and would normally be animated from 0 to 1 to perform a complete transition. The curve controlling this parameter can be adjusted for more detailed control over the timing of the wipe.

Edge Width: *Default:* 1, *Range:* 0.014 or greater.

The width of the transition area.

Angle: *Default:* 0, *Range:* any.

The angle of the wipe direction in degrees. Use 0 for a wipe from left to right, 90 or -90 for a vertical wipe, 180 for a wipe from right to left.

Pixel Frequency: *Default:* 20, *Range:* 0.1 or greater.

Increase for smaller and more pixels, decrease for fewer and larger pixels.

Pixel Rel Width: *Default:* 1, *Range:* 0.01 or greater.

The relative horizontal size of the pixels. Increase for wide pixels, decrease for tall ones.

Chunky: *Default:* 0, *Range:* 0 or greater.

Increase to cause the pixels to be added with a more clustered ordering.

Seed: *Default:* 0.23, *Range:* 0 or greater.

Used to initialize the random number generator. The actual seed value is not significant, but different seeds give different results and the same value should give a repeatable result.

Show Wipe: *Check-box, Default:* on.

Turns on or off the screen user interface for adjusting the Wipe Amount parameter.

See Also:

[WipeLine](#)

[WipeCircle](#)

[WipeRectangle](#)

[WipeStar](#)

[WipeClock](#)

[Mosaic](#)

[Sapphire Plug-ins](#)

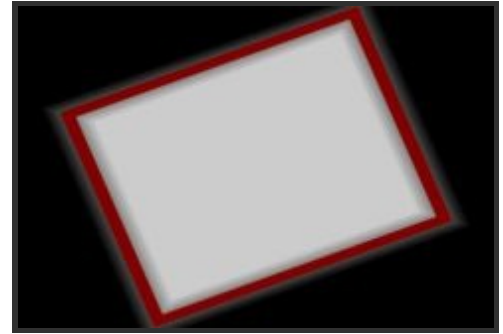
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WipeWedge
WipeDoubleWedge
WipeFourWedges
WipeDots
WipeChecker
WipeStripes
WipeRings
WipeBlobs
WipeCells
WipeTiles
WipeDiffuse
WipeBubble
WipeClouds
SwishPan

S_WipeRectangle

Performs a wipe transition between two input clips using a growing or shrinking rectangle. The Wipe Amount parameter should be animated to control the transition speed. Increase the Border Width parameter to draw a border at the wipe transition edges.

In the Sapphire Transitions effects submenu.



Inputs:

From: Starts the transition with this clip.

To: Ends the transition with this clip.

Parameters:

Wipe Amount: *Default:* 0, *Range:* -0.5 to 1.5.

Determines the transition ratio between the From and To inputs, and would normally be animated from 0 to 1 to perform a complete transition. The curve controlling this parameter can be adjusted for more detailed control over the timing of the wipe.

Wipe Direction: *Popup menu, Default:* Rect In.

The direction of the rectangle wipe.

Rect In: the rectangle contains the first image and shrinks inwards.

Rect Out: the rectangle contains the second image and grows outwards.

Edge Softness: *Default:* 0, *Range:* 0 or greater.

The width of the transition edges. Larger values will cause softer, less visible edges in the wipe pattern.

Angle: *Default:* 0, *Range:* any.

The rotation angle of the rectangle in counter-clockwise degrees.

Rel Width: *Default:* 1.25, *Range:* 0.1 or greater.

The relative width of the rectangle. Increase to make wider, decrease to make thinner.

Center: *X & Y, Default:* [360 243], *Range:* any.

The location of the rectangle center in screen coordinates relative to the center of the frame. This parameter can be set by enabling and moving the Center Widget. Note that moving the rectangle center can also cause the rectangle size to change so that the current value of Wipe Amt remains correct.

Border Width: *Default:* 0, *Range:* 0 or greater.

If positive, a colored border is drawn at the wipe transition edges, using the border color, opacity, softness, and shift parameters below.

Border Color: *Default rgb:* [0.75 0 0].

The color of the border. This has no effect unless Border Width is positive.

Border Opacity: *Default:* 1, *Range:* 0 to 1.

The opacity of the border. Decrease to make the border transparent and allow the image under it to show through. This has no effect unless Border Width is positive.

Border Softness: *Default: 0, Range: 0 or greater.*

The softness of the border edges. This has no effect unless Border Width is positive.

Border Shift: *Default: 0, Range: any.*

Shifts the border ahead of or behind the transition edge. This has no effect unless Border Width is positive.

Show Angle: *Check-box, Default: off.*

Turns on or off the screen user interface for adjusting the Angle parameter.

Show Center: *Check-box, Default: on.*

Turns on or off the screen user interface for adjusting the Center parameter.

See Also:

[WipeLine](#)

[WipeCircle](#)

[WipeStar](#)

[WipeClock](#)

[WipeWedge](#)

[WipeDoubleWedge](#)

[WipeFourWedges](#)

[WipeDots](#)

[WipeChecker](#)

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S_WipeRings

Performs a wipe transition between two input clips using a pattern of concentric rings. The Wipe Amount parameter should be animated to control the transition speed. Increase the Grad Add parameter to make the timing of the rings pattern move across the screen during the wipe. Increase the Border Width parameter to draw a border at the wipe transition edges.

In the Sapphire Transitions effects submenu.



Inputs:

From: Starts the transition with this clip.

To: Ends the transition with this clip.

Parameters:

Wipe Amount: *Default:* 0, *Range:* -0.5 to 1.5.

Determines the transition ratio between the From and To inputs, and would normally be animated from 0 to 1 to perform a complete transition. The curve controlling this parameter can be adjusted for more detailed control over the timing of the wipe.

Edge Softness: *Default:* 0, *Range:* 0 or greater.

The width of the transition edges. Larger values will cause softer, less visible edges in the wipe pattern.

Frequency: *Default:* 4, *Range:* 0.1 or greater.

The frequency of the rings pattern. Increase for more and smaller rings, or decrease for fewer and larger.

Rel Width: *Default:* 1, *Range:* 0.1 or greater.

The relative horizontal size of the rings. Increase for wider rings, decrease for taller ones.

Shift Stripes: *Default:* 0, *Range:* -5 to 5.

Translation of the stripe pattern.

Center: *X & Y, Default:* [360 243], *Range:* any.

The center location of the ring pattern.

Bulge: *Default:* 0, *Range:* -1 to 1.

Increase to make the inner rings thicker than the outer rings, or set negative to make the outer rings thicker.

Rotate: *Default:* 0, *Range:* any.

The rotation angle of the ring pattern in counter-clockwise degrees. Note that you will not notice any rotation when the Rel Width value is 1.

Grad Add: *Default:* 0, *Range:* -10 to 10.

If positive, a gradient will be added to the timing of the transition pattern so it moves across the screen during the wipe. This parameter can be adjusted using the Wipe Widget if enabled, but the value must be positive to make this widget visible.

Grad Angle: *Default:* 0, *Range:* any.

The direction of the wipe gradient in counter-clockwise degrees. This will have no effect unless Grad Add is positive. The Wipe Widget also allows adjusting this parameter.

Radial Grad: *Default: 0, Range: any.*

If non-zero, a radial gradient will be added to the timing of the rings pattern so it moves outwards from the center during the wipe. If negative, it moves inwards towards the center.

Border Width: *Default: 0, Range: 0 or greater.*

If positive, a colored border is drawn at the wipe transition edges, using the border color, opacity, softness, and shift parameters below.

Border Color: *Default rgb: [0.75 0 0].*

The color of the border. This has no effect unless Border Width is positive.

Border Opacity: *Default: 1, Range: 0 to 1.*

The opacity of the border. Decrease to make the border transparent and allow the image under it to show through. This has no effect unless Border Width is positive.

Border Softness: *Default: 0, Range: 0 or greater.*

The softness of the border edges. This has no effect unless Border Width is positive.

Border Shift: *Default: 0, Range: any.*

Shifts the border ahead of or behind the transition edge. This has no effect unless Border Width is positive.

Show Wipe: *Check-box, Default: on.*

Turns on or off the screen user interface for adjusting the Wipe Amount parameter.

Show Center: *Check-box, Default: on.*

Turns on or off the screen user interface for adjusting the Center parameter.

See Also:

[WipeLine](#)

[WipeCircle](#)

[WipeRectangle](#)

[WipeStar](#)

[WipeClock](#)

[WipeWedge](#)

[WipeDoubleWedge](#)

[WipeFourWedges](#)

[WipeDots](#)

[WipeChecker](#)

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S_WipeStar

Performs a wipe transition between two input clips using a star shape. The Wipe Amount parameter should be animated to control the transition speed. Increase the Border Width parameter to draw a border at the wipe transition edges.

In the Sapphire Transitions effects submenu.



Inputs:

From: Starts the transition with this clip.

To: Ends the transition with this clip.

Parameters:

Wipe Amount: *Default: 0, Range: -0.5 to 1.5.*

Determines the transition ratio between the From and To inputs, and would normally be animated from 0 to 1 to perform a complete transition. The curve controlling this parameter can be adjusted for more detailed control over the timing of the wipe.

Wipe Direction: *Popup menu, Default: Star In.*

The direction of the star wipe.

Star In: the star contains the first image and shrinks inwards.

Star Out: the star contains the second image and grows outwards.

Edge Softness: *Default: 0, Range: 0 or greater.*

The width of the transition edges. Larger values will cause softer, less visible edges in the wipe pattern.

Points: *Integer, Default: 5, Range: 3 or greater.*

The number of points in the star.

Pointiness: *Default: 1.1, Range: 0 or greater.*

The pointiness of the star. Increase for sharp spikes, decrease for more regular polygonal shapes.

Angle: *Default: 0, Range: any.*

The rotation angle of the star in counter-clockwise degrees.

Rel Width: *Default: 1, Range: 0.1 or greater.*

The relative horizontal size of the star. Increase for wider star, decrease for taller ones.

Center: *X & Y, Default: [360 243], Range: any.*

The location of the star center in screen coordinates relative to the center of the frame. This parameter can be set by enabling and moving the Center Widget. Note that moving the star center can also cause the star size to change so that the current value of Wipe Amt remains correct.

Border Width: *Default: 0, Range: 0 or greater.*

If positive, a colored border is drawn at the wipe transition edges, using the border color, opacity, softness, and shift parameters below.

Border Color: *Default rgb: [0.75 0 0].*

The color of the border. This has no effect unless Border Width is positive.

Border Opacity: *Default: 1, Range: 0 to 1.*

The opacity of the border. Decrease to make the border transparent and allow the image under it to show through. This has no effect unless Border Width is positive.

Border Softness: *Default: 0, Range: 0 or greater.*

The softness of the border edges. This has no effect unless Border Width is positive.

Border Shift: *Default: 0, Range: any.*

Shifts the border ahead of or behind the transition edge. This has no effect unless Border Width is positive.

Show Angle: *Check-box, Default: off.*

Turns on or off the screen user interface for adjusting the Angle parameter.

Show Center: *Check-box, Default: on.*

Turns on or off the screen user interface for adjusting the Center parameter.

See Also:

[WipeLine](#)

[WipeCircle](#)

[WipeRectangle](#)

[WipeClock](#)

[WipeWedge](#)

[WipeDoubleWedge](#)

[WipeFourWedges](#)

[WipeDots](#)

[WipeChecker](#)

[WipeStripes](#)

[WipeRings](#)

[WipeBlobs](#)

[WipeCells](#)

[WipeTiles](#)

[WipePixelate](#)

[WipeDiffuse](#)

[WipeBubble](#)

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S_WipeStripes

Performs a wipe transition between two input clips using a series of stripes. The Wipe Amount parameter should be animated to control the transition speed. Increase the Grad Add parameter to make the timing of the stripe pattern move across the screen during the wipe. Increase the Border Width parameter to draw a border at the wipe transition edges.

In the Sapphire Transitions effects submenu.



Inputs:

From: Starts the transition with this clip.

To: Ends the transition with this clip.

Parameters:

Wipe Amount: *Default:* 0, *Range:* -0.5 to 1.5.

Determines the transition ratio between the From and To inputs, and would normally be animated from 0 to 1 to perform a complete transition. The curve controlling this parameter can be adjusted for more detailed control over the timing of the wipe.

Edge Softness: *Default:* 0, *Range:* 0 or greater.

The width of the transition edges. Larger values will cause softer, less visible edges in the wipe pattern.

Angle: *Default:* -45, *Range:* any.

The rotation of the overall stripes pattern used for the wipe, in counter-clockwise degrees.

Frequency: *Default:* 6, *Range:* 0.1 or greater.

The frequency of the stripes pattern. Increase for more and smaller stripes, or decrease for fewer and larger.

Shift Stripes: *Default:* 0, *Range:* -5 to 5.

Translation of the stripe pattern.

Grad Add: *Default:* 0, *Range:* -10 to 10.

If positive, a gradient will be added to the timing of the transition pattern so it moves across the screen during the wipe. This parameter can be adjusted using the Wipe Widget if enabled, but the value must be positive to make this widget visible.

Grad Angle: *Default:* 0, *Range:* any.

The direction of the wipe gradient in counter-clockwise degrees. This will have no effect unless Grad Add is positive. The Wipe Widget also allows adjusting this parameter.

Border Width: *Default:* 0, *Range:* 0 or greater.

If positive, a colored border is drawn at the wipe transition edges, using the border color, opacity, softness, and shift parameters below.

Border Color: *Default rgb:* [0.75 0 0].

The color of the border. This has no effect unless Border Width is positive.

Border Opacity: *Default:* 1, *Range:* 0 to 1.

The opacity of the border. Decrease to make the border transparent and allow the image under it to show through. This has no effect unless Border Width is positive.

Border Softness: *Default: 0, Range: 0 or greater.*

The softness of the border edges. This has no effect unless Border Width is positive.

Border Shift: *Default: 0, Range: any.*

Shifts the border ahead of or behind the transition edge. This has no effect unless Border Width is positive.

Show Wipe: *Check-box, Default: on.*

Turns on or off the screen user interface for adjusting the Wipe Amount parameter.

See Also:

[WipeLine](#)

[WipeCircle](#)

[WipeRectangle](#)

[WipeStar](#)

[WipeClock](#)

[WipeWedge](#)

[WipeDoubleWedge](#)

[WipeFourWedges](#)

[WipeDots](#)

[WipeChecker](#)

[WipeRings](#)

[WipeBlobs](#)

[WipeCells](#)

[WipeTiles](#)

[WipePixelate](#)

[WipeDiffuse](#)

[WipeBubble](#)

[WipeClouds](#)

[SwishPan](#)

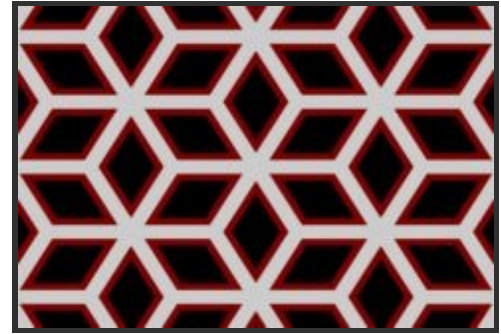
[Sapphire Plug-ins](#)

[Introduction](#)

S_WipeTiles

Performs a wipe transition between two input clips using a pattern of growing or shrinking hexagons, triangles, diamonds, or stars. The Wipe Amount parameter should be animated to control the transition speed. Increase the Grad Add parameter to make the timing of the tile pattern move across the screen during the wipe. Increase the Border Width parameter to draw a border at the wipe transition edges.

In the Sapphire Transitions effects submenu.



Inputs:

From: Starts the transition with this clip.

To: Ends the transition with this clip.

Parameters:

Wipe Amount: *Default: 0, Range: -0.5 to 1.5.*

Determines the transition ratio between the From and To inputs, and would normally be animated from 0 to 1 to perform a complete transition. The curve controlling this parameter can be adjusted for more detailed control over the timing of the wipe.

Tile Shapes: *Popup menu, Default: Hexagons.*

The tile shapes used to generate the pattern. Note that the Morph Shapes parameter can transform the shapes away from this setting.

Hexagons: A honeycomb pattern of hexagons

Triangles: A triangle mesh

Diamonds: A pattern made of diamonds

Stars: Six-pointed stars merge to make a pattern of squares.

Shapes Dir: *Popup menu, Default: Grow.*

The direction of change of the tile sizes.

Shrink: the tiles start large and shrink inwards.

Grow: the tiles start small and grow outwards.

Edge Softness: *Default: 0, Range: 0 or greater.*

The width of the transition edges. Larger values will cause softer, less visible edges in the wipe pattern.

Angle: *Default: 0, Range: any.*

The rotation of the overall tiles pattern used for the wipe, in counter-clockwise degrees.

Frequency: *Default: 4, Range: 0.1 or greater.*

The frequency of the tiles pattern. Increase for more and smaller tiles, or decrease for fewer and larger.

Rel Width: *Default: 1, Range: 0.1 or greater.*

The relative horizontal size of the tiles. Increase for wider tiles, decrease for taller ones.

Rel Wid Pre Rot: *Default: 1, Range: 0.1 or greater.*

The relative size of the tiles in the direction of the current rotation angle. If the Angle parameter is zero this will have the same effect as Rel Width.

Shift: *X & Y, Default: [0 0], Range: any.*
Translation of the tiles pattern.

Morph Shapes: *Default: 0, Range: any.*
The angle in degrees to rotate the sides of the shapes. This can be used to transform one shape into another, or generate new different tile patterns.

Grad Add: *Default: 0, Range: -10 to 10.*
If positive, a gradient will be added to the timing of the transition pattern so it moves across the screen during the wipe. This parameter can be adjusted using the Wipe Widget if enabled, but the value must be positive to make this widget visible.

Grad Angle: *Default: 0, Range: any.*
The direction of the wipe gradient in counter-clockwise degrees. This will have no effect unless Grad Add is positive. The Wipe Widget also allows adjusting this parameter.

Border Width: *Default: 0, Range: 0 or greater.*
If positive, a colored border is drawn at the wipe transition edges, using the border color, opacity, softness, and shift parameters below.

Border Color: *Default rgb: [0.75 0 0].*
The color of the border. This has no effect unless Border Width is positive.

Border Opacity: *Default: 1, Range: 0 to 1.*
The opacity of the border. Decrease to make the border transparent and allow the image under it to show through. This has no effect unless Border Width is positive.

Border Softness: *Default: 0, Range: 0 or greater.*
The softness of the border edges. This has no effect unless Border Width is positive.

Border Shift: *Default: 0, Range: any.*
Shifts the border ahead of or behind the transition edge. This has no effect unless Border Width is positive.

Show Wipe: *Check-box, Default: on.*
Turns on or off the screen user interface for adjusting the Wipe Amount parameter.

Show Shift: *Check-box, Default: on.*
Turns on or off the screen user interface widget for adjusting the Shift parameter, which translates the tiles pattern.

See Also:

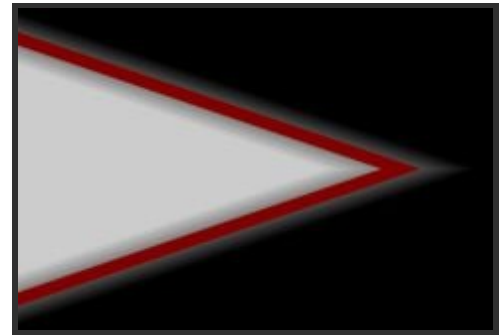
<u>WipeLine</u>	<u>HalfTone</u>	<u>Sapphire</u>
<u>WipeCircle</u>	<u>TextureTiles</u>	<u>Plug-ins</u>
<u>WipeRectangle</u>		<u>Introduction</u>
<u>WipeStar</u>		
<u>WipeClock</u>		
<u>WipeWedge</u>		
<u>WipeDoubleWedge</u>		
<u>WipeFourWedges</u>		
<u>WipeDots</u>		
<u>WipeChecker</u>		
<u>WipeStripes</u>		
<u>WipeRings</u>		
<u>WipeBlobs</u>		
<u>WipeCells</u>		
<u>WipePixelate</u>		

WipeDiffuse
WipeBubble
WipeClouds
SwishPan

S_WipeWedge

Performs a wipe transition between two input clips using a wedge shape. The Wipe Amount parameter should be animated to control the transition speed. Increase the Border Width parameter to draw a border at the wipe transition edges.

In the Sapphire Transitions effects submenu.



Inputs:

From: Starts the transition with this clip.

To: Ends the transition with this clip.

Parameters:

Wipe Amount: *Default:* 0, *Range:* -0.5 to 1.5.

Determines the transition ratio between the From and To inputs, and would normally be animated from 0 to 1 to perform a complete transition. The curve controlling this parameter can be adjusted for more detailed control over the timing of the wipe.

Wipe Direction: *Popup menu, Default:* Wedge In.

Selects the direction of the wedge motion.

Wedge In: the wedge contains the first image and shrinks inwards.

Wedge Out: the wedge contains the second image and grows outwards.

Edge Softness: *Default:* 0, *Range:* 0 or greater.

The width of the transition edges. Larger values will cause softer, less visible edges in the wipe pattern.

Angle: *Default:* 0, *Range:* any.

The rotation angle of the wedge shape in counter-clockwise degrees.

Pointiness: *Default:* 2, *Range:* 0 or greater.

The sharpness of the point of the wedge.

Border Width: *Default:* 0, *Range:* 0 or greater.

If positive, a colored border is drawn at the wipe transition edges, using the border color, opacity, softness, and shift parameters below.

Border Color: *Default rgb:* [0.75 0 0].

The color of the border. This has no effect unless Border Width is positive.

Border Opacity: *Default:* 1, *Range:* 0 to 1.

The opacity of the border. Decrease to make the border transparent and allow the image under it to show through. This has no effect unless Border Width is positive.

Border Softness: *Default:* 0, *Range:* 0 or greater.

The softness of the border edges. This has no effect unless Border Width is positive.

Border Shift: *Default:* 0, *Range:* any.

Shifts the border ahead of or behind the transition edge. This has no effect unless Border Width is positive.

Show Angle: *Check-box, Default: off.*

Turns on or off the screen user interface for adjusting the Angle parameter.

See Also:

[WipeLine](#)

[WipeCircle](#)

[WipeRectangle](#)

[WipeStar](#)

[WipeClock](#)

[WipeDoubleWedge](#)

[WipeFourWedges](#)

[WipeDots](#)

[WipeChecker](#)

[WipeStripes](#)

[WipeRings](#)

[WipeBlobs](#)

[WipeCells](#)

[WipeTiles](#)

[WipePixelate](#)

[WipeDiffuse](#)

[WipeBubble](#)

[WipeClouds](#)

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S_ZComp

Layers a source input over or under a second source input based on the difference of two depth images. The DepthA input should be a 'z' depth image corresponding to the objects in the first input, and DepthB should be a 'z' depth image corresponding to the objects in the second input.

In the Sapphire Composite effects submenu.



Inputs:

SourceA: The first input image.

SourceB: The second input image.

DepthA: The depth image corresponding to the objects in SourceA

DepthB: The depth image corresponding to the objects in SourceB

Parameters:

Anti Alias: *Default:* 0, *Range:* 0 or greater.

The amount of depth difference over which to interpolate the source inputs instead of taking just the closer one. Specified as a fraction of the entire depth range: 0 does no antialiasing, 1 interpolates over the entire depth range.

Invert Z: *Check-box, Default:* off.

Normally larger depth values (white) are treated as farther away and smaller values (black) are treated as near. When this is enabled, these depth values are reversed.

See Also:

[ZFogLinear](#)
[ZFogExponential](#)
[ZBlur](#)

[Sapphire](#)
[Plug-ins](#)
[Introduction](#)

S_ZBlur

Blurs areas of the source clip by different amounts using depth values from a ZBuffer input. Separates the input into a number of layers in depth and blurs them by different amounts depending on each layer's depth. Linear fog can also be mixed into the result. To use this effect, first set ZBuffer:Black Is Near or White Is Near according to your Z buffer, then adjust the focus depth and depth of field parameters to get the look you want. To help set the focus depth, you can use Show: In Focus Zone.



In the Sapphire Blur+Sharpen effects submenu.

Inputs:

Source: The clip to be processed.

ZBuffer: The input clip containing depth values for each Source pixel. These values should be in the range of black to white, and it is best if not anti-aliased. Normally black corresponds to the farthest objects and white to the nearest, though this can be adjusted using Z Buffer parameter.

Parameters:

Focal Depth: *Default:* 0, *Range:* any.

The depth of the focus plane; 0 is near and 1 is far. Areas with this Z value will be in focus. Objects near this depth may be in focus depending on the Depth of Field param. You can use Show: In Focus Zone to show the Focal Depth when adjusting. If the effect of this parameter seems backwards, you can invert the depth values using the Z Buffer parameter.

Depth Of Field: *Default:* 0.1, *Range:* 0 to 1.

Specifies how wide a range of depths near the Focal Depth will be in focus. If the Focal Depth is 0.5 and Depth of Field is 0.2, all objects with Z values from 0.4 to 0.6 will be in focus. Set to zero to have only objects exactly at the Focal Depth in focus. You can use Show: In Focus Zone to show this when adjusting.

Blur Width: *Default:* 0.042, *Range:* 0 or greater.

Scales the overall amount of blur. This parameter can be adjusted using the Blur Width Widget.

Blur Rel: *X & Y, Default:* [1 1], *Range:* 0 or greater.

The relative horizontal and vertical blur widths. Set Blur Rel X to 0 for a vertical-only blur, or set Blur Rel Y to 0 for a horizontal-only blur.

Zbuffer Type: *Popup menu, Default:* White is Near.

How to interpret the values in the Z buffer.

Black is Near: Black pixels in the Z buffer indicate that the object at that point is near (close to you), and white means far away.

White is Near: White pixels in the Z buffer indicate that the object at that point is near (close to you), and black means far away.

Show: *Popup menu, Default:* Result.

Selects the type of output

Result: Shows the normal result of the effect.

In Focus Zone: Highlights the in-focus areas of the clip to make it easier to select the focal point and depth.

Layers: *Integer, Default: 5, Range: 2 to 50.*

The number of depth layers to separate the source into. More layers require more processing but give smoother results in Z. More layers are sometimes needed to avoid visible seams between the layers.

Layer Mode: *Popup menu, Default: Interp.*

Determines how the differently blurred layers are combined.

Comp: the closer layers are composited over the farther layers. This method often gives better results if you have objects at different depths overlapping each other with discontinuous values in your depth image. However, this option can be slower, and sometimes artifacts between layers are visible.

Interp: the layers are interpolated using depth image values. This method gives smoother transitions between layers, and is usually better if there are no sharp changes in your depth image.

Width Rel Near: *Default: 1, Range: 0 or greater.*

Scales the blur width for parts of the image that are nearer than the focal plane.

Width Rel Far: *Default: 1, Range: 0 or greater.*

Scales the blur width for parts of the image that are farther away than the focal plane.

Fog Near: *Default: 0, Range: 0 to 1.*

The amount of fog to add to nearby (close) objects.

Fog Far: *Default: 0, Range: 0 to 1.*

The amount of fog to add to far away objects.

Fog Color: *Default rgb: [0.5 0.5 0.5].*

The fog color should normally match the sky or background color of the source clip. Use gray for mist, brown for smog, blue for underwater, etc.

Zbuffer Use: *Popup menu, Default: Luma.*

Determines how the ZBuffer input channels make a monochrome z image.

Luma: the luminance of the RGB channels is used.

Alpha: only the Alpha channel is used.

Soft Borders: *Check-box, Default: off.*

If enabled, transparent borders are added to the input image before processing. This allows the result to include soft edges beyond the original image size. When off, the effect only occurs within the frame and the result will retain an edge at the borders. This parameter does not appear in FCP or DF because those applications don't support image expansion.

Show Blur Width: *Check-box, Default: on.*

Turns on or off the screen user interface for adjusting the Blur Width parameter.

See Also:

[ZDefocus](#)

[ZGlow](#)

[Sapphire](#)

[ZConvolve](#)

[Plug-ins](#)

[Introduction](#)

S_ZConvolve

Convolves areas of the source clip using a kernel which is made larger or smaller using depth values from a ZBuffer input. Separates the input into a number of layers and applies different sized convolution blurs depending on the distance from the focal depth, and depth of field. This is similar to ZDefocus but with an iris shape (or Kernel) that comes from a clip.

In the Sapphire Blur+Sharpen effects submenu.



Inputs:

Source: The clip to be processed.

Kernel: The filter kernel or shape for the convolution. This should normally be all black around the edges (outside the specified Kernel Crop region), with a non-black central part. A larger shape normally produces blurrier results. Only the part of the kernel within the two Kernel Crop params is considered; the part outside that boundary is ignored.

ZBuffer: The input clip containing depth values for each Source pixel. These values should be in the range of black to white, and it is best if not anti-aliased. Normally black corresponds to the farthest objects and white to the nearest, though this can be adjusted using Z Buffer parameter.

Parameters:

Focal Depth: *Default:* 0, *Range:* any.

The depth of the focus plane; 0 is near and 1 is far. Areas with this Z value will be in focus. Objects near this depth may be in focus depending on the Depth of Field param. You can use Show: In Focus Zone to show the Focal Depth when adjusting. If the effect of this parameter seems backwards, you can invert the depth values using the Z Buffer parameter.

Depth Of Field: *Default:* 0.1, *Range:* 0 to 1.

Specifies how wide a range of depths near the Focal Depth will be in focus. If the Focal Depth is 0.5 and Depth of Field is 0.2, all objects with Z values from 0.4 to 0.6 will be in focus. Set to zero to have only objects exactly at the Focal Depth in focus. You can use Show: In Focus Zone to show this when adjusting.

Size: *Default:* 1, *Range:* 0 or greater.

The maximum amount to resize the kernel larger or smaller. 1.0 is the original size. This parameter can be adjusted using the Size Widget.

Size Rel X: *Default:* 1, *Range:* 0 or greater.

Increase to make the kernel fatter or wider without changing its height. Decrease to shrink it horizontally, making it thinner.

Size Rel Y: *Default:* 1, *Range:* 0 or greater.

Increase to make the kernel taller without changing its weight. Decrease to shrink it vertically, making it flatter.

Zbuffer Type: *Popup menu, Default:* White is Near.

How to interpret the values in the Z buffer.

Black is Near: Black pixels in the Z buffer indicate that the object at that point is near (close to you), and white means far away.

White is Near: White pixels in the Z buffer indicate that the object at that point is near (close to you), and black means far away.

Show: *Popup menu, Default: Result.*

Selects the type of output.

Result: Show the final output.

Kernel: Show the convolve kernel over the final output. Use this to adjust the kernel cropping and threshold parameters.

In Focus Zone: Show the in-focus zone highlighted over the original image. Use this to adjust the focal depth and depth of field.

Layers: *Integer, Default: 5, Range: 2 to 50.*

The number of depth layers to separate the source into. More layers require more processing but give smoother results in Z. More layers are sometimes needed to avoid visible seams between the layers.

Layer Mode: *Popup menu, Default: Interp.*

Determines how the differently blurred layers are combined.

Comp: the closer layers are composited over the farther layers. This method often gives better results if you have objects at different depths overlapping each other with discontinuous values in your depth image. However, this option can be slower, and sometimes artifacts between layers are visible.

Interp: the layers are interpolated using depth image values. This method gives smoother transitions between layers, and is usually better if there are no sharp changes in your depth image.

Kernel Center: *X & Y, Default: [0 0], Range: any.*

The center point of the kernel; if you think of convolution as repeated stamping of the kernel at each point of the source, the center is where the stamp aligns with the source pixels it's stamped over. If you move the center to the right in the kernel, the whole result image will move to the left, and similarly up and down. This parameter is ignored if AutoCenter is on. It may be helpful to turn on Show Kernel while adjusting this parameter. Note that if Autocenter is off, the center point is always included in the kernel no matter what this param is set to. This parameter can be adjusted using the Kernel Center Widget.

Autocenter: *Check-box, Default: on.*

Automatically finds the center of the kernel image. Turning this on makes the effect ignore the Kernel Center param.

Use Gamma: *Default: 1, Range: 0.1 to 10.*

Values above 1 cause highlights in the source clip to keep their brightness after the convolution filter is applied.

Brightness: *Default: 1, Range: 0 or greater.*

Scales the brightness of the result.

Threshold: *Default: 0, Range: 0 to 1.*

Any source value below this will be treated as black. When combining the convolved result with the original, you can increase this value to only convolve bright areas of the source. Typically when using this parameter, you will also set Combine to Screen or Add to get a glare-like effect.

Threshold Add Color: *Default rgb: [0 0 0].*

This can be used to raise the threshold on a specific color and thereby reduce the convolved result generated on areas of the source clip containing that color.

Combine: *Popup menu, Default: Convolve Only.*

Determines how the convolved image is combined with the original source.

Convolve Only: Only show the convolved image. Use this option for a blur or defocus-like effect

Screen: Screen the convolved image with the original source. Use this option for a glow or glare-like

effect.

Add: Add the convolved image to the original source.

Difference: Show the difference between the convolved image and the source.

Mix With Source: *Default: 0, Range: 0 to 1.*

Interpolates between the convolved result (0) and the original source (1). 0.1 can give a nice misty effect since it mixes only a little of the source in.

Edge Mode: *X & Y, Popup menu, Default: [Transparent Transparent].*

Determines the behavior when accessing areas outside the source image.

Transparent: Areas outside the source image are treated as transparent, which can produce transparency around the edges of the image. Select this for fastest rendering.

Repeat: Repeats the last pixel outside the border of the image.

Reflect: Reflects the image outside the border.

Size Rel Near: *Default: 1, Range: 0 or greater.*

Scales the kernel size for parts of the image that are nearer than the focal plane.

Size Rel Far: *Default: 1, Range: 0 or greater.*

Scales the kernel size for parts of the image that are farther away than the focal plane.

Kernel Threshold: *Default: 0.001, Range: 0 to 1.*

Any kernel value below this will be treated as black. It's important for the edges of the kernel image to be completely black, or the result will have a grayish cast to it. If your kernel image may have a little noise in the black areas, turn up threshold a little to remove that background noise.

Clamp Below Threshold: *Check-box, Default: on.*

When turned on, values below the threshold are clamped to zero. This usually gives the best result. For certain special cases with partially-negative kernels, turning this off gives you additional flexibility in designing your kernel.

Kernel Crop1: *X & Y, Default: [1 1], Range: any.*

The upper left corner of the kernel area. Parts of the kernel image outside the rectangle defined by Kernel Crop1 and Kernel Crop2 are assumed to be black. Making this area smaller to avoid processing the kernel's black edges can speed up the convolution somewhat. It may be helpful to turn on Show Kernel while adjusting this parameter. Note that if Autocenter is off, the center point is always included in the kernel no matter what this param is set to.

Kernel Crop2: *X & Y, Default: [719 485], Range: any.*

The lower right corner of the kernel area.

Autoscale Mode: *Popup menu, Default: Max Channel.*

In convolution, either a larger or brighter kernel will make the result image brighter. The kernel must be auto-scaled or normalized so the result is, on average, as bright as the input. The autoscaling can be done in several ways, each of which is best in certain circumstances. With a monochrome kernel or with Color Kernel turned off, Max Channel, Luma, and Indep Channels all give the same result.

Max Channel: Autoscales the kernel by summing the elements of each channel, and using whichever is brightest as the overall kernel scale factor. This normalizes a dim kernel to full brightness, and generally preserves the color of the kernel, but allows brightness variations in the dimmer channels to show in the result.

Luma: Autoscales the kernel by summing the luminances of each kernel pixel. This method preserves changes in the kernel's hue, but normalizes the luma, so a brighter or darker kernel will have no effect. Use the Scale parameter to adjust the result brightness.

Indep Channels: Independently normalizes each color channel of the kernel. A colored kernel will give a white/gray result with this method. Use this method if your kernel channels are independent of each other (i.e. different things going on in each of R, G, and B) but you want normalized results in each channel.

Count Nonzero: Count how many kernel pixels are nonzero (brighter than black), but otherwise ignore

how bright they are. This method is best if you want variations in kernel hue and luma to show up in the result. But blurring the kernel will give a dimmer result, since there will be more nonzero pixels.

Kernel Size: Ignore the pixel *values* entirely; only use the size of the kernel rectangle to auto-scale. Use this if you want all kernel variations to show up in the result, but don't use it if you intend to animate Kernel Crop1 and Crop2, as that would affect the result's brightness.

Zbuffer Use: *Popup menu, Default: Luma.*

Determines how the ZBuffer input channels make a monochrome z image.

Luma: the luminance of the RGB channels is used.

Alpha: only the Alpha channel is used.

Show Size: *Check-box, Default: on.*

Turns on or off the screen user interface for adjusting the Size parameter.

Show Kernel Center: *Check-box, Default: off.*

Turns on or off the screen user interface for adjusting the Kernel Center parameter.

Show Kernel Crop: *Check-box, Default: off.*

Turns on or off the screen user interface for adjusting the Kernel Crop1 parameter.

See Also:

[ZDefocus](#)

[ZBlur](#)

[ZGlow](#)

[ZFogLinear](#)

[Convolve](#)

[RackDefocus](#)

[Glare](#)

[Sapphire](#)

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S_ZDefocus

Defocuses areas of the source clip by different amounts using depth values from a ZBuffer input. Separates the input into a number of depth layers and applies different amounts of defocus depending on each layer's depth. To use this effect, first set ZBuffer:Black Is Near or White Is Near according to your Z buffer, then adjust the Focus Depth and Depth Of Field parameters to get the look you want. To help set the Focus Depth, you can use Show: In Focus Zone.



In the Sapphire Blur+Sharpen effects submenu.

Inputs:

Source: The clip to be processed.

ZBuffer: The input clip containing depth values for each Source pixel. These values should be in the range of black to white, and it is best if not anti-aliased. Normally black corresponds to the farthest objects and white to the nearest, though this can be adjusted using Z Buffer parameter.

Parameters:

Focal Depth: *Default:* 0, *Range:* any.

The depth of the focus plane; 0 is near and 1 is far. Areas with this Z value will be in focus. Objects near this depth may be in focus depending on the Depth of Field param. You can use Show: In Focus Zone to show the Focal Depth when adjusting. If the effect of this parameter seems backwards, you can invert the depth values using the Z Buffer parameter.

Depth Of Field: *Default:* 0.1, *Range:* 0 to 1.

Specifies how wide a range of depths near the Focal Depth will be in focus. If the Focal Depth is 0.5 and Depth of Field is 0.2, all objects with Z values from 0.4 to 0.6 will be in focus. Set to zero to have only objects exactly at the Focal Depth in focus. You can use Show: In Focus Zone to show this when adjusting.

Defocus Width: *Default:* 0.089, *Range:* 0 or greater.

The width of the defocus. This parameter can be adjusted using the Defocus Width Widget.

Rel Height: *Default:* 1, *Range:* 0.01 or greater.

The relative height of the iris shape. If it is not 1, circles become ellipses, etc.

Zbuffer Type: *Popup menu, Default:* White is Near.

How to interpret the values in the Z buffer.

Black is Near: Black pixels in the Z buffer indicate that the object at that point is near (close to you), and white means far away.

White is Near: White pixels in the Z buffer indicate that the object at that point is near (close to you), and black means far away.

Show: *Popup menu, Default:* Result.

Selects the type of output

Result: Shows the final result of the effect.

In Focus Zone: Highlights the in-focus areas of the clip to make it easier to select the focal point and depth.

Shape: Show the iris shape instead of the defocused image.

Layers: *Integer, Default: 5, Range: 2 to 50.*

The number of depth layers to separate the source into. More layers require more processing but give smoother results in Z. More layers are sometimes needed to avoid visible seams between the layers.

Layer Mode: *Popup menu, Default: Interp.*

Determines how the differently blurred layers are combined.

Comp: the closer layers are composited over the farther layers. This method often gives better results if you have objects at different depths overlapping each other with discontinuous values in your depth image. However, this option can be slower, and sometimes artifacts between layers are visible.

Interp: the layers are interpolated using depth image values. This method gives smoother transitions between layers, and is usually better if there are no sharp changes in your depth image.

Shape: *Popup menu, Default: Circle.*

Determines the shape of the simulated camera iris.

Circle: round.

3 sides: triangle.

4 sides: square.

5 sides: pentagon.

6 sides: hexagon.

7 sides: etc.

Roundness: *Default: 0, Range: any.*

Modifies the shape of the simulated camera iris. A value of 1 produces a circle; 0 gives a flat-sided polygon with a number of sides given by the Shape parameter. Less than 0 causes the sides to squeeze inward giving a star shape, while a value greater than 1 causes the corners to squeeze inward, giving a flowery shape. Has no effect if the Shape is set to Circle.

Rotate: *Default: 0, Range: any.*

Rotates the iris shape.

Bokeh: *Default: 0, Range: any.*

Softens the outer edge of the iris shape, which gives a softer look to the defocused highlights. A negative value darkens the center of the iris shape, producing a ring-like defocus shape.

Lens Noise: *Default: 0, Range: 0 or greater.*

Increase to add noise to the iris shape, dirtying up the defocus a little. Can make the result more realistic. Turn up past 1 for a more stylistic result.

Noise Freq: *Default: 40, Range: 0.01 or greater.*

The frequency of the added noise. Ignored if Lens Noise is zero.

Noise Freq Rel X: *Default: 1, Range: 0.01 or greater.*

The relative horizontal frequency of the added iris noise. Increase to stretch it vertically or decrease to stretch it horizontally.

Noise Seed: *Default: 0.123, Range: 0 or greater.*

The seed value for the added noise. To make the noise appear different on each frame, animate this to be different on each frame. The actual value doesn't matter; only that it's different.

Use Gamma: *Default: 2, Range: 0.1 or greater.*

Values above 1 cause highlights in the source clip to keep their brightness after the defocus is applied.

Brightness: *Default: 1, Range: 0 or greater.*

Scales the brightness of the result.

Offset Darks: *Default: 0, Range: -8 to 2.*

Adds this gray value to the darker regions of the result. This can be negative to increase contrast.

Mix With Source: *Default: 0, Range: 0 to 1.*

Interpolates between the defocused result and the original source. Set this to 1 for the original source.

Width Rel Near: *Default: 1, Range: 0 or greater.*

Scales the defocus width for parts of the image that are nearer than the focal plane.

Width Rel Far: *Default: 1, Range: 0 or greater.*

Scales the defocus width for parts of the image that are farther away than the focal plane.

Fog Near: *Default: 0, Range: 0 to 1.*

The amount of fog to add to nearby (close) objects.

Fog Far: *Default: 0, Range: 0 to 1.*

The amount of fog to add to far away objects.

Fog Color: *Default rgb: [0.5 0.5 0.5].*

The fog color should normally match the sky or background color of the source clip. Use gray for mist, brown for smog, blue for underwater, etc.

Edge Mode: *Popup menu, Default: Reflect.*

Determines the behavior when accessing areas outside the source image.

Transparent: Areas outside the source image are treated as transparent, which can produce transparency around the edges of the image. Select this for fastest rendering.

Repeat: Repeats the last pixel outside the border of the image.

Reflect: Reflects the image outside the border.

Zbuffer Use: *Popup menu, Default: Luma.*

Determines how the ZBuffer input channels make a monochrome z image.

Luma: the luminance of the RGB channels is used.

Alpha: only the Alpha channel is used.

Soft Borders: *Check-box, Default: off.*

If enabled, transparent borders are added to the input image before processing. This allows the result to include soft edges beyond the original image size. When off, the effect only occurs within the frame and the result will retain an edge at the borders. This parameter does not appear in FCP or DF because those applications don't support image expansion.

Show Defocus Width: *Check-box, Default: on.*

Turns on or off the screen user interface for adjusting the Defocus Width parameter.

See Also:

[RackDefocus](#)

[ZBlur](#)

[ZGlow](#)

[ZConvolve](#)

[ZFogLinear](#)

[Sapphire Plug-ins](#)

[Introduction](#)

S_ZFogExponential

Mixes a fog color into the source clip using depth values from a ZBuffer input. The fog starts at the nearest depth and increases exponentially to the farthest depth at a rate depending on the Fog Density.

In the Sapphire Stylize effects submenu.



Inputs:

Source: The clip to be processed.

ZBuffer: The input clip containing depth values for each Source pixel. These values should be in the range of black to white, and it is best if not anti-aliased. Normally black corresponds to the farthest objects and white to the nearest, though this can be adjusted using Z Buffer parameter.

Parameters:

Z Near: *Default:* 0.1, *Range:* 0 to 1.

The value of the input Z corresponding to near objects. Zero means black areas of the ZBuffer are near, and one means white areas are near.

Z Far: *Default:* 1, *Range:* 0 to 1.

The value of the input Z corresponding to far objects. Zero means black areas of the ZBuffer are far, and one means white areas are far.

Fog Color: *Default rgb:* [0.5 0.5 0.5].

The fog color should normally match the sky or background color of the source clip. Use gray for mist, brown for smog, blue for underwater, etc.

Fog Density: *Default:* 0.7, *Range:* 0 to 1.

The density of the fog.

Zbuffer Use: *Popup menu, Default:* Luma.

Determines how the ZBuffer input channels make a monochrome z image.

Luma: the luminance of the RGB channels is used.

Alpha: only the Alpha channel is used.

See Also:

[ZFogLinear](#)

[ZBlur](#)

[ZComp](#)

[ZGlow](#)

[Sapphire](#)

[Plug-ins](#)

[Introduction](#)

S_ZFogLinear

Mixes a fog color into the source clip using depth values from a ZBuffer input. The fog amount varies linearly between Fog Near and Fog Far depending on the depth.

In the Sapphire Stylize effects submenu.



Inputs:

Source: The clip to be processed.

ZBuffer: The input clip containing depth values for each Source pixel. These values should be in the range of black to white, and it is best if not anti-aliased. Normally black corresponds to the farthest objects and white to the nearest, though this can be adjusted using Z Buffer parameter.

Parameters:

Z Near: *Default:* 0.1, *Range:* 0 to 1.

The value of the input Z corresponding to near objects. Zero means black areas of the ZBuffer are near, and one means white areas are near.

Z Far: *Default:* 1, *Range:* 0 to 1.

The value of the input Z corresponding to far objects. Zero means black areas of the ZBuffer are far, and one means white areas are far.

Fog Color: *Default rgb:* [0.5 0.5 0.5].

The fog color should normally match the sky or background color of the source clip. Use gray for mist, brown for smog, blue for underwater, etc.

Fog Near: *Default:* 0, *Range:* 0 to 1.

The amount of fog to add to nearby (close) objects.

Fog Far: *Default:* 0.8, *Range:* 0 to 1.

The amount of fog to add to far away objects.

Zbuffer Use: *Popup menu, Default:* Luma.

Determines how the ZBuffer input channels make a monochrome z image.

Luma: the luminance of the RGB channels is used.

Alpha: only the Alpha channel is used.

See Also:

[ZFogExponential](#)
[ZBlur](#)

[ZComp](#)
[ZGlow](#)

[Sapphire](#)
[Plug-ins](#)
[Introduction](#)

S_ZGlow

Glow areas of the source clip with varying widths depending on the depth values from a ZBuffer input. Separates the input into a number of layers and applies different amounts of glow depending on Width Near, Width Far, Brightness Near, and Brightness Far parameters.

In the Sapphire Lighting effects submenu.



Inputs:

Source: The clip to be processed.

ZBuffer: The input clip containing depth values for each Source pixel. These values should be in the range of black to white, and it is best if not anti-aliased. Normally black corresponds to the farthest objects and white to the nearest, though this can be adjusted using Z Buffer parameter.

Parameters:

Brightness: *Default: 2, Range: 0 or greater.*
Scales the brightness of all the glows.

Color: *Default rgb: [1 1 1].*
Scales the color of the glow. The colors and brightnesses of the glow are also affected by the Source input.

Width Near: *Default: 0.0083, Range: 0 or greater.*
The glow width of near (close) objects.

Width Far: *Default: 0.1, Range: 0 or greater.*
The glow width of far away objects.

Threshold: *Default: 0, Range: 0 or greater.*
Glow areas are generated from locations in the source clip that are brighter than this value. A value of 0.9 causes glows at only the brightest spots. A value of 0 causes glows for every non-black area.

Threshold Add Color: *Default rgb: [0 0 0].*
This can be used to raise the threshold on a specific color and thereby reduce the glow generated on areas of the source clip containing that color.

Zbuffer Type: *Popup menu, Default: White is Near.*
How to interpret the values in the Z buffer.

Black is Near: Black pixels in the Z buffer indicate that the object at that point is near (close to you), and white means far away.

White is Near: White pixels in the Z buffer indicate that the object at that point is near (close to you), and black means far away.

Z Min: *Default: 0, Range: 0 to 1.*
Clamps all Z values to this minimum bound. Use this parameter to create a constant glow on all parts of the image nearer than Z Min.

Z Max: *Default: 1, Range: 0 to 1.*

Clamps all Z values to this maximum bound. Use this parameter to create a constant glow on all parts of the image farther than Z Max.

Layers: *Integer, Default: 5, Range: 2 to 50.*

The number of depth layers to separate the source into. More layers require more processing but give smoother results in Z. More layers are sometimes needed to avoid visible seams between the layers.

Brightness Near: *Default: 1, Range: 0 or greater.*

Scales the glow brightness for near objects.

Color Near: *Default rgb: [1 1 1].*

Scales the glow color for near objects.

Width Red Near: *Default: 1, Range: 0 or greater.*

Scales the red glow width for near objects.

Width Green Near: *Default: 1, Range: 0 or greater.*

Scales the green glow width for near objects.

Width Blue Near: *Default: 1, Range: 0 or greater.*

Scales the blue glow width for near objects.

Brightness Far: *Default: 1, Range: 0 or greater.*

Scales the glow brightness for far objects.

Color Far: *Default rgb: [1 1 1].*

Scales the glow color for far objects.

Width Red Far: *Default: 1, Range: 0 or greater.*

Scales the red glow width for far objects.

Width Green Far: *Default: 1, Range: 0 or greater.*

Scales the green glow width for far objects.

Width Blue Far: *Default: 1, Range: 0 or greater.*

Scales the blue glow width for far objects.

Width X: *Default: 1, Range: 0 or greater.*

Scales the horizontal glow width. Set to 0 for vertical only.

Width Y: *Default: 1, Range: 0 or greater.*

Scales the vertical glow width. Set to 0 for horizontal only.

Width Red: *Default: 1, Range: 0 or greater.*

Scales the red glow width. If the red, green, and blue widths are equal, the glows will match the color of the source clip. If they are not equal, the glows will vary in color with distance.

Width Green: *Default: 1.2, Range: 0 or greater.*

Scales the green glow width.

Width Blue: *Default: 1.4, Range: 0 or greater.*

Scales the blue glow width.

Affect Alpha: *Default: 0, Range: 0 or greater.*

If this value is positive the output Alpha channel will include some opacity from the zs. The maximum of the red, green, and blue z brightness is scaled by this value and combined with the background Alpha at each pixel.

Source Opacity: *Default: 1, Range: 0 to 1.*

Scales the opacity of the Source input when combined with the zs. This does not affect the generation of the zs themselves.

Zbuffer Use: *Popup menu, Default: Luma.*

Determines how the ZBuffer input channels make a monochrome z image.

Luma: the luminance of the RGB channels is used.

Alpha: only the Alpha channel is used.

Expand Borders: *Check-box, Default: off.*

If enabled, transparent borders are added to the input image before processing. This allows the result to include soft edges beyond the original image size. When off, the effect only occurs within the frame and the result will retain an edge at the borders. This parameter does not appear in FCP or DF because those applications don't support image expansion.

Show Width Near: *Check-box, Default: on.*

Turns on or off the screen user interface for adjusting the Width Near parameter.

Show Width Far: *Check-box, Default: on.*

Turns on or off the screen user interface for adjusting the Width Far parameter.

See Also:

[ZBlur](#)

[ZDefocus](#)

[ZConvolve](#)

[ZFogLinear](#)

[Glow](#)

[Glint](#)

[Glare](#)

[Sapphire](#)

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S_Zap

Generates lightning bolts between two points, and renders them over a background. Increase the number of bolts to give a electrical plasma effect. Increase Vary Endpoint to spread out the ends of the bolts. Adjust the Glow Color for differently colored results. The Wiggle Speed parameter causes the bolts to automatically undulate over time.

In the Sapphire Render effects submenu.



Inputs:

Background: *Optional.* The clip to use as background.

Parameters:

Bolts: *Integer, Default: 1, Range: 1 to 500.*

The number of lightning bolts to draw, each between the Start and End location.

Start: *X & Y, Default: [180 436], Range: any.*

The starting point of the bolts.

End: *X & Y, Default: [540 50], Range: any.*

The end point of the bolts. This parameter can be adjusted using the End Widget.

Vary Endpoint: *Default: 0, Range: 0 or greater.*

Offsets the End location by a random amount within a circle of this radius. If Bolts is greater than 1, this can be useful to spread out the different End points. For example, you can create multiple radiating bolts by increasing this radius and placing the End point near the Start point. This parameter can also be adjusted using the End Widget, after it is made positive.

Bolt Width: *Default: 0.014, Range: 0 or greater.*

The width of the lightning bolts.

Vary Width: *Default: 0, Range: 0 to 1.*

The amount of random variation in the width of the bolts along their lengths.

End Pointiness: *Default: 0.1, Range: 0 to 1.*

Determines how pointed the end of the bolts are. If 0, the entire bolt will have equal width. If 1, the bolts will thin out along their entire length for a pointed end. If it is .5, the bolts will start thinning out half way between the start and end points.

Wiggle Start: *Default: 0, Range: 0 or greater.*

By default the bolts automatically wiggle over time. This parameter provides a starting offset for these bolt perturbations.

Wiggle Speed: *Default: 1, Range: 0 or greater.*

The speed at which the bolts are perturbed automatically over time. To animate changes in speed, set this to zero and animate the Wiggle Start parameter instead.

Jitter Frames: *Integer, Default: 0, Range: 0 or greater.*

If this is 0, the same random lightning will be used for every frame processed. If it is 1, different random lightning is used for each frame. If it is 2, new random lightning is used for every other frame, and so on.

Rand Seed: *Default:* 0.123, *Range:* 0 or greater.

Used to initialize the random number generator. The actual seed value is not significant, but different seeds give different random lightning bolts, and the same value should give a repeatable result.

Wrinkle Amp: *Default:* 1, *Range:* 0 or greater.

Scales the amount of wrinkles in the bolts. Decrease for straighter smoother bolts or increase for more kinky bolts.

Curve Amp: *Default:* 0.5, *Range:* 0 or greater.

Similar to Wrinkle Amp but affects the general path of the bolt. If decreased, the bolt will stay closer to the line between the Start and End points. If increased it can wander further away from this line. This differs from the Wrinkle Amp parameter in that it can be used to make straighter bolts while still keeping the wrinkles at the detailed level.

Branchiness: *Default:* 1, *Range:* 0 to 20.

Scales the number of additional bolts that branch from the main bolt. Set this to 0 for basic bolts with no extra branches.

Branch Angle: *Default:* 65, *Range:* 0 to 180.

The maximum angle of the random branches relative to the bolt they are branching off of. If this is 0 the branches will be more lined up with the main bolt. With larger values the branches will be more perpendicular to the main bolt.

Branch Length: *Default:* 0.5, *Range:* 0 to 1.

The maximum length of the branches relative to the distance between the Start and End points.

Glow Parameters:

Glow Bright: *Default:* 2, *Range:* 0 or greater.

Scales the brightness of the glow applied to the lightning.

Glow Color: *Default rgb:* [0.5 0.5 1].

The color of the glow applied to the lightning.

Glow Width: *Default:* 0.056, *Range:* 0 or greater.

The width of the glow applied to the lightning.

Glow Width Red: *Default:* 0.5, *Range:* 0 or greater.

The relative red width of the glow.

Glow Width Grn: *Default:* 1, *Range:* 0 or greater.

The relative green width of the glow.

Glow Width Blue: *Default:* 1.5, *Range:* 0 or greater.

The relative blue width of the glow.

Affect Alpha: *Default:* 0, *Range:* 0 or greater.

If this value is positive the output Alpha channel will include some opacity from the lightning and its glow. The maximum of the red, green, and blue brightness is scaled by this value and combined with the background Alpha at each pixel.

Other Parameters:

Zap Bright: *Default:* 1, *Range:* 0 or greater.

Scales the brightness of the lightning bolts.

Zap Color: *Default rgb:* [1 1 1].

The color of the lightning. If you want to keep the lightning bolt itself bright white, you can still affect the perceived color by adjusting the Glow Color instead.

Start Offset: *Default: 0, Range: 0 to 1.*

The offset from the start point to begin drawing the bolts. This can be useful for animating a lightning strike.

Length: *Default: 1, Range: 0 to 1.*

The length of the bolts, beginning at Start Offset. If less than 1, the bolts will not be drawn all the way from start to end. This can be useful for animating a lightning strike.

Bg Brightness: *Default: 1, Range: 0 or greater.*

Scales the brightness of the background before combining with the lightning. If 0, the result will contain only the lightning image over black.

Combine: *Popup menu, Default: Screen.*

Determines how the lightning and glow are combined with the Background.

Screen: performs a blend function which can help prevent overly bright results.

Add: causes the lightning to be added to the background. This gives brighter glows over light backgrounds.

Show Start: *Check-box, Default: on.*

Turns on or off the screen user interface for adjusting the Start parameter.

Show End: *Check-box, Default: on.*

Turns on or off the screen user interface for adjusting the End parameter.

See Also:

[ZapTo](#)

[ZapFrom](#)

[Sapphire Plug-ins](#)

[Introduction](#)

S_ZapFrom

Generates multiple lightning bolts outwards from the edges of objects in the FromObj input clip, and renders them over a background input. Use the Show:Edges option to view the source edges while adjusting the Threshold and Blur From Obj parameters.

In the Sapphire Render effects submenu.



Inputs:

Background: The clip to use as background. If none is selected the main input (the current layer) is also used for the background.

FromObject: *Optional.* The edges of objects in this clip are extracted, and the lightning starts at points along these edges.

Mask: *Optional.* The lengths of the bolts in each area are scaled by this input. White areas generate normal bolts, gray areas generate shorter bolts, and black areas cause no bolts to be made.

Parameters:

Surface Bolts: *Integer, Default: 25, Range: 1 to 2000.*

The number of points along the edges to generate lightning bolts from. These surface bolts are divided up amongst the isolated shapes in the FromObject input, proportionally to the sizes of the shapes.

Threshold: *Default: 0.5, Range: 0 or greater.*

The value used to determine the edge locations. Objects darker than this value are ignored. On smooth objects, larger threshold values move the edges inwards to make smaller shapes, and smaller values move the edges outwards. You can use the Show Edges option to view the edge image directly while adjusting this parameter.

Blur FromObj: *Default: 0.022, Range: 0 or greater.*

Blurs the FromObject input clip before finding the edges. This can help remove noise, and reduce the number of separate shapes. You can use the Show Edges option to view the edge image directly while adjusting this parameter.

FromObj Use: *Popup menu, Default: Luma.*

Determines which channel of the FromObject input channels are used.

Luma: the luminance of the RGB channels is used.

Alpha: only the Alpha channel is used.

Show: *Popup menu, Default: Result.*

Selects the output option.

Result: shows the normal lightning result over the background.

Edges: shows the edge image. This can be useful to view while adjusting the Threshold and Blur From Obj parameters.

Max Length: *Default: 0.2, Range: 0 or greater.*

Scales the length of the bolts.

Vary Length: *Default: 0.5, Range: 0 to 1.*

The amount to randomly vary the length of each bolt. A value of 0 makes all bolt lengths equal to Max Length, and

a value of 1 makes bolt lengths between zero and Max Length.

Vary Spacing: *Default: 0.5, Range: 0 or greater.*

The amount to randomly vary the starting point of each bolt along the edges. A value of 0 makes the bolts regularly spaced, and value of 1 make the bolts randomly spaced.

Bolt Width: *Default: 0.014, Range: 0 or greater.*

The width of the lightning bolts.

Vary Width: *Default: 0, Range: 0 to 1.*

The amount of random variation in the width of the bolts along their lengths.

End Pointiness: *Default: 1, Range: 0 to 1.*

Determines how pointed the end of the bolts are. If 0, the entire bolt will have equal width. If 1, the bolts will thin out along their entire length for a pointed end. If it is .5, the bolts will start thinning out half way between the start and end points.

Wiggle Start: *Default: 0, Range: 0 or greater.*

By default the bolts automatically wiggle over time. This parameter provides a starting offset for these bolt perturbations.

Wiggle Speed: *Default: 1, Range: 0 or greater.*

The speed at which the bolts are perturbed automatically over time. To animate changes in speed, set this to zero and animate the Wiggle Start parameter instead.

Jitter Frames: *Integer, Default: 0, Range: 0 or greater.*

If this is 0, the same random lightning will be used for every frame processed. If it is 1, different random lightning is used for each frame. If it is 2, new random lightning is used for every other frame, and so on.

Rand Seed: *Default: 0.123, Range: 0 or greater.*

Used to initialize the random number generator. The actual seed value is not significant, but different seeds give different random lightning bolts, and the same value should give a repeatable result.

Wrinkle Amp: *Default: 1, Range: 0 or greater.*

Scales the amount of wrinkles in the bolts. Decrease for straighter smoother bolts or increase for more kinky bolts.

Curve Amp: *Default: 0.5, Range: 0 or greater.*

Similar to Wrinkle Amp but affects the general path of the bolt. If decreased, the bolt will stay closer to the line between the Start and End points. If increased it can wander further away from this line. This differs from the Wrinkle Amp parameter in that it can be used to make straighter bolts while still keeping the wrinkles at the detailed level.

Branchiness: *Default: 1, Range: 0 to 10.*

Scales the number of additional bolts that branch from the main bolt. Set this to 0 for basic bolts with no extra branches.

Branch Angle: *Default: 65, Range: 0 to 180.*

The maximum angle of the random branches relative to the bolt they are branching off of. If this is 0 the branches will be more lined up with the main bolt. With larger values the branches will be more perpendicular to the main bolt.

Branch Length: *Default: 0.5, Range: 0 to 1.*

The maximum length of the branches relative to the distance between the Start and End points.

Glow Parameters:

Glow Bright: *Default: 2, Range: 0 or greater.*

Scales the brightness of the glow applied to the lightning.

Glow Color: *Default rgb: [0.5 0.5 1].*

The color of the glow applied to the lightning.

Glow Width: *Default: 0.056, Range: 0 or greater.*

The width of the glow applied to the lightning.

Glow Width Red: *Default: 0.5, Range: 0 or greater.*

The relative red width of the glow.

Glow Width Grn: *Default: 1, Range: 0 or greater.*

The relative green width of the glow.

Glow Width Blue: *Default: 1.5, Range: 0 or greater.*

The relative blue width of the glow.

Affect Alpha: *Default: 0, Range: 0 or greater.*

If this value is positive the output Alpha channel will include some opacity from the lightning and its glow. The maximum of the red, green, and blue brightness is scaled by this value and combined with the background Alpha at each pixel.

Other Parameters:

Zap Bright: *Default: 1, Range: 0 or greater.*

Scales the brightness of the lightning bolts.

Zap Color: *Default rgb: [1 1 1].*

The color of the lightning. If you want to keep the lightning bolt itself bright white, you can still affect the perceived color by adjusting the Glow Color instead.

Start Offset: *Default: 0, Range: 0 to 1.*

The offset from the start point to begin drawing the bolts. This can be useful for animating a lightning strike.

Length: *Default: 1, Range: 0 to 1.*

The length of the bolts, beginning at Start Offset. If less than 1, the bolts will not be drawn all the way from start to end. This can be useful for animating a lightning strike.

Bg Brightness: *Default: 1, Range: 0 or greater.*

Scales the brightness of the background before combining with the lightning. If 0, the result will contain only the lightning image over black.

Combine: *Popup menu, Default: Screen.*

Determines how the lightning and glow are combined with the Background.

Screen: performs a blend function which can help prevent overly bright results.

Add: causes the lightning to be added to the background. This gives brighter glows over light backgrounds.

Blur Mask: *Default: 0, Range: 0 or greater.*

Blurs the Mask input by this amount before using. This can provide a smoother transition between the masked and unmasked areas. It has no effect unless the Mask input is provided.

Invert Mask: *Check-box, Default: off.*

If on, inverts the mask input so the effect is applied to areas where the Mask is black instead of white. This has no effect unless the Mask input is provided.

Mask Use: *Popup menu, Default: Luma.*

Determines how the Mask input channels are used to make a monochrome mask.

Luma: the luminance of the RGB channels is used.

Alpha: only the Alpha channel is used.

See Also:

Zap

ZapTo

Sapphire Plug-ins

Introduction

S_ZapTo

Generates a forked lightning bolt from a given point to the edges of objects in the ToObject input clip, and renders it over a background input. Use the Show:Edges option to view the target edges while adjusting the Threshold and Blur To Obj parameters.

In the Sapphire Render effects submenu.



Inputs:

Background: The clip to use as background. If none is selected the main input (the current layer) is also used for the background.

ToObject: *Optional.* The edges of objects in this clip are extracted, and the lightning connects to points along these edges facing towards the starting point.

Parameters:

Surface Points: *Integer, Default: 10, Range: 1 to 500.*

The number of points along the edges to connect the lightning to. These surface points are divided up amongst the shapes in the ToObject input. If the number of requested surface points is equal to the number of separate shapes in the ToObject input, one lightning fork will connect to each.

Bolts: *Integer, Default: 1, Range: 1 to 200.*

The number of independent forked lightning bolts to draw, each connecting the Start position with the edge points.

Start: *X & Y, Default: [360 243], Range: any.*

The starting position of the lightning.

Max Dist: *Default: 2, Range: 0 to 5.6.*

The maximum distance of surface points from the Start position. Edges outside this distance are ignored.

Threshold: *Default: 0.5, Range: 0 or greater.*

The value used to determine the edge locations. Objects darker than this value are ignored. On smooth objects, larger threshold values move the edges inwards to make smaller shapes, and smaller values move the edges outwards. You can use the Show Edges option to view the edge image directly while adjusting this parameter.

Blur ToObj: *Default: 0.0056, Range: 0 or greater.*

Blurs the ToObject input clip before finding the edges. This can help remove noise, and reduce the number of separate shapes. You can use the Show Edges option to view the edge image directly while adjusting this parameter.

ToObj Use: *Popup menu, Default: Luma.*

Determines which channel of the ToObject input channels are used.

Luma: the luminance of the RGB channels is used.

Alpha: only the Alpha channel is used.

Show: *Popup menu, Default: Result.*

Selects what the effect will output.

Result: shows the normal lightning result over the background.

Edges: shows the target edge image. This can be useful to view while adjusting the Threshold and Blur To Obj parameters.

Bolt Width: *Default:* 0.014, *Range:* 0 or greater.
The width of the lightning bolts.

Vary Width: *Default:* 0, *Range:* 0 to 1.
The amount of random variation in the width of the bolts along their lengths.

End Pointiness: *Default:* 0.25, *Range:* 0 to 1.
Determines how pointed the end of the bolts are. If 0, the entire bolt will have equal width. If 1, the bolts will thin out along their entire length for a pointed end. If it is .5, the bolts will start thinning out half way between the start and end points.

Wiggle Start: *Default:* 0, *Range:* 0 or greater.
By default the bolts automatically wiggle over time. This parameter provides a starting offset for these bolt perturbations.

Wiggle Speed: *Default:* 1, *Range:* 0 or greater.
The speed at which the bolts are perturbed automatically over time. To animate changes in speed, set this to zero and animate the Wiggle Start parameter instead.

Jitter Frames: *Integer, Default:* 0, *Range:* 0 or greater.
If this is 0, the same random lightning will be used for every frame processed. If it is 1, different random lightning is used for each frame. If it is 2, new random lightning is used for every other frame, and so on.

Rand Seed: *Default:* 0.123, *Range:* 0 or greater.
Used to initialize the random number generator. The actual seed value is not significant, but different seeds give different random lightning bolts, and the same value should give a repeatable result.

Wrinkle Amp: *Default:* 1, *Range:* 0 or greater.
Scales the amount of wrinkles in the bolts. Decrease for straighter smoother bolts or increase for more kinky bolts.

Branchiness: *Default:* 1, *Range:* 0 to 20.
Scales the number of additional bolts that branch from the main bolt. Set this to 0 for basic bolts with no extra branches.

Branch Angle: *Default:* 65, *Range:* 0 to 180.
The maximum angle of the random branches relative to the bolt they are branching off of. If this is 0 the branches will be more lined up with the main bolt. With larger values the branches will be more perpendicular to the main bolt.

Branch Length: *Default:* 0.5, *Range:* 0 to 1.
The maximum length of the branches relative to the distance between the Start and End points.

Glow Parameters:

Glow Bright: *Default:* 2, *Range:* 0 or greater.
Scales the brightness of the glow applied to the lightning.

Glow Color: *Default rgb:* [0.5 0.5 1].
The color of the glow applied to the lightning.

Glow Width: *Default:* 0.056, *Range:* 0 or greater.
The width of the glow applied to the lightning.

Glow Width Red: *Default:* 0.5, *Range:* 0 or greater.
The relative red width of the glow.

Glow Width Grn: *Default: 1, Range: 0 or greater.*

The relative green width of the glow.

Glow Width Blue: *Default: 1.5, Range: 0 or greater.*

The relative blue width of the glow.

Affect Alpha: *Default: 0, Range: 0 or greater.*

If this value is positive the output Alpha channel will include some opacity from the lightning and its glow. The maximum of the red, green, and blue brightness is scaled by this value and combined with the background Alpha at each pixel.

Other Parameters:

Zap Bright: *Default: 1, Range: 0 or greater.*

Scales the brightness of the lightning bolts.

Zap Color: *Default rgb: [1 1 1].*

The color of the lightning. If you want to keep the lightning bolt itself bright white, you can still affect the perceived color by adjusting the Glow Color instead.

Start Offset: *Default: 0, Range: 0 to 1.*

The offset from the start point to begin drawing the bolts. This can be useful for animating a lightning strike.

Length: *Default: 1, Range: 0 to 1.*

The length of the bolts, beginning at Start Offset. If less than 1, the bolts will not be drawn all the way from start to end. This can be useful for animating a lightning strike.

Bg Brightness: *Default: 1, Range: 0 or greater.*

Scales the brightness of the background before combining with the lightning. If 0, the result will contain only the lightning image over black.

Combine: *Popup menu, Default: Screen.*

Determines how the lightning and glow are combined with the Background.

Screen: performs a blend function which can help prevent overly bright results.

Add: causes the lightning to be added to the background. This gives brighter glows over light backgrounds.

Show Start: *Check-box, Default: on.*

Turns on or off the screen user interface for adjusting the Start parameter.

See Also:

[Zap](#)

[ZapFrom](#)

[Sapphire Plug-ins](#)

[Introduction](#)

S_Zebrafy

Modulates the brightness of the source clip with a sinusoid to give a black and white solarized look.

In the Sapphire Stylize effects submenu.



Inputs:

Source: The clip to be processed.

Parameters:

Source Blur: *Default:* 0.022, *Range:* 0 or greater.

Smooths the source edges by this amount.

Frequency: *Default:* 4, *Range:* 0.01 or greater.

The frequency of the stripe pattern. Increase for more color cycles.

Phase Start: *Default:* 0, *Range:* any.

The phase shift of the stripe pattern.

Phase Speed: *Default:* 0, *Range:* any.

The phase speed of the stripe pattern. If non-zero, the stripes are automatically animated to flow at this rate.

Brightness: *Default:* 1, *Range:* 0 or greater.

Scales the brightness of the result.

Color: *Default rgb:* [1 1 1].

Scales the color of the result. For example, if it is yellow [1 1 0], the blue of the result will be 0.

Offset: *Default:* 0, *Range:* -8 to 2.

Adds this gray value to the result (or subtracts if negative). 0 has no effect, .5 is middle gray, and 1 is white.

Scale By Source: *Default:* 0, *Range:* 0 to 1.

The brightness of the output is scaled down by the original source brightness as this is increased to 1.

Scale By Src Amp: *Default:* 1, *Range:* 0 or greater.

This amplifies the effect of Scale By Source, so if increased above 1, the middle grays can still retain their full brightness. It has no effect unless Scale By Source is positive.

See Also:

[ZebrafyColor](#)

[HalfTone](#)

[Sapphire](#)

[Etching](#)

[Plug-ins](#)

[ScanLines](#)

[Introduction](#)

[Solarize](#)

S_ZebrafyColor

Modulates the brightness of the source clip with sinusoids for each color channel to give a color striped effect.

In the Sapphire Stylize effects submenu.



Inputs:

Source: The clip to be processed.

Parameters:

Source Blur: *Default:* 0.022, *Range:* 0 or greater.
Smooths the source edges by this amount.

Frequency: *Default:* 3, *Range:* 0.01 or greater.
The frequency of the stripe pattern. Increase for more color cycles.

Freq Red: *Default:* 1, *Range:* 0 or greater.
The frequency of the red color component. Increase for more cycles in the red channel.

Freq Green: *Default:* 1.1, *Range:* 0 or greater.
The frequency of the green color component. Increase for more cycles in the green channel.

Freq Blue: *Default:* 1.2, *Range:* 0 or greater.
The frequency of the blue color component. Increase for more cycles in the blue channel.

Phase Start: *Default:* 0, *Range:* any.
The phase shift of the stripe pattern.

Phase Red: *Default:* 0, *Range:* any.
The phase offset of the red color component.

Phase Green: *Default:* 0, *Range:* any.
The phase offset of the green color component.

Phase Blue: *Default:* 0, *Range:* any.
The phase offset of the blue color component.

Phase Speed: *Default:* 0, *Range:* any.
The phase speed of the stripe pattern. If non-zero, the stripes are automatically animated to flow at this rate.

Brightness: *Default:* 1, *Range:* 0 or greater.
Scales the brightness of the result.

Color: *Default rgb:* [1 1 1].
Scales the color of the result. For example, if it is yellow [1 1 0], the blue of the result will be 0.

Offset: *Default:* 0, *Range:* -8 to 2.
Adds this gray value to the result (or subtracts if negative). 0 has no effect, .5 is middle gray, and 1 is white.

Saturation: *Default:* 1, *Range:* 0 to 10.
Scales the strength of the colors. Increase for more intense colors, or decrease for muted colors.

Scale By Source: *Default:* 0, *Range:* 0 to 1.

The brightness of the output is scaled down by the original source brightness as this is increased to 1.

Scale By Src Amp: *Default:* 1, *Range:* 0 or greater.

This amplifies the effect of Scale By Source, so if increased above 1, the middle grays can still retain their full brightness. It has no effect unless Scale By Source is positive.

See Also:

[Zebraify](#)

[PseudoColor](#)

[Sapphire](#)

[Solarize](#)

[Plug-ins](#)

[PsykoBlobs](#)

[Introduction](#)

[PsykoStripes](#)

List of Effects With Pictures



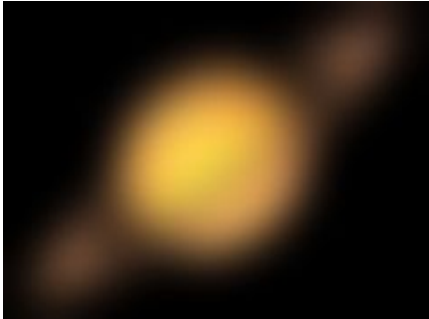
AutoPaint



BandPass



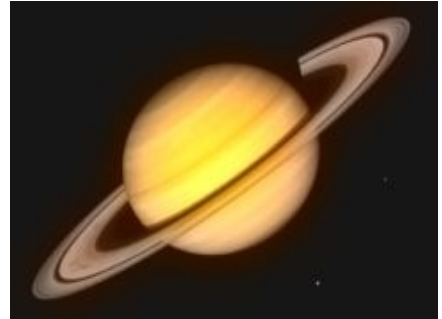
BleachBypass



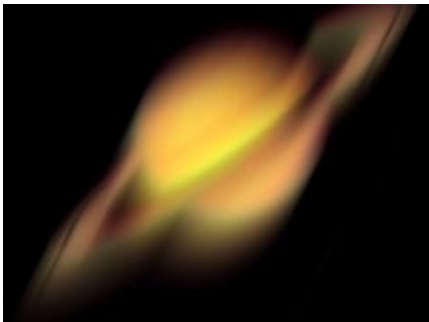
Blur



BlurChannels



BlurChroma



BlurDirectional



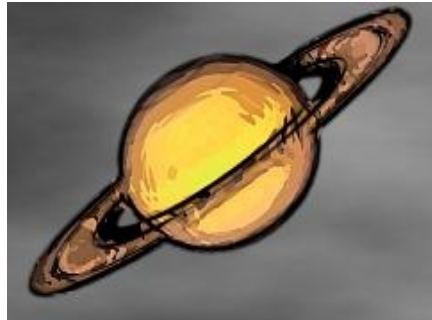
BlurMoCurves



BlurMotion



Cartoon



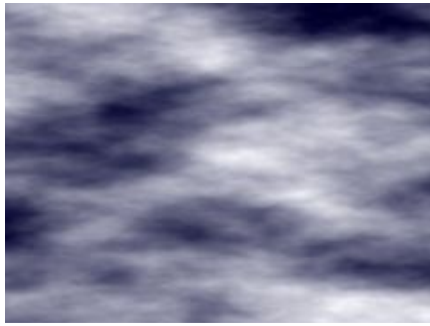
CartoonPaint



ChannelSwitcher



ClampChroma



Clouds



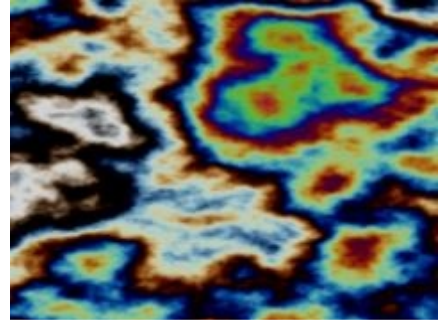
CloudsColorSmooth



CloudsMultColor



CloudsPerspective



CloudsPsyko



CloudsVortex



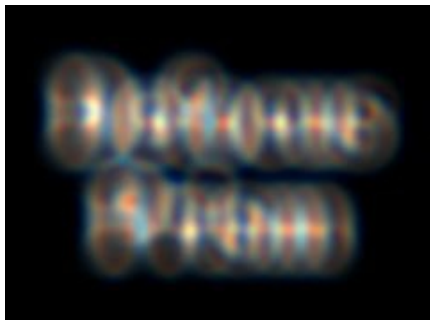
Convolve



ConvolveComp



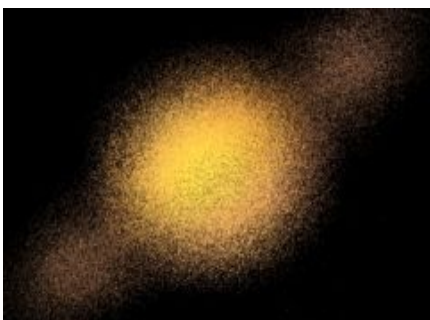
Deband



DefocusPrism



DeinterlaceAuto



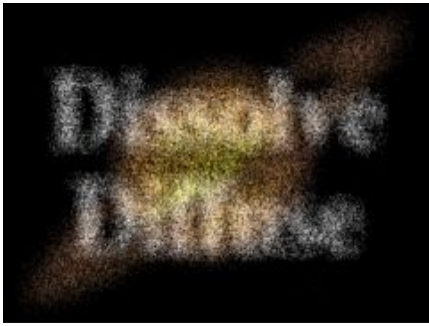
Diffuse



DissolveBlur



DissolveBubble



DissolveDiffuse



DissolveFilm



DissolveGlow



DissolveLuma



DissolvePuddle



DissolveSpeckle



DissolveStatic



DissolveVortex



DissolveWaves



Distort



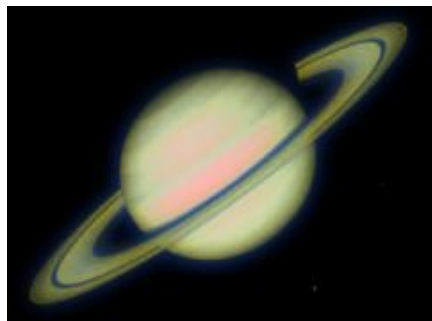
DistortBlur



DistortChroma



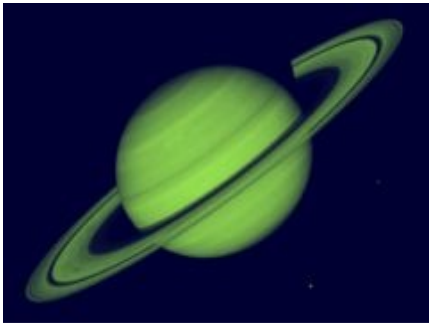
DistortRGB



DogVision



DropShadow



DuoTone



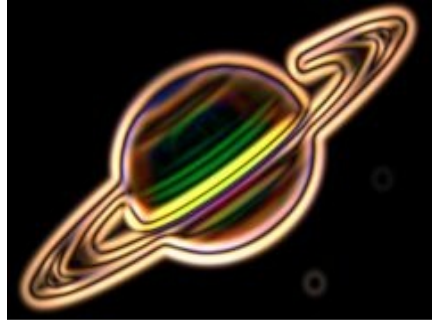
EdgeBlur



EdgeColorize



EdgeDetect



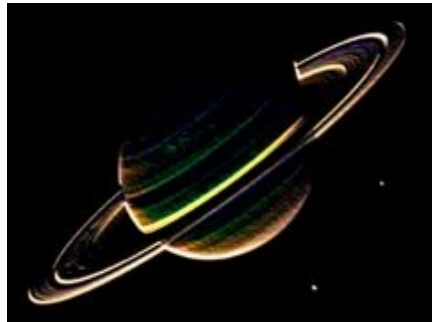
EdgeDetectDouble



EdgeFlash



EdgeRays



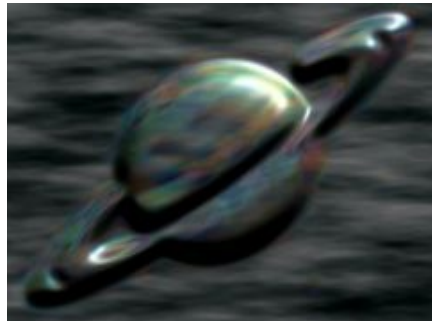
EdgesInDirection



Emboss



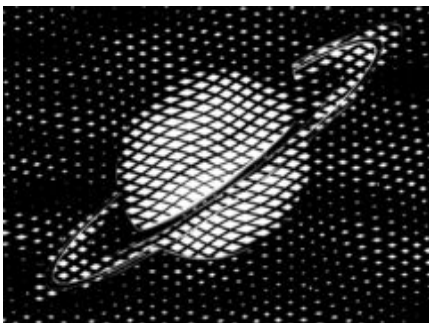
EmbossDistort



EmbossGlass



EmbossShiny



Etching



Feedback



FeedbackBubble



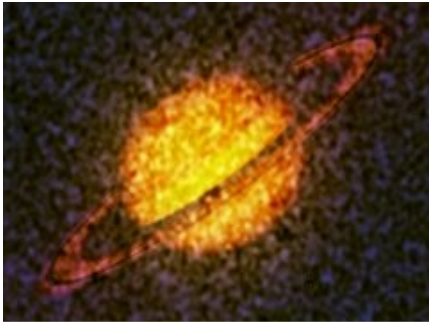
FeedbackDistort



FieldRemove



FilmDamage



FilmEffect



Flicker



FlickerMatch



FlickerMatchColor



FlickerMatchMatte



FlickerMchMatteColor



FlickerRemove



FlickerRemoveColor



FlickerRemoveMatte



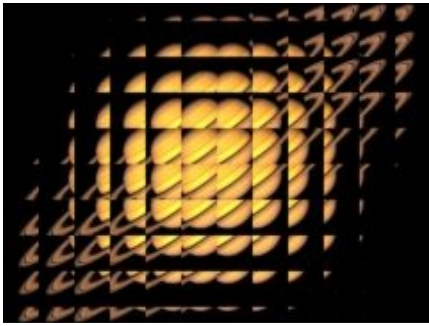
FlickerRmMatteColor



FlysEyeCircles



FlysEyeHex



FlysEyeRect



Gamma



Glare



Glint



GlintRainbow



Glow



GlowAura



GlowDarks



GlowDist



GlowEdges



GlowNoise



GlowOrthicon



GlowRainbow



GlowRings



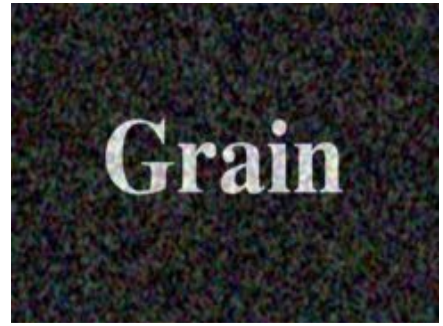
Gradient



GradientMulti



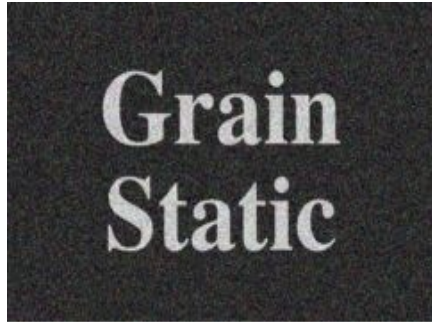
GradientRadial



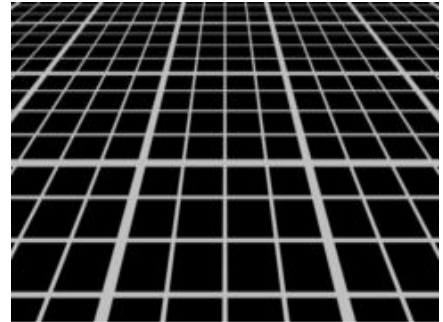
Grain



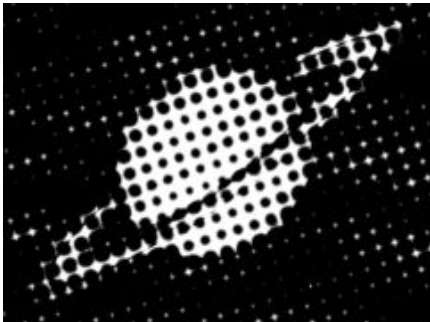
GrainRemove



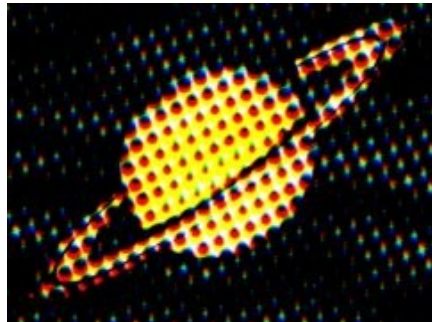
GrainStatic



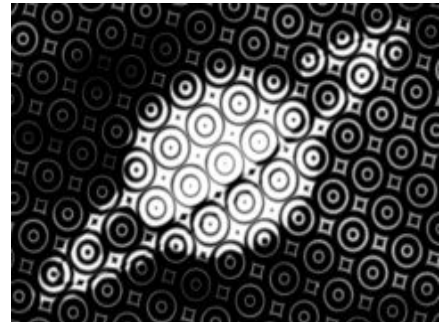
Grid



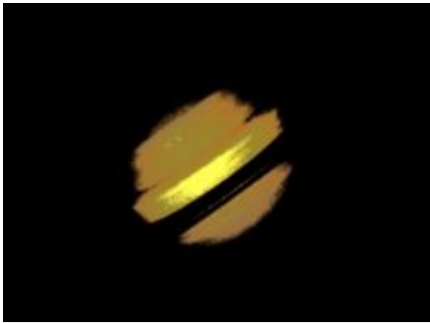
HalfTone



HalfToneColor



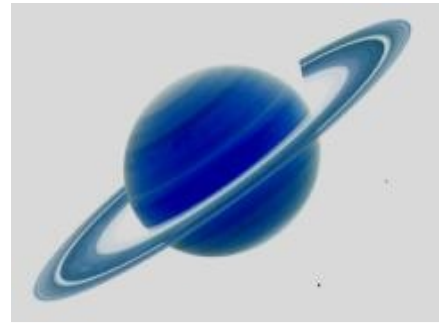
HalfToneRings



Hotspots



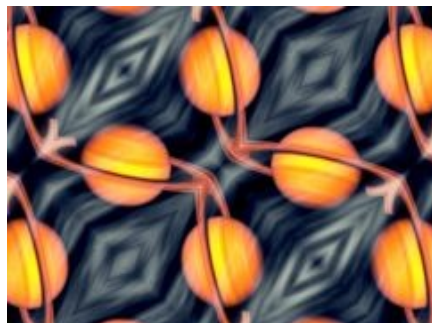
HueSatBright



Invert



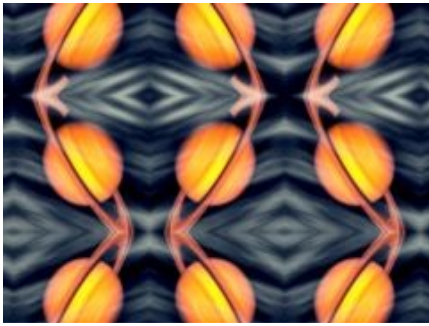
JpegDamage



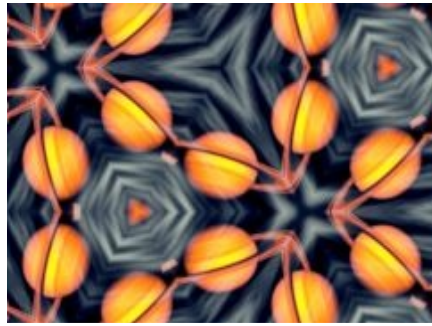
KaleidoDiamonds



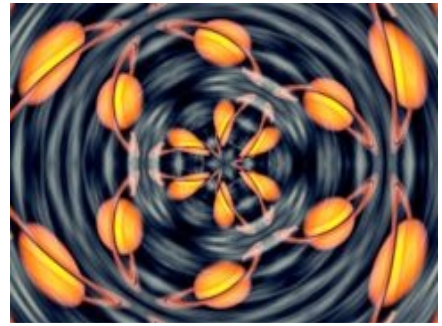
KaleidoOct



KaleidoSquares



KaleidoTriangles



KaleidoPolar



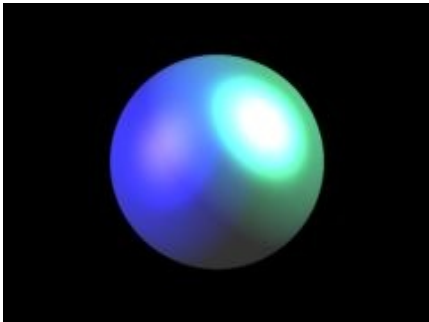
Layer



LensFlare



LensFlareAutoTrack



Light3D



MathOps



MatteOps



MatteOpsComp



Monochrome



Mosaic



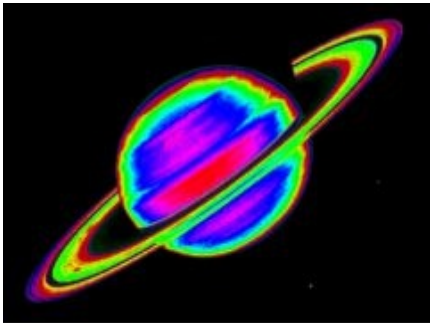
MotionDetect
FreezeFrame
RandomEdits



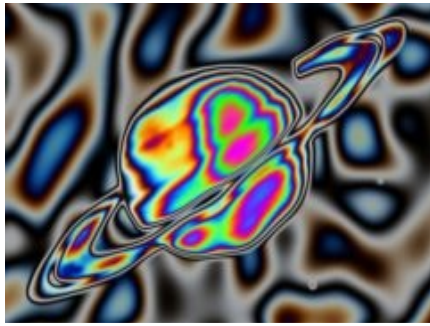
NearestColor
GetFrame
ReverseClip



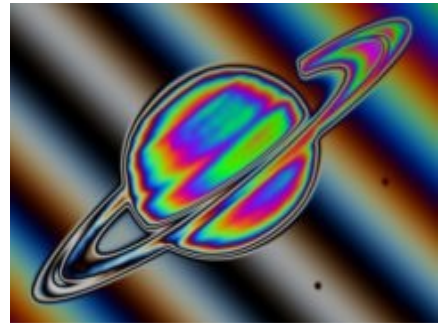
Posterize
JitterFrames
ReverseEdits



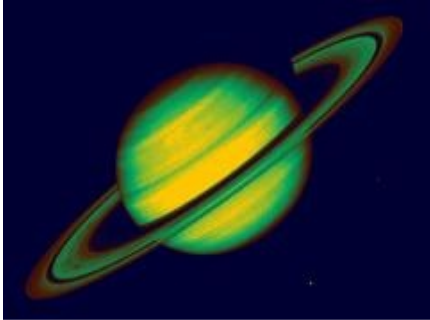
PseudoColor



PsykoBlobs



PsykoStripes



QuadTone



RackDefocus



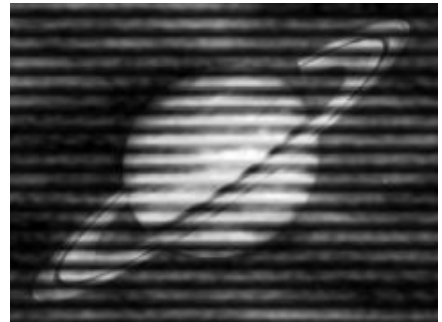
RackDfComp



Rays



ScanLines



ScanLinesMono



Shake



Shape



Sharpen



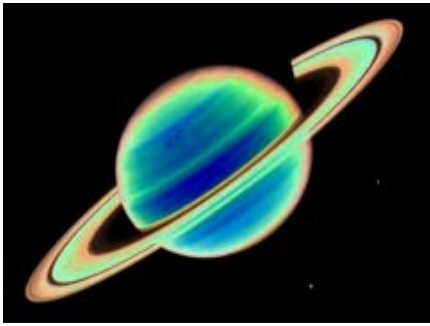
ShowBadColors



Sketch



SoftFocus



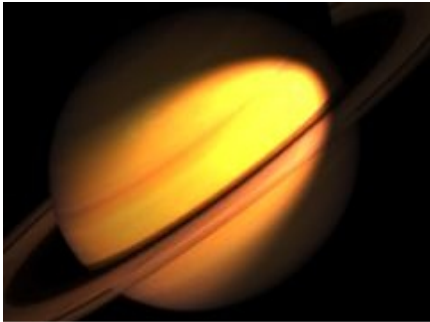
Solarize



Sparkles



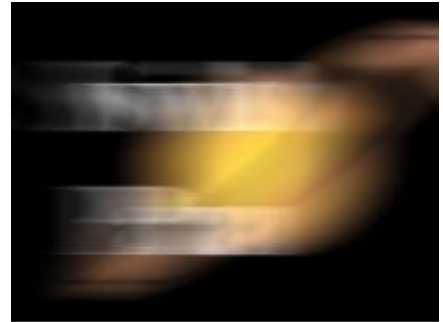
SparklesColor



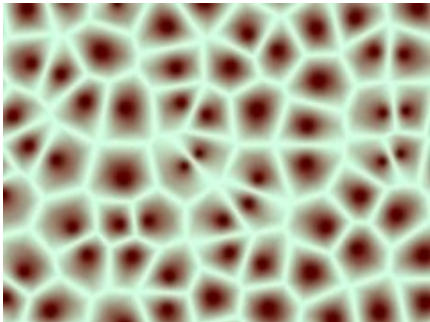
SpotLight



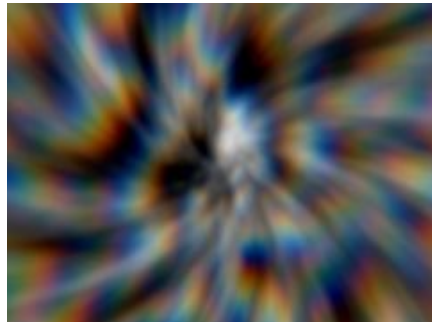
Streaks



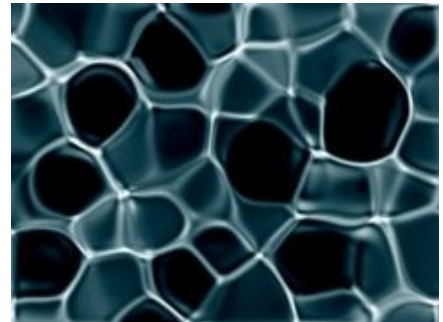
SwishPan



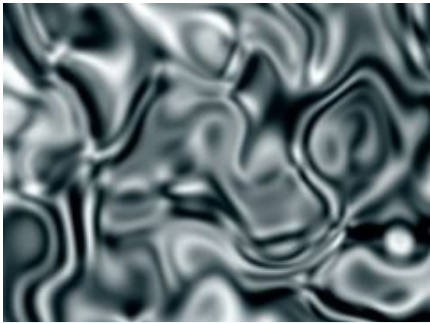
TextureCells



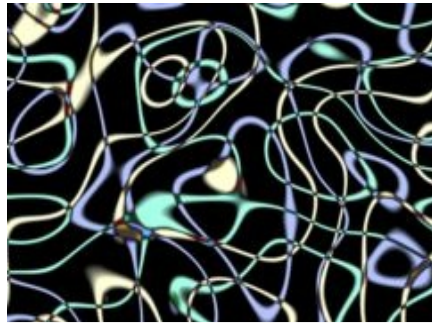
TextureChromaSpiral



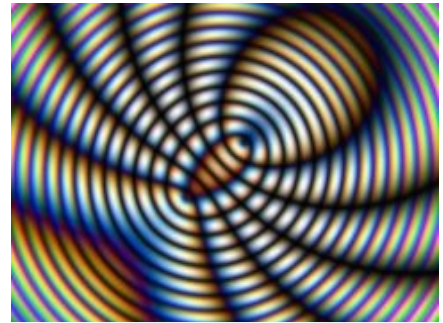
TextureFlux



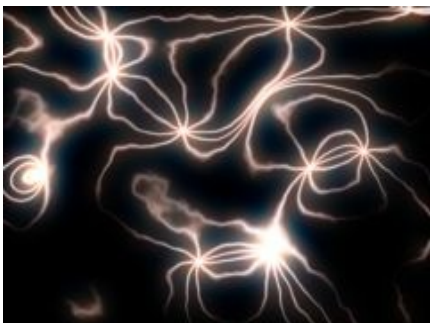
TextureFolded



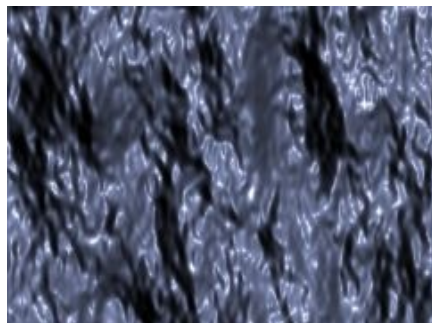
TextureLoops



TextureMoire



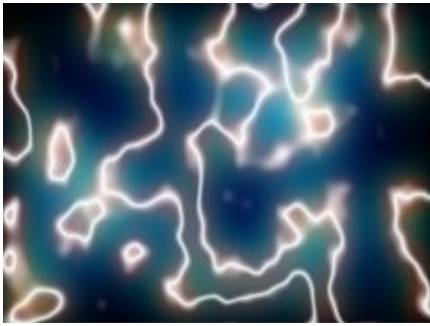
TextureNeurons



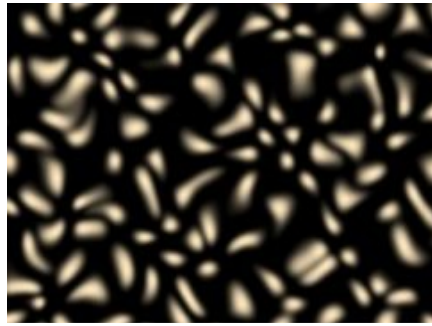
TextureNoiseEmboss



TextureNoisePaint



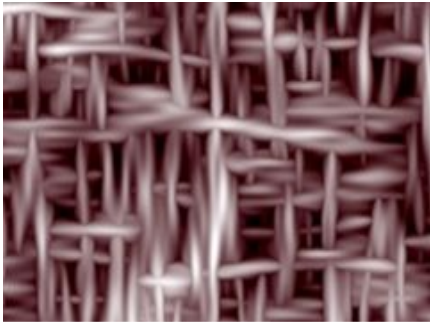
TexturePlasma



TextureSpots



TextureTiles



TextureWeave



Threshold



TileScramble



TimeAverage



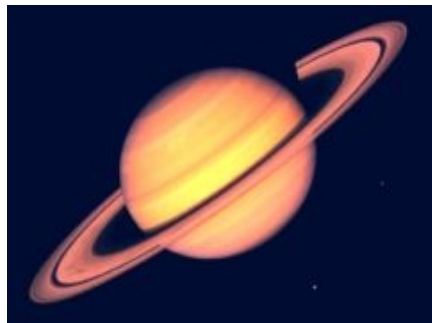
TimeDisplace



TimeSlice



TimeWarpRGB



Tint



Trails



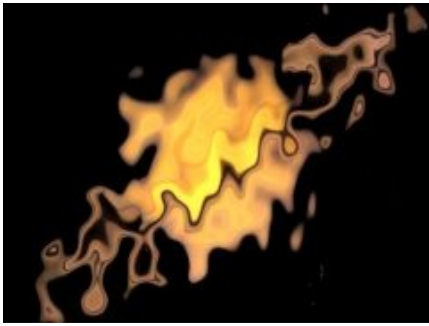
TrailsDiffuse



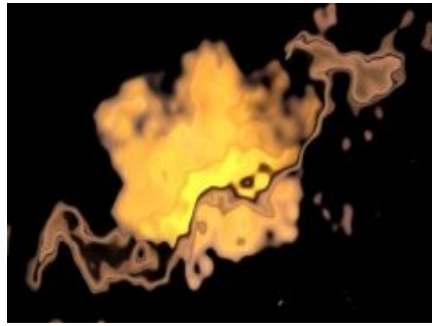
TriTone



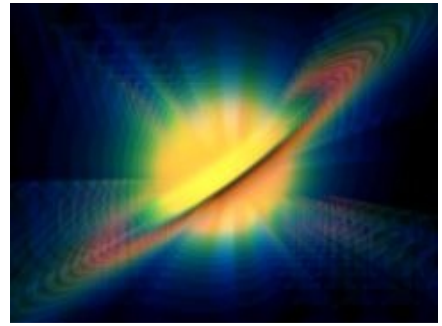
Vignette



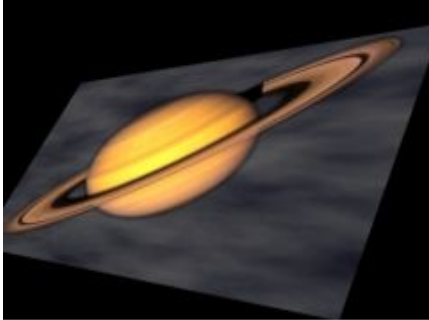
WarpBubble



WarpBubble2



WarpChroma



WarpCornerPin



WarpDrops



WarpFishEye



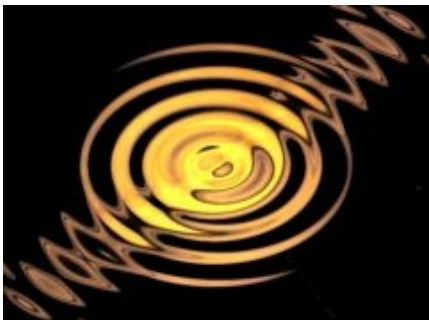
WarpMagnify



WarpPerspective



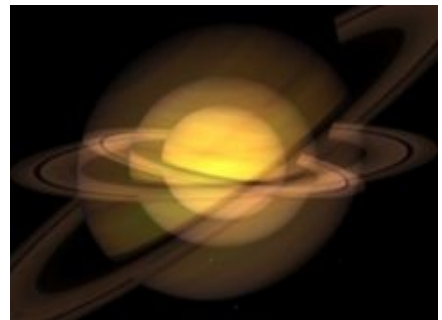
WarpPolar



WarpPuddle



WarpPuff



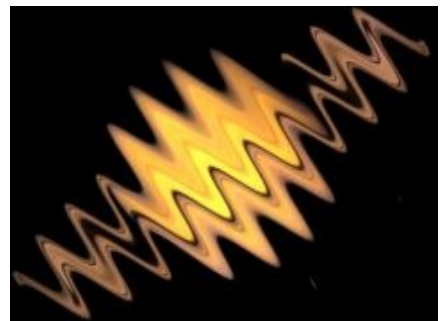
WarpRepeat



WarpTransform



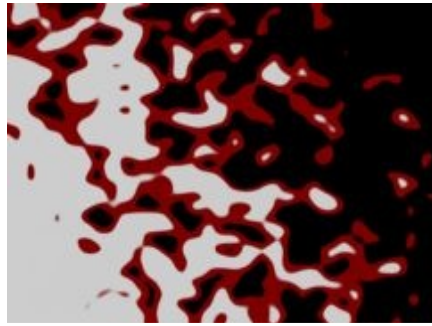
WarpVortex



WarpWaves



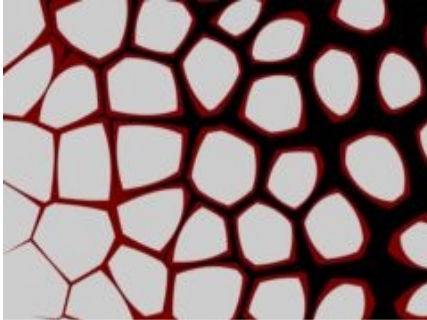
WarpWaves2



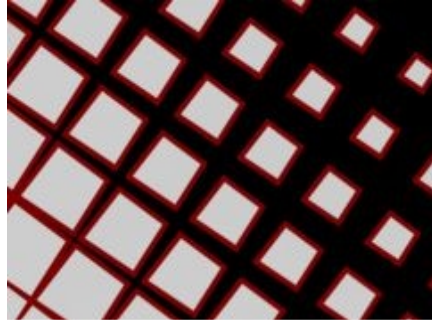
WipeBlobs



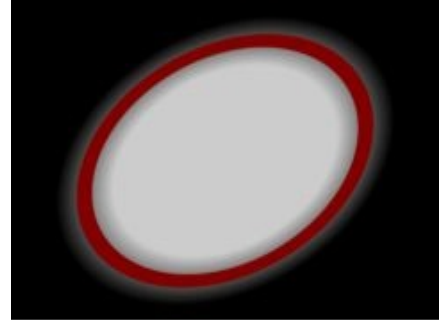
WipeBubble



WipeCells



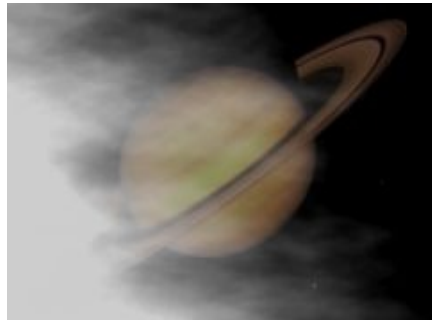
WipeChecker



WipeCircle



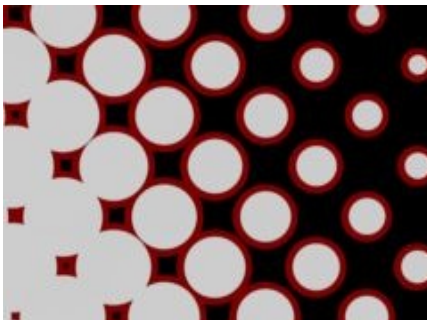
WipeClock



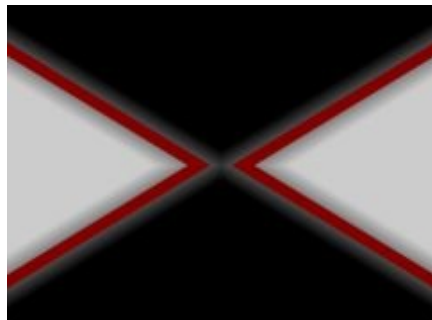
WipeClouds



WipeDiffuse



WipeDots



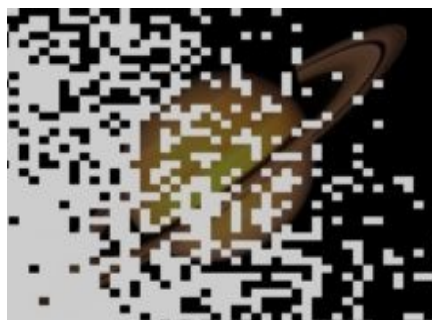
WipeDoubleWedge



WipeFourWedges



WipeLine



WipePixelate



WipeRectangle



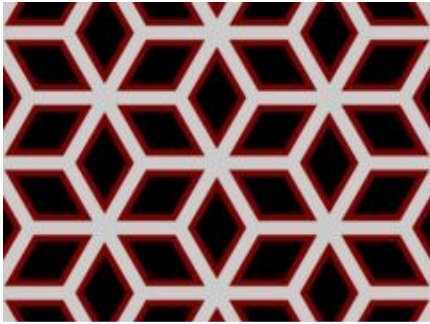
WipeRings



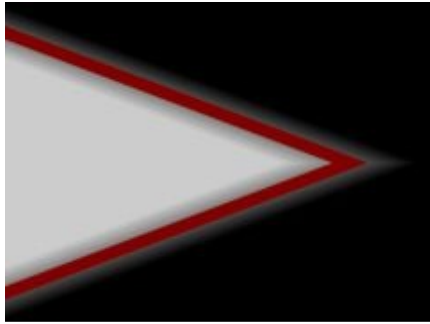
WipeStar



WipeStripes



WipeTiles



WipeWedge



ZBlur



ZComp



ZConvolve



ZDefocus



ZFogExponential



ZFogLinear



ZGlow



Zap



ZapFrom



ZapTo



Zebrafy



ZebrafyColor