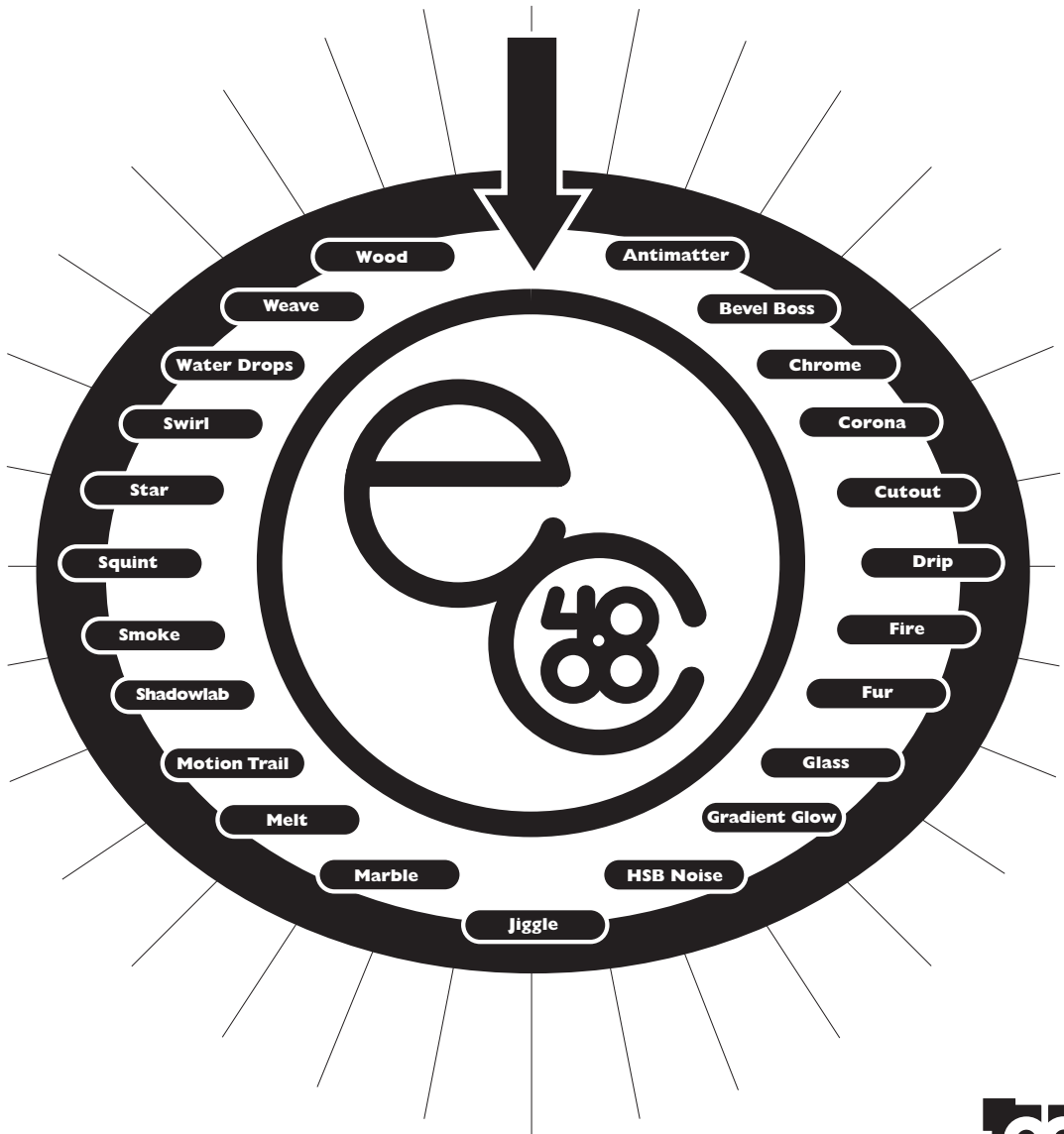


The Filters



Antimatter



The Antimatter filter inverts a selection's brightness without affecting hue and saturation values. This is useful for creating a contrast effect while retaining the current colors. Antimatter is a quick and easy way to invert a graphic for a javascript mouseover image, for example.

Controls

Invert Brightness

Controls the amount the brightness of the colors will be inverted. A value of zero produces no inversion at all; a value of 100 inverts the brightness completely.

Decrease Saturation

This slider reduces the saturation of colors in bright areas of your selection after the colors are inverted. Decrease Saturation is particularly useful on JPEG images which have been highly compressed. The compression often introduces some odd color artifacts which Antimatter will exaggerate. Decrease Saturation can tone those artifacts down.



See page 92, or the PDF manual included on your Eye Candy 4000 CD, for color examples of Antimatter at work.



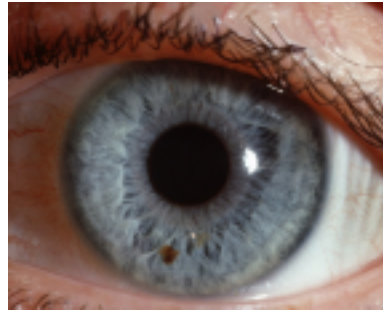
Apply Antimatter to one (rather than all) of your image's RGB or CMYK color channels to create vibrant color effects.



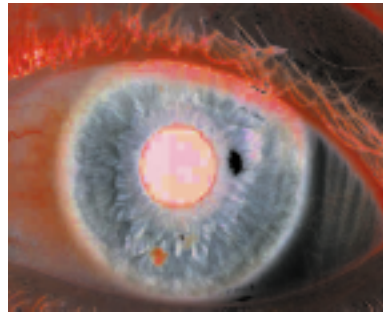
Above: an RGB image in glorious Grayscale. See page 92 for the color version of this example.



Above: Antimatter applied to all three color channels; brightness has been inverted in all three channels. By selecting and applying Antimatter to just the Green channel, we have a more dramatic color effect.



Above: original, compressed JPEG image.



Antimatter was applied with a high Invert Brightness value. There are odd artifacts in the middle of the pupil, caused by the high compression of the original JPEG.

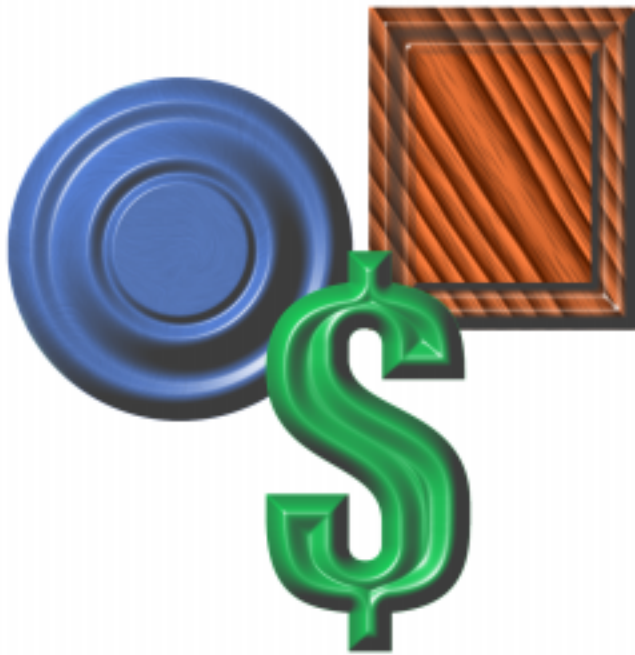


Using a Decrease Saturation value of 50 minimizes the artifacts, yielding a more consistent Antimatter effect.

Contrary to popular belief, matter and antimatter are not perfect equals that annihilate one other completely when they touch. Recent discoveries have shown that when a particle of matter meets its antimatter equivalent, the explosion occasionally leaves a small quantity of matter behind. This may help explain why there is so much more matter than antimatter in the universe -- a fact that seems to contradict the theory that equal amounts of matter and antimatter were formed in the explosion that started our universe.



Bevel Boss



The Bevel Boss filter creates an enormous variety of bevel and carve shapes. You can add an embossed look to any selection, either inside or outside the selection edges - perfect for quickly creating “buttons” of any shape. You can also use Bevel Boss to create a chiselled effect.

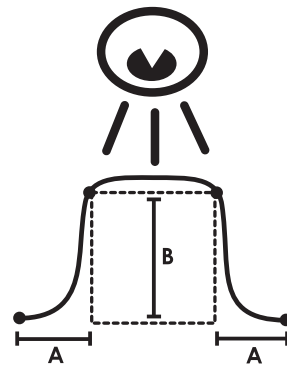
Controls

Bevel Width

Controls the width of the bevel at the selection edge. Higher values produce a wider bevel. See “A” in the diagram below.

Bevel Height Scale

Controls the amount the bevel will swell out from the page. Higher values will increase the harshness of shadows. See “B” below.



(The dotted line represents the selection)

Smoothness

Controls how smooth or ridged your bevel will appear. Higher values produce a more rounded bevel.

Bevel Placement

Clicking “Inside Selection” means your bevel will appear inside the selection. Click “Outside Selection” if you want the bevel to affect the area outside the edge of the selection.

Darken Deep Areas

This slider darkens low-lying areas of the bevel. It’s useful for creating and emphasizing carve effects.

Shade Interior

Clicking this box will darken the non-bevelled portions of your selection.

Lighting Tab**Direction**

Controls the direction from which the light falls on your selection. Click and drag within the lighting control box to change the direction, or enter a numerical value between 0 and 360 degrees.

Inclination

Controls the angle formed between the light and the page. Click and drag within the lighting control box to change the inclination, or enter a numerical value between 0 and 90 degrees.

Highlight Brightness

Controls the intensity of the shiny highlights appearing on areas facing the light; higher values increase the intensity.

Highlight Size

Controls the size of the shiny highlights appearing on areas facing the light; higher

values yield larger highlights.

Highlight Color

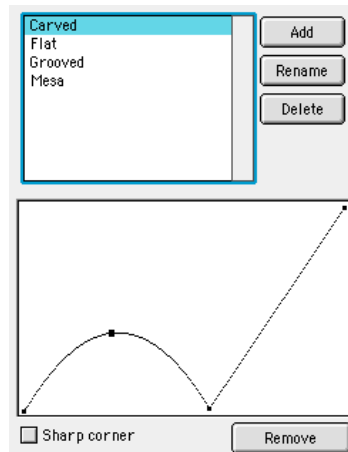
Choose any color for the shiny highlights added to the bevel. Clicking the left box pulls up the color picker you’ve chosen in your graphics program. Clicking one of the next two boxes pulls up your previously chosen foreground or background color. Clicking the eyedropper tool allows you to choose any color inside the preview image by clicking on it.

Shadow Color

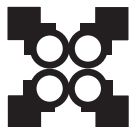
Controls the color of the shadows in the bevel or carve effect. See Highlight Color.

Bevel Profile Tab

This tab gives you direct control over the shape of the bevel, as seen from a side profile. It includes a list of saved profiles, a profile editing window and a “Sharp corner” box, as seen below.

**Using the list of saved bevel profiles**

The bevel profile editor comes with a set of



saved profiles for you to experiment with. We recommend that you examine the profiles included in the list to see how they affect a preview image.

You can create and save your own bevel profiles. To add a profile to the list, just click the “Add” button. You will be asked to name the current bevel profile. Click “OK” and the new profile will now appear whenever you open the bevel profile editor in this filter.

To rename a profile, click the “Rename” button.

To delete a profile from the list, click the “Delete” button.

⚠ The “Undo” feature will **not** work after adding, renaming or deleting bevel profiles. Once you delete a bevel profile, it’s gone for good, so be sure you want to delete it before actually doing so.

Shaping the bevel profile

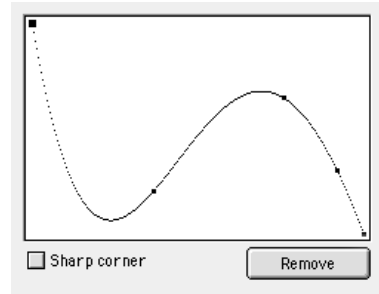
Below the list of profile names is the current bevel profile. Shape the bevel by clicking anywhere along the profile to add a new control point and then drag it to create the desired shape. The editor will draw the simplest curve that fits the points you’ve added.

To remove a control point from the bevel profile, click to highlight it and then click the “Remove” button, or just drag the point out of the bevel profile box. Removing control points will simplify a bevel profile.

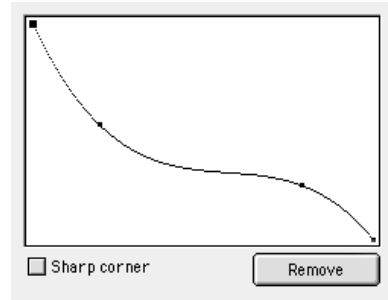
Sharp Corner

Clicking this box changes the profile shape at the highlighted control point. Each control point can create either a smooth curve or a sharp corner.

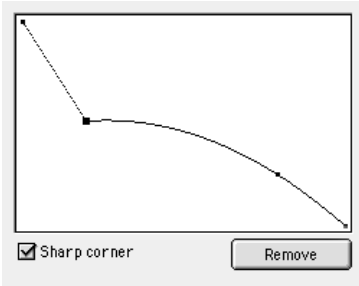
Following are examples of bevel profiles and the resulting images they create. All settings have been kept constant in these examples except for changes to the bevel profile.



A few changes to the bevel profile produces a dramatically different effect on the same selection:



Example #3 below is the same as #2 above except for the use of the “sharp corner” checkbox on the second control point from the left:



You can trade bevel profiles via email with your friends! See the “Settings” section on page 12 for information about trading bevel profiles.

Creating an Outer Bevel

Checking the “Outside Selection” option in the Bevel Placement box yields a bevel drawn using color information from the area outside of the selection, in this case, the white background:



Note that when Inside Selection is checked, the left side of the Bevel Editor is the

inside edge of the bevel. When Outside Selection is checked, the right side of the Bevel Editor is the *outside* edge of the bevel.

Creating a Carve Effect

As you can see from parts of the examples on these two pages, a left-to-right downward curve in the profile editor produces a raised bevel, and a left-to-right upward curve produces a carved or chiselled effect. Below is an example of a carve effect using the “Basic Carve” setting included with Bevel Boss:



As noted on page 25, using the “Darken Deep Areas” slider can help create a more pronounced carve effect.



If you ever feel the current bevel profile has gotten too complex, remember that hitting the F5 key will reset the filter to a simple factory default setting. Also, don’t forget that you have unlimited “Undo” capabilities from the Edit Menu, or by using the Control-Z keyboard shortcut.



Chrome



The Chrome filter uses reflection maps to create a wide range of realistic metallic effects, including gold, silver, copper and other metals.

Reflection maps are uncompressed TIFF files that are warped around your selection to create the reflections similar to those seen on actual metal objects. We have included a variety of reflection maps with Chrome.



Chrome works with images in RGB or Grayscale mode only.

Controls

Reflection Map

Choose an uncompressed TIFF image which will be used as the current reflection map. If you'd like to add your own reflection map to the list, close your graphics program and save a copy of the uncompressed TIFF file (in RGB mode) to the "ReflectionMaps" folder in the "Eye Candy 4000 Settings" folder. Your map will appear in the list the next time you use Chrome. If you'd like to delete a map from the list, simply delete the file from the "ReflectionMaps" folder.



You can create and save your own reflection maps for use in Chrome. Any uncompressed TIFF file saved in RGB mode

will work. TIFF images that are compressed or in color modes other than RGB will **NOT** load as reflection maps in Chrome. We recommend images of a landscape with a definite ground and sky, or interiors with a floor, walls and windows visible. These images tend to make the best reflection maps. We've also found that a file with dimensions of about 72 x 72 pixels creates a softer, more realistic reflection map.

Bevel Width

Controls the width of the bevel at the selection edge; higher values yield a wider bevel and shrink the raised area of the selection.

Bevel Height Scale

Controls the amount the selection appears to swell out of the screen. Higher values will make the bevel effect more pronounced by darkening shadows, which makes the bevel appear steeper.

Smoothness

Controls the amount the ridges in the bevel are smoothed away. Higher values produce a smoother, less ridged bevel.

Ripple Thickness

Controls the thickness of lumpy imperfections in the surface of the Chrome effect. Higher values produce a stronger, more rippled effect.

Ripple Width

Controls the width of lumpy imperfections in the surface. Higher values yield wider ripples.

Bevel Placement

Controls whether the bevel is drawn inside or outside the selection. Note that if you are using this filter on an entire layer, this control will be grayed out and unavailable.

Random Seed

Controls the random aspect of this filter so you can easily duplicate effects that use random elements.

Lighting Tab

Direction

Controls the direction from which the light falls on your selection. Click and drag within the lighting control box to change the direction, or enter a numerical value between 0 and 360 degrees.

Inclination

Controls the angle formed between the light and the page. Click and drag within the lighting control box to change the inclination, or enter a numerical value between 0 and 90 degrees.

Highlight Brightness

Controls the intensity of the shiny highlights appearing on areas facing the light; higher values increase the intensity.

Highlight Size

Controls the size of the shiny highlights appearing on areas facing the light; higher values yield larger highlights.

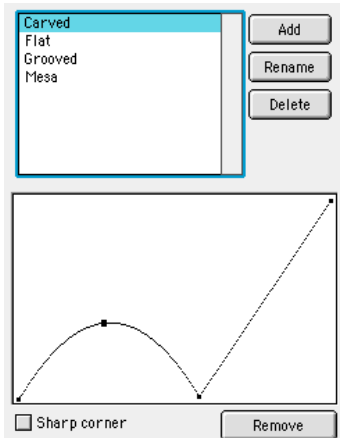
Highlight Color

Choose any color for the shiny highlights added to the bevel. Clicking the left box pulls up the color picker you've chosen in your graphics program. Clicking one of the next two boxes pulls up your previously chosen foreground or background color. Clicking the eyedropper tool allows you to choose any color inside the preview image by clicking on it.



Bevel Profile Tab

This tab gives you direct control over the shape of the bevel, as seen from a side profile. It includes a list of saved profiles, a profile editing window and a “Sharp corner” box, as seen below.



Using the list of saved bevel profiles

The bevel profile editor comes with a set of saved profiles for you to experiment with. We recommend that you examine the profiles included in the list to see how they affect a preview image.

You can create and save your own bevel profiles. To add a profile to the list, just click the “Add” button. You will be asked to name the current bevel profile. Click “OK” and the new profile will now appear whenever you open the bevel profile editor in this filter.

To rename a profile, click the “Rename” button.

To delete a profile from the list, click the “Delete” button.



The “Undo” feature will **not** work after adding, renaming or deleting bevel profiles. Once you delete a bevel profile, it’s gone for good, so be

sure you want to delete it before actually doing so.

Shaping the bevel profile

Below the list of profile names is the current bevel profile. Shape the bevel by clicking anywhere along the profile to add a new control point and then drag it to create the desired shape. The editor will draw the simplest curve that fits the points you’ve added.

To remove a control point from the bevel profile, click to highlight it and then click the “Remove” button, or just drag the point out of the bevel profile box. Removing control points will simplify a bevel profile.

Sharp Corner

Clicking this box changes the profile shape at the highlighted control point. Each control point can create either a smooth curve or a sharp corner.



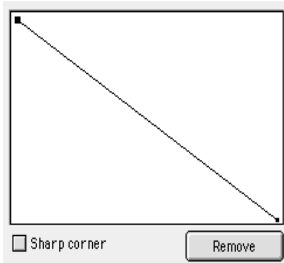
If you ever feel the current bevel profile has gotten too complex, remember that hitting the F5 key will reset the filter to a simple factory default setting. Also, don’t forget that you have unlimited “Undo” capabilities from the Edit Menu, or by using the Control-Z keyboard shortcut.

For detailed examples of different bevel profiles and their effects on an image, see pages 24-25 in the Bevel Boss filter chapter.

Chrome and the Bevel Profile

The chrome effect is added based on the bevel profile you have chosen. This means that very low points along the bottom of the bevel profile will *not* display any chrome effect. This is demonstrated with the examples on the next page.

A standard bevel profile:




The corresponding chrome effect:



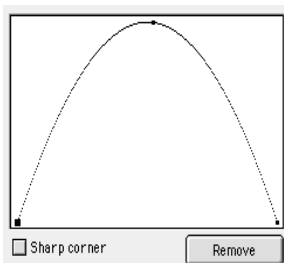
The corresponding chrome effect:



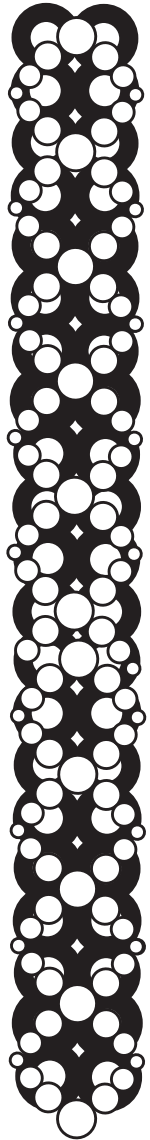
 Take the time to experiment with different bevel profiles using Chrome.



A more complex bevel, with two low points:



You can create metallic text in seconds; here, a high Ripple Thickness, Smoothness and Bevel Height Scale creates the desired effect.



Corona



The Corona filter quickly creates solar flares, gaseous clouds and other astronomical effects.



This filter requires a selection if you are using it on a background layer.

Controls

Glow Width

Controls the distance the corona extends from the selection

Flare Size

Controls the width of the colored flares. Higher values yield wider flares.

Stretch

Controls the amount the flares are elongated. Higher values yield longer flares.

Waver

Controls the amount the flares are bent. Higher values yield more obviously bent flares.

Blur

Controls the amount of softening of harsh edges. Higher values yield a softer effect.

Overall Opacity

Controls the opacity of the entire effect. Low values yield a more transparent effect.

Color

You can choose any color for the corona. Clicking the left box pulls up the color picker you've chosen in your graphics program. Clicking one of the next two boxes pulls up your previously chosen foreground or background color. Clicking the eyedropper tool allows you to choose any color inside the preview image by clicking on it.

Draw Only Outside Selection

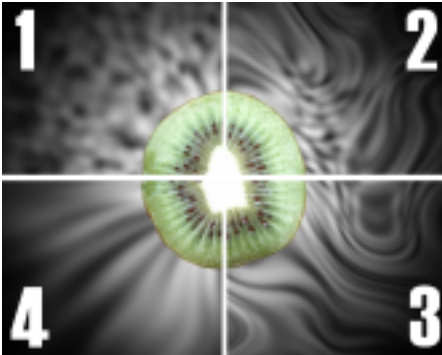
When checked, the corona will appear only outside the selection.

Radiate from the Selection

When checked, the corona will originate along the selection edge; when unchecked, the effect radiates from the center of the selection.

Random Seed

Controls the random aspect of this filter so you can easily duplicate effects that use random elements.



The Stretch and Waver sliders can be used together to produce a wide variety of gaseous effects:

- 1) low Stretch, low Waver
- 2) low Stretch, high Waver
- 3) high Stretch, high Waver
- 4) high Stretch, low Waver



Corona applied with the Radiate from the Selection box unchecked. Note the effect clearly radiates from the center of the word.



Here, Corona was applied with Radiate from the Selection checked and all other controls held constant. Note how the effect originates along both the inside and outside edges of each letter, for a very different look.

Over 100,000 bits of junk one centimeter or larger in size are currently orbiting the earth, at velocities up to 50,000 kilometers/hour. Orbital space debris includes discarded rockets, abandoned satellites, solid fuel fragments, nuclear reactor cores and lost lens caps; objects larger than one centimeter will penetrate and damage most spacecraft. A fleck of white paint 0.2mm in diameter once gouged a 4mm crater in the windshield of a space shuttle. There is currently no international treaty governing the management of orbital space debris.



Cutout



The Cutout filter makes your selection appear as a hole in the image by adding shadows, and also allows you to control what is seen through the cutout effect

Controls

Direction

Controls the direction the shadow falls from the edge of the selection. Use the visual control or enter a numeric value between 0 and 360 degrees.

Distance

Controls the distance the shadow falls from the edge of the selection. Higher values create the appearance of a deeper cutout.

Blur

Controls the amount of blurring of the shadow. Higher values yield a blurrier shadow, implying a light source that is softer or farther away.

Opacity

Controls the opacity of the entire shadow. Higher values yield a more opaque effect.

Shadow Color

Choose any color for the shadow. Clicking the left box pulls up the color picker you've chosen in your graphics program. Clicking one of the next two boxes pulls up your

previously chosen foreground or background color. Clicking the eyedropper tool allows you to choose any color inside the preview image by clicking on it.

Inside Fill

You have a choice as to what is visible through the Cutout effect.

Fill with solid color - clicking here enables the color picker, which allows you to choose any color to fill the Cutout.

Keep original image - clicking here leaves the original selection visible through the Cutout.

Make selection transparent - clicking here leaves the selection transparent, leaving underlying layers visible through the Cutout effect.



If you are working on a background layer, the “Make selection transparent” option will be grayed out and unavailable.



Examples of the three choices for the Inside Fill. Top left: “Fill with solid color,” using green. Bottom left: “Keep original Image” adds shadows only. Right: “Make Selection Transparent” makes underlying layers

visible.



Fun “peek-a-boo” effects are easy with Cutout; a selection is made in the desired shape and then Cutout is applied to the solid layer above the puppy.



Softer effects are created with high Distance and Blur settings.

William Burroughs claimed that the “cut-up” writing technique he and Bryon Gysin developed during the 1960s could free the mind from the hidden control of language. Cutting familiar pages into strips and rearranging the text at random will introduce an “unpredictable spontaneous factor” that allows new meanings and concepts to reveal themselves. “All writing is in fact cut-ups,” according to Burroughs.



Drip



The Drip filter instantly turns text and images into dripping paintings with 3D-like drops.



This filter requires a selection if you are using it on a background layer.

Controls

Width

Controls the width of the drips. Higher values yield fewer, wider drips.

Maximum Length

Controls the length of the longest drips. Other drips may be drawn with shorter lengths.

Spacing

Controls the approximate horizontal distance between the drips. Higher values yield drips that are farther apart.

Taper

Controls the amount the drip thins as it flows down. Higher values yield more thinning.

Dribble

Controls the amount of variation in drip thickness. Higher values yield more variation and broken-up dripping.

Random Seed

Controls the random aspect of this filter so you can easily duplicate effects that use random elements.

Lighting Tab**Lighting Strength**

Controls the intensity of the three-dimensional lighting effects. Higher values yield a more obvious 3-D effect.

Lighting Coverage

Controls the amount of area of each drip that will appear three-dimensional. Higher values yield a more obvious 3-D effect.

Lighting Direction

Controls the direction from which the light falls on your selection. Click and drag within the lighting control box to change the direction, or enter a numerical value between 0 and 360 degrees.

Lighting Inclination

Controls the angle formed between the light and the page. Click and drag within the lighting control box to change the inclination, or enter a numerical value between 0 and 90 degrees.

Highlight Brightness

Controls the intensity of the shiny highlights appearing on areas facing the light; higher values increase the intensity.

Highlight Size

Controls the size of the shiny highlights appearing on areas facing the light; higher values yield larger highlights.

Highlight Color

Controls the color of any shiny highlights added to your droplets. You can choose

any color for the highlights. Clicking the left box pulls up the color picker you've chosen in your graphics program. Clicking one of the next two boxes pulls up your previously chosen foreground or background color. Clicking the eyedropper tool allows you to choose any color inside the preview image by clicking on it.

Shadow Color

Controls the color of the shadow around the droplets. See Highlight Color.



The drip on the left uses a low Taper value; the one on the right uses a high Taper value.



A high Lighting Strength and Lighting Coverage yields drips with a very 3-D appearance.

“Is this a painting? Is this a painting?”

Abstract Expressionist “drip painter” Jackson Pollock, expressing doubts about his art to his wife.



Fire



Residents picture courtesy of the Cryptic Corporation

The Fire filter quickly creates a wide range of fire and flame-like effects. A color gradient editor is included to allow users to choose their own color scheme.



This filter requires a selection if you are using it on a background layer.

Controls

Direction

Controls the direction the flames move away from the selection. Use the circular slider or enter a numeric value between 0 and 360 degrees.

Column Length

Controls the length of the entire flame effect. Higher values yield longer flames.

Flame Width

Controls the average width of the individual flames. Higher values yield wider flames.

Side Taper

Controls the amount the fire narrows as it moves away from the selection. Higher values yield a stronger taper.

Movement

Adds random curling to the individual flames. Higher values add more curling.

Denser Flames

Checking this box will render additional individual flames for a more full effect.

Start from Far Side

Checking this box starts the flames from the selection edge opposite the flame direction.

Draw Only Outside Selection

When checked, fire will appear only outside the selection. If Start From Far Side is checked, Draw Only Outside Selection will be unavailable and will be grayed out.

Random Seed

Controls the random aspect of this filter so you can easily duplicate effects that use random elements.



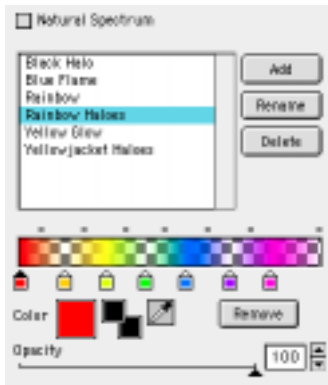
Feathering a selection before applying Fire provides a softer effect.

Color Tab

Natural Spectrum

When checked, this box creates a realistic orange, yellow and white fire. When unchecked, the color gradient editor below is enabled.

Using the Color Gradient Editor
(See page 90 for color examples)



Setting Up A Gradient

Every color gradient begins with the left color stop. You can't move this stop, but you can add new color stops by simply clicking along the bottom edge of the color gradient region.

For each color stop you add, you'll see a white dot appear above the gradient region at the midpoint between the new stop and those next to it. This determines how quickly the color and opacity will blend between color stops. If you click and drag the white dot closer to one color stop, you'll notice a more abrupt color/opacity transition.

We have included presets that demonstrate this element. Choose the "Rainbow" gradient from the list in the Gradient Editor. Notice how the dropoff from blue to red is much more abrupt than that from red to yellow. Then notice how the white dots above the gradient region control the dropoff. Feel free to experiment.

To remove a color stop from the color gradient, click to highlight it and then click the "Remove" button, or just drag the color stop off the bottom of the color gradient bar. Removing color stops will simplify a color gradient.

Choosing Colors

Change the color of any color stop by clicking it once to highlight it, and then using the "Color" control below to choose the color picker (left box) or your foreground or background color. You can also use the eyedropper tool to choose any color from within your preview window.

Adjusting Opacity

You can adjust the opacity of any color stop by clicking it once to highlight it,

Different salts produce flames of different colors when burned. The yellow and orange color of typical fire comes from sodium and calcium chlorides found naturally in wood. Copper chloride produces blue flames, copper sulfate yields green, potassium chloride purple and strontium chloride red. To create wood that will burn in unusual colors, buy the desired salt and dissolve it in water. Soak the wood for a day or two, let it dry thoroughly and then set it on fire in a safe place. Kids shouldn't do this without an adult around.



and then using the “Opacity” control to change the transparency of that particular color stop.



if the outer edge of your flame looks too precisely defined, move the right-hand color stop away from the very edge of the gradient region. This allows for a less harsh dropoff.

Note: The Color and Opacity controls are designed to give you precise control over your gradient, and so work only on the highlighted color stop. To adjust the color or opacity of a different color stop, simply click it once to highlight it.



If you ever feel the current color gradient has gotten too complex, remember that hitting the F5 key will reset the filter to a simple factory default setting. Also, don't forget that you have unlimited “Undo” capabilities from the Edit Menu, or by using the Control-Z keyboard shortcut.



Side Taper set high (left) and low (right). Note how the flames get narrower at the top when Side Taper is used.



Checking Start From Far Side (left) draws the flames starting from the side opposite the Flame Direction. At right, the same effect with Start From Far Side turned off.



Flame Width set to low (left) and medium (right). A high Flame Width produces fewer, wider flames.



Draw Only Outside Selection is turned on at left; it doesn't allow the flames to cover any of the selection. Draw Only Outside Selection is turned off at right, allowing the flames to cover part of the selection.



Fur



The Fur filter creates a variety of fur and hair effects: fuzzy textures, wavy curls, long strands and more.



For very thick fur, apply the filter multiple times, varying the Direction and Length slightly, and use a different Random Seed.

Controls

Direction

Controls the direction in which the hairs grow. Use the circular control or enter a numeric value between 0 and 360 degrees.

Density

Controls the density of the hair strands. Higher values create more hairs.

Curl Size

Controls the size of the curls in the hair. Higher values yield larger curls.

Curliness

Controls the amount the hair curls. Higher values yield curlier hair. Note: if Curliness is very low, changes to Curl Size may not yield a noticeable effect.

Length

Controls the length of the hairs. Higher values yield longer hairs.

Draw Only Inside Selection

When this box is checked, fur will appear inside the selection only.

Color Hairs Uniformly

When this box is checked, the hairs will be created with only one color. Checking this box enables the Hair Color control.

Hair Color

Choose any color for the hair. Clicking the left box pulls up the color picker you've chosen in your graphics program. Clicking one of the next two boxes pulls up your previously chosen foreground or background color. Clicking the eyedropper tool allows you to choose any color inside the preview image by clicking on it.

Seamless Tile

Check this box to create a repeating pattern with no seams.



See the special section on page 14 for instructions on how to make seamless tiles.

Random Seed

Controls the random aspect of this filter so you can easily duplicate effects that use random elements.

Lighting Tab**Direction**

Controls the direction from which the light falls on your selection. Click and drag within the lighting control box to change the direction, or enter a numerical value between 0 and 360 degrees.

Highlight Brightness

Controls the intensity of the shiny highlights appearing on areas facing the light;

higher values increase the intensity.

Highlight Color

Choose any color for the shiny highlights. See Hair Color.



The left side of the animal hide was created using a high Density, moderate Curl Size and short Length. The right side uses the same settings, but with a high Length. Fur was applied twice on this side, with a slightly different Direction and a new Random Seed each time for a thicker Fur effect.



Above: Very low Curl Size and very high Curliness.



Above: the same settings, but with a high Curl Size.

And now I'm calling out for soft things / Something soft when times get hard
Now I'm calling out for soft things / When something calls you / You'll know what to do

(lyrics reprinted by permission of Jerry Casale and Mark Mothersbaugh, Devo)



Glass



The Glass filter creates a layer of clear or colored glass over your selection. The glass effect is achieved by simulating three physical effects; refraction, light filtering and light reflection. These are controlled by the Refraction, Color and Opacity, and Highlight and Light Direction sliders, respectively.



This filter works best on large, simple selections that are not filled in with a solid color. Try using Glass with the rectangle and ellipse selection tools.

Controls

Bevel Width

Adjusts the width of the bevel at the edge of your glass. Note that any Refraction will take place in the bevelled areas of the effect.

Smoothness

Controls how smooth or ridged the bevel around the glass will appear. Higher values produce a more rounded bevel.

Bevel Placement

Clicking "Inside Selection" means the bevel will appear inside the selection. Click "Outside Selection" if you want the bevel to affect the area outside the edge of the selection.

Edge Darkening

Lightens or darkens the edge of the glass effect. The slider ranges from -100 to +100; negative values lighten the glass edge and positive values darken it.

Gradient Shading

Adds a shading gradient from dark to light inside the glass, along the direction you set for the Direction slider on the Lighting tab (see below).

Refraction

Controls the amount your selection will be warped by the glass over it. Note that the warping is most visible under bevelled areas of the glass; if you are not seeing the Refraction you like with a high value, try increasing the Bevel Width. Refraction will only work on objects on the same layer as the glass effect.

Opacity

Controls the amount light is prevented from passing through the glass. Low values yield more transparent glass; high values yield opaque glass that will block underlying layers.

Tinting

Controls the amount the light is colored by the Glass Color as it passes through the glass. Higher values tint the glass more noticeably.

Glass Color

Choose any color for tinting the glass. Clicking the left box pulls up the color picker you've chosen in your graphics program. Clicking one of the next two boxes pulls up your previously chosen foreground or background color. Clicking the eyedropper tool allows you to choose any color inside the preview image by clicking on it.

Lighting Tab**Direction**

Controls the direction from which the light falls on your selection. Click and drag within the lighting control box to change the direction, or enter a numerical value between 0 and 360 degrees.

Inclination

Controls the angle formed between the light and the page. Click and drag within the lighting control box to change the inclination, or enter a numerical value between 0 and 90 degrees.

Highlight Brightness

Controls the intensity of the shiny highlights appearing on areas facing the light; higher values increase the intensity.

Highlight Size

Controls the size of the shiny highlights appearing on areas facing the light; higher values yield larger highlights.

Highlight Color

Choose any color for the shiny highlights added to the bevel around the glass effect. See Glass Color for more.

Ripple Thickness

Controls the thickness of lumpy imperfections in the Glass effect. Higher values produce a stronger, more rippled effect.

Ripple Width

Controls the width of lumpy imperfections in the surface. Higher values yield wider ripples.

Random Seed

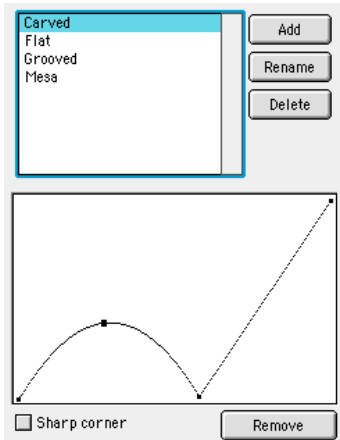
Controls the random aspect of this filter so you can easily duplicate effects that use random elements.

Scientifically speaking, glass is neither a liquid nor a solid. Like a liquid, glass molecules are arranged randomly. Like a solid, however, glass molecules remain motionless. Confronted with this dilemma of categorization, scientists have created a new category to describe materials with glass-like properties: vitreous substances. Some consider vitreous substances to be a fourth state of matter equivalent to liquids, solids and gases.



Bevel Profile Tab

This tab gives you direct control over the shape of the bevel, as seen from a side profile. It includes a list of saved profiles, a profile editing window and a “Sharp corner” box, as seen on the next page.



Using the list of saved bevel profiles

The bevel profile editor comes with a set of saved profiles for you to experiment with. We recommend that you examine the profiles included in the list to see how they affect a preview image.

You can create and save your own bevel profiles. To add a profile to the list, just click the “Add” button. You will be asked to name the current bevel profile. Click “OK” and the new profile will now appear whenever you open the bevel profile editor in this filter.

To rename a profile, click the “Rename” button.

To delete a profile from the list, click the “Delete” button.



The “Undo” feature will **not** work after adding, renaming or deleting bevel profiles. Once you delete a bevel profile, it’s gone for good, so be

sure you want to delete it before actually doing so.

Shaping the bevel profile

Below the list of profile names is the current bevel profile. Shape the bevel by clicking anywhere along the profile to add a new control point and then drag it to create the desired shape. The editor will draw the simplest curve that fits the points you’ve added.

To remove a control point from the bevel profile, click to highlight it and then click the “Remove” button, or just drag the control point out of the bevel profile box. Removing control points will simplify a bevel profile.

Sharp Corner

Clicking this box changes the profile shape at the highlighted control point. Each control point can create either a smooth curve or a sharp corner.



If you ever feel the current bevel profile has gotten too complex, remember that hitting the F5 key will reset the filter to a simple factory default setting. Also, don’t forget that you have unlimited “Undo” capabilities from the Edit Menu, or by using the Control-Z keyboard shortcut.

For detailed examples of different bevel profiles and their effect on an image, see pages 24-25 in the Bevel Boss filter chapter.



The glassware above was created using the "Multiple Bevels" profile found on the Bevel Profile tab in Glass. Bevel Width 0.58, Edge Darkening 3, Refraction 87, Opacity 0, Tinting 24 and a very light aqua Tint Color. The filter was applied to an empty circular selection.

another Bevel Profile. This effect was created with the "Cutaround" profile and a Bevel Width of 0.23, with a slight red Tint.



Solid glassy effects can be obtained with a high Opacity and Tint Color.



Refraction takes place under beveled areas of the Glass. If you aren't seeing the distortion you'd like, try increasing the Bevel Width, or experimenting with



Using high values for Edge Darkening and Gradient Shading can help the Glass effect stand out more clearly. Notice the Gradient goes from dark to light as it moves from the upper left of the oval to the lower right. Gradient Shading will follow whatever direction you have set for the Light Direction slider on the "Lighting" tab.



Gradient Glow



The Gradient Glow filter can create a variety of realistic glows around the outside edge of a selection, including complex color gradients.



This filter requires a selection if you are using it on a background layer.

Controls

Glow Width

Controls how far the glow extends out from the edge of your selection; high values yield a wider Glow.

Soft Corners

Clicking this box creates a very diffuse glow with softer edges around angular selections.

Overall Opacity

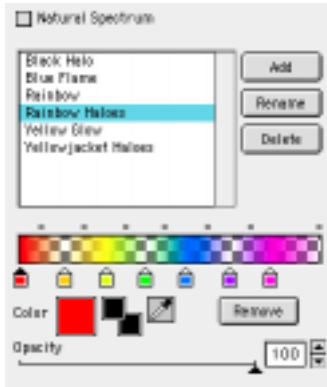
Controls the opacity of the overall Glow effect. Low values yield a more transparent Glow; high values yield a more solid, opaque Glow.

Draw Only Outside Selection

When this box is checked, the glow will only appear outside the selection. If this box is unchecked, the glow will be allowed to fill the entire selection.

Color Tab

*Using the Color Gradient Editor
(See page 89 for color examples)*



Setting Up A Gradient

Every color gradient begins with the left color stop. You can't move this stop, but you can add new color stops by simply clicking along the bottom edge of the color gradient region.

For each color stop you add, you'll see a white dot appear above the gradient region at the midpoint between the new stop and those next to it. This determines how quickly the color and opacity will blend between color stops. If you click and drag the white dot closer to one color stop, you'll notice a more abrupt color/opacity transition.

We have included presets that demonstrate this element. Choose the "Rainbow" gradient from the list in the Gradient Editor. Notice how the dropoff from blue to red is much more abrupt than that from red to yellow. Then notice how the white dots above the gradient region control the dropoff. Feel free to experiment.

To remove a color stop from the color gradient, click to highlight it and then click the "Remove" button, or just drag the color stop off the bottom of the color gradient bar. Removing color stops will simplify a color gradient.

Choosing Colors

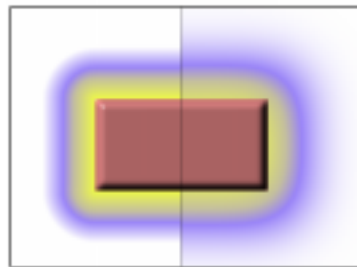
Change the color of any color stop by clicking it once to highlight it, and then using the "Color" control below to choose the color picker (left box) or your foreground or background color. You can also use the eyedropper tool to choose any color from within your preview window.

Adjusting Opacity

You can adjust the opacity of any color stop by clicking it once to highlight it, and then using the "Opacity" control to change the transparency of that particular color stop.



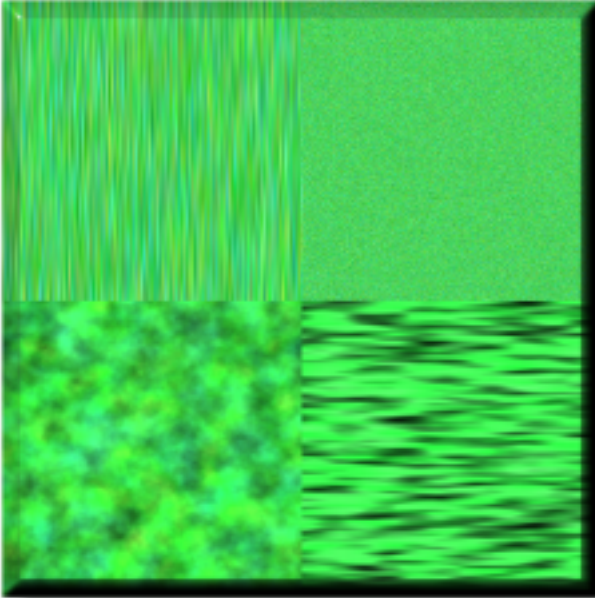
If you ever feel the current color gradient has gotten too complex, remember that hitting the F5 key will reset the filter to a simple factory default setting. Also, don't forget that you have unlimited "Undo" capabilities from the Edit Menu, or by using the Control-Z keyboard shortcut.



The Soft Corners slider at a low setting (left) and a medium setting (right).



HSB Noise



The HSB Noise filter allows you to add visual noise to a selection by varying Hue, Saturation, Brightness and other values. Noise is useful for adding texture to a selection, which can help it appear both more interesting and more natural.



This filter only works in RGB mode.



For color examples of the HSB Noise filter at work, see page 92.

Controls

Hue Variation

Controls the range of variation in hue. Higher values yield a more colorful appearance.

Saturation Variation

Controls the range of variation in saturation. Higher values yield a wider range in saturation of the colors in the noise.

Brightness Variation

Controls the range of variation in brightness. Higher values yield a wider range in brightness of the colors in the noise.

Opacity Variation

Controls the range of variation in transparency of the noise. Higher values yield a

wider range of opaque and transparent noise lumps. Note: variations in opacity will not be apparent if you are working on a background layer, as there is no layer underneath the background. Transparent noise applied to a selection in a layer creates random, semi-transparent spots.

Lump Width

Controls the horizontal size of the bits of noise. Higher values yield wider noise lumps.

Lump Height

Controls the vertical size of the bits of noise. Higher values yield longer noise lumps.

Pattern

Choose one of three patterns for the noise:

Smooth Lumps - creates smooth, lumpy noise

Smooth Fractal - creates a more natural noise with fractal detail at many levels

Wrinkled Fractal - creates fractal detail with sharp creases and visible lines around noise regions

Fractal Roughness

Choosing the Smooth Fractal or Wrinkled Fractal patterns will enable this slider, which controls the amount of detail in the fractal patterns. Higher values yield a rougher, more detailed appearance, useful for natural textures.

Experiment with these three patterns to find the one right for the job!

Seamless Tile

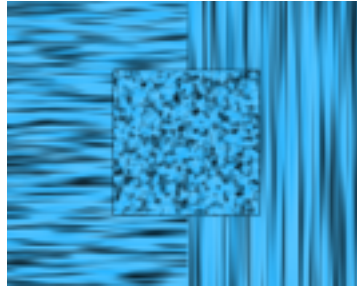
Check this box to create a repeating pattern with no seams.



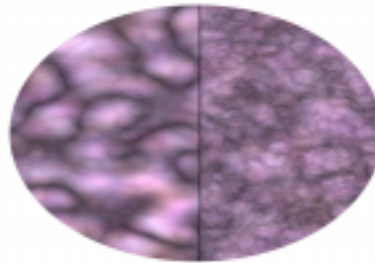
See the special section on page 14 for instructions on how to make seamless tiles for your Web site, as computer wallpaper or for importing as a texture into a 3-D application.

Random Seed

Controls the random aspect of this filter so you can easily duplicate effects that use random elements.



Using a Lump Width greater than Lump Height (left) creates a horizontal noise effect. Using a Lump Height greater than Lump Width (right) yields a vertical effect. The larger the difference between the two settings, the more pronounced the directional effect. Setting Width and Height to the same value eliminates the directional element (center).



Left: using the Wrinkled Fractal option with a low Fractal Roughness setting of 7. Right: Wrinkled Fractal with Fractal Roughness setting of 87.

In the 1913 manifesto, "The Art of Noises," Italian Futurist Luigi Russolo called for new music made of "dissonant, strange and harsh sounds." He praised the noises of the modern industrial city and called for musicians to attune themselves to "the palpitation of valves, the coming and going of pistons, the howl of mechanical saws, the jolting of a tram on its rails, the flapping of curtains and flags." Russolo built his own instruments called "intonarumori" (noise intoners), with names like the Burster, Gurgler, Whistler, Crackler, Roarer, Scraper and Hummer.



Jiggle



The Jiggle filter produces a powerful distortion based on randomly-spaced bubbling. Unlike the Photoshop distortion filters, Jiggle is not based on a wave pattern, or around a single axis. Instead, Jiggle yields a more organic distortion, resulting in a selection that appears as if it is bubbling, gelatinous or even shattered.

Controls

Movement Type

Choose from three types of warping: Bubbles, Brownian Motion or Turbulence. Bubbles creates smoother distortions, while Brownian Motion and Turbulence yield much busier and sharper results.

Bubble Size

Controls the spacing or frequency of the warp defects. Higher values yield larger and fewer warps.

Warp Amount

Controls the amount of distortion of each warp defect. Higher values increase the distortion.

Twist

Controls the amount of twisting added to the distortion. Higher values yield a more twisted effect.

Seamless Tile

Check this box to create a repeating pattern with no seams.



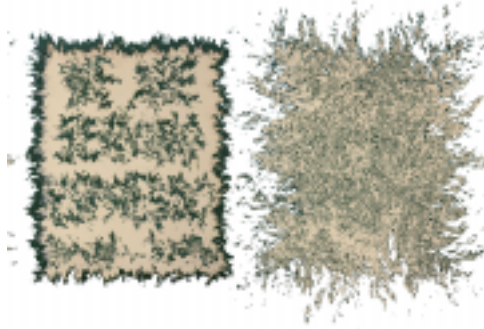
See the special section on page 14 for instructions on how to make seamless tiles for your Web site, as computer wallpaper or for importing as a texture into a 3-D application.

Random Seed

Controls the random aspect of this filter so you can easily duplicate effects that use random elements.



On the left, low Bubble Size (.16 inches) yields a very distorted effect. On the right, high Bubble Size (1.29 inches) yields a gentler distortion. All other settings remained the same: Warp 0.27, Twist 30, using the "Bubbles" movement type.



Using the Turbulence Movement Type creates a much busier distortion. Left: medium Bubble Size and high Twist. Right: High Warp values using Turbulence create a smashed effect.

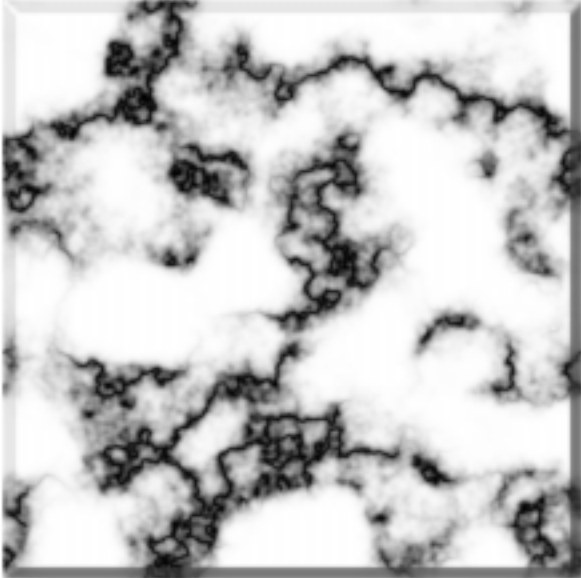


Left: high Bubble Size and Warp Amount with Twist set to 0. Right: the same, but with Twist set to 90. Note also that extremely high Warp Amounts will distort so much that pieces will appear to have broken away from the main image.

Gelatin is a tasteless, gooey substance used as a thickening agent in foods. It is usually obtained by boiling down animal bones, tendons, cartilage and skin. Gelatin particles can absorb up to 5-10 times their weight in water. Gelatin has been used to coat food eaten by astronauts to reduce the risk of crumbs flying around the spaceship.



Marble



The Marble filter creates a variety of realistic marble textures, including full control over the color, size and shape of the rock and vein features. The seamless tiling option allows you to easily create smoothly patterned marble backgrounds.

Controls

Vein Size

Controls the size of the vein elements; higher values yield larger features.

Vein Coverage

Controls the length of the marble veins.

Vein Thickness

Controls the thickness of the marble veins; higher values yield thicker veins

Vein Roughness

Controls the sharpness of the detail in the marble veins; lower values yield more blurry veins

Bedrock Color

You can choose any color for the rock. Clicking the left box pulls up the color picker you've chosen in your graphics program. Clicking one of the next two boxes pulls up your previously chosen foreground or background color. Clicking the eyedropper tool allows you to choose any color inside the preview image by

clicking on it.

Vein Color

You can choose any color for the veins running through the rock. See Bedrock Color.

Seamless Tile

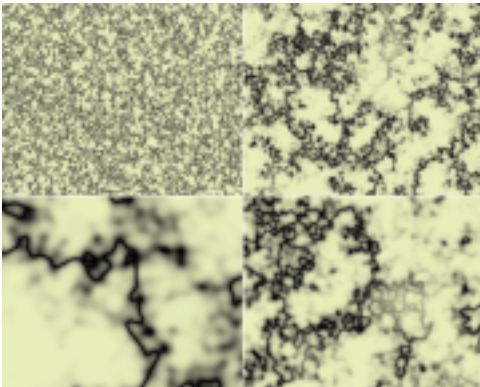
Check this box to create a repeating pattern with no seams.



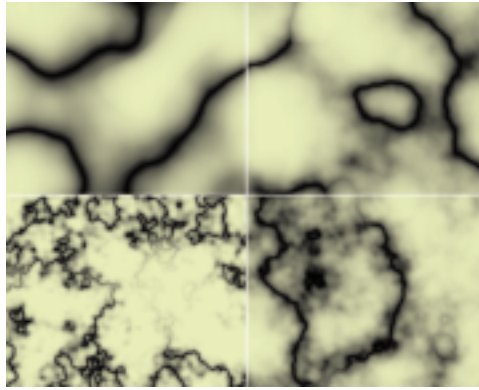
See the special section on page 14 for instructions on how to make seamless tiles for your Web site, as computer wallpaper or for importing as a texture into a 3-D application.

Random Seed

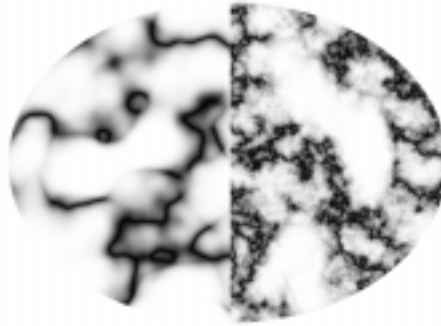
Controls the random aspect of this filter so you can easily duplicate effects that use random elements.



Clockwise from the top left, increasing the Feature Size while keeping other sliders constant.



Clockwise from the top left, increasing the Vein Detail while keeping other sliders constant.

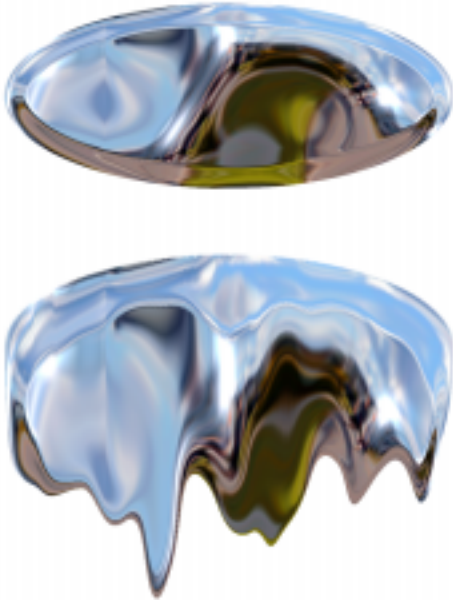


Vein Roughness values of 8 (on left) and 80 (right), with other sliders held constant.

Marble is formed when limestone deposits are exposed to strong heat and pressure. Red, green, yellow and black marbles all occur naturally. The veins occasionally found in marble are formed when earth movements shatter the bedrock and the resulting cracks become filled with calcite, which makes the cracks visible. Light can actually penetrate extremely pure marble to a depth of 1.5 inches before being reflected, giving the rock unusual translucency and lustre. Sculptors, including Michelangelo, recognized and took advantage of this feature.



Melt



The Melt filter turns up the heat on any image, creating the appearance of melting, including the pooling of the selection at the bottom of the melted area.



Melt is an excellent complement to the Drip filter. Try running Melt first on a selection, then follow up with Drip for a highly realistic effect.

Controls

Ripple Width

Controls the size of the wave variations that create the melt effect. Higher values yield larger rippled distortions.

Stretch Length

Controls the maximum amount the selection will be stretched vertically. Higher values yield a more elongated melting.

Pooling

Controls the amount the selection will collect at the bottom of the melted area. Higher values create a stronger appearance of downward flow.

Random Seed

Controls the random aspect of this filter so you can easily duplicate effects that use random elements.



Above: a low Ripple Width value of 0.15 creates a busy Melt effect with relatively small wavy variations.



Here, a higher Ripple Width of 0.32 yields larger variations, producing bigger melted blobs.



Increasing the Pooling value causes the selection to form a puddle at the bottom of the effect. Top: Pooling set at 20. Middle: Pooling at 50. Bottom: Pooling at 80. All other controls were kept constant.

During the 1600's, scientists in Holland used the melting point of butter as a reference point for calibrating thermometers and creating temperature scales. Cooks have long taken advantage of butter's relatively sharp melting point. Butter will melt and spread quickly in batter, creating cookies that are noticeably more crispy. Other fats, such as shortening, hold their shape to higher temperatures, resulting in softer cookies.



Motion Trail



The Motion Trail filter draws a trail from the selection to create the appearance of rapid movement.



This filter requires a selection if you are using it on a background layer.

Controls

Direction

Controls the direction the motion trail moves away from the selection. Use the circular slider or enter a numeric value between 0 and 360 degrees.

Length

Controls the length of the trail moving away from the selection.

Taper

Controls the amount the trail shrinks as it moves away from the selection. Higher values yield a narrower, more tapered trail.

Overall Opacity

Controls the opacity of the motion trail. Lower values yield a more transparent effect.

Smear Color from Edges

Checking this box smears the colors only from the edges of the selection. This leaves the selection relatively distinct.

Unchecking this box will result in the motion trail obscuring the image more fully.

⚠ Checking Smear Color from Edges causes the Draw Only Outside Selection control to be grayed out and unavailable.

Draw Only Outside Selection

When this box is checked, the motion trail will appear only outside the selection. This is useful for making sure the selection is visible when using a high Overall Opacity and a Direction that obscures part of the selection. When this box is unchecked, the motion trail will be allowed to cover part or all of the selection.



Left: Smear Color From Edges on. Right: Smear Color From Edges off.



Left: Motion Trail applied to the earth with a medium Taper. Right: Motion Trail applied to the baseball with a high Taper.



Here, Smear Color From Edges is off and Draw Only Outside Selection on, yielding a fuller Motion Trail effect with the selection clearly visible.

You are free and that is why you are lost.

Franz Kafka



Shadowlab



The Shadowlab filter easily creates drop and perspective shadows that add a 3-D quality to any document. This filter is particularly useful for making an object spring to the foreground of a composition.



This filter requires a selection if you are using it on a background layer.

Controls

Center Offset Direction

Controls the direction the shadow is moved from the center of the selection or layer. Use the circular slider or enter a numeric value between 0 and 360 degrees.

Center Offset Distance

Controls the distance of the shadow from the center of the selection or layer.

Overall Opacity

Controls the opacity of the entire shadow. A low value yields a more transparent shadow.

Overall Blur

Applies a uniform Gaussian Blur over the entire shadow. High values yield a blurrier effect, implying a light source that is softer or farther away.

Perspective Blur

Applies a blur that increases as it moves away from the shadow base. High values produce a blurrier effect.

Color

You can choose any color for the shadow. Clicking the left box pulls up the color picker you've chosen in your graphics program. Clicking one of the next two boxes pulls up your previously chosen foreground or background color. Clicking the eyedropper tool allows you to choose any color inside the preview image by clicking on it.

Draw Only Outside Selection

Checking this box will draw the shadow outside of the selection only. Unchecking this box will create a shadow that fills the entire selection, useful if you want to create a full shadow on its own layer.



Using an empty selection on a layer, uncheck the Draw Only Outside Selection box. This will create a full shadow which you can easily manipulate. Move the shadow layer below the original image layer and place the shadow as desired.

Photoshop users: we have included an Action on the Eye Candy 4000 CD that will automatically create a full shadow on a new layer.

In-Preview Controls

Shadowlab is one of two filters which contains In-Preview Controls (the other is Star).



Clicking the arrow next to the magnifying glass creates "control points" on the shadow which allow you to directly manipulate it from within the preview window. These control points alter the shape and position of the shadow, shrinking, enlarging, distorting and moving it for a wide range of perspective and drop shadow effects. You can also use the numerical controls in the Center Offset Direction and Center Offset Distance sliders, if you prefer them for adjusting the position of the shadow, but distortions can only be done with the In-Preview Controls.

Notice in the following diagram that clicking the In-Preview Control arrow gives you six control points in a rectangle surrounding the shadow:



Clicking and dragging any of the points stretches the shadow in that direction:

Realism – The art of depicting nature as it is seen by toads. The charm suffusing a landscape painted by a mole, or a story written by a measuring-worm.

Ambrose Bierce, *The Devil's Dictionary*





Clicking and dragging anywhere inside the control rectangle moves the shadow in the desired direction.



⚠ If you find, after playing with the control points, that you prefer to use a simple drop shadow, clicking the F5 key will reset Shadowlab to its default setting: a simple drop shadow. You can also click “Reset to factory default” from the Settings menu.



Low Center Offset Distance (top) and high Center Offset Distance (bottom). Notice how the 3-D effect changes.

Creating a Perspective Shadow

- 1 - Click the arrow tool above the preview window to enable the In-Preview Control Points.
- 2 - Use the bottom middle control point to join the bottom of the shadow to the bottom of your selection.
- 3 - Now use the top control points to angle the perspective shadow in the direction you prefer.
- 4 - Adjust the Perspective Blur slider to the desired setting.

You’ve just created a realistic perspective shadow.

Vote.

A quick bevel and a subtle drop shadow are perfect for creating text that stands out from a Web page or printed document.

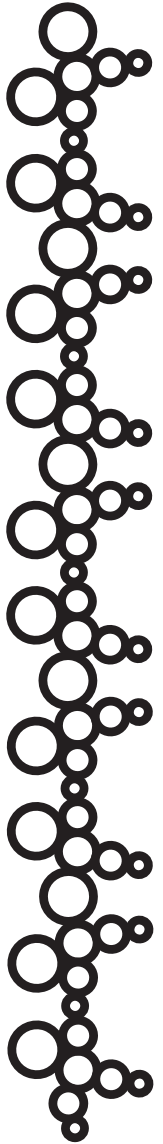
Above: low Overall Blur combined with very low Perspective Blur.



Same Overall Blur, but with a high Perspective Blur.



You can use control points to move the shadow in front of the object as well as behind it.



Smoke



The Smoke filter creates billowing smoke, haze, fog, fumes and more. A color gradient editor is included to provide a wide variety of color choices for the effect.



This filter requires a selection if you are using it on a background layer.

Controls

Direction

Controls the direction the smoke moves away from the selection. Use the circular slider or enter a numeric value between 0 and 360 degrees.

Column Length

Controls the length of the entire smoke effect. Higher values yield longer smoke.

Side Taper

Controls the amount the smoke narrows as it moves away from the selection. Higher values yield more narrowing.

Eddy Size

Controls the average size of the turbulent curves in the smoke flow. Higher values yield larger turbulent swirls.

Turbulence Strength

Controls the amount the smoke meanders away from a straight path. Higher values yield more turbulent and dispersed smoke.

Turbulence Roughness

Controls the amount of detail in each turbulence eddy. Higher values yield rougher, more detailed smoke.

Blur

Controls the amount to blur the smoke effect. This is useful for removing any speckling that may appear as the smoke is drawn.

Start From Far Side

When checked, this box draws the smoke starting from the selection edge opposite the smoke direction. This produces smoke that covers the front of the selection.

Draw Only Outside Selection

When this box is checked, smoke will only appear outside the selection. If this box is unchecked, wisps of smoke will be allowed to cover part or all of the selection.

Random Seed

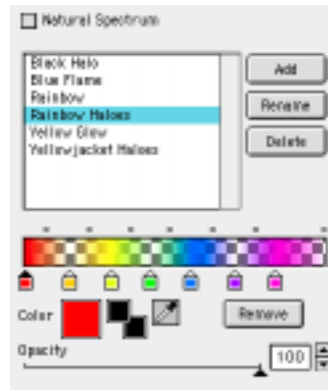
Controls the random aspect of this filter so you can easily duplicate effects that use random elements.

Color Tab

Natural Spectrum

When checked, this box creates a realistic gray and white smoke. When unchecked, the color gradient editor below is enabled.

Using the Color Gradient Editor ***(See page 90 for color examples)***



Setting Up A Gradient

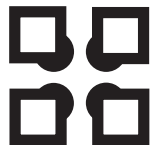
Every color gradient begins with the left color stop. You can't move this stop, but you can add new color stops by simply clicking along the bottom edge of the color gradient region.

For each color stop you add, you'll see a white dot appear above the gradient region at the midpoint between the new stop and those next to it. This determines how quickly the color and opacity will blend between color stops. If you click and drag the white dot closer to one color stop, you'll notice a more abrupt color/opacity transition.

We have included presets that demonstrate this element. Choose the "Rainbow" gradient from the list in the Gradient Editor. Notice how the dropoff from blue to red is much more abrupt than that from red to yellow. Then notice how the white dots above the gradient region control the dropoff. Feel free to experiment.

To remove a color stop from the color gradient, click to highlight it and then click the "Remove" button, or just drag the color stop off the bottom of the color

The verb "to smoke" did not exist in Europe before the 1600's. Inhaling tobacco was called "drinking smoke." Nicotine (named for Jean Nicot, an early popularizer of the plant among French royalty) created an intoxicating state that was known as the "dry drunk."




gradient bar. Removing color stops will simplify a color gradient.


Choosing Colors

Change the color of any color stop by clicking it once to highlight it, and then using the “Color” control below to choose the color picker (left box) or your foreground or background color. You can also use the eyedropper tool to choose any color from within your preview window.

Adjusting Opacity

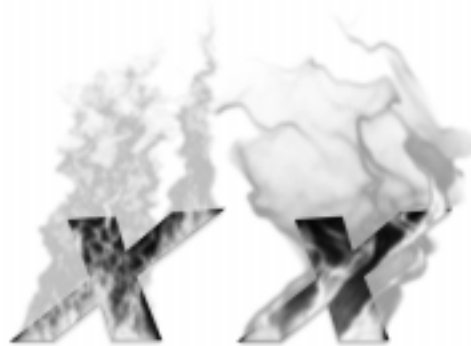
You can adjust the opacity of any color stop by clicking it once to highlight it, and then using the “Opacity” control to change the transparency of that particular color stop.

 If the right-hand color stop is at the very end of the gradient, the smoke may have a harsh outer edge. Move the color stop slightly to the left to soften the edge.

 If you ever feel the current color gradient has gotten too complex, remember that hitting the F5 key will reset the filter to a simple factory default setting. Also, don't forget that you have unlimited “Undo” capabilities from the Edit Menu, or by using the Control-Z keyboard shortcut.



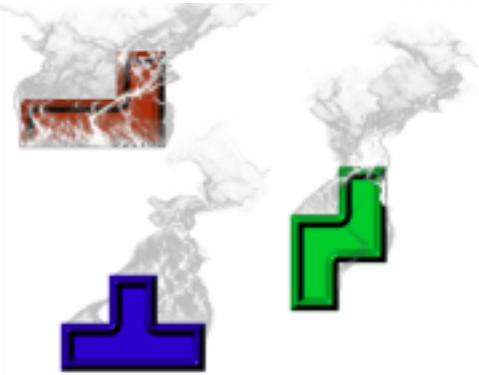
A high Side Taper (left) and a low Side Taper (right).



A low Eddy Size (left) and a high Eddy Size (right).



Smoke with high Turbulence Roughness and moderate Turbulence Strength.



The checkboxes in Smoke. Top: Start From Far Side checked. Middle: No checkbox checked. Bottom: Draw Only Outside Selection checked.



Squint



The Squint filter creates realistic organic blurring by spreading each pixel in your selection around the edge of a circle. The result is a blur that closely duplicates the effect of poor vision, an image projected out of focus or a reflection in a vibrating mirror.

Controls

Radius

This slider controls the radius of the circles around which your selection is blurred; i.e., this slider changes the vibration of the mirror or the focus on the projector. The larger the radius, the blurrier the image will be. As the radius value increases, the specifics of your selection are spread over a greater distance, and the selection becomes more fuzzy.



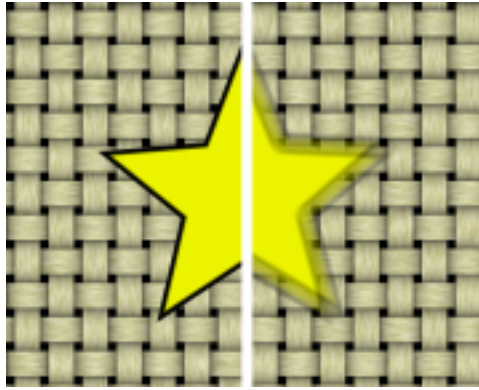
Fuzzy Dice. Top: the original image; middle, Squint applied with Radius set at 7; bottom, Radius at 12.



Squint can be used to bring attention to a part of a photo by defocusing the surrounding area. In the photo above, we've selected the area around the boy in the blue inner tube.



After applying Squint to the area around the boy, only the boy remains in focus while the background is blurry.



Squint applied to an opaque star in a layer without a selection. On the right, notice how the background is visible through the blurred edges of the star. Squint affects transparency when it is applied to an object in its own layer.

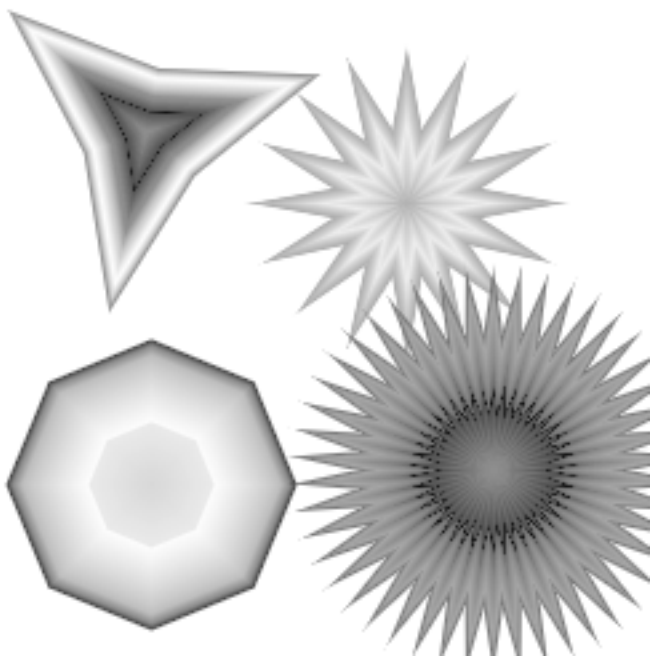


Squint can also be used to protect the innocent until proven guilty in a court of law. A circular selection is made over the naughty CEO's face. The selection is feathered slightly and Squint is applied, making his lawyers very happy.

Biologists have identified very similar genes that control the development of eyes in species as diverse as fruit flies, mice and squid. An eye-development gene taken from a squid and introduced into certain fruit fly cells will initiate the formation of extra compound insect eyes at unusual locations on the fly's body. Some biologists believe this is evidence that eyes have evolved only once in the history of life, but this remains in dispute.



Star



The Star filter quickly creates stars and other regular polygon shapes without the need to import them from another program or use paths to approximate them.

⚠ If you use the Star filter on a selection, your polygon will initially be placed in the center of that selection. If the star is bigger than your selection, only part of the star will show. Use the Radius and Distance controls to easily shift the size and position of the star.

If you use Star in a completely empty layer, the effect will initially appear in the center of your image.

⚠ See page 89 for color examples of Star.

Controls

Number of Sides

Use the slider or enter a numeric value to choose from 3 to 50 sides for your polygon.

Indentation

Controls the amount of indentation of the polygon's sides into the center. Use a value of zero to create regular shapes like pentagons and octagons.

Overall Opacity

Controls the opacity of the star effect. A low value yields a more transparent star.

Radius

Controls the size of the polygon.

Orientation

Controls the angle of rotation of the star. Use the circular slider or enter a numeric value between 0 and 360 degrees.

Center Offset Direction

Controls the direction the polygon is moved from the center of the selection or layer. Use the circular slider or enter a numeric value between 0 and 360 degrees.

Center Offset Distance

Controls the distance of the star from the center of the selection or layer. A value of 0 leaves the star in the center.

In-Preview Controls

Star is one of two filters which contains In-Preview Controls (the other is Shadowlab).



Clicking the arrow next to the magnifying glass creates two “control points” on the star which allow you to directly manipulate it from within the preview window. These control points alter the radius, orientation and position of the star. You can also use the numerical controls in the Center Offset Direction, Center Offset Distance, Radius and Orientation sliders, if you prefer them to the In-Preview controls in Star.

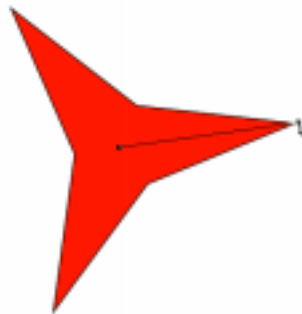
Notice in the following diagram that clicking the In-Preview Control arrow gives you two control points along a line:



Clicking and dragging the outer point controls the radius and angle of orientation. In the following picture, we have dragged the outer control point to increase the size of the star and rotate it a few degrees.



In this case, the result is a larger star with a new orientation (next column):



Clicking and dragging on the central control point, or anywhere else along the

If Francis Scott Key had written the U.S. national anthem, *The Star-spangled Banner*, in the late 20th century, the Recording Industry Association of America probably would have sued him for copyright infringement. In a move common at the time, Key “borrowed” the melody from a then-popular British drinking song and added his own lyrics. Key’s publisher then sold the sheet music for the song, something the RIAA would almost certainly have taken them to court over.



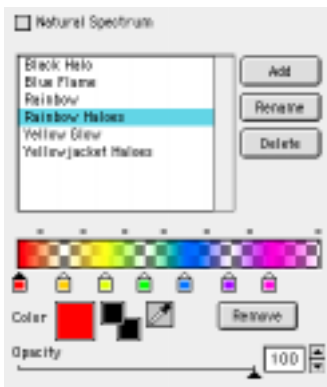
control point line, moves the control bar in the preview window:



The star's placement will shift to match the new position without adjusting the radius or orientation.

Color Tab

*Using the Color Gradient Editor
(See page 89 for color examples)*



Setting Up A Gradient

Every color gradient begins with the left color

stop. You can't move this stop, but you can add new color stops by simply clicking along the bottom edge of the color gradient region.

For each color stop you add, you'll see a white dot appear above the gradient region at the midpoint between the new stop and those next to it. This determines how quickly the color and opacity will blend between color stops. If you click and drag the white dot closer to one color stop, you'll notice a more abrupt color/opacity transition.

We have included presets that demonstrate this element. Choose the "Rainbow" gradient from the list in the Gradient Editor. Notice how the dropoff from blue to red is much more abrupt than that from red to yellow. Then notice how the white dots above the gradient region control the dropoff. Feel free to experiment.

To remove a color stop from the color gradient, click to highlight it and then click the "Remove" button, or just drag the color stop off the bottom of the color gradient bar. Removing color stops will simplify a color gradient.

Choosing Colors

Change the color of any color stop by clicking it once to highlight it, and then using the "Color" control below to choose the color picker (left box) or your foreground or background color. You can also use the eyedropper tool to choose any color from within your preview window.

Adjusting Opacity

You can adjust the opacity of any color stop by clicking it once to highlight it, and then using the "Opacity" control to change the transparency of that particular color stop.



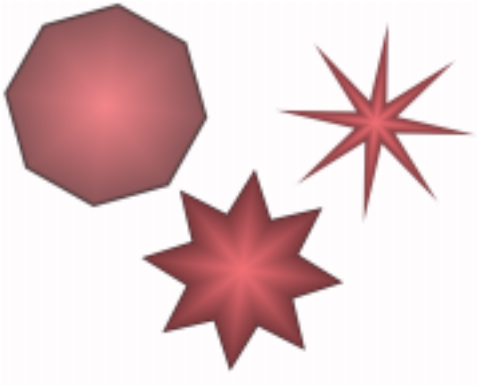
You may see a visible aliased outer edge on the star effect if the right-hand color stop is at the extreme right end of the gradient region. Move the color stop slightly to the left to soften this edge.



If you ever feel the current color gradient has gotten too complex, remember that hitting the F5 key will reset the filter to a simple factory default setting. Also, don't forget that you have unlimited "Undo" capabilities from the Edit Menu, or by using the Control-Z keyboard shortcut.



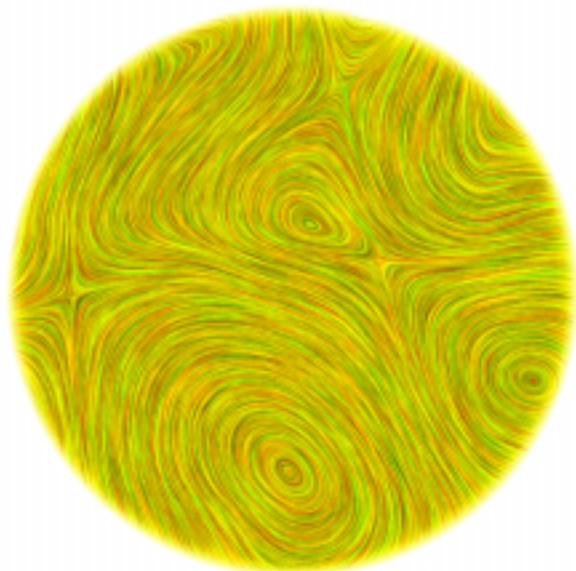
To create a star made up of one solid color, place two matching color stops at either end of the gradient editor. Check the color gradient used in the setting called "Solid Star" for an example.



From left to right, a star with Indentations of 0, 40 and 80. The Number of Sides was kept constant at 8.



Swirl



The Swirl filter smears your selection using randomly-placed whirlpools. The spacing and shape of these whirlpools can be controlled to achieve an amazing variety of texture effects, from spirals to crystalline effects and more.



Swirl tends to have a striking effect on images containing lots of detail and speckles. Try using HSB Noise on your selection first, and then applying Swirl.

Controls

Whirlpool Spacing

Although the whirlpools are randomly placed, this slider gives you control over the average spacing between their centers. Lower values yield many closely-spaced, tiny whirlpools. Large values can create long streamlines with no visible whirlpool center.

Smear Length

Controls the amount of blurring of the swirl effect; higher values blur the image more. Try experimenting with lower values first, as a high Smear Length can take a long time to render.



If you are using Swirl on a large selection and finding render times long,

consider using Swirl on a small selection and then checking the Seamless Tile box (see below). See the special section on page 14 for information about easily creating seamless tiles.

Twist

Controls the amount of twisting of the flow lines as they move out of the whirlpool center. A value of 0 creates relatively straight flowlines, which can produce interesting flowery or starburst effects. A value of 100 creates circular flowlines. Values between 0 and 100 produce spiral effects.

Streak Detail

Strengthens the flow lines of the whirlpools so that they become more visible.

Random Seed

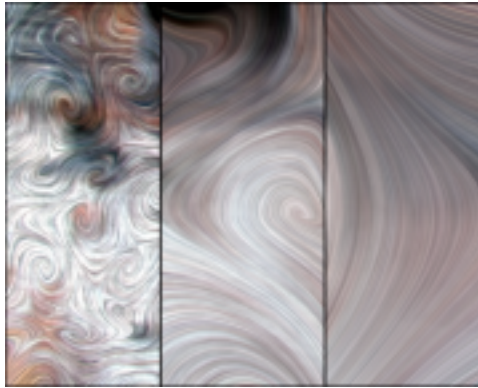
Controls the random aspect of this filter so you can easily duplicate effects that use random elements.

Seamless Tile

Check this box to create a repeating pattern with no seams.



See the special section on page 14 for instructions on how to make seamless tiles for your Web site, as computer wallpaper or for importing as a texture into a 3-D application.



Increasing the Whirlpool Spacing (left to right) yields larger whirlpools. We've also increased the Smear Length, which blurs the image for an increasingly softer effect.



On the left, a low Twist value yields straight flowlines; at right, a high Twist produces a circular effect.

You do not need to leave your room. Remain sitting at your table and listen. Do not even listen, simply wait. Do not even wait, be quite still and solitary. The world will freely offer itself to you to be unmasked, it will roll in ecstasy at your feet.

Franz Kafka



Water Drops



The Water Drops filter creates a variety of realistic liquid shapes and textures in any color, including drops, spills, spurts and more.

Controls

Drop Size

Controls the size of the liquid blobs; lower values yield a more splattered effect, while higher values yield fewer, larger areas of liquid.

Coverage

Controls the percentage of the selection that is covered in liquid, from 10% to 100%.

Edge Darkening

Controls how much the edges of the liquid will be lightened or darkened. The slider ranges from -100 to zero to +100; negative values lighten the drop edges, while positive values darken the drop edges.

Opacity

Controls the amount that light is prevented from passing through the liquid; higher values yield a more opaque liquid.

Refraction

Controls the amount that light is distorted as it passes through the liquid. Higher values will more heavily distort the selection.

Liquid Color

You can choose any color for the liquid. Clicking the left box pulls up the color picker you've chosen in your graphics program. Clicking one of the next two boxes pulls up your previously chosen foreground or background color. Clicking the eyedropper tool allows you to choose any color inside the preview image by clicking on it.

Round Drops

Checking this box renders the liquid effect as perfectly round drops.

Seamless Tile

Check this box to create a repeating pattern with no seams.



See the special section on page 14 for instructions on how to make seamless tiles for your Web site, as computer wallpaper or for importing as a texture into a 3-D application.

Random Seed

Controls the random aspect of this filter so you can easily duplicate effects that use random elements.

Lighting Direction

Controls the direction from which the light falls on your selection. Click and drag within the lighting control box to change the direction, or enter a numerical value between 0 and 360 degrees.

Lighting Inclination

Controls the angle formed between the light and the page. Click and drag within the lighting control box to change the inclination, or enter a numerical value between 0 and 90 degrees.

Highlight Brightness

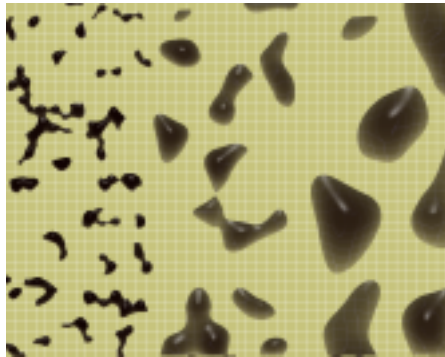
Controls the intensity of the shiny highlights appearing on areas facing the light; higher values increase the intensity.

Highlight Sharpness

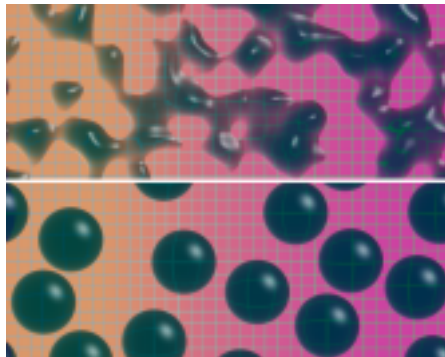
Controls the size of the shiny highlights appearing on areas facing the light; higher values yield larger highlights.

Highlight Color

Controls the color of any shiny highlights added to your droplets. See Liquid Color.



Left to right: Low, medium and high Drop Size.

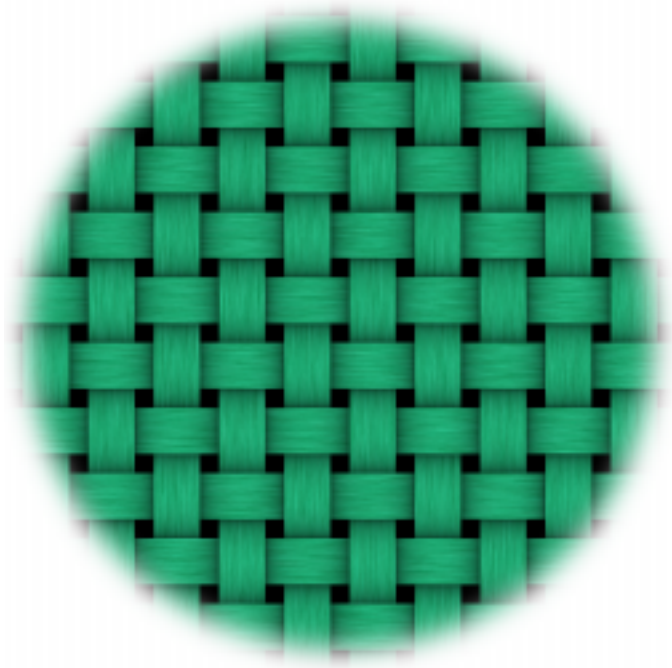


The same settings used with the Round Drops checkbox unchecked (top) and checked (bottom).

Most substances on earth expand when heated. Water is a notable exception; it contracts when heated between 0 and 4 degrees Centigrade. This is why ice floats; water is actually less dense in its solid form than in its liquid form. This is extremely useful for living things; if ice sunk to the bottom of a lake, for example, underwater life would be hard-pressed to survive through a winter. Instead, the ice floats on the surface, effectively insulating the water below.



Weave



The Weave filter recreates your selection to give it the appearance of being woven. You have control over the width of the strips and gaps that form the weave, as well as control over what is seen through any weave gaps. You can also add texture to the woven threads.

Controls

Ribbon Width

Controls the width of the shaded strips; higher values yield wider ribbons.

Gap Width

Controls the width of the holes between the ribbons, higher values yield wider gaps

Shadow Strength

Controls the darkness of the shadows on the ribbons. With a lighter selection, darkening these shadows will make the strips appear thicker. When using Weave on a dark selection, high Shadow Strength values may be necessary for the shadows to be noticeable.

Thread Detail

Adds a cloth-like texture to the woven ribbons by adding bright and dark streaks along the ribbons. The more Thread Detail, the more textured the ribbons will appear.

Thread Length

Adds a cloth-like texture to the woven ribbons by increasing the length of the bright and dark Thread Detail streaks.

Smear Ribbons

When checked, this box smears the selection along the threads. If you have set a high Thread Length, you will see more smearing.

Gap Fill

You have a choice as to what is visible through any gaps in the Weave effect.

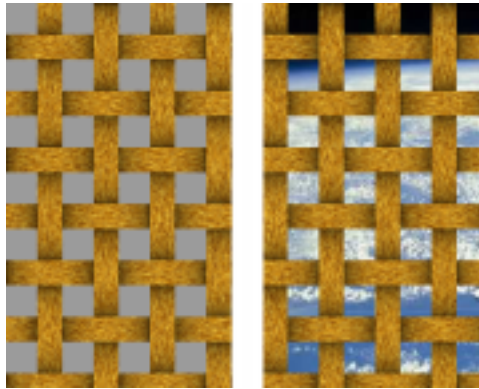
Fill with solid color - clicking here enables the color picker, which allows you to choose any color for the Gap Fill.

Keep original image - clicking here leaves the original selection visible through any gaps

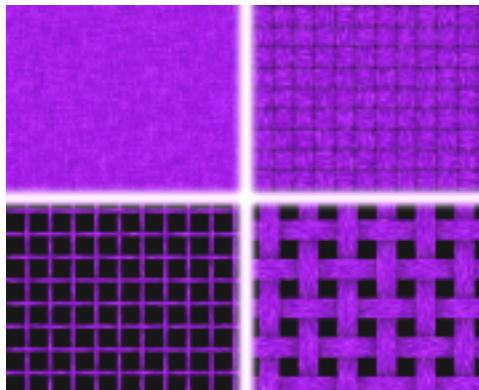
Make gaps transparent - clicking here leaves any gaps transparent, leaving underlying layers visible through the Weave effect.



If you are working on a background layer, the “Make gaps transparent” option will be grayed out and unavailable.



Left: “Fill with solid color” is checked and a gray color selected. Right: “Make gaps transparent” is checked, allowing an underlying layer to be visible.

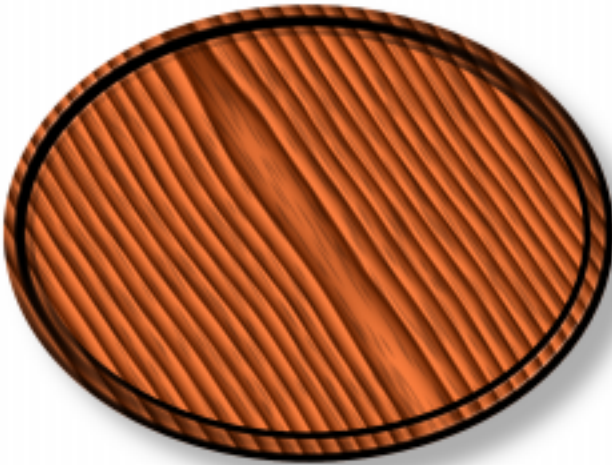


Clockwise from top left: low Ribbon Width and low GapWidth, high Ribbon Width and low Gap Width, high Ribbon Width and high Gap Width, low Ribbon Width and high Gap Width.

Members of the Tlingit tribe along the Chilkat River in Alaska were reknowned as highly accomplished weavers before the arrival of Europeans. A unique combination of braiding and weaving allowed the Tlingit to weave abstract curvilinear designs into blankets and robes. Chilkat blankets, created with mountain goat wool and twine made from cedar bark, can take over a year to make. European diseases and displacement reduced the number of Chilkat weavers to almost zero. There has been a minor resurgence in the technique over the past 20 years.



Wood



The Wood filter quickly and easily creates a variety of realistic wood effects, including control over the grain, knots and rings in the wood.

Controls

Direction

Controls the direction of the wood grain. Use the circular slider or enter a numeric value between 0 and 360 degrees.

Ring Thickness

Controls the distance between the growth rings in the wood. Higher values yield thicker rings.

Cut Offset

Controls the amount the cut of the wood is angled in relation to the log. A value of 0 yields wood that has been cut along the length of the trunk or limb. Higher values yield wood that has been cut at an angle to the length of the trunk or limb.

Variation Amount

Controls the amount the rings deviate from simple geometric curves. Higher values yield more varied rings.

Variation Roughness

Controls the amount of detail in the ring variation. Higher values yield more distorted rings.

Pulp Color

You can choose any color for the thick rings that make up the wood pulp. Clicking the left box pulls up the color picker you've chosen in your graphics program. Clicking one of the next two boxes pulls up your previously chosen foreground or background color. Clicking the eyedropper tool allows you to choose any color inside the preview image by clicking on it.

Ring Color

You can choose any color for the thin rings running through the pulp. See Pulp Color.

Seamless Tile

Check this box to create a repeating pattern with no seams.



See the special section on page 14 for instructions on how to make seamless tiles for your Web site, as computer wallpaper or for importing as a texture into a 3-D application.

Random Seed

Controls the random aspect of this filter so you can easily duplicate effects that use random elements.

Number of Knots

Controls the number of dark knots. Choose from one to three knots.

Knot Size

Controls the approximate width of the dark knots. Higher values yield larger knots.

Grain Length

Controls the average length of the small streaks that make up the grain. Higher values yield longer streaks.

Grain Width

Controls the average width of the small

streaks that make up the grain. Higher values yield wider streaks.

Grain Density

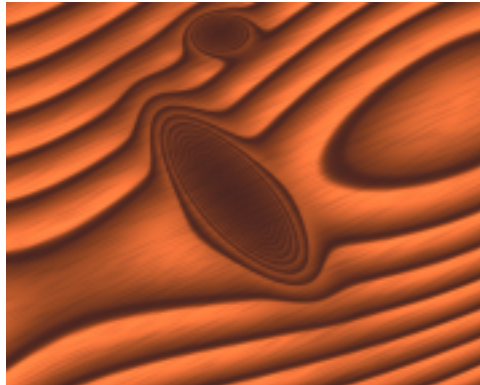
Controls the number of small streaks that make up the grain. Higher values yield more streaks.

Grain Opacity

Controls the contrast of the grain streaks against the rest of the wood; higher values yield more opaque streaks.

Grain Color

You can choose any color for the grain streaks. See Pulp Color.



These knots in the wood were created using a low Knot Ring Thickness and medium Knot Size. Then click the Random Seed button until you get knots that you like.

Ed Wood, Jr., the director of *Plan 9 From Outer Space* and *Glen or Glenda*, two of the most famously bad B-movies of all time, was a U.S. Marine. He was also a cross-dresser, and claimed to have been wearing women's underwear while attacking the island of Tarawa during one of the most brutal battles in the Pacific Theater of World War II.

