
tinderbox¹

User Guide

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Tinderbox 1 User Guide

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Introduction

Welcome to Tinderbox 1 for After Effects. Our plug-ins have been developed for the most demanding professionals in the post production industry. All the software engineers at The Foundry have worked in television or film, and know only too well the exacting requirements of this field. We are delighted to bring these tools to After Effects professionals. We hope you enjoy using them as much as we do.

About this User Guide

This User Guide contains both tutorial and reference sections.

For users new to Tinderbox, the Quick Tutorial will get you up and running fast, and the Hints & Tips section at the end of each plug-in will suggest creative or practical uses of the effect.

For users already familiar with Foundry plug-ins, the reference sections after the Quick Tutorial can help answer most questions on individual plug-ins or parameters.

Projects are provided for a few of the plug-ins to show how to set up different effects.

Controls common to several Tinderbox plug-ins are described in the chapters **Tinderbox Controls** and **Tinderbox Viewer**. Remaining controls are described under

the individual plug-in headings.

System Requirements

Tinderbox plugs into Adobe After Effects 4.0 or 4.1 running on Mac or PC/NT.

For the Mac you will need a PowerPC™ based computer, Mac OS System 8.1 or later, QuickDraw3D 1.6 or later, CD-ROM and a hard disk. 128Mb of RAM or more is recommended. You will need OpenGL libraries. These are pre-loaded on Mac OS 9 and later, and included on the Tinderbox CD for earlier OS versions.

For Windows/NT you will need an Intel compatible computer with Windows 98 or Windows NT 4.0 (Service Pack 3), CD-ROM and a hard disk. 128Mb of RAM or more is recommended.

Installation on Mac

To install Tinderbox 1 on a Mac follow these instructions:

- Insert the Tinderbox 1 CD into your CD-ROM drive.
- Double-click on the Tinderbox 1 icon that appears on your desktop.

Note *If you are using MAC OS 8.1 then install the OpenGL libraries on the Tinderbox1 CD before continuing.*

- Double-click on the Tinderbox 1 Installer.
- Click through the splash screen.
- Read the Software License Agreement. If you agree to it press continue and install the software.

- Select the After Effects Plug-ins folder on your hard disk and click Install.
- This will install the plug-ins into a sub-folder of Plug-ins called Tinderbox 1.
- Click Quit.
- If After Effects is running, quit it and restart After Effects.
- After Effects will ask you to serialize the plug-ins. Click Serialize All.
- To complete the installation make sure the Tinderbox 1 CD is still in the CD-ROM drive, then apply any Tinderbox 1 effect. A thank you message will be displayed. Installation is complete.

Installation on PC/ NT

To install Tinderbox 1 on a PC/NT follow these instructions:

- Insert the Tinderbox 1 CD into your CD-ROM drive.
- Double-click on Setup.exe in the CD's top folder to begin installation.
- A window will appear welcoming you to the Tinderbox 1 Setup. Click Next to continue to the license agreement.
- When the software license agreement appears, please read it. If you agree, click Yes to continue the installation.
- Choose the location to install Tinderbox 1 on your hard disk. To accept the default location, and it is strongly recommended that you do, just click Next to continue.

- The Tinderbox 1 plug-ins will be installed.
- Click Finish to quit the installer.
- If After Effects is running, quit it and restart After Effects.
- After Effects will ask you to serialize the plug-ins. Click Serialize All.
- To complete the installation make sure the Tinderbox 1 CD is still in the CD-ROM drive, then apply any Tinderbox 1 effect. A thank you message will be displayed. Installation is complete.

Registration

Once you have installed the software be sure to tell us who you are. Only then can we send you information on bug fixes and new products. As an incentive, all registered users will receive a Registration Code to unlock the T_Qube plug-in.

To unlock your extra plug-in follow these steps.

- Apply T_Qube (Tinderbox Effects) to a composition.
- Your Serial Number will be displayed. Jot it down.
- To register on the web, go to the After Effects section of The Foundry's web site, www.thefoundry.co.uk and complete the Tinderbox 1 registration form. You will need to enter your contact details and Serial Number.
- The Foundry will automatically E-mail back a Registration Code to unlock T_Qube.
- To enter the Registration Code, apply T_Qube to a composition and type in the numbers that form the Code.

Note *You can also register by completing and faxing back the form in the Registration folder on the Tinderbox 1 CD.*

Serial Number

The Serial Number is shown at the bottom of the on-line help dialogs. Click on any Tinderbox About button.

You will need to quote the Serial Number in any correspondence with The Foundry.

About Tinderbox Plug-ins

All Tinderbox plug-ins integrate seamlessly into After Effects. They are applied to your clips as you would any other process and they can all be animated using the standard After Effects animation tools.

For users with the Adobe After Effects Production Bundle, the Motion Tracker can be used to input data into any positional controls of the Tinderbox plug-ins.

Other Foundry Products

The Foundry is a leading developer of plug-in visual effects for film and video post production. Its products include Tinder, Tinderbox, Keylight and Anvil and run on a variety of compositing platforms including flame* from Discreet, Avid's Media Illusion, SOFTIMAGE|DS, Nothing Real's Shake and Maya Composer. For the full list of products and supported platforms see www.thefoundry.co.uk

Tinder and Tinderbox are collections of image processing effects including blurs, distortion effects, background generators, colour tools, wipes, matte tools, painterly effects, lens flares and much more.

Anvil is a collection of colour correction and colour manipulation tools.

Keylight is an award winning blue/green screen keyer giving results that look photographed not composited. The Keylight algorithm was developed by the Computer Film Company who were honoured with a technical achievement award for digital compositing from the Academy of Motion Picture Arts and Sciences.

Visit The Foundry's web site at www.thefoundry.co.uk for further details.

Quick Tutorial

This tutorial is designed to get you up and running quickly by introducing you to one of the Tinderbox plug-ins.

Detailed descriptions of common controls are given in the chapters *Tinderbox Controls* and *Tinderbox Viewer*. Individual plug-ins are described in detail later in this *User Guide*.

Having completed this tutorial you should be able to:

- Apply a Tinderbox plug-in to an image layer.
- Use the on-screen tools to crop the source image.
- Animate the plug-in values.
- Reset the plug-in values.
- Use a Matte to restrict the effect.

Throughout this tutorial it is assumed that you are familiar with Adobe After Effects.

All footage files are available from the Tutorial directory.

Applying a Plug-in

1. Create a new composition called *Tinderbox*. Make the Frame Size 720x576, set the Frame Rate to 25 and the Duration to 50.
2. Import the footage file *Bus.mov*.
3. Add the *Bus.mov* clip to the *Tinderbox* composition.
4. Select the *Bus.mov* clip in the Time Layout window and choose *Effect > Tinderbox - Blurs > T_DirBlur*.

5. Under T_DirBlur > Controls > Directional Blur set Rotation to 90 and Length to 50.
6. Do a RAM preview to view the effect. Change to a lower resolution if you are unable to fit the entire clip into memory.



Bus image with T_DirBlur applied

Using Viewer Controls

This image of the bus has black edges and this is causing black pixels to be blurred into the image area. To avoid this we will use the Crop controls to remove the black edges.

7. In the Effect Controls window, open the Viewer controls for T_DirBlur.
8. Select Viewer > Source to display the crop tools.
9. Click on the far left edge of the image shown in Source and drag to the right. You should be dragging a yellow vertical line. This is defining how much of the image to crop. Drag the yellow line a short way into the image to get rid of any black blurred pixels.

Note *This can also be done by setting the value explicitly under Source Crops.*

10. Do the same for the right edge.



T_DirBlur with Source Edges cropped

11. Do a quick RAM preview to see the result.

Animating Values

We shall now animate the value of the blur.

12. Go to frame 1 and turn on the stopwatch next to T_DirBlur > Controls > Directional Blur > Length. This allows the Length value to be animated.

13. Open Controls > Directional Blur for T_DirBlur in the Effect Controls window and set the Length to 10 by using the Length slider or clicking on the underlined value. A keyframe is set in the timeline.

14. Move to frame 50 and set the Length to 60. A second keyframe is set in the timeline.

15. Do a RAM preview.



RAM Preview. Frame 1



RAM Preview. Frame 50

16. Remove the animation by going to frame 1 and turning off the stopwatch next to Length.

Using a Matte

Many of the Tinderbox plug-ins have an optional second input which can be used as an attenuating Matte. We will use another image as a Matte to restrict the area to which the effect is applied. (See “Matte” on page 28.)

17. Import the Matte.mov file and add it to the Tinderbox composition.

18. Matte.mov is only going to be used as a matte therefore it should not be seen in the composition. Move the Matte.mov layer below the Bus.mov layer.

Note *Alternatively, you could switch off the eye so that the matte layer is not visible. If doing this, you must remember to switch the eye back on before pre-composing the matte layer later in the tutorial.*

19. Under Controls > Matte of the T_DirBlur select Matte.mov.
20. Change the Matte Channel to Inverted Luminance. The blur is now applied to only the bus and not the background. The blur cut-off the at the edge of the bus is too harsh.



DirBlur with unblurred matte

21. To soften the transition of the directional blur at the matte edge, we will blur the matte. Select the Matte layer and add a **Tinderbox - Blurs > T_Blur**. Set the Radius to 80. You will see this has no affect on the final result as the **T_DirBlur** is accessing the original, unaltered image. The **matte.mov** layer will need to be pre-composed.
22. Select the **Matte.mov** layer, then select **Layer > Pre-compose** and choose **Move all attributes** into the new composition.
23. Change the **Matte** of **T_DirBlur** to **Matte.mov Comp1**. The changes made to the matte layer are now reflected in the final result. Notice how the directional blur now smoothly ramps off at the edge of the bus.

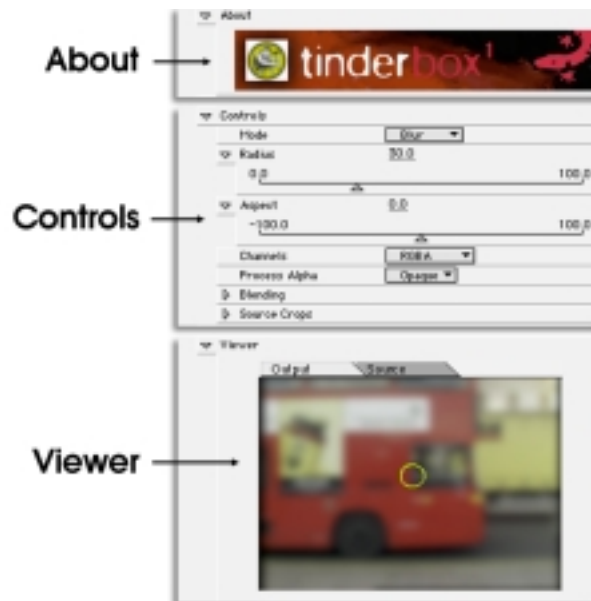


DirBlur with attenuating blurred matte

24. Do a RAM preview to see the final effect.

Tinderbox Controls

Each Tinderbox plug-in has three sections. The About menu contains access to on-line help by clicking anywhere within the graphic. The Controls menu contains all the parameter controls for the plug-in. The Viewer menu contains all the on-screen tools.



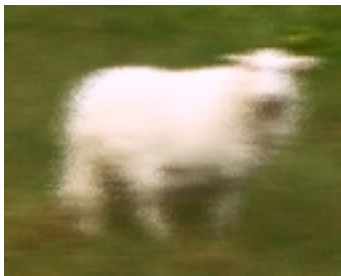
All Tinderbox plug-ins have Reset and About buttons, common to all After Effects effects. Reset reverts all parameters in the plug-in to their default values. About will display the on-line help. This gives a brief description of

the plug-in, the exact version number of Tinderbox and the Serial Number. Detailed information is contained in this User Guide.

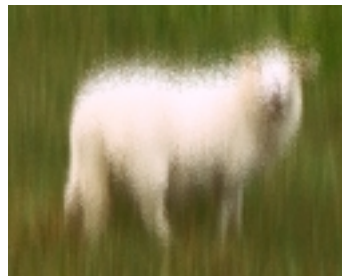
This section will describe some of the controls common to many of the Tinderbox plug-ins. For controls specific to individual plug-ins see their entries later in this User Guide.

Aspect

Controls the proportion of the effect in x, horizontal, and y, vertical. A value of 0 will apply the effect equally in x and y. A value of 100 will only apply the effect in x. A value of -100 will only apply the effect in y.



T_Diffuse Aspect set to 100



T_Diffuse Aspect set to -100

The Aspect controls can be used to match the effect exactly to the aspect ratio of the image.

Note *Where appropriate, Tinderbox plug-ins will automatically compensate for the Pixel Aspect Ratio set under Composition Settings.*

Channels

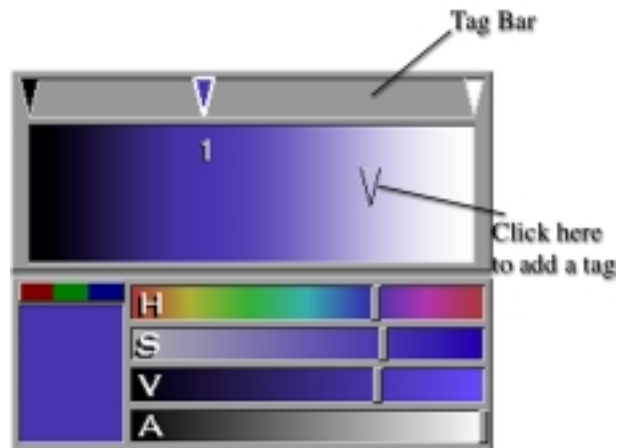
Controls which of the colour channels will be affected by the effect. The options can be a subset or all of:

- RGB - the red, green and blue channels will all be affected.
- Grey - this affects the result of $(R+G+B)/3$.
- Red - only the red channel will be affected.
- Green - only the green channel will be affected.
- Blue - only the blue channel will be affected.
- Luminance - the luminance of the image will be affected.
- U - only the U video signal will be affected.
- V - only the V video signal will be affected.
- Chroma - the U and V channels will be affected.

Gradient

Several of the Tinderbox plug-ins require the colours to be set in a gradient or ramp. These plug-ins will have a Gradient control. The coloured area at the top is used to create, delete and position the individual colours in the gradient by manipulating the small triangular colour tags. The colour chooser below allows you to change the colour of the currently selected tag.

Note *The tags on the extreme left and right cannot be moved or deleted but their colours can be modified.*



Gradient Controls

Changing a Tag Colour

Select a tag by clicking on it. It will become highlighted and its colour will appear in the colour chooser. Modify the colour by using the sliders. Toggle the colour sliders between RGB and HSV by turning on and off the red, green and blue button above the current colour display.

Moving a Tag

Select a tag by clicking on it and dragging it left and right.

Note *The tags on the extreme left and right cannot be moved.*

Adding a Tag

A tag is created by moving the cursor into the colour ramp area where a tag will appear. Click the mouse and drag the tag up onto the tag bar.

Deleting a Tag

Select the tag you want to delete by clicking on it and dragging it into the colour ramp area.

Smooth Gradient

When switched on, cubic interpolation between adjacent colours will be used producing a smoother ramp. When it is switched off a linear interpolation is used, which can give hard edges between colours.

Cyclic Gradient

When switched on, the colour gradient will wrap back around upon itself. In this case the two end colours will be forced to be the same. Changing one will automatically change the other.

Note *Switching Cyclic Gradient on when there are no intermediary colours set in the colour ramp will result in a single colour image.*

Cyclic Shift

This is used to shift the position of the colour ramp in the effect.

Note *Cyclic Shift only has an effect when in Cyclic Gradient mode.*

Copies

Sets the number of times to repeat the colour ramp in the effect.

Note *If you are repeating the colour ramp in an effect when Cyclic Gradient is switched off, you will get a harsh colour transition between the cycles.*

Dithered

When Dithered is switched on, noise is added to the gradient to reduce the effect of undesirable colour banding between smoothly shaded colours.

Lighting

Some plug-ins include controls for adding lighting effects. These allow the selection of a light colour, position and brightness. In addition, a fall-off factor can be specified. The Direction and Elevation of the light can also be controlled using the on-screen tools. (See “Lighting” on page 39.)



T_Droplet Lighting off



T_Droplet Lighting on

Lighting

Switches the Lighting on and off.

Colour

Sets the colour of the light.

Direction

Sets the direction from which the light source is situated.

Elevation

Controls the height of the light above the image plane. A value of 0 denotes a light source flush with the image plane. A value of 90 denotes a light source directly above the image plane.

Note *For many effects, Elevation values between 180 and 360 degrees will show no affect as this denotes a light source which is behind the image plane.*

Strength

Controls the brightness of the light source. The higher the value the brighter the light.

Fall-off

Controls how quickly the light fades away with distance from the light source. The higher the value, the tighter the highlights.

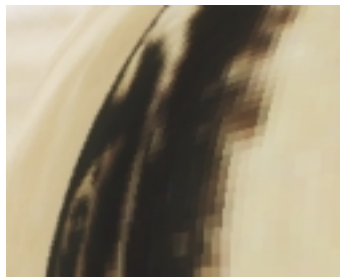
Filtering

Filtering is used to control the quality of your processed images by reducing the jagged lines characteristic of pixel devices. For high quality images you should switch filtering on. With all image processing you have a trade off between quality and time. Filtering will increase the quality of your image but will also increase the time it takes to process the image.

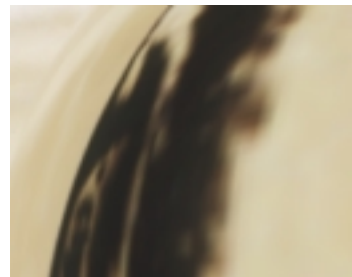
Note *Remember that filtering does slow the image processing down, so only use it when doing the final render and not when interacting with the effect.*

Filtering quality is chosen from a popup menu. The options given in the popup menu are:

- Low - Highly distorted images may show jaggies. This is the fastest option.
- Medium - This uses a bilinear filter.
- High - This uses a MIP Bilinear filter. This is the slowest option.
- Global Default - This uses the quality setting in After Effects to determine the filtering method.



Low Filtering



High Filtering

Depending on the effect being filtered, the High filtering

option may over-soften the image. To combat this, the Filter Sharpness control can be used to compensate. The default value of 100% is normal sharpness, increasing it will sharpen up the result, decreasing it will soften further.

Note *Filter Sharpness only has an effect when using the High filtering option.*

Blending

Many of the Tinderbox plug-ins have Blending controls which allow you to specify how to mix between the image effect and its original source. Controls are also available to affect the gain of the image effect and its original source.

Although the same results could be achieved using the layer modes and Adjust processes provided in After Effects, it would require the use of many more layers and effects in the composition.

Method

Sets how to blend the image effect with its original source by the amount set in the Blend control.

Note *The gain, or brightness, of the image effect and its source can be altered using Effect Gain and Source Gain.*

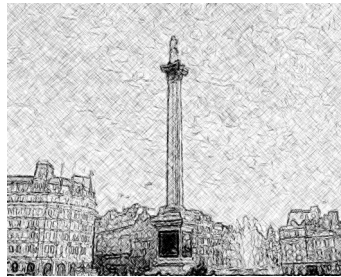
- None - no blending is applied.

Note *Blend, Effect Gain and Source Gain have no affect when in this mode.*

- Mix - displays a mix between the pixel colour values.
- Luminance - displays a mix using the luminance of the original source and the chroma of the image effect.
- Chroma - displays a mix using the chroma of the original source and the luminance of the image effect.
- Hue - displays a mix using the hue of the original source and the saturation and value of the image effect.
- Saturation - displays a mix using the saturation of the original source and the hue and value of the image effect.
- Value - displays a mix using the value of the original source and the hue and saturation of the image effect.

- Colour - displays a mix using the hue and saturation of the original source and the value of the image effect.

Note *The Colour Blending method is the inverse of the Value Blending method.*



T_Etch with Blending Method set to None



T_Etch with Blending Method set to Colour

- Darken - displays a mix by taking the darker of either the effect image or the original source.
- Lighten - displays a mix by taking the brighter of either the effect image or the original source.
- Screen - produces a bleaching effect. Light colours have more of an effect than dark colours.
- Multiply - displays a mix by multiplying the two images together.
- Add - displays a mix by adding the two images together.
- Subtract - displays a mix by subtracting the image effect from the original source.
- Difference - displays a mix by finding the difference between the two images. Dark colours will produce a more subtle effect than bright colours.

Blend

When blending, sets the percentage mix between the image effect and its original source. A value of 100% will show just the image effect. A value of 0% will show just the original source.

Note *The inputs to this Blend are affected by the values set for Effect Gain and Source Gain.*

Effect Gain

When blending, sets the gain of the image effect. The result of this is used in the Blend.

The Effect Gain also affects the alpha of the image. Setting Effect Gain to 50% will half the brightness of the effect image and will also half the value of its alpha. This will result in the underlying layers, or black if there are none, appearing through the effect image.

Note *This control will have no affect if the Blending Method is set to None.*

Source Gain

When blending, sets the gain of the original source. The result of this is used in the Blend.

The Source Gain also affects the alpha of the image. Setting Source Gain to 50% will half the brightness of the original source and will also half the value of its alpha. This will result in the underlying layers, or black if there are none, appearing through the original source.

Note *This control will have no affect if the Blending Method is set to None.*

Process Alpha

Process Alpha controls how a clip's existing alpha channel is treated.

- Yes - this will apply the effect to the alpha channel as well as the RGB channels.
- No - this will leave the alpha channel untouched.
- Opaque - this will force the alpha channel to be solid.

Where this option is available on Tinderbox Generators, selecting Yes will create a straight (not premultiplied) RGBA image. This allows the output of the Tinderbox Generator to be easily composited over the underlying layers.

Note *Premultiplied refers to images whose red, green and blue channels have been modified with a background colour using information stored in the alpha (matte) channel. Straight or unpremultiplied images do not modify the colour channels with the alpha. Note also that the alpha channel in straight and premultiplied images are the same, it is only the colour channels that differ. It is important to be aware of the type of image being used in a composite since the methods used to blend layers together will also differ.*

Matte

Sets whether to use a matte to attenuate the strength of the effect.

Note *This is not the same as applying the effect to only a portion of the image using masks or a track matte.*

Where the matte is black, or 0%, none of the effect will be applied. Where the matte is white, or 100%, the full strength of the effect will be applied. Where the matte is grey, let's say 50%, then 50% of the strength of the effect will be applied. For a directional blur of value 30, this would mean it's value was reduced to 15. This allows you to gradually change the strength of the effect according to the matte, instead of having an abrupt cutoff.

Note *When accessing another image to use as a Matte, it is the original, unaltered image which is used. Any changes which have been made within the composition will not be applied. To work around this, Pre-compose the layer you are using as a Matte and choose Move all Attributes into the new composition.*

Matte Channel

Selects which channels of the image specified under **Matte** to use. There are four options to choose from.

- **Luminance** - takes the luminance from the RGB channels as the matte.
- **Inverted Luminance** - takes the luminance from the RGB channels and inverts the result to use as the matte.
- **Alpha** - uses the alpha channel as the matte.
- **Inverted Alpha** - uses the inverse of the alpha channel as the matte.

Source Crops

Many Tinderbox plug-ins require access to source pixels that lie off the edge of the source image. For example, T_DirBlur needs to use pixels off the sides when blurring at the edges. The crop tools allow you to position the edges and specify how the pixels are treated.



Black pixels on
left and right edges



Using Crop tools to
remove black pixels

Cropping is often used to get rid of unwanted black pixels which can occur at the edges of video clips.

Cropping

The sliders Left, Right, Bottom and Top control the position of the cropping lines. They can also be changed by using the on-screen tools under Viewer. (See “Source and Matte Crops” on page 40.)

Edge Methods

The edge methods control the behaviour of the image at the crop boundaries. The horizontal edges, X Method, can have a different edge method from the vertical edges, Y Method. Four edge methods are supplied.

- Colour - the colour is set by the Edge Colour,

Note *The transparency of this colour is set using the Edge Colour Alpha and is only active when Process Alpha is set to Yes.*

- Repeat - repeats the last line of pixels.
- Reflect - mirrors the image around the crop line.
- Wrap - uses the pixels from the opposite edge.



Colour Edge Method



Repeat Edge Method



Reflect Edge Method



Wrap Edge Method

Matte Crops

This is only available where there is the option of selecting a Matte within a Tinderbox plug-in. (See “Matte” on page 28.) Matte Crops work in exactly the same way as Source Crops, only they apply to the image being used as a Matte. (See “Source Crops” on page 30.)

Tinderbox Viewer

This section will describe the on-screen tools common to most Tinderbox plug-ins. These controls can all be found under the Viewer menu in each plug-in.

The Viewer controls can have up to three options.

- Output - shows the result of the plug-in effect. This will contain controls which directly manipulate the plug-in values such as position or scale.
- Source - shows the unaffected source image. This will contain crop controls to crop the source image.
- Matte - shows the matte if it has been specified. (See “Matte” on page 28.) This will contain crop controls to crop the matte image.



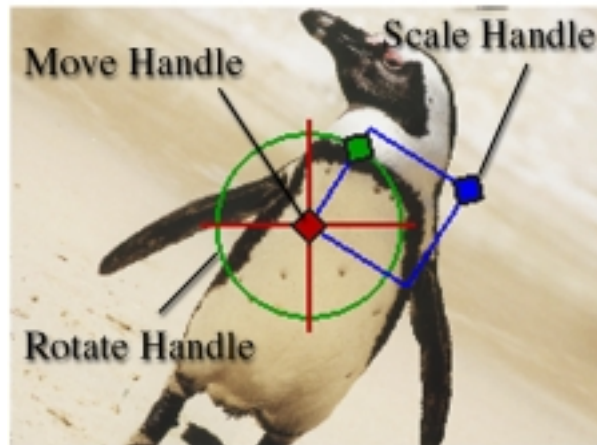
Viewer panel open showing Output, Source and Matte tabs.

When working with several Tinderbox plug-ins on a layer, by closing the About and Controls menus it is possible to view the intermediate result of each effect in the Output areas.

Move, Scale and Rotate Controls

Many of the plug-ins use a 2D move icon to translate, rotate or scale some aspect of the effect. Some plug-ins only have one or two of the elements from the complete icon described here.

The icon is composed of three different elements, the red translation (move) cross hairs, the green rotation ring and the blue scale box.

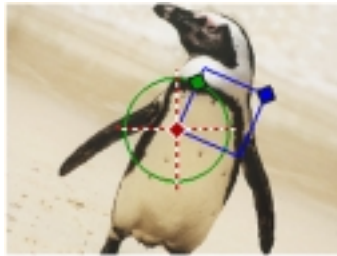


Move, Scale and Rotate on-screen tools

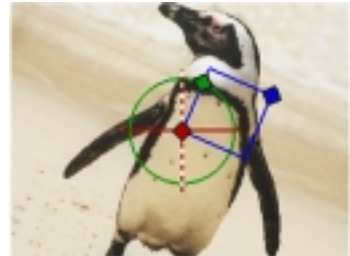
Translate

To translate in X and Y simultaneously, pick the red dot in the middle and drag. Both the translation arms will highlight as a white line. To translate in only one direction, pick either the horizontal or the vertical bar, away from the

centre. The selected bar will highlight and you can then drag the element in one direction only.



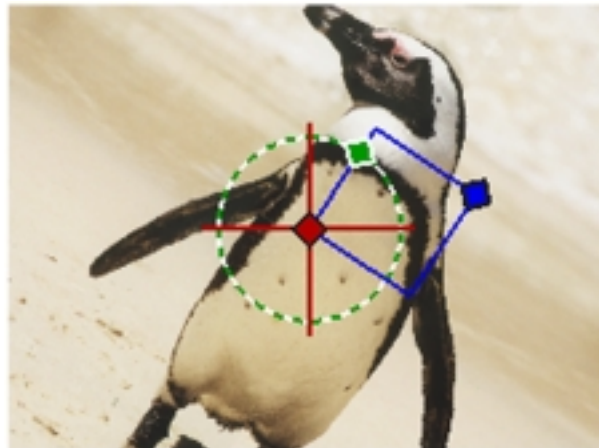
Move in X and Y



Move in Y only

Rotate

To rotate, pick the rotation ring and drag it around. The Scale box will also rotate.

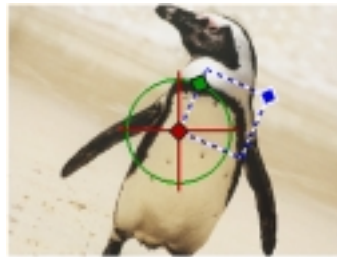


Rotate Handle highlighted

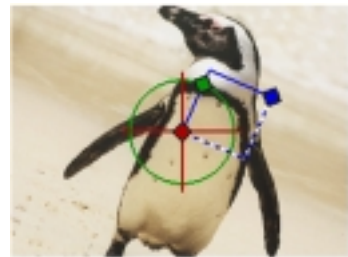
Scale

To scale in X and Y simultaneously, pick the blue dot in the corner of the blue box and drag. All sides of the scale box will highlight as a white line.

To scale in only one direction, pick one side of the scale box which is connected to the blue dot. The selected side of the scale box will highlight and you can then scale the element in one direction only.



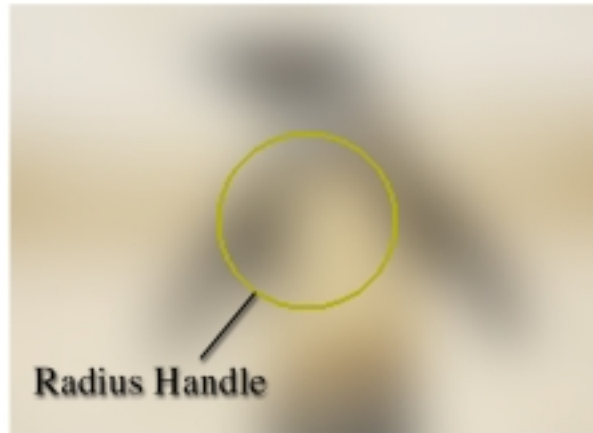
Scale in X and Y



Scale in X only

Radius

The radius on-screen tool enables the user to change the size of the effect by clicking and dragging on the circumference of the circle.



Radius on-screen tool for T_Blur

Lighting

Some of the plug-ins include controls for adding lighting effects. Where lighting is available, the Direction and Elevation of the light can be manipulated with the on-screen tools.

The position of the light source is controlled by two interlocking yellow circles. The Direction tool appears as a circle but the Elevation tool appears as a line with a light source. Change the direction by clicking and dragging on the circumference of the circle. Change the elevation by clicking and dragging on the line with the light source.

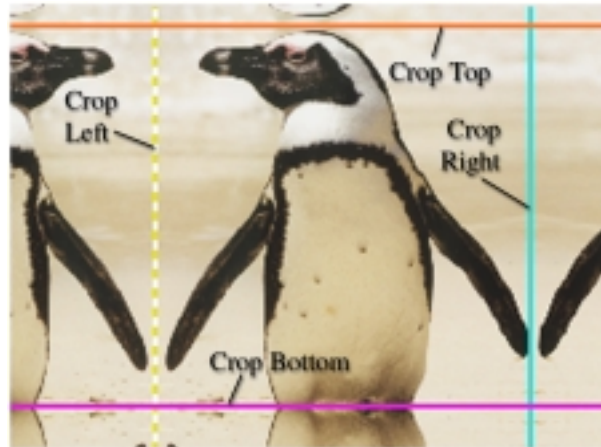


Lighting on-screen tools

Source and Matte Crops

Most plug-ins allow you to crop the four edges of the image. The behaviour of the cropped portions are determined by the settings in Source Crops (See “Source Crops” on page 30.).

In any plug-in that has crop controls, you have four crop boundaries to drag around. To crop the image using this method, select the solid line at edge of the image and drag the line to where you want the image cropped. The coloured line will become dashed when the cursor is over it and solid white when it is selected.



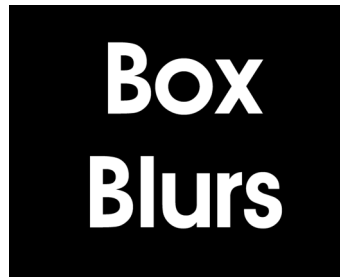
Crop on-screen tools

Tinderbox Blurs

There are many different blurs available, each producing a slightly different result. The three main aspects to look out for when judging the quality of the blur you are using are quality, speed and animation capabilities.

Quality

The visual appearance of the blur is probably the most obvious and important test. Usually there is a trade off between the quality of the blur and the time it takes to render. One very fast blur available is the box blur. Whilst this will render quickly the result can often produce a very “boxy” look which can be unacceptable. The images below show the result of using a box blur.



No Blur



Box Blur applied

Blurs which use a gaussian algorithm will produce far smoother results, although they are often slower to render. The images below show the result of using a gaussian blur. When compared to the box blur it is easy to see the

superior quality.



No Blur



Gaussian Blur applied

The Tinderbox blur filter uses a gaussian algorithm, however, it is also very fast to render.

Speed

Rendering time is always an important issue, especially when working with high resolution images. Whilst some blurs can render at an acceptable speed for low blur values, they can be totally unacceptable when blurring heavily. Tinderbox Blurs will render at almost the same speed, regardless of how high the blur value is set.

Animation

A very important aspect of a blur is how well it animates. Blurs which do not support sub-pixel values will animate very poorly and you will see “jumps” in the blur levels as it animates. Tinderbox Blurs are all sub-pixel allowing for smooth animation.

T_Blur

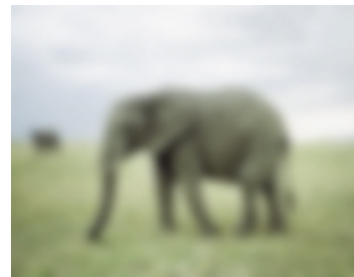
Description

T_Blur is a time constant, sub-pixel, gaussian blur. T_Blur can operate on the whole image, individual colour channels or just the chroma. Also included are 14 blending methods to be used between the original image and the blurred image.

T_Blur can alternatively be used to sharpen an image.



Original Image



T_Blur with Blur of 30



T_Blur used to Sharpen image



T_Blur with Blending set to Add

Inputs

T_Blur is a single input plug-in.

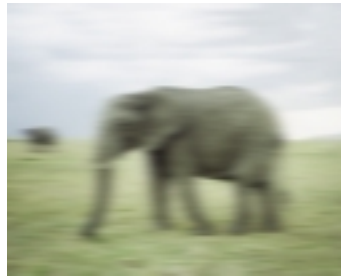
Controls

Mode

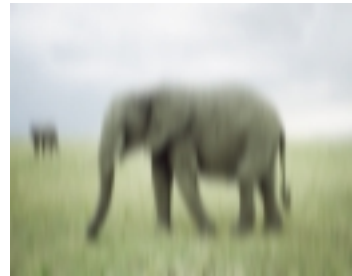
- Blur - defocuses the image.
- Sharpen - emphasises the edges within the image.

Radius (pixels) - sets the strength of the blur. Increase this value to increase the blur effect.

Aspect - controls the horizontal and vertical weighting of the effect. (See “Aspect” on page 15.)



Aspect set to 100



Aspect set to -100

Channels - select which colour channels will be affected. (See “Channels” on page 16.)

Blending - sets how to mix between the image effect and its original source. (See “Blending” on page 24.)

Source Crops - controls the behaviour of the edges of the source image. (See “Source Crops” on page 30.)

Viewer

The radius of the effect can be altered by manipulating the size of the circle. (See “Radius” on page 38.)

Source - allows you to crop the edges of the source image. (See “Source and Matte Crops” on page 40.)

Hints & Tips

Use T_Blur to simulate camera depth of field by throwing the background image of a composition out of focus, making the foreground stand out.

T_Blur can be used as a transition effect between two clips.

T_Blur can be applied to a matte, before using it in a composite, to soften the edges and assist in blending between the foreground and background elements.

Sharpening the chroma enhances the chroma in areas of the image with strong colour variations whilst leaving flat areas relatively unchanged. This can be useful in sharpening the edges of the subject before key pulling.

T_DirBlur

Description

T_DirBlur smears an image in a given direction.



Original Image



T_DirBlur

Inputs

T_DirBlur has an optional second input which can be used as a matte.

Controls

Mode

- Directional Blur - in this mode the direction of the blur is explicitly set by the Rotation angle of the Directional Blur properties.
- Track Blur - in this mode the direction of the blur is taken from the Position data of the Track Blur properties. This mode is useful if you wish to track the movement of an object and use that motion vector to set the direction and strength of the directional blur.

Directional Blur - these settings are used when Directional Blur mode is selected.

- Rotation (degrees) - sets the direction of the blur.

- Length (pixels) - controls the amount of blur applied.
- Bias (%) - weights the smearing forward or backward along the blur vector.

Track Blur - these settings are used when Track Blur mode is selected.

- Position - sets the position of the track point. Set up the track data as follows:
 - Activate the stopwatch for Position.
 - Move the timeslider to the start of the clip.
 - Select Position and move the cross hairs to a point on an object in the image.
 - Move the timeslider to the end of the clip.
 - Select Position and move the cross hairs to the same point on the object in the image.
 - You can add intermediate keyframes if it is needed.

The position of the track will interpolate across the clip following the motion of the object and the directional blur will be applied in the direction of the motion.

Note *To see any blurring in Track Mode, the track points position has to be animated and moving.*

- Scale - controls the amount of blur applied.

Filtering - switching this on improves the quality of the effect, but will slow down the rendering time.

(See “Filtering” on page 22.)

Blending - sets how to mix between the image effect and its original source. (See “Blending” on page 24.)

Matte - sets whether to use a Matte to control the strength of the effect. (See “Matte” on page 28.)

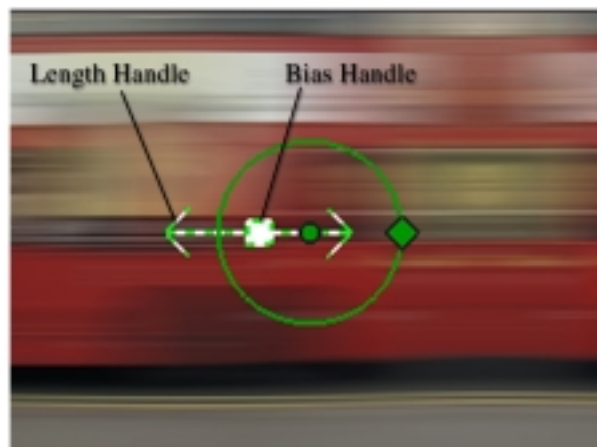
Matte Channel - defines which channels of the Matte to use. (See “Matte Channel” on page 29.)

Source Crops - controls the behaviour of the edges of the source image. (See “Source Crops” on page 30.)

Matte Crops - controls the behaviour of the edges of the matte image. (See “Matte Crops” on page 31.)

Viewer

Vector - the Rotation, Length and Bias of the blur can be controlled using these on-screen tools. .



T_DirBlur on-screen tools

Note *These controls will only have an effect when in Directional Blur mode.*

Change the Rotation by rotating the green ring.
(See “Rotate” on page 36.)

Change the Length by dragging on either of the green arrow heads.

Change the Bias by dragging on the green box in the centre of the two arrows.

Note *The Bias control can only be dragged along the direction of the arrows.*

Source - allows you to crop the edges of the source image.
(See “Source and Matte Crops” on page 40.)

Matte - allows you to crop the edges of the matte.
(See “Source and Matte Crops” on page 40.)

Hints & Tips

T_DirBlur can be used to simulate motion blur on a moving object. If you have the Adobe After Effects Production Bundle, you can use the Motion Tracker to track a point on the image and apply it to the T_DirBlur Position.

Tinderbox Effects

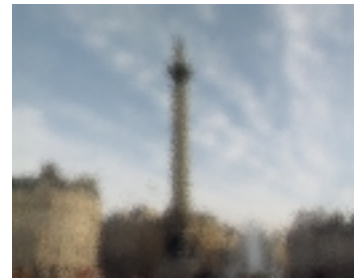
T_Diffuse

Description

T_Diffuse randomly scatters pixels around in an image.



Original Image



After T_Diffuse has been applied

Inputs

T_Diffuse has an optional second input which can be used as a matte.

Controls

Radius (pixels) - sets the radius of the effect. The higher the value, the further the pixels will scatter.

Aspect - controls the horizontal and vertical weighting of the effect. (See “Aspect” on page 15.)

Freeze Diffusion - switch this on to keep the same diffusion pattern from frame to frame.

Blending - sets how to mix between the image effect and

its original source. (See “Blending” on page 24.)

Matte - sets whether to use a Matte to control the strength of the effect. (See “Matte” on page 28.)

Matte Channel - defines which channels of the Matte to use. (See “Matte Channel” on page 29.)

Source Crops - controls the behaviour of the edges of the source image. (See “Source Crops” on page 30.)

Matte Crops - controls the behaviour of the edges of the matte image. (See “Matte Crops” on page 31.)

Viewer

The radius of the effect can be altered by manipulating the size of the circle. (See “Radius” on page 38.)

Source - allows you to crop the edges of the source image. (See “Source and Matte Crops” on page 40.)

Matte - allows you to crop the edges of the matte. (See “Source and Matte Crops” on page 40.)

Hints & Tips

Freeze the Diffusion to give the effect of viewing through frosted glass.

Try combining T_Diffuse with T_DirBlur and animate the strength of the directional blur with the strength of the diffuse. This can be used as a transition between different

graphics, especially effective with text.

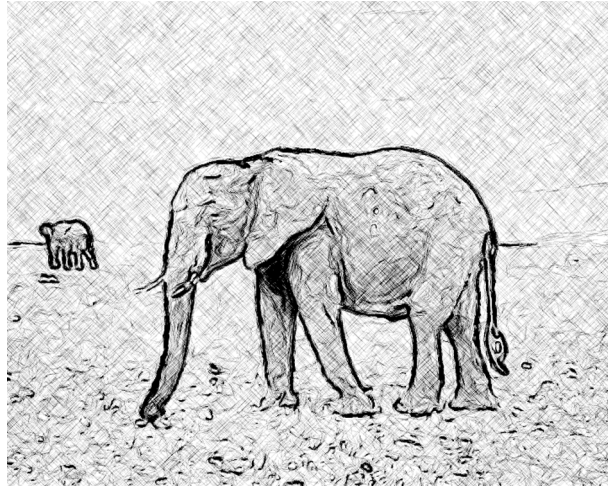


T_Diffuse and T_DirBlur with Process Alpha set to Yes

T_Etch

Description

T_Etch simulates a hand drawn picture using charcoal. Lines are drawn along edges and cross hatching is used to fill in regions.



T_Etch using Outline and Shade

Inputs

T_Etch is a single input plug-in.

Controls

Outlines

- Edge Threshold (%) - determines what is an edge and therefore whether a line is drawn. If this value is high, areas of the image with little contrast will be considered to be an edge, therefore will be outlined. If this value is low, only areas of the image with high contrast will be outlined.

- Pen Pressure (%) - controls the pressure at which the strokes are applied. The lower the value the lighter the lines. The higher the value, the darker the lines. This does not change the width of the lines.
- Softness - controls the softness of the lines. When set high, this gives the impression that a fat charcoal stick was used and less lines will be shown. When set low, this gives the impression that a thin charcoal stick was used and more detail will be shown.
- Stroke Length (pixels) - sets the length of the straight lines that form the outlines.
- Stroke Separation - controls the gap between the lines drawn. The lower this value, the more lines will be drawn, resulting in a stronger outline of objects.

Shading

- Edge Threshold (%) - determines what is an edge and therefore whether a line is drawn. If this value is high, more of the image is considered to be an edge, therefore less of the image is shaded. If this value is low, less of the image is considered an edge, therefore more of the image is shaded.
- Pen Pressure (%) - controls the pressure at which the strokes are applied. The lower the value the lighter the lines. The higher the value, the darker the lines. This does not change the width of the lines.
- Softness - controls the softness of the lines. When set high, this gives the impression that a fat charcoal stick was used and less areas of the image will be shaded. When set low, this gives the impression that a thin

charcoal stick was used and more areas of the image will be shaded.

- Stroke Length (pixels) - sets the length of the lines that form the cross hatched shading pattern.
- Stroke Separation - controls the gap between the shading lines. The lower this value, the more lines will be drawn, resulting in denser shading.

Seed - random number generator that sets the shading pattern.

Random Seed Method - determines how the seed number varies.

- Seed with Frame - the pattern changes with each frame.
- Fixed Seed - the pattern does not change.
- Seed with Pixel - the pattern changes according to varying pixel values.

Blank Threshold - determines whether shading is applied in areas of little variation.

Note *The amount of the image which is considered to have little variation is affected by the Edge Threshold controls in Outlines and Shading.*

Paper - sets the background colour.

Paper Alpha - sets the transparency of the paper. A value of zero will allow underlying layers to show through.

Note *The Paper Alpha will only take effect if Process Alpha is set to Yes.*

Pen - sets the colour of the lines and shading.

Pen Alpha - sets the transparency of the lines drawn by the pen. A value of zero will allow the underlying layers to show through the pen lines.

Note *The Pen Alpha will only take effect if Process Alpha is set to Yes.*

Etch Method

- Outline and Shade - applies both the Outline and Shading parameters to give the complete effect.
- Outline - only applies the Outline parameters. The result is of a sketched outline of the objects within the image.
- Shade - only applies the Shading parameters. The result is of a charcoal drawing without heavily defined object edges.

Blending - sets how to mix between the image effect and its original source. (See “Blending” on page 24.)

Process Alpha - defines how to treat the alpha channel of the source image. (See “Process Alpha” on page 27.)

Source Crops - controls the behaviour of the edges of the source image. (See “Source Crops” on page 30.)

Viewer

Source - allows you to crop the edges of the source image. (See “Source and Matte Crops” on page 40.)

Hints & Tips

A variety of effects can be created by using T_Etch with different blending methods.



Original image



T_Etch with Blending Method Add



Original image



T_Etch with Blending Method
Colour

T_Etch can be used to accentuate the edges of objects within an image. Use T_Etch in Outline mode with a Fixed Seed and set Blending Method to Multiply.

T_HeatHaze

Description

T_HeatHaze simulates the distortion of an image that is characteristic of viewing it through hot air.



Image with T_HeatHaze applied

Inputs

T_HeatHaze has an optional second input which can be used as a matte.

Controls

Displacement - controls the amount of image warping.

Wavelength - sets the distance between wave peaks. The higher this value is set, the smoother the distortion.

Aspect - controls the horizontal and vertical weighting of the effect. (See “Aspect” on page 15.)

Movement

- Speed - defines how fast to move the haze in the direction of travel.
- Direction (degrees) - sets the direction the heat haze will appear to travel.
- Layers - sets the number of layers of heat haze which are blended together.
- Franticness - controls how fast the haze will boil. The higher this value is set, the hotter it will appear.
- Wave Count - sets the number of waves used over the entire image.

Filtering - sets the quality of the filter used when processing the effect. (See “Filtering” on page 22.)

Filter Sharpness - this can be used to sharpen the image when Filtering is set to High. (See “Filtering” on page 22.)

Matte - sets whether to use a Matte to control the strength of the effect. (See “Matte” on page 28.)

Matte Processing (See “Matte” on page 28.)

- Undistorted - use the matte undistorted.
- Distorted - apply the effect to the matte before using it.

Matte Channel - defines which channels of the Matte to use. (See “Matte Channel” on page 29.)

Matte Crops - controls the behaviour of the edges of the matte image. (See “Matte Crops” on page 31.)

Source Crops - controls the behaviour of the edges of the source image. (See “Source Crops” on page 30.)

Viewer

Source - allows you to crop the edges of the source image. (See “Source and Matte Crops” on page 40.)

Matte - allows you to crop the edges of the matte. (See “Source and Matte Crops” on page 40.)

Hints & Tips

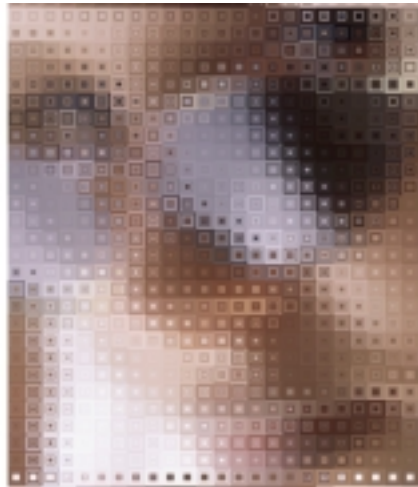
Heat haze is usually visible in the distance and not on objects in the foreground. To simulate realistic heat haze, create a matte of any foreground objects and use this to only apply the effect to the background.

T_Qube

Description

T_Qube generates patterns of tiles within tiles.

T_Qube is an extra plug-in that is only activated once you have registered with The Foundry. (See “Registration” on page 4.)



T_Qube

Inputs

T_Qube is a single input plug-in.

Controls

Size - sets the tile size. The higher the value the larger the tiles.

Aspect - controls the horizontal and vertical weighting of

the effect. (See “Aspect” on page 15.)

Inner Size - sets the size of the inner squares.

Depth - sets the number of inner squares drawn.

Blurs

- Blurring - controls whether the image is blurred before and/or after the effect is applied. No blurring can also be selected.
- PreBlur - sets the amount of blurring before the effect.
- PostBlur - sets the amount of blurring after the effect.

X Sample Point - sets the horizontal position within the base tile for the sample colour.

Y Sample Point - sets the vertical position within the base tile for the sample colour.

Filtering - sets the quality of the filter used when processing the effect. (See “Filtering” on page 22.)

Process Alpha - defines how to treat the alpha channel of the source image. (See “Process Alpha” on page 27.)

Blending - sets how to mix between the image effect and its original source. (See “Blending” on page 24.)

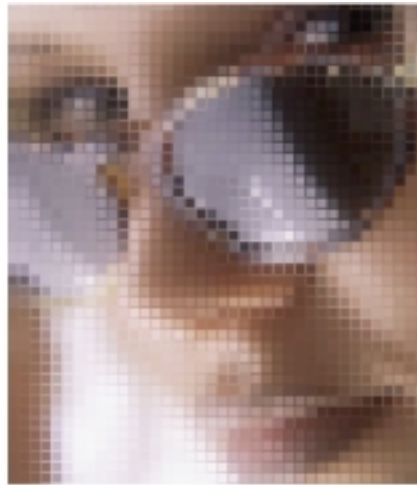
Source Crops - controls the behaviour of the edges of the source image. (See “Source Crops” on page 30.)

Viewer

Source - allows you to crop the edges of the source image. (See “Source and Matte Crops” on page 40.)

Hints & Tips

Set the Inner Size to 99 to get a ceramic tile effect.



Ceramic tile effect with T_Qube

Note *T_Qube is not active until you have registered with The Foundry. (See “Registration” on page 4.)*

T_Rays

Description

T_Rays creates a backlit ray effect. The rays are sourced from selected areas of the image's luminance, or a matte. The colour of the rays can come from the source image or a fixed colour.



Soho at night



Lights enhanced with T_Rays

Inputs

T_Rays has an optional second input which can be used as a matte.

Controls

Ray Source - these controls are used to create the matte which will be used to generate the rays. When making adjustments to these controls it is useful to turn Show Matte on. Rays will emanate from white areas of the matte and not from the black areas.

- Matte - sets the image to use as the source matte which is used to generate the rays.
- Show Matte - switch this on to display the ray source. You should look at this when setting up the effect so that you can see clearly where the rays will emanate from.

- Matte Channel - defines which channels of the Matte to use. (See “Matte Channel” on page 29.) T_Rays has an additional option within Matte Channel.
 - Luminance Minus Alpha - the ray source will be generated from the luminance of the matte image, but will be masked with the alpha channel of the matte image.
- Matte Processing
 - None - the matte is used in it’s original form.
 - Shrink - makes the matte thinner.
 - Grow - makes the matte thicker.
 - Halo - creates a line centered on the edge of the matte.
 - Halo Inner - creates a line on the inside edge of the matte.
 - Halo Outer - creates a line on the outside edge of the matte.
- Clip Min (%) - pixels at or below this luminance value are set to be black.
- Clip Max (%) - pixels at or above this luminance value are set to be white.
- Matte Size - controls the amount of matte dilation.
- Matte Hardness (%) - controls the quality of the matte edge. A high value will give a sharply defined edge. A low value will give a soft edge.

Note *If the hardness is set to 100% the matte will have only black and white pixels. Reduce the Hardness value to add grey into the matte.*

Rays - these controls are used to adjust the parameters of the actual rays.

- Mode - sets the type of rays to generate.
 - Radial Rays - the rays fan out in all directions from a single point.
 - Directional Rays - the rays all point in a single direction.
- Centre (pixels) - sets the position of the centre of the rays.
- Colour - sets the colour of the rays when Use Colour is on.
- Use Colour - switch this on to use the Colour for the colour of the rays. When this is switched off, the rays pick up their colour from the source image.
- Filtering - switching this on improves the quality of the effect, but will slow down the rendering time. (See “Filtering” on page 22.)
- Radial Rays - these controls apply when Radial Rays mode is selected.
 - Length - controls the length of the rays.
- Directional Rays - these controls apply when Directional Rays mode is selected.
 - Length - controls the length of the rays.
 - Direction (degrees) - sets the direction of the rays.
- Bias - shifts the start point of the rays.

Blending - sets how to mix between the image effect and its original source. (See “Blending” on page 24.)

Source Crops - controls the behaviour of the edges of the

source image. (See “Source Crops” on page 30.)

Matte Crops - controls the behaviour of the edges of the matte image. (See “Matte Crops” on page 31.)

Viewer

The Centre, Direction and Length of the rays can be controlled using the on-screen tools.

Note *The Direction and Length controls will only have an effect when in Radial Rays mode.*

To change the Centre and Direction manipulate the positional cross and the green rotational circle. (See “Move, Scale and Rotate Controls” on page 35.)

To change the Length of the rays manipulate the yellow circle. (See “Radius” on page 38.)

Source - allows you to crop the edges of the source image. (See “Source and Matte Crops” on page 40.)

Matte - allows you to crop the edges of the matte. (See “Source and Matte Crops” on page 40.)

Hints & Tips

T_Rays can be used to extrude text to give a false 3D look.



False 3D look with T_Rays

T_Starburst

Description

T_Starburst adds sparkles to the highlights of your image.



Sparkles added to the water using T_Starburst

Inputs

T_Starburst is a single input plug-in.

Controls

Radius (pixels) - defines the length of the spokes of the highlight stars.

Aspect - controls the horizontal and vertical weighting of the effect. (See “Aspect” on page 15.)

Threshold (%) - defines which areas of the source are considered to be highlights. Increasing this value will decrease the amount of effect applied to the image.

Gain (%) - controls the brightness of the highlights.

Rotation (degrees) - controls the angle of the highlight spokes.

Spoke Count - controls the number of spokes per highlight star.

Mask through Alpha - switch this on to apply the sparkles through the alpha channel. The sparkles will be visible where the mask is white.

Source Crops - controls the behaviour of the edges of the source image. (See “Source Crops” on page 30.)

Viewer

The radius of the effect can be altered by manipulating the size of the circle. (See “Radius” on page 38.)

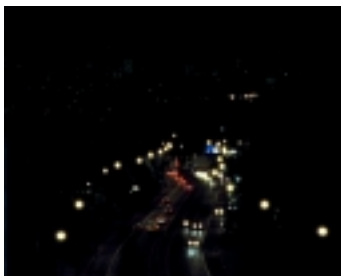
Source - allows you to crop the edges of the source image. (See “Source and Matte Crops” on page 40.)

Hints & Tips

T_Starburst can be used to add subtle highlights to moving water. Keep the Radius small and the Threshold high for a subtle effect.

T_Starburst can give some great effects when applied to

car headlights on night footage.



Car headlights at night



Lights enhanced with T_Starburst

T_Stutter

Description

T_Stutter randomly jumbles up the frames of a clip. The new frame order is chosen by first picking a random frame and then preserving the original frame order at that point for a specified duration. The random frame is chosen from a specified range of frames around the current frame using the Seek Range, then the original frame order is preserved for a duration defined by Frame Hold. This process is repeated until the number of frames in the output clip matches the input clip.



Numbered frames before and after Stutter is applied

Inputs

T_Stutter is a single input plug-in.

Controls

Seek Range (frames) - sets the number of frames, either side of the current frame, from which to pick the random frame.

Frame Hold (frames) - sets the number of frames of the

original clip that are preserved in the output clip after the random frame has been picked.

Hold Randomness - this allows the Frame Hold to change by a random number throughout the sequence.

Seed - random number generator that sets the pattern of frames.

Viewer

Source - allows you to crop the edges of the source image. (See “Source and Matte Crops” on page 40.)

Tinderbox Generators

Tinderbox Generators are used to create entirely new images, as opposed to adjusting the pixels of an existing image. Although the plug-in is applied to a layer, the choice of layer is often only used to specify the size of the output image. To avoid confusion, it is useful to create a new solid layer, named after the plug-in, as the base for any generator. The source layer is only important when the Blending Methods are to be used to mix between the generated image and the source image. (See “Blending” on page 24.)

Generators are often used to create mattes which will then be used to control other plug-ins and effects. In this instance, the luminance of the RGB can often be used as the matte input to other effects. When it is the alpha channel which is needed as the matte, make sure the Process Alpha option is set to Yes. (See “Process Alpha” on page 27.)

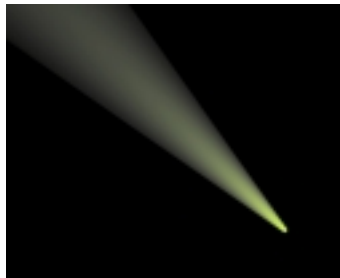
Process Alpha is also important when the output of the Tinderbox Generator is to be composited over the underlying layers. Setting Process Alpha to Yes will output a straight (not premultiplied) RGBA image. This allows for the generated image to be easily composited over the underlying layers.

Note *This only applies when Blending Method is set to None.*

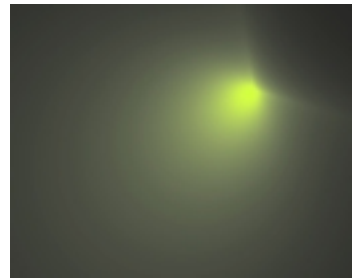
T_Beam

Description

T_Beam draws a spotlight in 3D space. The position of the light source can be animated and the beam can be rotated in all directions. The beam can either be composited over the underlying layers, blended with its source image or used to generate a new image.



Narrow Beam



Wide Beam

Inputs

T_Beam is a single input plug-in.

Controls

Position (pixels) - sets the position of the emitting disc.

Rotation (degrees) - controls the direction of the beam. With a value of 90 the beam points right. With a value of -90 or 270 the beam points left. With a value of 0 the beam points away from the camera. With a value of 180 the beam points towards the camera.

Elevation (degrees) - controls the vertical pitch of the beam. With a value of 0 the beam will be horizontal.

Form - these settings control the properties of the light beam.

- Cone Angle (degrees) - controls the spread of light from the emitting disc. Small values produce narrow focussed beams. Large values produce wide spread out beams.
- Radius - controls the size of the light emitting disc producing the beam.
- Softness - this will soften the beam.
- Fall-off - increasing the fall-off reduces the light penetration in the direction of the beam.
- Intensity - controls the brightness of the beam. Large values produce brighter beams.
- Beam Colour - sets the colour of the centre of the beam.
- Corona Colour - sets the colour of the outer part of the beam.
- Background Colour - sets the background colour which will be used when the beam is not being composited over a background layer. This is the case when Process Alpha is set to No or Opaque. (See “Process Alpha” on page 27.)
- Remove Light Emitting Disc - removes the disc of light used to generate the beam. Removing this is most noticeable when the beam is pointing directly towards the camera.

Blending - sets how to mix between the image effect and its original source. (See “Blending” on page 24.)

Filtering - sets the quality of the filter used when processing the effect. (See “Filtering” on page 22.)

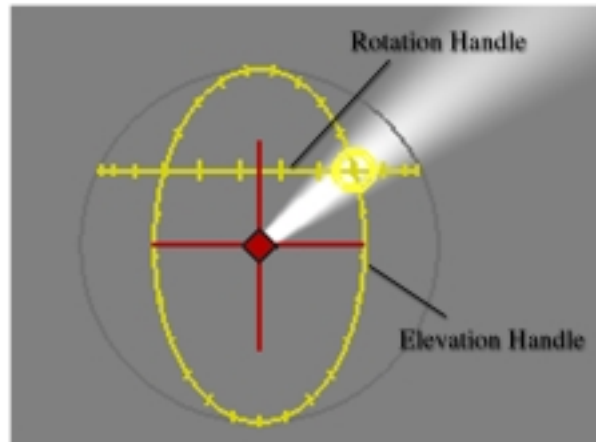
Process Alpha - defines how to treat the alpha channel of the source image. Selecting Yes will produce a premultiplied RGBA image which will be composited over the underlying layers. (See “Process Alpha” on page 27.)

Viewer

Change the Position, Rotation and Elevation of the beam using the on-screen tools.

To change the position manipulate the red positional cross. (See “Translate” on page 35.)

Click and drag on the yellow circles to change the Rotation and Elevation of the beam. The intersection of these two circles, which is shown by double, solid circles, shows the direction the beam is pointing.



T_Beam on-screen tools

Manipulate the horizontal circle to change the rotation.
Manipulate the vertical circle to change the elevation.
Manipulate the intersection point to change the rotation
and elevation simultaneously.



Lighthouse

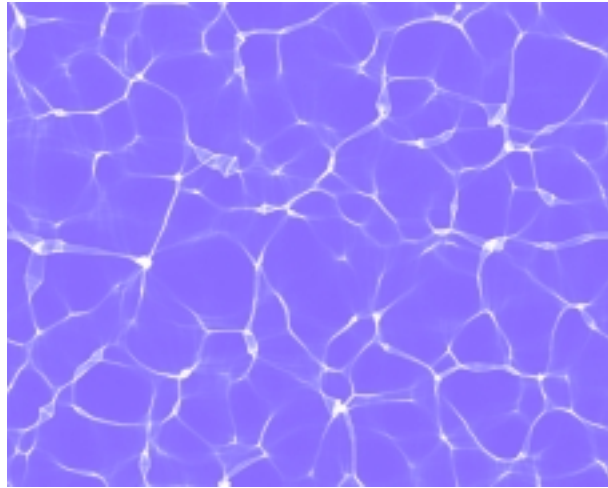


T_Beam

T_Caustic

Description

T_Caustic simulates the patterns created when light rays are reflected or refracted by a curved surface. Caustics can often be seen at the bottom of a swimming pool in bright sunlight or on objects viewed underwater.



T_Caustic

Inputs

T_Caustic generates an entirely new image therefore the input clip is irrelevant. Ideally, create a New Solid layer and apply T_Caustic.

Controls

Size - increase this value to make the caustic lines bigger

Fractals - controls the detail in the caustic lines

Brightness - controls the amount of reflected light emitted from the caustics. The higher this value, the brighter the caustic lines.

Focus - alters the complexity of the caustics.

Seed - this is a random number generator that sets the caustics pattern.

Speed - controls the rate at which the caustics move.

Samples - increasing this value will increase the quality of the image.

Foreground Colour - sets the colour of the caustics.

Foreground Colour Alpha - sets the transparency of the caustics. A value of zero makes the caustics transparent to the underlying layers. A value of 255 makes them fully opaque.

Note *Foreground Colour Alpha only takes effect if Process Alpha is set to Yes.*

Background Colour - sets the colour of the background.

Background Colour Alpha - sets the transparency of the background. A value of zero makes the background fully transparent to the underlying layers. A value of 255 makes it fully opaque.

Note *Background Colour Alpha only takes effect if Process Alpha is set to Yes.*

Process Alpha - defines how to treat the alpha channel of the source image. Selecting Yes will produce a straight (not premultiplied) RGBA image which will be composited over the underlying layers. (See “Process Alpha” on page 27.)

Viewer

Shows the output of the plug-in. Where using multiple layers or effects this may be different to the final output shown for the composition.

Hints & Tips

T_Caustic can be used to generate mattes for use with other plug-ins. Try using a caustics matte with T_Distorto.

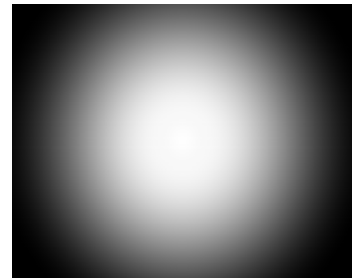
T_Grad

Description

T_Grad creates colour gradients. Gradients are often used as mattes to control other effects. The result of T_Grad can either be composited over the underlying layers, blended with its source image or used to generate a new image or matte.



Directional T_Grad



Circular T_Grad

Inputs

T_Grad is a single input plug-in.

Controls

Mode - sets the gradient pattern.

- Directional Grad
- Circular Grad
- Radial Grad
- Polygonal Grad

Gradient - sets the colours to be used in the gradient and controls how those colours are displayed. (See “Gradient” on page 17.)

Start (pixels) - sets the start position of the Directional gradient.

Stop (pixels) - sets the end position of the Directional gradient.

Radius - controls how far the gradient extends.

Note *Radius only works when in Circular or Polygonal mode.*

Aspect - controls the horizontal and vertical weighting of the effect. (See “Aspect” on page 15.)

Number of Sides - sets the number of sides (max 12) of the polygon when in Polygon mode.

Rotation (degrees) - controls the rotation of the gradient.

Note *Rotation only works when in Circular, Radial or Polygonal mode. When in Circular mode, Rotation will only have an effect if the Aspect is not set to 0.*

Blending - sets how to mix between the image effect and its original source. (See “Blending” on page 24.)

Process Alpha - defines how to treat the alpha channel of the source image. Selecting Yes will produce an alpha based on the alpha values set under Gradient. The resulting image will be composited over the underlying layers. (See “Process Alpha” on page 27.)

Source Crops - controls the behaviour of the edges of the source image. (See “Source Crops” on page 30.)

Viewer

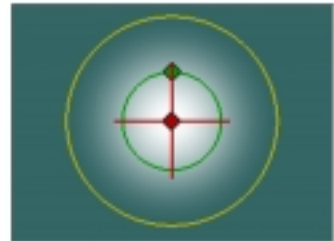
When in Directional mode the Start and Stop positions of the gradient can be manipulated using the on-screen tools. (See “Translate” on page 35.)

When in Radial mode the Position and Rotation can be manipulated using the on-screen tools. (See “Move, Scale and Rotate Controls” on page 35.)

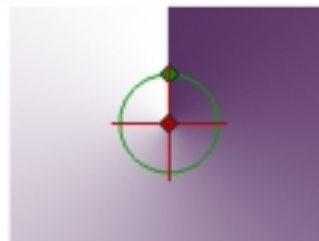
When in Circular or Polygonal mode the Position, Radius and Rotation can be manipulated using the on-screen tools. (See “Move, Scale and Rotate Controls” on page 35.)



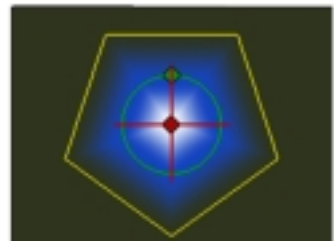
Directional on-screen tools



Circular on-screen tools



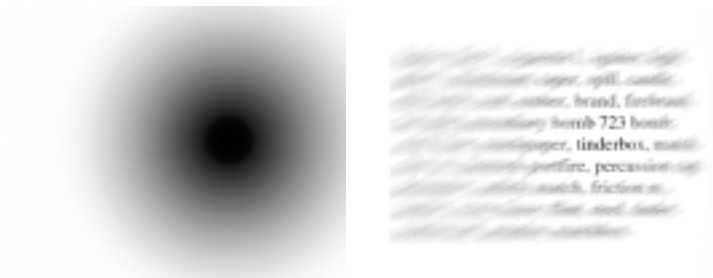
Radial on-screen tools



Polygonal on-screen tools

Hints & Tips

T_Grad can be used to create mattes which can then be used to control other effects such as colour correction or blurs.



Matte created by T_Grad...

...and used to attenuate T_DirBlur

T_Sky

Description

T_Sky generates realistic evolving sky backgrounds. This plug-in has a great number of parameters which can give a wide variety of results.



T_Sky



T_Sky

Inputs

T_Sky generates an entirely new image therefore the input clip is irrelevant. Ideally, create a New Solid layer and apply T_Sky.

Controls

Presets - this provides some suggested values for different effects. These can be used as a starting point when using T_Sky.

Sun

Note *There are three components of the sun. The sun itself, the bright glow around the sun (corona) and the radial light streaks that simulate the internal reflections and refractions of bright light within the camera lens (lens flares).*

- Colour - sets the colour of the sun.

- **Brightness** - controls the intensity of the light emitted from the sun.
- **Direction (degrees)** - sets the location of the sun in the sky.

Note *If the Sun Direction and the Camera Direction are the same, the sun will appear in the centre of the screen (horizontally).*

- **Elevation** - sets the height of the sun in the sky.
- **Fall-off** - controls the extent to which the brightness of the light fades away with distance.
- **Corona Brightness** - controls the intensity of the light glow around the sun.
- **Corona Fall-off** - controls the extent to which the brightness of the corona light fades away with distance. The higher this value, the faster the light will fade.
- **Corona Haze** - switch this on to enable the corona glow to illuminate the haze in the atmosphere. This will result in the corona lighting the foreground objects rather than being in the background.

Atmosphere

Note *The sky or atmosphere is actually a rendered dome with the camera at the centre. You may find it helpful to think of this model when you are altering parameters.*

- **Brightness** - controls the amount of light in the atmosphere.
- **Red Shift** - controls the amount of red light in the atmosphere. This is useful for sky simulations at dawn or sunset.
- **Background Sky Gradient** - sets the colours of the sky. The leftmost colour tag is the colour of the sky at the

horizon. The rightmost colour tag is the colour of the sky when you look directly upwards. (See “Gradient” on page 17.)

Flare

- Spokes - controls the number of flares around the sun.
- Brightness - controls the intensity of the light flares.
- Fall-off - controls the extent to which the brightness of the flares fade away with distance. The higher this value, the faster the light will fade.
- Rotation (degrees) - controls the rotation of the flares around the sun.
- Sharpness - controls the smoothness of the flares.

Clouds

- Size - controls the size of the clouds.
- Count - controls the number of clouds in each tile.

Note *The size of each tile is set under Tile Scale.*

- Colour - sets the colour of the clouds.
- Brightness - controls the intensity of the clouds.
- Sharpness - controls the cloud definition.
- Density - controls the thickness of the clouds. A value of zero removes all clouds.
- Seed - this is a random number generator used to choose the cloud pattern.
- Speed - controls how fast the clouds move.
- Speed Variance - controls the variation in speed of different clouds.

- Bump Scale - controls the apparent depth of the clouds. Increase this for cumulus clouds.
- Bump Soft - controls the cloud softness which affects the reflected light.
- Light Edges - switch this on for under cloud lighting.
- Direction (degrees) - controls the direction of the cloud drift.
- Height - controls the height of the clouds.
- Under Lighting - controls the amount of light reflected from the underside of the clouds.
- Tile Scale - controls the size of each tile repeated across the sky.
- Edge Detail - controls the complexity of the cloud edges.
- Streaky - switch this on to generate cirrus clouds.

Fog

- Brightness - controls the brightness of the fog layer.
- Distance - controls the distance between the fog layer and camera.
- Falloff - controls the extent to which the brightness of the fog falls away with distance. The higher this value, the shorter the distance the fog brightness will penetrate.
- Source - sets where the fog takes its colour from.
 - Colour - the colour of the fog is taken from the Colour box.
 - Background Sky Gradient - the colour of the fog is taken from the leftmost colour of the Background Sky Gradient. This colour is the

colour of the sky at the horizon. This gradient is in the Atmosphere controls.

- Colour - sets the colour of the fog haze when Source is set to Colour.

Camera

- Position - sets the position of the camera.
 - From X - controls the camera's horizontal position.
 - From Y - controls the camera's vertical position.
 - From Z - controls the camera's distance from the sky.
- Direction (degrees) - sets the direction the camera is pointing.
- Elevation (degrees) - sets the height at which the camera is pointing.
- F.O.V (degrees) - sets the field of view of the camera. This affects how much of the sky is visible through the camera.
- Exposure - controls the amount of ambient light entering the camera.
- Noise - controls the amount of noise added to the image.

Filtering - switching this on improves the quality of the effect, but will slow down the rendering time.

(See "Filtering" on page 22.)

Process Alpha - defines how to treat the alpha channel of the source image. Selecting Yes will produce a straight (not premultiplied) RGBA image which will be composited

over the underlying layers. (See “Process Alpha” on page 27.)

Note *There is no user control over the alpha produced.*

Viewer

Shows the output of the plug-in. Where using multiple layers or effects this may be different to the final output shown for the composition.

Hints & Tips

As well as using T_Sky to create complete new skies, it can be used to add detail and contrast to an existing sky.

Tinderbox Tools

T_Deflicker

Description

T_Deflicker is used to reduce the flicker in a clip. The flicker may be as a result of light variations during stop-motion photography, or may have been introduced via some transfer processes between the shooting of the original clip and its arrival on your desktop.



Original frames of clip



Clip with T_Deflicker applied

To use T_Deflicker, chose a frame (the Source Frame) that best represents the colour and luminance of the frame that the others should match. Then position the reference box over part of the image that shows the flicker. If possible position it over an area of little movement throughout the clip. Finally, set the correct processing mode. This is best achieved using trial and error as spotting the exact nature of the flicker by eye is extremely difficult. The clip can then be processed.

Note *Defining the reference box can be easily done using the on-screen tools under Viewer.*

Inputs

T_Deflicker is a single input plug-in.

Controls

Source Frame - sets the reference frame which all other frames will be matched to.

Box Position (pixels) - sets the position of the reference box.

Note *The reference box should define an area of the clip which exhibits the flicker but has little object movement within it. If necessary, the reference box can be animated to follow an object.*

Box X Size - sets the horizontal width of the reference box.

Box Y Size - sets the vertical height of the reference box.

Mode - set this to the type of variation which is occurring in the source clip.

- Colour Gamma - alters the gamma of the RGB channels separately to match the target frame.
- Greyscale Gamma - alters the gamma of the RGB channels together to match the target frame.
- Colour Gain - alters the gain of the RGB channels separately to match the target frame.
- Greyscale Gain - alters the gain of the RGB channels together to match the target frame.

- Colour Offset - shifts the colour values of the RGB channels separately to match the target frame.
- Greyscale Offset - shifts the colour values of the RGB channels together to match the target frame.

Source Crops - controls the behaviour of the edges of the source image. (See “Source Crops” on page 30.)

Viewer

The position and size of the reference box can be set using the on-screen tools. To move the box, use the red positional cross. (See “Translate” on page 35.) To scale the box, select any edge of the box and drag.



T_Deflicker on-screen tools

Note *In the above picture the camera is locked off and the bus moves from left to right across the frame. The position of the reference box avoids the moving bus but covers the flickery background.*

Source - allows you to crop the edges of the source image. (See “Source and Matte Crops” on page 40.)

Hints & Tips

The success of T_Deflicker is highly dependant on the position of the reference box and the mode selected.

The reference box must define an area where there is no movement throughout the entire clip. Watch out for shadows or light reflections passing over the reference area.

The mode selected has to match the type of variation within the clip. It may be necessary to try several different modes in order to get the best result.

T_Degrain

Description

T_Degrain removes grain from an image. Degraining tools are often used to reduce the colour variation in blue or green screens before keying. T_Degrain is based on a hybrid median filter which analyses a neighbourhood of pixels and sets the centre pixel to the median value of that region. This removes any pixels which show a sudden change in intensity which is typical of grain.



Original grainy image on the left, with T_Degrain applied on the right

Inputs

T_Degrain is a single input plug-in.

Controls

Mode - chooses the degrain method.

- Luminance - degrades the image based on the luminance whilst preserving the chroma information.

- RGB - degrains each channel individually.

Amount - controls the amount of degrading. Increase this value to remove more grain.

Note *Keep this value as low as possible to reduce the defocusing of the image.*

Number of Passes - controls how many times the operation is repeated.

Source Crops - controls the behaviour of the edges of the source image. (See “Source Crops” on page 30.)

Viewer

Source - allows you to crop the edges of the source image. (See “Source and Matte Crops” on page 40.)

Hints & Tips

T_Degrain can be used on a grainy blue screen or green screen before attempting to pull a key.

T_Dilate

Description

T_Dilate grows, shrinks (erodes) or extracts halos (outlines) from mattes.



Original matte



T_Dilate Shrink



T_Dilate Halo



T_Dilate Grow

For the best results, the source image should be either black or full white with a minimum of grey. The grown or eroded matte will always be within the specified distance of the nearest non-black pixel.

Note *T_Dilate can be used on a coloured images not just mattes, but the output is always grey scale.*

Inputs

T_Dilate is a single input plug-in.

Controls

Matte Processing - sets the type of matte to generate.

- Shrink - makes the matte thinner.
- Grow - makes the matte thicker.
- Halo - creates a line centered on the edge of the matte.
- Halo Inner - creates a line on the inside edge of the matte.
- Halo Outer - creates a line on the outside edge of the matte.

Matte Channel - defines which channels of the Matte to use. (See “Matte Channel” on page 29.)

Clip Min (%) - pixels at or below this luminance value are set to be black.

Clip Max (%) - pixels at or above this luminance value are set to be white.

Size (pixels) - controls the amount of matte dilation. This value is sub-pixel accurate.

Note *If adjusting the size has no effect on the matte, you may have to reduce the Hardness value.*

Aspect - controls the horizontal and vertical weighting of the effect. (See “Aspect” on page 15.)

Hardness (%) - controls the quality of the matte edge. A high value will give a sharply defined edge. A low value will give a soft edge.

Note *When processing the Luminance, if the hardness is set to 100% the matte will have only black and white pixels. Reduce the Hardness value to add grey into the matte.*

Process Alpha - defines how to treat the alpha channel of the source image. (See “Process Alpha” on page 27.)

Source Crops - controls the behaviour of the edges of the source image. (See “Source Crops” on page 30.)

Viewer

The radius of the effect can be altered by manipulating the size of the circle. (See “Radius” on page 38.)

Source - allows you to crop the edges of the source image. (See “Source and Matte Crops” on page 40.)

Hints & Tips

T_Dilate is an excellent tool for manipulating mattes when keying objects. If a key has a poor edge with colour spill showing, then T_Dilate can be used on the matte to render the inner or outer halo. Using this matte, the background key picture can be blended back into the composite, only in the spill affected area, to reduce the spill and improve the key.

T_Pattern

Description

T_Pattern generates various patterns to wipe between the source image and the underlying layers.



T_Pattern used as a wipe



T_Pattern used to generate a matte

Inputs

T_Pattern is a single input plug-in although the result interacts with the underlying layers.

Controls

Mode - controls which pattern is used.

- Stripe Top to Bottom
- Stripe Left to Right - these patterns paint a sequence of stripes across the image.
- Venetian Top to Bottom
- Venetian Left to Right - a venetian blind effect.
- Snake Top to Bottom
- Snake Left to Right - like Stripe, but alternating the direction of the stripe on each pass.
- Clock - a clock wipe.
- Venetian Circle - a venetian blind effect in a circle.

- Venetian Square - a venetian blind effect in a square.
- Venetian Fan - a venetian blind effect in a fan shape.
- Venetian Grid - a composite of a top to bottom venetian and a left to right venetian.

Wipe (%) - controls the percentage of the wipe between the source image and it's underlying layers.

Rotation (degrees) - rotates the pattern.

Number of Passes - for all patterns which are made up of bands, this controls the number of bands used.

Softness - softens the edge of the wipe.

Uniformity (%) - for Venetian wipes, this will control whether the bands scale uniformly or not. At 100%, the scaling is uniform. At 50%, the bands on one edge of the effect will scale earlier, giving a “trickle venetian” effect.

Scaling

- Scale - scales the wipe effect when autoscale is off.
- X Scale - scales the source image horizontally.
- Y Scale - scales the source image vertically.
- Autoscale - when this is on, the effect is scaled during rotation so that it still covers the full screen dimensions, When this is off, the scale of the wipe is controlled by the user.

Source Crops - controls the behaviour of the edges of the source image. (See “Source Crops” on page 30.)

Viewer

The rotation and scaling of the pattern can be manipulated using the on-screen tools. The overall Scale factor is changed when scaling in both X and Y. The individual X Scale and Y Scale parameters are changed when scaling in only one direction. (See “Move, Scale and Rotate Controls” on page 35.)

Source - allows you to crop the edges of the source image. (See “Source and Matte Crops” on page 40.)

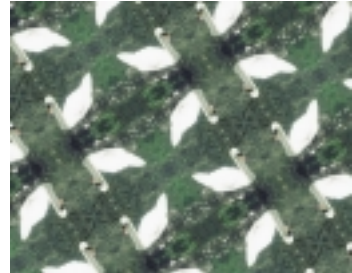
T_Tile

Description

T_Tile translates, rotates, scales and shears the source image. The edge controls can then be used to repeat the pattern.



Original Image



T_Tile

Inputs

T_Tile has an optional second input which can be used as a matte.

Controls

Position (pixels) - sets the centre position of the tile.

Rotation (degrees) - controls the rotation of the image tile.

Scale - controls the overall scale factor.

X Scale - controls the horizontal scale of the tile.

Y Scale - controls the vertical scale of the tile.

X Shear - controls the amount of horizontal shear.

Y Shear - controls the amount of vertical shear.

Note *If you are shearing the image by a large amount there will be a lot of aliasing along the edges. To combat this, set Filtering to High and reduce the Filter Sharpness.*

Filtering - sets the quality of the filter used when processing the effect. (See “Filtering” on page 22.)

Filter Sharpness - this can be used to sharpen the image when Filtering is set to High. (See “Filtering” on page 22.)

Matte - sets whether to use a Matte to control the strength of the effect. (See “Matte” on page 28.)

Matte Channel - defines which channels of the Matte to use. (See “Matte Channel” on page 29.)

Source Crops - controls the behaviour of the edges of the source image. (See “Source Crops” on page 30.)

Matte Crops - controls the behaviour of the edges of the matte image. (See “Matte Crops” on page 31.)

Viewer

The position, scaling and rotation of the effect can be manipulated using the on-screen tools. (See “Move, Scale and Rotate Controls” on page 35.)

Source - allows you to crop the edges of the source image. (See “Source and Matte Crops” on page 40.)

Matte - allows you to crop the edges of the matte. (See “Source and Matte Crops” on page 40.)

Tinderbox Warpers

Warpers are used to distort an image by moving the image's pixels around. Objects can be made to look as though they are fluid, or as if they are underwater. Lighting controls are available for some of the warper plug-ins to assist in creating a three dimensional look.

All of the Tinderbox warpers have the option to use a separate matte which controls where in the image the distortion is applied. Using soft edged mattes will usually give a better result when warping. Where a matte has soft edges, the scale of the warp effect will smoothly increase or decrease across the edge of the matte. This will assist in giving a fluid like feel to the image.

Note *If you are applying additional effects, such as blurs, to a matte before use in a Tinderbox warper, the matte layer will need to be pre-composed. (See "Matte" on page 28.)*

The way in which the edge controls are used can be critical when warping an image. Unwanted black pixels along the edges of the image can become incorporated into the main area of the image spoiling the effect. Careful edge cropping and selection of the right edge method is very important. (See "Source Crops" on page 30.)

To produce a high quality result when using the Tinderbox warpers it will usually be necessary to use a high filter quality. Use the faster, Low filter setting when setting up the effect, switching to the slower, Medium or High filter only for the final render. (See "Filtering" on page 22.)

T_Distorto

Description

T_Distorto distorts an image using a matte. The amount of distortion corresponds to the brightness of the matte, and the distortion takes the form of a scale, translation or rotation of the image. Where the matte is black there is no distortion. Where the matte is white the full distortion is applied. A matte with smooth changes in luminance will gently ramp in the distortion to give fluid like effects.



T_Distorto using T_Caustics as the Distorting Source

Inputs

T_Distorto has an optional second input which can be used as a the deformation source.

Controls

Distortion Source - sets which image to use as the

distortion matte and controls its position.

Note *The behaviour at the edges of the image is controlled by the Matte Crops.*

- Matte - sets which image to use to define the distortion.

Note *When Matte is set to None, the original source image is used as the distortion source.*

- Matte Channel - defines which channels of the Matte to use. (See “Matte Channel” on page 29.)
- Position (pixels) - sets the centre of the matte.
- Rotation (degrees) - sets the rotation of the matte.
- Scale - sets the overall scale factor.
- X Scale - controls the scale in X only.
- Y Scale - controls the scale in Y only.

Softness - blurs the matte before applying the distortion.
Use this to gradually ramp in the distortion.

Aspect - controls the horizontal and vertical weighting of the effect. (See “Aspect” on page 15.)

Strength - controls the amount of distortion applied based on the settings under Deformation.

Deformation Controls - sets the type of distortion applied to the image.

- Position (pixels) - controls the deformation offset.
- Rotation (degrees) - controls the deformation rotation.
- Scale - controls the overall deformation scale.
- X Scale - controls the deformation scale in X only.
- Y Scale - controls the deformation scale in Y only.

Note Source - controls the position of the source image.
The behaviour at the edges of the image is controlled by the Source Crops.

- Position (pixels) - sets the centre of the source image.
- Rotation (degrees) - sets the rotation of the source image.
- Scale - sets the overall scale factor.
- X Scale - controls the scale in X only.
- Y Scale - controls the scale in Y only.

Filtering - sets the quality of the filter used when processing the effect. (See “Filtering” on page 22.)

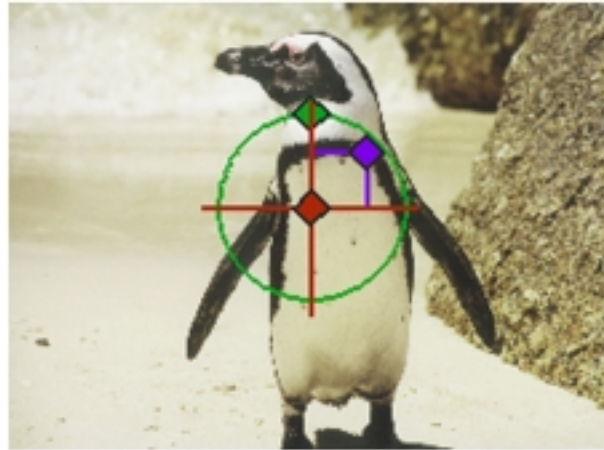
Filter Sharpness - this can be used to sharpen the image when Filtering is set to High. (See “Filtering” on page 22.)

Source Crops - controls the behaviour of the edges of the source image. (See “Source Crops” on page 30.)

Matte Crops - controls the behaviour of the edges of the matte image. (See “Matte Crops” on page 31.)

Viewer

The position, scaling and rotation of the Deformation source can be manipulated using the on-screen tools. (See “Move, Scale and Rotate Controls” on page 35.)



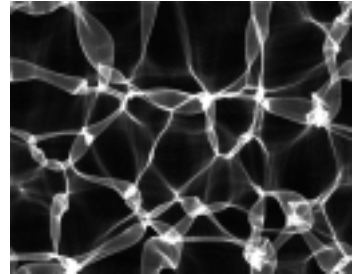
T_Distorto on-screen tools

Hints & Tips

T_Distorto is used extensively in post production to fake and control reflections in curved surfaces. Computer generated 3D objects need to interact with their surroundings to give the impression the scene has been filmed and not created from separate elements. T_Distorto enables compositors to control reflections at the compositing stage rather than taking the video footage and using it as environment maps in 3D.

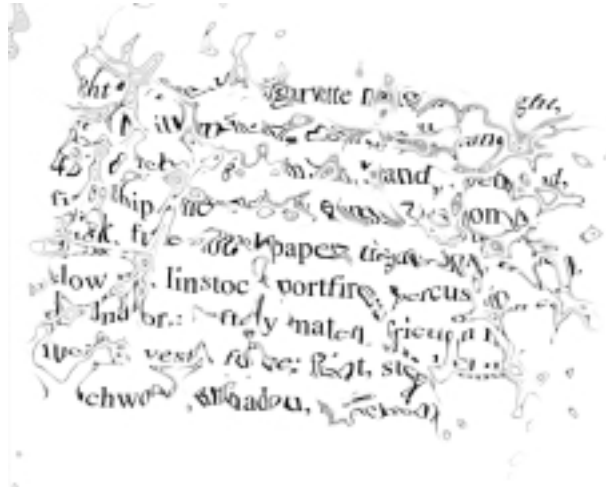
T_Distorto can be used to breakup objects as though they are underwater. Try using T_Distorto with a matte created by T_Caustics.

lighter, fire-l., cigarette l., igniter, light,
pilot l., illuminant, taper, spill, candle,
420 torch; coal, ember, brand, firebrand,
fire ship, incendiary bomb 723 bomb;
wick, fuse, touchpaper, tinderbox, match,
slow m., linstock portfire, percussion cup,
detonator; safety match, friction m.,
lucifer, vesta, fusée; flint, steel, tinder,
touchwood, amadou, matchbox.



Block of text

Water Caustics



T_Distorto applied to text using Caustics

T_Droplet

Description

T_Droplet is a distorting plug-in that creates a ring of waves simulating the effect of a droplet of water splashing into a fluid.



T_Droplet with Lighting

Inputs

T_Droplet has an optional second input which can be used as a matte.

Controls

Position (pixels) - sets the position where the droplet will emanate from.

Radius - sets the distance of the rings from the centre position.

Amount - sets the strength of the distortion.

Wavelength - sets the distance between the peaks of each wave that are inside the ring.

Number of Waves - sets the number of waves which make up the ring.

Aspect - controls the horizontal and vertical weighting of the effect. (See “Aspect” on page 15.) This will squeeze the rings into an ellipse.

Rotation (degrees) - sets the rotation on the droplet rings.

Note *Rotation is only visible if the Aspect is not set to 0%.*

Style - sets how to distort the image.

- Squeeze - distorts by squeezing pixels in and out of the centre.
- Shift - distorts by pushing the pixels in a direction.
- Zig Zag - distorts by pushing the pixels around the ring.

Shift Angle - sets the direction to shift the pixels in.

Note *Shift Angle is used in combination with the Shift Style.*

Lighting - sets the position and properties of the light source. (See “Lighting” on page 20.)

Filtering - sets the quality of the filter used when processing the effect. (See “Filtering” on page 22.)

Filter Sharpness - this can be used to sharpen the image

when Filtering is set to High. (See “Filtering” on page 22.)

Matte - sets whether to use a Matte to control the strength of the effect. (See “Matte” on page 28.)

Matte Channel - defines which channels of the Matte to use. (See “Matte Channel” on page 29.)

Source Crops - controls the behaviour of the edges of the source image. (See “Source Crops” on page 30.)

Matte Crops - controls the behaviour of the edges of the matte image. (See “Matte Crops” on page 31.)

Viewer

The position, scaling and rotation of the droplet can be manipulated using the on-screen tools. (See “Move, Scale and Rotate Controls” on page 35.)

The direction and elevation of the lighting can also be controlled using on-screen tools. (See “Lighting” on page 39.)

Source - allows you to crop the edges of the source image. (See “Source and Matte Crops” on page 40.)

Matte - allows you to crop the edges of the matte. (See “Source and Matte Crops” on page 40.)

T_Lens

Description

T_Lens is a distorting plug-in that creates a fish-eye lens effect. The bulge can be applied into or out of the image using the Lens parameter.



Original image



T_lens applied

Inputs

T_Lens has an optional second input which can be used as a matte.

Controls

Position (pixels) - sets the position of the lens centre.

Radius - sets the width of the lens used to create the effect.

Lens - controls the strength of the effect. Negative values squeeze the image instead of expanding it.

lighter, fire-l., cigarette l., igniter, light,
 pilot l., illuminant, taper, spill, candle,
 420 torch; coal, ember, brand, firebrand,
 incendiary bomb 723 bomb;
 wick, touchpaper, tinderbox, match,
 skew m., flintlock portfire, percussion cap,
 detonator; safety match, friction m.,
 lucifer, vesta, fuse, flint, steel, tinder,
 touchpaper, matchbox, 420 torch.

Lens parameter set to 80

lighter, fire-l., cigarette l., igniter, light,
 pilot l., illuminant, taper, spill, candle,
 420 torch; coal, ember, brand, firebrand,
 fire ship, incendiary bomb 723 bomb;
 wick, fuse, touchpaper, tinderbox, match,
 skew m., flintlock portfire, percussion cap,
 detonator; safety match, friction m.,
 lucifer, vesta, fuse, flint, steel, tinder,
 touchpaper, matchbox.

Lens parameter set to -40

Aspect - controls the horizontal and vertical weighting of the effect. (See “Aspect” on page 15.).



Original image



T_Lens with Aspect set to -50

Note Rotation (degrees) - sets the rotation of the effect.
Rotation is only visible if the Aspect is not set to 0%.

Lighting - sets the position and properties of the light source. (See “Lighting” on page 20.)

Filtering - sets the quality of the filter used when processing the effect. (See “Filtering” on page 22.)

Filter Sharpness - this can be used to sharpen the image when Filtering is set to High. (See “Filtering” on page 22.)

Matte - sets whether to use a Matte to control the strength of the effect. (See “Matte” on page 28.)

Matte Channel - defines which channels of the Matte to use. (See “Matte Channel” on page 29.)

Source Crops - controls the behaviour of the edges of the source image. (See “Source Crops” on page 30.)

Matte Crops - controls the behaviour of the edges of the matte image. (See “Matte Crops” on page 31.)

Viewer

The position, rotation and radius of the lens effect can be manipulated using the on-screen tools. (See “Move, Scale and Rotate Controls” on page 35.)

The direction and elevation of the lighting can also be controlled using on-screen tools. (See “Lighting” on page 39.)

Source - allows you to crop the edges of the source image. (See “Source and Matte Crops” on page 40.)

Matte - allows you to crop the edges of the matte. (See “Source and Matte Crops” on page 40.)

Troubleshooting

This chapter contains solutions to problems you may experience when using Tinderbox 1.

Problems and Solutions

I get orange dots scattered over my image.

This indicates that the installation process is not complete. Put the Tinderbox 1 CD in the CD-ROM drive, start After Effects and apply any Tinderbox 1 plug-in to a composition. A dialog will indicate that the installation is now complete and the orange dots will disappear.

I can't find Tinderbox in the Effects menu.

Check to see whether there is a Tinderbox 1 folder in the plug-ins folder of your After Effects application folder. If not, you should reinstall Tinderbox making sure you put the plug-ins in this location.

There are no folders, controls or sliders in T_Qube.

T_Qube has not been unlocked. You need to register with The Foundry to unlock T_Qube. (See "Registration" on page 4.)

None of the plug-ins work.

If the plug-ins don't work and the message "After Effects

error:loading code fragment "OpenGLLibrary" - code fragment library not found." is displayed, you will need to install the OpenGL libraries which are supplied on the Tinderbox1 CD.

Note *OpenGL can only be installed on Mac OS 8.1 or later.*

I can't read the on-line User Guide.

The on-line User Guide, Tinderbox1.pdf, can be displayed using Adobe Acrobat Reader 4.0. The Acrobat installer is supplied on the Tinderbox1 CD.

I can't play the .mov files.

You need QuickTime installed to play the movie files included on the CD. The QuickTime installer is supplied on the Tinderbox 1 CD.

Technical Support

There are several steps you can take before contacting technical support to receive assistance. Performing these steps can often solve the problem.

- Read this User Guide.
- Check the support page on our web site, www.thefoundry.co.uk

If you are still having problems you can e-mail technical support at The Foundry on support@thefoundry.co.uk. Please quote your Serial Number in any correspondence. (See "Serial Number" on page 5.)

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