



Motion 4

Creating Animation with Behaviors

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Part 1

Basic Motion Parameters

NOTE ► This tutorial is excerpted from *Apple Pro Training Series: Motion 4*, by Mark Spencer, 0-321-63529-9. For more information or to buy the book, go to www.peachpit.com/apts.

NOTE ► Before beginning this tutorial, you must install Motion and all of the Motion Content. Check the Final Cut Studio Installer disc for more information on how to install the Motion Content DVD. Then follow these steps:

- 1 Click to download the Online Tutorial Media.zip file.
- 2 Double-click the downloaded Online Tutorial Media.zip to unarchive the tutorial media. (If you are using Safari, this file will be located in your Downloads folder.) This will create a Motion4_Book_Files folder in the same location on your system.
- 3 Drag the Motion4_Book_Files folder to the root level of your Macintosh HD (main hard disk).
- 4 When you see the Motion4_Book_Files folder referenced in the PDF, find the folder by first navigating to your Macintosh HD.

Placing this folder anywhere else on your system may result in unlinked media requiring you to reconnect upon opening a project file.

Motion has a unique approach for putting the “motion” in motion graphics, using *behaviors*. So what are behaviors? They are an *effect*, like a filter or a mask, so you can apply them to a layer or group of layers. They allow you to create animation *procedurally*—that is, they contain a set of instructions that describe how to make an element move, or spin, or fade, so you don’t have to animate the layer manually.

Motion includes a huge variety of behaviors that you can use to animate layers, shapes, particle systems, and text; stabilize footage; track objects; simulate gravity; and even animate cameras.

In this series of lessons, you’ll use Basic Motion and Simulation behaviors to create the animation in the first half of a DVD motion menu for the project called Rockumentary. After that, you will explore Parameter behaviors in a new project.



Adding Basic Motion Behaviors

If you want to float a layer across the screen, rotate it, or have it fade into view, then reach for Basic Motion behaviors. They create animation using simple drag-and-drop techniques, and they even work in 3D. In the upcoming exercises, you'll use several Basic Motion behaviors to make graphics appear to tumble down through space like raindrops from a cloud's point of view.

First, view the final Rockumentary animation to see what you'll create in this lesson; then we'll examine the partially completed project, set things up, and add your first behavior.

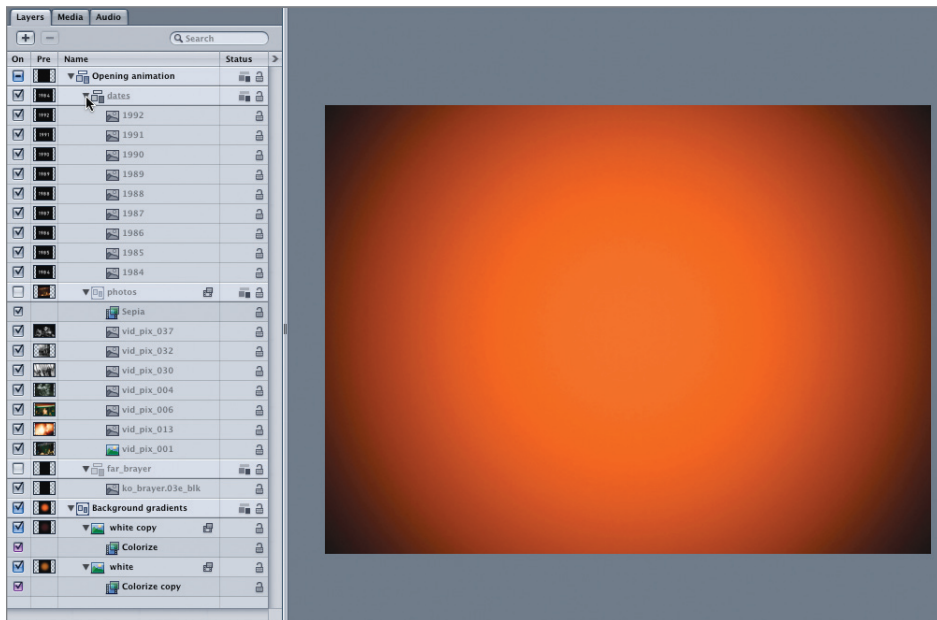
- 1 In the Finder, navigate to `Motion4_Book_Files > Lessons > Lesson_06`, open **Rockumentary_Menu.mov**, and play the movie.



You want to illustrate the years that the rock group Pale Divine was on tour by creating a cascade of dates and images. In the first 15 seconds of the menu, you can animate dates and photos to fade in, drop back in space as they spin, and fade out.

- 2 Return to the Finder, navigate to Motion4_Book_Files > Lessons > Lesson_06, open Rockumentary_behaviors_start, and save it to the Student_Saves folder inside the Lesson_06 folder. You can leave the QuickTime movie open for reference if you like.
- 3 Press F5 to open the Project pane and then open all groups and layers.

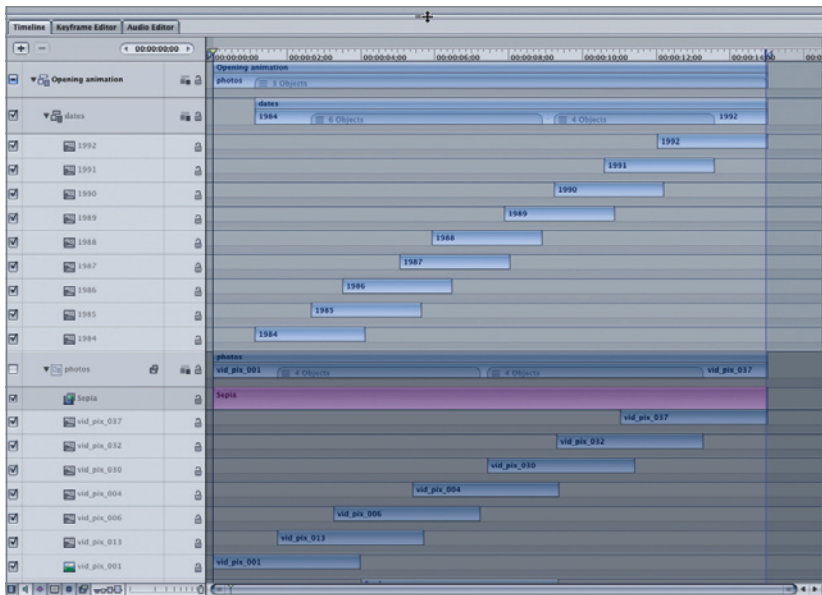
TIP You can drag up between any two layers or groups to resize all the layers and see more of them without scrolling.



There are two top-level groups: The *Background gradients* group contains two still-image layers with filters applied to create an aged, vignetted background look; and the *Opening animation* group contains a group of dates, a group of photos, and a group with a brayer image. All of the layers in the *Opening animation* group are dimmed because they don't exist at the current playhead location.

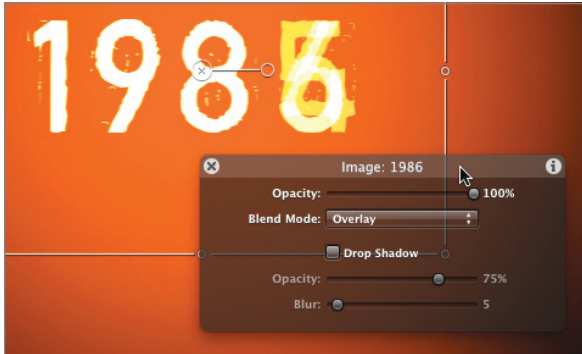
- Press F6 to open the Timing pane, and in the Timeline, open the *dates* and *photos* groups. Use the Zoom slider if necessary to fit the full project duration into the window.

TIP You can increase the size of the Timing pane by dragging up on the double dashes in the center of the separator bar (located between the Timing pane and the transport controls). You can also resize the layers and groups by dragging between any two of them, but they won't get as small as they will in the Layers tab.



The *dates* and *photos* layers are staggered in a staircase-like pattern to introduce one after the other. The layer bars in the *photos* group are dimmed because the group's visibility is turned off, enabling you to focus on the dates.

- Press F6 to close the Timing pane, and close the *Background gradients*, *photos*, and *far_brayer* groups. Press the Spacebar to play the project, and then click each of the layers in the *dates* group.



The HUD (heads-up display) shows that each of the layers has the Overlay blend mode applied.

NOTE ▶ If the HUD isn't visible, press F7 or choose it in the Toolbar.

Now that you have a feel for the project's structure, you can animate the dates. First, set a play range around one layer.

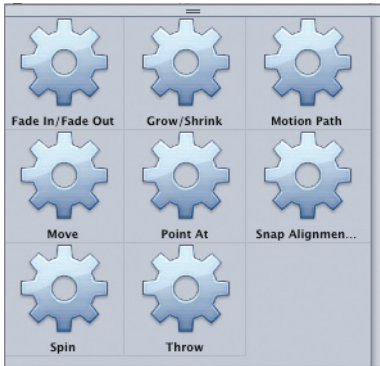
- 6 Stop playback, select the bottom *1984* layer, and press Shift-I to move the playhead to the layer's In point.
- 7 Choose Mark > Mark Play Range In or press Command-Option-I.
- 8 Press Shift-O to move the playhead to the layer's Out point, press Command-Option-O to set a play range Out point, and then press the Spacebar to play the play range.

NOTE ▶ In the transport controls at the bottom of the Canvas, make sure that Loop playback is turned on and that the audio is muted.



The next two layers, *1985* and *1986*, overlap the *1984* layer, which makes them pop on in a distracting way.

- 9 Turn off the visibility of the *1985* and *1986* layers. You are now set up to animate this layer by adding several Basic Motion behaviors.
- 10 Press Command-2 to open the Library. Choose Behaviors, and then choose the Basic Motion folder. The folder contains eight behaviors.



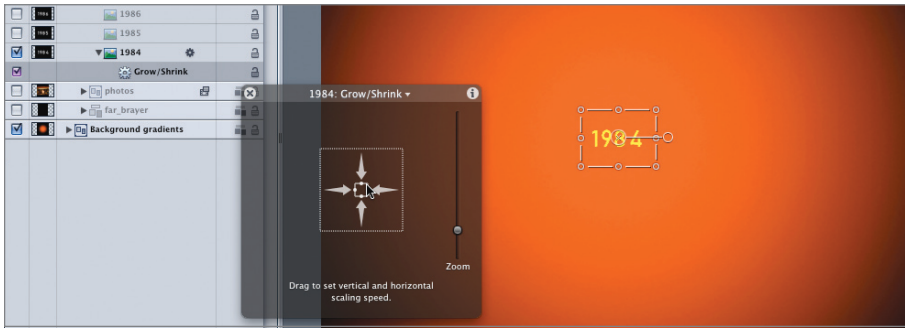
- 11 Select the Grow/Shrink behavior. The Preview area shows an animation of what the behavior does, along with a written description. You can use this behavior to create the illusion that the layer is falling “back” in space.



- 12 Drag the Grow/Shrink behavior onto the *1984* layer in the Layers tab or in the Canvas.

Because the behavior is an effect, it appears under the layer it is applied to, just like a filter or a mask. In the mini-Timeline, a purple bar representing that behavior matches the duration of the layer between the play range In and Out points. In the HUD, a graphical interface allows you to manipulate the behavior. In the Canvas, although the project is playing, nothing appears to be happening. Many behaviors must be adjusted to create animation.

- 13** In the HUD, drag inward on a corner of the square. The layer shrinks over the duration of the behavior, appearing to fall back in space.



TIP Be sure to drag from a corner. If you drag from an edge, the layer will scale nonproportionally.

- 14** Save your work.

It's a good start, but the animation could use more pizzazz. Luckily, it's easy to add multiple behaviors to the same layer. You'll learn how to do that in Part 2: Stacking Behaviors.