

# ShapeMonkey User Guide

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ShapeMonkey is a simple, fast, and powerful new way to explore and create shape-based animations in After Effects. If you have experience creating dynamic graphic animations with shape layers, you know that it's a very powerful feature, but it can be very deep and complex and it takes a while to understand how everything works. It can also be difficult to navigate, and each shape layer may have multiple transform controls, each buried in its own category.

ShapeMonkey is designed to make working with shape layers much simpler

## Installation

ShapeMonkey requires AE CS6 or later.

The ShapeMonkey trial period is 7 days with a maximum Copies entry of 10.

To install ShapeMonkey as a dockable panel, place the ShapeMonkey.jsxbin and accompanying ShapeMonkey folder in After Effects/Scripts/ScriptUI Panels (MAC) or After Effects/Support Files/Scripts/ScriptUI Panels (Windows).

The ShapeMonkey folder contains presets, effect controls, and graphics required by ShapeMonkey, so make sure it is placed in the same location as the ShapeMonkey.jsxbin file.

The Color Swatches folder contains .ase files that can be loaded into ShapeMonkey's Fill and Stroke color palettes. This folder can be placed anywhere on your hard drive. You will be prompted to navigate to a .ase file when you click the load button (.a) in one of the color palette sections.

**Note for AE CS6 users:** ShapeMonkey uses pseudo effects, which will cause "Missing Effect" errors in AE CS6 (ShapeMonkey still works, but you have to acknowledge the error messages). To eliminate the error messages, we have included a utility script called "ShapeMonkey Pseudo Effects Installer.jsx". This script is in the ShapeMonkey folder you installed in the ScriptUI Panels folder. To run this script, navigate to it using AE's File > Scripts > Run Script File... menu command and follow the instructions. The script will modify AE's PresetEffects.xml file to include definitions for ShapeMonkey's effects.

## Getting Started

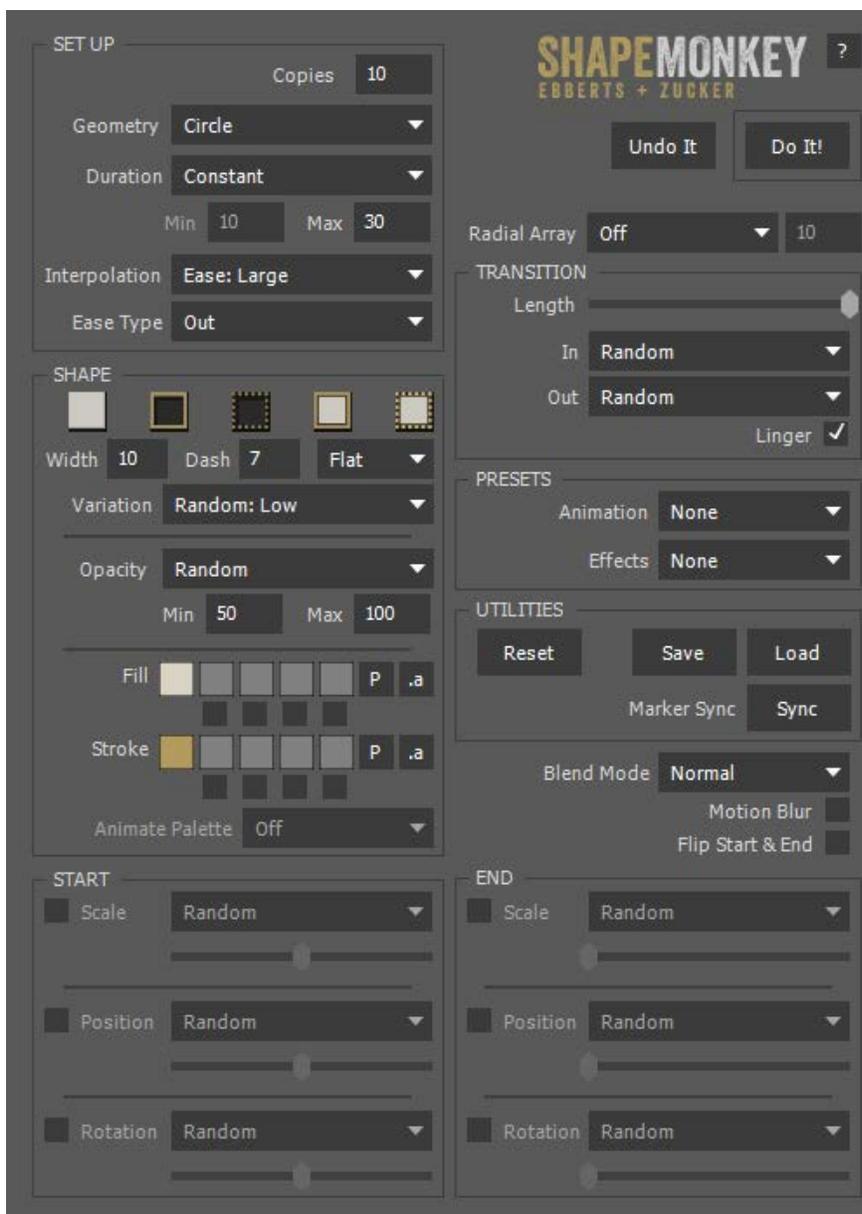
The easiest way to become familiar with ShapeMonkey's features is to just play with it. If you installed the ShapeMonkey.jsxbin file and the ShapeMonkey folder in AE's ScriptUI Panels folder, just launch AE and create a new 10-second 1920x1080 comp. You should then be able to launch ShapeMonkey from the bottom section of AE's Window menu. You can leave the ShapeMonkey UI as a floating window, or drag its tab to dock it somewhere in the AE UI.

Note that if you haven't installed the script in the ScriptUI Panels folder, you'll have to launch ShapeMonkey from AE's File>Scripts>Run Script File... menu, and it will be a floating window.

Make sure your new comp is active and then click ShapeMonkey's **Do It!** button to create a build. You should see a ShapeMonkey Control layer with 10 markers. If you preview, or scrub the timeline, you should see a simple animation with 10 circle shapes (a combination of fills, strokes, and dashed lines). Each shape's animation is triggered by its corresponding marker on the Control layer. If you want to see what's going on under the hood, click the comp's Hide Shy Layers button and you will see the individual shape layers created by ShapeMonkey. Each of the shape layers has been equipped with Offset Paths, Trim Paths, and Repeater operators.

With the Control layer selected, in the AE's Effects Controls window you'll see some effect controls you can use to tweak your animation post-build. You can play with those to see what they do, but we'll cover them in more detail in the **Reference** section of this guide.

Let's look at how the ShapeMonkey UI settings relate to the build you just created. Here's the initial UI:



Most of the action is happening in the left column, so let's start there.

In the **SET UP** section, you'll see that **Copies** (number of shape layers created) is set to 10. **Geometry** is set to Circle. **Duration** is set to Constant, which means that all animations will be the same duration, which will be 30 frames, as specified in the **Max** text entry box.

The next two dropdowns set the interpolation/ease type, which in this case is a large ease out (start fast, end slow).

In the **SHAPE** section, first up are the shape treatment toggles. You turn these on and off by clicking them. In this case, they are all on and represent, from left to right, fill only, stroke only, dashed line only, fill with stroke, and fill with dashed line. When more than one is turned on (as in this case) the selection is random for each shape created. The next line contains the **Width** entry for stroke width and the **Dash** entry for dash size. Next to them is a dropdown that controls line caps and joins, with Flat (the selection in this case) representing Butt Cap and Miter Join. The alternate selection (Round) would give you Round Cap and Round Join. The next control (the **Variation** dropdown) controls how much random variation there will be in stroke width and dash size.

Next are the opacity controls. In this case, the **Opacity** dropdown is set to Random, which means that each shape will have an opacity value somewhere between the **Min** and **Max** values specified (50 and 100) in this case.

Next up is the color palette section. There are separate palettes for **Fill** and **Stroke**. In this case, we have a single color assigned for **Fill** and another for **Stroke**. These controls give you extensive control over the colors used by ShapeMonkey, and we'll cover them in detail in the **Reference** section.

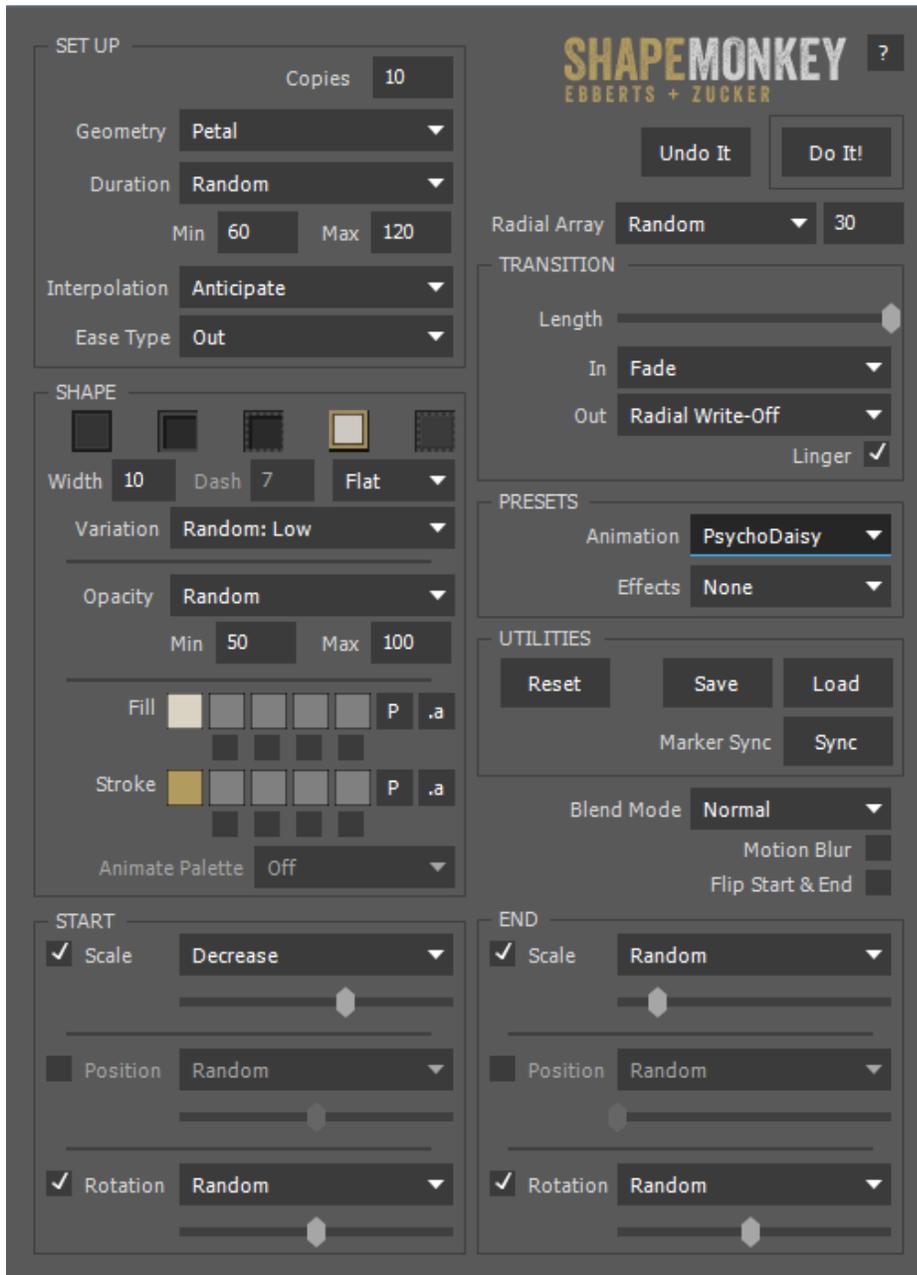
Across the bottom of the UI are the **START** and **END** transform sections. You'll notice that these controls are all inactive in this case, but give you a lot of control over the animations that ShapeMonkey creates. These are covered in detail in the **Reference** section.

In the upper right of the UI, you'll see the **Radial Array** controls, which are not used in this case, but we'll look at them in the next example, and they are covered in detail in the **Reference** section.

Next is the **TRANSITION** section, where you set the length and type of **In** and **Out** transitions. In this case, the **Length** slider is set all the way to the right, which means that the transitions will be as long as possible (see the **Reference** section for the details on how this works). The dropdowns for the **In** and **Out** transitions are both set to Random, which means each transition will be a random selection from Fade, Grow, and Shrink transition types. Finally, you have the **Linger** checkbox, which is turned on in this case. This means that the Out transition will be triggered and the end of the layer's animation. In this case, we have the **Duration** (in the **SET UP** section) set to 30 frames, so our Out transition begins 30 frames from each layer's corresponding marker.

## Next Steps

Now let's look at a more complex example. With the Control layer from the previous example selected, click the **Undo It** button in the ShapeMonkey UI. You should now be back to your original clean comp. In the **PRESETS** section of the UI, use the **Animation** dropdown to select the PsychoDaisy preset.



You'll notice that a lot of the controls in the ShapeMonkey UI have changed. Go ahead and click the **Do It!** button and preview the resulting animation. Let's go over what's different from the previous

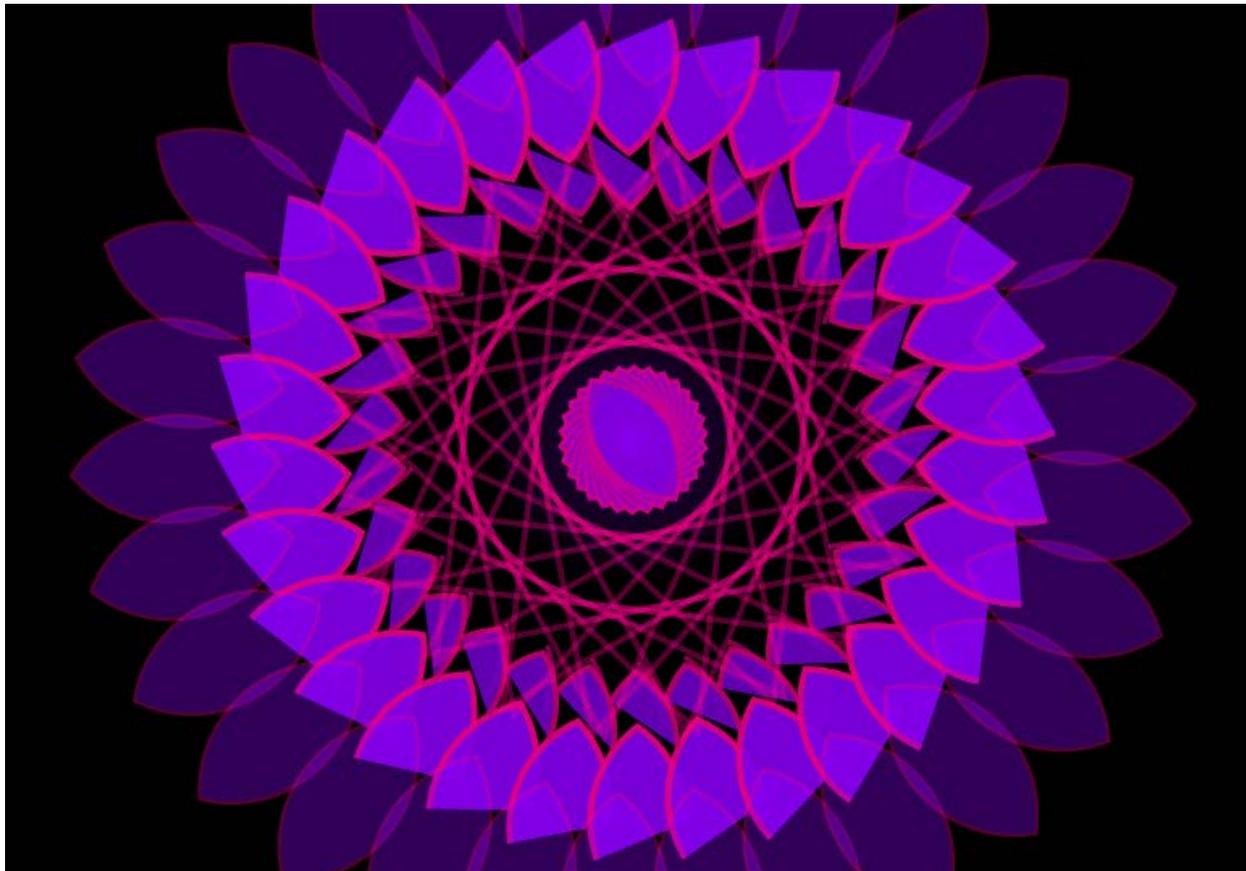
example. This preset uses a different **Geometry** setting (Petal) and the animation **Duration** is set to Random, resulting in durations between 60 and 120 frames. The **Interpolation** type is set to Anticipate. The shape treatment has been restricted to fill with stroke.

There are now some entries in the **START** and **END** transform sections at the bottom of the UI. Specifically, the **Scale** and **Rotation** properties are animated.

The key difference between this and the previous example though, is the **Radial Array** setting, which is responsible for the circular layout. The dropdown is set to Random, which means that each layer will be assigned either an Implose or Explode animation. The number of copies in each array is set to 30 (in the text entry box next to the **Radial Array** dropdown). Ten layers get created (because of the **Copies** entry in the **SET UP** section) but each layer has 30 shapes arranged in a radial array.

Just for fun, make sure the Control layer is selected, and click **Undo It**. Now click the **P** button in the **Fill** color palette and select a colorful palette. Now select a complimentary palette for **Stroke**. Click **Do It!** again.

In the **PRESETS** section, select the Spirolizer preset, click **Do It!** and preview the result. You should now have two ShapeMonkey builds (with the same color treatment) in one comp. The result should look something like this:



If you were to now click **Undo It**, only the second build would be removed. Multiple builds can be removed by selecting multiple Control layers before clicking **Undo It**.

# ShapeMonkey Reference

Here, we'll go through each section of the ShapeMonkey user interface (UI) in detail.

## SET UP

This section is where you establish the number of shape layers that will be created, the type of shape, the duration of the animation, and the ease type

### *Copies*

This control lets you enter the number of shape layers that will be created with the build. The maximum is 500. Note that you can have multiple builds in one comp, so the number of shape layers is only limited by the power of your computer.

### *Geometry*

This is where you specify the basic shape for the build. There are a lot of shapes to choose from, but you can also choose Selected Layer to use your own shape, text, or vector layer as the source for the build. If you select a text or vector layer, ShapeMonkey will first create a shape layer from the selected layer, and use that for the build. Shape, text, and vector layers are the only layer types ShapeMonkey can use for a build (no solids, videos, images, etc.)

After the build, your selected layer will be turned off, but is still available to be selected for additional builds, so there is no need to turn it back on first.

If you have your own shape, text, or vector layer selected when you click **Do It!**, but also have one of the shapes selected in the **Geometry** dropdown, ShapeMonkey will ask if you want to override the **Geometry** selection.

### *Duration*

This is where you establish the length of the animation, which also affects the length of the transitions and **Radial Array** animations. The choices in this dropdown are:

**Constant:** The animation duration (in frames) for each shape layer is specified by the entry in the **Max** text entry box. The default value is 30, which means each animation will last 30 frames.

**Random:** The animation duration for each shape layer will be a random value within the range designated by the **Min** and **Max** text entry boxes. The default values result in animations that last from 10 to 30 frames.

**Sequence: Min to Max:** Each layer will animate successively slower than the previous layer. At the default settings, the first layer will animate over 10 frames, and the last layer will animate over 30 frames.

**Sequence: Max to Min:** Each layer will animate successively faster than the previous layer. At the default settings, the first layer will animate over 30 frames, and the last layer will animate over 10 frames.

## ***Min***

This is the text entry box where you specify the minimum value (in frames) for the animation duration.

## ***Max***

This is the text entry box where you specify the maximum value (in frames) for the animation duration.

## ***Interpolation***

This is where you specify the interpolation type for the move. The choices are:

**Ease: Extreme:** This corresponds roughly to an exponential ease, and is the most severe.

**Ease: Large:** This is a quint ease, and is fairly extreme.

**Ease: Medium:** This is a circular ease.

**Ease: Small:** This is a cubic ease, which is very similar to AE's Easy Ease.

**Ease: Extra Small:** This is a sine ease, and is the least extreme of the available eases.

**Ease: Random:** This results in a random selection from within the ease group (Extreme, Large, Medium, Small, or Extra Small).

**Anticipate:** This is a physics-based ease, that starts with a small back-up, then proceeds forward.

**Inertia:** This is another physics-based ease, which includes some overshoot at the end before settling into the final value.

**Linear:** No ease, just a linear progression through the animation.

**Cut:** No animation, it just goes immediately to the final state.

**Random:** This results in a random selection from any of the eases plus Anticipate and Inertia. It does not include Linear or Cut.

## **SHAPE**

### ***Shape Treatment Toggles***

These 5 toggle icons let you choose which shape treatments will be randomly assigned to layers generated during the build. From left to right, they are: Fill Only, Stroke Only, Dashes Only, Fill & Stroke, and Fill & Dash.

## ***Width***

This is the text entry box where you define the stroke and dash width (line thickness).

## ***Dash***

This is the text entry box where you define the dash size (length of each dash and the space between dashes).

## ***Flat/Round***

This dropdown determines the treatment of caps and joins for stroked and dashed lines. There are two choices:

**Flat:** This gives you butt caps and miter joins.

**Round:** This generates round caps and round joins.

## ***Variation***

This dropdown is where you specify variation in stroke width and dash size. The choices are:

**Constant:** This selection turns variation off, resulting in all shapes having the same stroke width and dash size, as specified in the **Width** and **Dash** controls.

**Random: Low:** Each layer will be randomly assigned a stroke width and dash size from 50% to 150% of the **Width** and **Dash** control settings.

**Random: Medium:** Each layer will be randomly assigned a stroke width and dash size from 25% to 200% of the **Width** and **Dash** control settings.

**Random: High:** Each layer will be randomly assigned a stroke width and dash size from 10% to 300% of the **Width** and **Dash** control settings.

*Note—for the following **Sequence:** options, each layer is assigned a progressively smaller stroke width and/or dash size, with the thinnest/smallest being at the top of the layer stack.*

**Sequence: Low:** The layer lowest in the layer stack is assigned 150% of the **Width/Dash** settings and the layer highest in the stack is assigned 50%.

**Sequence: Medium:** The layer lowest in the layer stack is assigned 200% of the **Width/Dash** settings and the layer highest in the stack is assigned 25%.

**Sequence: High:** The layer lowest in the layer stack is assigned 300% of the **Width/Dash** settings and the layer highest in the stack is assigned 10%.

## ***Opacity***

This dropdown controls the opacity of each generated shape layer. The choices are:

**Constant:** All layers get the same opacity, as specified in the **Max** text entry box.

**Random:** Each layer is assigned a random opacity in the range defined by the **Min** and **Max** text entry boxes.

**Sequence: Min to Max:** Each layer is assigned a progressively larger opacity value, with the layer lowest in the layer stack receiving the value specified in the **Min** text entry box, and the layer highest in the layer stack receiving the value specified in the **Max** text entry box.

**Sequence: Max to Min:** Each layer is assigned a progressively smaller opacity value, with the layer lowest in the layer stack receiving the value specified in the **Max** text entry box, and the layer highest in the layer stack receiving the value specified in the **Min** text entry box.

### ***Fill and Stroke Color Palettes***

The **Fill** and **Stroke** color palettes operate in identical fashion, so this will be a generic description that applies to both.

Each palette allows you to specify up to five colors. These colors will be assigned sequentially from left to right (repeatedly, as necessary) to the layers created by the build.

Each color swatch except the one on the left has an enable checkbox that allows you to activate/deactivate that color swatch. The swatch on the left is always enabled, so you always have at least one active color in the palette. The default state is that just the left-most color is active. You can turn a swatch on/off using its checkbox. For disabled swatches, you can turn them on and specify a color simultaneously by clicking the swatch itself, which will launch the system color picker.

Next to the right-most swatch, you'll see two buttons. The **P** button will launch a preset palette dialog where you have quick access to many five-color color schemes that will fill the entire palette.

The **.a** button will launch a dialog that will let you navigate to any .ase (Adobe Swatch Exchange) color file and will load the first five colors specified in the file into the palette.

Note that .ase files (also referred to as Kuler files) can no longer be downloaded directly at color.adobe.com. You can, however, create .ase files from the Swatch panels in Photoshop and Illustrator. The Illustrator application also contains a bunch of .ase files, located in your Illustrator application folder at: Adobe Illustrator CC xxxx/Presets/(your\_language)/Swatches.

We've included a few .ase files for you to play with in the Color Swatches folder in the ShapeMonkey download.

### ***Animate Palette***

This control lets you cycle through the entire color palette over the life of each layer. The options are:

**Off:** No color animation.

**Fade:** Dissolve from one color to the next.

**Cut:** Abruptly change from one color to the next.

### **START and END**

Each layer's movement is controlled primarily by the **START** and **END** layer transform sections. As you might expect, the starting transform conditions are established in the **START** section and the ending transform conditions are established in the **END** section.

Each transform parameter (Scale, Position, or Rotation) has an enabling checkbox in each section. If a parameter is enabled in both the **START** and **END** sections, that parameter will be animated from the start value to the end value, beginning at that layer's marker on the Control layer, and proceeding for the **Duration**, which is specified in the **SET UP** section. If a parameter is enabled in only one of the

sections, that parameter's static (non-animated) value will be determined by those settings. If a parameter is not enabled in either section, it won't be animated and will remain at the default value.

Each parameter has a dropdown control and a slider control. The slider controls the intensity, with the least intense setting on the left and the most intense setting on the right. Let's look at the dropdowns for each of the parameters.

## ***Scale***

The dropdown choices are:

**Increase:** All layers get the same uniform (x and y are the same) scale setting, as defined by the slider. The slider all the way to the left is 100%, and all the way to the right is 500%.

**Increase X:** This is the same as Increase except only the x dimension is affected.

**Increase Y:** This is the same as Increase except only the y dimension is affected.

**Decrease:** All layers get the same scale setting, as defined by the slider control. The slider all the way to the left is 100%, and all the way to the right is 10%.

**Decrease X:** This is the same as Decrease except only the x dimension is affected.

**Decrease Y:** This is the same as Decrease except only the y dimension is affected.

**Random:** Each layer gets a random uniform scale setting as determined by the slider control. Each layer has a 50% chance of getting a scale Decrease and a 50% chance of getting a scale Increase. For example, with the slider all the way to the right, each layer will have a 50% chance of getting a scale value between 100% and 500%, and a 50% chance of getting a scale value between 10% and 100%.

**Random X:** This is the same as Random except that only the x dimension is affected.

**Random Y:** This is the same as Random except that only the y dimension is affected.

**Sequence Increase:** The layer scales are sequentially increased, with the layer lowest in the layer stack (the one corresponding to Marker 1) receiving the lowest scale value (100%), and the one highest in the layer stack receiving the largest scale (as much as 500%, depending on the setting of the slider control).

**Sequence Decrease:** The layer scales are sequentially decreased, with the layer lowest in the layer stack (the one corresponding to Marker 1) receiving the highest scale value (100%), and the one highest in the layer stack receiving the lowest scale (as low as 10%, depending on the setting of the slider control).

## ***Position***

The dropdown choices are:

**Left:** All layers are positioned to the left of the default position by an amount determined by the slider control. With the slider all the way to the left, there is no change in position. With the slider all the way to the right, the layer is positioned a distance equivalent to 90% of the comp width to the left of the original position.

**Right:** All layers are positioned to the right of the default position by an amount determined by the slider control. With the slider all the way to the left, there is no change in position. With the slider all the way to the right, the layer is positioned a distance equivalent to 90% of the comp width to the right of the original position.

**Up:** All layers are positioned above the default position by an amount determined by the slider control. With the slider all the way to the left, there is no change in position. With the slider all the way to the right, the layer is positioned a distance equivalent to 90% of the comp height above the original position.

**Down:** All layers are positioned below the default position by an amount determined by the slider control. With the slider all the way to the left, there is no change in position. With the slider all the way to the right, the layer is positioned a distance equivalent to 90% of the comp height below the original position.

**Random:** Each layer is given a random position somewhere in the rectangle determined by the slider setting. With the slider all the way to the right, the extents of the rectangle are as follows:

top: 90% of comp height, above the original position

bottom: 90% of comp height, below the original position

left: 90% of comp width, to the left of the original position

right: 90% of comp width, to the right of the original position

**Random Left:** Each layer is given a random position to the left of the original position. The y dimension is not affected. The maximum offset is determined by the slider control. With the slider all the way to the right, the maximum offset is 90% of the comp width.

**Random Right:** Each layer is given a random position to the right of the original position. The y dimension is not affected. The maximum offset is determined by the slider control. With the slider all the way to the right, the maximum offset is 90% of the comp width.

**Random Up:** Each layer is given a random position above the original position. The x dimension is not affected. The offset distance is determined by the slider control. With the slider all the way to the right, the maximum offset is 90% of the comp height.

**Random Down:** Each layer is given a random position below the original position. The x dimension is not affected. The maximum offset is determined by the slider control. With the slider all the way to the right, the maximum offset is 90% of the comp height.

**Sequence Left:** The layers are distributed evenly to the left of the original position. The y dimension is not affected. The lowest layer in the layer stack stays in the original position. The highest layer in the layer stack is given the maximum offset to the left. The maximum offset is determined by the slider control. With the slider control all the way to the right, the maximum offset is 90% of the comp width.

**Sequence Right:** The layers are distributed evenly to the right of the original position. The y dimension is not affected. The lowest layer in the layer stack stays in the original position. The highest layer in the layer stack is given the maximum offset to the right. The maximum offset is determined by the slider control. With the slider control all the way to the right, the maximum offset is 90% of the comp width.

**Sequence Up:** The layers are distributed evenly above the original position. The x dimension is not affected. The lowest layer in the layer stack stays in the original position. The highest layer in the layer stack is given the maximum upward offset. The maximum offset is determined by the slider control. With the slider control all the way to the right, the maximum offset is 90% of the comp height.

**Sequence Down:** The layers are distributed evenly below the original position. The x dimension is not affected. The lowest layer in the layer stack stays in the original position. The highest layer in the layer stack is given the maximum downward offset. The maximum offset is determined by the slider control. With the slider control all the way to the right, the maximum offset is 90% of the comp height.

## ***Rotation***

The dropdown choices are:

**CW:** All layers are given the same clockwise rotation. The amount of rotation is determined by the slider control. With the slider all the way to the left, there is no rotation. With the slider all the way to the right the rotation is 360 degrees clockwise.

**CCW:** All layers are given the same counterclockwise rotation. The amount of rotation is determined by the slider control. With the slider all the way to the left, there is no rotation. With the slider all the way to the right the rotation is 360 degrees counterclockwise.

**Random:** Each layer is given a random clockwise or counterclockwise rotation within a range determined by the slider control. With the slider all the way to the right, the range is -360 degrees to +360 degrees.

**Sequence: CW:** Each layer is given a sequentially increasing clockwise rotation. The layer at the bottom of the layer stack gets no rotation and the layer at the top of the layer stack gets the maximum amount as determined by the slider control. With the slider control all the way to the right, the maximum is 360 degrees clockwise.

**Sequence: CCW:** Each layer is given a sequentially increasing counterclockwise rotation. The layer at the bottom of the layer stack gets no rotation and the layer at the top of the layer stack gets the maximum amount as determined by the slider control. With the slider control all the way to the right, the maximum is 360 degrees counterclockwise.

## ***Flip Start & End***

Although not technically within either of the transform sections, the sole purpose of this checkbox is to reverse the roles of the **START** and **END** transform sections. The Start values become the End values and the End values become the Start values.

## **RADIAL ARRAY**

Radial Array doesn't have its own delineated section in the UI, but it's an important set of controls. Each shape layer created by ShapeMonkey includes a Repeater operator. The controls described here are how you set up a build to take advantage of it. **Radial Array** uses the shape layer Repeater operator to create copies of the shape (all within the same shape layer), which are arranged in an evenly-spaced circular pattern. The number of copies is set by the number in the text entry box next to the **Radial Array** dropdown (minimum 2, maximum 500). The animation of the array itself is

determined by the setting of the **Radial Array** dropdown (the animation of the entire layer itself is still controlled by the **START** and **END** transform settings). The choices are:

**Off:** No radial array is created.

**Explode:** For each layer, the circular array expands from the center outward to the maximum radius, with the interpolation specified in **SET UP/Interpolation**, over the duration specified in **SET UP/Duration**.

**Implode:** For each layer, the circular array contracts from the maximum radius towards the center, with the interpolation specified in **SET UP/Interpolation**, over the duration specified in **SET UP/Duration**.

**Random:** Each layer is randomly assigned an Explode or Implode animation.

**Static:** There is no animation, each circular array is set to the default radius.

## TRANSITION

This section controls how each layer appears (In) and disappears(Out). Note that any In transition can be combined with any Out transition. All animated transitions except the Write-On and Write-Off transitions inherit the **Interpolation** specified in the **SET UP** section.

### **Length**

This slider controls the duration of the transition. The fastest transition occurs when the slider is all the way to the left. The slowest transition occurs when the slider is all the way to the right. The maximum of value of this slider depends on the state of the **Linger** checkbox and the animation **Duration** specified in the **SET UP** section.

If the **Linger** checkbox is enabled, the Out transition begins at the end of animation **Duration**. In this case, at maximum setting, the In transition lasts the entire **Duration** and the Out transition lasts the same amount of time as the In transition, but it doesn't begin until the end of the animation.

If the **Linger** checkbox is not enabled, the Out transition finishes at the same time as the animation. In that case, with the **Length** slider at maximum setting, the In transition finishes half way through the animation, at which time the Out transition begins.

*Note: The Write-On and Write-Off transitions animate the Start and End properties of each shape layer's Trim Paths operator. How well this works with the particular shape you have selected for the build depends greatly on the Trim Paths Offset property (angle). We have tied the Offset property to Wipe Angle controls in the Control layer's Effects Controls so that you can tweak the angle post-build. There are separate controls for Wipe-On and Wipe-Off. The ShapeMonkey expressions will automatically switch between them (if necessary) at the appropriate time between the In and Out transitions.*

### **In**

This dropdown is where you select the In transition type. The choices are:

**Off:** No In transition will occur. The shape will be visible before the animation.

**Fade:** The shape will dissolve on.

**Grow:** The shape path expands from tiny to normal, the fill fades from zero to normal, and the stroke width animates from zero to normal.

**Shrink:** The shape path shrinks from oversized to normal, the fill fades in from zero to normal, and the stroke width animates from zero to normal.

**Random:** Each layer is randomly assigned an In transition of Fade, Glow, or Shrink.

**Linear Write-On:** The Start and End properties of each layer's Trim Paths operator are animated, resulting in a linear wipe-on effect.

**Radial Write-On:** The Start property of each layer's Trim Paths operator is animated while the End property is fixed at zero, resulting in a radial wipe-on effect.

**Cut:** The layer appears abruptly at the beginning of the animation.

## ***Out***

This dropdown is where you select the Out transition type. The choices are:

**Off:** No Out transition will occur. The shape will still be visible after the animation.

**Fade:** The shape will dissolve off.

**Grow:** The shape path expands from normal to oversized, the fill fades from normal to zero, and the stroke width animates from normal to zero.

**Shrink:** The shape path shrinks from normal to tiny, the fill fades in from normal to zero, and the stroke width animates from normal to zero.

**Random:** Each layer is randomly assigned an Out transition of Fade, Glow, or Shrink.

**Linear Write-Off:** The Start and End properties of each layer's Trim Paths operator are animated, resulting in a linear wipe-off effect.

**Radial Write-Off:** The Start property or each layer's Trim Paths operator is animated while the End property is fixed at 100, resulting in a radial wipe-off effect.

**Cut:** The layer disappears abruptly at the end of the animation.

## **Miscellaneous**

There are a few controls deserving of mention that are not assigned to any of the UI sections.

### ***Blend Mode***

Assigns a blend mode to each layer, selected from a subset of AE's native blend modes.

### ***Motion Blur***

Activates each layer's Motion Blur checkbox. The comp's Motion Blur switch is unaffected.

## ***Flip Start & End***

As described previously, this check box causes ShapeMonkey to reverse the roles of the **START** and **END** transform sections.

## **PRESETS**

There are two dropdown controls in this section that let you choose from dozens of animation and effects presets.

### ***Animation***

This dropdown lets you choose from a variety of preset ShapeMonkey UI configurations to help you set up the build you want more quickly. Note that you are free to tweak any of the UI settings to create your own variations of these presets. You can then save them using the **Save** button in the **UTILITIES** section of the UI. Refer to the **UTILITIES** section for more information about **Load** and **Save**.

### ***Effects***

This dropdown lets you choose an initial configuration for the ShapeMonkey effect controls that will be created during the build. After the build, you'll find these controls on ShapeMonkey Control layer. You are free to fine-tune the controls after the build. Refer to the **Effect Controls** section for more information on the individual controls available.

## **UTILITIES**

### ***Reset***

This button will restore the ShapeMonkey UI to its initial state.

### ***Save***

This button lets you name and save the current configuration of the ShapeMonkey UI as an XML preset file. You can save the files wherever you want.

### ***Load***

Use this button to restore previously saved ShapeMonkey UI preset XML files. ShapeMonkey will ask you to navigate to a previously-saved file on your hard drive.

### ***Marker Sync***

This is a post-build tool that you can use to align the markers on a ShapeMonkey control layer with the markers on another layer. This can be very handy if, for example, you want to trigger the shape animations to a music track. There are several third-party scripts that can help you set up your marker layer, such as *Copy Paste Markers*, *Audio To Markers*, and *Beat Assistant*, all available on [aescrpts.com](http://aescrpts.com).

After a build, simply select the layer you want to use as the sync source and click the **Sync** button. All unlocked ShapeMonkey Control layer markers will be synced to the selected layer. If you have a Control layer with more markers than there are on the sync layer, ShapeMonkey will complain, and you'll need to either rebuild with fewer shapes, or increase the number of markers on your sync layer.

To exclude a Control layer from the sync operation, simply lock the layer in AE's Timeline panel.

## **Build Controls**

### ***Do It!***

This button is how you create a ShapeMonkey build. Your current ShapeMonkey UI settings are used to create the build. If you have specified an **Effects** preset prior to the build, those settings will be applied to the Effects Controls on the ShapeMonkey Control layer. During the build, ShapeMonkey will create a layer for each shape and parent it to the Control layer for that build.

A marker on the Control layer is created for each shape layer, and the markers are distributed evenly across the comp's Work Area. This requires that the Work Area have at least one frame per shape layer. After the build, you are free to adjust the positioning of the markers, but be careful not to drop one marker on top of another because AE will delete one of them, causing problems for the build's expressions.

If you provided your own shape, text or vector layer as the source for the build, it will be moved to the top of the layer stack and disabled, but will be left otherwise untouched. It is no longer integral to the build, so you can move it, delete it, or use it for another build.

You can add as many different builds as you want to the same comp.

If there are previous builds, the Control layers for those builds will be parented to the Control layer of the new build. Shape layers from previous builds remain parented to the Control layer from their own build. Each Control layer will have its own set of Effects Controls, appropriate to that build, and used only by the layers of that build.

### ***Undo It***

This button lets you delete ShapeMonkey builds from the active comp. You can select specific builds to delete by selecting the corresponding Control layers for those builds and then clicking **Undo It**. Shape monkey will remove those builds and re-parent any remaining builds if necessary.

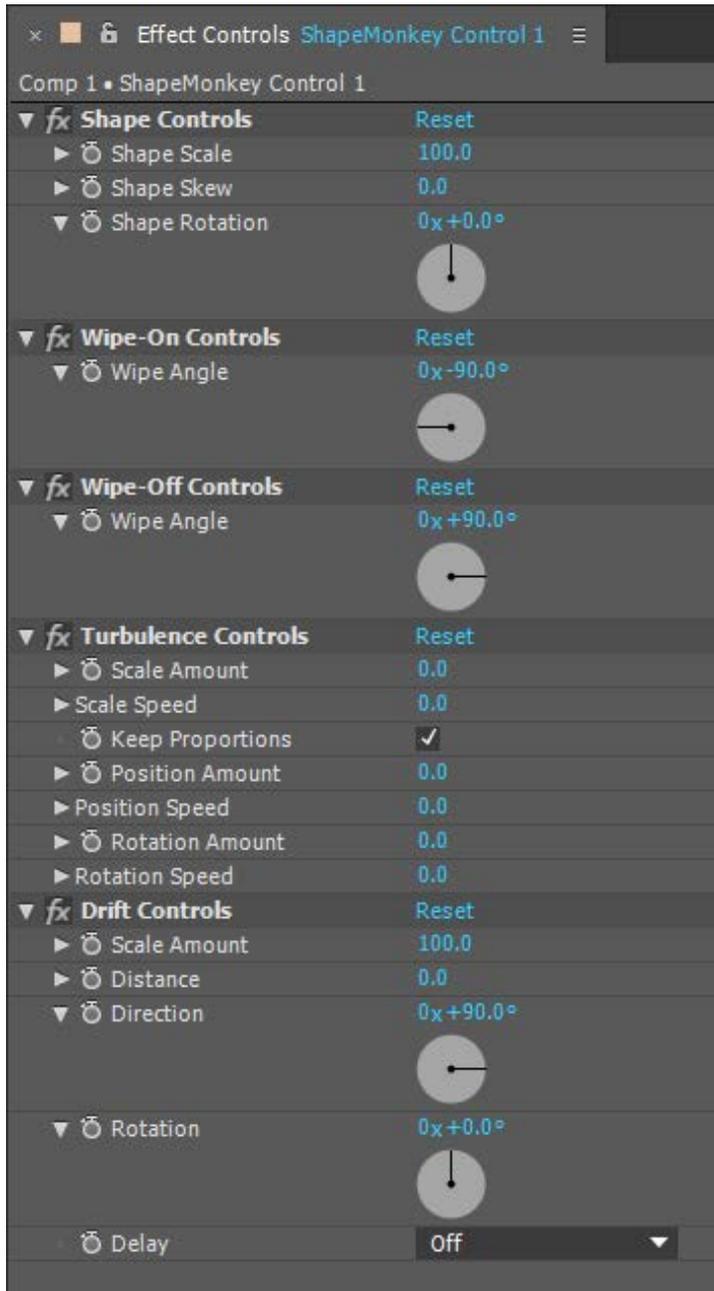
You can also click **Undo It** without selecting any Control layers, in which case ShapeMonkey will remove the most recent build.

You can use **Undo It** at any time, even after the project has been saved and reopened.

Note that in addition to **Undo It**, you can also use AE's Undo menu command (Edit>Undo or, Ctrl/Cmd+Z) to immediately undo a build. You can even use AE's Undo to immediately undo the effect of ShapeMonkey's **Undo It** button (to restore a build deleted by mistake).

## Effects Controls

Each ShapeMonkey Control layer is equipped with a set of Effects Controls that you can use to make post-build tweaks and enhancements to your animations. There will be from three to five sets of controls, depending on which transitions you selected for the build. The full set looks like this:



### Shape Controls

These controls can be used to resize, skew, and rotate each shape layer in the build.

## Wipe-On Controls

This control is only present if you selected Linear Write-On or Radial Write-On as the In transition. It allows you to adjust the angle of the In transition wipe effect. This can be helpful in getting the wipe to work well with the shape used for the build.

## Wipe-Off Controls

This control is only present if you selected Linear Write-Off or Radial Write-Off as the Out transition. It allows you to adjust the angle of the Out transition wipe effect. This can be helpful in getting the wipe to work well with the shape used for the build.

## Turbulence Controls

This is where you can add some organic randomness to your animation. You can introduce variation to the scale, position, and rotation properties of each layer in the build. Note that the variation for each layer will be different. There is also a speed control for each of the transform properties.

## Drift Controls

These controls give you another level of control over layer scale, position and rotation. They can also be useful for simulating some physical effects, such as wind and gravity. These effects differ from the **Shape Controls** in that they trigger a time-based dynamic effect, beginning at each layer's marker.

Note that drift for the layer's position property is determined by the **Distance** and **Direction** controls.

The **Delay** dropdown allows you to select an ease-in associated with the drift animation. The higher the ease, the slower the drift begins.

## Final Words

We've found that ShapeMonkey is fairly intuitive, and with a bit of practice you'll be able to control it well enough to get the results you're after. Sometimes though, it will surprise you. Even a minor change might bring surprising results.

Our advice is to take advantage of the random settings and embrace the unpredictability. That's part of the beauty of this Monkey.

Thanks for your support and we hope you enjoy your new Monkey!

-Dan & Orrin



