

Animated L-Train Logo



In this lesson, you'll explore techniques for creating transparency, including masks and a traveling matte.

In this lesson, you will create an animated logo for a fictional production company known as L-Train Productions. The project focuses on several transparency issues, including creating and animating masks and setting a traveling matte. To achieve the soft, pastel look of the final movie, you will apply a wide variety of visual effects, including tints, blurs, and a drop shadow.

You will also explore nesting compositions inside of other compositions. In the first half of the project, you're going to set up all of the motion in a single composition, and then you'll split the composition into smaller comps to which you'll apply visual effects.

This lesson covers the following topics:

- Importing Illustrator files as compositions
- Creating and editing masks, and animating mask shapes
- Animating text with the Path Text effect
- Nesting compositions
- Duplicating compositions
- Creating a track matte
- Using the Continuously Rasterize switch
- Using the Bevel Alpha, Gaussian Blur, and Channel Blur effects
- Using the Render Queue to batch render comps

At the end of this lesson you will have created an 8-second animated logo.

It should take approximately 3 to 4 hours to complete this project.

Viewing the final project

Before you begin, take a look at the finished movie that you will create in this lesson.

- 1 Double-click 03Final.mov in the 03Lesson folder to open the final QuickTime movie, and then click the Play button.



The movie consists of a video of a train that has been superimposed with a circular traveling matte. A variety of visual effects are applied to each layer, and the sound of a train adds the finishing touch.

- 2 When you are finished viewing the movie, exit from the MoviePlayer application.

Getting started

- 1 To ensure that the tools and palettes function exactly as described in this lesson, delete or deactivate (by renaming) the After Effects preferences file. See “Restoring default preferences” on page 6.
- 2 Start the After Effects application. An untitled Project window appears.
- 3 Choose File > Save Project As, name the file **03Work.aep**, and save it in the Projects folder.

Size and memory considerations

The final goal of this project is to create a 640 x 480 animated logo for video. However, for the sake of reducing disk space and memory requirements, the instructions are designed around a 320 x 240 format.

Setting up the project

Start the project by importing all the source files that you need to complete the logo.

- 1 Choose File > Import > Footage Files or press Ctrl+Alt+I (Windows) or Command+Option+I (Mac OS). Then select the Circle.ai file in the 03Lesson folder, and click Open.
- 2 Continue by selecting and importing the following files: Audio.mov, Logo.ai, Prod.ai, and Train.mov.
- 3 When you are finished importing the files, click Done.
- 4 Next, import the Illustrator file as a composition: choose File > Import > Illustrator As Comp, select Scr_L.ai, and click Open.

You should now have a total of seven items in the Project window, even though you imported only six items. When you imported the Scr_L.ai file as a comp, After Effects first added the source file layers in a folder, and then created the composition from the layers.

To make the composition easier to identify, rename it.

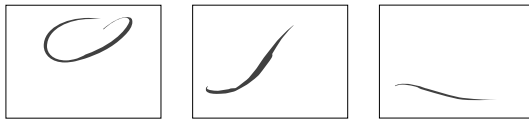
- 5 Select the Scr_L.ai composition in the Project window, press Enter or Return, type **Script L Comp** to rename it, and press Enter or Return again.



Animating the script letter L

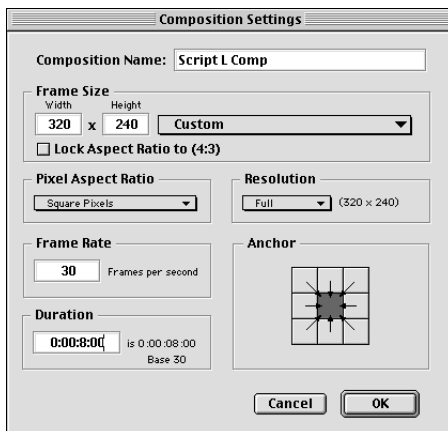
Now that you've imported your files, you'll start the project by animating the script letter *L*. The Script L elements were prepared in Adobe Illustrator. The letter *L* was typed into an Illustrator document using the Palace Script MT font, and was then converted to artwork using the Create Outlines command.

Since the letterform overlaps itself twice, it is broken into three sections: upper, middle, and lower. An invisible box is positioned around the letter (a rectangle with no fill and no border) so that when the artwork is placed into the After Effects Composition window, all three pieces will align perfectly at the center of the screen. (You could also create crop marks from the rectangle.)



Start your work with the composition you just imported by checking the settings for the composition.

1 With Script L Comp selected in the Project window, choose Composition > Composition Settings, and make sure that the Frame Size is set to **320 x 240**, and that the Frame Rate is set to **30** frames per second. Set the Duration to **800** (8 seconds), and then click OK.



2 To open the composition in the Composition window and the Time Layout window, double-click Script L Comp in the Project window.

The three layers of Script L Comp appear in alphabetical order in the Time Layout window. All three layers are centered in the Composition window. Now you'll zoom in so you can work with individual frames when you create a mask.

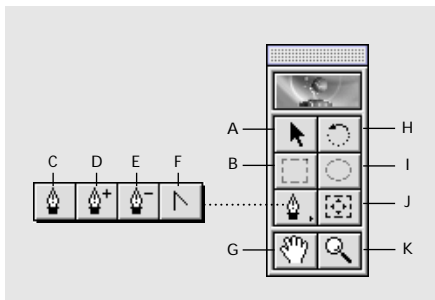
3 Drag the Zoom slider at the bottom of the Time Layout window to the right until each increment in the time ruler represents one frame.



Zoom slider

Creating masks with the pen tool

To animate the script *L*, you will create three masks that progressively reveal the letter *L*, as if it were being handwritten, specifying Mask Shape keyframes as you go. You'll use the pen tool and three related mask tools available in the toolbox to create these masks. You can select these tools in a number of ways, including using keyboard shortcuts, selecting them directly from the toolbox, or using key combinations that cycle through the tools. In this part of the lesson, you'll select these tools in several ways.



- A. Selection*
- B. Rectangle*
- C. Pen*
- D. Add Control Point*
- E. Delete Control Point*
- F. Convert Control Point*
- G. Hand*
- H. Rotation*
- I. Oval*
- J. Pan Behind*
- K. Zoom*

Start by hiding the layers you don't need right now, and then open the layer you'll be working on in a Layer window.

1 Press the Home key to set the current time to 00:00:00. Hide the video for the LowL.ai and MidL.ai layers by deselecting their Video switches, so that all you see is the TopL layer.

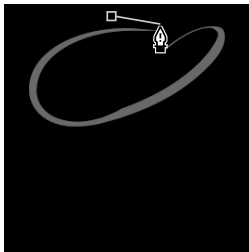
You create masks in the selected element's Layer window and preview masks in the Composition window.

2 In the Time Layout window or the Composition window, double-click the layer TopL to open the Layer window. Arrange your palettes and windows so that you can see both the Composition window and the Time Layout window.

To reveal the letter *L* one step at a time, you will draw Bezier a mask in the Layer window by using the pen tool. The first shape shows a small part of the top of the *L*; then you'll advance one frame and expand the Bezier mask to show a little more of the letter. You will set about 21 keyframes in all, revealing a little more of the *L* each time.

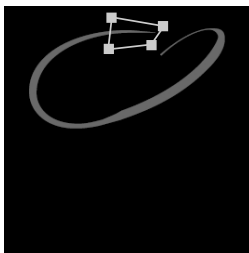
The pen tool works very much like the pen tool in Adobe Photoshop and Adobe Illustrator. You click to establish control points and draw straight lines; drag to create curves. The shapes you create for these masks will be straight line shapes.

3 If the toolbox is not visible, choose Window > Show tools. Select the pen tool in the toolbox, and then, in the Layer window, click near the top of the TopL layer to establish the mask's first control point.

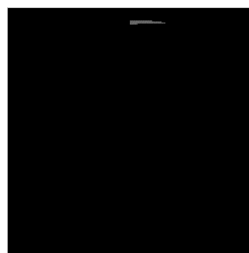


Frame 0

4 Click three more times in a box shape to create control points around the tip of the *L*. To close the mask, either click the first point again or double-click the last point.



Frame 0



Composition window

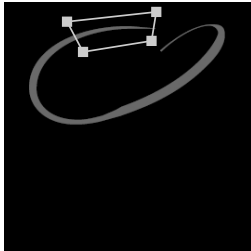
Whatever is inside the mask will show in the Composition window; whatever is outside the mask will be hidden from view. The Composition window displays the progress of the mask.

5 In the Time Layout window, click the triangle next to the TopL layer to expand the layer outline, and then click the triangle for Masks to expand the properties outline. Notice that a mask has appeared, called Mask 1. Click the triangle for Mask 1 and click the stopwatch for Mask Shape to establish the first keyframe.

Editing a mask

To create the rest of the mask shapes for the top part of the *L*, you will edit the current mask by using the pen and selection tools. Because this part of the *L* has only a gentle curve, you can create the next mask shape simply by extending the existing mask. Later, you'll need to add control points to extend the mask around the curve.

1 To edit the mask for the next frame, press Page Down to go to the second frame, frame 1 (00:01) and click the selection tool in the toolbox. In the Layer window, drag each control point on the left so that the mask reveals a little more of the letter *L*. A second keyframe is created automatically.



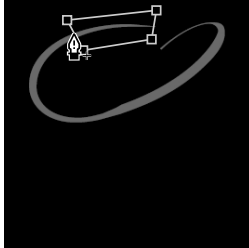
Frame 1



To use the selection tool while you have the pen tool selected, hold down the Ctrl key (Windows) or the Command key (Mac OS).

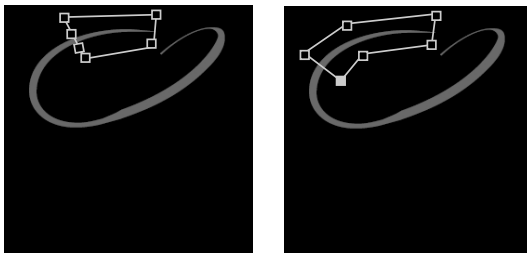
2 Move forward one frame, either by pressing the Page Down key on your keyboard, or by pressing Ctrl+Right Arrow (Windows) or Command+Right Arrow (Mac OS).

3 To edit the mask for frame 2, select the pen tool in the toolbox, and then position the pen tool icon over the left segment of the mask. The pointer changes to the add control point tool (a pen icon with a plus sign). You can add points to the mask path by clicking the path using this tool.



Frame 2

4 Click twice to add two new points to the left segment of the mask, and then select the selection tool in the toolbox (or just hold down Ctrl/Command) and use it to drag each of the new points to the left, revealing more of the *L*. Use the selection tool to drag points, revealing more of the *L*.



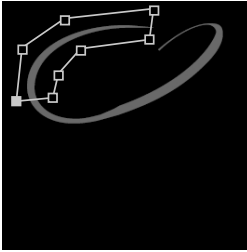
Frame 2 before and after moving the new control points.

If you position the pen tool over a control point, you will see the convert point tool, which lets you convert corner points to smooth Bezier points. In this section, you are focusing on creating straight line shapes with corner points. However, you may accidentally create a smooth point. You'll know it's a smooth point by the lines coming out of the control point. To convert a smooth point to a corner point and vice versa, click the point with the convert point tool.

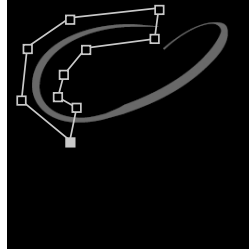
Note: You should pause for a second after clicking the mouse button to allow time for the change to register.

5 Move forward one frame, and then use the following illustrations as guides to edit the mask for each of the next nine frames. Frame 11 will be the last frame for which you edit the mask. Don't worry about matching the mask shapes exactly.

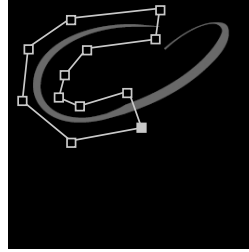
Important: Make sure to move forward one frame before editing the mask; otherwise, you will be editing the same mask shape over and over at the same point in time, instead of changing it over time.



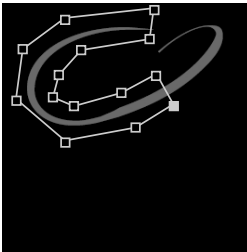
Frame 3



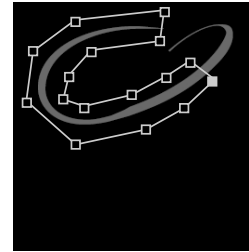
Frame 4



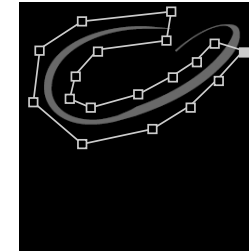
Frame 5



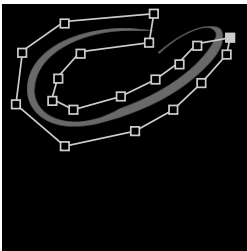
Frame 6



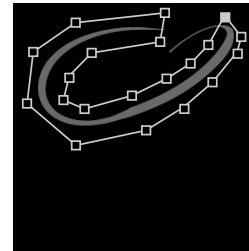
Frame 7



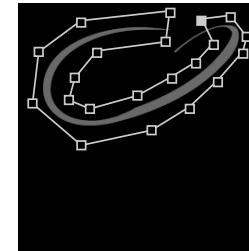
Frame 8



Frame 9



Frame 10

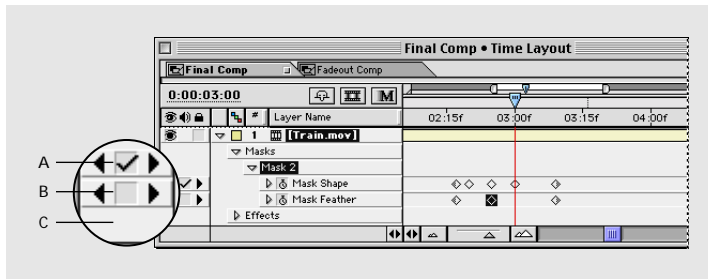


Frame 11

To show all of the script L, you could edit the mask to reveal the last portion of the artwork, but it's easier to simply reset the mask, which removes all control points.

6 In the Time Layout window, drag the blue current-time marker one frame forward to 00:12, and then choose Layer > Mask > Reset Mask to reset the mask.

You should now have keyframes set for every frame from 00:00 to 00:12. To view the mask changes, you'll move from keyframe to keyframe using the keyframe navigator, which is located in the far left panel of the Time Layout window. You'll click the right triangle to go to the next keyframe, and click the left triangle to go to the previous keyframe.



A. Keyframe at current time B. No Keyframes at current time
C. No Keyframes for layer property

7 Move the current-time marker to 00:00, and then use the keyframe navigator to move from keyframe to keyframe. (In this case, you can also press the Page Down key to move forward one frame at a time.) As you move, check your mask in the Layer window.

8 After viewing the mask, close the Layer window, and then collapse the outline for the TopL layer, and save the project.

9 Move the current time-marker to 00:00 and click the Play button to see a frame-by-frame preview.

Similar masks are needed for the MidL and LowL layers. However, since the shapes are fairly straight, they don't require as many edits to the masks.

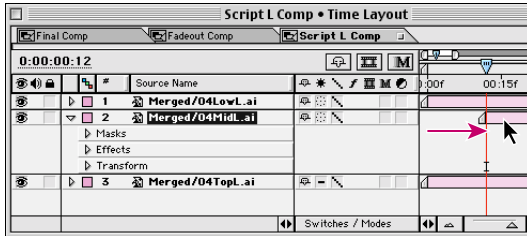
Note: The decision on how much of the L to reveal at each frame was based on the way people handwrite the letter L. The curves take a little more time and the long strokes go faster, so smaller advancements were made around the curves and bigger ones on the straighter lines.

Creating another mask

After setting the In point of the MidL layer to frame 00:12, you will create and edit a mask to progressively reveal the middle section of the script L.

1 In the Time Layout window, select the Video switch to show the MidL.ai layer. Select the MidL layer, set the current time to 00:12 (12 frames), and then drag the layer duration bar to move the In point of the MidL layer to 00:12.

Note: When dragging a layer duration bar, drag the bar itself, not its In or Out points.

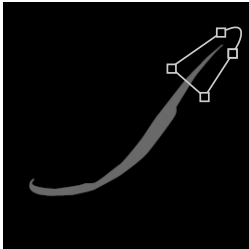


2 Hide the video for the TopL layer.

3 Double-click the MidL layer in the Time Layout window to open the Layer window.

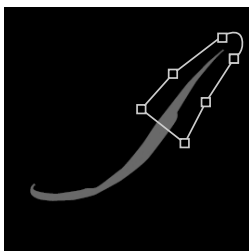
4 Select the pen tool in the toolbox, and then create a mask to reveal a portion of the top of the middle part of the L.

5 Click the triangle to expand the MidL layer, and then click the Masks triangle to display Mask 2. Click the stopwatch next to Mask Shape to set the first keyframe.



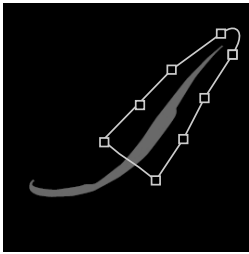
Frame 12

6 Press Page Down to go to frame 13, and then create a new mask.

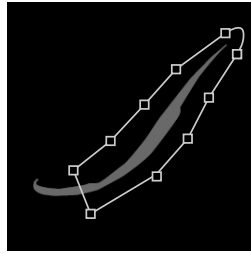


Frame 13

7 Repeat for frames 14 and 15.



Frame 14



Frame 15

Just as you did with the TopL.ai layer, you'll reset the mask to reveal the last portion of the artwork.

8 Press Page Down to go to frame 16, and then choose Layer > Mask > Reset Mask to reset the mask.

9 Go to frame 00:12, and then use the keyframe navigator to check the mask at each keyframe.

10 Close the Layer window for the MidL layer and collapse its outline. Select the Video switches to display the LowL layer and hide the video for the MidL layer.

11 Save the project.

Creating the last mask

Now finish up by creating the mask for the lower part of the *L*. You will reset the mask at the final keyframe.

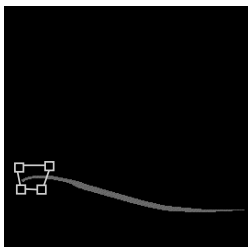
1 In the Time Layout window, select the LowL layer, make sure the current-time marker is positioned at frame 00:16, and then set the In point for LowL at frame 00:16 by pressing the left bracket ([) key on your keyboard.

Pressing the left bracket key preforms the same function as dragging a layer's duration bar, as you did in the previous procedure.

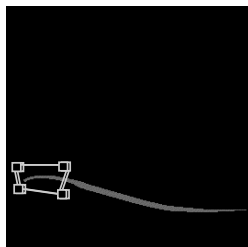
2 Double-click the LowL layer in the Time Layout window to open its Layer window. In the Layer window, create a small mask on the left side of the image at frame 16.

3 Press the M key to display the Mask Shape property, and then click the stopwatch next to Mask Shape to create the initial keyframe for Mask 3.

- 4 Move one frame forward and expand the mask at frame 17.

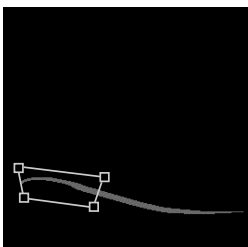


Frame 16

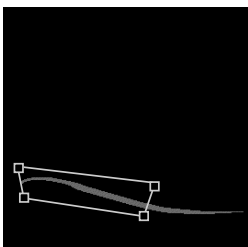


Frame 17

- 5 Continue to create masks at frames 18 and 19.



Frame 18



Frame 19

- 6 Set the current time to 00:20, and then reset the layer mask by choosing Layer > Mask > Reset Mask. Collapse the LowL.ai layer outline.
- 7 Return to frame 00:16, and then check each mask by stepping through the keyframes using the keyframe navigator.
- 8 Close the Layer window for the LowL layer and collapse its outline. In the Time Layout window, select the Video switches to display the LowL, MidL, and TopL layers.
- 9 Return to the beginning of the composition, and then press the spacebar to play the composition. The letter *L* should appear to write itself.
- 10 Close the Script L Comp Time Layout window and Composition window, and then save the project.

You will use this composition later in the lesson.

Creating a template for a composition

You're going to create a composition that contains all the animated elements in the logo. First, you'll add a composite of the logo that was created in Illustrator. After scaling and positioning the logo, you will use the logo layer as a template for aligning the rest of the elements in the animation.

- 1 Choose Composition > New Composition, and type **Motion Comp** for the name. All the settings should be the same as the previous composition: 320 x 240 in size, 30 frames per second, and 08:00 duration. Click OK.

- 2 Drag the Merged/Logo.ai footage item from the Project window to the Time Layout window. Adding an item in this way automatically centers it in the Composition window.

Since the logo was created using black shapes, you will change the background color of the Composition window to white so that you can see the artwork.

- 3 Choose Composition > Background Color.

- 4 Click the color swatch, select white from the color picker, click OK, and then click OK again in the Background Color dialog box.

The background stays with the composition when you render a movie. When you render a movie with an alpha channel, the background becomes transparent. When you insert a composition inside another composition, the inserted composition's background becomes transparent.

- 5 Click the safe-zones icon in the Composition window to display the title-safe and action-safe zones.



Safe-zones icon

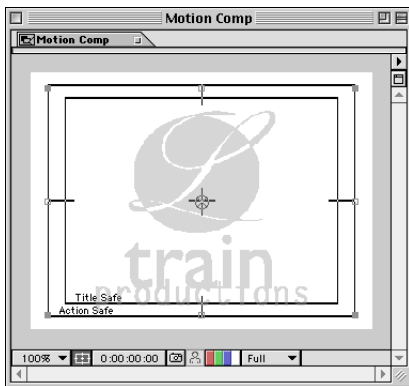
Next, you will scale the template layer to fit within the title-safe zone, and then set the Opacity to 20%.

6 Click the triangle for the Merged/Logo.ai layer in the Time Layout window, and then click the triangle to display the Transform properties.

7 With the layer selected in the Composition window, click a corner handle and hold down the mouse button, hold down the Shift key, and then drag until the Scale value displayed in the Info palette is 90%. Holding down the Shift key while resizing a graphic preserves its proportion.

The logo now fits inside the title-safe zone.

8 In the Time Layout window, click the underlined Opacity value, set the Opacity to **20**, and click OK.



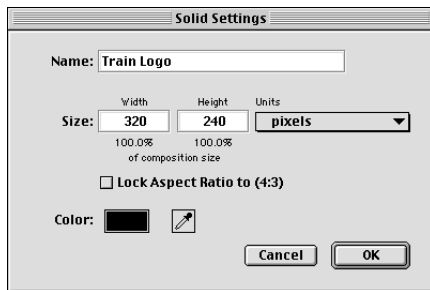
9 To rename the Merged/Logo.ai layer in the Time Layout window, select the layer and press Enter or Return. Type **Template** for the new name of the layer, and press Enter or Return again to apply the name.

10 Click the Lock switch to lock the layer, and then collapse the layer outline.

Animating the logo

Now that the template is set up, you will begin to position and animate the logo elements, starting with the word *train*. You'll use the Basic Text effect to create and animate text on a new solid layer.

- 1 Choose Layer > New Solid, and name it **Train Logo**. Set the size to **320 x 240**, change the color to black, and click OK.



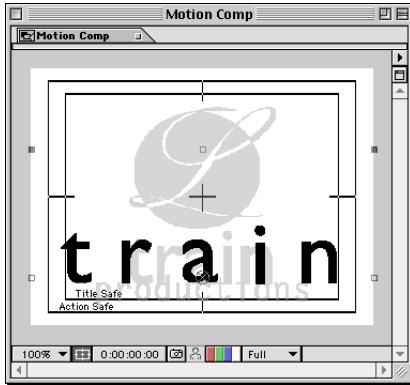
The new black layer obscures the other layers in the composition. Now you'll create the text for the logo.

- 2 With the Train Logo layer selected, choose Effect > Text > Path Text. Choose Gil Sans Bold or a similar font and type the word **train** in lowercase. Click OK.

The word *train* appears in the center of your screen in red. Next, you will change the settings for this text.

- 3 In the Effect Controls window, change the Shape Type to Line. Change the Alignment to Center. Click the color swatch and change the text color to black.
- 4 In the Composition window, drag the Train Logo layer so that the word *train* is directly on top of the word *train* in the template. If the words are not the same size, change the Size value in the Effect Controls window so the Train Logo layer matches the template.
- 5 In the Time Layout window, display the Train Logo properties, the Effects properties, and the Path Text properties. With the current time still at 0:00:00, set an initial Tracking keyframe.

6 In the Effect Controls window, use the Tracking slider to change the tracking so the word *train* spreads out across the screen.



7 Move the current-time marker to four seconds (0:04:00) and change the tracking so it matches the template. Preview your motion to make sure the letters appear as if they are coming together.

Now you'll fade in the text.

8 Move the current-time marker back to 0:00:00. Press the T key to display the Opacity property. Set an initial Opacity keyframe, and change the value to **0**.

9 Move the current-time marker to 0:01:00, and change the Opacity value to **100**.

10 Close the Effect Controls window.

Positioning another element

Next, you will animate the scale and position of the word *productions* and set a fade-in.

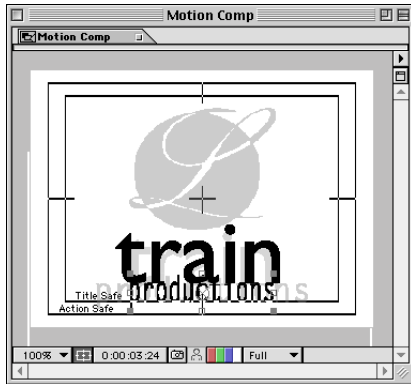
1 In the Time Layout window, temporarily hide the video for the Train Logo layer by selecting the Video switch for the layer.

2 Set the current time to 03:24, and then drag the Merged/Prod.ai footage item from the Project window into the Time Layout window.

3 Press the S key to display the Scale property, and then click the underlined Scale value. In the Scale dialog box, deselect Preserve Frame Aspect Ratio, enter **61** for Width, leave Height at **100**, and click OK.

Deselecting Preserve Frame Aspect Ratio lets you enter different values for Width and Height, which changes the aspect ratio of the layer.

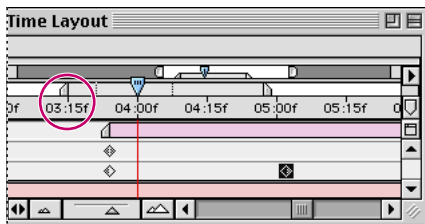
- 4 With the current time still at 03:24, click the stopwatch to set an initial Scale keyframe.
- 5 Press Shift+P to display the Position property, and then in the Composition window drag the layer so that the word *productions* is centered from left to right, and the bottom edge of the *p* aligns with the bottom of the action-safe zone (the lower of the two lines).



- 6 Click the stopwatch to set an initial Position keyframe.

Now you'll finish scaling the layer and then you'll return it to its original aspect ratio by selecting Preserve Frame Aspect Ratio.

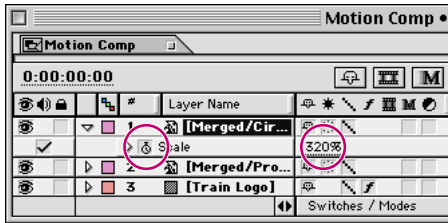
- 7 In the Time Layout window, move the current-time marker to 05:02, and click the underlined Scale value. Then select Preserve Frame Aspect Ratio again, set the Scale to **90** for both Width and Height, and click OK.
- 8 In the Composition window, move the Merged/Prod.ai layer so that it matches the template. A keyframe is automatically created.
- 9 Set the beginning of the work area by dragging the left work area marker to approximately 03:15, and then play a wireframe preview by pressing Alt+0 (Windows) or Option+0 (Mac OS) on your numeric keypad.



Positioning the circle

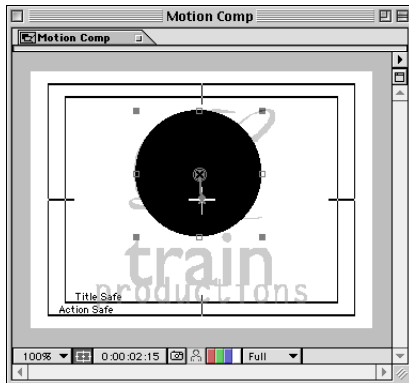
The circle starts at 320% of its original size, and then scales down to 90% over several seconds, to match the position on the template.

- 1 Set the current time to 00:00, and drag the Merged/Circle.ai layer from the Project window to the Time Layout window.
- 2 Press the S key to display the Scale property, click the underlined Scale value, enter **320**, click OK, and then set an initial Scale keyframe. The entire window is covered with the black circle.



Scale keyframe value

- 3 Press Shift+P to display the Position property, and then set an initial Position keyframe. The value should be the center point on the composition (160, 120).
- 4 Set the current time to 02:15, and then set the Scale value to **90%** of the source. A keyframe is automatically created.
- 5 In the Composition window, position the circle so that it matches the template.

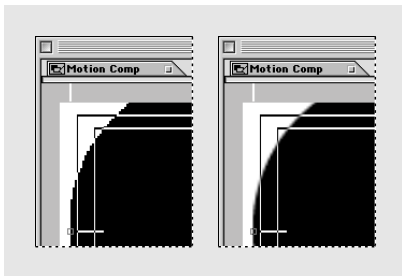


- 6 Set the current time to 01:00.

Continuously rasterizing

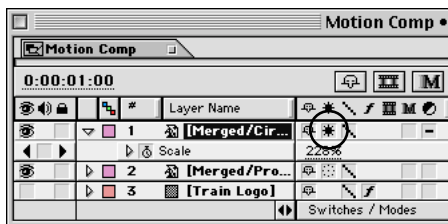
Notice how jagged the edges of the circle look. The Merged/Circle.ai file you imported is Illustrator path-based art. After Effects *rasterizes* the file, or converts it to a pixel-based image format. When you change the scale or otherwise transform a raster image, the edges can become jagged. To smooth the edges of the circle, you'll select the Continuously Rasterize switch in the Time Layout window.

- 1 To better see the changes continuous rasterization can make, click the Quality switch icon for the Merged/Circle.ai layer to select Best quality. See “Layer switches” on page 46.



Quality set to draft (left) and Best (right) in the Time Layout window

- 2 With the current time still at 01:00, select the Continuously Rasterize switch for the Merged/Circle.ai layer. A star shape appears in the Switches panel.

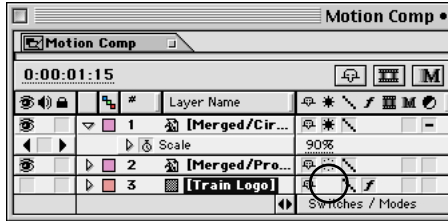


Continuously Rasterize switch selected

Notice how the jagged edges of the circle are smoothed out.

- 3 Move the current-time marker to 01:15. The image decreases in size, but the pixel information is recalculated so that the edges still appear smooth.
- 4 Try deselecting and selecting the Continuously Rasterize switch to see the effects as you move to different points in time.

The Continuously Rasterize feature is not available for Illustrator files that have visual effects or masks applied to them. Notice that in the Continuously Rasterize column for the Train Logo layer, no box is displayed. This means that you cannot continuously rasterize the layer because a mask has been applied to the layer.



If no box is displayed, continuous rasterization is unavailable

The Continuously Rasterize feature also may slow down previewing, because the image pixel information is recalculated with every editing change. To increase previewing speed, turn off the option until you are finished positioning elements.

5 Deselect the Continuously Rasterize switch to turn it off, click the Quality switch to select Draft quality, and collapse the layer outline.

Note: This switch affects a layer containing nested compositions differently than it affects a layer containing an Illustrator file. If a layer's source is a composition, selecting this switch can improve image quality and decrease viewing and rendering time. For more information, see the *After Effects User Guide*.

Nesting Script L Comp

Now you will nest the Script L Comp composition inside the Motion Comp. When you put a composition inside another composition, the nested composition becomes a layer in the composition that contains it. Nesting compositions helps you organize your work, apply complex changes to multiple objects, and update several compositions at once.

After positioning the Script L Comp layer, you set Scale and Position keyframes so that the layer zooms in and ends up in the middle of the circle.

1 Set the current time to 02:04, and then drag Script L Comp from the Project window into the Time Layout window.

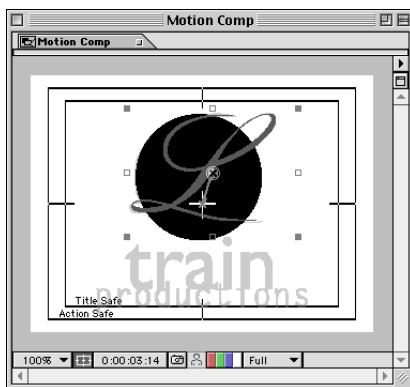
You will be able to see only the first piece of the top part of the Script L Comp layer.

2 Display the layer outline for the Script L Comp layer, display the Transform properties, and then click the stopwatch to set an initial Position keyframe.

3 Click the stopwatch to set an initial Scale keyframe, leaving the value at 100%.

4 Move the current-time marker to 03:14, and then set the Scale value to **50%** of Source.

5 In the Composition window, move the script *L* so that it matches the template. (If necessary, hide the video for the Merged/Circle.ai layer.)



You should have two keyframes each for Scale and Position.

6 In the Time Layout window, collapse the Script L Comp layer outline.

7 To select the Video switches for all the layers, choose Layer > Switches > Show All Video.

8 Set the current time to the beginning of the composition, save the project, and then press the spacebar to play the composition.

To keep the edges of the circle smooth as you scale it, you'll use continuous rasterization.

9 Click the Continuously Rasterize switch for the Merged/Circle.ai layer to turn it on.

Splitting the comps

Now all the elements have been animated, but they are all in one composition. To set a matte from the circle and apply visual effects easily to each major element, you will separate the elements into different compositions. (Mattes are discussed later in this lesson.)

After duplicating Motion Comp three times, you will open each copy, delete some of the layers to isolate individual elements, and then rename the composition.

- 1 First, unlock the Template layer by deselecting the Lock switch in the Time Layout window.
- 2 Close the Motion Comp Time Layout and Composition windows, and select the Motion Comp composition in the Project window.
- 3 Choose Edit > Duplicate or press Ctrl+D (Windows) or Command+D (Mac OS).

The duplicated composition has an asterisk (*) added to the name to help you keep track of duplicated layers.

- 4 Choose Edit > Duplicate three more times, to create Motion Comp**, Motion Comp***, and Motion Comp****.

You will leave the first Motion Comp as a backup.

- 5 Select Motion Comp*, press Enter or Return, type **Circle Comp** to rename it, and press Enter or Return again.

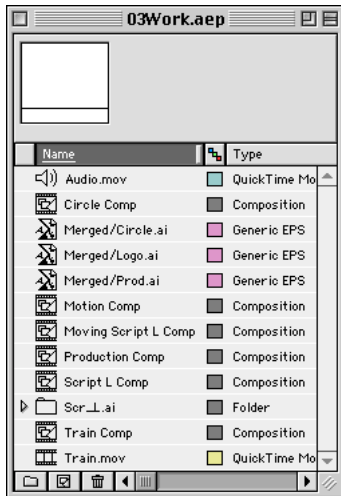
- 6 Double-click Circle Comp to open the Time Layout window. In the Time Layout window, Ctrl-click (Windows) or Command-click (Mac OS) every item except Merged/Circle.ai to select them, and then press Delete. Close the Composition window and the Time Layout window.

- 7 In the Project window, select Motion Comp** and rename the new composition **Moving Script L Comp**. Double-click Moving Script L Comp to open the Time Layout window, Shift-click to select every item other than the Script L Comp layer, and then delete the selected items. Close the Composition window and the Time Layout window.

- 8 In the Project window, change the name of Motion Comp*** to **Production Comp**, open Production Comp, and delete everything but the Production layer. Close the Composition window and the Time Layout window.

- 9 In the Project window, change the name of Motion Comp**** to **Train Comp**, open Train Comp, and delete everything but Train Logo. Close the Composition window and the Time Layout window.

You should have four new compositions: Circle Comp, Moving Script L Comp, Production Comp, and Train Comp, as well as your initial Motion Comp and Script L Comp.



Note: Another method that can be used to split comps is to precompose the groups of layers. For information on precomposing, see the *After Effects User Guide*.


You can keep track of where a nested comp or source file is used by selecting it in the Project window, and then clicking the item name that appears at the top of the Project window.



Creating the final composition

Now you'll create a new composition in which you assemble the individual compositions that contain motion, along with the train video. Since the final composition is quite complex, and includes several visual effects, splitting the layers into different comps simplifies the creation of the final composition.

- 1 Make sure that all Composition windows and Time Layout windows are closed.
- 2 Choose Composition > New Composition, and type **Final Comp** for the name. The settings are the same as for previous compositions: 320 x 240, 30 fps, 08:00. Working with nested compositions can cause lengthy screen refresh times. To speed screen redraw, you can change the Resolution to Half. Click OK.

 *Press the Caps Lock key to temporarily stop screen refresh.*

Using alpha channel or luminance values for a track matte

A matte is a layer (or any of its channels) that defines the transparent areas of that layer or another layer. When you want one layer to show through a hole in another layer, set up a track matte. You'll need two layers—one to act as a matte, and another to fill the hole in the matte.

After Effects lets you define transparency in a track matte using values from either its alpha channel or the luminance of its pixels. Using luminance is useful when you want to create a track matte using a layer without an alpha channel or a layer imported from a program that can't create an alpha channel. In both alpha channel mattes and luminance mattes, pixels with higher values are more transparent. In most cases, you use a high-contrast matte so that areas are either completely transparent or completely opaque. Intermediate shades should appear only where you want partial or gradual transparency, such as along a soft edge.

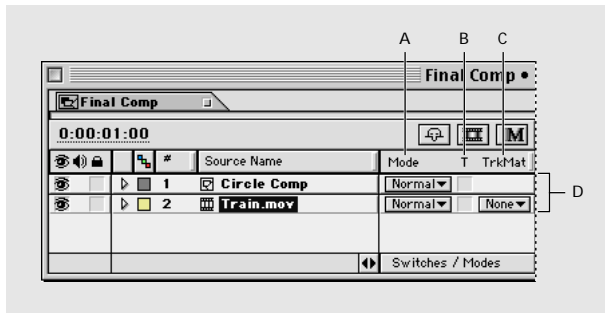
—From the Adobe After Effects User Guide, Chapter 8

Creating a track matte

To begin the final composition, you'll start by creating a track matte inside of which you will see the train video footage. A *track matte* works between two layers—a layer that acts as the matte and a layer that provides the fill for the matte. In this example, the circle will be used as a stencil in which you will see the train video.

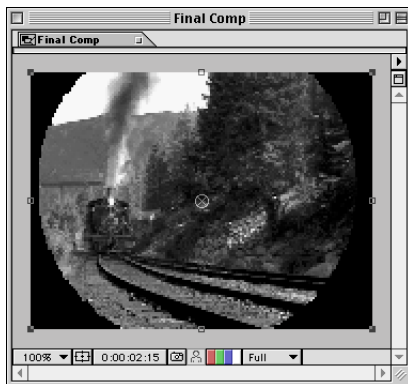
- 1 With the current time at 00:00, drag the Train.mov footage item from the Project window to the empty Time Layout window.
- 2 Drag the Circle Comp (make sure it's the composition item and not the Illustrator source file) from the Project window into the Time Layout window.
- 3 Make sure that the Train.mov layer is below the Circle Comp layer.
- 4 Move the current-time marker to 01:00 (just so that you can see what's happening).
- 5 In the Time Layout window, click the Switches/Modes button at the bottom of the Switches panel to display the Transfer Modes panel.

The Transfer Modes panel is where you set a variety of interactions between layers, including track mattes and layer modes like those in Photoshop.



A. Mode menu B. Preserve Transparency check box
C. TrkMat menu D. Transfer Modes panel

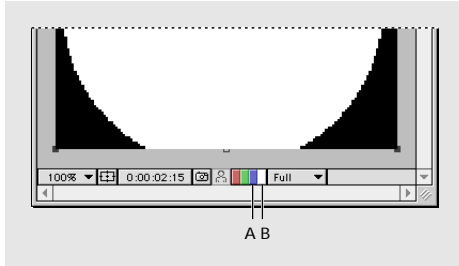
6 Select the Train.mov layer, and choose Alpha Matte “Circle Comp” from the TrkMat menu. The train appears inside the circle. Everything outside the circle is masked.



The Alpha Matte option uses the top layer’s alpha channel as the matte. In the case of the black-and-white Illustrator image, the black circular area of the illustration becomes transparent. To set a matte, you must position the matte image layer directly above the fill image layer in the stacking order.

Notice the dotted line that appears between the two layers in the Time Layout window. This indicates that a track matte has been applied. After Effects automatically turns off the video of the matte layer. The Video switch icon for the Train.mov layer also changes, reflecting an interaction between the two layers.

- 7 To examine the alpha channel, position the pointer over the alpha channel icon in the Composition window and hold down the mouse button.



A. Blue channel icon B. Alpha channel icon

- 8 In the Time Layout window, click the Switches/Modes button again to display the Switches panel.
- 9 Press the spacebar to play the composition for a few frames, and then save the project.

Applying visual effects

Now you'll assemble the rest of the final composition and apply a variety of visual effects to the various layers, including tints, image controls, and blurs. You've already assembled the Train.mov layer and the Circle Comp composition in the final composition. To these elements you'll add another Circle Comp composition, and then the Moving Script L Comp composition, the Train Comp composition, and the Production Comp composition.

- 1 Set the current time to 00:00. Drag Moving Script L Comp from the Project window into the Time Layout window.
- 2 Drag the Train Comp from the Project window into the Time Layout window. Now reposition this new layer in the Time Layout window's layer stack by dragging it below the Moving Script L Comp layer.
- 3 Drag the Production Comp composition from the Project window into the Time Layout window, positioning it below the Train Comp layer.
- 4 Finally, drag the Audio.mov footage item from the Project window into the Time Layout window.

You've just added all the elements you'll need for the final composition. Check the order and content of this composition against the illustration below.



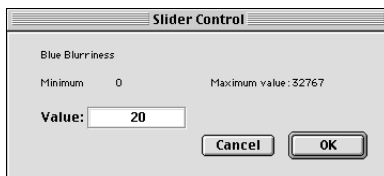
Adding a channel blur effect

You'll start by applying a channel blur to the Train.mov layer, and then modify the brightness and contrast and add a tint.

- 1 Set the current time to 00:00, select the Train.mov layer, and choose **Effect > Blur & Sharpen > Channel Blur**.

The Channel Blur effect lets you blur a layer's red, green, blue, or alpha channel individually. For information on channels, see the After Effects User Guide.

- 2 In the Effect Controls window, experiment with the slider for Blue Blurriness. To enter the final value, click the underlined value for Blue Blurriness, enter **20**, and then click OK.



- 3 To examine the blue channel, position the pointer over the blue channel icon in the Composition window and hold down the mouse button. Notice that the blue channel has become slightly blurred.

- 4 Choose **Effect > Adjust > Brightness & Contrast**. In the Effect Controls window, increase the Brightness value to 26.3 and decrease the Contrast value to -25.3. You may want to experiment with various settings to get the effect that you want.

To simplify setting tints for the elements in the rest of the project, a Photoshop file has been prepared that contains color swatches that you can sample using the Tint effect eyedropper.

- 5 Choose File > Import > Footage File, select Tints.psd in the 03Lesson folder, and click Open. Double-click Tints.psd in the Project window to open it in the Footage window, and then position the Footage window so that you can see both it and the Project window.
- 6 Activate the Final Comp Composition window, make sure the Train.mov layer is selected, and then choose Effect > Image Control > Tint. In the Effect Controls window, click the Map Black To eyedropper.



- 7 Click the peach color swatch in the upper left corner of the Tints.psd window to sample the color, and then set the Amount to Tint value to 53.7%.
- 8 If you want to modify the color, click the Map Black To color swatch in the Effect Controls window and adjust the tint using the color picker.
- 9 Close the Effect Controls window for the Train.mov layer.

Creating a glow effect for the circle

To create a glowing effect behind the circle and give it a slightly raised look, you'll add a second Circle Comp and apply the Fast Blur and Tint effects to it. In order to see the effect better, you'll change the background color to white.

- 1 Drag the Circle Comp composition from the Project window into the Final Comp Time Layout window. You now have two Circle Comp layers.
- 2 In the Time Layout window, select the lower Circle Comp composition.
- 3 Choose Composition > Background Color, and then click the eyedropper and sample white from the background in the Tints.psd Footage window. Click OK.

- 4 Set the current time to 02:00 so that you can see the circle.
- 5 In the Time Layout window, select the top Circle Comp layer and rename the layer **Glow**.
- 6 In the Time Layout window, drag the Glow layer beneath the Train.mov layer.



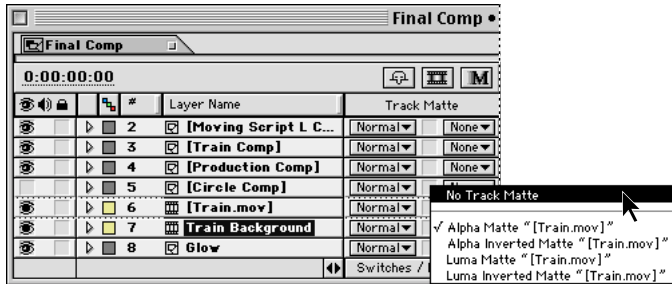
- 7 Move the current-time marker to 00:00, and then choose Effect > Blur & Sharpen > Fast Blur. In the Time Layout window, click the triangle for the Glow layer, click the triangle for Effects, and then click the triangle for Fast Blur. Click the stopwatch to set an initial Blurriness keyframe. Set Blurriness to **17.0**.
- 8 Move the current-time marker to 02:15, and change the Blurriness value to **11.4**.
- 9 Choose Effect > Image Control > Tint. In the Effect Controls window, click the Map Black To eyedropper, and then sample the kelly green color swatch (middle left square) in the Tints.psd Footage window. Set the Amount to Tint value to **100**.
- 10 Close the Effect Controls window, collapse the Glow layer outline, and save the project.

Modifying effects for the second movie clip

To get the two-toned effect for the train video, you'll duplicate the original layer, and then modify the effects in the Effect Controls window.

- 1 Set current time to 0:00. Select the Train.mov layer in the Time Layout window, and choose Edit > Duplicate.
- 2 Select the lowest Train.mov layer and change the name to **Train Background**.

3 To turn off the matte, make sure the Transfer Modes panel is displayed. Then choose No Track Matte from the TrkMat menu for the Train Background layer.



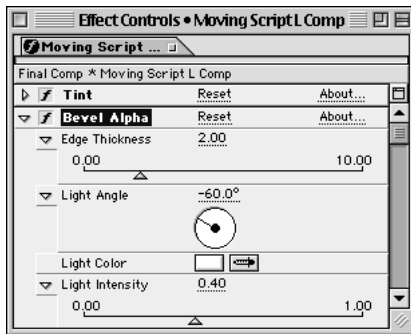
- 4 Drag the Train Background layer below the Glow layer.
- 5 Press the E key to display the Effect properties, and then double-click any effect property to open the Effect Controls window for the Train Background layer.
- 6 Under Channel Blur in the Effect Controls window, set the Blue Blurriness value to **0** and the Green Blurriness value to **34**.
- 7 Change the Brightness value to **30.5** and the Contrast value to **-15.8**.
- 8 To change the tint, click the Map Black To eyedropper, and then sample the lilac color swatch in the upper right corner of the Tints.psd Footage window.
- 9 In the Effect Controls window, set the Amount to Tint value to **63.7**.
- 10 Close the Effect Controls window for the Train Background layer and save the project.

Using the Bevel Alpha and Drop Shadow effects

Now you'll apply a tint, a bevel, and a drop shadow to the Moving Script L Comp layer.

- 1 In the Time Layout window, select the Moving Script L Comp layer.
- 2 Set the current time to 03:00 (so you can see the entire script *L*), and then choose Effect > Image Control > Tint. Click the Map Black To eyedropper in the Effect Controls window, and sample the dark green color swatch (middle right square) in the Tints.psd Footage window.
- 3 Set the Amount to Tint value to **100%**.

4 Choose Effect > Perspective > Bevel Alpha.



The Bevel Alpha effect gives a chiseled and lighted appearance to the alpha boundaries of an image.

5 In the Effect Controls window, experiment with the Edge Thickness and Light Angle controls, and then click Reset to use the default values.

6 Click the Light Color eyedropper, and then sample the gold color in the lower left corner of the Tints.psd Footage window.

The highlight of the beveled edge turns yellow. As a finishing touch, you'll add a drop shadow to the script L that starts blurry and far away and gets sharper and moves closer over time.

7 Choose Effect > Perspective > Drop Shadow.

8 In the Effect Controls window, set the Opacity to **30%**, the Distance to **39**, and the Softness to **10**. Leave the other settings at their default values.



9 In the Time Layout window, set the current time to 02:00, press the E key to display the Effects properties, and then click the triangle for Drop Shadow. Set initial keyframes for Opacity, Distance, and Softness.

The shadow will get closer, sharper, and darker over time.

10 Move the current-time marker to 03:13, and then set the Opacity to **50%**, the Distance to **6**, and the Softness to **15**.

11 Collapse the layer outline, close the Effect Controls window, and save the project.

Finishing the composition

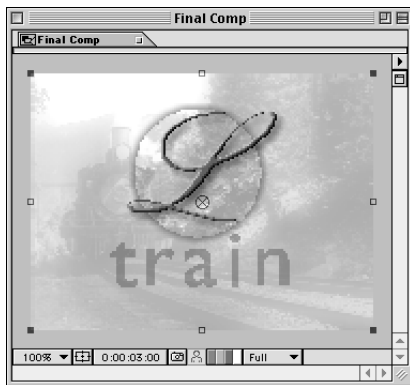
To finish the composition, you will change the Opacity of the Train Comp and Production layers, and apply Tint and Gaussian Blur effects.

1 In the Time Layout window, select the Train Comp layer.

2 To sample the green from the Tints.psd Footage window, choose Effect > Image Control > Tint. In the Effect Controls window, click the Map Black To eyedropper and sample the dark green color swatch (middle right square) in the Tints.psd Footage window.

3 Set the Amount to Tint to **100**.

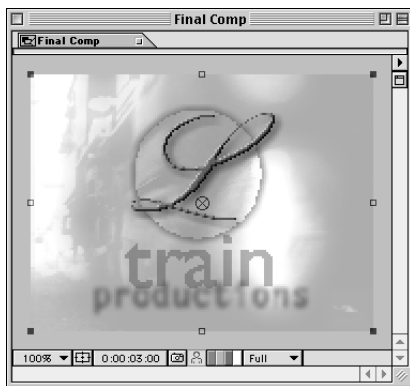
4 With the current time still at 03:13, press Ctrl+Shift+O (Windows) or Command+Shift+O (Mac OS) to display the Opacity dialog box without displaying the other Transform properties, enter **40** for Opacity, and then click OK. Because you didn't set any keyframes for these effects, they affect the entire Train Comp layer.



5 Close the Effect Controls window for the Train Comp layer.

Now you'll set a tint and a Gaussian blur for the Production Comp layer.

- 6 In the Time Layout window, select the Production Comp layer.
- 7 Set the current time to 03:28 and choose Effect > Image Control > Tint. In the Effect Controls window, click the Map Black To eyedropper, and then sample the dark brown color in the lower right corner of the Tints.psd Footage window. Set the Amount to Tint to **100**.
- 8 Choose Effect > Blur & Sharpen > Gaussian Blur. In the Effect Controls window, set the Blurriness value to **8**.
- 9 Press the E key to display the Effect properties, and then click the triangle for Gaussian Blur. Click the stopwatch to set an initial Blurriness keyframe.
- 10 Move the current-time marker to 05:09, and decrease the Blurriness value to **4.0**.



- 11 Close the Final Comp Time Layout and Composition windows, and close the Tints.psd Footage window and the Effect Controls window. Save the project.

Creating a fade-out composition

Now that you have completed all the motion and visual effects, you'll create one last composition in which you'll nest the Final Comp. You will set up a fade-out by using Opacity keyframes that will affect all the layers at once. Then you'll add the audio and render the movie.

- 1 Choose Composition > New Composition, type **Fadeout Comp** for the name, and leave the other settings as they are. Click OK.
- 2 Make sure the current time is set to 00:00 and drag the Final Comp from the Project window into the Time Layout window of the Fadeout Comp.
- 3 Move the current-time marker to 06:15 and set an initial Opacity keyframe at **100%**.

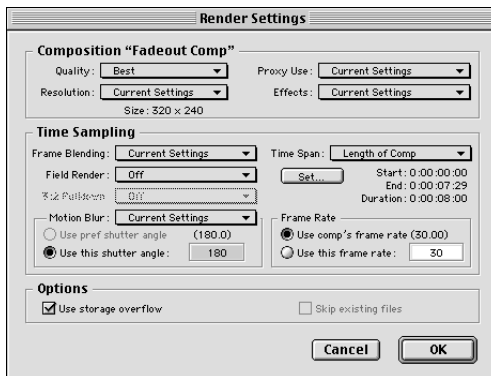
- 4 Move the current-time marker to 7:29, and then change the Opacity value to **0**.
- 5 Save the project.

Rendering the movie

If you have several versions of a composition, or several different compositions in a project, you can set them to batch render by using the Render Queue. In this section, you will use the Render Queue window to prepare a composition with two different settings—Draft and Best. You might use the Draft setting to create a movie that could be used for checking motion or for testing. You normally use the Best setting for final rendering. Selecting Best quality in the Render Queue window ensures that all compositions nested in your final composition are also set to Best Quality.

Earlier in this lesson, you turned off continuous rasterization for the Circle Comp layer to speed up previewing. Before you set up the render process, you'll turn it back on again.

- 1 In the Time Layout window, select the Final Comp tab, and then click the Switches/Modes button to display the Switches panel. In the Switches panel, click the Continuously Rasterize switch for the Circle Comp layer to turn this feature on.
- 2 Choose Composition > Make Movie, name the movie **03Movie1.mov**, and save it in your Projects folder.
- 3 In the Render Queue, select the Fadeout Comp item.
- 4 Click the underlined Current Settings to display the Render Settings dialog box. For Quality, choose Best. For Time Span, choose Length of Comp. Click OK.



- 5 For Output Module, choose Custom. Then choose QuickTime Movie from the Format menu at the top of the Output Module Settings dialog box.
- 6 In Windows, the Compressor Settings dialog box appears. Leave the compressor set to Animation and click OK. In Mac OS, leave the settings at their defaults.
- 7 Select Audio Output. Choose 22.050 KHz and 8 bit, mono, and then click OK.
- 8 To render another version of the composition with different settings, select the item in the Render Queue window, and choose Edit > Duplicate.
- 9 A duplicate item appears, except the Render Queue indicates that a name has not yet been specified for the output. Click the underlined phrase Not Yet Specified next to Output To, and then rename the movie **03Movie2.mov** and click Save.
- 10 Choose Draft Settings from the Render Settings menu.

After Effects will render the movies in order from first to last. To change the order of the rendering list, simply drag the composition name up or down in the Render Queue.

- 11 Drag the 03Movie2 item up above the 03Movie1 item.

If you need to delete an item in the Render Queue, select the item, and press Delete.

- 12 Click Render.

The Render progress bar appears and the draft movie begins to render. When it is finished, the second movie will begin rendering.

Depending on the type of system you have, each movie can take a while to render. If you click the Stop button in the Render Queue window, a partial movie will be created.

- 13 When you are finished rendering the movies, close the project and view the movies using the MoviePlayer application.

You should feel that you are getting to be an experienced Adobe After Effects user by now. With the completion of this project, you have accomplished a great deal, including exploring many of the visual effects in Adobe After Effects.