

Working with the Vector Text Filter

Vector Text offers vector-based text that can be manipulated in 3D Space with full pivot control, animated tracking and other text transformations including text on a path, jitter and type on effects. Once you set the characteristics of the individual text characters in the Text window, you can animate the text. Unlike the parameters in the Text window, the Effect Controls window parameters apply to the text globally.



When the **Continuously Rasterize** checkbox is selected, the vector form of the text is forced to recalculate based on Page Transformations parameter changes. While this is useful for specific types of effects, it is unnecessary for many effects and can slow performance - most noticeably when using sophisticated text styles. Select the Continuously Rasterize checkbox to improve image quality in the following situations.

- When the Scale parameters is set to scale the text much larger than 100% size.
- When using large negative Position Z values.
- When the Tumble or Spin parameters are set so that parts of the text appear very close to the viewer.
- When Rotating text with a bevel or emboss style and you want the highlight to recalculate accordingly.

When using the Continuously Rasterize option, set up the effect with the option disabled to improved preview performance. Then select the option as a final step to improve the render.

You do not need to select the Continuously Rasterize checkbox for any Transformations other than Page Transformations. The Vector form of the text is always recalculated for any scaling, rotating or repositioning of text characters in the Letter Transformations, Path, Type On, Jitter, Edges and Shadow, Fill and Motion Blur parameter groups.



When the **Composite on Original** checkbox is selected, the filter composites the text over the source layer, which remains visible behind the text. When this checkbox is deselected, the text is composited over an alpha channel. Layers in the timeline that are below the filtered layer are visible in the Comp window.

Working with the Page Transformations Parameter Group

Opacity sets the opacity of the text, and is scaled as a percentage. At a value of 100, the text is completely opaque. Lower Opacity values make the background image visible through the text. At a value of 0, the text is completely invisible.

Position X/Y set the coordinates of the text's center point. Adjust Position X/Y to reposition the text. If the text is rotated using the Tumble, Spin or Rotate parameters, **Position X/Y** positions the rotated text.

Position Z adjusts the apparent depth of the text. Decreasing negative values move the text closer to the viewer, while increasing positive values move the text farther away. Very low Position Z values move the text behind the viewer, making it invisible. If the text is rotated using the Tumble, Spin or Rotate parameters, **Position Z** positions the rotated text.

Master Scale lets you adjust Scale parameters globally. Parameters can still be changed independent of one another by using the individual Scale parameters. For example, you set Scale X to 100 and Scale Y to 200 to create text that is stretched vertically. If you then set Master Scale to 200, the resulting text is twice as wide and four times as tall as the original.

Scale X and **Scale Y** change the size of the object along the X and Y axes, respectively. These parameters are scaled as percentages of the object's original width or height. Thus, a Scale X setting of 200 produces text twice as wide as the original text.

Tumble, **Spin**, and **Rotate** change the text's perspective along the X, Y, and Z axes respectively. Tumble, Spin, and Rotate can be animated over values greater than 360° in order to make the shape complete more than one full revolution.



Tumble



Spin



Rotate



Normally, these controls rotate the text around its center, but you can also set an external pivot point around which to tumble, spin, or rotate text.

If you rotated your text using the Tumble, Spin or Rotate parameters, **PreRotate Position X/Y** positions the text ignoring any of these transformations and uses the original coordinates of the plane. This parameter can show a different result than adjusting the Position X/Y parameter which positions the text after any rotations are applied to it.

If you rotated your text using the Tumble, Spin or Rotate parameters, **PreRotate Position Z** positions the text ignoring any of these transformations and uses the original coordinates of the plane. This parameter can show a different result than adjusting the Position Z parameter which positions the text after any rotations are applied.



It is useful to remember that the pivot point remains at the actual X, Y, or Z position even when you change the PreRotate parameters. For example if you alter a PreRotate parameter and then spin the image, the image will spin around the pivot point at its original position and not the PreRotated position.

In the example below where the words “Vector Text” are rotated by using the Spin and Tumble parameters, the lighter arrows show the positioning of the text using the PreRotate Position X and Y parameters. The darker arrows show the positioning of the text with the Position X, Y and Z parameters. (Position Z would point right at you).



When the **Lock Pivot to Position** checkbox is selected, the text revolves around its center point. Deselect this option to sets the coordinates around which the text revolves using the **Pivot X/Y**, and **Pivot Z** parameters.

Pivot X/Y, and **Pivot Z** determine the coordinates of a point around which the text revolves when you tumble, spin, or rotate it.



Working with the Letter Transformations Parameter Group

Tracking controls the global horizontal spacing of the characters in the effect. Unlike the Tracking parameter in the Text window, you can animate this Tracking parameter.



Tracking= 0



Tracking= 25



Tracking= 50

Leading adjusts the spacing, in pixels, between multiple lines of text. This parameter affects the currently selected lines. Unlike the Leading parameter in the Text window, you can animate this Leading parameter.

Baseline adjusts the vertical position of the text in relation to the baseline. Decrease this value to move the bottom of the text below the baseline, or increase this value to raise the character above the baseline. Unlike the Baseline parameter in the Text window, you can animate this Baseline parameter.

Letter Skew X and **Letter Skew Y** distort text along the horizontal and vertical axis.



Letter Skew X= -25



Letter Skew X=0



Letter Skew X=25



Letter Skew Y= -25



Letter Skew Y=0



Letter Skew Y=25

Master Letter Scale lets you adjust Letter Scale parameters globally. Parameters can still be changed independent of one another by using the individual parameters. For example, you set Letter Scale X to 100 and Letter Scale Y to 200 to create text that is stretched vertically. If you then set Master Letter Scale to 200, the resulting text is twice as wide and four times as tall as the original.

Selecting the **Lock Letter Scale checkbox** locks the scale of the text along the horizontal and vertical axis. When you adjust one of the parameters, the other automatically updates to maintain the aspect ratio.

Letter Scale X and **Letter Scale Y** set the scale of the text along the horizontal and vertical axis. These parameters differ from the Page Transformations parameter group's Scale X and Scale Y parameters, which scale the entire text layer. For example, if you set Scale X to 200, the resulting text would be stretched twice as wide as the original. If you set Letter Scale X to 200, the resulting text would be stretched twice as wide as the original but the characters would overlap since Letter Scale affects each letter. This is useful for creating animated tracking or type on effects.

Letter Tumble, **Letter Spin**, and **Letter Rotate** rotate the text characters around their baseline's X, Y, and Z axis, respectively. Compare how this appears with the Page Transformations parameter group's Tumble, Spin and Rotate parameters which move the entire text layer around the axis. For more information, see page 42.



Letter Tumble



Letter Spin



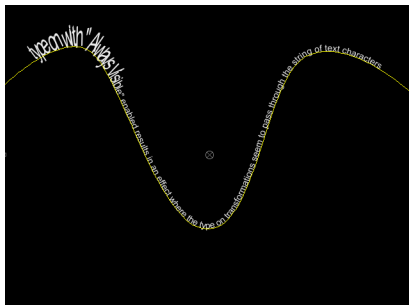
Letter Rotate

Working with the Path Parameter Group

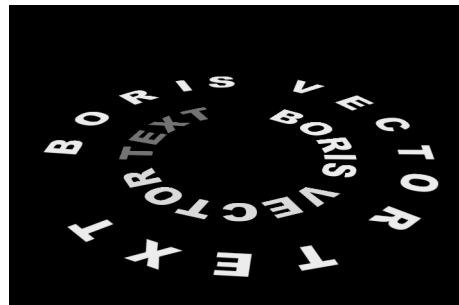
The Path parameters allows to you to create text on a path.

The **Path Type menu** lets you choose the type of path.

- **AE Path** allows you to use a path that you create in After Effects by creating a new mask with the AE Pen tool. Once you create the path, choose it from the **Text Path menu**.
- **Circle** allows you to create a circular path by setting the **Point 1** and **Point 2** parameters. Point 1 sets the center point of the circular path. Point 2 sets the radius of the circle.
- **Line** allows you to create a linear path by setting the **Point 1** and **Point 2** parameters.



Text on an AE Path

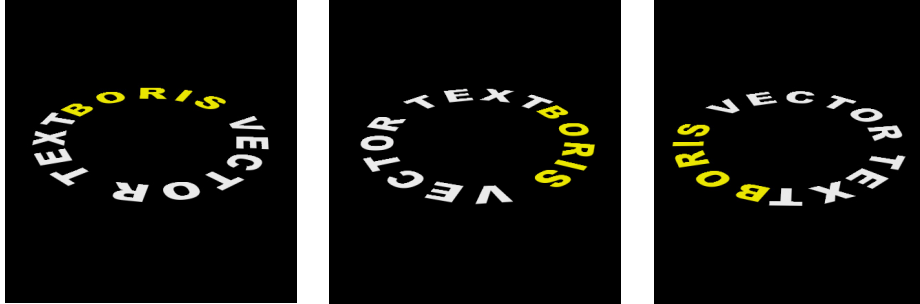


Text on a Circle Path

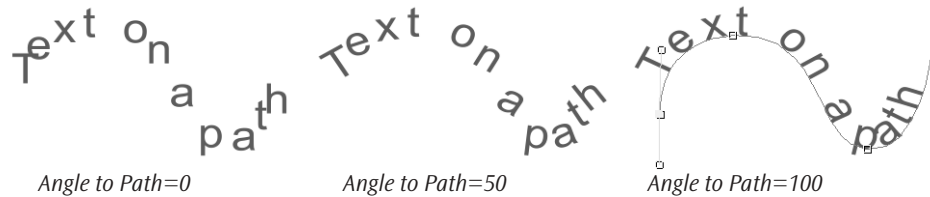


On Path Motion adjusts the position of the text on the path. You can animate over values greater than 360° to make the text complete more than one full revolution.

On Path Motion animated from 0 to 1 Degrees



Angle to Path allows you to control how text is positioned on the path. When Angle to Path is at the default value of 100, the Text position follows the curve of the path. As Angle to Path values approach 0, the text becomes more vertical on the path, regardless of the path's curve.



The **Alignment menu** allows you to set the justification of text on path. This creates a much wider range of design possibilities. This means that you can create settings with centered text that won't require adjustment if the length of the text changes. The **Alignment menu** includes the following choices.

- **Left** aligns the text so that each line starts at the beginning of the path. This is the default
- **Center** centers the text on the length of the path.
- **Right** aligns the text so the end of the line matches the end of the path.
- **Distribute** justifies the text along the length of the path.

Select the **Reverse Path** checkbox to map the text to the underside or inside of the path.



Path Jitter X and **Path Jitter Y** vary the position of the text on the path along the X and Y axis, respectively. Higher values produce more jitter, and increase the amount that the position varies from frame to frame.

Path Jitter Velocity allows you to control the speed of the Path Jitter X and Path Jitter Y parameters.

Path Jitter Seed varies the amount of Jitter from frame to frame.

Working with the Type On Parameter Group

The Type On parameter group offers several options for creating animated writing or “type-on” effects.

Text Type On adjusts the percentage of the text that is visible in each frame, allowing you to create animated typing effects. This value is measured as a percentage of the complete text. For example, if Text Type On is set to 50, the first half of the text is visible. If Text Type On is 100, all the text is visible. Text Type On is animatable; the other parameters in this group are applied progressively to each individual character as it types on.

Type-on effect with Text Type On animated from 0 to 100.



The **Type On Order** menu allows you to control the order in which the text types on. The **Type On Order** menu includes the following options:

- *Forward* types on the text from left to right.
- *Reverse* allows you to reverse the effect so that the text types on starting from the left.
- *Random* types the text type on randomly.

Type On Order=Forward.





Type On Order=Reverse (types on from right to left)



Type On Order=Random

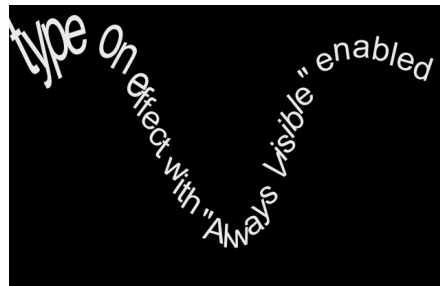
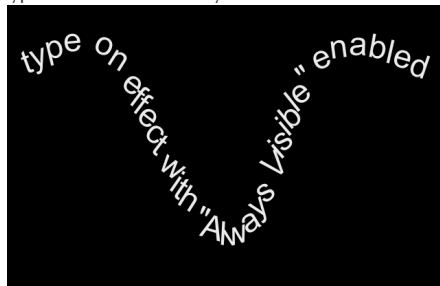


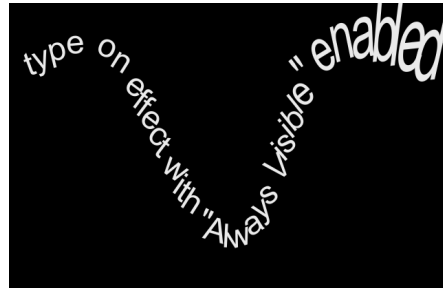
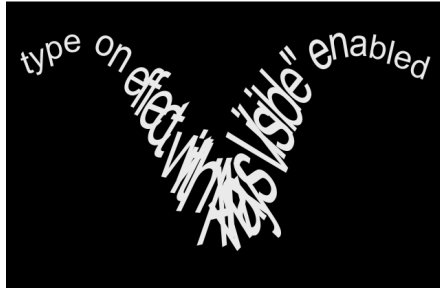
Press the **Apply To** menu and choose the appropriate option.

- **Letter** applies the effect to individual letters and characters.
- **Word** applies the effect to individual words. Words are defined as characters that are separated by a space in the Text window.
- **Line** applies the effect to individual lines. Lines are defined as characters that are separated by a carriage return in the Text window.

Click the **Always Visible** checkbox to force all text characters to remain visible. This Type On feature applies transformations progressively to text characters. When this checkbox is deselected, characters progressively appear or disappear from the frame. Selecting the Always Visible checkbox forces characters to remain visible while the transformations are progressively applied. One way to think of this effect is like “the wave” that crowds perform at football stadiums; the transformation appear to pass through the text. The animatable Type On parameter behaves as the center of the wave when this checkbox is enabled.

Type-on effect with “Always Visible” enabled.





Reveal Time controls how long each character animates during the effect. This parameter only affects animations created with the Fade, Shift, Skew, Tumble, Spin, and/or Rotate parameters (described below). For example, you create a four second type-on effect with the word "Text." If Text Type On is animated from 0 to 100, each letter in the word Text animates onscreen for one second. Reveal Time specifies the percentage of that one second that the Fade, Shift, Skew, Tumble, Spin, and/or Rotate lasts. Thus if Reveal Time is 50, each character Fades, Shifts, Skews, Tumbles, Spins, and/or Rotates for 0.5 seconds (50% of 1), and subsequently remains stationary for the rest of the effect. In this case, the next letter does not appear for another 0.5 seconds after the previous letter stops animating.

Acceleration allows you to gradually accelerate the effect.

Overshoot allows you to create bouncing text effects, when combined with any parameters except Fade. Each character moves past its destination position or scale by the value specified in Overshoot before returning to its destination position or scale. This parameter only affects animations created with the Shift, Scale, Skew, Tumble, Spin, and/or Rotate parameters. If all of these parameters are set to the default, Overshoot has no affect.

Text effect with Overshoot enabled



Time 00:00:01:00



Time 00:00:02:00



Time 00:00:03:00

Decay works in conjunction with the Overshoot parameter. Decay is expressed as a percentage that allows you to exponentially decrease the Overshoot. For example, you set the Shift Y so that the characters move in from the top of the frame with an Overshoot of 300. Setting Decay to 50 means that each of the three bounces will decay by half.



Fade allows you to gradually fade in successive characters. When Fade is set to 100, each character appears suddenly and is fully opaque. Decreasing this value creates a more gradual effect, in which each character fades on as its opacity increases.

Shift X and **Shift Y** adjust the starting position of the characters in relation to their destinations (controlled by the Position X/Y and Position Z values in the Page Transformations parameter group) on the screen. For example, if the text is placed in the center of the screen and Shift X is set to 320, when Text Type On is animated, each character first appears on the right side of the screen, then moves toward the center.

Type-on effect with Shift X set to 320.



Time 00:00:01:11



Time 00:00:01:18



Time 00:00:01:24

Scale X and **Scale Y** adjust the starting size of the characters. The default value is 100, in which the text types on the screen full size. If you decrease the value, the text appears to grow on the screen as it types.



Scale Y = 200



Scale X = 200



Scale Y/Scale X = 200

Skew X and **Skew Y** set the starting Skew values for the characters in relation to their final skew values (controlled by the Skew X and Skew Y values set in the Text window and in the Letter Transformations parameter group). Each character animates from its starting Skew values to its ending Skew values as it appears on screen.

Type-on effect with Skew X set to 180.



Time 00:00:01:10



Time 00:00:01:12



Time 00:00:01:14

Tumble, Spin, and **Rotate** set the starting Tumble, Spin, and Rotate values for the characters in relation to their final Tumble, Spin, and Rotate values (controlled by the Letter Tumble, Letter Spin, and Letter Rotate values set in the Letter Transformations parameter group and by the Tumble, Spin, and Rotate controls in the Page Transformation parameter group). Each character animates from its starting Tumble, Spin, and Rotate values to its ending values as it appears on screen.

Type-on effect with Rotate set to 180.



Time 00:00:01:10



Time 00:00:01:12



Time 00:00:01:14

Jitter Position randomizes the position of the individual text characters on the X and Y axis.

Jitter Rotate randomizes the angle of the individual text characters. Jitter Rotate distorts text on the X and Y axes, respectively.

Jitter Scale randomizes the scale of the individual text characters.



Working with the Jitter Parameter Group

The Jitter parameter group allows you to randomize text parameters including Position, Angle, Scale, Hue and Opacity. The Jitter parameters are expressed as a percentage and are applied to individual text characters. All parameters have a range of 0 to 100, except for Scale which has a range of 0 to 600.

The Jitter parameters are similar to the Jitter parameters in the Type On parameter group. When you apply the Jitter parameters in the Type On parameter group, they apply progressively to each character as it types on. When you apply these parameters in the Jitter parameter group, they are applied to all characters. When you set values for these parameters in both the Type On and Jitter parameter groups, the parameters in the Type On parameter group are applied to individual characters until the character is typed on; the parameters in the Jitter tab are applied after each character is typed on.

Vector Text parameter effect with Jitter animated



Jitter Seed varies the amount of Jitter from frame to frame.

Jitter Speed varies the speed of the Jitter.

Jitter Position X and **Jitter Position Y** randomize the position of individual text characters on the X and Y axis respectively.

Jitter Angle randomizes the angle of the individual text characters. Angle distorts text on the X and Y axis.

Jitter Scale X and **Jitter Scale Y** randomize the scale of the individual text characters on the X and Y axis respectively.

Jitter Hue randomizes the color of the individual text characters. Hue sets the color fill of the text. If a text doesn't have any color (if it is black, white, or gray), its color is not affected by the Jitter Hue parameter. If a text has very little color, the affect may be quite subtle.

Jitter Opacity randomizes the transparency of the individual text characters.



The **Restrictions menu** lets you restrict the Jitter parameters. For example, you can restrict the Jitter Scale X and Y parameters so that they only scale larger than the original text.

- *None* does not restrict the parameters.
- *Positive Only* restricts the parameters so that the values can only be higher than the original parameter.
- *Negative Only* restricts the parameters so that the values can only be lower than the original parameter.



None



Positive Only



Negative Only

Polarize lets you alternate the Jitter parameters for characters. At more extreme values, every other character will alternate.



Polarize=-100



Polarize=0



Polarize=100

Master Jitter Amount scales the Jitter parameters globally. Parameters can still be changed independent of one another.



Working with the Edges and Shadows Parameter Group

The Edges and Shadows parameter group options allow you to create and animate the borders of the text, and apply one of three types of animatable shadows to the text.



The parameters in the Edges and Shadows parameter group apply to all characters in the Text track and are animatable. To apply different borders or shadows to individual character, use the Border or Shadow parameters in the Text window. For information, see “Working with the Border Tab” on page 32 and “Working with the Shadow Tab” on page 34.

Edge Parameters

The **Edge Type menu** controls the style of the border. Each style, *Plain*, *Bevel* and *Radial*, has its own controls, which are described later in this section. The following controls are common to all three edge types.

The **Edge Position menu** sets the location of the border.

- *Inside* positions the border on the inside of the edges of the selected character(s).
- *Outside* positions the border on the outside of the edges of the selected character(s).
- *Center* centers the border over the edges of the selected character(s), so half of the border is on the inside of the text edges, and half on the outside.

Edge Color sets the color of the border for the selected character(s). Click the color chip to access the system color picker, or use the eyedropper to choose a color from the screen.

Edge Width sets the width, in pixels, of the border applied to each selected character.

Edge Opacity adjusts the opacity of the border for selected character(s). A setting of 100 makes the border completely opaque, while a setting of 0 makes the border completely transparent.

Border Begin and **Border End** adjust the percentage of the border that is visible at each frame in the timeline, allowing you to create animated border effects. These values are measured as a percentage of the complete border. For example, if Border Begin is set to 0 and Border End is set to 50, the first half of the border is visible. If Border Begin is set to 50 and Border End to 100, the second half of the border is visible.

Text Border effect with Stroke End animated from 0 to 100.



Frame 7



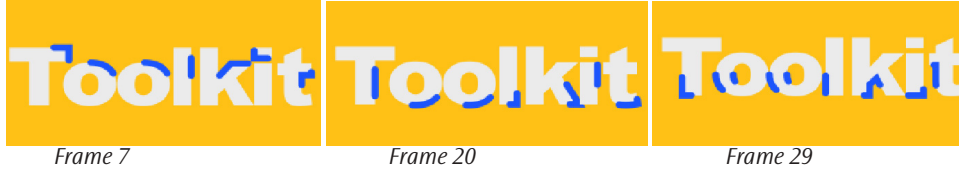
Frame 20



Frame 29

Use the **Border Offset** dial in conjunction with Border Begin and Border End to select a portion of the border and animate it around the text.

Text Border effect with Border Offset animated from 0 to 2 degrees



Edge Softness softens the edge of the border. A value of 0 creates a border with a hard edge, and raising this value increasingly softens the border.

The **Edge Cap and Join** menu determines the shape of the ends and corners of the border. Choose from the following options.

- *Flat/Miter* draws flat ends and corners with sharp points.
- *Flat/Round* draws flat ends and rounded corners.
- *Flat/Bevel* draws flat ends and clipped corners.
- *Round/Miter* adds a circular cap to the ends and draws corners with sharp points.
- *Round/Round* adds a circular cap to the ends and draws rounded corners.
- *Round/Bevel* adds a circular cap to the ends and draws clipped corners.



Round/Miter



Round/Round



Round/Bevel



The **Edge Type menu** controls the style of the border. Each style has its own controls, in addition to the controls described above:

Plain Parameters

Choosing *Plain* from the **Edge Type menu** applies a flat border to the text.



Bevel Parameters

Choosing *Bevel* from the **Edge Type menu** creates a beveled border effect.

When Bevel is selected, **Edge Highlight Color** sets the color of the lightest parts of the bevel.

Edge Shade Color sets the color of the darkest parts of the bevel.

Edge Highlight Angle sets the angle between the highlights and the horizontal axis.



Radial Parameters

Choosing *Radial* from the **Edge Type menu** creates a glowing border effect.

When Radial is selected, **Edge Outside Color** sets the color of the soft edges of the border.

Edge Radial Fade controls the opacity of the outer edge of the border. When Edge Radial Fade is 0, the outer edge is opaque. Higher Edge Radial Fade values increase the transparency of the edge, and at a value of 100, the outer edge is transparent.



Shadow Parameters

The **Shadow Type menu** determines what type of shadows are created.

- *None* does not apply a shadow.
- *Drop shadow* fall a specified distance from the object.
- *Cast shadow* appear to fall on another object; therefore the appearance and shape of this type of shadow depends on the distance between the two objects, and the shape of the object on which the shadow falls.
- *Solid shadow* simulate the appearance of a 3D object by applying a gradient to a shadow. Solid shadows are useful if you want to create text with a three dimensional appearance but do not need to apply transformations that would reveal that the text is actually 2D.



Shadow Color sets the color of the shadow. Click the color chip to access the system color picker, or use the eyedropper to choose a color from the screen. You can also apply colors from the Style Palette. For more information, see “Working with the Style Palette” on page 36.

Shadow Distance sets the distance between the shadow and the text. Use a small value to offset the text slightly; use a larger value to create distinct shadows that appear to fall on another surface.

Shadow Opacity sets the degree of opacity. A value of 100 makes the shadow completely opaque. Lowering this value makes the shadow increasingly transparent. A value of 0 creates a completely transparent shadow.

Shadow Softness softens the edges of the shadows, emulating the appearance of shadows cast by a diffuse light source. A value of 0 creates shadows with hard edges. Increasing this value softens the shadow edges.

Shadow Angle sets the angle between the shadow and the horizontal axis of the text.

When the **Shadow Type menu** is set to *Solid Shadow*, **Highlight Color** sets the color of the highlighted areas of the shadow, and **Shade Color** sets the color of the shaded areas. Click the color chip to access the system color picker, or use the eyedropper to choose a color from the screen. These parameters have no affect with any other shadow type.

Working with the Fill Parameter Group

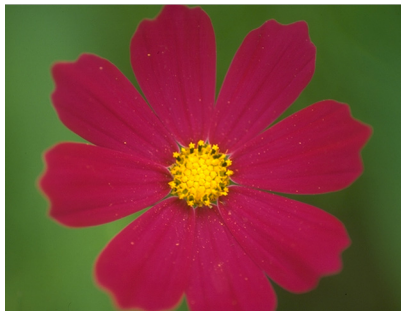
The Fill parameter group options allow you to set the fill and opacity of the text, as well as map media onto text. Instead of applying a static fill in the Text window, you can use these parameters to fill text with an animatable color that applies to all characters. To apply different fill to individual character, use the Fill parameters in the Text window. For information, see “Working with the Fill Tab” on page 23.

The **Fill menu** allows you to choose whether to set the fill in the Text Window or using the Fill parameters.

- Choose *From Text Window* to set the fill in the Text window. When you select this, the rest of the fill parameters in the Fill parameter group will be dimmed.
- Choose *Override Text Window* to set the **Fill Color**, **Fill Opacity** and **Texture Map Layer** using the Fill parameters. Set the appropriate Fill Color by clicking the color chip to access the system color picker or using the eyedropper to choose a color from the screen. Fill Opacity sets the opacity of the text fill, and is scaled as a percentage. At a value of 100, the fill is completely opaque. Lower Opacity values make the background image visible through the text. At a value of 0, the fill is completely invisible. When this option is deselected, the text uses the Fill that was set in the Text window.

The **Map Method menu** controls how the media maps onto the text. The following example shows a still image of a large flower as a texture.

- Choosing *Tile* repeats the texture image on the face of the text. When you choose Tile, decrease the **Tile Size X** and **Tile Size Y** parameters to better see the tiled image within the text.
- Choosing *Stretch* sizes the texture image to fit the text. Stretch can distort the image, depending on its aspect ratio.
- Choosing *Clip* allows you to independently size and position the texture image on the text. When you choose Clip, **Scale X** and **Scale Y** change the size of the texture image along the X and Y axis respectively.



Texture Map Image



Tile Map Method



Stretch Map Method



Clip Map Method

Offset X and **Offset Y** move the center of the Texture image along the X and Y axis respectively. This repositions the texture within the text. These parameters are dimmed when you choose Stretch as the Map Method.

Working with the Motion Blur Parameter Group



Enabling or disabling Motion Blur is not global to the effect. Motion Blur can be keyframed and enabled for only portions of the effect. This allows you to save processor time by turning it off when it is not necessary.

Select the **Enable Motion Blur checkbox** to turn on Motion Blur. Deselect this option to turn it off.

The **MB Shutter Angle** parameter refers to the workings of a conventional film camera. Normally the shutter is open to 180°, meaning that the shutter is open for half of each frame. Increasing the angle will keep the shutter open longer, creating a wider blur. Decreasing the MB Shutter Angle produces a narrower blur.

The **MB Smoothness menu** setting determines how many times the effect samples between the time the “shutter” opens and the time it closes. Increasing the samples creates a smoother blur but increases render and preview time proportionately. The choices are Low, Medium, High and Highest. *Low* uses the fewest samples, while *Highest* uses the most.