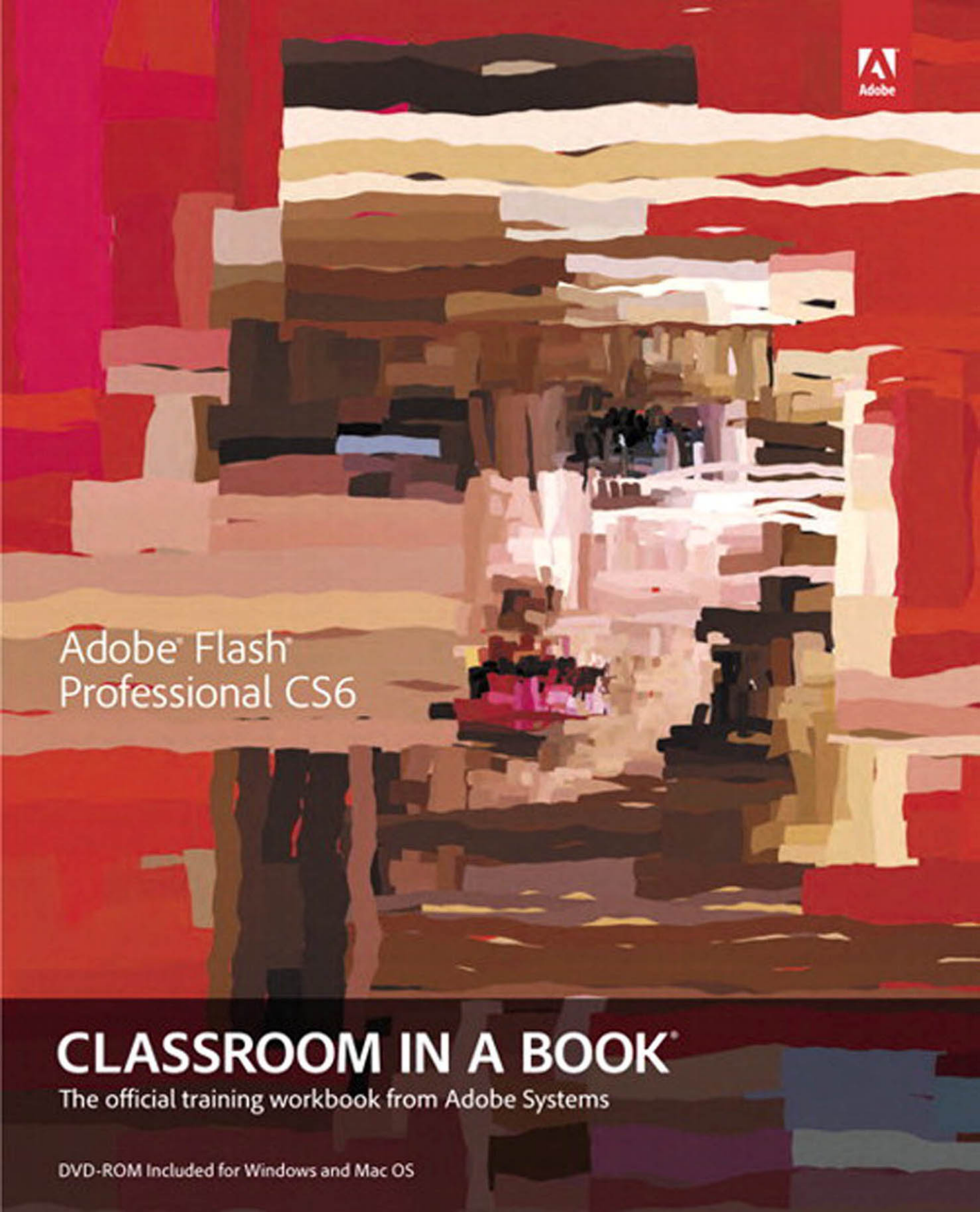
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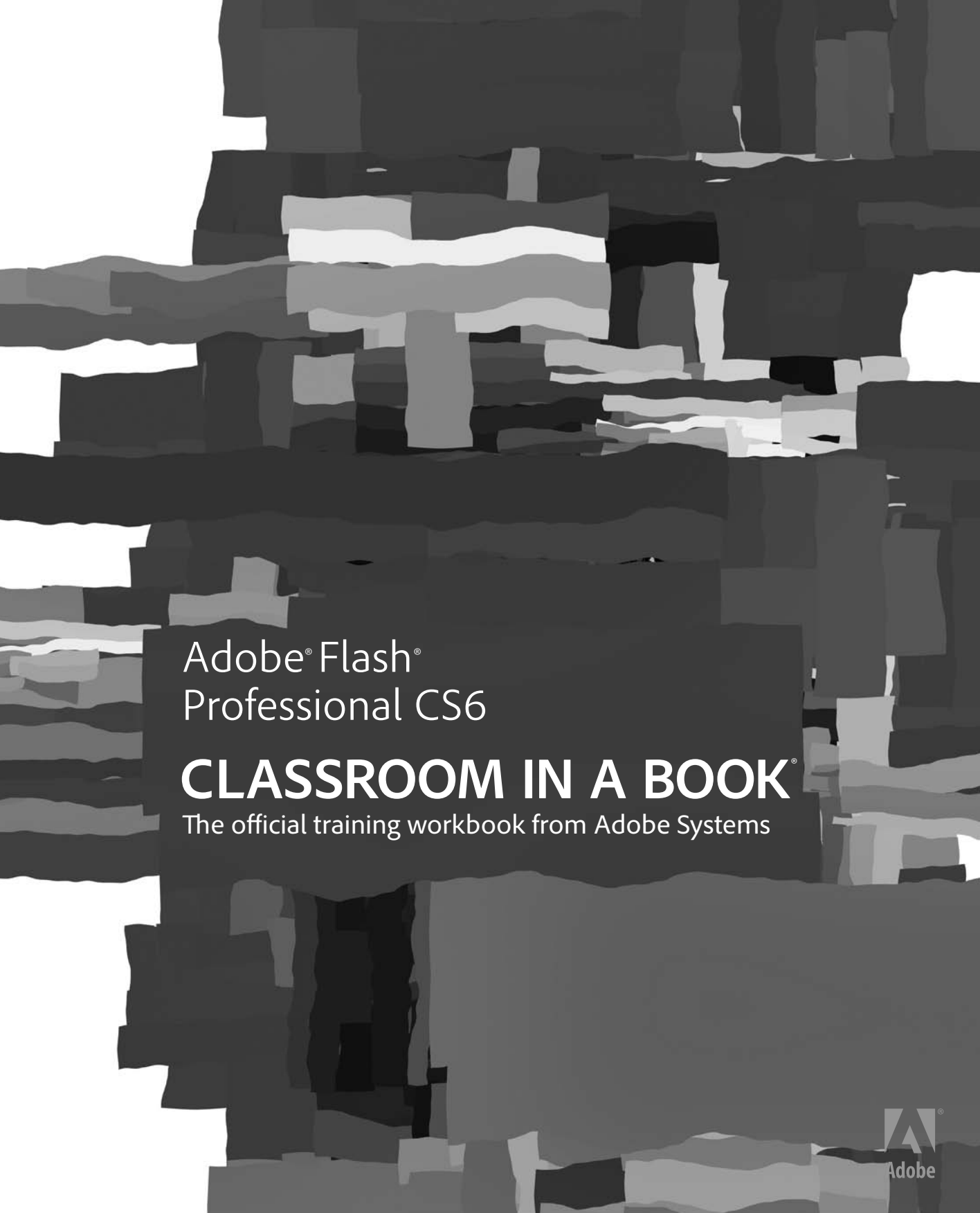
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Printed and bound in the United States of America

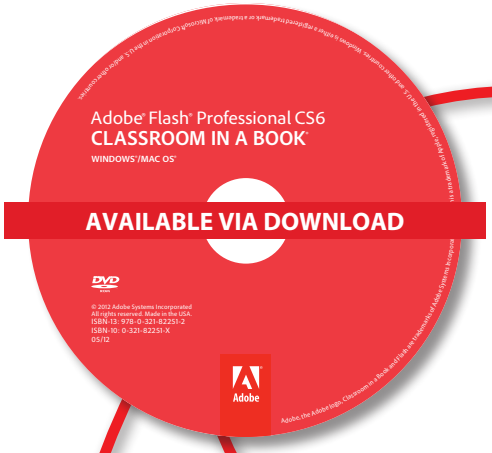
ISBN-13: 978-0-321-82251-2
ISBN-10: 0-321-82251-X

9 8 7 6 5 4 3 2 1

EBOOK READERS: FIND YOUR LESSON FILES

Throughout this title you will see references to lesson or resource files on a disc. Please note that these files are available to eBook readers via high-speed download. Please **click here** to go to the last page in this eBook for the download location and instructions.

Adobe Flash Professional CS6 Classroom in a Book includes the lesson files that you'll need to complete the exercises in this book, as well as other content to help you learn more about Adobe Flash Professional CS6 and use it with greater efficiency and ease. The diagram below represents the contents of the lesson files directory, which should help you locate the files you need.

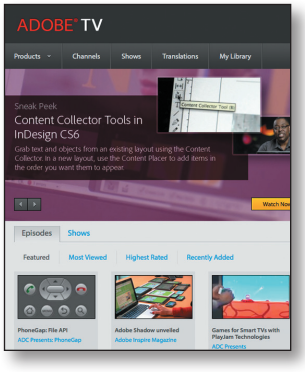


Lesson files

Each lesson has its own folder inside the Lessons folder. You will need to download these lesson folders to your hard drive before you can begin each lesson.

Online resources

Links to Adobe Community Help, product Help and Support pages, Adobe Press, Adobe certification programs, Adobe TV, and other useful online resources can be found inside a handy HTML file. Just open it in your Web browser and click on the links, including a special link to this book's product page where you can access updates and bonus material.



Learn by Video bonus tutorials

A bonus 2-hour set of *Adobe Flash Professional CS6: Learn by Video* tutorials are included, from video2brain and Adobe Press. Learn by Video is one of the most critically acclaimed training products on Adobe software and is the only Adobe-approved video courseware for the Adobe Certified Associate Level certification.

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GETTING STARTED

Adobe Flash Professional CS6 provides a comprehensive authoring environment for creating interactive and media-rich applications. Flash is widely used to create engaging projects integrating video, sound, graphics, and animation. You can create original content in Flash or import assets from other Adobe applications such as Photoshop or Illustrator, quickly design animation and multimedia, and use Adobe ActionScript 3.0 to integrate sophisticated interactivity.

Use Flash to build innovative and immersive Web sites, to create stand-alone applications for the desktop, or to create apps to distribute to mobile devices running on the Android or the iOS system.

With extensive controls for animation, intuitive and flexible drawing tools, and a powerful object-oriented coding language, Flash delivers one of the only robust environments that let your imagination become reality.

About Classroom in a Book

Adobe Flash Professional CS6 Classroom in a Book 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 so you can learn at your own pace. If you're new to Flash, you'll learn the fundamental concepts and features you'll need to use the program. Classroom in a Book also teaches many advanced features, including tips and techniques for using the latest version of this application.

What's New

The lessons in this book provide opportunities to use some of the new features and improvements in Flash Professional CS6, including:

- An updated Document panel for quick access to document settings
- Powerful controls for managing layers

- Stage resizing that scales all your content proportionally
- Auto-Save and Auto-Recovery, new options that can ease your mind over potential lost work due to crashes.
- Additional options for symbols, Convert to Bitmap and Export as Bitmap, which provide greater control over graphics handling.
- Outputting animations as a Sprite sheet or PNG sequences to support alternative approaches to animation.
- A new feature for inverse kinematics called Pinning, which allows finer control for armatures.
- A tab ruler for TLF text for positioning of text with layout precision.
- An improved Code Snippets panel featuring a fast, visual way of applying code to objects on the Stage.
- Additional code snippets available in the Code Snippets panel, many geared particularly toward mobile device interactions.
- A streamlined Publish Settings dialog box.
- Better workflow for sharing resources across multiple FLA files
- Revamped interface for Adobe Media Encoder for more efficient processing of your media files.
- A simulator for mobile device interactions to allow testing gestures such as pinches and swipes within Flash.
- Many more incremental feature improvements and overall better performance.

Prerequisites

Before you begin using *Adobe Flash Professional CS6 Classroom in a Book*, make sure your system is set up correctly and that you've installed the required software. 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.

Installing Flash

You must purchase the Adobe Flash Professional CS6 software either as a standalone application or as part of the Adobe Creative Suite. The following specifications are the minimum required system configurations.

Windows:

- Intel® Pentium 4, Intel Centrino®, Intel Xeon®, or Intel Core™ Duo (or compatible) processor
- Microsoft® Windows XP with Service Pack 3 or Windows 7
- 2 GB of RAM required (3 GB recommended)
- 1024 x 768 display
- 2.5 GB of available hard-disk space (additional free space required during installation)
- Internet connection required for product activation
- QuickTime 7.x software required for multimedia features and PNG import.
- DirectX version 9.0c or higher

Mac OS

- Multicore Intel processor
- Mac OS X 10.6.x or 10.7.x
- 2 GB of RAM required (3 GB recommended)
- 1024 x 768 display
- 2.5 GB of available hard-disk space (additional free space required during installation)
- Internet connection required for product activation
- QuickTime 7.x software required for multimedia features and PNG import

For updates on system requirements and complete instructions on installing the software, visit www.adobe.com/go/flash_systemreqs.

Install Flash from the Adobe Flash Professional CS6 application DVD, or from the disk image you downloaded from Adobe, onto your hard drive. You cannot run the program from the installation disc. Follow the onscreen instructions.

Make sure that your serial number is accessible before installing the application. You can find the serial number on the back of the DVD case, or if you downloaded the software from Adobe, the serial number will be in your emailed receipt.

Copying the Lesson Files

The lessons in *Adobe Flash Professional CS6 Classroom in a Book* use specific source files, such as image files created in Adobe Illustrator, video files created in Adobe After Effects, audio files, and prepared Flash documents. To complete the lessons in this book, you must copy these files from the *Adobe Flash Professional CS6 Classroom in a Book* CD (inside the back cover of this book) to your hard drive. Follow these steps to copy the lesson files:

1. On your hard drive, create a new folder in a convenient location and name it **FlashProCS6_CIB**, following the standard procedure for your operating system:
   - **Windows:** In Windows 7 or Vista, right-click and choose New > Folder. Then enter the new name for your folder.
   - **Mac OS:** In the Finder, choose File > New Folder. Type the new name and drag the folder to the location you want to use.

   Now, you can copy the source files onto your hard drive.
2. Drag the Lessons folder (which contains folders named Lesson01, Lesson02, and so on) from the *Adobe Flash Professional CS6 Classroom in a Book* CD onto your hard drive to your new FlashProCS6_CIB folder.

When you begin each lesson, navigate to the folder with that lesson number to access all 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 copy each lesson folder as you need it, and then delete it after you've completed the lesson if desired. Some lessons build on preceding lessons; in those cases, a starting project file is provided for you for the second lesson or project. You do not have to save any finished project if you don't want to or if you have limited hard drive space.

Copying the sample movies and projects

You will create and publish SWF animation files in some lessons in this book. The files in the End folders (01End, 02End, and so on) within the Lesson folders are samples of completed projects 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. The end project files vary in size from relatively small to a couple of megabytes, so you can either copy them all now if you have ample storage space or copy just the end project file for each lesson as needed. Then you can delete it when you finish that lesson.

How to Use the Lessons

Each lesson in this book provides step-by-step instructions for creating one or more specific elements of a real-world project. Some lessons build on projects created in preceding lessons; most stand alone. All 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.

The organization of the lessons is also project-oriented rather than feature-oriented. That means, for example, that you'll work with symbols on real-world design projects over several lessons rather than in just one chapter.

Additional Resources

Adobe Flash Professional CS6 Classroom in a Book 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, please refer to these resources:

Adobe Community Help: Community Help brings together active Adobe product users, Adobe product team members, authors, and experts to give you the most useful, relevant, and up-to-date information about Adobe products.

To access Community Help: To invoke Help, press F1 or choose Help > Flash Help.

Adobe content is updated based on community feedback and contributions. You can add comments to both content or forums—including links to web content, publish your own content using Community Publishing, or contribute Cookbook Recipes. Find out how to contribute at www.adobe.com/community/publishing/download.html

See community.adobe.com/help/profile/faq.html for answers to frequently asked questions about Community Help.

Adobe Flash Professional CS6 Help and Support: www.adobe.com/support/flash/ is where you can find and browse Help and Support content on Adobe's site.

Adobe Forums: forums.adobe.com lets you tap into peer-to-peer discussions, questions and answers on Adobe products.

Adobe TV: tv.adobe.com is an online video resource for expert instruction and inspiration about Adobe products, including a How To channel to get you started with your product.

Adobe Design Center: www.adobe.com/designcenter offers thoughtful articles on design and design issues, a gallery showcasing the work of top-notch designers, tutorials, and more.

Adobe Developer Connection: www.adobe.com/devnet is your source for technical articles, code samples, and how-to videos that cover Adobe developer products and technologies.

Resources for educators: www.adobe.com/education offers 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 Marketplace & Exchange: www.adobe.com/cfusion/exchange/ is a central resource for finding tools, services, extensions, code samples and more to supplement and extend your Adobe products.

Adobe Flash Professional CS6 product home page: www.adobe.com/products/flash

Adobe Labs: labs.adobe.com gives you access to early builds of cutting-edge technology, as well as forums where you can interact with both the Adobe development teams building that technology and other like-minded members of the community.

Adobe Certification

The Adobe training and certification programs are designed to help Adobe customers improve and promote their product-proficiency skills. There are four levels of certification:

- Adobe Certified Associate (ACA)
- Adobe Certified Expert (ACE)
- Adobe Certified Instructor (ACI)
- Adobe Authorized Training Center (AATC)

The Adobe Certified Associate (ACA) credential certifies that individuals have the entry-level skills to plan, design, build, and maintain effective communications using different forms of digital media.

The Adobe Certified Expert program is a way for expert users to upgrade their credentials. You can use Adobe certification as a catalyst for getting a raise, finding a job, or promoting your expertise.

If you are an ACE-level instructor, the Adobe Certified Instructor program takes your skills to the next level and gives you access to a wide range of Adobe resources.

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

For information on the Adobe Certified programs, visit www.adobe.com/support/certification/main.html.

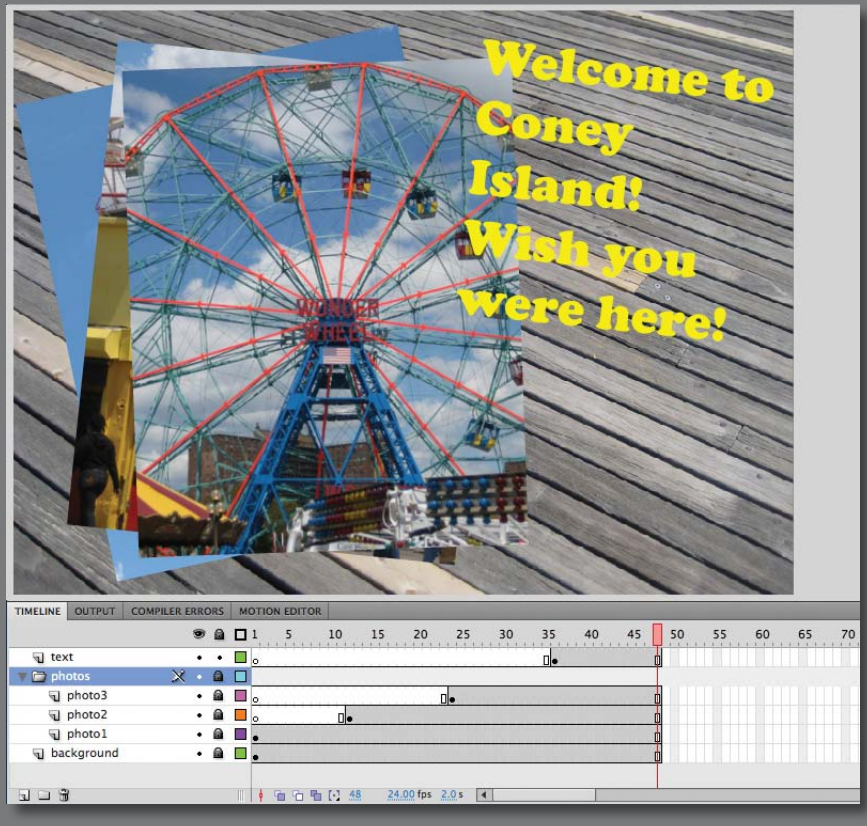
1 GETTING ACQUAINTED

Lesson Overview

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

- Create a new file in Flash
- Adjust Stage settings and document properties
- Add layers to the Timeline
- Manage keyframes in the Timeline
- Work with imported images in the Library panel
- Move and reposition objects on the Stage
- Open and work with panels
- Select and use tools in the Tools panel
- Preview your Flash animation
- Save your Flash file
- Access online resources for Flash

This lesson will take less than 1 hour to complete. Copy the Lesson01 folder from the *Adobe Flash Professional CS6 Classroom in a Book* CD onto your hard drive if it's not already there.



In Flash, the Stage is where the action takes place, the Timeline organizes frames and layers, and other panels let you edit and control your creation.

Starting Flash and Opening a File

The first time you start Flash you'll see a Welcome screen with links to standard file templates, tutorials, and other resources. In this lesson, you'll create a simple animation to showcase a few vacation snapshots. You'll add the photos and a title, and in the process you'll learn about positioning elements on the Stage and placing them along the Timeline. It's important to understand that the Stage is used to organize your visual elements spatially, and the Timeline is used to organize your elements temporally.

Note: You can also start Flash by double-clicking a Flash file (*.fla or *.xfl), such as the 01End.fla file that is provided to show you the completed project.

Note: If your computer is missing a font that the final project contains, Flash displays a warning dialog box. You can manually choose a substitute if you wish, or simply click Use Default and Flash will do so automatically.

1. Start Adobe Flash Professional CS6. In Windows, choose Start > All Programs > Adobe Flash Professional CS6. In Mac OS, click Adobe Flash Professional CS6 in the Applications folder or the Dock.
2. Choose File > Open. In the Open dialog box, select the 01End.fla file in the Lesson01/01End folder and click Open to see the final project.
3. Choose File > Publish Preview > HTML.

   Flash creates the necessary files (an HTML file and a SWF file) to display the final animation in your default browser. An animation plays. During the animation, several overlapping photos appear one by one, ending with a title.

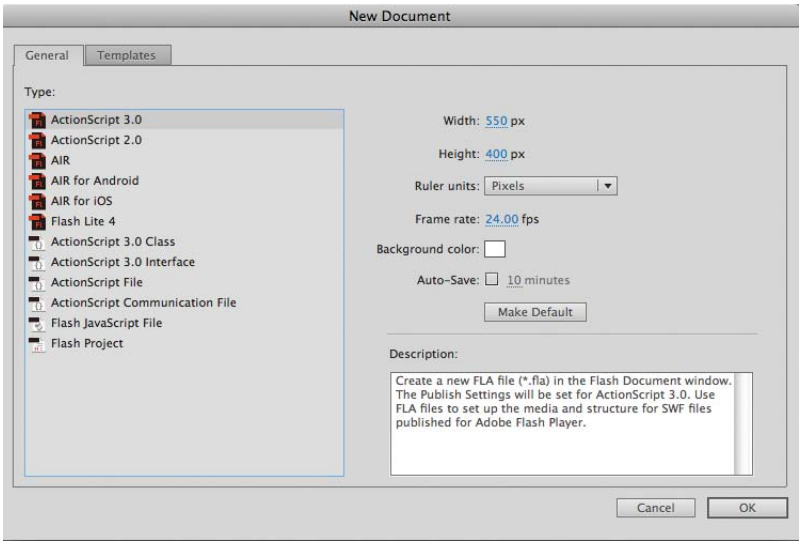
4. Close the browser.

Creating a New Document

You'll create the simple animation that you just previewed by starting a new document.

1 In Flash, choose File > New.

The New Document dialog box opens.



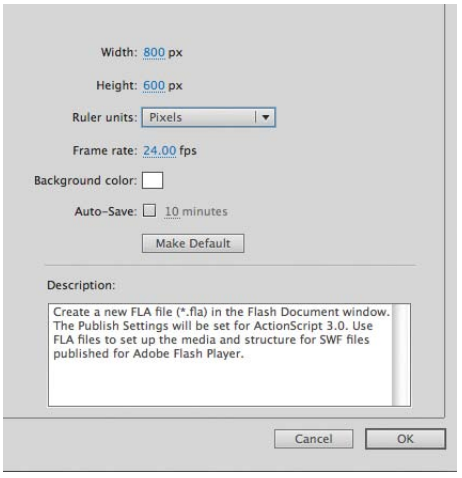
2 Under the General tab, choose ActionScript 3.0.

ActionScript 3.0 is the latest version of Flash's scripting language, which you use to add interactivity. In this lesson, you will not be working with ActionScript, but you still must choose with which version your file is compatible. Choosing ActionScript 3.0 creates a new document configured for playback in a desktop browser (such as Chrome, Safari, or Firefox) with Flash Player.

The other options target alternative playback environments. For example, AIR for Android and AIR for iOS create new documents configured for playback with AIR on an Android or an Apple mobile device.

Note: For simple projects, such as the example animation you'll create in this lesson, creating a single FLA document is sufficient. However, for more complex projects that require coordination with multiple developers or for projects intended for playback in several different environments (desktop and mobile), it's best to use the Project panel (Window > Project) to create a new project. A project helps organize multiple assets. You'll learn about the Project panel in Lesson 10, "Publishing Flash Documents."

3 On the right-hand side of the dialog box, you can choose the dimensions of the Stage by entering new pixel values for the Width and Height. Enter **800** for Width and **600** for Height. Keep the Ruler units as Pixels.



Leave the Frame rate and Background color for the Stage at their default settings. You can always edit these document properties, as explained later in this lesson.

4 Click OK.

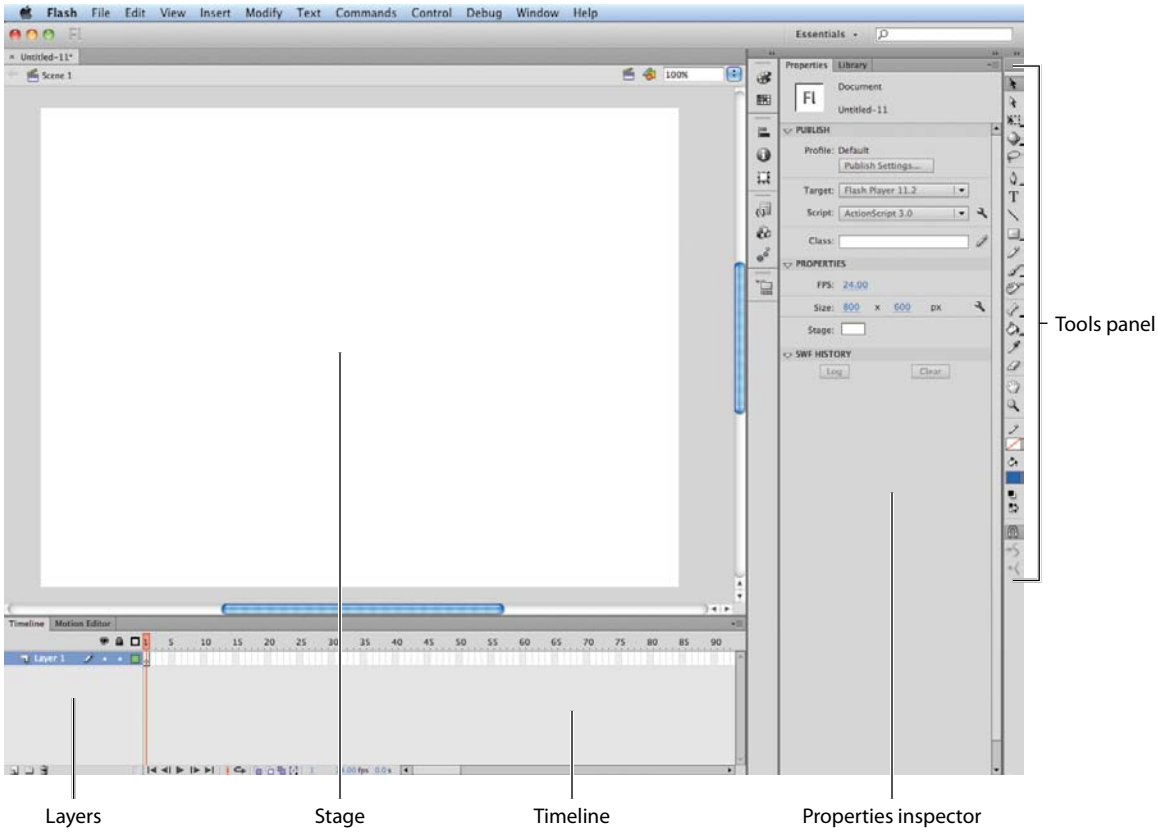
Flash creates a new ActionScript 3.0 file with all the specified settings.

5 Choose File > Save. Name the file **01_workingcopy.fla**, and from the Format/Save as Type pull-down menu choose Flash CS6 document (*.fla). Save it in the 01Start folder. Saving your file right away is a good working habit that ensures your work won't be lost if the application or your computer crashes. You should always save your Flash file with the extension .fla to identify it as the Flash source file.

Getting to Know the Workspace

The Adobe Flash Professional work area includes the command menus at the top of the screen and a variety of tools and panels for editing and adding elements to your movie. You can create all the objects for your animation in Flash, or you can import elements you've created in Adobe Illustrator, Adobe Photoshop, Adobe After Effects, and other compatible applications.

By default, Flash displays the menu bar, Timeline, Stage, Tools panel, Properties inspector, and a few other panels. As you work in Flash, you can open, close, dock, undock, and move panels around the screen to fit your work style or your screen resolution.

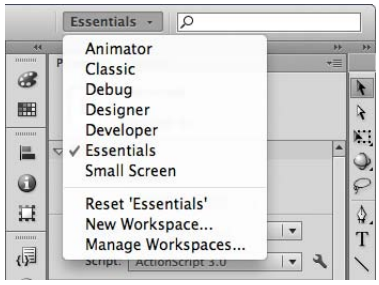


Choosing a new workspace

Flash also provides a few preset panel arrangements that may better suit the needs of particular users. The various workspace arrangements are listed in a pull-down menu at the top right of the Flash workspace or in the top menu under Window > Workspace.

1 Click the Essentials button at the top right of the Flash workspace and choose one of the other predefined workspaces.

The various panels are rearranged and resized according to their importance to the particular user. For example, the Animator and Designer workspaces put the Timeline at the top for easy and frequent access.



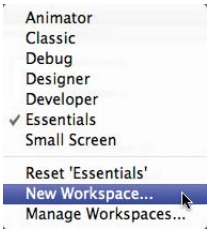
2 If you've moved some of the panels around and want to return to one of the prearranged workspaces, choose Window > Workspace > Reset and the name of the preset workspace.

3 To return to the default workspace, choose Window > Workspace > Essentials. In this Classroom in a Book, we'll be using the Essentials workspace.

Saving your workspace

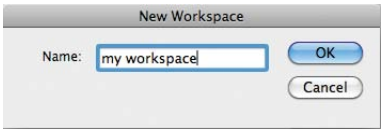
If you find an arrangement of panels comfortable for your style of work, you can save the custom workspace to return to it at a later date.

1 Click the Workspace button at the top-right corner of the Flash workspace and choose New Workspace.



The New Workspace dialog box appears.

2 Enter a name for your new workspace. Click OK.



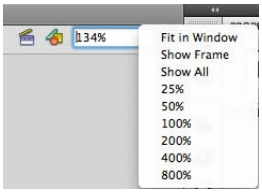
Flash saves the current arrangement of panels. Your workspace is added to the options in the Workspace pull-down menu, which you can access at any time.

About the Stage

The big white rectangle in the middle of your screen is called the Stage. As with a theater stage, the Stage in Flash is the area that viewers see when a movie is playing. It contains the text, images, and video that appear on the screen. Move elements on and off the Stage to move them in and out of view. You can use the rulers (View > Rulers) or grids (View > Grid > Show Grid) to help you position items on the Stage. Additionally, you can use the Align panel and other tools you'll learn about in the lessons in this book.

By default, you'll see the gray area off the Stage where you can place elements that won't be visible to your audience. The gray area is called the Pasteboard. To just see the Stage, choose View > Pasteboard to deselect the option. For now, leave the option selected.

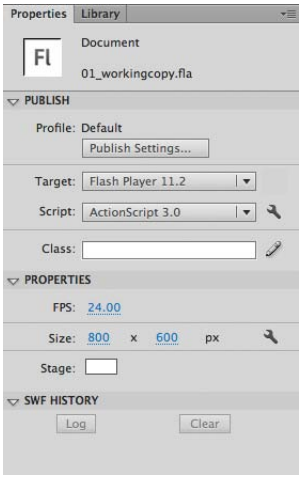
To scale the Stage so that it fits completely in the application window, choose View > Magnification > Fit in Window. You can also choose different magnification view options from the pop-up menu just above the Stage.



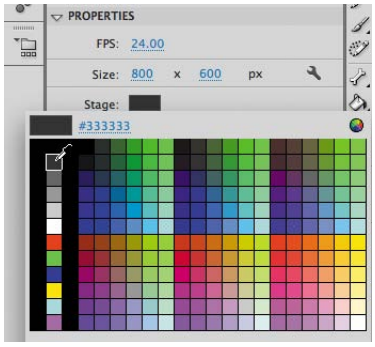
Changing the Stage properties

Now you'll change the color of the Stage. The Stage color, and other document properties such as the Stage dimensions and frame rate, are available in the Properties inspector, which is the vertical panel just to the right of the Stage.

1 At the bottom of the Properties inspector, note that the dimensions of the current Stage are set at 800 x 600 pixels, which you chose when you created the new document.



2 Click the Background color button next to Stage and choose a new color from the color palette. Choose dark gray (#333333).



Your Stage is now a different color. You can change the Stage properties at any time.

Working with the Library Panel

Note: You'll learn much more about symbols in Lesson 3, "Creating and Editing Symbols."

The Library panel is accessible from a tab just to the right of the Properties inspector. The Library panel is where you store and organize symbols created in Flash, as well as imported files, including bitmaps, graphics, sound files, and video clips. Symbols are often-used graphics used for animation and for interactivity.

About the Library panel

The Library panel lets you organize library items in folders, see how often an item is used in a document, and sort items by type. When you import items into Flash, you can import them directly onto the Stage or into the library. However, any item you import onto the Stage is also added to the library, as are any symbols you create. You can then easily access the items to add them to the Stage again, edit them, or see their properties.

To display the Library panel, choose Window > Library, or press Ctrl+L (Windows) or Command+L (Mac).

Importing an item to the Library panel

Often, you'll be creating graphics directly with Flash's drawing tools and saving them as symbols, which are stored in the library. Other times you'll be importing media such as JPEG images or MP3 sound files, which are also stored in the library. In this lesson, you'll import several JPEG images into the library to be used in the animation.

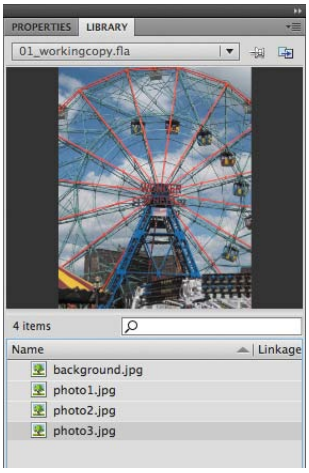
1 Choose File > Import > Import to Library. In the Import to Library dialog box, select the background.jpg file in the Lesson01/01Start folder, and click Open.

2 Flash imports the selected JPEG image and places it in the Library panel.

3 Continue importing photo1.jpg, photo2.jpg, and photo3.jpg from the 01Start folder. Don't import the last image, photo4.jpg. You'll use that image later in this lesson.

You can also hold down the Shift key to select multiple files and import all of them at once.

4 The Library panel displays all the imported JPEG images with their filenames and a thumbnail preview. These images are now available to be used in your Flash document.



Adding an item from the Library panel to the Stage

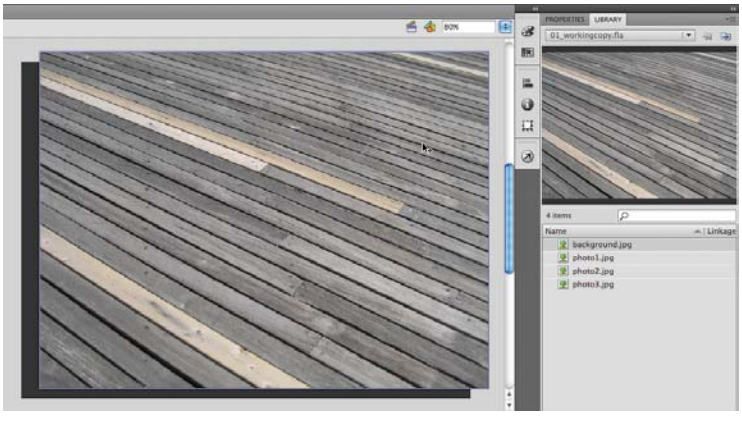
To use an imported image, simply drag it from the Library panel onto the Stage.

1 Choose Window > Library to open the Library panel if it isn't already open.

2 Select the background.jpg item in the Library panel.

3 Drag the background.jpg item onto the Stage and place it approximately in the center of the Stage.

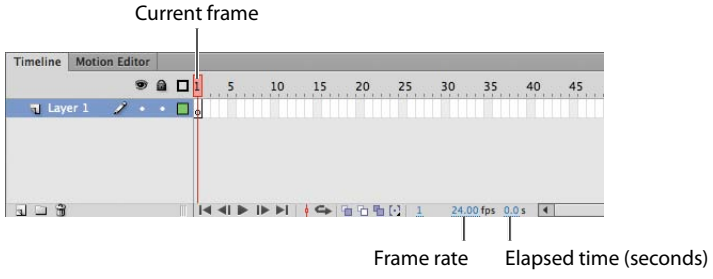
Note: You can also choose File > Import > Import to Stage, or Ctrl+R (Windows) or Command+R (Mac) to import an image file to the Library and put it on the Stage all in one step.



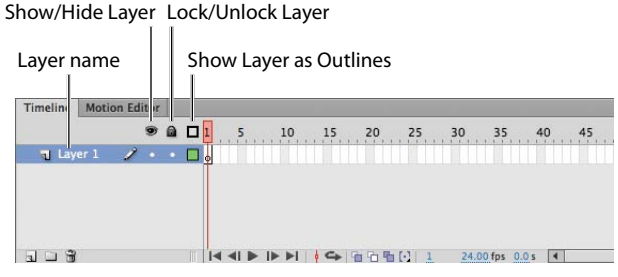
Understanding the Timeline

The Timeline is located below the Stage. Like films, Flash documents measure time in frames. As the movie plays, the playhead, shown as a red vertical line, advances through the frames in the Timeline. You can change the content on the Stage for different frames. To display a frame's content on the Stage, move the playhead to that frame in the Timeline.

At the bottom of the Timeline, Flash indicates the selected frame number, the current frame rate (how many frames play per second), and the time that has elapsed so far in the movie.



The Timeline also contains layers, which help you organize the artwork in your document. At the moment, your project only has one layer, which is called Layer 1. Think of layers as multiple film strips stacked on top of each other. Each layer can contain a different image that appears on the Stage, and you can draw and edit objects on one layer without affecting objects on another layer. The layers are stacked in the order in which they overlap each other, so that objects on the bottom layer in the Timeline are on the bottom of the stack on the Stage. You can hide, lock, or show the contents of layers as outlines by clicking the dots in the layer under the layer option icons.

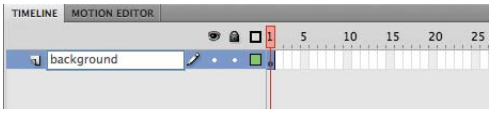


Renaming a layer

It's a good idea to separate your content on different layers and name each layer to indicate its contents so that you can easily find the layer you need later.

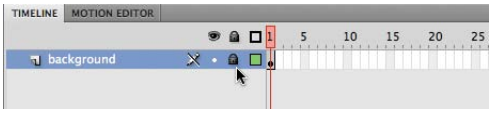
1 Select the existing layer in the Timeline, called Layer 1.

2 Double-click the name of the layer to rename it and type **background**.



3 Click outside the name box to apply the new name.

4 Click the dot below the lock icon to lock the layer. Locking a layer prevents you from accidentally making changes to it.



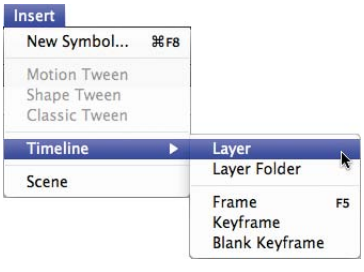
The pencil icon with a diagonal slash that appears after the layer name indicates that you can't make edits to the layer because it is locked.

Adding a layer

A new Flash document contains only one layer, but you can add as many layers as you need. Objects in the top layers will overlap objects in the bottom layers.

1 Select the background layer in the Timeline.

2 Choose Insert > Timeline > Layer. You can also click the New Layer button ( ) below the Timeline. A new layer appears above the background layer.



3 Double-click the new layer to rename it and type **photo1**. Click outside the name box to apply the new name.

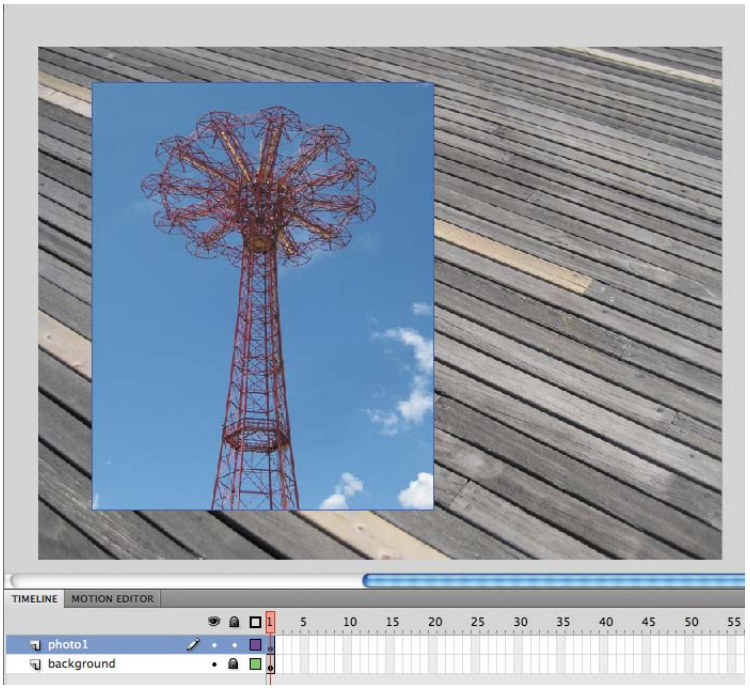
Your Timeline now has two layers. The background layer contains the background photo, and the newly created photo1 layer above it is empty.

4 Select the top layer called photo1.

5 Choose Window > Library to open the Library panel if it isn't already open.

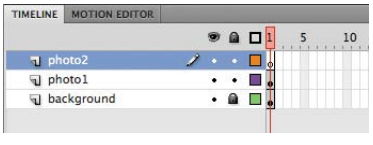
6 Drag the library item called photo1.jpg from the library on to the Stage.

The photo1 JPEG appears on the Stage and overlaps the background JPEG.



7 Choose Insert > Timeline > Layer or click the New Layer button below the Timeline to add a third layer.

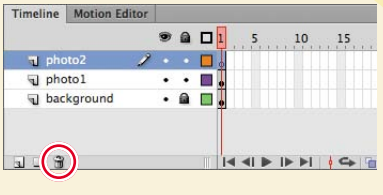
8 Rename the third layer **photo2**.



Working with Layers

If you don't want a layer, you can easily delete it by selecting it and then clicking the Delete button below the Timeline.

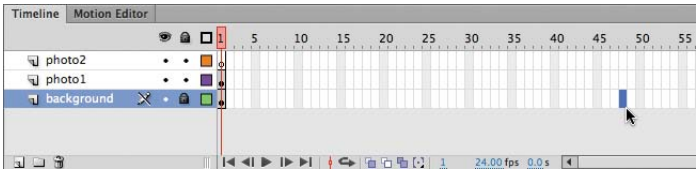
If you want to rearrange your layers, simply click and drag any layer to move it to a new position in the layer stack.



Inserting frames

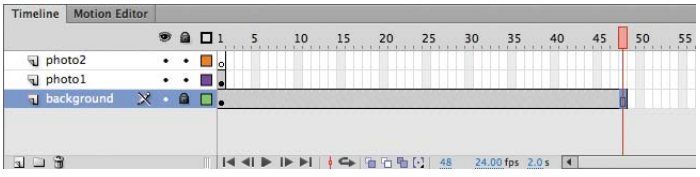
So far, you have a background photo and another overlapping photo on the Stage, but your entire animation exists for only a single frame. To create more time on the Timeline, you must add additional frames.

1 Select frame 48 in the background layer.



2 Choose Insert > Timeline > Frame (F5). You can also right-click (Windows) or Ctrl-click (Mac) and choose Insert Frame from the context menu that pops up.

Flash adds frames in the background layer up to the selected point, frame 48.



3 Select frame 48 in the photo1 layer.

4 Choose Insert > Timeline > Frame (F5). You can also right-click/Ctrl-click and choose Insert Frame from the context menu.

Flash adds frames in the photo1 layer up to the selected point, frame 48.

5 Select frame 48 in the photo2 layer and insert frames on this layer.

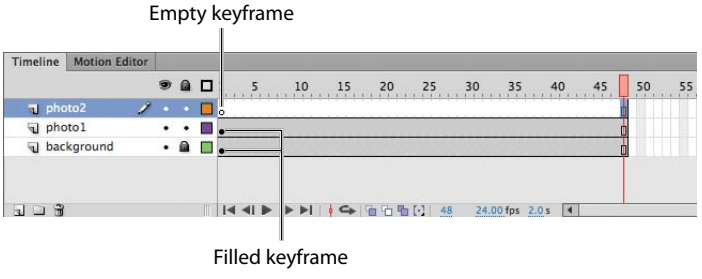
You now have three layers, all with 48 frames on the Timeline. Since the frame rate of your Flash document is 24 frames per second, your current animation lasts two seconds.

Selecting Multiple Frames

Just as you can hold down the Shift key to select multiple files on your desktop, you can hold down the Shift key to select multiple frames on the Flash Timeline. If you have several layers and want to insert frames into all of them, hold down the Shift key and click on the point at which you want to add frames in all of your layers. Then choose Insert > Timeline > Frame.

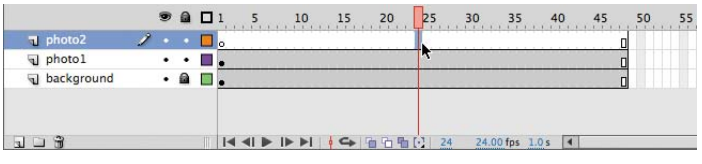
Creating a keyframe

A keyframe indicates a change in content on the Stage. Keyframes are indicated on the Timeline as a circle. An empty circle means there is nothing in that particular layer at that particular time. A filled-in black circle means there is something in that particular layer at that particular time. The background layer, for example, contains a filled keyframe (black circle) in the first frame. The photo1 layer also contains a filled keyframe in its first frame. Both layers contain photos. The photo2 layer, however, contains an empty keyframe in the first frame, indicating that it is currently empty.



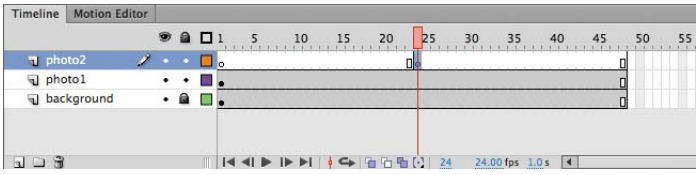
You'll insert a keyframe in the photo2 layer at the point in time when you want the next photo to appear.

1 Select frame 24 on the photo2 layer. As you select a frame, Flash displays the frame number beneath the Timeline.



2 Choose Insert > Timeline > Keyframe (F6).

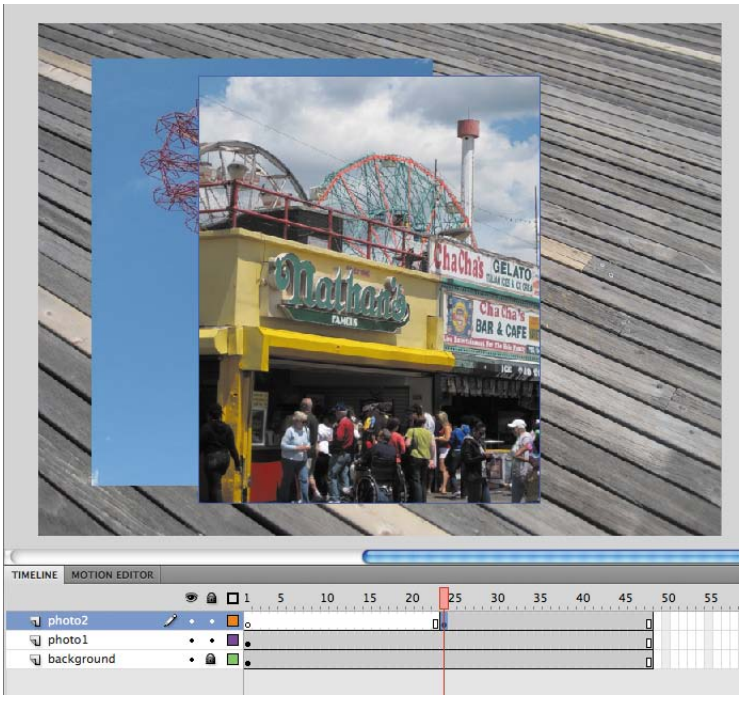
A new keyframe, indicated by an empty circle, appears in the photo2 layer in frame 24.



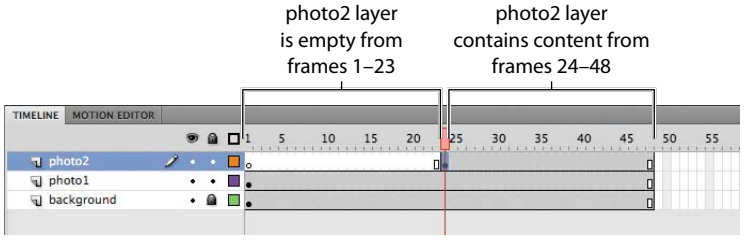
3 Select the new keyframe at frame 24 in the photo2 layer.

4 Drag the photo2.jpg item from your library onto the Stage.

The empty circle at frame 24 becomes filled, indicating there is now a change in the photo2 layer. At frame 24, your photo appears on the Stage. You can click and drag the red playhead from the top of the Timeline to "scrub," or show what's happening on the Stage at any point along the Timeline. You'll see that the background photo and photo1 remain on the Stage throughout the Timeline but photo2 appears only at frame 24.



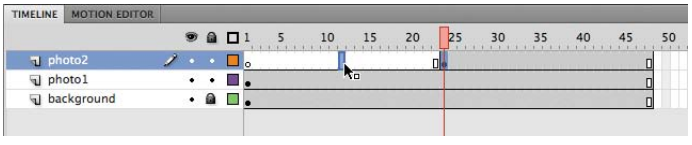
Understanding frames and keyframes is essential for mastering Flash. Be sure you understand how the photo2 layer contains 48 frames with 2 keyframes—an empty keyframe at frame 1 and a filled keyframe at frame 24.



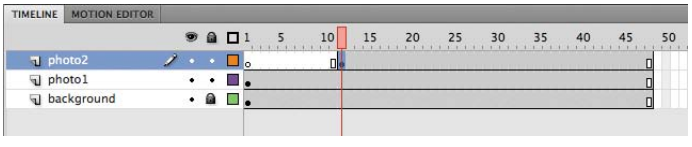
Moving a keyframe

If you want your photo2.jpg to appear later or earlier, you need to move the keyframe in which it appears later or earlier along the Timeline. You can easily move any keyframe along the Timeline by simply selecting it and then dragging it to a new position.

1. Select the keyframe in frame 24 on the photo2 layer.
2. Move your mouse cursor slightly, and you'll see a box icon appear near your cursor indicating that you can reposition the keyframe.
3. Click and drag the keyframe to frame 12 in the photo2 layer.



The photo2.jpg now appears on the Stage much earlier in the animation.



Removing Keyframes

If you want to remove a keyframe, do not press the Delete key! Doing so will delete the contents of that keyframe on the Stage. Instead, select the keyframe and choose Modify > Timeline > Clear Keyframe (Shift+F6). Your keyframe will be removed from the Timeline.

Organizing Layers in a Timeline

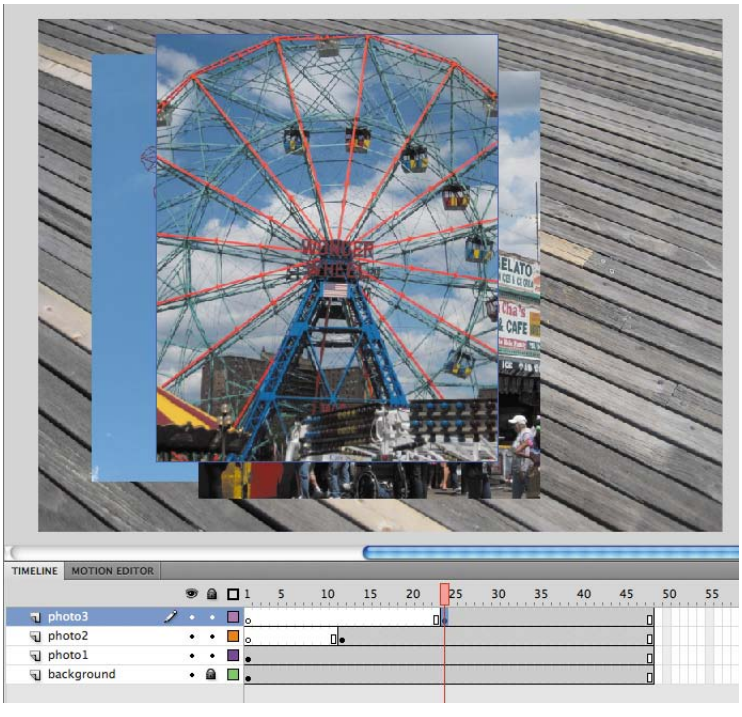
At this point, your working Flash file has only three layers: a background layer, a photo1 layer, and a photo2 layer. You'll be adding additional layers for this project, and like with most other projects, you'll end up having to manage multiple layers. Layer folders help you group related layers to keep your Timeline organized and manageable, just like you make folders for related documents on your desktop. Although it may take some time to create the folders, you'll save time later because you'll know exactly where to look for a specific layer.

Creating layer folders

For this project, you'll continue to add layers for additional photos, and you'll place those layers in a layer folder.

1. Select the photo2 layer and click the New Layer button at the bottom of the Timeline ( ).
2. Name the layer **photo3**.
3. Insert a keyframe at frame 24.
4. Drag the photo3.jpg from the library onto the Stage.

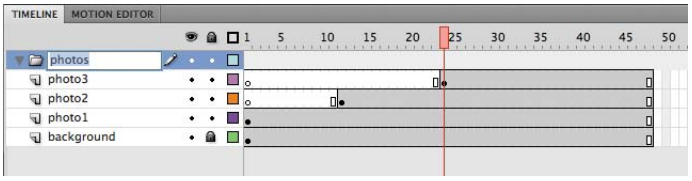
   You now have four layers. The top three contain photos of scenes from Coney Island that appear at different keyframes.



5 Select the photo3 layer and click the New Folder icon at the bottom of the Timeline ( ).

A new layer folder appears above the photo3 layer.

6 Name the folder **photos**.

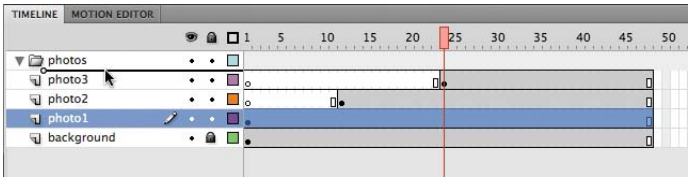


Adding layers to layer folders

Now you'll add the photo layers to the photo folder. As you arrange layers, remember that Flash displays content in the layers in the order in which they appear in the Timeline, with the top layer's content at the front and the bottom layer's content at the back.

1 Drag the photo1 layer into the photos folder.

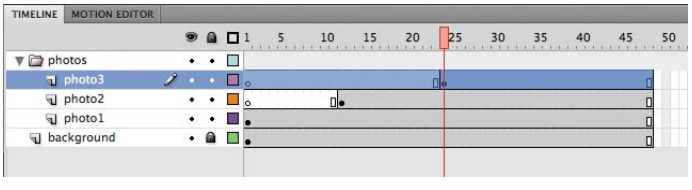
Notice how the bold line indicates the destination of your layer. When a layer is placed inside a folder, the layer name is indented.



2 Drag the photo2 layer into the photos folder.

3 Drag the photo3 layer into the photos folder.

All three photo layers should be in the photos folder.

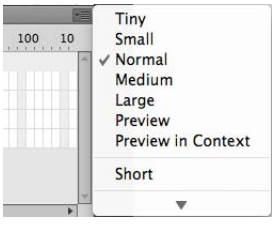


You can collapse the folder by clicking the arrow. Expand the folder by clicking the arrow again. Be aware that if you delete a layer folder, you delete all the layers inside that folder as well.

Changing the appearance of the Timeline

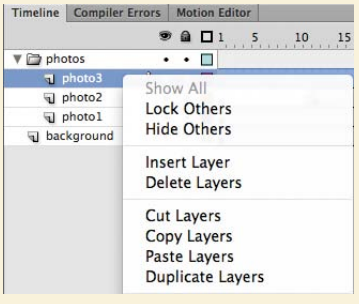
You can adjust the Timeline's appearance to accommodate your workflow. When you want to see more layers, select Short from the Frame View pop-up menu in the upper-right corner of the Timeline. The Short option decreases the height of frame cell rows. The Preview and Preview in Context options display thumbnail versions of the contents of your keyframes in the Timeline.

You can also change the width of the frame cells by selecting Tiny, Small, Normal, Medium, or Large.



Cut, Copy, Paste, and Duplicate Layers

When managing multiple layers and layer folders, you can rely on cut, copy, paste, and duplicate layer commands to make your workflow easier and more efficient. All the properties of the selected layer are copied and pasted, including its frames, keyframes, any animation, and even the layer name and type. Layer folders and their contents can also be copied and pasted.



To cut or copy any layer or layer folder, simply select the layer and right-click/Ctrl-click the layer. In the contextual menu that appears, choose Cut Layers or Copy Layers.

Right-click/Ctrl-click on the Timeline again, and choose Paste Layers. The layer or layers that you cut or copied are pasted into the Timeline. Use Duplicate Layers to copy and paste in one operation.

You can also Cut, Copy, Paste, or Duplicate layers from the top Flash menu. Choose Edit > Timeline > and choose Cut Layers, Copy Layers, Paste Layers, or Duplicate Layers.

Using the Properties Inspector

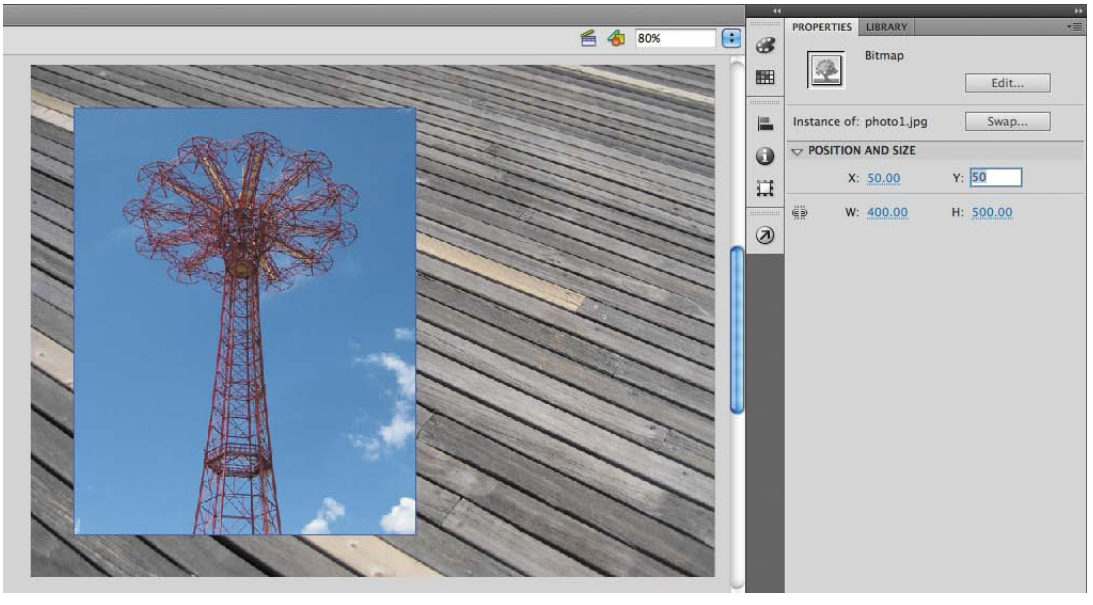
The Properties inspector gives you quick access to the attributes you're most likely to need. What appears in the Properties inspector depends on what you've selected. For example, if nothing is selected, the Properties inspector includes options for the general Flash document including changing the Stage color or dimensions; if an object on the Stage is selected, the Properties inspector shows its *x* and *y* coordinates and its width and height, among other information. You'll use the Properties inspector to move your photos on the Stage.

Positioning an object on the Stage

Note: If the Properties inspector is not open, choose Window > Properties, or press Ctrl/Command+F3.

You'll begin by moving the photos with the Properties inspector. You'll also use the Transform panel to rotate the photos.

1. At frame 1 of the Timeline, select the photo1.jpg image that you dragged onto the Stage in the photo1 layer. A blue outline indicates that the object is selected.
2. In the Properties inspector, type **50** for the X value and **50** for the Y value. Press Enter/Return to apply the values. You can also click and drag your mouse cursor over the X and Y values to change their positions. The photo moves to the left side of the Stage.

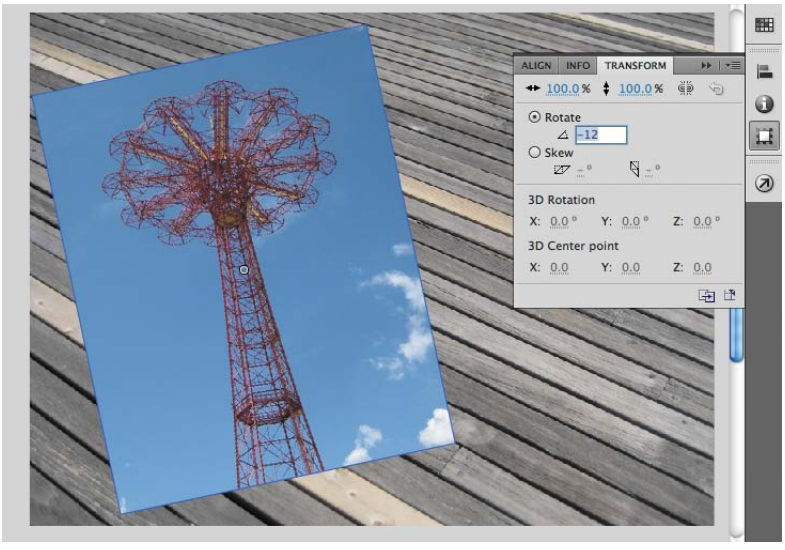


The X and Y values are measured on the Stage from the top-left corner. X begins at 0 and increases to the right, and Y begins at 0 and increases downward. The registration point for imported photos is at the top-left corner.

3 Choose Window > Transform to open the Transform panel.

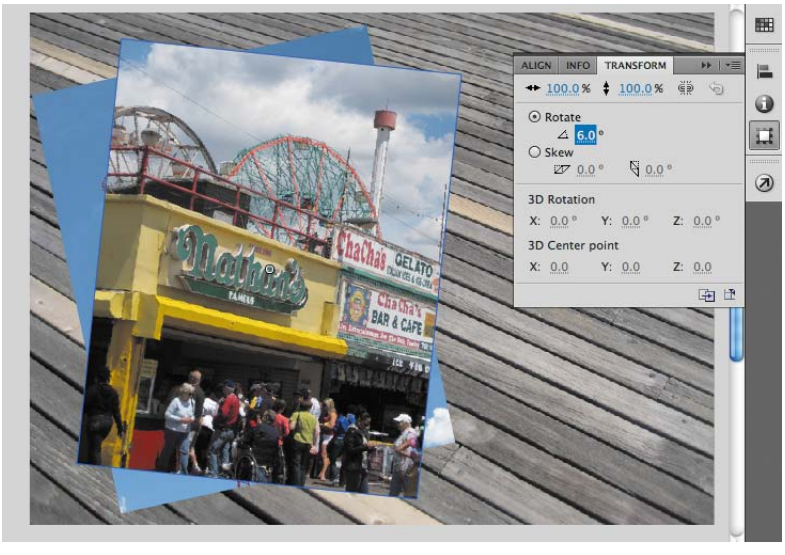
4 In the Transform panel, select Rotate, and type **-12** in the Rotate box, or click and drag over the value to change the rotation. Press Enter/Return to apply the value.

The selected photo on the Stage rotates 12 degrees counterclockwise.



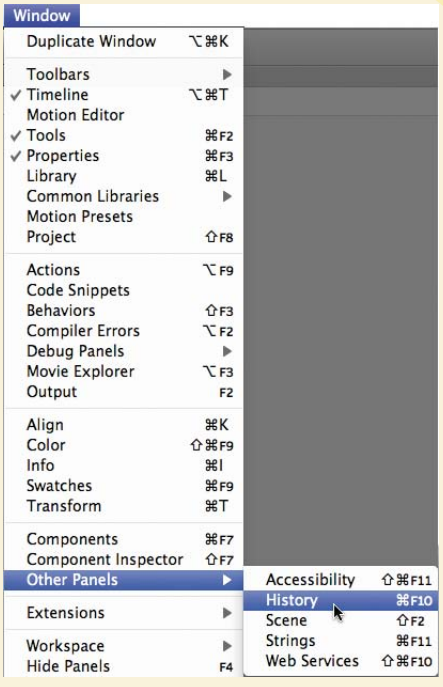
5 Select frame 12 of the photo2 layer. Now click on the photo2.jpg on the Stage.

6 Use the Properties inspector and Transform panel to position and rotate the second photo in an interesting way. Use X=**80**, Y=**50**, and a Rotate of **6** to give it some contrast with the first photo.



Working with Panels

Just about everything you do in Flash involves a panel. In this lesson, you use the Library panel, Tools panel, Properties inspector, Transform panel, History panel, and the Timeline. In later lessons, you'll use the Actions panel, the Color panel, the Motion panel, and other panels that let you control various aspects of your project. Because panels are such an integral part of the Flash workspace, it pays to know how to manage them.



To open any panel in Flash, choose its name from the Window menu. In a few cases, you may need to choose the panel from a submenu, such as Window > Other Panels > History.

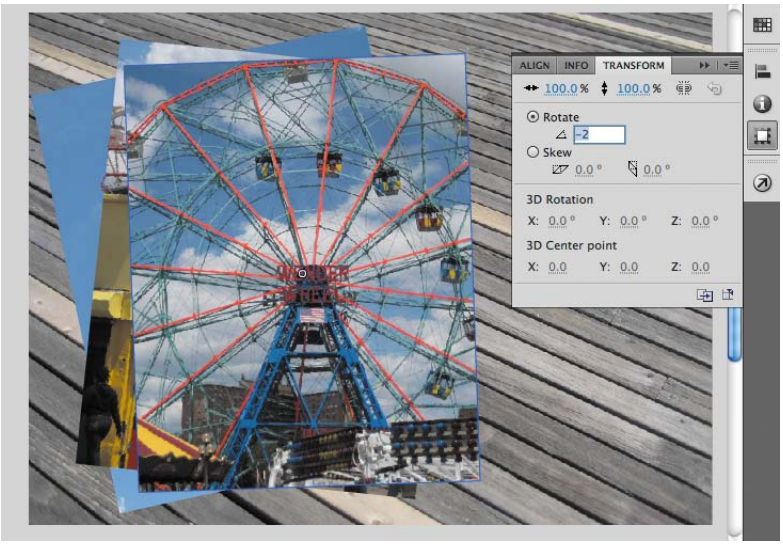
By default, the Properties inspector, Library panel, and Tools panel appear together at the right of the screen; the Timeline and Motion Editor are at the bottom; and the Stage is on the top. However, you can move a panel to any position that is convenient for you.

- To undock a panel from the right side of the screen, drag it by its tab to a new location.
- To dock a panel, drag it by its tab into the dock at a new position on the screen. You can drag it to the top, bottom, or in between other panels. A blue highlight indicates where you can dock a panel.
- To group a panel with another, drag its tab onto the other panel's tab.
- To move a panel group, drag the group by its dark gray top bar.

You also have the option of displaying most of the panels as icons to save space but still maintain quick access. Click the upper-right arrows to collapse the panels to icons. Click the arrows again to expand the panels.

7 Select frame 24 in the photo3 layer. Now click on photo3.jpg on the Stage.

8 Use the Properties inspector and Transform panel to position and rotate the third photo in an interesting way. Use X=**120**, Y=**55**, and a Rotate of **–2** so all your photos have visual variety.



Note: When images are scaled or rotated in Flash, they may appear jagged. You can smooth them out by double-clicking the bitmap icon in the Library panel. In the Bitmap Properties dialog box that appears, select the Allow Smoothing option.

Using the Tools Panel

The Tools panel—the long, narrow panel on the far right side of the work area—contains selection tools, drawing and type tools, painting and editing tools, navigation tools, and tool options. You'll use the Tools panel frequently to switch to tools designed for the task at hand. You'll most often be using the Selection tool, which is the black arrow tool at the top of the Tools panel, for selecting and clicking on items on the Stage or the Timeline. When you select a tool, check the options area at the bottom of the panel for more options and other settings appropriate for your task.

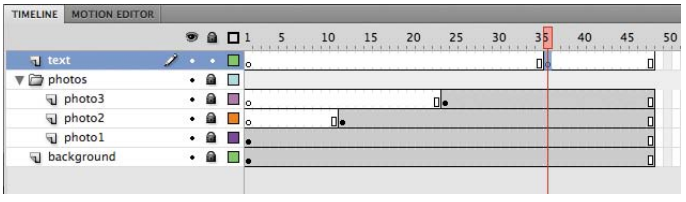
Selecting and using a tool

When you select a tool, the options available at the bottom of the Tools panel and the Properties inspector change. For example, when you select the Rectangle tool, the Object Drawing mode and Snap To Objects options appear. When you select the Zoom tool, the Enlarge and Reduce options appear.

The Tools panel contains too many tools to display all at once. Some tools are arranged in hidden groups in the Tools panel; only the tool you last selected from a group is displayed. A small triangle in the lower-right corner of the tool's button indicates there are other tools in the group. Click and hold the icon for the visible tool to see the other tools available, and then select one from the pop-up menu.

You'll use the Text tool to add a title to your animation.

1. Select the top layer in the Timeline, and then click the New Layer button.
2. Name the new layer **text**.
3. Lock the other layers below it so you don't accidentally move anything into them.
4. In the Timeline, move the playhead to frame 36 and select frame 36 in the text layer.
5. Choose Insert > Timeline > Keyframe (F6) to insert a new keyframe at frame 36 in the text layer.



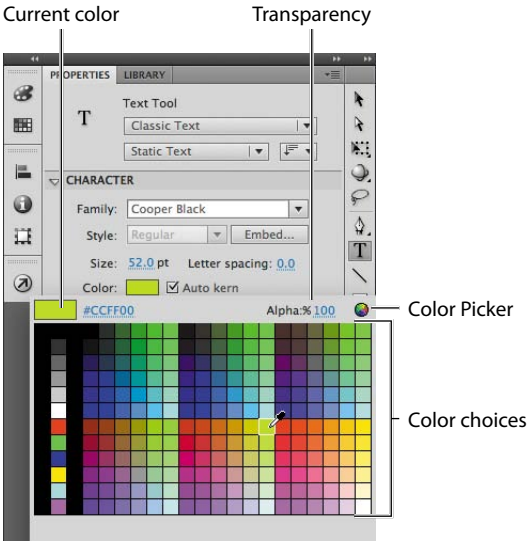
You will create text to appear at frame 36 in this layer.

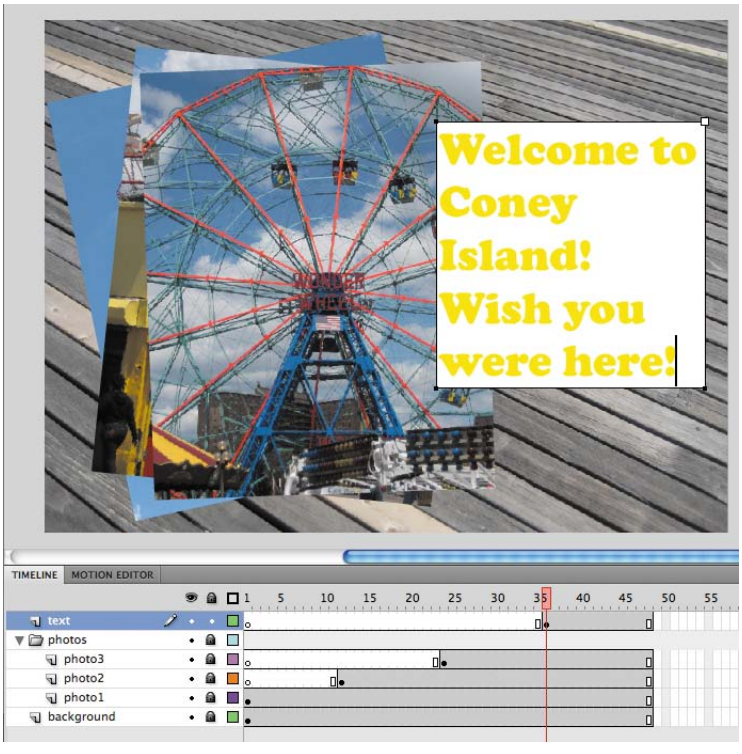
6. In the Tools panel, select the Text tool, which is indicated by the large capital letter T.

7. In the Properties inspector, choose Classic Text from the pull-down menu. Choose Static Text from the pull-down menu that appears below.

   Classic Text is a mode for adding simple text that doesn't require sophisticated options such as multiple columns or wrapping around other objects. Static Text is the option for any text that is used for display purposes. Dynamic and Input Text are special text options for more interactive purposes and can be controlled with ActionScript. You'll learn about more advanced text options in Lesson 7, "Using Text."

8. Select a font and size in the Properties inspector. Your computer may not have the same fonts as those shown in this lesson, but choose one that is close in appearance.
9. Click the colored square in the Properties inspector to choose a text color. You can click on the color wheel at the upper right to access the OS Color Picker, or you can change the Alpha percentage at the upper right, which determines the level of transparency.



10 Make sure the empty keyframe in frame 36 of the title layer is selected, and then click on the Stage where you want to begin adding text. You can either click once and begin typing, or you can click and drag to define the width of your text field.

11 Type in a title that describes the photos that are being displayed on the Stage.