



Adobe

After Effects CC

2014 release

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Gesó / Pablo IA

CLASSROOM IN A BOOK[®]

The official training workbook from Adobe

Andrew Faulkner & Brie Gyncild



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Adobe® After Effects® CC Classroom in a Book® (2014 release)

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GETTING STARTED

Adobe After Effects CC provides a comprehensive set of 2D and 3D tools for compositing, animation, and effects that motion-graphics professionals, visual effects artists, web designers, and film and video professionals need. After Effects is widely used for digital post-production of film, video, DVD, and the web. You can composite layers in various ways, apply and combine sophisticated visual and audio effects, and animate both objects and effects.

About Classroom in a Book

Adobe After Effects CC Classroom in a Book (2014 release) is part of the official training series for Adobe graphics and publishing software, developed with the support of Adobe product experts. The lessons are designed to let you learn at your own pace. If you're new to Adobe After Effects, you'll learn the fundamental concepts and features you'll need to master the program. And if you've been using Adobe After Effects for a while, you'll find that Classroom in a Book teaches many advanced features, including tips and techniques for using the latest version.

Although each lesson provides step-by-step instructions for creating a specific project, there's room for exploration and experimentation. You can follow the book from start to finish, or do only the lessons that match your interests and needs. Each lesson concludes with a review section summarizing what you've covered.

Prerequisites

Before beginning to use *Adobe After Effects CC Classroom in a Book (2014 release)*, make sure that your system is set up correctly and that you've installed the required software and hardware. You should have a working knowledge of your computer and operating system. You should know how to use the mouse and standard menus and commands, and also how to open, save, and close files. If you need to review these techniques, see the printed or online documentation included with your Microsoft® Windows® or Apple® Mac® OS software.

To complete the lessons in this book, you'll need to have both Adobe After Effects CC (2014 release) and Adobe Bridge CC installed. The exercises in this book are based on After Effects CC (2014.1 release) but can be used with After Effects CC (2014 release) as well.

Installing After Effects and Bridge

You must purchase the Adobe After Effects CC software separately. For system requirements and complete instructions on installing the software, visit <http://helpx.adobe.com/support.html>. Note that After Effects CC requires a 64-bit operating system and OpenGL 2.0 support. You must also have Apple QuickTime 7.6.6 or later installed on your system.

Many of the lessons in this book use Adobe Bridge. After Effects and Bridge use separate installers. You must install these applications from Adobe Creative Cloud (creative.adobe.com) onto your hard disk. Follow the onscreen instructions.

Optimizing performance

Creating movies is memory-intensive work for a desktop computer. After Effects CC (2014 release) requires a minimum of 4GB of RAM. The more RAM that is available to After Effects, the faster the application will work for you. For information about optimizing memory, cache, and other settings for After Effects, see “Improve performance” in After Effects Help.

Restoring default preferences

The preferences files control the way the After Effects user interface appears on your screen. The instructions in this book assume that you see the default interface when they describe the appearance of tools, options, windows, panels, and so forth.

Therefore, it's a good idea to restore the default preferences, especially if you are new to After Effects.

Each time you quit After Effects, the panel positions and certain command settings are recorded in the preferences files. To restore the original default settings, press Ctrl+Alt+Shift (Windows) or Command+Option+Shift (Mac OS) while starting After Effects. (After Effects creates new preferences files if they don't already exist the next time you start the program.)

Restoring the default preferences can be especially helpful if someone has already customized After Effects on your computer. If your copy of After Effects hasn't been used yet, these files won't exist, so this procedure is unnecessary.

Important: If you want to save the current settings, you can rename a preferences file instead of deleting it. When you are ready to restore those settings, change the name back, and make sure that the file is located in the correct preferences folder.

- 1 Locate the After Effects preferences folder on your computer:
 - **For Windows:** .../Users/<user name>/AppData/Roaming/Adobe/AfterEffects/13.1
 - **For Mac OS:** .../Users/<user name>/Library/Preferences/Adobe/After Effects/13.1
- 2 Rename any preferences files you want to preserve, and then restart After Effects.

● **Note:** In Mac OS 10.7 and later, the user library folder is hidden by default. To see it, in the Finder, choose Go > Go To Folder. In the Go To Folder dialog box, type ~/Library, and then click Go.

Accessing the Classroom in a Book files

The lessons in *Adobe After Effects CC Classroom in a Book (2014 release)* use specific source files, such as image files created in Adobe Photoshop® and Adobe Illustrator®, audio files, and prepared QuickTime movies. To complete the lessons in this book, you need to download the lesson files from peachpit.com. You can download the files for individual lessons, or download them all in a single file.

Your Account page is also where you'll find any updates to the chapters or to the lesson files. Look on the Lesson & Update Files tab to access the most current content.

To access the Classroom in a Book files, do the following:

- 1 On a desktop or laptop computer, go to www.peachpit.com/redeem, and enter the code found at the back of your book.
- 2 If you do not have a Peachpit.com account, create one when you're prompted to do so.
- 3 Click the Lesson & Update Files tab on your Account page. This tab lists downloadable files.
- 4 Click the lesson file links to download them to your computer, and then unzip them.

● **Note:** As you complete each lesson, you will preserve the start files. In case you overwrite them, you can restore the original files by downloading the corresponding lesson files from your Account page at peachpit.com.

The files are compressed into zip archives to speed up download time and to protect the contents from damage during transfer. You must uncompress (or “unzip”) the files to restore them to their original size and format before you use them with the book. On a modern operating system, simply double-click a zip archive to open it.

- 5 Create a new folder on your hard disk, and name it **Lessons**. Then, drag the lesson files you downloaded and uncompressed into the Lessons folder on your hard disk.

When you begin each lesson, you will navigate to the folder with that lesson number, where you will find all of the assets, sample movies, and other project files you need to complete the lesson.

If you have limited storage space on your computer, you can download each lesson folder individually as you need it, and delete it afterward if desired. You do not have to save any finished project if you don’t want to, or if you have limited hard disk space.

About copying the sample movies and projects

You will create and render one or more QuickTime movies in some lessons in this book. The files in the Sample_Movie folders are examples that you can use to see the end results of each lesson and to compare them with your own results.

The files in the End_Project_File folders are samples of the completed project for each lesson. Use these files for reference if you want to compare your work in progress with the project files used to generate the sample movies. These end-project files vary in size from relatively small to a couple of megabytes, so you can either download them all now if you have ample storage space, or download just the end-project file for each lesson as needed, and then delete it when you finish that lesson.

How to use these lessons

Each lesson in this book provides step-by-step instructions for creating one or more specific elements of a real-world project. The lessons build on each other in terms of concepts and skills, so the best way to learn from this book is to proceed through the lessons in sequential order. In this book, some techniques and processes are explained and described in detail only the first few times you perform them.

Many aspects of the After Effects application can be controlled by multiple techniques, such as a menu command, a button, dragging, and a keyboard shortcut. Only one or two of the methods are described in any given procedure, so that you can learn different ways of working even when the task is one you’ve done before.

The organization of the lessons is also design-oriented rather than feature-oriented. That means, for example, that you’ll work with layers and effects on real-world design projects over several lessons, rather than in just one lesson.

Additional resources

Adobe After Effects CC Classroom in a Book (2014 release) is not meant to replace documentation that comes with the program or to be a comprehensive reference for every feature. Only the commands and options used in the lessons are explained in this book. For comprehensive information about program features and tutorials, refer to these resources:

- **Adobe After Effects Learn and Support:** helpx.adobe.com/after-effects.html is where you can find hands-on tutorials, Help, answers to common questions, troubleshooting information, and more.
- **Adobe Creative Cloud Learn:** helpx.adobe.com/support.html provides inspiration, key techniques, cross-product workflows, and updates on new features.
- **After Effects Forums:** forums.adobe.com/community/aftereffects_general_discussion lets you tap into peer-to-peer discussions, questions, and answers about After Effects.
- **Resources for educators:** www.adobe.com/education and edex.adobe.com offer a treasure trove of information for instructors who teach classes on Adobe software. Find solutions for education at all levels, including free curricula that use an integrated approach to teaching Adobe software and can be used to prepare for the Adobe Certified Associate exams.

Also check out these useful links:

- **Adobe Add-ons:** creative.adobe.com/addons is a central resource for finding tools, services, extensions, code samples, and more to supplement and extend your Adobe products.
- **Adobe After Effects CC product home page:** www.adobe.com/products/aftereffects

Adobe Authorized Training Centers

Adobe Authorized Training Centers offer instructor-led courses and training on Adobe products. A directory of AATCs is available at partners.adobe.com.

3

ANIMATING TEXT

Lesson overview

In this lesson, you'll learn how to do the following:

- Create and animate text layers.
- Stylize text using the Character and Paragraph panels.
- Apply and customize text animation presets.
- Preview animation presets in Adobe Bridge.
- Install fonts using Adobe Typekit.
- Animate text using keyframes.
- Animate layers using parenting.
- Edit and animate imported Adobe Photoshop text.
- Use a text animator group to animate selected characters on a layer.
- Apply a text animation to a graphic object.



This lesson will take approximately two hours to complete. Download the Lesson03 project files from the Lesson & Update Files tab on your Account page at www.peachpit.com, if you haven't already done so. As you work on this lesson, you'll preserve the start files. If you need to restore the start files, download them from your Account page.



PROJECT: MOVIE TITLE SEQUENCE

Your type doesn't need to sit still while your audience is reading it. In this lesson, you'll learn several ways to animate type in After Effects, including timesaving methods unique to text layers.

Getting started

Adobe After Effects offers many ways to animate text. You can animate text layers by manually creating keyframes in the Timeline panel, using animation presets, or using expressions. You can even animate individual characters or words in a text layer. In this lesson, you'll employ several different animation techniques, including some that are unique to text, while you design the opening title credits for an animated documentary called *Road Trip*. You'll also take advantage of Adobe Typekit to install a font for use in your project.

As in other projects, you'll begin by previewing the movie you're creating, and then you'll open After Effects.

- 1 Make sure the following files are in the Lessons/Lesson03 folder on your hard disk, or download them from your Account page at www.peachpit.com now:
 - In the Assets folder: background_movie.mov, car.ai, compass.swf, credits.psd
 - In the Sample_Movie folder: Lesson03.mov
- 2 Open and play the Lesson03.mov sample movie to see the title credits you will create in this lesson. When you're done, quit QuickTime Player. You may delete this sample movie from your hard disk if you have limited storage space.

As you start the application, restore the default settings for After Effects. See "Restoring default preferences" on page 2.

- 3 Start After Effects, and then immediately hold down Ctrl+Alt+Shift (Windows) or Command+Option+Shift (Mac OS) to restore default preferences settings. When prompted, click OK to delete your preferences.
- 4 Click Close to close the Welcome screen.

After Effects opens to display a blank, untitled project.

- 5 Choose File > Save As > Save As, and navigate to the Lessons/Lesson03/Finished_Project folder.
- 6 Name the project **Lesson03_Finished.aep**, and then click Save.

Importing the footage

You need to import two footage items to begin this lesson.

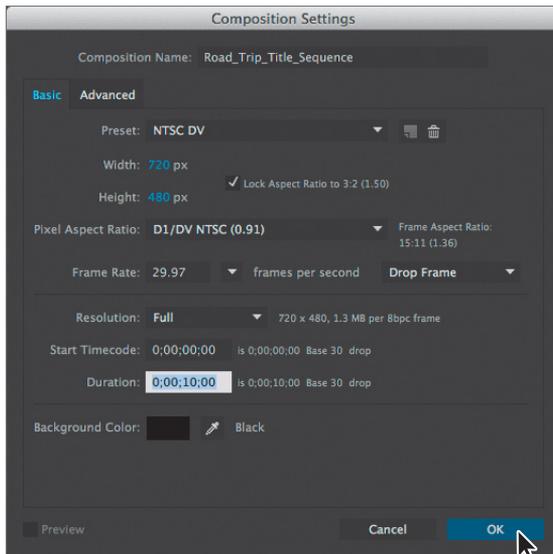
- 1 Double-click an empty area of the Project panel to open the Import File dialog box.
- 2 Navigate to the Lessons/Lesson03/Assets folder on your hard disk, Ctrl-click (Windows) or Command-click (Mac OS) to select both the background_movie.mov and compass.swf files, and then click Import or Open.

After Effects can import several file formats including Adobe Photoshop and Adobe Illustrator files, as well as QuickTime and AVI movies. This makes After Effects an incredibly powerful application for compositing and motion graphics work.

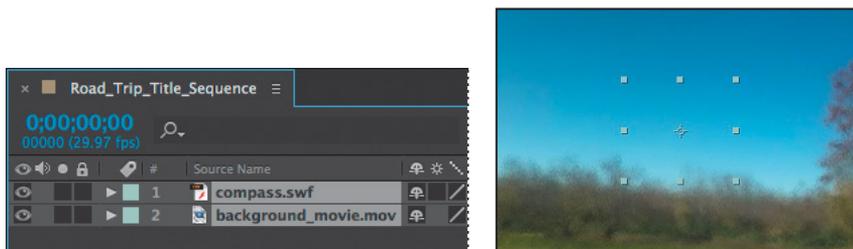
Creating the composition

Now, you'll create the composition.

- 1 Press Ctrl+N (Windows) or Command+N (Mac OS) to create a new composition.
- 2 In the Composition Settings dialog box, name the composition **Road_Trip_Title_Sequence**, select NTSC DV from the Preset menu, and set the Duration to **10:00**, which is the length of the background movie. Then click OK.



- 3 Drag the background_movie.mov and compass.swf footage items from the Project panel to the Timeline panel. Arrange the layers so that compass.swf is above background_movie.mov in the layer stack.



- 4 Choose File > Save.

You're ready to add the title text to the composition.

About text layers

In After Effects, you can add text with flexibility and precision. You can create and edit text directly on the screen in the Composition panel, and quickly change the font, style, size, and color of the text. You can add horizontal or vertical text anywhere in a composition. The Tools, Character, and Paragraph panels contain a wide range of text controls. You can apply changes to individual characters and set formatting options for entire paragraphs, including alignment, justification, and word-wrapping. In addition to all of these style features, After Effects provides tools for easily animating specific characters and properties, such as text opacity and hue.

After Effects uses two types of text: point text and paragraph text. Use *point text* to enter a single word or line of characters; use *paragraph text* to enter and format text as one or more paragraphs.

In many ways, text layers are just like any other layers in After Effects. You can apply effects and expressions to text layers, animate them, designate them as 3D layers, and edit the 3D text while viewing it in multiple views. As with layers imported from Illustrator, text layers are continuously rasterized, so when you scale the layer or resize the text, it retains crisp, resolution-independent edges. The main differences between text layers and other layers are that you cannot open a text layer in its own Layer panel, and you can animate the text in a text layer using special text animator properties and selectors.

Installing a font using Typekit

Hundreds of fonts are available through Adobe Typekit, which is included with an Adobe Creative Cloud membership. You'll use Typekit to install a font that will work well for the title text. When you install a Typekit font on your system, it's available in any application.

- 1 Choose File > Add Fonts From Typekit.

After Effects opens the Adobe Typekit page in your default browser.

- 2 If prompted to sign in, enter your Adobe ID. If you're already signed in to Creative Cloud, you won't need to sign in again.

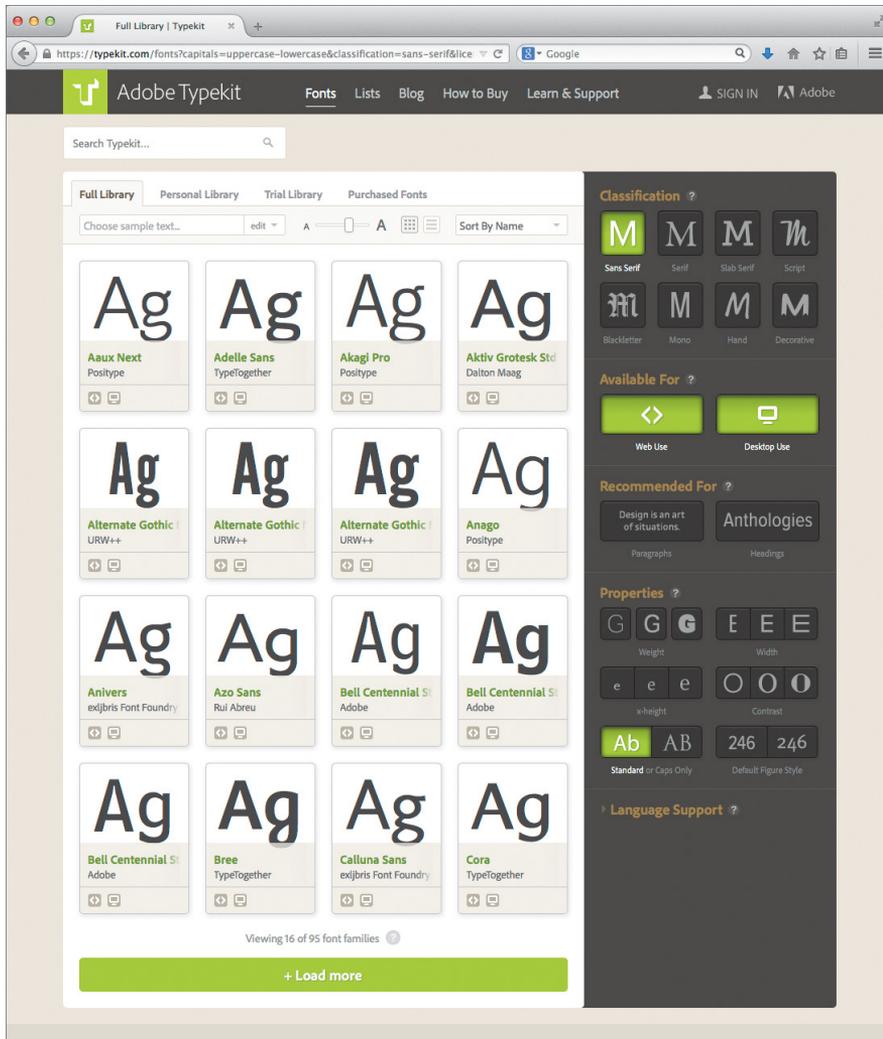
You can browse fonts on the Adobe Typekit website, but because there are so many, it's often more efficient to filter them or to search for a specific font. You'll filter fonts to see those that meet your requirements.

- 3 Make sure the Full Library tab is selected so you'll see all the fonts.

- 4 Choose Sort By Name from the pop-up menu in the upper right corner. Then, on the right side of the page, click the Sans Serif button in the Classification area, both the Web Use and Desktop Use buttons in the Available For area, and the Standard button in the Properties area.

Typekit displays several fonts that meet the requirements you specified. You'll preview the fonts to see which one looks best.

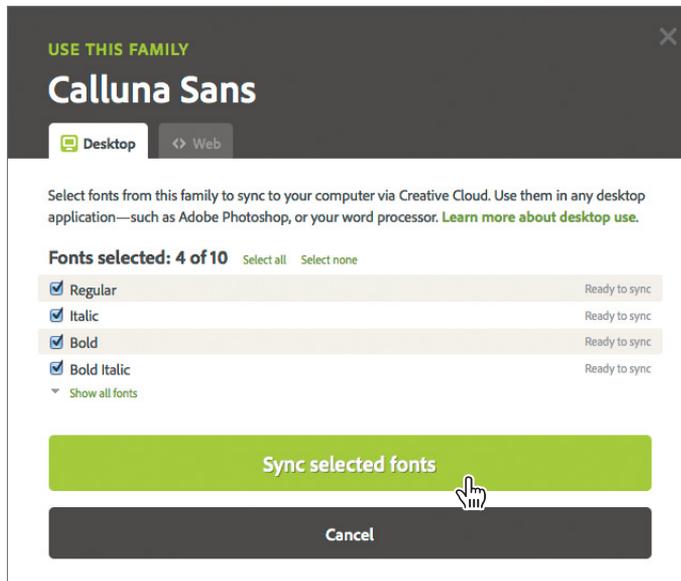
- 5 Type **Road Trip** in the preview text field, and move the slider to decrease the sample text size so you can see the full title.



Using your own text as the sample text lets you get a feel for how a font will work with your text. Calluna Sans will work nicely.

► **Tip:** If you click the font name without clicking +Use Fonts, you'll see sample text for all the fonts in the selected family, as well as additional information about the font.

- 6 Hover your mouse over Calluna Sans until you see a green overlay. Then click +Use Fonts. (If you don't see Calluna Sans, click +Load More until you do.)



- 7 Click Sync Selected Fonts. If the Creative Cloud application isn't running on your computer, click Launch The Creative Cloud Application to start it.

The selected fonts are automatically added to your system and are then available in any application, including After Effects.

Creating and formatting point text

When you enter point text, each line of text is independent—the length of a line increases or decreases as you edit the text, but it doesn't wrap to the next line. The text you enter appears in a new text layer. The small line through the I-beam marks the position of the text baseline.

- 1 In the Tools panel, select the Horizontal Type tool (T).
- 2 Click anywhere in the Composition panel, and type **Road Trip**. Then press Enter on the numeric keypad to exit text-editing mode and to select the text layer in the Composition panel. Or, you can select the layer name to exit text-editing mode.

● **Note:** If you press Enter or Return on the regular keyboard instead of on the numeric keypad, you'll begin a new paragraph.

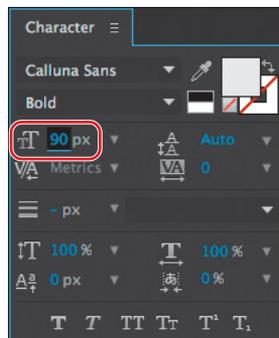
Using the Character panel

The Character panel provides options for formatting characters. If text is highlighted, changes you make in the Character panel affect only the highlighted text. If no text is highlighted, changes you make in the Character panel affect the selected text layers and the text layers' selected Source Text keyframes, if any exist. If no text is highlighted and no text layers are selected, changes you make in the Character panel become the new defaults for the next text entry.

- 1 Choose Window > Workspace > Text to display only those panels you need while working with text.
- 2 Select the Road Trip text layer in the Timeline panel.
- 3 In the Character panel, choose Calluna Sans from the Font Family menu.
- 4 Choose Bold from the Font Style menu.
- 5 Set the Font Size to **90** pixels.
- 6 Leave all other options at their default settings.

▶ **Tip:** To open the panels individually, choose Window > Character or Window > Paragraph. To open both panels, select the Horizontal Type tool, and then click the Toggle The Character And Paragraph Panels button in the Tools panel.

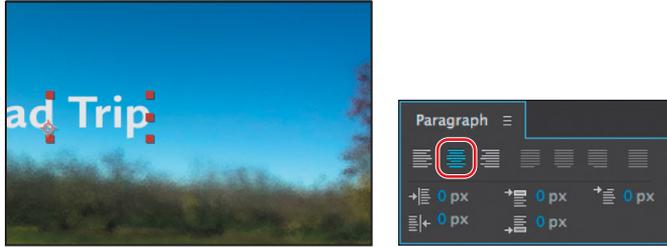
▶ **Tip:** To select a font quickly, begin typing its name in the Font Family box. The Font Family menu jumps to the first font on your system that matches the letters you've typed. If a type layer is selected, the text in the Composition panel takes on the newly selected font.



Using the Paragraph panel

Use the Paragraph panel to set options that apply to an entire paragraph, such as alignment, indentation, and leading. For point text, each line is a separate paragraph. You can use the Paragraph panel to set formatting options for a single paragraph, multiple paragraphs, or all paragraphs in a text layer. You just need to make one adjustment in the Paragraph panel for this composition's title text.

- 1 In the Paragraph panel, click the Center Text button (☰). This aligns horizontal text to the center of the layer, not to the center of the composition.



- 2 Leave all other options at their default settings.

Positioning the type

To precisely position layers, such as the text layer you're working on now, you can display rulers, guides, and grids in the Composition panel. These visual reference tools don't appear in the final rendered movie.

- 1 Make sure the Road Trip text layer is selected in the Timeline panel.
- 2 Choose Layer > Transform > Fit To Comp Width. This scales the layer to fit to the width of the composition.

Now you can position the text layer using a grid.

- 3 Choose View > Show Grid and then View > Snap To Grid.

- 4 Using the Selection tool (⬇️), drag the text up in the Composition panel until the base of the letters sits on the horizontal gridline in the center of the composition. Press Shift after you start dragging to constrain the movement and help you position the text.



- 5 When the layer is in position, choose View > Show Grid again to hide the grid. This project isn't destined for broadcast TV, so it's okay that the title extends beyond the title-safe and action-safe areas of the composition at the beginning of the animation.
- 6 Choose Standard from the Workspace menu at the top of the application window to return to the Standard workspace, and then choose File > Save to save your project.

Using a text animation preset

Now you're ready to animate the title. The easiest way to do that is to use one of the many animation presets that come with After Effects. After applying an animation preset, you can customize it and save it to use again in other projects.

- 1 Press the Home key or go to 0:00 to make sure the current-time indicator is at the beginning of the time ruler.

After Effects applies animation presets from the current time.

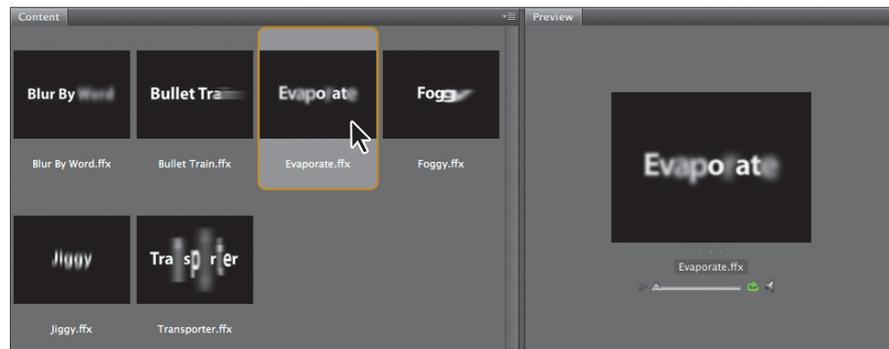
- 2 Select the Road Trip text layer.

Browsing animation presets

● **Note:** If Bridge isn't installed, you'll be prompted to install it when you choose Browse In Bridge. For more information, see page 2.

You already applied an animation preset using the Effects & Presets panel in Lesson 2, "Creating a Basic Animation Using Effects and Presets." But what if you're not sure which animation preset you want to use? To help you choose the right animation preset for your projects, you can preview them in Adobe Bridge.

- 1 Choose Animation > Browse Presets. Adobe Bridge opens, displaying the contents of the After Effects Presets folder.
- 2 In the Content panel, double-click the Text folder, and then the Blurs folder.
- 3 Click to select the first preset, Blur By Word. Adobe Bridge plays a sample of the animation in the Preview panel.
- 4 Select a few other presets, and watch them in the Preview panel.
- 5 Preview the Evaporate preset, and then double-click its thumbnail preview. Alternatively, you can right-click (Windows) or Control-click (Mac OS) the thumbnail and choose Place > In After Effects.



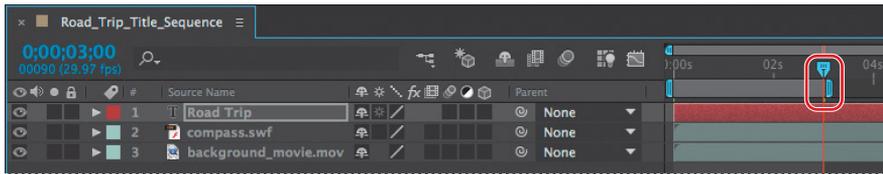
● **Note:** Leave Adobe Bridge open in the background. You'll use it again later in the lesson.

After Effects applies the preset to the selected layer, which is the Road Trip layer, but nothing appears to change in the composition. This is because at 0:00, the first frame of the animation, the letters haven't yet evaporated.

Previewing a range of frames

Now, preview the animation. Although the composition is 10 seconds long, you need to preview only the first few seconds, since that is where the text animation occurs.

- 1 In the Timeline panel, move the current-time indicator to 3:00, and press N to set the end bracket of the work area.



- 2 Press 0 on the numeric keypad, or click the RAM Preview button (|||▶) in the Preview panel, to watch a RAM preview of the animation.



The letters appear to evaporate into the background. It looks great—but you want the letters to fade in and remain onscreen, not disappear. So you will customize the preset to suit your needs.

- 3 Press the spacebar to stop the preview, and then press the Home key to move the current-time indicator back to 0:00.

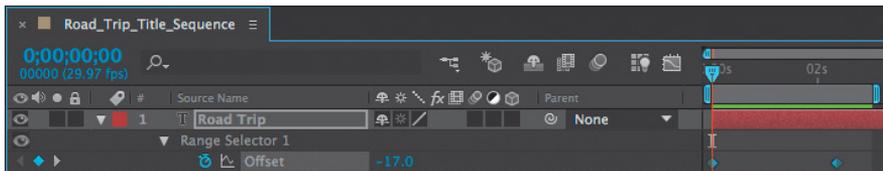
Customizing an animation preset

After you apply an animation preset to a layer, all of its properties and keyframes are listed in the Timeline panel. You'll use those properties to customize the preset.

- 1 Select the Road Trip text layer in the Timeline panel, and press U.

The U key, sometimes referred to as the *Überkey*, is a valuable keyboard shortcut that reveals all the animated properties of a layer.

- 2 Click the Offset property name to select both of its keyframes.



► **Tip:** If you press U twice (UU), After Effects displays all modified properties for the layer, instead of only the animated properties. Press the U key again to hide all the layer's properties.

The Offset property specifies how much to offset the start and end of the selection.

- 3 Choose Animation > Keyframe Assistant > Time-Reverse Keyframes.

The Time-Reverse Keyframes command switches the order of the two Offset keyframes so that the letters are invisible at the beginning of the composition, and then emerge into view.

- 4 Drag the current-time indicator from 0:00 to 3:00 to manually preview the animation you edited.



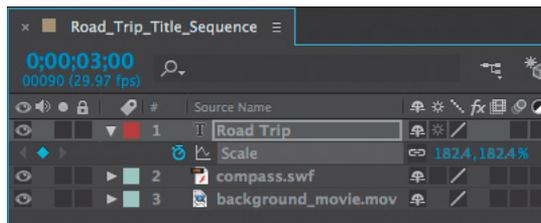
The letters now fade into, rather than disappear from, the composition.

- 5 Press U to hide the layer's properties.
- 6 Press the End key to move the current-time indicator to the end of the time ruler, and then press N to set the end bracket of the work area.
- 7 Choose File > Save to save your project.

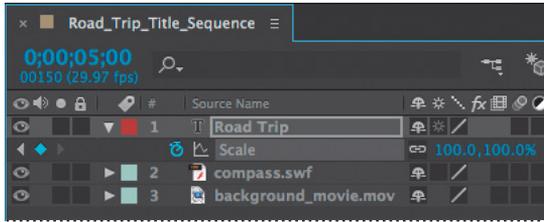
Animating with scale keyframes

The text layer was scaled to nearly 200% when you applied the Fit To Comp command to it earlier in this lesson. Now, you'll animate the layer's scale so that the type gradually shrinks down to its original size.

- 1 In the Timeline panel, move the current-time indicator to 3:00.
- 2 Select the Road Trip text layer, and press the S key to reveal its Scale property.
- 3 Click the stopwatch icon (🕒) to add a Scale keyframe at the current time (3:00).



- 4 Move the current-time indicator to 5:00.
- 5 Reduce the layer's Scale values to **100, 100%**. After Effects adds a new Scale keyframe at the current time.



Previewing the scale animation

Now you'll preview the change.

- 1 Move the current-time indicator to 5:10, and press N to set the end of the work area. The scale animation ends shortly before 5:10.
- 2 Watch a RAM preview of the animation from 0:00 to 5:10. The movie title fades in and then scales to a smaller size.



- 3 Press the spacebar to stop playback after you've viewed the animation.

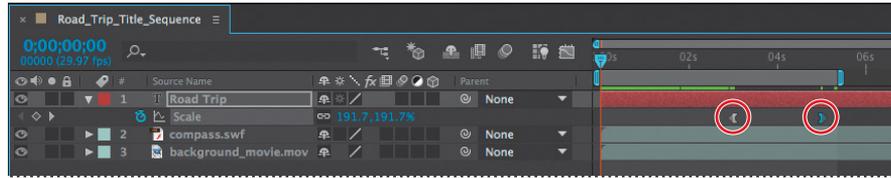
Adding Easy Ease

The beginning and end of the scale animation are rather abrupt. In nature, nothing comes to an absolute stop. Instead, objects ease into and out of starting and stopping points.

- 1 Right-click (Windows) or Control-click (Mac OS) the Scale keyframe at 3:00, and choose Keyframe Assistant > Easy Ease Out. The keyframe becomes a left-pointing icon.

► **Tip:** You can experiment with text scale animation presets that are included with After Effects. They're located in the Presets/Text/Scale folder in the After Effects CC folder on your hard drive.

- 2 Right-click (Windows) or Control-click (Mac OS) the Scale keyframe at 5:00, and choose Keyframe Assistant > Easy Ease In. The keyframe becomes a right-pointing icon.



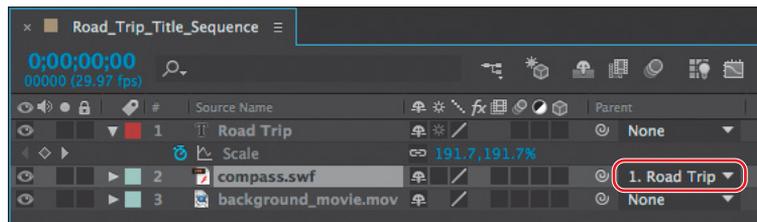
- 3 Watch another RAM preview. Press the spacebar to stop it when you're done.
- 4 Choose File > Save.

Animating using parenting

The next task is to make it appear as if the virtual camera is zooming away from the composition. The text scale animation you just applied gets you halfway there, but you need to animate the scale of the compass as well. You could manually animate the compass layer, but it's easier to take advantage of parenting relationships in After Effects.

- 1 Press the Home key, or drag the current-time indicator to the beginning of the time ruler.
- 2 In the Timeline panel, click the Parent pop-up menu for the compass layer, and choose 1. Road Trip.

This sets the Road Trip text layer as the parent of the compass layer, which in turn becomes the child layer.

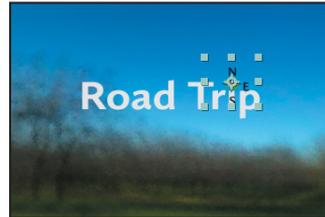
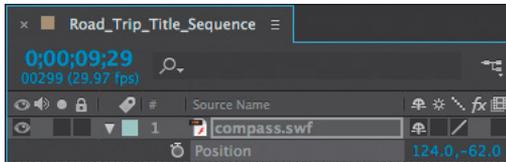


● **Note:** When you move the compass layer, its parent becomes 2. Road Trip, because Road Trip is now the second layer.

As the child layer, the compass layer inherits the Scale keyframes of its parent layer (Road Trip). Not only is this a quick way to animate the compass, but it also ensures that the compass scales at the same rate and by the same amount as the text layer.

- 3 In the Timeline panel, move the compass layer above the Road Trip text layer.

- 4 Move the current-time indicator to 9:29, so you can clearly see the compass in the Composition panel.
- 5 In the Composition panel, drag the compass so that its anchor point is over the dot in the letter *i* in the word *trip*. Alternatively, you can select the compass layer in the Timeline panel, press P to reveal its Position property, and then enter **124, -62**.



- 6 Move the current-time indicator from 3:00 to 5:00 to manually preview the scaling. Both the text and the compass scale down in size, so that it appears that the camera is moving away from the scene.



- 7 Press the Home key to return to 0:00, and drag the work area end bracket to the end of the time ruler.
- 8 Select the Road Trip layer in the Timeline panel, and press S to hide its Scale property. If you entered Position values for the compass, select the compass layer, and press P to hide the Position property, too. Then choose File > Save.

About parent and child layers

Parenting assigns one layer's transformations to another layer, called a *child layer*. Creating a parenting relationship between layers synchronizes the changes in the parent layer with the corresponding transformation values of the child layers, except opacity. For example, if a parent layer moves 5 pixels to the right of its starting position, then the child layer also moves 5 pixels to the right of its starting position. A layer can have only one parent, but a layer can be a parent to any number of 2D or 3D layers within the same composition. Parenting layers is useful for creating complex animations such as linking the movements of a marionette or depicting the orbits of planets in the solar system.

For more on parent and child layers, see After Effects Help.

Animating imported Photoshop text

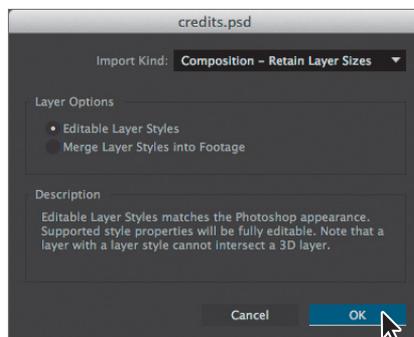
If all text animations involved just two short words, such as *road trip*, life would be easy. But in the real world, you may often have to work with longer blocks of text, and they can be tedious to enter manually. Fortunately, After Effects lets you import text from Photoshop or Illustrator. You can preserve text layers, edit them, and animate them in After Effects.

Importing text

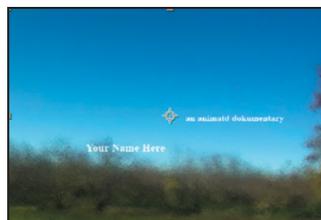
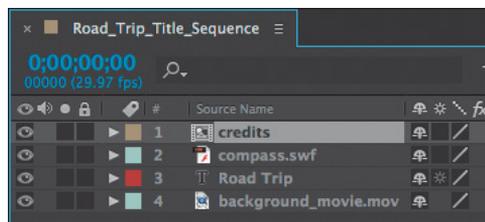
Some of the remaining text for this composition is in a layered Photoshop file, which you'll import now.

- 1 Double-click an empty area in the Project panel to open the Import File dialog box.
- 2 Select the `credits.psd` file in the `Lessons/Lesson03/Assets` folder. Choose `Composition – Retain Layer Sizes` from the `Import As` menu, and then click `Import` or `Open`.
- 3 In the `Credits.psd` dialog box, select `Editable Layer Styles`, and click `OK`.

After Effects can import Photoshop layer styles, retaining the appearance of the layers you're importing. The imported file is added as a composition to the Project panel; its layers are added in a separate folder.



- 4 Drag the `credits` composition from the Project panel into the Timeline panel, placing it at the top of the layer stack.

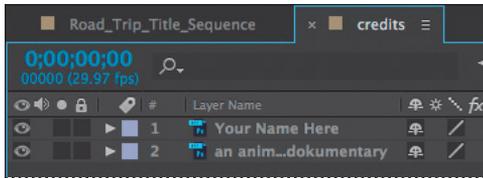


Because you imported the `credits.psd` file as a composition with layers intact, you can work on it in its own Timeline panel, editing and animating its layers independently.

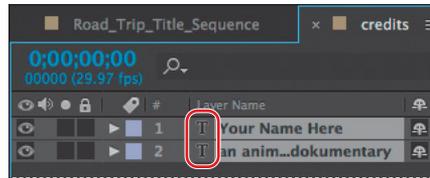
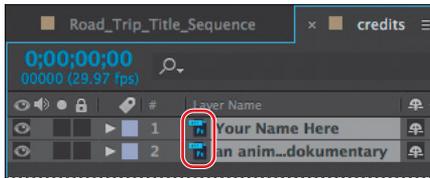
Editing imported text

The text you imported isn't currently editable in After Effects. You'll change that so that you can control the type and apply animations. And if you have a sharp eye, you've noticed some typos in the imported text. So, first you'll clean up the type.

- 1 Double-click the credits composition in the Project panel to open it in its own Timeline panel.

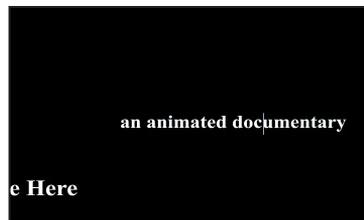
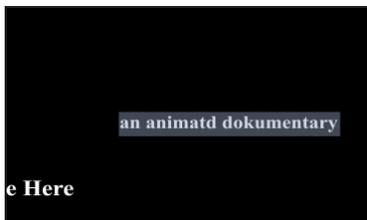


- 2 Shift-click to select both layers in the credits Timeline panel, and choose Layer > Convert To Editable Text. (Click OK if you see a warning about missing fonts.)



Now the text layers can be edited, and you can fix the typos.

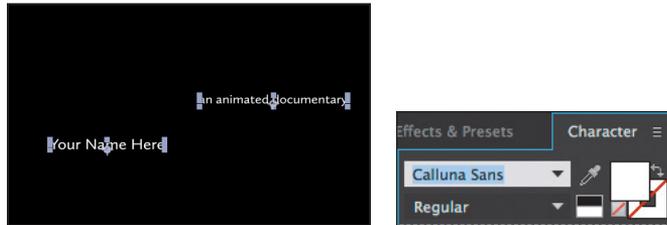
- 3 Deselect both layers, and then double-click layer 2 in the Timeline panel to select the text and automatically switch to the Horizontal Type tool (T).
- 4 Type an *e* between the *t* and *d* in the word *animated*. Then change the *k* to a *c* in *documentary*.



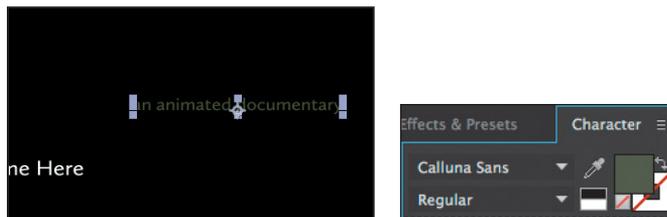
- 5 Switch to the Selection tool (⌘) to exit text-editing mode.
- 6 Shift-click to select both layers in the Timeline panel.
- 7 If the Character panel isn't open, choose Window > Character to open it.

Note: The layer name does not change in the Timeline panel when you correct the spelling in the layer. This is because the original layer name was created in Photoshop. To change a layer's name, select it in the Timeline panel, press Enter or Return, type the new name, and press Enter or Return again.

- 8 Choose the same typeface you used for the words *Road Trip*: Calluna Sans. Leave all other settings as they are.



- 9 Click an empty area of the Timeline panel to deselect both layers. Then select layer 2 again.
- 10 In the Character panel, click the Fill Color box. Then, in the Text Color dialog box, select a shade of green, and click OK. We used R=66, G=82, B=42.

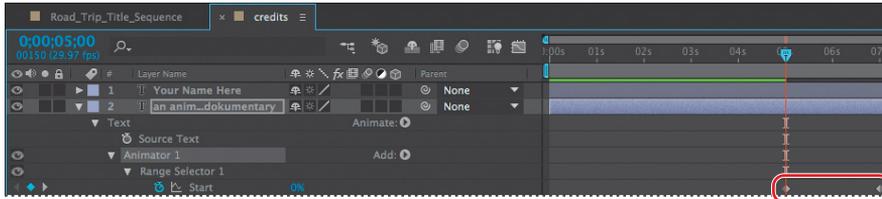


Animating the subtitle

You want the letters of the subtitle—*an animated documentary*—to fade onscreen from left to right under the movie title. The easiest way to do this is to use another text animation preset.

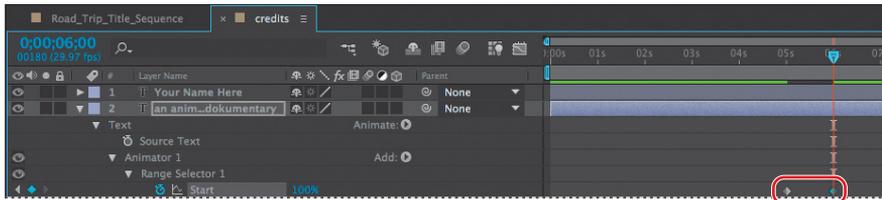
- 1 Go to 5:00 in the timeline. At that point, the title and the compass have finished scaling to their final size.
- 2 Select the subtitle layer (layer 2) in the Timeline panel.
- 3 Press Ctrl+Alt+Shift+O (Windows) or Command+Option+Shift+O (Mac OS) to jump to Adobe Bridge.
- 4 Navigate to the Presets/Text/Animate In folder.
- 5 Select the Fade Up Characters animation preset, and watch it in the Preview panel. This effect works well to reveal the text gradually.
- 6 Double-click the Fade Up Characters preset to apply it to the subtitle layer in After Effects.

- 7 With the subtitle layer selected in the Timeline panel, press UU to see the properties modified by the animation preset. You should see two keyframes for Range Selector 1 Start: one at 5:00, and one at 7:00.



You still have a lot of animation to do in this composition, so you will speed up the effect by 1 second.

- 8 Go to 6:00, and then drag the second Range Selector 1 Start keyframe to 6:00.



- 9 Drag the current-time indicator across the time ruler between 5:00 and 6:00 to see the letters fade in.
- 10 When you're done, select the subtitle layer, and press U to hide the modified properties. Then choose File > Save to save your work.

Animating text using a path animation preset

You've seen how versatile and convenient text animation presets can be. You'll use another type of text animation preset to animate the words *directed by* along a motion path. After Effects includes several animation presets that animate text along a prebuilt path. These presets also provide placeholder text when you apply them, so in this exercise, you will enter and format your text *after* you apply the animation preset.

- 1 Select the Road_Trip_Title_Sequence tab in the Timeline panel.
- 2 Deselect all layers, and then go to 5:00.

- 3 Press Ctrl+Alt+Shift+O (Windows) or Command+Option+Shift+O (Mac OS) to jump to Adobe Bridge.
- 4 Navigate to the Presets/Text/Paths folder.
- 5 Double-click the Pipes animation preset.

Adobe Bridge returns you to After Effects, where the preset automatically creates a new layer, pipes, with a predefined path that zigzags across the composition. The text on the path is obscured by the movie title. You'll fix that soon.

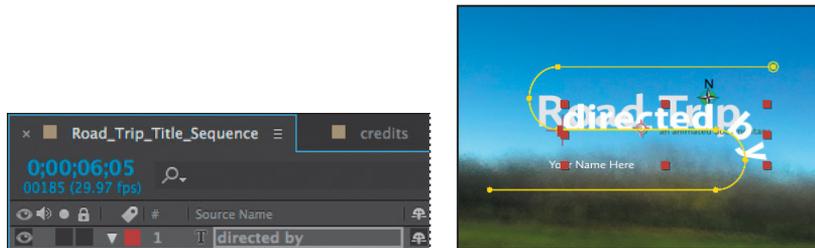
Customizing the preset path

First, you need to change the placeholder word *pipes* to *directed by*. Then you'll adjust the path itself.

- 1 In the Timeline panel, go to 6:05, when the word *pipes* is visible—and horizontal—onscreen.
- 2 Double-click the pipes layer in the Timeline panel.

After Effects switches to the Horizontal Type tool (T) and selects the word *pipes* in the Composition panel.

- 3 Type **directed by** to replace the word *pipes*. Press Enter on the numeric keypad or select the layer name when you're done. After Effects updates the Timeline panel with the new layer name.



- 4 In the Character panel, do the following:
 - Set the Font Family to Minion Pro or another serif typeface.
 - Set the Font Style to Regular.

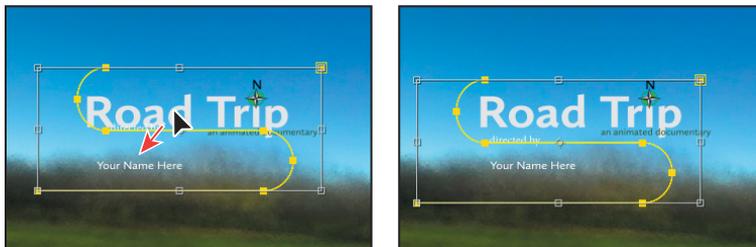
- Set the Font Size to **20** pixels.
- Leave all other settings at their defaults.



- 5 Drag the current-time indicator across the time ruler between 5:00 and 8:00 to see how the words *directed by* move onscreen—and then offscreen.

You'll fix the text so that it stays onscreen, but now is a good time to adjust the position of the path in the composition so that it doesn't interfere with the movie title.

- 6 Using the Selection tool (⌘), double-click the yellow motion path in the Composition panel.
- 7 Drag the path down and slightly to the left, until the words *Road Trip* are centered in the top curve and *Your Name Here* is within the lower curve. You may find it easiest to use the arrow keys.



- 8 Press Enter or Return to accept the change.

Later in the lesson, you'll attach a car graphic to the path so it appears to be pulling the text. But first, you'll finish animating the credits.

- 9 Select the *directed by* layer in the Timeline panel, and hide its properties. Then choose File > Save to save your work.

Animating type tracking

● **Note:** It doesn't matter where the current-time indicator is located when you edit the text of this layer. Currently, the text is onscreen for the duration of the composition. That will change once you animate it.

● **Note:** Again, the layer name doesn't change, because it was named in Photoshop.

Next, you'll animate the appearance of the director's name in the composition using a text animation tracking preset. By animating tracking, you can make words seem to expand outward as they appear onscreen from a central point.

Customizing placeholder text

Currently, the director's name is simply a layer with placeholder text—*Your Name Here*. Before you animate it, change it to your own name.

- 1 Switch to the credits timeline in the Timeline panel, and select the Your Name Here layer.
- 2 Select the Horizontal Type tool (T), and then replace *Your Name Here* in the Composition panel with your own name. Use a first, middle, and last name so that you have a nice long string of text to animate. Click the layer name when you're done.



Applying a tracking preset

Now you will animate the director's name with a tracking preset so that it starts to appear onscreen shortly after the words *directed by* reach the center of the composition.

- 1 Go to 7:10.
- 2 Select the Your Name Here layer in the Timeline panel.
- 3 Jump to Adobe Bridge, and go to the Presets/Text/Tracking folder. Double-click the Increase Tracking preset to apply it to the Your Name Here layer in After Effects.
- 4 Drag the current-time indicator across the time ruler between 7:10 and 9:10 to manually preview the tracking animation.

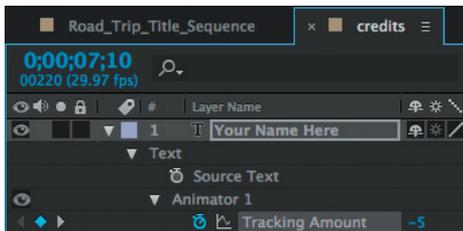
► **Tip:** If you're tired of jumping to Adobe Bridge and don't care to preview the preset, simply type **Increase Tracking** in the search box of the Effects & Presets panel. Then double-click the effect to apply it to the selected layer in the Timeline panel.



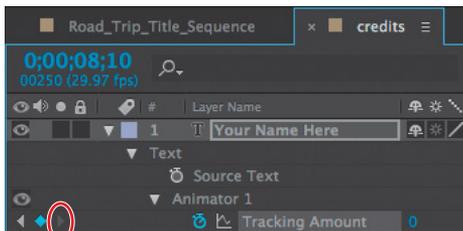
Customizing the tracking animation preset

The text expands, but you want the letters to be so close initially that they're on top of each other, and then to expand to a reasonable, readable distance apart. The animation should also occur faster. You'll adjust the Tracking Amount to achieve both goals.

- 1 Select the Your Name Here layer in the Timeline panel, and press UU to reveal the properties that were modified.
- 2 Go to 7:10.
- 3 Under Animator 1, change the Tracking Amount to -5 so that the letters are squeezed together.



- 4 Click the Go To Next Keyframe arrow (▶) for the Tracking Amount property, and then change the value to 0.



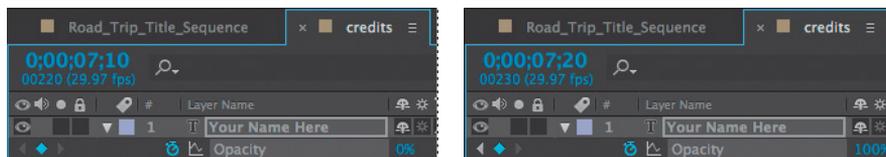
- 5 Drag the current-time indicator across the time ruler between 7:10 and 8:10. The letters expand as they appear onscreen, and stop animating at the last keyframe.

Animating text opacity

You'll take the animation of the director's name a little further by having it fade onscreen as the letters expand. To do this, you'll animate the layer's Opacity property.

- 1 Select the Your Name Here layer in the credits timeline.
- 2 Press T to reveal only the layer's Opacity property.
- 3 Go to 7:10, and set the Opacity to **0%**. Then click the stopwatch icon (🕒) to set an Opacity keyframe.
- 4 Go to 7:20, and set the Opacity to **100%**. After Effects adds a second keyframe.

Now the letters of the director's name should fade in as they expand onscreen.



- 5 Drag the current-time indicator across the time ruler between 7:10 and 8:10 to see the letters of the director's name fade in as they spread out.



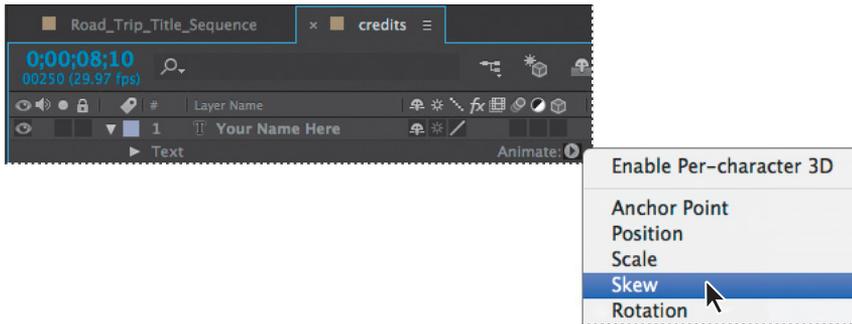
- 6 Right-click (Windows) or Control-click (Mac OS) the ending Opacity keyframe, and choose Keyframe Assistant > Easy Ease In.
- 7 Choose File > Save.

Using a text animator group

Text animator groups let you animate individual letters within a block of text in a layer. You'll use a text animator group to animate only the characters in your middle name without affecting the tracking and opacity animation of the other names in the layer.

- 1 In the Timeline panel, go to 8:10.
- 2 Hide the Opacity property for the Your Name Here layer. Then expand the layer to see its Text property group name.

- Next to the Text property name, click the Animate pop-up menu, and choose Skew.



A property group named Animator 2 appears in the layer's Text properties.

About text animator groups

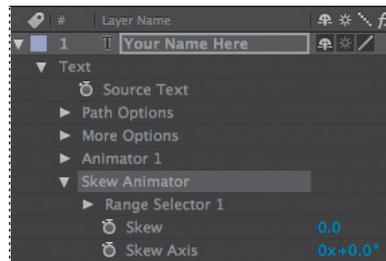
A text animator group includes one or more *selectors* and one or more *animator properties*. A selector is like a mask—it specifies which characters or section of a text layer you want an animator property to affect. Using a selector, you can define a percentage of the text, specific characters in the text, or a specific range of text.

Using a combination of animator properties and selectors, you can create complex text animations that would otherwise require painstaking keyframing. Most text animations require you to animate only the selector values—not the property values. Consequently, text animators use a small number of keyframes even for complex animations.

For more about text animator groups, see After Effects Help.

- Select Animator 2, press Enter or Return, and rename it **Skew Animator**. Then press Enter or Return again to accept the new name.

Now you're ready to define the range of letters that you want to skew.



- Expand the Skew Animator's Range Selector 1 properties.

Each animator group includes a default range selector. Range selectors constrain the animation to particular letters in the text layer. You can add additional selectors to an animator group, or apply multiple animator properties to the same range selector.

- 6 While watching the Composition panel, drag the Skew Animator's Range Selector 1 Start value up (to the right) until the left selector indicator (⌘) is just before the first letter of your middle name (the *B* in *Bender*, in this example).
- 7 Drag the Skew Animator's Range Selector 1 End value down (to the left) until its indicator (⌘) is just after the last letter of your middle name (the *r* in *Bender*, in this example) in the Composition panel.

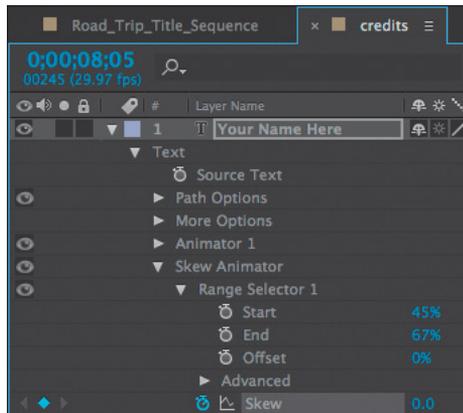


Now, any properties that you animate with the Skew Animator will affect only the middle name that you selected.

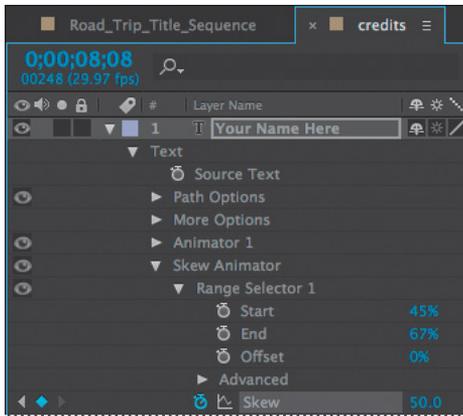
Skewing the range of text

Now, make that middle name shake and shimmy by setting Skew keyframes.

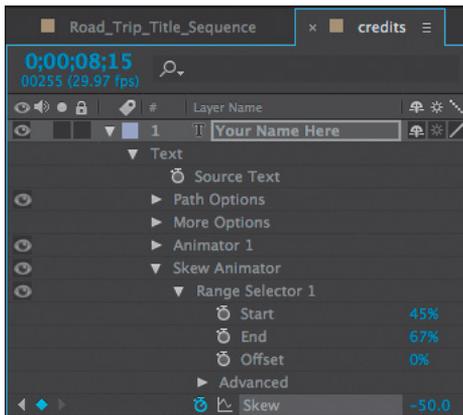
- 1 Drag the Skew Animator's Skew value left and right, and notice that only the middle name sways. The other names in the line of text remain steady.
- 2 Set the Skew Animator's Skew value to **0**.
- 3 Go to 8:05, and click the stopwatch icon (🕒) for Skew to add a keyframe to the property.



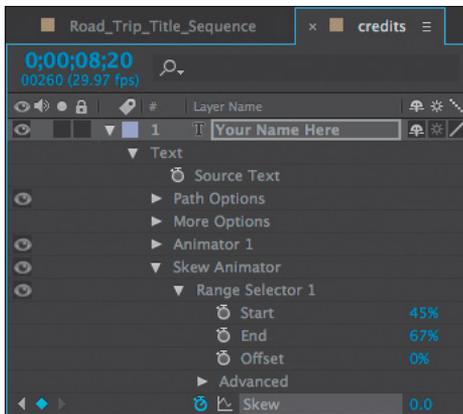
- 4 Go to 8:08, and set the Skew value to **50**. After Effects adds a keyframe.



- 5 Go to 8:15, and change the Skew value to **-50**. After Effects adds another keyframe.



- 6 Go to 8:20, and change the Skew value to **0** to set the final keyframe.



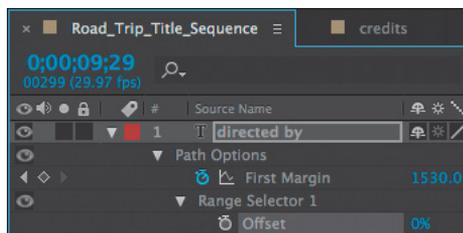
► **Tip:** To quickly remove all text animators from a text layer, select the layer in the Timeline panel, and choose Animation > Remove All Text Animators. To remove only one animator, select its name in the Timeline panel, and press Delete.

- 7 Click the Skew property name to select all of the Skew keyframes. Then choose Animation > Keyframe Assistant > Easy Ease to add an Easy Ease to all keyframes.
- 8 Drag the current-time indicator across the time ruler from 7:10 to 8:20 to see how the director's name fades in and expands onscreen, and the middle name rocks side to side while the other names are unaffected.
- 9 Hide the properties for the Your Name Here layer in the Timeline panel.
- 10 Select the Road_Trip_Title_Sequence tab to open its timeline.
- 11 Press End, or move the current-time indicator to 9:29. Then press N to set the end bracket for the work area at the end of the composition.
- 12 Press Home, or go to 0:00, and then play a RAM preview of the entire composition.
- 13 Press the spacebar to stop playback, and then choose File > Save to save your work.

Cleaning up the path animation

Currently, the words *directed by* fade in and out as they wind along the Pipes path preset. You'll modify the text properties so that the words are opaque for the entire animation and come to rest just above your name.

- 1 With the *directed by* layer selected in the Timeline panel, press U to display the animated properties for the layer.
- 2 Click the stopwatch icon (🕒) for the Range Selector 1 Offset property to delete all of its keyframes.
- 3 Depending on where the current-time indicator is located in the time ruler, the resulting value for Range Selector 1 Offset may or may not be set to 0%. Set it to **0%** if it is not.

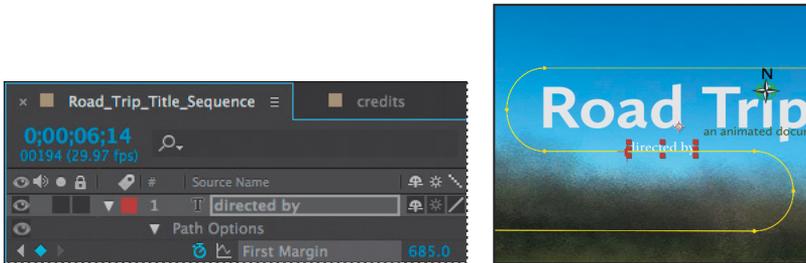


Now, *directed by* will be visible throughout the composition. Next, you'll modify the First Margin property to make the text stop animating above your name.

- 4 Select the last keyframe for the First Margin property in the Timeline panel, and press the Delete key to delete it. Because the middle keyframe (now the last keyframe) is set to Easy Ease, the words *directed by* come gently to rest above your name.

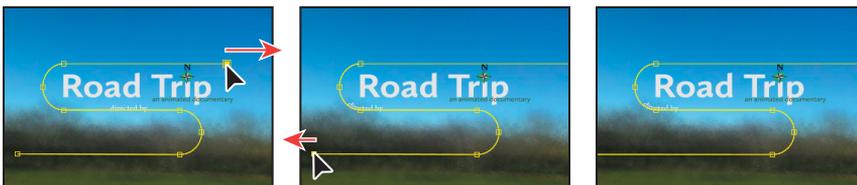


- 5 Go to 6:14, and change the First Margin value to 685.



You also need to adjust the path shape so that it starts and ends off the screen.

- 6 Using the Selection tool (⌘) in the Composition panel, select the control point at the top of the S-shaped curve, and then press Shift as you drag it to the right and well off the screen so the car won't be visible.
- 7 Click the control point at the end of the S-shaped curve, and Shift-drag the control point off the left side of the screen, so that the car won't be visible.



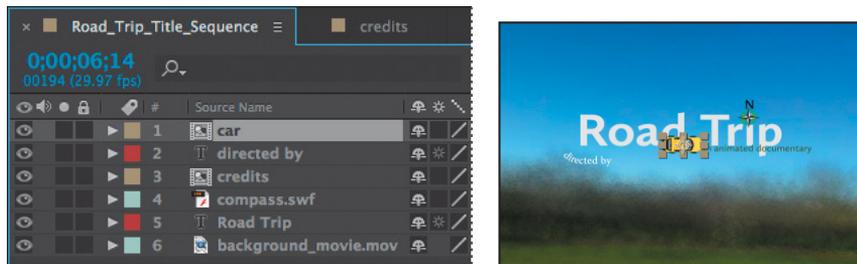
- 8 Preview the animation from about 5:00 to 9:00 to see the corrected path.
- 9 If the text doesn't stop directly above your name, adjust the First Margin value of the final keyframe.
- 10 Hide the properties for the directed by layer in the Timeline panel, and then choose File > Save.

● **Note:** Depending on how far you move the beginning and ending control points of the path, you may need to change the First Margin value again to reposition the text.

Animating a nontext layer along a motion path

To cap off this project, you'll use a mask from a text layer to animate a nontext layer. Specifically, you'll use the mask shape for the *directed by* path to create a motion path for a car graphic so that it appears to be pulling the text. First, you'll import the car graphic and add it to your composition.

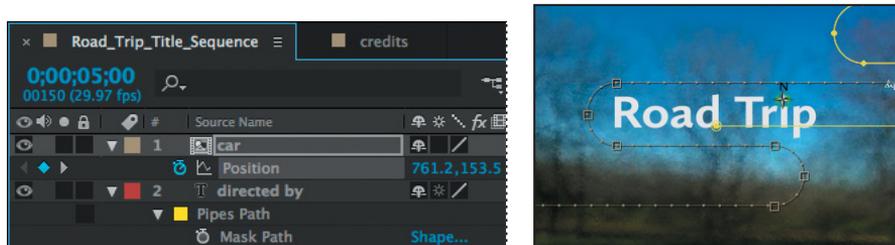
- 1 Double-click an empty area in the Project panel to open the Import File dialog box.
- 2 In the Lessons/Lesson03/Assets folder, select the car.ai file, choose Composition – Retain Layer Sizes from the Import As menu, and then click Import or Open.
- 3 Drag the car composition from the Project panel to the top of the layer stack in the Road_Trip_Title_Sequence Timeline panel.



Copying the mask shape

Now you're ready to copy the mask shape from the path of the directed by layer to the car layer.

- 1 Go to 5:00.
- 2 Select the directed by layer in the Timeline panel, and press M to display its Mask Path property.
- 3 Click the Mask Path property to select it, and then choose Edit > Copy.
- 4 Select the car layer, and then press P to display its Position property.
- 5 Click the Position property name to select it, and then choose Edit > Paste.

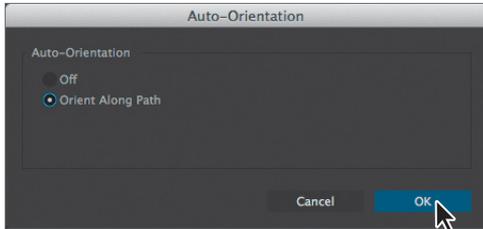


After Effects copies the Position keyframes from the directed by layer to the car layer.

Orienting the object

Unfortunately, the car is flying backward, but that's easy to fix.

- 1 With the car layer selected in the Timeline panel, choose Layer > Transform > Auto-Orient.
- 2 In the Auto-Orientation dialog box, select Orient Along Path, and then click OK.



Now the car is facing forward as it flies.

- 3 Select the car layer in the Timeline panel, and press P to hide its Position property.

Coordinating the text and object timing

Next, you need to coordinate the timing of the car's motion with the words *directed by* so that the words correctly trail behind the car.

- 1 Select the directed by layer, and press U to display its Path Options property group in the Timeline panel.
- 2 Go to 5:18, and change the First Margin value so that the text moves behind the car. (We changed the value to 373.) After Effects adds a keyframe.
- 3 Go to 5:25, and change the First Margin value so that the car is leading the text. We changed the value to 559.
- 4 Go to 4:24, and drag the first First Margin keyframe (the left-pointing arrow) to that position.



- 5 Manually preview the corrected path animation by dragging the current-time indicator across the time ruler from about 4:20 to 7:10.

The words should follow the car and come to rest above your name, while the car continues to fly along the path and off the screen.

- 6 Adjust the First Margin value for the first keyframe if necessary to create a smoothly flowing animation. You may also need to move the final First Margin keyframe to stop the words *directed by* so they'll be centered over your name.
- 7 Hide the properties for the directed by layer, and then press the Home key or move the current-time indicator to the beginning of the time ruler.

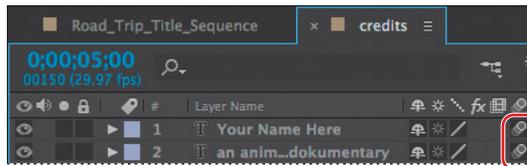
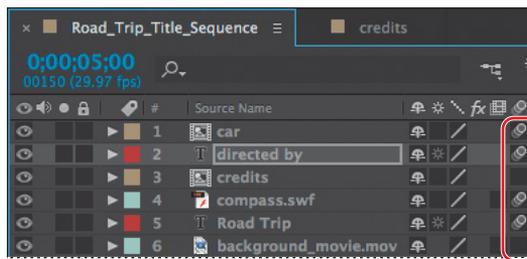
Adding motion blur

Motion blur is the blur that occurs as an object moves. You'll apply motion blur to finesse the composition and make the movement look more natural.

- 1 In the Timeline panel, click the Motion Blur switch (☞) for each layer *except* the background_movie and credits layers.

Now you'll apply motion blur to the layers in the credits composition.

- 2 Switch to the credits Timeline panel, and enable motion blur for both layers.



- 3 Switch back to the Road_Trip_Title_Sequence Timeline panel, and select the Motion Blur switch for the credits layer. Then click the Enable Motion Blur button (☞) at the top of the Timeline panel so that you can see the motion blur in the Composition panel.
- 4 View a RAM preview of the entire, completed animation.
- 5 Choose File > Save.

Give yourself a pat on the back. You just completed some hard-core text animations. If you'd like to export the composition as a movie file, see Lesson 14, "Rendering and Outputting," for instructions.

Review questions

- 1 What are some similarities and differences between text layers and other types of layers in After Effects?
- 2 How can you preview a text animation preset?
- 3 How can you assign one layer's transformations to another layer?
- 4 What are text animator groups?

Review answers

- 1 In many ways, text layers are just like any other layer in After Effects. You can apply effects and expressions to text layers, animate them, designate them as 3D layers, and edit the 3D text while viewing it in multiple views. However, text layers are like shape layers in that you can't open them in their own Layer panels, and in that they are synthetic layers that consist entirely of vector graphics. You can animate the text in a text layer using special text animator properties and selectors.
- 2 You can preview text animation presets in Adobe Bridge by choosing Animation > Browse Presets. Adobe Bridge opens and displays the contents of the After Effects Presets folder. Navigate to folders containing categories of text animation presets, such as Blurs or Paths, and watch samples in the Preview panel. Then double-click a preset to add it to the currently selected layer in the After Effects Timeline panel.
- 3 You can use parenting relationships in After Effects to assign one layer's transformations to another layer (except opacity transformations). When a layer is made a parent to another layer, the other layer is called the *child layer*. Creating a parenting relationship between layers synchronizes the changes in the parent layer with corresponding transformation values of the child layers.
- 4 Text animator groups enable you to animate the properties of individual characters in a text layer over time. Text animator groups contain one or more *selectors*, which are like masks: They let you specify which characters or section of a text layer you want an animator property to affect. Using a selector, you can define a percentage of the text, specific characters in the text, or a specific range of text.

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