



Contents

Contents	2	Simulation Menu	50
Copyright	3	CC BALL ACTION	50
Important Read Me	4	CC BUBBLES	53
Blur & Sharpen Menu	5	CC DRIZZLE	55
CC RADIAL BLUR	5	CC HAIR	58
CC RADIAL FAST BLUR	7	CC MR. MERCURY	62
CC VECTOR BLUR	8	CC PARTICLE SYSTEMS II	68
Channel Menu	10	CC PARTICLE WORLD	75
CC COMPOSITE	10	CC PIXEL POLLY	90
Color Correction Menu	11	CC RAIN	92
CC COLOR OFFSET	11	CC SCATTERIZE	93
CC TONER	12	CC SNOW	94
Distort Menu	13	CC STAR BURST	95
CC BEND IT	13	Stylize Menu	96
CC BENDER	15	CC BURN FILM	96
CC BLOBBYLIZE	17	CC GLASS	97
CC FLO MOTION	20	CC KALEIDA	100
CC GRIDDLER	21	CC Mr. SMOOTHIE	101
CC LENS	22	CC REPETILE	102
CC PAGE TURN	23	CC THRESHOLD	103
CC POWER PIN	25	CC THRESHOLD RGB	104
CC RIPPLE PULSE	26	Time Menu	105
CC SLANT	27	CC FORCE MOTION BLUR	105
CC SMEAR	28	CC TIME BLEND	106
CC SPLIT	29	CC TIME BLEND FX	108
CC SPLIT 2	29	CC WIDE TIME	110
CC TILER	30	Transition Menu	111
Generate Menu	31	CC GLASS WIPE	111
CC GLUE GUN	31	CC GRID WIPE	112
CC LIGHT BURST 2.5	35	CC IMAGE WIPE	113
CC LIGHT RAYS	37	CC JAWS	114
CC LIGHT SWEEP	39	CC LIGHT WIPE	115
Keying Menu	41	CC RADIAL SCALE WIPE	117
CC SIMPLE WIRE REMOVAL	41	CC SCALE WIPE	118
Perspective Menu	43	CC TWISTER	119
CC CYLINDER	43	Thanks To	120
CC SPHERE	45		
CC SPOTLIGHT	48		

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Important Read Me

Particle World has a completely reworked User Interface. All Options are now easily accessible in the Effect Control Window. You will be asked to convert old settings when opening old projects where previous versions of Particle World are used. The conversion is performed individually for all instances of Particle World, there is no global conversion option, this to give you as much control as possible. Converted settings are only saved in a project after Yes or No has actively been chosen. This means that you can convert old settings at any time.

To work professionally at higher bit depths we recommend that you take a look at CycoreFX HD. CycoreFX HD also contains several new plug-ins such as the more advanced Rainfall and Snowfall simulators. Rainfall and Snowfall allows to easily and quickly create “real-looking” rain and snow when there is no time to get into a complex particle generator. Create anything from gentle summer rain to raging snow blizzards.

Read more about [CycoreFX HD here](#).

The perfect companion to CC Sphere is the Sphere Utilities package. Sphere Utilities contain four plug-ins that are essentially tools to be used to create, edit and animate spherical maps. Using Sphere Utilities these tasks become as easy as moving text from left to right on the screen. Need to draw a line from Seattle to Uppsala or animate an airplane flying from Melbourne to LA crossing the International Date Line? Sphere Utilities is a must have. Get the correct motion path without hand-matching motion or duplicating layers and keyframes to match wrap arounds.

Read more about [CFX Sphere Utilities here](#).

If you want to create cool and original looking animations, backgrounds or effects from a single mask path, take a look at Path Tools. Path Tools is package containing two powerful plug-ins, Rakka and Wiggle Stroke. The basic requirement for both plug-ins is a mask path. Rakka also needs a layer to “rack-up”, or repeat, along the selected mask path. From there, the combinations are almost endless to create. You can create stunning animations with minimal effort — animations that were once only possible with particle generators. Using Wiggle Stroke you can do anything from “wiggling” frames to completely crazy looking thread/wire animations.

Read more about [CFX Path Tools here](#).

CC RADIAL BLUR

Radial blur creates blurs around a user positioned center point. This allows you to create effects that simulate the zooming or rotation of a camera.

Controls

Type

Select the type of zoom or rotation on which to base the blur. Choose one of the following options from the pop-up menu.

Straight Zoom

Blurred pixels radiates out from the center point with constant length.

Fading Zoom

Blurred pixels radiate out from the center point and fade out towards the edges

Centered Zoom

Blurred pixels radiates in and out equally from the center point. This gives the effect of "zooming in" without actually moving the layer.

Rotate

Blurs pixels in circles around the center point, rotating in one direction. Positive values rotate the blur CW and negative values CCW.

Scratch

Blurs pixels in circles, back and forth (like scratching a record), around the center point evenly in both directions.

Amount

Use the Amount slider to control the amount of blurring. Depending on the choice for Type, the Amount value controls the degree of rotation and direction, or the amount of zooming.

Quality

Use this control to determine the quality, or smoothness, of the radial blur. Lower values render faster but with less quality, steps will become visible as the quality decreases. Higher values render slower but with higher quality, steps will disappear as the quality increases.

Center

Use this control to position the center of the zoom/rotation effect on the source layer, based on X, Y coordinates.

CC RADIAL FAST BLUR

Radial Fast Bur blurs around a user positioned center point. This allows you to create effects that simulate the zooming of a camera.

Controls

Center

Use this control to position the center of the zoom effect on the source layer, based on X, Y coordinates.

Amount

Use this control to determine the amount of blurring/zooming.

Zoom

Use this control to select the zoom type for the blur. Choose one of the following options from the pop-up menu.

Standard

Blurred pixels radiates out from the center point.

Brightest

Blurred pixels radiates out from the center point, targeting the pixels with the brightest values.

Darkest

Blurred pixels radiates out from the center point, targeting the pixels with the Darkest values.

CC VECTOR BLUR

Vector blur uses maps to define a vector field along which the blur will take place. There are various ways to define the vector field. Vector Blur can blur in multiple directions, based on the values of another layer.

Controls

Type

Use this control to select how the vector field will be defined from the values in the chosen Vector Map. Choose one of the following options from the pop-up menu.

Natural

Vector field is formed from slopes in the Vector Map from which values define height. Ridge Smoothness and steepness in the Vector Map affect vector length and thereby also blur length.

Constant Length

Same as Natural, but with straight blur strength, i.e. not fading

Perpendicular

Same as Natural, but with perpendicular vectors. Vectors don't point up and down the slopes, instead they point along the slopes, around hills.

Direction Center

Vector field assumes directions from the values of the Vector Map. High and low values point in different directions. Vector lengths do not vary. Blurs in both directions from the center of the vectors.

Direction Fading

Same as Direction Center except this only blurs in the (one) direction of the vectors.

Amount

Use this control to determine how far along the vector field blur is applied. In some Types, the vectors have individual length. This affects the actual blur length.

Angle Offset

Use this control to offset (rotate) the angle of the vector field.

Ridge Smoothness/Revolutions (Supervised)

For non-directional blur types, use this control to adjust the smoothness of the ridges, or how steep the slopes appear, in the vector field. For directional blur types, use this control to determine how many revolutions the vector field will twist.

Vector Map

Use this pop-up to define a Vector Map from which the vector field will be defined. For example, selecting a layer containing animated Fractal Noise can produce very interesting effects.

Property

Use this pop-up menu to select the channel information on which to base the vector field on. Choose one of the following options: Red, Green, Blue, Alpha, Luminance, Lightness, Hue or Saturation.

Map Softness

Use this control to determine the softness (or blurring) of the vector field. Higher Map Softness values will remove small details and make the blur appear smoother.

CC COMPOSITE

Composite is meant to be used in conjunction with other effects applied before Composite. To use Composite, apply an effect/effects to the layer, apply Composite and select composite method.

Controls

Opacity

Use this control to determine the transparency of the original source layer in the composite.

Composite Original

Use this pop-up menu to select which composite method to use between the effect/effects and the source layer. Each offers a different result. In addition to Copy, Behind and In Front, Composite supports all the standard AE Transfer Modes, except for Dissolve.

RGB Only (Supervised)

Use this check box to determine if the source layers alpha channel will be included in the composite. This control is disabled if selected transfer mode involves the alpha channel. The default setting is RGB only, meaning that the alpha channel is ignored.

CC COLOR OFFSET

Color Offset allows you to rotate the value of each color channel. The rotation starting point is the original value for that color channel.

Controls

Red Phase, Green Phase, Blue Phase

Use these controls to set the rotation value for each color channel individually. Measurements are in degrees. Two revolutions, in either direction, return the original values of the source layer.

Overflow

Use this control to select the method used to remap color values that falls outside the legal 0-255/0-32768 range. Choose one of the following options from the pop-up menu:

Wrap

Forces overflow values back into the valid range.

Solarize

Reflects color overflow back to lower values.

Polarize

The reflection is smoother than that created by Solarize, using polar coordinates Instead of a triangular wave.

CC TONER

Toner is a color-mapping effect based on the luminance of the source layer. The bright, mid and dark tones of the source layer can be mapped to any color using standard color pickers or by sampling an on-screen color.

Controls

Highlights, Midtones and Shadows

Use these controls to specify the colors to be mapped to the corresponding luminance values.

Blend w. Original

Use this control to determine the transparency level for blending the effect with the original source layer. A value of 100% gives you only the original source layer. A value of 50% produces an even blend between the effect and the original.

CC BEND IT

Bend It bends the source layer, like a circus strong man bends a steel bar. You can use it to make a flag wave in the breeze. This is a real bend, not a 'slant'. This makes it possible to bend the source layer until the opposite sides meet.

Controls

Bend

Use this control to determine the amount of bending. Positive values bend one way, negatives bend the other.

Start and End

Use these controls to position the two reference points on the source layer, that serves as 'handles' for the bend effect, based on X, Y coordinates. The Start point marks the start of the area on the source layer that will be bent, and also functions as the pivot point for the bend. The End point marks the end of the area on the source layer that will be bent.

Render Prestart

Use this control to determine how to render the region before the Start point. Choose one of the following options from the pop-up menu.

None

Does not render source layer before the Start point.

Static

Renders the source layer before the Start point without bending.

Bend

Continues to bend source layer before the Start point.

Mirror

Bent mirrors the source layer between the Start and End point across the Start point.

Distort

Use this control to determine how to render the region beyond the End point. Choose one of the following options from the pop-up menu.

Legal

Does not render the source layer beyond the End point.

Extended

Renders to the extent of the source layer.

CC BENDER

The Bender plug-in creates a distortion between two user definable points on the source layer, creating the illusion of bending. This effect can be used to create realistic waving or swaying effects (such as a flag in the wind or a building during an earthquake), or to create humorous or just plain bizarre effects (such as dancing bottles or weird facial distortions). To animate these distortions you will (obviously) need to set at least two keyframes, using different Bend values or different control points (Point A and B) for each keyframe.

Controls

Amount

The Amount slider controls the amount of bending. Positive values bend one way, negatives bend the other.

Style

Select the style on which to base the bending effect on. Choose one of the following options from the pop-up menu.

Bend

Creates a smooth bend from the Base point, by only bending at the Top point. When the bend Amount increases it forces the affected area sideways from the Top point. Moving the points towards each other increases the sideway force at the top.

Marilyn

Creates a smooth curvaceous bend between the Base and Top points. Moving the points towards each other decreases the affected area.

Sharp

Creates a sharp triangular bend between the Base to Top points. Moving the points towards each other decreases the affected area.

Boxer

Creates a smooth bend between the Base to Top points. When the bend Amount increases it forces the affected area sideways at the Top point, reminiscent of a boxer ducking or weaving to avoid a thrown punch.

Adjust To Distance

Check this option to use relative values, to the distance between the Base and Top points, in the Amount slider. When this is not checked, absolute values are used (default setting).

CC BLOBBYLIZE

Blobblylize can create a blobby, glossy cutout on any source layer based on a channel property of another layer. The blob layer can be virtually anything, from simple text to complex particle animations. You can also control the amount of blobbiness.

Controls

Blobbiness (Control Group)

Blob Layer

Use this pop-up menu to select which layer within the composite you want to use as a 'stencil' to create your blobby cutout.

Property

Select the channel information from the selected Blob Layer on which to base the blobbiness. Choose one of the following options: Red, Green, Blue, Alpha, Luminance, Lightness.

Softness

Use this control to determine the softness (or blurring) of the selected Blob Layer. Higher Softness values will remove small details and increase the blobbiness and depth appearance.

Cut Away

Use this control to determine where blobs should be cut off. A value of 0 cuts nothing away, original values are kept. A value of 100 cuts everything away, resulting in an empty frame.

Light (Control Group)

Using

Use this pop-up to select whether to use the Effect Light source or AE Lights.

Note. To use AE Lights requires CycoreFX HD.

Light Intensity (Supervised)

Use the Light Intensity slider to control the power (or strength) of the light. Higher values produce brighter results.

Light Color (Supervised)

Use this control to select a color for the light.

Light Type (Supervised)

Use this control to select which type of light you want to use. Choose one of the two options from the pop-up menu.

Distant Light

This type simulates sunlight shining on the source layer from a user-definable angle. All light rays strike the layer from this same angle.

Point Light

This type simulates a light bulb hanging in front of, the layer at a user-definable distance and position. Light rays strike the layer from this defined light position.

Light Height (Supervised)

Use this control to determine the distance from the source layer to light source, based on Z coordinates. When using negative values, the light source is moved behind the source layer, with the result that light rays strike the layer from behind, or from below.

Light Position (Supervised)

Use this control to position the point light on the source layer, based on X, Y coordinates. Not used if Effect Light and Distant Light are selected.

Light Direction (Supervised)

Use this control to set the direction to the light source. Light Direction in conjunction with Light Height determine the angle at which light rays strikes the source layer. Not used if Effect Light and Point Light are selected.

Shading (Control Group)

Controls in this group are similar to corresponding controls in the AE Material Options, with one exception. Roughness is the actual opposite of (AE) Shininess.

Ambient

Use this control to determine how much ambient (nondirectional) light is reflected. Ambient light is everywhere and affects all visible surfaces, even if not directly illuminated by light (like the dark side of the moon).

Diffuse

Use this control to determine how much diffuse (omni directional) light is reflected. Diffuse light affects all visible surfaces directly illuminated by light.

Specular

Use this control to determine the highlight intensity of the reflected light. Shiny materials, like chrome, have strong highlights while matte materials, like rubber, have weak or none. As you increase the Specular value, you see a specular highlight appear in the center of the diffuse areas where the light reflects directly on the viewer.

Roughness

Sets how rough the material appears. Roughness affects the spread of the specular highlight. Higher Roughness values make the highlight larger and less shiny.

Metal

Use this control to determine the color of the specular highlight. Setting the value to 100 reflects the color of the layer in the specular highlight, like metal. Setting the value to 0 reflects the color of the light source in the specular highlight, like plastic.

CC FLO MOTION

Flo Motion produces a vortex distortion, something like a black hole pulling in or ejecting an object. Flo Motion is especially useful for producing flowing effects in backgrounds, but can also be applied to foreground objects.

Controls

Finer Controls

Use this check box to increase the sensitivity by a factor of twenty for the two Amount controls. When this option is turned on, a setting of 20 is equivalent to a setting of 1 when turned off. At default settings Finer Controls is turned off.

Knots 1 & 2

Use these controls to position the two reference points on the source layer, based on X, Y coordinates. This is where the distortion will start or end when adjusting their respective Amount controls.

Amount 1 & 2

Use the Amount sliders to control the amount of distortion applied at their respective Knots. Positive values appear to pull, or suck, the source layer into the Knot. Negative values appear to push, or blow, the source layer out from the Knot.

Tile Edges

Use this check box to determine if the source layer will be tiled at the edges when distorted by the effect. Each tile is mirrored to produce seamless tiling. At default settings Tile Edges is turned on.

Antialiasing

Use this pop-up menu to set the antialiasing of the distorted source layer. The layer needs to be set to best quality for antialiasing to be applied. Choose one of the following options: Low, Medium, High (Set to Low at default). Use the setting that is most sufficient for the distortion you create, higher antialiasing settings increase rendering times.

Falloff

Use this control to fine tune the intensity of distortion effect without changing any of the other settings. The lower the Falloff value, the more concentrated the vortex effect, and the larger the number of tile iterations. A Falloff value of 0 produces the highest concentration. A value of 10 produces nearly no Falloff.

CC GRIDDLER

The Griddler plug-in can be used to cut and animate a layer into squares. Grid-dler creates a tiled version of the source layer, while scaling and rotating the tiles. The smaller the size setting, the more tiles there are. Larger size settings produce fewer tiles.

Controls

Horizontal and Vertical Scale

Use these controls to scale the source layer content of the tiles (actual tile size is set in the Tile Size control). If the horizontal and vertical scales are both at 100, the tiles are completely filled with the visible parts (if alpha channel not fully opaque) of the original source layer at the time they begin to rotate. If the horizontal and vertical scale are both at 50, the visible parts of the source layer is scaled down by half in the center of each tile, leaving the rest of each tile transparent (See Cut Tiles below for an exception to this). Using negative values inverts and scales the source layer. Setting scale to -100 is the mirrored equivalent of the source layer at 100.

Tile Size

Use this control to determine the actual size of the tiles (use the Scale controls to scale the source layer content on tiles).

Rotation

Use this control to rotate the tiles in place, based on degrees.

Cut Tiles

When checked, tiles will only render their normal size, leaving transparent gaps in-between when rotated or scaled down. At default settings Cut Tiles is turned on.

CC LENS

Use Lens to create a lens distortion effect. The distortion can be outward or inward from the center.

Controls

Center

Use this control to position the center point of the virtual lens on the source layer, based on X, Y coordinates.

Size

Use this control to determine the size of the virtual lens.

Convergence

Use this control to determine the amount of distortion applied.

CC PAGE TURN

Page Turn peels back the layer to reveal the background. The effect is like turning the page of a book to show the next page. You will want to make sure you choose settings that peel the page completely off the screen. This may mean setting a Fold Position that is off the screen. For example, to fold a page from the lower right to the upper left, leave Page Turn at the default setting of -60 degrees. Then move the Fold Position to the lower right corner, providing you selected the lower right corner of the source layer for the starting point in Fold Edge Position.

Controls

Fold Position

This control determines the completion percentage of the page turn, based on X, Y coordinates (you must keyframe this control to animate a page turn transition).

Fold Direction

Use this control to determine the direction in which the page will fold. Measurements are in degrees.

Fold Radius

Use this control to determine the radius, or sharpness, of the fold edge. A lower setting creates a sharp folding. A higher Fold Radius setting creates a more rounded folding.

Light Direction

Use this control to determine the direction from which light strikes the backside of the page curl. Measurements are in degrees.

Backside

Use this pop-up menu to select which layer you want to use for the back of the peeled page. The same layer can be selected for the backside of the page as for the front side. Select None to instead specify a color for the backside of the page.

Paper Color

Use this to select a color for the back of the page. Paper Color can only be used if None is selected in the Backside control.

Render

Use this pop-up menu to select which page sides you want to render. Mainly useful if you wish to split the page turn and composite another layer in-between, in this case you must duplicate the effect to appear in front and behind the middle layer. Choose one of the following options, Full, Frontside, Backside.

CC POWER PIN

Power Pin lets you slant, scale and apply perspective to a layer. Power Pin is easy to use. It lets you treat the layer as if it was on a sheet of rubber. You can stretch any corner and 'pin it in place'.

Controls

Composition View UI

Guides for pinning plane vanishing points and horizon hint. Guides can be dragged to proportionally modify pinpoints of the corresponding side. To move all points click-drag within the pinned area. Also features a "center guide" that can be toggled on/off in the top left corner of the Composition View. If possible, a 3D camera zoom estimation (view angle) will be shown in the Info panel. Vanishing points horizon and camera hints are not drawn if perspective is set to 0 (Off).

Top Left, Top Right, Bottom Left, Bottom Right

These four reference points determines the corners of the distortion effect, based on X, Y coordinates. By moving these points the layer can be slanted or scaled differently at each corner. Twisting the points can cause unexpected results.

Perspective

Use this control to modify the perspective applied when pinning. When using normal Perspective value, moving points closer to each other does not only compress the layer source, it also stretches it towards the most distorted area. The more distorted areas are, the more distant they appear. Set to 100% to achieve natural perspective. At 0%, Power Pin attempts to reduce the impact of perspective distortion as much as possible.

Unstretch

Use this check box to reverse the function of the pins. Instead of distorting the layer to the pin positions, Unstretch distorts from the pin positions to the layer boundaries.

Expansion (%)

These four controls, Top, Left, Right, Bottom, let you expand, or shrink, the pinning target area. Positive values expand the area by that percentage. This is useful if your tracked points reside within the target pin area. Then you don't need to modify the trackpoints, instead you assign the trackpoints to the pin points and adjust the Expansion to match the target area.

CC RIPPLE PULSE

The Ripple Pulse plug-in creates a ripple wave (to create effects like dropping a pebble into a pool, or forcing a cork underwater and let it go) from a user-defined center point. This effect is especially effective when synced with sound (Using expression or similar tool). The wave form of the ripple is defined by animating the Pulse Level control. To animate this effect you will need to set at least two keyframes to the Pulse Level control. To create a good ripple, the first keyframe should have a lower Pulse Level value, while the second keyframe's Pulse value should be relatively high.

Controls

Center

Use this control to position the ripple wave on the source layer, based on X, Y coordinates.

Pulse Level (Animate)

Use this control to determine the strength of the pulse creating the ripple. This control must be keyframed. Using positive values, the direction of the pulse force is outward from the center point. Using negative values, the direction of the pulse force is inward at the center point.

Time Span (sec)

This control determines the speed of the ripple wave. Time Span decides how far back in time the ripple spans. The Pulse Level values within this range will be rendered.

Amplitude

This control determines the height of the ripple crest. Higher values increase the height of the ripple wave/distortion. Lower values create a smoother ripple.

Render Bump Map (RGBA)

Use this check box to specify that the animated ripple is to be rendered as a bump map, which can then be used by any other plug-in that works with bump maps (such as Glass). At default settings Render Bump Map is turned off.

CC SLANT

Slant tilts a layer, or a matte color of the layer content, horizontally. The vertical scale of the source layer can be controlled, as well as the baseline "floor" of the tilt. This is useful for creating general distortions, as well as shadows behind text and other layers if the matte color option is checked.

Controls

Slant

Use this control to determine direction and amount of slant (or tilt). Using positive values slants the source layer to the right. Using negative values slants the source layer to the left. With Stretching un-checked, using values outside the -100 and 100 range, continues the slant (or tilt) of the source layer in the chosen direction, making it appear to rotate around the baseline set in the Floor control.

Stretching

Use this check box to allow the layer to stretch when slanted. When disabled, slanting will cause layer to scale in height to prevent stretching of the layer. This results in a flip of the layer if Slant goes beyond 100 in any direction.

Height

Use this control to determine the vertical scale of the slanted (or tilted) source layer. Moving the slider toward 0 scales the source layer down vertically. Moving the slider toward 100 gradually restores the source layer to full height. Using negative values mirrors and scales the source layer in the opposite direction. Setting scale to -100 is the mirrored equivalent of the source layer at 100.

Floor

Use this control to determine the position of the floor (or baseline) for the slant effect, based on X, Y coordinates (only Y is used).

Set Color

Use this check box to replace the source layer with a color selected in the Color control (see below). Alpha channel is untouched.

Color (Supervised)

Use this to select a color for the layer. Color can only be used if Set Color is checked.

CC SMEAR

The Smear plug-in allows you to create animatable warping distortion effects. Smear warps a radial area on the source layer, based around a starting point, towards an end point. You can apply multiple Smear effects to your source layer and put the From and To points of each effect instance in different positions to create great warping effects.

Controls

From and To

Use these controls to position the start and end points of the warp effect on the source layer, based on X, Y coordinates. Smear affects a radial area around the From point and warps it toward the To point.

Reach

Use this control to determine the amount of warping towards the To point. The higher the value, the more the distortion. Useful if the destination point doesn't correspond to the actual destination of the smear effect, e.g. when using tracking points. This can also be set below zero which will smear in the opposite direction.

Radius

Use this control to determine the size of the radial area, around the From point, to be warped.

CC SPLIT

The Split plug-in creates a split or crack in the source layer between two user-definable points. Animating the amount of splitting can create effects similar to a mouth or zipper opening and closing.

Controls

Point A and Point B

Use these controls to position the start and end points of the splitting effect on the source layer, based on X, Y coordinates.

Split

Use this control to determine the amount of splitting between the A and B points.

CC SPLIT 2

The Split plug-in creates a split or crack in the source layer between two user-definable points, just as Split does. The difference is that Split 2 allows controlling the amount of splitting on each side of the two points individually. Animating the amount of splitting can create effects similar to a mouth or zipper opening and closing.

Controls

Point A and Point B

Use these controls to position the start and end points of the splitting effect on the source layer, based on X, Y coordinates.

Split 1 and Split 2

Use these controls to determine the amount of splitting on each side between the A and B points.

Profile (Options)

Opens a dialog in which a custom profile of the split can be defined or selected from a preset menu.

CC TILER

Tiler scales down and tiles the source layer to fill the screen. In addition to defining the amount of scaling, you can also use Tiler to determine the center point around which to scale the source layer. This is useful for animation because it allows you to scale the source from a set point.

Controls

Scale

Use this control to scale and tile the source layer content. A Scale setting of 100 retains the original size of the source layer. When reducing the scale, the source layer is scaled down and tiled to fill the screen.

Center

Use this controls to position the center point, or anchor point, from which the source layer will be scaled, based on X, Y coordinates.

Blend w. Original

Use this control to determine the transparency level for blending the effect with the original source layer. A value of 100% gives you only the original source layer. A value of 50% produces an even blend between the effect and the original.

CC GLUE GUN

The Glue Gun plug-in is a painting effect that uses blobby particles to create the illusion (when animated) of writing or drawing with a glue gun or tube of toothpaste. A more liquid, nozzle-based effect can also be created. The 'paint' can be highly reflective, mirroring the source layer, if desired. Painting or writing can be accomplished by manually setting keyframes and moving the brush position. After effect users with the Production bundle can use the Motion Sketch keyframe assistant to 'brush' their lines onto the source layer.

Controls

Brush Position

Use this control to position the brush on the source layer, based on X, Y coordinates. Combining changes in brush position with proper use of keyframes can create a very convincing illusion of brushing or writing.

Stroke Width

Use this control to determine the width of the brush stroke.

Density

Use this control to determine the density at which blobs (or particles) are generated along the brushstroke's path (similar to birth rate in particle systems). At lower values individual blobs are visible along the brushstroke's path, while higher values can produce a complete dense and even brush stroke. The density is also affected by the time interval between keyframes set for Brush Position.

Time Span (sec)

Use this control to determine the life span (in seconds) of the brush stroke. Setting this parameter to 0 makes the brushstrokes permanent.

Reflection

Use this control to determine how much the source layer is reflected in the brush stroke. The higher the setting, the more the brush stroke reflects its environment (source layer).

Strength

Use this control to determine the blobbiness of the brush stroke. It affects how strong the blobs of the brush stroke will blend together.

Style (Control Group)

Paint Style

Use this pop-up menu to select which 'paint' style to use for the brush stroke. Choose one of the following options:

Plain

Static, 'toothpaste' type stroke.

Wobbly

Very liquid, constantly changing stroke.

Wobble Width and Wobble Height (Supervised)

Use these controls to determine how far the 'paint' blobs will move, horizontally and vertically, from their original positions while wobbling along the brush stroke. These controls are only used if Wobbly is selected for Paint Style.

Wobble Speed

Use this control to determine the speed of the wobbling. The higher the value, the faster the 'paint' blobs wobble within the range determined in the Wobble Width and Height controls. This control is only used if Wobbly is selected for Paint Style.

Light (Control Group)

Using

Use this pop-up to select whether to use the Effect Light source or AE Lights.

Note. To use AE Lights requires CycoreFX HD.

Light Intensity (Supervised)

Use the Light Intensity slider to control the power (or strength) of the light. Higher values produce brighter results.

Light Color (Supervised)

Use this control to select a color for the light.

Light Type (Supervised)

Use this control to select which type of light you want to use. Choose one of the two options from the pop-up menu.

Distant Light

This type simulates sunlight shining on the source layer from a user-definable angle. All light rays strike the layer from this same angle.

Point Light

This type simulates a light bulb hanging in front of, the layer at a user-definable distance and position. Light rays strike the layer from this defined light position.

Light Height (Supervised)

Use this control to determine the distance from the source layer to light source, based on Z coordinates. When using negative values, the light source is moved behind the source layer, with the result that light rays strike the layer from behind, or from below.

Light Position (Supervised)

Use this control to position the point light on the source layer, based on X, Y coordinates. Not used if Effect Light and Distant Light are selected.

Light Direction (Supervised)

Use this control to set the direction to the light source. Light Direction in conjunction with Light Height determine the angle at which light rays strikes the source layer. Not used if Effect Light and Point Light are selected.

Shading (Control Group)

Controls in this group are similar to corresponding controls in the AE Material Options, with one exception. Roughness is the actual opposite of (AE) Shininess.

Ambient

Use this control to determine how much ambient (nondirectional) light is reflected. Ambient light is everywhere and affects all visible surfaces, even if not directly illuminated by light (like the dark side of the moon).

Diffuse

Use this control to determine how much diffuse (omni directional) light is reflected. Diffuse light affects all visible surfaces directly illuminated by light.

Specular

Use this control to determine the highlight intensity of the reflected light. Shiny materials, like chrome, have strong highlights while matte materials, like rubber, have weak or none. As you increase the Specular value, you see a specular highlight appear in the center of the diffuse areas where the light reflects directly on the viewer.

Roughness

Sets how rough the material appears. Roughness affects the spread of the specular highlight. Higher Roughness values make the highlight larger and less shiny.

Metal

Use this control to determine the color of the specular highlight. Setting the value to 100 reflects the color of the layer in the specular highlight, like metal. Setting the value to 0 reflects the color of the light source in the specular highlight, like plastic.

CC LIGHT BURST 2.5

Light Burst 2.5 is a type of radial blur that creates an effect that looks like the source layer is exploding with light. Light Burst 2.5 works best on a layer with an alpha channel.

Controls

Center

Use this control to position the center point of the light source on the source layer, based on X, Y coordinates.

Intensity

Use the Intensity slider to control the power (or strength) of the light.

Ray Length

Use this slider to control the length of the light rays (amount of blurring).

Burst

Select the type of burst (blur) method to use for light ray behaviors. Choose one of the following options from the pop-up menu.

Straight

Blurred pixels radiates out from the center point with constant strength.

Fade

Blurred pixels radiate out from the center point and fades out.

Center

Blurred pixels radiates in and out equally from the center point. This gives the effect of "zooming in".

Halo Alpha

Use this check box to let the light rays cast through the silhouette of the alpha channel. If the source layer is completely opaque (or transparent) nothing will show up when this control is enabled. With this feature disabled, the source layer uses the alpha channel to act as a light gel. At default settings this feature is turned off.

Replace Colors

Use this check box to give the light rays the color you select in the Color control. This function is useful on source material containing alpha variance. If this is disabled the colors from the source layer will be used. At default settings this feature is turned off.

Color (Supervised)

Use this control to select a color for the light.

CC LIGHT RAYS

Light Rays creates wonderful, radiating streaks of light. A typical use of this effect is to overlay light rays on a background.

Controls

Intensity

Use the Intensity slider to control the power (or strength) of the light. Higher values produce brighter results. (This control has extended range)

Center

Use this control to position the center point of the light source on the source layer, based on X, Y coordinates

Radius

Use this control to determine the radius (size) of the light source. This affects how far the light rays reach. Higher values produce brighter results. (This control has extended range)

Warp Softness

Use this control to determine the softness, or warping, of light rays. The effect is similar to light rays shining through haze or fog. This also affects how intense, or sharp, the selected shape of the light source appears on the source layer. Lower values increase sharpness, making individual rays appear more distinct, while higher values softens (warps) light rays together into larger, more subtle, rays. (This control has extended range)

Shape

Use this pop-up menu to select the shape for the light source. Choose one of the following options: Round, Square

Direction (Supervised)

Use this to control to determine the rotation of the light source. Not in use if Round is selected for Shape.

Tip: Center a Rectangular shaped light on some variegated source layer content. Set key frames for the Direction control to rotate the light. You'll get moving/flashing light rays.

Color from Source

Using this check box, the color of the light is sampled from the source layer. If this is disabled, the color selected in the Color control (see below) will be used. At default settings this feature is turned on.

Color (Supervised)

Use this control to select a color for the light. Click the color swatch to use the Color Picker, or select a color using the eyedropper.

Transfer Mode

Use this pop-up menu to select which composite method to use between the effect and the source layer. Each offers a different result. Choose one of the following options, None, Add, Lighten, Screen,

CC LIGHT SWEEP

Light Sweep creates a streak of light, like light reflected on a highly anisotropic surface. If the source layer contains alpha channel information, opaque areas can be given an embossed appearance.

Controls

Center

Use this control to position the center point of the light beam on the source layer, based on X, Y coordinates. It also serves as the anchor point for the Direction control.

Direction

Use this control to determine the direction of the light beam. The Center point serves as the anchor for rotation.

Shape

Use this control to determine how the light beam fades towards its edges. Choose one of the following options from the pop-up menu, Linear, Smooth, Sharp.

Width

Use this control to determine the width of the light beam. (This control has extended range)

Sweep Intensity

Use the Sweep Intensity slider to control the power (or strength) of the light beam. Higher values produce brighter results. (This control has extended range)

Edge Intensity

Use this control to determine the amount of embossing introduced at the edges of where light strikes edges to opaque areas the alpha channel. The edges are highlighted from the angle set in the Direction control. Higher values produce sharper and brighter edges, increasing the feeling of depth. Use this control in conjunction with Edge Thickness (below) to fully control the edge behavior. A slight speed Increase can be achieved by setting this control to zero. (This control has extended range)

Edge Thickness

Use this control to determine the thickness of the edge that is affected by the embossing, determined in the Edge Intensity control. Using higher thickness values, combined with lower Edge Intensity values, also increases the feeling of depth and produces a smoother highlighted edge. (This control has extended range)

Light Color

Use this control to select a color for the light beam.

Light Reception

Use this pop-up menu to select which composite method to use between the effect and the source layer. Each offers a different result. Choose one of the following options, Add, Composite, Cutout.

CC SIMPLE WIRE REMOVAL

Simple Wire Removal is a handy effect for taking out the wires used in special effects photography, like go-motion. Wire Removal uses advanced algorithms to replace the wire with background layers. In go-motion photography, a model or puppet that is animated by manipulating a set of rods or wires. In post-production, the wires are removed so the subject looks like it's moving autonomously. Wire Removal cleans up a single wire. If the layer has several wires, you can apply the effect multiple times.

Controls

Point A and Point B

Use these controls to position the start and end points of the wire removal path on the source layer, based on X, Y coordinates.

Removal Style

Use this pop-up menu to select which method to use for removing the wire. Choose one of the following options:

Fade

Clears a path through the layer. The background appears through the faded area.

Frame Offset

Brings in pixel data from a previous or subsequent frame set with the Frame Offset slider.

Displace

Brings in pixel data from outside the remover. This interpolated pixel data replaces the wire.

Displace Horizontal

Uses the Displace technique, but constrains its sampling to the horizontal.

Thickness

Use this control to determine the width of the removal path. For best results, the Thickness should be only as wide as necessary to completely remove the wire.

Slope

Use this control to determine the softness of the removal path edge. Using lower slope values, the transition into the removal path is gradual. Using higher slope values the edge becomes abrupt.

Mirror Blend (Supervised)

Use this control to adjust the pixel-replacement method used by the two Displace options (Removal Style). The default of 25 is good in most cases. If the removal leaves artifacts try shifting Mirror Blending one way or the other. This control is not in use when Fade and Frame Offset is selected in the Removal Style control.

Frame Offset (Supervised)

Use this control to specify a frame to be used by the Frame Offset pixel-replacement method (Removal Style). This control is not in use when Fade, Displace and Displace Horizontal are selected in the Removal Style control.

CC CYLINDER

Cylinder wraps the source layer onto a 3D cylinder. It supports AE's comp camera, which lets you move the camera around the cylinder in virtual space to view it from any angle. You can also use a built in light source lighting to change its 3D appearance.

Controls

Radius (%)

Use this control to determine the radius of the cylinder.

Position (Control Group)

Position X, Y and Z

These sliders determine the position of the cylinder within the source layer, based on X, Y, Z coordinates respectively. Positive Z values move the cylinder farther away, while negative Z values move it closer.

Rotation (Control Group)

Rotation X, Y and Z

Use these controls to rotate the cylinder within the source layer, in X, Y, Z space. Measurements are in degrees.

Render

Use this pop-up menu to select which sides of the cylinder you want to render. Mainly useful if you wish to split the cylinder and composite another layer in-between, in this case you must duplicate the effect to appear in front and behind the middle layer. Choose one of the following options, Full, Outside, Inside.

Light (Control Group)

By default an ambient light source at 100% is always present.

Light Intensity

Use the Light Intensity slider to control the power (or strength) of the light. Higher values produce brighter results.

Light Color

Use this control to select a color for the light.

Light Height

Use this control to determine the distance from the source layer to light source, based on Z coordinates. When using negative values, the light source is moved behind the source layer, with the result that light rays strike the layer from behind, or from below.

Light Direction

Use this control to set the direction to the light source. Light Direction in conjunction with Light Height determine the angle at which light rays strikes the source layer.

Shading (Control Group)

Controls in this group are similar to corresponding controls in the AE Material Options, with one exception. Roughness is the actual opposite of (AE) Shininess.

Ambient

Use this control to determine how much ambient (nondirectional) light is reflected. Ambient light is everywhere and affects all visible surfaces, even if not directly illuminated by light (like the dark side of the moon).

Diffuse

Use this control to determine how much diffuse (omni directional) light is reflected. Diffuse light affects all visible surfaces directly illuminated by light.

Specular

Use this control to determine the highlight intensity of the reflected light. Shiny materials, like chrome, have strong highlights while matte materials, like rubber, have weak or none. As you increase the Specular value, you see a specular highlight appear in the center of the diffuse areas where the light reflects directly on the viewer.

Roughness

Sets how rough the material appears. Roughness affects the spread of the specular highlight. Higher Roughness values make the highlight larger and less shiny.

Metal

Use this control to determine the color of the specular highlight. Setting the value to 100 reflects the color of the layer in the specular highlight, like metal. Setting the value to 0 reflects the color of the light source in the specular highlight, like plastic.

CC SPHERE

Sphere wraps the layer onto a sphere. You can rotate the sphere, control lighting, and other surface properties.

Controls

Rotation (Control Group)

Rotation X, Y and Z

Use these controls to rotate the sphere within the source layer, in X, Y, Z space. Measurements are in degrees.

Radius

Use this control to determine the radius (or size) of the sphere.

Offset

Use this control to position (or offset) the center point of the sphere within the source layer, based on X, Y coordinates.

Render

Use this pop-up menu to select which sides of the sphere you want to render. Mainly useful if you wish to split the sphere and composite another layer in-between, in this case you must duplicate the effect to appear in front and behind the middle layer. Choose one of the following options, Full, Outside, Inside.

Light (Control Group)

By default an ambient light source at 100% is always present.

Light Intensity

Use the Light Intensity slider to control the power (or strength) of the light. Higher values produce brighter results.

Light Color

Use this control to select a color for the light.

Light Height

Use this control to determine the distance from the source layer to light source, based on Z coordinates. When using negative values, the light source is moved behind the source layer, with the result that light rays strike the layer from behind, or from below.

Light Direction

Use this control to set the direction to the light source. Light Direction in conjunction with Light Height determine the angle at which light rays strikes the source layer.

Shading (Control Group)

Controls in this group are similar to corresponding controls in the AE Material Options, with one exception. Roughness is the actual opposite of (AE) Shininess.

Ambient

Use this control to determine how much ambient (nondirectional) light is reflected. Ambient light is everywhere and affects all visible surfaces, even if not directly illuminated by light (like the dark side of the moon).

Diffuse

Use this control to determine how much diffuse (omni directional) light is reflected. Diffuse light affects all visible surfaces directly illuminated by light.

Specular

Use this control to determine the highlight intensity of the reflected light. Shiny materials, like chrome, have strong highlights while matte materials, like rubber, have weak or none. As you increase the Specular value, you see a specular highlight appear in the center of the diffuse areas where the light reflects directly on the viewer.

Roughness

Sets how rough the material appears. Roughness affects the spread of the specular highlight. Higher Roughness values make the highlight larger and less shiny.

Metal

Use this control to determine the color of the specular highlight. Setting the value to 100 reflects the color of the layer in the specular highlight, like metal. Setting the value to 0 reflects the color of the light source in the specular highlight, like plastic.

Reflective

Use this control to determine the spheres tendency to reflect its environment, selected in the Reflection Map control (see below).

Reflection Map

Use the Reflection Map pop-up to select a layer, to be reflected onto the sphere. For example, you may want to have a sphere reflect a sunset that is happening behind the viewer's shoulder.

Internal Shadows

Use this check box to let opaque pixels cast shadows on the interior of the sphere. When this feature is disabled, no shadows are rendered in the sphere's interior. At default settings this feature is turned off.

Transparency Falloff

Use this check box to let the edges of the sphere become more opaque. When this feature is disabled, the sphere has a uniform transparency. At default settings this feature is turned off.

CC SPOTLIGHT

The Spotlight plug-in creates the illusion of a spotlight shining down on your source layer. This virtual spotlight has all of the parameters of a real spotlight, including size, angle, color, etc.

Controls

From and To

Use these controls to position the starting (From) location of the light source and the target (To) on the source layer, based on X, Y coordinates.

Height

Use this control to determine the distance between the virtual spotlight and the target on the source layer in Z space.

Cone Angle

Use this control to determine the opening angle or focus of the virtual spotlight. This is similar to an aperture control.

Edge Softness

Use this control to determine the softness or sharpness of the spotlighted area's edges. Lower values result in sharper edges, while higher values result in softer, blurred edges.

Color

Use this control to select a color for the light.

Intensity

Use the Intensity slider to control the power (or strength) of the spotlight. Higher values produce brighter results.

Render

Use this pop-up menu to choose how to render the spotlighted area on the source layer. Choose one of the following options:

Light Only

Clears the source layer and renders just the spotlight.

Light Add

Renders the spotlight added on top of the source layer.

Light Add+

Renders the spotlight added on top of the source layer. Light is added also to transparent areas of the source layer.

Light Shadow

Renders a shadow, in areas not illuminated by the spotlight, on top of the source layer.

Gel Only

Clears the source layer and renders just the spotlight, but uses the selected layer (see Gel Layer, below) as a gel, creating a 'slide projector' effect.

Gel Add

Renders the selected Gel Layer projected onto the source layer.

Gel Add+

Renders the selected Gel Layer projected onto the source layer. Light is added also to transparent areas of the source layer.

Gel Shadow

Renders a shadow but lets light through the projected Gel Layer.

Gel Layer (Supervised)

Use this pop-up menu to select a layer within the composition that will be used as a 'gel' for the spotlight. Assigning a Gel Layer, the spotlight can be used as a slide projector of sorts, projecting the source layer onto another. This control is only used if you have selected one of the Gel options from the Render menu, above.

CC BALL ACTION

Use the Ball Action plug-in to transform the source layer into an array of balls. You can rotate and twist the array around a specified axis and scatter the array in all directions. It supports AE's comp camera, which lets you move the camera around the array. Only completely opaque pixels in the source layer transform into balls.

Controls

Scatter

Use this control to determine the amount of the scattering. The higher the value, the further the balls scatter away, in all directions, from their original positions. (This control has extended range)

Rotation Axis

Use this control to select a single rotation axis or axis combination. This selection will be used to rotate the array of balls around, when using the Rotation and Twist Angle controls (see below). Choose one of the following options from the pop-up menu:

X, Y, or Z

The array rotate around the selected axis.

XY, XZ, or YZ

The array rotate on the two selected axis simultaneously.

XYZ Axis

The array rotate on all three axes simultaneously.

X15Z Axis

The array rotate 15 times around the Z axis for every one rotation around the X axis. The effect is like a whirl, or a rotating galaxy. The settings for this are very sensitive.

XY15Z Axis

The array rotate 15 times around the Z axis for every rotation around both the X and Y axis. The settings for this are very sensitive.

Rotation

Use this control to rotate the array of balls around the axis selected in the Rotation Axis control (see above). The array can be rotated any number of degrees and revolutions, using positive or negative direction.

Twist Property

Use this control to select a Twist Property. Twisting is a rotation offset which is applied to the array of balls using a specified rule, the Twist Property. This selection will determine how the array is twisted when using the Twist Angle control (see below). Choose one of the following options from the pop-up menu:

X Axis and Y Axis

The array is twisted around the selected axis

Center-X and Center-Y

The array is twisted around the center point of the selected axis.

Radius

The array is twisted around the center of the source layer. The twisting effect diminishes toward the periphery.

Random

The array is twisted around randomly to create a chaotic effect.

Red, Green, Blue

The array is twisted based on the intensity of the color you select. The least intense areas twist the most.

Brightness

The array is twisted based on the brightness of the source layer, with the darkest portion twist the most.

Diamond

The array is twisted in a diamond shape.

Rectangle

The array is twisted in a rectangular shape.

Fast Top

The array is twisted around the X and Y axis, with faster twisting around the Y axis.

Twist Angle

Use this control to apply twist to the array, based on the property selected in the Twist Property control (see above). The array of balls can be twisted any number of degrees and revolutions, using positive or negative direction.

Grid Spacing

Use this to control the dimension of the array into which the layer will be transformed. A higher value creates less and larger cells, which produces fewer balls. A lower value creates more and smaller cells, which produces more balls. (This control has extended range)

Ball Size

Use this control to determine the size of the balls. The ball size is relative to the Grid Spacing (see above). This means that you can adjust the size of the balls to be smaller or larger than the cells they reside in. When balls are smaller, empty cell areas are transparent. When balls are larger, cells will be completely filled to the extent that they start overlapping each other. (This control has extended range)

Instability State

Use this control to rotate scattered balls around their individual array positions. Scatter must be non zero for this to have any effect. For animated instability, this control must be animated. Instability State can be any number of degrees and revolutions, using positive or negative direction.

CC BUBBLES

Bubbles create a 'bubble' effect in the selected layer.

Controls

Bubble Amount

Use this control to determine the number of bubbles. The number of bubbles selected may not correspond to the number that actually appears in the source layer. (This control has extended range)

Bubble Speed

Use this control to determine the speed at which bubbles move. A positive speed value makes the bubbles rise. A negative speed value makes the bubbles fall. (This control has extended range)

Wobble Amplitude

Use this control to determine the amount of wobbling added to bubbles motion. The wobbling causes bubbles to move from side-to-side, while rising or falling. The higher the value, the more bubbles move sideways from their original path, at the frequency determined by the Wobble Frequency control (see below). (This control has extended range)

Wobble Frequency

Use this control to determine the frequency at which bubbles wobble. The higher the value, the faster bubbles move from side-to-side, at the amplitude determined by the Wobble Amplitude control (see above). (This control has extended range)

Bubble Size

Use this control to determine the overall size of the bubbles. (This control has extended range)

Reflection Type

Use this control to select reflection type for the bubbles. Choose one of the following options from the pop-up menu:

Inverse Reflection

Gives the bubbles 'self-contained' reflections, like refraction.

World Reflection

Makes the bubbles reflect the source layer.

Shading Type

Use the Shading Type pop-up to select a shading style for the bubbles.

None

Fully opaque bubbles, no fading or transparency is applied.

Lighten

Fades the bubble color to white at the bubble's periphery.

Darken

Fades the bubble color to black at the bubble's periphery.

Fade Inwards

Makes the centers of the bubbles appear transparent, something like soap bubbles.

Fade Outwards

Makes the peripheries of the bubbles appear transparent.

Tip: For a smoky effect, try using Fade Outward with a very high number of bubbles.

CC DRIZZLE

Drizzle creates circular ripple distortions that look like raindrops disturbing the reflection in a pond. Drizzle is a particle generator. The ringlets appear and spread over time.

Controls

Drip Rate

Use this control to determine the number of drops that are born. Lower values produce fewer drops, while higher values increase the number of drops. (This control has extended range)

Longevity (sec)

Use this control to determine the ripple duration. From its birth, the ripple expands to its full radius over the course of the Longevity setting. The radius is determined by the Spreading control (see below). The higher the Longevity setting, the slower ripples expand to their full radius. Longevity cannot be animated. (This control has extended range)

Rippling

Use this control to determine the number of rings in each ripple. Each rotation around the dial adds another ring.

Displacement

Use this control to determine the amount of displacement. Higher values produce greater distortion. (This control has extended range)

Ripple Height

Use this control to determine the appearance of height in the ripple. The height affects the displacement as well as the shaded appearance.

Spreading

Use this control to determine the size (or radius) the ripples expand to. (This control has extended range)

Light (Control Group)

Using

Use this pop-up to select whether to use the Effect Light source or AE Lights.

Note. To use AE Lights requires CycoreFX HD.

Light Intensity (Supervised)

Use the Light Intensity slider to control the power (or strength) of the light. Higher values produce brighter results.

Light Color (Supervised)

Use this control to select a color for the light.

Light Type (Supervised)

Use this control to select which type of light you want to use. Choose one of the two options from the pop-up menu.

Distant Light

This type simulates sunlight shining on the source layer from a user-definable angle. All light rays strike the layer from this same angle.

Point Light

This type simulates a light bulb hanging in front of, the layer at a user-definable distance and position. Light rays strike the layer from this defined light position.

Light Height (Supervised)

Use this control to determine the distance from the source layer to light source, based on Z coordinates. When using negative values, the light source is moved behind the source layer, with the result that light rays strike the layer from behind, or from below.

Light Position (Supervised)

Use this control to position the point light on the source layer, based on X, Y coordinates. Not used if Effect Light and Distant Light are selected.

Light Direction (Supervised)

Use this control to set the direction to the light source. Light Direction in conjunction with Light Height determine the angle at which light rays strikes the source layer. Not used if Effect Light and Point Light are selected.

Shading (Control Group)

Controls in this group are similar to corresponding controls in the AE Material Options, with one exception. Roughness is the actual opposite of (AE) Shininess.

Ambient

Use this control to determine how much ambient (nondirectional) light is reflected. Ambient light is everywhere and affects all visible surfaces, even if not directly illuminated by light (like the dark side of the moon).

Diffuse

Use this control to determine how much diffuse (omni directional) light is reflected. Diffuse light affects all visible surfaces directly illuminated by light.

Specular

Use this control to determine the highlight intensity of the reflected light. Shiny materials, like chrome, have strong highlights while matte materials, like rubber, have weak or none. As you increase the Specular value, you see a specular highlight appear in the center of the diffuse areas where the light reflects directly on the viewer.

Roughness

Sets how rough the material appears. Roughness affects the spread of the specular highlight. Higher Roughness values make the highlight larger and less shiny.

Metal

Use this control to determine the color of the specular highlight. Setting the value to 100 reflects the color of the layer in the specular highlight, like metal. Setting the value to 0 reflects the color of the light source in the specular highlight, like plastic.

CC HAIR

Hair creates particles that stretch into filaments, like hair. You can grow hair of any color on anyone or anything. Hair uses a specified property from another layer to determine where hair should grow. With no mask, hair grows everywhere. Before using Hair, you should mask the layer to describe the region that generates hair. This 'hair layer' will be above the layer containing the creature wearing the hair.

Controls

Length

Use this control to determine the length of the hair. Hair length together with thickness also affects the relative weight. To grow hair without changing its weight check Constant Mass below.

Thickness

Use this control to determine the thickness (radius) of each hair. Hair thickness, together with length, also affects the relative weight. When using values below 1, aliasing artifacts can show. To use values less than one we recommend increasing Density and decreasing Opacity.

Weight

Use this control to determine the relative weight of the hair. A higher Weight setting increases the hair's tendency to droop, like if it's wet. The weight is also affected by the length and thickness of the hair. You can animate this control to add 'bounce' to the hair.

Constant Mass

Use this check box to override the calculation of each hair's mass, which normally depend on Length and Thickness. When animating the Length control, the weight should naturally increase, causing the hair to bend down as it extends. Set this control to avoid that and have the hair grow out along a static path. When this is disabled, the weight slider treats hairs mass individually.

Density

Use this control to determine the density of hair follicles, from which hair grows, over the selected Map Layer. Using lower values create fewer follicle's, resulting in sparse hair growth. Using higher values create more follicles, resulting in dense hair growth.

Hairfall Map (Control Group)

Map Strength

Use this control to determine how strong the Map Layer's simulated z-depth should influence the hair direction. Using higher values increase the appearance of depth in the hair.

Map Layer

Use this pop-up menu to select a layer to control how the hair falls. A height map is created from this layer, using the values defined by Map property below. A height map has ridges and crests. An up or downwards slope would give a direction away from the viewer. A flat surface will give a direction straight towards the viewer (out from the layer). E.g. a radial ramp from bright center to dark rim would be seen as a cone, seen from the top, with hairs pointing straight out from the cones surface. Experimenting with maps and using masks improves the hair's appearance.

Map Property

Use this pop-up menu to select the channel information on which to base the height map on. Choose one of the following options: Red, Green, Blue, Alpha, Luminance, Lightness, Hue or Saturation.

Map Softness

Use this control to determine the softness (or blurring) of the Map Layer. Higher Map Softness values will remove small details, which makes the hair fall more uniformly.

Add Noise

Use this control to add noise to the Map Layer, after Map Softness, to make the hair fall more random. Being able to add noise after Map Softness is very useful. You can first soften a map for more uniform hair fall, and then slightly increase randomness again by adding noise. Balancing the values of these two controls adds more control over the hair fall.

Hair Color (Control Group)

Color

Use this control to select a hair color. To get variety in the hair color, see Color Inheritance, below.

Color Inheritance

Essentially, the layer pixel where a hair starts to grow determines its color. When Color Inheritance is 100%, color originates entirely from the layer pixels. Lower settings mix the hair's set Color with the inherited color from the source layer.

Opacity

Determine the opacity of the hair strands. Lowering Opacity is useful at high Density and low Thickness values.

Light (Control Group)

By default an ambient light source at 100% is always present.

Light Height

Use this control to determine the distance from the source layer to light source, based on Z coordinates. When using negative values, the light source is moved behind the source layer, with the result that light rays strike the layer from behind, or from below.

Light Direction

Use this control to set the direction to the light source. Light Direction in conjunction with Light Height determine the angle at which light rays strikes the source layer.

Shading (Control Group)

Controls in this group are similar to corresponding controls in the AE Material Options, with one exception. Roughness is the actual opposite of (AE) Shininess.

Ambient

Use this control to determine how much ambient (nondirectional) light is reflected. Ambient light is everywhere and affects all visible surfaces, even if not directly illuminated by light (like the dark side of the moon).

Diffuse

Use this control to determine how much diffuse (omni directional) light is reflected. Diffuse light affects all visible surfaces directly illuminated by light.

Specular

Use this control to determine the highlight intensity of the reflected light. Shiny materials, like chrome, have strong highlights while matte materials, like rubber, have weak or none. As you increase the Specular value, you see a specular highlight appear in the center of the diffuse areas where the light reflects directly on the viewer.

Roughness

Sets how rough the material appears. Roughness affects the spread of the specular highlight. Higher Roughness values make the highlight larger and less shiny.

Note. The Light and Shading controls work together to create the sense of depth and texture in the hair.

CC MR. MERCURY

Mr. Mercury is a particle system that creates ever-changing blobs, rather than stable shapes. Mr. Mercury's numerous controls, especially the Influence Map and Particle Animation option, can be combined to create an almost infinite number of different animations. Mr. Mercury is especially adept at creating convincing mercurial effects for cascading water, molten metal, dissolving plastic, etc. The blobs that are created by Mr. Mercury behave realistically, splitting up and rejoining just like real-world liquid particles. The source layer is used as a reflection map for the particles. Almost all controls can be animated dynamically. Longevity is the sole parameter that really should remain static. Mr. Mercury fully supports time remapping. As with all particle systems, you may need to move ahead a little bit in the timeline before you really see the blobs.

Controls

Radius X and Radius Y

Use these controls to determine the size of the blob producer, based on X, Y coordinates. For example, if Radius X has twice the value of Radius Y, the result is an oblong area whose width is twice that of its height.

Producer

Use this control to position the center point of the blob producer on the layer where blobs are emitting, based on X, Y coordinates. It also serves as the anchor point for the Direction control.

Direction

Use this control to determine the direction of the blob flow.

Velocity

Velocity sets the speed of blobs at birth. The higher the setting, the faster the blobs move. Once ejected from the producer, the speed and direction of the blobs are determined largely by gravity and other 'natural' forces. Negative settings reverse the direction of the blobs.

Birth Rate

Use this control to determine the number of blobs born at any given point in time. The higher the Birth Rate, the greater the density of blobs. Using very high values can increase rendering times.

Longevity (sec)

Use this control to determine how long blobs exist. The higher the Longevity setting, the longer the blobs exist. Longevity cannot be animated.

Resistance

Use this control to slow down the blobs initial velocity. It simulates how blobs are influenced by resistance, coming from kinetic friction or a substance's viscosity, as they move. This feature can be used to give blobs very convincing natural behaviors, like meeting air or moving through water. The higher the value, the more resistance blobs meet, slowing them down more quickly.

Gravity

Use this control to determine the gravity which influences particles. Higher Gravity will cause blobs to fall more quickly. Negative Gravity makes them rise.

Extra

This control determines the amount of randomness added to particles motion. The higher the Extra setting, the greater the randomness of the particles motion. Extra affects each animation type in a different way (see the Animation type section). Some Animation types, such as 'Explosive,' do not use Extra.

Animation

Use this pop-up menu to select which animation type you want. The animation type determines the movement behavior of the blobs after birth. Choose one of the following options:

Explosive

The blobs are spread evenly in all directions with random speed.

Fractal Explosive

The blobs are spread in a pattern according to a fractal model. This is useful for creating an uneven look, like a natural explosion. Alter the fractal model by changing the Direction control. Fractals are not interpolated. This means there will be sharp transitions if Direction is animated.

Twirl

Creates a whirlpool effect. The Twirl goes in one direction, with blobs that spread evenly. Twirl is controlled by the Direction control. The Extra control determines the rotation deceleration.

Twirly

Creates a random rotation Twirl, with blobs that spread evenly. The Twirl is controlled by the Direction control. The Extra control determines the rotation deceleration.

Vortex

Creates a whirling, funnel-like effect. The blobs rotate upwards. Gravity controls the width of the vortex. Direction phase wheel controls rotation speed. Extra controls rotation speed deceleration.

Fire

Animates the blobs to oscillate while rising. Extra controls the amplitude of oscillation. Since fire burns upward, a positive Gravity setting makes the blobs rise rather than fall.

Direction

Blobs spread evenly in the direction set using the Direction control. The Extra control determines the angle of the 'blob nozzle' from which the blobs emanate. To better understand how the 'blob nozzle' works do the following, set Gravity to 0, Extra to 0 and Direction to 180°, then adjust the Extra slider using both positive and negative values.

Direction Normalized

This option is like Direction, except that all blobs move at the same speed.

Bi-Directional

Blobs spread evenly in both the direction set using the Direction control and in the exact opposite direction. The Extra control determines the angle of the 'blob nozzle' from which the blobs emanate. To better understand how the 'blob nozzle' works do the following, set Gravity to 0, Extra to 0 and Direction to 180°, then adjust the Extra slider using both positive and negative values.

Bi-Directional Normalized

This option is like Bi-Directional, except that all blobs move at the same speed.

Jet

The blobs inherit motion from the producer's movement. The Extra control adds random motion to the blobs. You must animate the Producer to create this effect.

Jet Sideways

The blobs inherit motion from the producer's movement, and directs it sideways. The Extra control adds random motion to the blobs. You must animate the Producer to create this effect.

Blob Influence

Blob Influence is the 'attraction' force generated by the blobs. This determines the amount and speed at which smaller blobs moves into larger blobs.

Influence Map

Use this pop-up menu to select the behavior of the blobs as they appear and disappear. Choose one of the following option:

Blob out

Blobs shrink smoothly into nothing at the moment of death.

Blob in

Blobs grow smoothly out of nothing at birth.

Blob in & out

Blobs grow smoothly out of nothing at birth and shrink smoothly into nothing at death.

Blob out sharp

Blobs maintain a fairly consistent size during life, but shrink sharply into nothing at death.

Constant Blobs

Blobs maintain a fairly constant size throughout their lives.

Blob Birth Size

Use this control to determine the size of the blobs when they first appear.

Blob Death Size

Use this control to determine the size of the blobs before they disappear.

Light (Control Group)

Using

Use this pop-up to select whether to use the Effect Light source or AE Lights.

Note. To use AE Lights requires CycoreFX HD.

Light Intensity (Supervised)

Use the Light Intensity slider to control the power (or strength) of the light. Higher values produce brighter results.

Light Color (Supervised)

Use this control to select a color for the light.

Light Type (Supervised)

Use this control to select which type of light you want to use. Choose one of the two options from the pop-up menu.

Distant Light

This type simulates sunlight shining on the source layer from a user-definable angle. All light rays strike the layer from this same angle.

Point Light

This type simulates a light bulb hanging in front of, the layer at a user-definable distance and position. Light rays strike the layer from this defined light position.

Light Height (Supervised)

Use this control to determine the distance from the source layer to light source, based on Z coordinates. When using negative values, the light source is moved behind the source layer, with the result that light rays strike the layer from behind, or from below.

Light Position (Supervised)

Use this control to position the point light on the source layer, based on X, Y coordinates. Not used if Effect Light and Distant Light are selected.

Light Direction (Supervised)

Use this control to set the direction to the light source. Light Direction in conjunction with Light Height determine the angle at which light rays strikes the source layer. Not used if Effect Light and Point Light are selected.

Shading (Control Group)

Controls in this group are similar to corresponding controls in the AE Material Options, with one exception. Roughness is the actual opposite of (AE) Shininess.

Ambient

Use this control to determine how much ambient (nondirectional) light is reflected. Ambient light is everywhere and affects all visible surfaces, even if not directly illuminated by light (like the dark side of the moon). When using Effect Light, a 100% white ambient light source is always active. When using AE Lights, only ambient lights in the composition are used.

Diffuse

Use this control to determine how much diffuse (omni directional) light is reflected. Diffuse light affects all visible surfaces directly illuminated by light.

Specular

Use this control to determine the highlight intensity of the reflected light. Shiny materials, like chrome, have strong highlights while matte materials, like rubber, have weak or none. As you increase the Specular value, you see a specular highlight appear in the center of the diffuse areas where the light reflects directly on the viewer.

Roughness

Sets how rough the material appears. Roughness affects the spread of the specular highlight. Higher Roughness values make the highlight larger and less shiny.

Metal

Use this control to determine the color of the specular highlight. Setting the value to 100 reflects the color of the layer in the specular highlight, like metal. Setting the value to 0 reflects the color of the light source in the specular highlight, like plastic.

Material Opacity

This affects how opaque the material should appear when viewed at a direct angle (perpendicular). The result is a transparency falloff effect in the material, similar to bubbles.

CC PARTICLE SYSTEMS II

A particle system is defined by a collection of particles that evolves over time and can be controlled to create a virtually infinite number of different animations. These animations might range from simple explosions to sparkling fountains and massive smoke screens. You can also twirl polygons in different directions, or create oscillating convex lenses. Particle Systems II is especially useful when you want to animate the position and size of the particle generator. You can also control particle generation from a logo or other source with an alpha channel. This plug-in can use the colors from the source layer, where the producer is positioned, as birth and death colors for the particles and some particle types can use the source layer as texture. Almost all controls can be dynamically animated. Longevity can not animate, it controls the life length of all particles. The control values, only affect the particle at the time of birth. Each particle will follow the effect settings as they were set at the time of birth. Eg. Animating Velocity will not affect particles born at an earlier stage.

Controls

Birth Rate

Use this control to determine the number of particles born at any given point in time. The higher the Birth Rate, the greater the density of particles. Using very high values can increase rendering times.

Longevity (sec)

Use this control to determine how long particles exist. The higher the Longevity setting, the longer the particles exist. Longevity cannot be animated

Producer (Control Group)

Position

Use this control to position the center point of the particle producer on the layer where particles are emitting, based on X, Y coordinates. It also serves as the anchor point for the Direction control.

Radius X and Radius Y

Use these controls to determine the size of the particle producer, based on X, Y coordinates. For example, if Radius X has twice the value of Radius Y, the result is an oblong area whose width is twice that of its height.

Physics (Control Group)

Animation

Use the Animation pop-up to select a type of motion for the particles. These are the available options:

Explosive

The particles spread evenly in all directions with random speed. This effect is useful for creating fireworks, which you can simulate by pulsing the Birth Rate between zero and a high value.

Fractal Explosive

Particles are spread in a pattern according to a fractal model. Alter the model by changing the setting on the Direction control. This effect is useful for creating an uneven look, for example a natural explosion. Direction controls the fractal model. Fractals are not interpolated. This means there will be sharp transitions if Direction is animated.

Twirl

Creates a whirlpool effect. The Twirl goes in one direction, and the particles spread evenly. Twirl is controlled by the Direction phase wheel. Air Resistance controls rotation speed deceleration.

Twirly

Creates a random rotation Twirl, with particles that spread evenly. The Twirl is controlled by the Direction phase wheel. Air Resistance controls rotation speed deceleration.

Vortex

Creates a whirling, funnel-like effect. The particles rotate upwards. Gravity controls the width of the vortex. Direction phase wheel controls rotation speed. Air Resistance controls rotation speed deceleration.

Fire

Animates the particles to oscillate while rising. Extra controls the amplitude of oscillation. Since fire burns upward, a positive Gravity setting makes the particles rise rather than fall.

Direction

Particles spread evenly in the direction set in the Direction control. Extra defines the area covered by the effect. Turbulence defines the area covered by the effect.

Direction Normalized

Particles spread evenly in the direction set in the Direction control. All particles have the same speed. Extra defines the area covered by the effect.

Jet Sideways

Particles inherit motion from the Producer's movement, and direct it sideways. Extra adds randomness to particles motion. You must animate the Producer to create this effect.

Velocity

Velocity sets the speed of particles at birth. The higher the setting, the faster the particles move. Once ejected from the producer, the speed and direction of the particles are determined largely by gravity and other 'natural' forces. Negative settings reverse the direction of the particles.

Inherit Velocity %

Use this control to determine how much velocity the particles will inherit from the emitter's motion when its position has been animated, i.e. the producer position has to be animated for this to have any effect. A negative inheritance, would cause particles to emit in the opposite direction, like a rocket flame.

Gravity

Use this control to determine the influence of gravity. Higher Gravity causes particles to fall faster. A negative Gravity setting makes particles rise. The Animation System "Fire" is an exception, where gravity is reversed.

Resistance

Use this control to continuously slow down the particles velocity. It simulates how particles are influenced by resistance, coming from kinetic friction or a substance's viscosity, as they move. This feature can be used to give particles very convincing natural behaviors, like meeting air or moving through water. The higher the value, the more resistance particles meet, slowing them down more quickly.

Direction

Use this control to determine the direction in which the particles will be emitted. Mainly used with corresponding directional animation systems.

Extra

This control determines the amount of randomness added to particles motion. The higher the Extra setting, the greater the randomness of the particles motion. Extra affects each animation type in a different way (see the Animation type section). Some Animation types, such as 'Explosive,' do not use Extra.

Particle (Control Group)

Particle Type

Use this control to select the type of particle you want to use. Choose one of the following options from the pop-up menu:

Line

Particles are antialiased lines.

Star

Particles are shaped as four-pointed stars.

Shaded Sphere

Particles are shaped as spheres, darkened at the edges.

Faded Sphere

Particles are shaped as spheres, faded at the edges.

Shaded & Faded Sphere

Particles are shaped as spheres, which are both darkened and faded at the edges.

Bubble

Particles are shaped as spheres, faded toward their centers, which gives them a 'bubbly' look.

Motion Polygon

Particles are three sided polygons. The particle velocity affects the size of the polygons.

TriPolygon

Particles are three sided polygons, shaded as if the light source were the viewer's eye. Rotation speed can be controlled by the Direction phase wheel.

QuadPolygon

Particles are four sided polygons, shaded as if the light source were the viewer's eye. Rotation speed can be controlled by the Direction phase wheel.

Cube

Particles are shaped as cubes, shaded as if the light source were the viewer's eye. Rotation speed can be controlled by the Direction phase wheel.

TetraHedron

Particles are shaped as tetrahedrons, shaded as if the light source were the viewer's eye. Rotation speed can be controlled by the Direction phase wheel.

Textured TriPolygon

Particles are three sided polygons, shaded as if the light source were the viewer's eye. They also take on the texture of the source layer. Rotation speed can be controlled by the Direction phase wheel.

Textured QuadPolygon

Particles are four sided polygons, shaded as if the light source were the viewer's eye. They also take on the texture of the source layer. Rotation speed can be controlled by the Direction phase wheel.

Lens Convex

Particles are shaped as convex lenses.

Lens Concave

Particles are shaped as concave lenses

Lens Fade

Particles are shaped as concave lenses fading toward the edges.

Lens Darken Fade

Particles are shaped as concave lenses, darkening and fading toward edges.

Lens Bubble

Particles are shaped as bubbly lenses, fading inward.

Birth Size

Use this control to determine the relative size of the particles when they first appear.

Death Size

Use this control to determine the relative size of the particles before they disappear.

Size Variation

Use this control to determine how much particle size will differ individually in a random manner. This means that a particle will get a different size at birth and interpolate over its lifetime to the Death size that have been set in the control, or the opposite, it will interpolate from the size set in the control to a different size at death than what have been set in the control.

Opacity Map

Use this control to select an opacity map for the particles. The selected map, in conjunction with the Max Opacity control, determines the opacity changes for the particles over their lifetime. Choose one of the following options from the pop-up menu:

Constant

The particles remain at Max Opacity from birth to death

Fade Out Sharp

The particles remain at Max Opacity until just before the end of their lifetime. They fade out fast, like sparks going out.

Fade Out

The particles start at Max Opacity, and then fade out.

Fade In

The particles start out being completely transparent and fade to Max Opacity.

Fade In and Out

The particles start out being completely transparent, fade in to Max Opacity, then fade back out to complete transparency.

Oscillate

Each particle oscillates continually between Max Opacity and complete transparency.

Max Opacity

Use this control to determine the max opacity for particles during their lifetime. Particles opacity changes over their lifetime according to the currently selected opacity map.

Source Alpha Inheritance

When this control is enabled particles within the producer area will only be emitted where the source layer alpha is non transparent.

Color Map

Use this control to define how particle colors are interpolated from Birth to Death. Choose one of the following options from the pop-up menu:

Birth to Death

Uses the Birth and Death colors (see below) chosen for color transition.

Origin to Death

The birth color and alpha is taken from the position in the original source layer where the particle originated. It changes over its lifetime into the defined Death Color.

Birth to Origin

The particle starts at the defined birth color. The death color is taken from the original source layer, including alpha, where the particle originated.

Origin Constant

The particle takes its color from the original source layer and retains that color throughout its lifetime. Source Alpha Inheritance has no effect when this option is selected.

Birth Color (Supervised)

Use this control to select a color for the particles at birth. Not used if Original to Death or Origin Constant is selected for Color Map.

Death Color (Supervised)

Use this control to select a color for the particles at death. Not used if Birth to Original or Origin Constant is selected for Color Map.

Transfer mode

Use this control to define the transfer mode used when particles overlap each other. The selected mode is applied only to the parts of particles that overlap. Choose one of the following options, Composite, Screen, Add or Black Matte. Black Matte forces all particles to render black, including Lens and Polygon particle types. This can be used on a duplicated effect, or a duplicated layer including the effect, to produce particle shadows or just a plain matte.

CC PARTICLE WORLD

A particle system is defined by a collection of particles that evolves over time and can be controlled to create a virtually infinite number of different animations. Particle World provides a three-dimensional environment for particle generation and animation. Particle World contains controls for particle behavior in the third dimension and supports AE's comp camera, it automatically selects an AE comp camera if present and enabled. It also allows, as an alternative to AE's comp camera, for the placement and movement of a virtual camera, and provides visual guides to help you navigate through this three-dimensional environment. Realistic 3D behavior enables you to create animations that fly directly through a fiery explosion, sparkling fountain, or stream of glowing, golden coins. Almost all controls can be animated. Longevity, however, is one parameter that should remain static. Particle World fully supports time remapping. The control values, only affect the particle at the time of birth. Each particle will follow the effect settings as they were set at the time of birth. Eg. Animating Velocity will not affect particles born at an earlier stage. (Particle World does not composite with other 3D layers. As an effect, it's limited to its own source layer)

Controls

Grid & Guides (Control Group)

The controls in this group gives you control over the reference grid and other visual guides that can be displayed in the Comp Window.

Position

Use this checkbox to turn on/off the producer position guide in the Comp Window. The producer is at the 'x' atop the line perpendicular to the grid. When turned on, drag to change the location of the producer along the X and Y axis. Hold down Cmd to change the location along the Z axis

Radius

Use this checkbox to turn on/off the producer radius guide in the Comp Window. When turned on, drag to change the producer radius interactively in X, Y or Z space. Hold down Shift while dragging to change radius uniformly in X, Y and Z space.

Motion Path

Use this checkbox to turn on/off a line that shows the producer's positions throughout the animation in the Comp Window. Note: The motionpath won't be visible until you've set key frames to animate the producer position.

Motion Path Frames

Use this control to determine the number of frames, forward and backward, the producer motionpath will be drawn in the Comp Window.

Grid

Use this checkbox to turn on/off the floor (or wall) grid in the Comp Window.

Grid Position

Use this pop-up menu to select grid alignment. The options are, Floor, Producer, World.

Grid Axis

Use this pop-up menu to determine which plane (as seen from X, Y or Z) the grid appears on. This determines the location of the drawn floor plane (but not its physical position).

Supervised: This control is not used if Floor is selected for Grid Position.

Grid Subdivisions

Use this control to set the total number of squares in the grid.

Grid Size

Use this control to determine the size, or scale, of the grid.

Horizon

Use this checkbox to turn on/off a line that functions as a guide at the horizon. This can be useful when tilting or rolling a camera.

Axis Box

Use this checkbox to turn on/off a small reference box in in the Comp Window. This box shows the World Axis in the current view. This box also serves as a camera trackball when using Effects camera.

Birth Rate

Use this control to determine the number of particles born at any given point in time. The higher the Birth Rate, the greater the density of particles. Using very high values can increase rendering times.

Longevity (sec)

Use this control to determine how long particles exist. The higher the Longevity setting, the longer the particles exist. Longevity cannot be animated.

Producer (Control Group)

Producer X, Y and Z

Use these sliders to determine the world position of the particle producer, based on X, Y, Z coordinates respectively. Coordinates within Particle World are normalized by the source layer width and center.

Radius X, Y and Z

Use these controls to determine the dimensions of the particle producer sphere, based on X, Y, Z coordinates. For example, setting only Radius Z and Radius X, the producer sphere will be flat like a pancake.

Physics (Control Group)

Animation

Use the Animation pop-up to select a type of motion for the particles. These are the available options:

Explosive

The particles spread evenly in all directions with random speed. Useful for creating particle bursts (i.e., fireworks) by pulsing the Birth Rate between zero and a high value.

Direction Axis

Particles spread evenly in a direction controlled by Extra Angle. Extra Angle rotates the producer around the axis specified in the Comp UI or Direction Axis control group. The Extra control adds randomness to the direction of the particles, resulting in a cone-shaped effect.

Cone Axis

Particles spread evenly in a cone shape whose width is determined by the Extra Angle control. The cone shape is best described as an umbrella where Extra Angle folds the umbrella along the axis specified the Comp UI or Direction Axis control group. The Extra control adds randomness to the direction of the particles.

Viscouse

Particles spread evenly in all directions, but the initial speed of the particles is reduced by the Extra setting. This Animation is now obsolete.

Note: This option may not be supported in future versions, instead use the Resistance control in conjunction with any Animation.

Twirl

Creates a whirlpool-like, single-direction, rotating twirl, with the particles spreading evenly with the initial rotation. The Extra control determines the rotation deceleration. The rotational axis can be set in the Comp UI or Direction Axis control group.

Twirly

Creates a single-direction rotating Twirl. Particles spread evenly with initial rotation. Extra adds rotation around the producer when Velocity is set very low. Extra Angle controls the rotation speed of the Twirl. The rotational axis can be set in the Comp UI or Direction Axis control group.

Vortex

Creates an upward rotating, whirling, funnel-like effect with accelerating width and decelerating rotation speed. Extra Angle controls the rotation speed. Extra controls rotation speed deceleration. The rotational axis can be set in the Comp UI or Direction Axis control group.

Fire

Animates the particles to oscillate while rising. Extra controls the amplitude of oscillation. Since fire burns upward, a positive Gravity setting makes the particles rise rather than fall.

Jet Sideways

Creates particles that inherit the producer's velocity, but channels it into sideways motion. The Extra control adds random motion to the particles. You must animate the Producer to create this effect.

Fractal Omni

Particles are spread with speed and direction determined by a fractal model. Changes in the fractal model are smoothly interpolated if the Extra Angle control is keyframed. This type of particle animation is useful for creating any effect where an uneven look is desired (e.g., natural explosions). The Extra control determines the frequency of the fractal noise used in the animation. The Extra Angle control determines the fractal model used.

Fractal Uni

Particles erupt from the producer volcanically, with speed and direction determined by a fractal model. Changes in the fractal model are smoothly interpolated if the Extra Angle control is keyframed. This type of particle animation is useful for creating any effect where an uneven look is desired (e.g., natural explosions). The Extra control determines the frequency of the fractal noise used in the animation. The Extra Angle control determines the fractal model used. The rotational axis can be set in the Comp UI or Direction Axis control group.

Velocity

Velocity sets the speed of particles at birth. The higher the setting, the faster the particles move. Once ejected from the producer, the speed and direction of the particles are determined largely by gravity and other 'natural' forces. Negative settings reverse the direction of the particles.

Inherit Velocity %

Use this control to determine how much velocity the particles will inherit from the emitter's motion when its position has been animated, i.e. the producer position has to be animated for this to have any effect. A negative inheritance, would cause particles to emit in a rocket flame like manner.

Gravity

Use this control to determine the influence of gravity. Higher Gravity causes particles to fall faster. A negative Gravity setting makes particles rise.

Resistance

Use this control to continuously slow down the particles velocity. It simulates how particles are influenced by resistance, coming from kinetic friction or a substance's viscosity, as they move. This feature can be used to give particles very convincing natural behaviors, like meeting air or moving through water. The higher the value, the more resistance particles meet, slowing them down more quickly.

Extra

This control determines the amount of randomness added to particles motion. The higher the Extra setting, the greater the randomness of the particles motion. Extra affects each animation type in a different way (see above in Animation). Some Animation types, such as 'Explosive,' do not use Extra.

Extra Angle

This control is used to set an 'extra angle' factor. The effect varies depending on the particle animation system being used (see above in Animation).

Floor (Sub-group)

Floor Position

Use this control to set the relative height of the floor. This can be useful for matching particle animations in a scene, when using the Particle Visibility, Render Animation and Floor Action controls, which all “interact” with the floor. Read more on next page.

Particle Visibility

Use this pop-up menu to select the particles you want to be rendered. The available options are:

All

Renders all particles. Floor is ignored.

Above Floor

Renders only particles above the floor.

After Floor

Renders only particles that has hit or passed the floor.

Render Animation

Use this pop-up menu to determine how the animation is to be rendered. The following options are available:

Normal

Renders particles normally. Floor is ignored.

Reflected on Floor

Renders particles as a reflection on the floor. Ideal for mirrored surface effects.

Projected on Floor

Renders the particles as a projection on the floor. The projection is calculated from the direction set in the Light dialog. Perfect for shadow effects. Tip: Set transfer mode to Matte.

Floor Action

Use this pop-up menu to determine how particles will react when they strike the floor.

Note. The Resistance control is disabled if Glue or Bounce is selected and any values set, or animated, are ignored. The Viscous, Twirl, Twirly, Vortex and Fire animation systems ignore Bounce and Glue.

None

Floor is ignored. Particles pass through the floor.

Ice

Particles stop falling and slide out along the floor.

Glue

Particles stop moving when they hit the floor, like if they were glued to a surface.

Bounce

Particles bounce when they hit the floor. Selecting Bounce enables the three bounce behavior controls. See below.

Bounciness

Use this control to determine the maximum height for particle bouncing.

Supervised: This control is enabled if Bounce is selected in Floor Action.

Random Bounciness

Use this control to determine the amount of variety in height for bouncing particles.

Supervised: This control is enabled if Bounce is selected in Floor Action.

Bounce Spread

Use this control to determine the amount of variety to the direction of bouncing particles.

Supervised: This control is enabled if Bounce is selected in Floor Action.

Direction Axis

Use this control to customize the main axis on which several Animation Systems are based, e.g. Direction Axis and Cone Axis. By default the main axis point upwards along the Y axis. This can be tilted in any direction so that for example Cone Axis can be directed sideways instead.

Gravity Vector

Use this control to customize the direction axis along which gravity pull the particles. The specified direction is used by the Gravity slider. By default the direction is set to pull particles downwards along the Y axis, which simulates real world gravitational force.

Particle (Control Group)

Particle Type

Use this control to select the type of particle you want to use. Choose one of the following options from the pop-up menu:

Line

Particles are antialiased lines.

Star

Particles are shaped as four-pointed stars.

Shaded Sphere

Particles are shaped as spheres, darkened at the edges.

Faded Sphere

Particles are shaped as spheres, faded at the edges.

Darkened & Faded Sphere

Particles are shaped as spheres, which are both darkened and faded at the edges.

Bubble

Particles are shaped as spheres, faded toward their centers, which gives them a 'bubbly' look.

Motion Polygon

Particles are three sided polygons. The particle velocity affects the size of the polygons.

Motion Square

Particles are four sided polygons. The particle velocity affects the size of the polygons.

TriPolygon

Particles are three sided polygons. Rotation speed is determined by the Rotation Speed control. Initial Rotation adds randomness to particles' initial rotation angle at birth. Rotation axis can be set in the Comp UI or Rotation Axis control.

QuadPolygon

Particles are four sided polygons. Rotation speed is determined by the Rotation Speed control. Initial Rotation adds randomness to particles' initial rotation angle at birth. Rotation axis can be set in the Comp UI or Rotation Axis control.

Textured TriPolygon

Particles are three sided polygons. Particle texture is selected in the Texture Layer pop-up. Rotation speed is determined by the Rotation Speed control. Initial Rotation adds randomness to particles' initial rotation angle at birth. Rotation axis can be set in the Comp UI or Rotation Axis control.

Textured QuadPolygon

Particles are four sided polygons. Particle texture is selected in the Texture Layer pop-up. Rotation speed is determined by the Rotation Speed control. Initial Rotation adds randomness to particles' initial rotation angle at birth. Rotation axis can be set in the Comp UI or Rotation Axis control.

Tetrahedron

Particles are shaped as tetrahedrons. Rotation speed is determined by the Rotation Speed control. Initial Rotation adds randomness to particles' initial rotation angle at birth. Rotation axis can be set in the Comp UI or Rotation Axis control.

Cube

Particles are shaped as cubes. Rotation speed is determined by the Rotation Speed control. Initial Rotation adds randomness to particles' initial rotation angle at birth. Rotation axis can be set in the Comp UI or Rotation Axis control.

Lens Convex

Particles are shaped as convex lenses.

Lens Concave

Particles are shaped as concave lenses

Lens Fade

Particles are shaped as concave lenses, fading toward the edges.

Lens Darken Fade

Particles are shaped as concave lenses, darkening and fading toward edges.

Lens Bubble

Particles are shaped as bubbly lenses, fading inward.

Textured Square

Particles are shaped as squares. Particle texture is selected in the Texture Layer pop-up. The particle texture is colorized by multiplying the standard particle color to it. To use original texture colors, set Birth and Death colors to white. This type has no rotation.

Textured Disc

Particles are shaped as discs. Particle texture is selected in the Texture Layer pop-up and the size, in this case the diameter, is set to the minimum of width and height of the texture layer. A texture layer with dimensions 120 x 60 will result in a diameter of 60, centered on the texture layer. Note: The cut off portions of the layer will be used when the Scatter value is increased. The particle texture is colorized by multiplying the standard particle color to it. To use original texture colors, set Birth and Death colors to white. Rotation speed is determined by the Rotation Speed control. Initial Rotation adds randomness to particles' initial rotation angle at birth. Rotation axis can be set in the Comp UI or Rotation Axis control.

Textured Faded Disc

Particles are shaped as discs, fading toward the edges. Particle texture is selected in the Texture Layer pop-up (see Textured Disc for particle texture size). The particle texture is colorized by multiplying the standard particle color to it. To use original texture colors, set Birth and Death colors to white. Rotation speed is determined by the Rotation Speed control. Initial Rotation adds randomness to particles' initial rotation angle at birth. Rotation axis can be set in the Comp UI or Rotation Axis control.

Texture (Sub-control Group)

Some Particle Type choices requires a texture. The controls in this group let you specify properties for that texture.

Texture Layer

Use this pop-up menu to select the layer you want to use as particle texture.

Scatter

This control crops random parts of the source texture for use as particle texture. The particle texture used will be smaller than the source layer when Scatter is increased. With Scatter set to 75, each particle texture will be a random square of one quarter the size cropped out of the source texture.

Texture Time

Use this control to determine what frame(s) to use over the life span of particles. When the selected Texture Layer isn't a movie or a composition that contains animation, this control should be set to "Current" (default setting). If it contains a movie/animation choose one of the three options from the pop-up menu.

Birth

Particles use the frame from the Texture Layer movie/animation at the time when they were born as a static texture over their life span.

Current

The current frame of the Texture Layer is used for all particles.

From Start

The age of each particle determines which frame will be used. This option makes it possible to customize the lifespan shape, color and opacity of the particles. Note the birth/start frame is the in-time of the effect layer, not the texture layer. Set the in-time of the texture layer to the same as the effect layer to start from the first texture frame.

Align to direction

Two particle types, Textured Disc and Faded Disc, can be aligned to the particle's motion path.

Hint: Set Rotation Speed and Initial Rotation to zero if you want all particles to align in a similar manner. Eg. Drop shaped particles that follow the trajectory.

Rotation Speed (Supervised)

Use this control to determine the speed of particles' rotation. Used by particle types that has individual rotation.

Initial Rotation (Supervised)

Use this control to add randomness to particles' initial rotation angle at birth. Used by particle types that has individual rotation.

Rotation Axis

Use this pop-up menu to determine the rotation axis for polygon particles. Default rotation, Any Axis, is equal X, Y and Z rotation. Setting this to Y only would rotate polygon particles only around the Y axis.

Birth Size

Use this control to specify the relative size of the particles when they first appear.

Death Size

Use this control to specify the relative size of the particles before they disappear.

Size Variation

Use this control to specify how much individual particles can deviate from the set Birth to Death size.

Max Opacity

Use this control to determine the max opacity for particles during their lifetime. Particles opacity changes over their lifetime according to the currently selected opacity map. Custom opacity maps can be created using the Opacity Map control.

Opacity Map

Use this control to modify the opacity levels of your particles at various stages during their lifetime. Shift-click, or Shift-drag, to normalize the current minimum and maximum values across the entire range of legal values. Cmd-drag to subtly soften (or average) the current opacity levels.

Color Map

Use this control to define how particle colors are interpolated from Birth to Death. Choose one of the following options from the pop-up menu:

Custom

This option allows for the use of custom color maps, created in Options -> Color Map, where up to five different colors can be selected. The particles will shift between the specified colors during their lifetime.

Birth to Death

Particles appear with the specified Birth Color and shift toward the specified Death Color, changing completely just before they disappear.

Origin to Death

Particles appear with a color sampled from the original source layer and shift toward the specified Death Color.

Birth to Origin

Particles appear with the specified Birth Color and shift toward a color sampled from the underlying source layer.

Origin Constant

Particles maintain a color sampled from the underlying source layer for their entire life span.

Birth Color (Supervised)

Use this control to select a color for the particles at birth. Not used if Custom, Original-Death or Original-Original is selected for Color Map.

Death Color (Supervised)

Use this control to select a color for the particles at death. Not used if Custom, Birth-Original or Original-Original is selected for Color Map.

Custom Color Map (Sub-group)

Use the controls in this group to create a custom gradient with five colors for your particles to shift through during their lifespan from birth to death.

Supervised: These controls are enabled if Custom is selected in Color Map.

Volume Shade (approx.) (Supervised)

Use this control to apply approximated volume shading to particles for an increased sense of 3D depth. Not used by all animation systems and particles.

Transfer Mode

Use this control to define the transfer mode used when particles overlap each other. The selected mode is applied only to the parts of particles that overlap. Choose one of the following options, Composite, Screen, Add or Black Matte. Black Matte forces all particles to render black, including Lens and Polygon particle types. This can be used on a duplicated effect, or a duplicated layer including the effect, to produce particle shadows or just a plain matte.

Extras (Control Group)

Effect Camera (Sub-group)

These settings are used only when no AE camera is present. Any values set, or animated, will be ignored when an AE camera is present. The Effect Camera can be controlled in the Comp UI using the Axis Box. Rotate the Axis Box to rotate the camera in X, Y and Z. Cmd-drag to specify FOV.

Distance

Use this control to determine the distance from the camera to the center of the Particle World environment.

Rotation X, Y and Z

Use these controls rotate the camera on its own X, Y and Z axes. Changing the cameras X rotation turns it left and right, changing its Y rotation points it up or down, and changing its Z rotation banks the camera left or right.

FOV

The FOV describes the type of 'virtual lens' used for rendering, similar to the AE Camera Setting Angle of View. Lowering this value zooms in on the producer (or whatever the camera is facing). Increasing this value produce a 'wide angle' view. The camera automatically adjusts its distance to the FOV value. This may cause a 'vertigo' effect when FOV is animated. If this is not suitable for your animation we recommend using an AE camera instead.

Depth Cue (Sub-group)

Type

Use this pop-up menu to determine how depth cueing will affect particles during animation.

None

Depth cueing is off.

Fade

The particles fade away as they move further from the camera.

Fog

The particles change to the fog color as they move further from the camera.

Distance

Use this control to determine at which rate depth cuing increases. Higher settings increase the Depth Cue effect. Distance is measured in Particle World coordinates (1.0 = source layer width).

Supervised: This control is disabled if None is selected in depth cue Type.

Fog Color

Use this control to pick a fog color.

Supervised: This control is disabled if None is selected in depth cue Type.

Light Direction (Sub-group)

Use the controls in this group to set the position of the directional light source. Light will illuminate particles from this angle. This direction is also used when Project on Floor is selected in the Render Animation control.

Hold Particle Release

This feature controls how long (relative to its life span) a particle will stay in its birth place, before beginning its assigned motion (based on the Animation System selected).

Composite with Original

When selected, the source layer will be composited within the particle world. This can be used to have particle animations rotate around an object.

CC PIXEL POLLY

Pixel Polly breaks the source layer into polygons, with or without texture. The effect is something like a pane of glass shattering and flying apart. You can control the Gravity and Rotation Speed of the shards, as well as the amount of Randomness in Direction and Speed. You can also set the position for the shatter center force, i.e. the focal point of the explosion. All speed settings take effect from the first frame of the animation.

Controls

Force

Use Force to control the speed at which the shards fly. A negative setting causes the shards to implode before flying outward.

Gravity

Use this control to determine the influence of gravity. Higher Gravity causes shards to fall faster. A negative Gravity setting makes shards rise.

Spinning

Spinning controls how fast the shards spin. A setting of zero degrees means the shards do not rotate.

Force Center

Use this control to determine the position of the explosion that sends the shards flying, based on X, Y coordinates.

Direction Randomness

Use this control to add randomness to the direction in which the shards fly. A lower setting causes the shards to fly off in a more or less uniform pattern, i.e. straight outward from the point of origin. A higher setting gives the explosion greater turbulence, causing the shards to fly off in random directions.

Speed Randomness

Use this control to add randomness to the speed at which shards fly. A lower setting causes all the shards to fly apart at more or less the same speed. A higher setting causes more variation in the speed of different shards, creating a more chaotic effect.

Grid Spacing

Use this control to determine the size of the grid that shatters the layer. A larger grid size produces larger shards. A smaller grid size produces smaller shards. Grid Spacing is an initial setting for how you want to split the source layer. It should not be animated.

Object

Use the Object pop-up to select the type of shard you want. These are the available options:

Polygon

The original source layer is converted to polygon shapes, using the source source layer's color as a color map.

Textured Polygon

The shards are shaped like polygons which retain the texture of the source source layer.

Square

The original source layer is converted to squares, using the source source layer's color as a color map.

Textured Square

The shards are shaped like squares which retain the texture of the source layer.

Enable Depth Sort (Best Quality Only)

Use this check box to enable more accurate 3D rendering. Far away shards will not appear in front of closer shards.

CC RAIN

Rain creates angled streaks like falling rain.

Controls

Amount

Use this control to determine the number of rain drops. The number of rain drops selected may not correspond to the number that actually appears in the source layer. (This control has extended range)

Speed

Use this control to determine the speed at which rain drops fall.

Angle

Use this control to determine at which angle rain drops fall.

Angle Variation

Use this control to determine how much the angle at which the rain fall should vary.

Drop Size

Use this control to determine the size of the rain drops.

Source Depth

Use this to control the layering of the rain with the source layer. You can give the rain the appearance of being in front, or behind, the source layer. Most useful if the source layer has an alpha channel containing some transparent areas.

Opacity

Use this control to determine the transparency level of the rain drops. At 100%, rain drops are completely opaque. At 0%, rain drops are completely transparent.

CC SCATTERIZE

Scatterize creates an exploding or dispersing effect by scattering every pixel of the source layer. For example, you might make your logo scatter into a cloud of dust. Conversely, you could have a cloud of dust collect into your logo.

Controls

Amount

Use this control to determine the amount of the scattering. The higher the value, the further the pixels scatter away, in all directions, from their original positions. A negative setting scatters pixels in the opposite direction from a positive setting.

Right Twist, Left Twist

Use these controls to twist the pixels. The pixels can be twisted any number of degrees and revolutions, using positive or negative direction.

CC SNOW

Snow creates gently falling snow flakes. You can set the wobbling amplitude and frequency of the snow to produce flurries.

Controls

Amount

Use this control to determine the number of snow flakes. The number of snow flakes selected may not correspond to the number that actually appears in the source layer. (This control has extended range)

Speed

Use this control to determine the speed at which snow flakes fall.

Amplitude

Use this control to determine the amount of wobbling added to snow flakes motion. The wobbling causes snow flakes to move from side-to-side, while falling. The higher the value, the more snow flakes move sideways from their original path, at the frequency determined by the Frequency control (see below). (This control has extended range)

Frequency

Use this control to determine the frequency at which snow flakes wobble. The higher the value, the faster snow flakes move from side-to-side, at the amplitude determined by the Amplitude control (see above). (This control has extended range)

Flake Size

Use this control to determine the size of the snow flakes.

Source Depth

Use this to control the layering of the snow with the source layer. You can give the snow the appearance of being in front, or behind, the source layer. Most useful if the source layer has an alpha channel containing some transparent areas.

Opacity

Use this control to determine the transparency level of the snow flakes. At 100%, snow flakes are completely opaque. At 0%, snow flakes are completely transparent.

CC STAR BURST

Use Star Burst to break the source layer into stars and spread them through space. This effect automatically animates to make it appear as if the viewer is flying through a 'star field'.

Controls

Scatter

Use this control to determine the amount of the scattering. The higher the value, the further the stars scatter away, in all directions, from their original positions. A negative setting scatters stars in the opposite direction from a positive setting. At zero, all objects assume their assigned position within the source layer.

Speed

Use this control to determine the speed at which stars travel towards the viewer, like traveling through a star field. A negative value creates the illusion of traveling backwards.

Phase

Use Phase to align the effect to the original position of the layer.

Grid Spacing

Use this control to determine how tightly packed the stars should be. This will also affect the size of the stars.

Size

Use this control to determine the size of the stars.

Blend w. Original

Use this control to determine the transparency level for blending the effect with the original source layer. A value of 100% gives you only the original source layer. A value of 50% produces an even blend between the effect and the original.

CC BURN FILM

The Burn Film plug-in creates the illusion of film burning or melting when it gets stuck in a projector. The amount, central location, and randomness of the burning/melting effect can be set. To animate this effect you must set at least two key-frames to the Burnt control with different settings.

Controls

Burn

Use this control to determine the amount of burning.

Center

This control determines the position, based on X, Y coordinates, where the burning first appears on the source layer, when the Burn slider is adjusted.

Random Seed

Use this control to set a unique random value from which to generate the burn seeds.

CC GLASS

The Glass plug-in can be used to give a convincing glass-like appearance to the source layer by using a user-specified bump map, displacement, light and shading properties to create a glossy, three-dimensional look. By using values from a different layer, you can create the illusion of that layer rising up through the source layer.

Controls

Surface (Control Group)

Bump Map

Use this pop-up menu to select the layer you want to use as bump map for the glassy distortion. Based on the selected layer's Property values a height map will be defined, where brighter areas are 'high', and darker areas are 'low'. At default settings the Bump Map is the current layer.

Property

Use this pop-up menu to select the channel information on which to base the bump map on. Choose one of the following options: Red, Green, Blue, Alpha, Luminance, Lightness, Hue or Saturation.

Softness

Use this control to determine the softness (or blurring) of the selected Bump Map. Higher Softness values will remove small details as well as decrease the depth appearance, giving a smoother overall result.

Height

This control determines the relative height of the bump map. This will affect Displacement and how the surface is shaded.

Displacement

Use this control to determine the amount of displacement. This amount is relative to the Bump Height. Higher values produce greater distortion.

Light (Control Group)

Using

Use this pop-up to select whether to use the Effect Light source or AE Lights.

Note. To use AE Lights requires CycoreFX HD.

Light Intensity (Supervised)

Use the Light Intensity slider to control the power (or strength) of the light. Higher values produce brighter results.

Light Color (Supervised)

Use this control to select a color for the light.

Light Type (Supervised)

Use this control to select which type of light you want to use. Choose one of the two options from the pop-up menu.

Distant Light

This type simulates sunlight shining on the source layer from a user-definable angle. All light rays strike the layer from this same angle.

Point Light

This type simulates a light bulb hanging in front of, the layer at a user-definable distance and position. Light rays strike the layer from this defined light position.

Light Height (Supervised)

Use this control to determine the distance from the source layer to light source, based on Z coordinates. When using negative values, the light source is moved behind the source layer, with the result that light rays strike the layer from behind, or from below.

Light Position (Supervised)

Use this control to position the point light on the source layer, based on X, Y coordinates. Not used if Effect Light and Distant Light are selected.

Light Direction (Supervised)

Use this control to set the direction to the light source. Light Direction in conjunction with Light Height determine the angle at which light rays strikes the source layer. Not used if Effect Light and Point Light are selected.

Shading (Control Group)

Controls in this group are similar to corresponding controls in the AE Material Options, with one exception. Roughness is the actual opposite of (AE) Shininess.

Ambient

Use this control to determine how much ambient (nondirectional) light is reflected. Ambient light is everywhere and affects all visible surfaces, even if not directly illuminated by light (like the dark side of the moon).

Diffuse

Use this control to determine how much diffuse (omni directional) light is reflected. Diffuse light affects all visible surfaces directly illuminated by light.

Specular

Use this control to determine the highlight intensity of the reflected light. Shiny materials, like chrome, have strong highlights while matte materials, like rubber, have weak or none. As you increase the Specular value, you see a specular highlight appear in the center of the diffuse areas where the light reflects directly on the viewer.

Roughness

Sets how rough the material appears. Roughness affects the spread of the specular highlight. Higher Roughness values make the highlight larger and less shiny.

Metal

Use this control to determine the color of the specular highlight. Setting the value to 100 reflects the color of the layer in the specular highlight, like metal. Setting the value to 0 reflects the color of the light source in the specular highlight, like plastic.

CC KALEIDA

Kaleida creates a kaleidoscope effect. A tile is created from the source layer and repeated into a kaleidoscopic image.

Controls

Center

Use this control to position the point of origin of the tiling on the source layer, based on X, Y coordinates.

Size

Use this control to determine the size of the tiles. Using higher values, the tiles contain a greater portion of the source layer.

Mirroring

Use this control to select the type of kaleidoscopic effect you want. Choose from Unfold, Wheel, Fish Head, Can Meas, Flip Flop, Flower, Dia Cross, Flipper and Starlish.

Rotation

Use this control to rotate the source tile, i.e. the area defining the tile which will be mirrored.

Floating Center

Use this check box to center the kaleidoscopic effect to the position of the Center control. When this is turned off, the effect is always centered to the layer. At default settings this is turned off.

CC Mr. SMOOTHIE

Mr. Smoothie transforms the source layer into flowing, psychedelic patterns. You can use it to create background textures or wild special effects.

Controls

Flow Layer

Use this pop-up menu to select which layer that will be used to describe the pattern onto which the gradient will be mapped. At default settings the Flow Layer is the current layer.

Property

Use this control to specify the channel information, from the selected Flow Layer, on which to base the pattern on. Choose one of the following options from the pop-up menu, Red, Green, Blue, Alpha, Luminance, Lightness, Hue and Saturation. At default set to Luminance.

Smoothness

Use this control to determine the softness (or blurring) of the Flow Layer. Higher Smoothness values will remove small details and make the color patterns appear smoother.

Sample A and Sample B

Use these controls to position the two reference points on the source layer, from which colors are sampled, based on X, Y coordinates. A gradient is created by sampling the colors between these two points (in the source layer).

Phase

Use this control to change the gradient phase. Measurements are in degrees. As you change the Phase the gradient is rotated starting and ending with values offset from those originally sampled.

Color Loop

Use this pop-up menu to determine the direction of the gradient. Choose one of the following options, AB, BA, ABA and BAB. (A and B are the sample points)

CC REPETILE

RepeTile uses the source layer as a tile, which it can repeat horizontally and vertically in any of several patterns. Tiling is often done with seamless patterns to create a textured background. RepeTile is useful because it has a blending function that can make almost any tile appear seamless.

Controls

Expand Right, Left, Down, Up

These controls set the extents of the effect in terms of layer pixels. For example, if the source layer is 150x150 pixels, setting the Expand Right to 600 and Expand Up to 300 repeats the tile 4 times to the right and 2 times up.

Tiling

Use this control to select a method for how the source layer should be repeated. Repeat maintains the orientation. The other tile options use different orientations on subsequent tiles. Choose one of the following options from the pop-up menu: Repeat, Checker Flip H, Checker Flip V, Unfold, Checker 180°, Checker Flip 45°, Checker 90° CW, Checker 90° CCW, Rosette, Random, None.

Blend Borders

Use this control to determine the size of the border at the tile's edges, where pixels are blended together. Using higher values increases the borders where pixels are mixed.

CC THRESHOLD

Threshold allows setting a threshold level, where all pixels that are higher than this value are converted to white and all lower pixels to black.

Controls

Threshold

Use this control to determine the Threshold level, at which pixels will be converted to either black or white. At its lowest setting, the result will be completely white and at its highest, all will be black. (The range of this control will adjust to your current pixel value view in the AE info window.)

Channel

Select the channel information on which to apply the threshold to. Choose one of the following options from the pop-up menu.

Luminance

The threshold operates on the luminance channel of the source layer. The result is limited to black and white. Alpha channel is not affected.

RGB

The threshold operates on the individual RGB channels of the source layer. Alpha channel is not affected.

Saturation

Pixels with saturation higher or equal to Threshold turn white, lower saturation turn black. Alpha channel is not affected.

Alpha

The threshold operates on the Alpha channel of the source layer. RGB channels are not affected

Invert

Use this check box to invert the values of the channel currently operating on. At default settings this is turned off.

Blend w. Original

Use this control to determine the transparency level for blending the effect with the original source layer. A value of 100% gives you only the original source layer. A value of 50% produces an even blend between the effect and the original.

CC THRESHOLD RGB

Threshold RGB allows setting threshold levels, based on individual red, green, or blue channels, where all pixels that are brighter than this value are converted to maximum red, green or blue and all pixels that are darker to black.

Controls

Red Threshold, Green Threshold, Blue Threshold

Use these controls to determine the Threshold level, at which pixels will be either converted to the minimum or to the maximum of that channel (The range of this control will adjust to your current pixel value view in the AE info window.)

Invert Red, Green, Blue Channels

Use these check boxes to invert the values of their respective channels. At default settings these are turned off.

Blend w. Original

Use this control to determine the transparency level for blending the effect with the original source layer. A value of 100% gives you only the original source layer. A value of 50% produces an even blend between the effect and the original.

CC FORCE MOTION BLUR

Force Motion Blur has the ability to add motion blur to effects which lack motion blur capability by blending multiple intermediate frames. Force Motion Blur should always be applied to a composition because it uses data from previous and subsequent frames and this is only possible if the effect is pre-composed. The process of generating motion blur in this way is time consuming. Render time can in worst case be multiplied by the number of Motion Blur Levels.

Controls

Motion Blur Samples

Use this control to determine the number of sampled levels to use for the blur effect. Using higher levels increase the detail and quality of the blur, by reducing visual 'steps' that appears when using lower levels. Using higher levels also increase rendering time.

Override Native Shutter

Use this check box to override the AE shutter angle and instead use the effect Shutter Angle. The AE shutter angle is only valid when the 'Enable Motion Blur' option is enabled for comp, layer and sub comps. Force Motion Blur ignores the Shutter Phase option which AE provide.

Shutter Angle (Supervised)

Use this control to determine the length of the motion blur. Shutter Angle simulates the exposure allowed by the rotating shutter in a camera and is based on degrees. Higher values increase the appearance of motion blur.

Native Motion Blur

Use this pop-up to control the behavior of AE's Motion Blur, where motion blur is enabled.

On

Adjusts the motion blur in nested compositions (where enabled). Motion blur must be enabled for all compositions and layers that this should apply to.

Off

Disables motion blur for all nested compositions.

CC TIME BLEND

Caution! The principle of this effect contradict the After Effects design and several types of problems can occur when using it. Read the instructions carefully to prevent the most common troubles.

Time Blend is an echo effect which accumulates each rendered frame in a buffer. The source layer including any effect applied before Time Blend will leave a fading trail in the output. The source layer should have some kind of animation set, for example pre-composed scale, position or rotation. The source layer can also be a movie or an effect animated on the source layer, for example a particle system. You can control how much to accumulate as well as whether the trail should be blended or composited. You have several compositing options to chose from.

Notes: Since Time Blend accumulates each rendered frame it's not possible to step around in the time line to preview the result at that time. Rendering must take place in a sequential manner. Since AE caches frames to save rendering time, it is possible that Time Blend doesn't get all the required input even when rendering sequential. To make sure caching doesn't scramble the input sequence you must always manually clear all cache before rendering previews or final output. The accumulation buffer can not resize without clearing its contents. To avoid loosing the accumulated trail it is necessary to restrain from using effects that dynamically resize the source layer, e.g. Fast Blur.

Controls

Clear

There is no Options dialog box for Time Blend. Instead, clicking here will simply clear the Time Blend accumulation buffer. There are two options for clearing in the Clear To pop-up.

Transfer

Use this pop-up menu to select how the accumulation buffer is composited with the current frame. These are the available options:

Blend

This frame is blended with the accumulation buffer.

Composite Over

This frame is composited over the accumulation buffer.

Composite Under

This frame is composited under the accumulation buffer

In addition to these three options the following standard transfer modes are available, Screen, Add, Soft Light, Hard Light, Lighten, Darken, Multiply, Difference, Color, Overlay and Luminosity. There are also options available to use the old composite behavior of Blend, Composite Over and Composite Under. These options are only slightly different to the first three but are provided for backwards compatibility and have "Classic" added to their names.

Accumulation

Use this control to determine how much the accumulation buffer should retain each frame. Higher values create longer trails.

Clear To (Supervised)

This control only takes effect when Blend is selected in the Transfer control.

Transparent

Clears the accumulation buffer to transparent.

Current Frame

Loads the accumulation buffer with the current frame.

CC TIME BLEND FX

Caution! The principle of this effect contradict the After Effects design and several types of problems can occur when using it. Read the instructions carefully to prevent the most common troubles.

Time Blend FX is a copy/paste filter. You need two Time Blend FX applied to see the effect, one set to Paste and the other one set to Copy, and something between those two that will be repeated (or echoed). When using only one instance with Paste selected, this will create a similar effect to Time Blend (for usage see Time Blend), but will not use the full strength of Time Blend FX. Basically what happens is that the one set to Copy, copies the data buffer and the one set to Paste, pastes what is in the data buffer in the next frame. You need to combine Time Blend FX with some other effect or animation. Something needs to be processed, copied and then pasted back to be processed again. This can be another effects parameter. For example, apply Offset to the source layer and move it between the two Time Blend FX effect instances. Set Shift Center To offset 5 pixels for X and Y and press Preview. As you'll see, the 5 pixel offset will be repeated and a trail is created without setting any key frames. You can control the opacity of the trail, as well as if the trail should be blended or composited. You have several compositing options to choose from.

Notes: Since Time Blend FX accumulates each rendered frame it's not possible to step around in the time line to preview the result at that time. Rendering must take place in a sequential manner. Since AE caches frames to save rendering time, it is possible that Time Blend FX doesn't get all the required input even when rendering sequentially. To make sure caching doesn't scramble the input sequence you must always manually clear all cache before rendering previews or final output. The accumulation buffer can not resize without clearing its contents. To avoid losing the accumulated trail it is necessary to restrain from using effects that dynamically resize the source layer, e.g. Fast Blur.

Controls

Clear

There is no Options dialog box for Time Blend FX. Instead, clicking here will simply clear the accumulation buffer. There are two options for clearing in the Clear To pop-up.

Instance

Use this pop-up menu to select whether you want the Time Blend FX plug-in to Copy data from the buffer or Paste data to the buffer.

Transfer

Use this pop-up menu to select how the accumulation buffer is composited with the current frame. These are the available options:

Blend

This frame is blended with the accumulation buffer.

Composite Over

This frame is composited over the accumulation buffer.

Composite Under

This frame is composited under the accumulation buffer

In addition to these three options the following standard transfer modes are available, Screen, Add, Soft Light, Hard Light, Lighten, Darken, Multiply, Difference, Color, Overlay and Luminosity. There are also options available to use the old composite behavior of Blend, Composite Over and Composite Under. These options are only slightly different to the first three but are provided for backwards compatibility and have "Classic" added to their names.

Accumulation

Use this control to determine how much the accumulation buffer should retain each frame. Higher values create longer trails.

Clear To (Supervised)

This control only takes effect when Blend is selected in the Transfer control.

Transparent

Clears the accumulation buffer to transparent.

Current Frame

Loads the accumulation buffer with the current frame.

CC WIDE TIME

Wide Time is a temporal blur that is designed to enhance the motion appearance of any object that is against a stationary background. It uses data from previous and subsequent frames. Layers with effects applied must be pre-composed before applying Wide Time.

Controls

Forward Steps and Backward Steps

Use these controls to set the range of frames from which to create the temporal blur. Backward Steps blurs behind the current frame and Forward Steps blurs ahead of it.

Native Motion Blur

Use this pop-up to control the behavior of AE's Motion Blur, where motion blur is enabled.

On

Adjusts the motion blur in nested compositions (where enabled). Motion blur must be enabled for all Compositions and layers that this should apply to.

Off

Disables motion blur for all nested compositions.

CC GLASS WIPE

The Glass Wipe effect creates a glassy looking transition based on values of another layer. The end result is that of a glassy looking layer melting away to reveal another layer.

Controls

Completion

Use this control to determine the completion percentage of the transition. Keyframe this control to animate your wipe.

Layer to Reveal

Use this pop-up menu to select the layer to reveal.

Gradient Layer

Use this pop-up menu to select a layer to use as a displacement and reveal map. The selected layer's luminance values will be used.

Softness

Use this control to determine the softness (or blurring) of the selected Gradient Layer. Higher Softness values will remove small details as well as decrease the depth appearance, giving a smoother overall result.

Displacement Amount

Use this control to determine the amount of displacement for the transition. Higher values produce greater distortion.

CC GRID WIPE

The Grid Wipe effect creates a transition that cuts the source layer into squares and wipes them off the screen. The wipe starts from a user-definable center point and moves evenly out towards the edge of the source layer. The squares can be wiped off using three different shapes.

Controls

Completion

Use this control to determine the completion percentage of the transition. Key-frame this control to animate your wipe.

Center

Use this control to position the point of origin for the wipe on the source layer, based on X, Y coordinates.

Rotation

Use this control to determine the rotation of the grid wipe, based on degrees. Note that the entire grid rotates, not individual squares.

Border

Use this control to determine the size of the transition border.

Tiles

Use this control to determine the total number of tiles in the grid.

Shape

Use this pop-up menu to select the shape of the transition. Note that the shape affects the entire transition. Choose one of the following options.

Doors

Splits the source layer into two parts.

Radial

Gives the wipe a radial shape.

Rectangle

Gives the wipe a rectangular shape.

Reverse Transition

Use this check box to reverse the transition.

CC IMAGE WIPE

Image Wipe uses a layer to control the gradient of the transition.

Controls

Completion

Use this control to determine the completion percentage of the transition. Key-frame this control to animate your wipe.

Border Softness

Use this control to determine the amount of softness (or blurring) applied to the edges of the transition. Higher values increase rendering time.

Auto Softness

Use this check box to automatically adjust the border softness to the Completion speed. This option is only useful when Completion has been animated and most noticeable in fast transitions.

Gradient (Control Group)

Layer

Use this pop-up menu to select a layer to use as a gradient for the wipe. The channel information to be used is specified in the Property control.

Property

Use this control to specify the channel information, from the selected Layer, on which to base the gradient on. Choose one of the following options from the pop-up menu, Red, Green, Blue, Alpha, Luminance, Lightness, Hue and Saturation.

Blur

Use this control to determine the amount of blur applied to the selected gradient.

Inverse Gradient

Use this check box to invert the gradient.

CC JAWS

The Jaws plug-in creates a transition which splits the source layer into two parts, with each part having a tooth-shaped border along the splitting edge. Three different tooth shapes are available.

Controls

Completion

Use this control to determine the completion percentage of the transition. Keyframe this control to animate your wipe.

Center

Use this control to position the point of origin for the wipe on the source layer, based on X, Y coordinates. This also serves as the pivot point for the angle (rotation) set in the Direction control.

Direction

Use this control to determine the angle (rotation) of the break/cut between the two parts of the source layer.

Height and Width

Use these controls to determine the height and width of the teeth.

Shape

Use this pop-up menu to determine the shape of the teeth. Choose one of the following options:

Spikes

Creates triangular teeth for a shark-like bite.

Robo Jaw

Creates trapezoidal teeth for a mechanical bite, perfect for 'Death Star' doorways.

Block

Creates rectangular teeth for a blocky bite.

CC LIGHT WIPE

The Light Wipe plug-in creates a transition which uses a light source to wipe away the source layer. This light can either be a solid color or can be sampled from the source layer as it is being wiped. The shape of the light, as well as the source and rotation, is fully user-definable.

Controls

Completion

Use this control to determine the completion percentage of the transition. Key-frame this control to animate your wipe.

Center

Use this control to position the point of origin for the wipe on the source layer, based on X, Y coordinates.

Intensity

Use the Light Intensity slider to control the power (or strength) of the light. Higher values produce brighter results.

Shape

Use this pop-up menu to specify the shape for your light source. Choose one of the following options:

Doors

Splits the source layer in two parts with a wall of light wiping each part away.

Radial

Creates a circle of light which wipe away the source layer.

Rectangular

Creates a rectangle of light which wipe the source layer away.

Direction (Supervised)

Use this control to determine the direction, at which light rays strikes the source layer during the transition, based on degrees. Not in use if Round is selected for Shape.

Transition Menu - CC Light Wipe

Color from Source

Using this check box, the color of the light is sampled from the source layer. If this is disabled, the color selected in the Color control (see below) will be used. At default settings this feature is turned off.

Color (Supervised)

Use this control to select a color for the light. Not in use if Color from Source is checked.

Reverse Transition

Use this check box to reverse the transition.

CC RADIAL SCALE WIPE

Radial Scale Wipe is radial wipe where edge folds.

Controls

Completion

Use this control to determine the completion percentage of the transition. Keyframe this control to animate your wipe.

Center

Use this control to position the point of origin for the wipe on the source layer, based on X, Y coordinates.

Reverse Transition

Use this check box to reverse the transition.

CC SCALE WIPE

Scale Wipe stretches a layer off the screen (or onto it) by moving the scale center

Controls

Scale

Use this control to set the scale factor.

Center

Use this control to position the point of origin for the wipe on the source layer, based on X, Y coordinates.

Direction

Use this control to determine the direction (angle) in which the source layer is scaled.

CC TWISTER

Twister twists away the source layer to reveal another layer.

Controls

Completion

Use this control to determine the completion percentage of the transition. Key-frame this control to animate your wipe.

Backside

Use this pop-up menu to select the layer you want to reveal. If you select the same layer as the one you're twisting, the source layer appears to twist into itself and then back out again. If you select none, the source layer appears to twist into nothingness.

Shading

Use this check box to add a sense of depth to the twisting effect, by shading the layers with light and shadow.

Center

Use this control to position the point of origin for the wipe on the source layer, based on X, Y coordinates.

Axis

Use this control to specify the direction of the twisting effect, based on degrees.

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