

Creating a simple FLA file

This tutorial guides you through the process of creating a basic FLA document. You'll use this workflow when authoring projects in Flash Professional. The first step involves creating a new document:

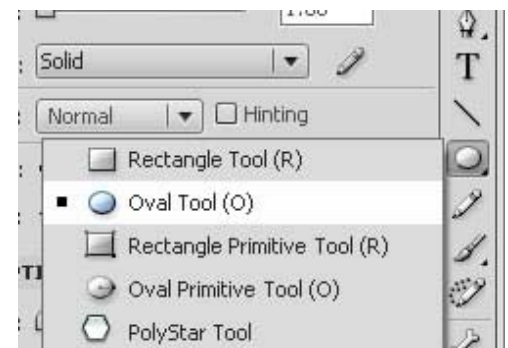
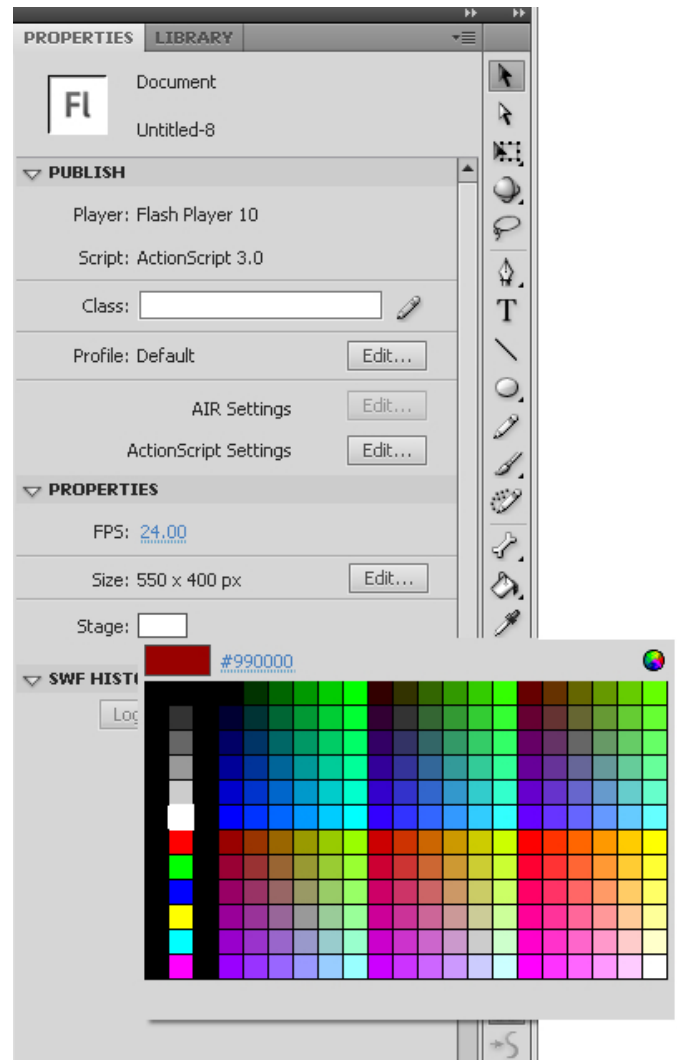
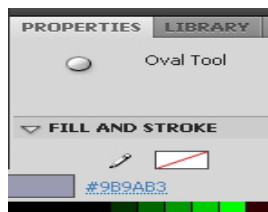
1. open flash or Choose File > New.
2. In the New Document dialog box, the **ActionScript 3.0** file type is selected by default. Click OK.
3. Click the Properties tab in the upper right side of the user interface to view the Property inspector, which displays the Stage properties for the file when no other objects are selected.
4. By default, the Property inspector is vertically aligned along the right side of the workspace. The Size section displays the current Stage size setting as 550 × 400 pixels (see Figure 4). The Stage background colour swatch is set to white. You can change the color of the Stage by clicking the swatch and selecting a different colour in the color picker that appears. Pick any.

Tip: You can set the background color of the Stage in the Flash movie by choosing Modify > Document or by selecting the Stage and then modifying the Stage color swatch in the Property inspector. There's no need to draw a rectangle to define the background color.

6. Choose File > Save.
7. Select the location to save the FLA (M:Drive). Name it **SimpleFlash.fla** and then click Save. Drawing a circle on the Stage

After you've created your Flash document, you are ready to add some artwork to the project. Drawing shapes is a common task in Flash. When you use the drawing tools in the Tools panel, the vector graphics you create can be edited at any time. The following steps describe how to create a circle; later, you'll use this circle to create some basic animation. Follow these steps:

1. Select the Oval tool from the Tools panel (it may be hidden in the rectangle docker).
2. Use the stroke color swatch in the Property inspector to select the No Color option (red diagonal stripe) from the Stroke Color Picker (see below).



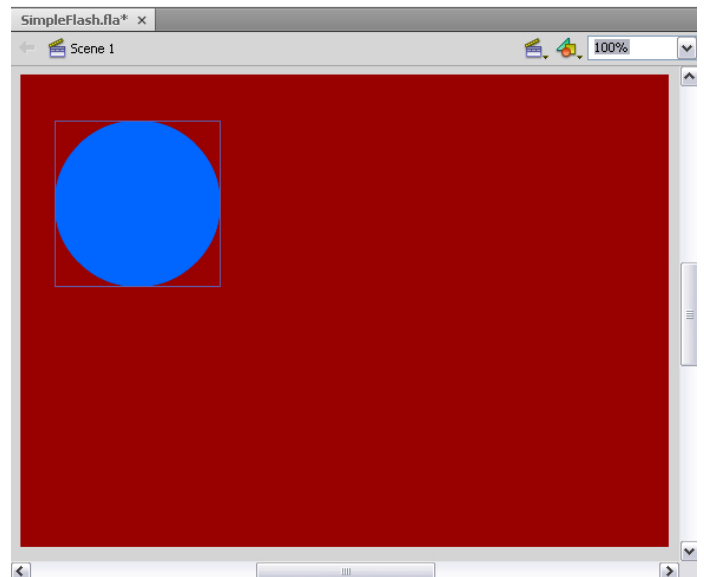


3. Select a color of your choice from the Fill color picker, located directly below the Stroke color picker. Choose a fill color that contrasts well with the Stage color. In this example, an oval with a blue fill color is displayed on top of a red Stage color.
4. Whenever you draw a vector shape, you have the option of selecting two drawing modes: [Merge drawing mode](#) and [Object drawing mode](#). For the purposes of this tutorial, click the drawing mode button to select the Object drawing mode at the very bottom of the Tools panel. When the Object drawing mode is selected, the button will appear darker and selected, as shown left.

Figure left. The Drawing mode button is a toggle that alternates between modes; choose Object drawing mode by clicking the button to make its background appear darker.

5. While the Oval tool still selected, press and hold the Shift key. Draw a circle on the Stage by Shift-dragging on the Stage. The Shift key is a modifier key; when you press and hold the Shift key while drawing or transforming a shape with the Oval tool, Flash constrains the Oval tool shape to a circle that is perfectly symmetrical.

Note: The Shift key works similarly with other auto shapes; when you press and hold Shift while drawing a shape with the Rectangle tool, you'll create a perfect square.

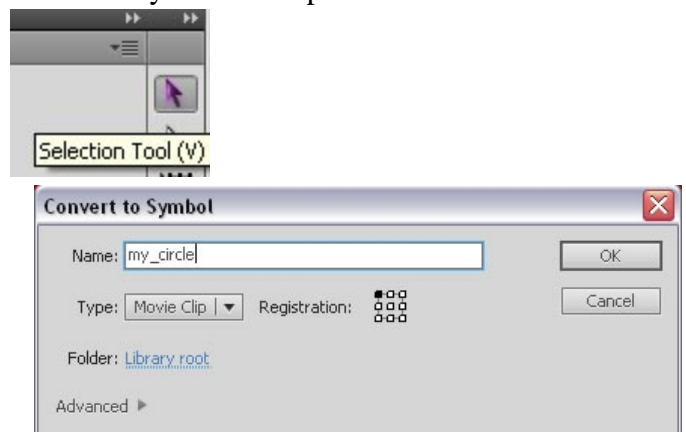


Creating a symbol and adding animation

After drawing some artwork, you can turn it into a reusable asset by converting it to a symbol. A symbol is a media asset that can be reused anywhere in your document without the need to re-create it. Symbols can contain bitmap and vector images and animations, along with other types of content.

It is common to use symbols to create tweened animations. As you become more familiar with Flash Professional, you'll use symbols to structure applications and interactivity using multiple timelines. Symbols are useful for compartmentalizing parts of a project to make it easier for you to edit specific sections later. Follow these steps to create a symbol:

1. Click the Selection tool in the Tools panel
2. Click the circle on the Stage to select it.
3. While the circle is still selected, choose **Modify > Convert to Symbol** (or press F8) to access the Convert to Symbol dialog box. Enter the name of the symbol in the Name field. Use the Type menu to select the Movie Clip option.



Tip: You can also convert a graphic into a symbol by selecting it and dragging it into the Library panel.

4. Click OK. A square bounding box is displayed around the circle symbol. You've just created a reusable asset, called a [symbol](#), in your document. In this case, you created a movie clip symbol named my_circle. (For more information about symbols, read [Working with symbols](#) in the Flash Professional online documentation.)

If the Library panel is not open, choose Window > Library to access it. The new symbol is now listed in the Library panel. (When you drag a copy of the symbol from the Library panel to the Stage, the copy on the Stage is called an [instance](#) of the symbol.)

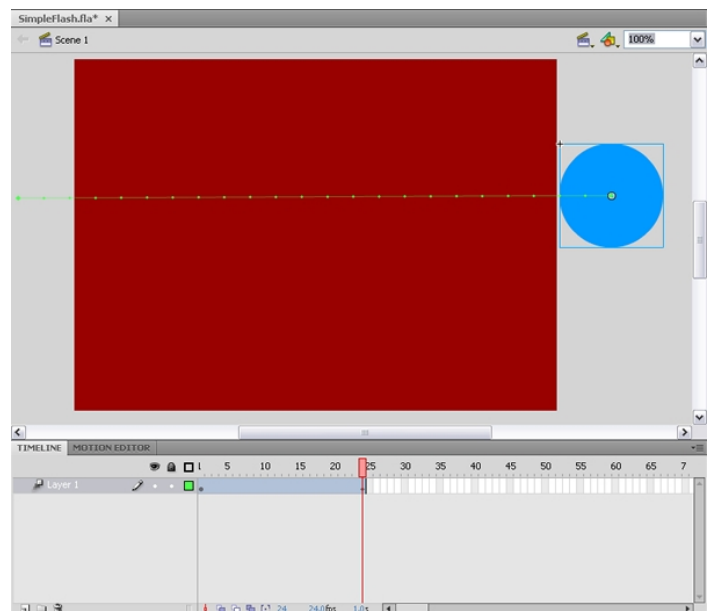
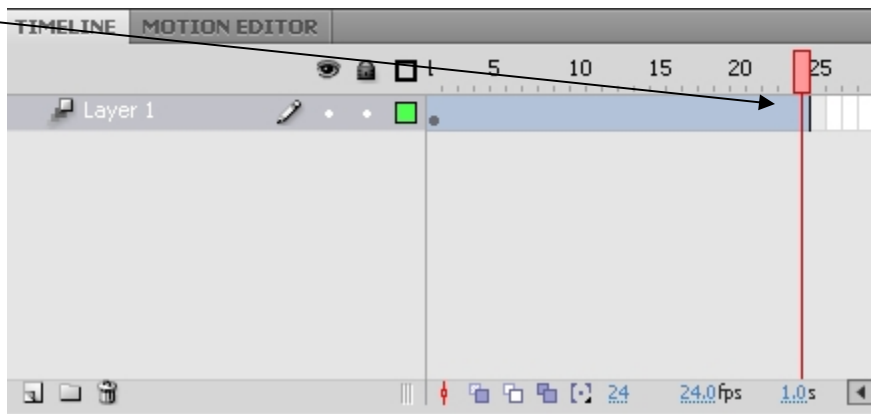
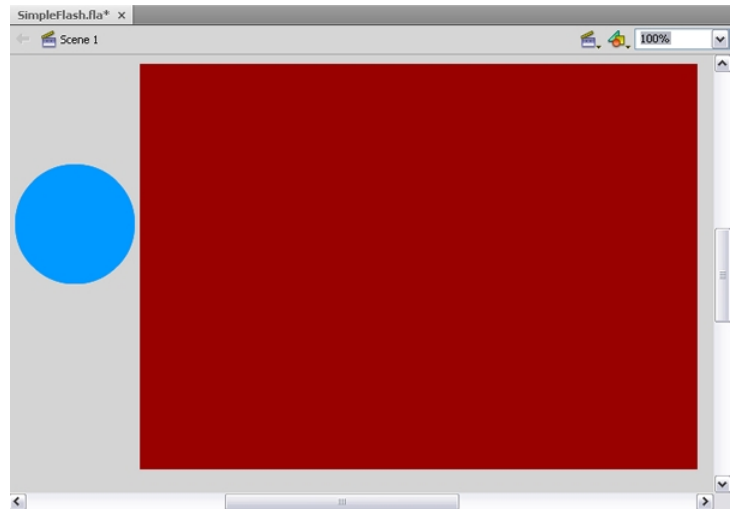
Animating the circle

In this section, you'll use the symbol in your document to create a basic animation that moves across the Stage:

1. Select the circle on the Stage and drag it off the Stage area to the left
2. Right-click the circle instance on the Stage and choose the option to Create Motion Tween in the menu that appears. Notice that the Timeline is automatically extended to Frame 24 and the red marker (the current frame indicator, also known as the [playhead](#)) moves to Frame 24.

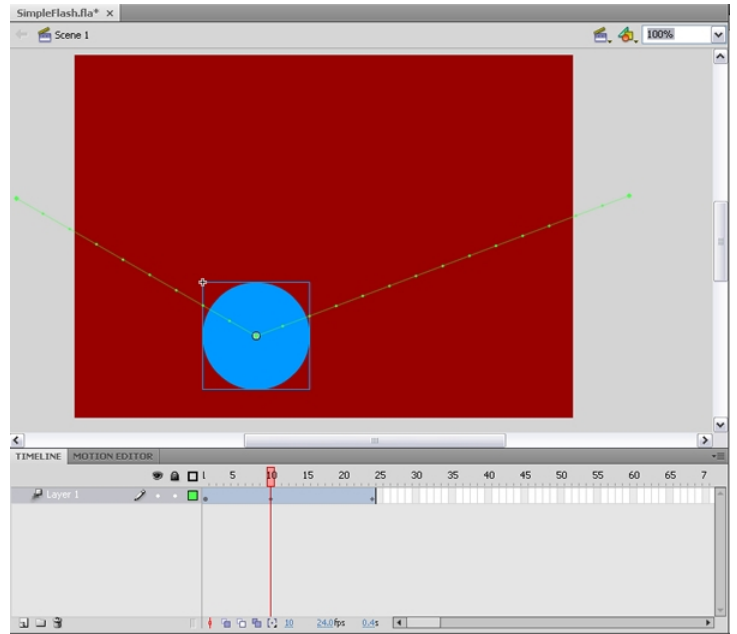
This indicates that the Timeline is prepared for you to edit the ending location of the symbol and create a one-second animation—assuming that you haven't changed default [frame rate](#) for the project from 24 fps in the Property inspector. A span of 24 frames is the equivalent of one second at a rate of 24 fps.

3. While the playhead is still on Frame 24 of the Timeline, select the circle instance on the Stage and drag it to the right, just past the Stage area. This step of relocating the instance creates a [tweened animation](#). On Frame 24, notice the diamond-shaped dot (known as a [property keyframe](#)) that appears. On the Stage, also notice the motion guide that indicates the circle's path of motion between Frame 1 and Frame 24.

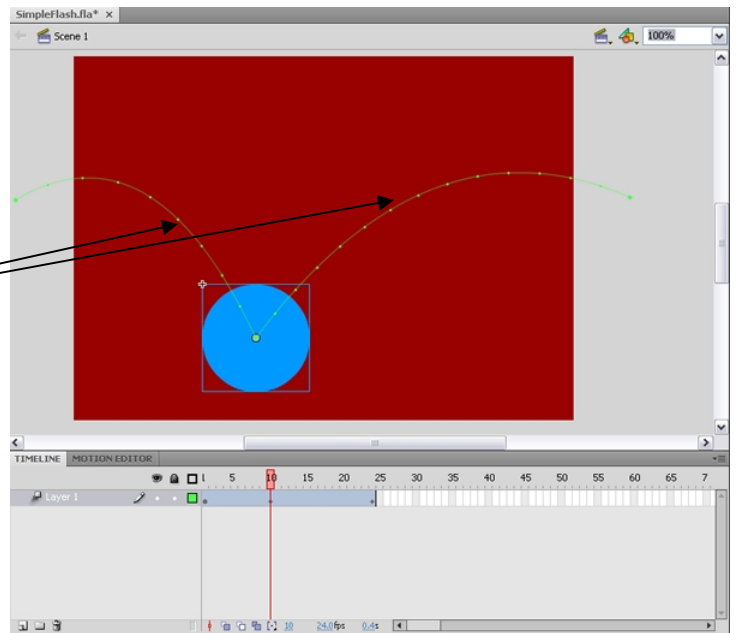


4. In the Timeline, drag the red playhead back and forth from Frame 1 to Frame 24 to preview the animation; this is known as *scrubbing* the Timeline.

5. You can change the circle's direction in the middle of the animation. First, drag the playhead to Frame 10 in the Timeline. Then select the circle and move it to another location, further down on the Stage. Notice that the change is reflected in the motion guide and the new dot (property keyframe) appears on Frame 10 of the Timeline. The property keyframes on the Timeline mark the timing of the animation, indicating the frames whenever objects change on the screen and storing the properties of the object that change. In this example, it is the circle's location on the Stage (known as its X and Y or horizontal and vertical) properties that are changing as the playhead moves across the Timeline.



6. Experiment with editing the animation by changing the shape of the motion guide path. Click the Selection tool in the Tools panel and then click a section of the motion guide line. Drag it to bend the line shape. When you bend the [motion path](#), you cause the animation to follow along a smooth curved line instead of a rigid straight line.



7. Choose Control > Test Movie to test the FLA file and watch the animation play back in Flash Player.

8. The movie loops automatically, so you can watch the circle move across the window repeatedly. When you are finished, close the Test Movie window.

Using a stop action to stop the Timeline from looping

When you tested the movie, the animation loops by default as the movie plays in Flash Player. This occurs automatically because in Flash Professional, the Timeline is set up to loop back to Frame 1 after exiting the last frame—unless you instruct the movie to do otherwise. When you want to add a command that controls the Timeline, you'll add ActionScript code to a keyframe (indicated by a dot symbol) on the Timeline. This is known as adding a [frame script](#).

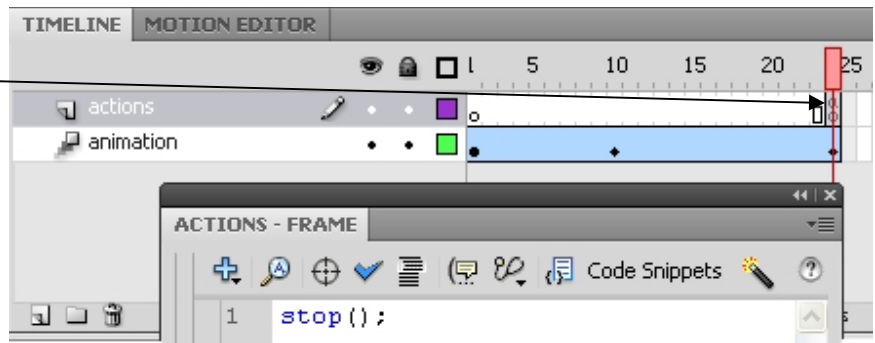
Tip: Keyframes are used to place ActionScript and assets on specific frames in the Timeline. When you review the Timeline of a FLA file, you can locate scripts and content by looking for the keyframe dots. Keyframes that have frame scripts display a lower case "a" symbol.

Follow the steps below to add ActionScript code to your FLA file. You'll add one of the most common Timeline commands, which is called the stop action:

1. It's always a good idea to name your layers if you have more than one. A large project can quickly become unmanageable if its layers are not descriptively named. Double-click the name to rename Layer 1. In the field that appears, enter the new name: **animation**.
2. Click the New Layer button (page icon) in the lower left of the Timeline panel. In an ActionScript 3 file, the ActionScript code must be added to the Timeline. It's considered best practice to create a layer named actions at the top of the layer stack, dedicated to holding the ActionScript code. Rename the new layer you just created to: **actions**. Make sure it is located above the animation layer. Now that you've created a layer to place your scripts, you can add keyframes to the actions layer to associate the ActionScript code with specific frames.
3. Move the playhead to Frame 24. Click the actions layer at Frame 24 (to highlight the last frame on the actions layer). Insert a keyframe on Frame 24 of the actions layer by choosing Insert > Timeline > Keyframe (or pressing F6). Notice that an empty, blank keyframe appears (you can tell that the new keyframe doesn't contain any graphics because the dot icon for the keyframe is hollow, rather than displaying a solid color).
4. Select the new keyframe with the Selection tool. Open the Actions panel (Window > Actions). The [Actions panel](#) contains the Script window, which is a large text field you'll use to type or paste ActionScript code directly into your FLA file. Place your cursor in the text area next to the number 1 (line 1) and type in the following action:

```
stop();
```

5. After typing the line of ActionScript code in the Script window, you'll notice that a little "a" icon appears above the keyframe in the actions layer of the Timeline. This indicates that the keyframe contains a frame script (also known as an *action*). At this point, your Timeline should look similar to the picture right. Close the Actions panel. If you need to edit the code, you can always select the keyframe in the Timeline and then open the Actions panel again.



6. Choose Control > Test Movie to test the FLA file and watch it play in Flash Player. Notice that this time, the animation *doesn't* loop. You can return to Flash and test the movie again to watch the movie play again.
7. When you are finished previewing the animation, close the Test Movie window.
8. Back in Flash, save the FLA file.

Adding a replay button to restart the animation

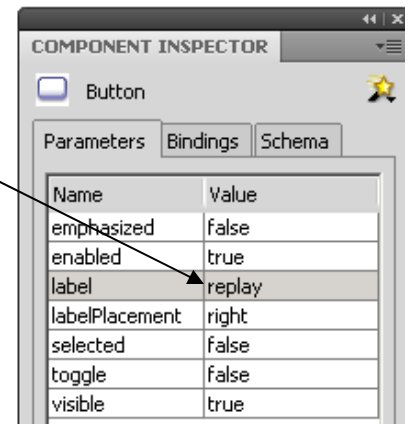
In an earlier section, you stopped the animation from looping by adding a `stop()` action to the last frame of the Timeline. When the playhead reaches the last frame, it is instructed to stop, which prevents it from looping back to Frame 1.

In this set of instructions, you'll learn how to add a Replay button. When a user clicks the button, it causes the playhead to begin playing from Frame 1 again. Flash is extremely flexible. There are many strategies that you could use to create a Replay button, including restarting the playhead when a user presses a key on their keyboard, or when they click on the Stage, or when they click a button. To achieve any of these options, you'll

add some ActionScript code that responds to the user interactivity at runtime (while the SWF file is playing). This section is a little more advanced than the previous sections—it covers some new concepts that you'll use to control the behavior of your Flash movies with programming.

Follow these steps to add a Replay button and the corresponding ActionScript to your file:

1. In Flash, it is a best practice to create a new layer for each element in the project (with the exception of ActionScript code, which can be placed on any frame on the top-level actions layer). Click the New Layer button (page icon) in the Timeline to create a new layer for the button graphic. Double-click the default layer name and rename it: **Button**. Move this layer by dragging it below the actions layer.
2. Open the Components panel (Window > Components) and drag a button component from the **User Interface** Components folder to the Stage. Position the button in the lower middle of the Stage area, or any desired location.
3. While the Button component still selected, open the Property inspector and locate the text field at the top named <Instance Name>. Enter the name for the button instance: **replay_btn**. This is an important step. By naming the button instance, you'll be able to reference it by name using the ActionScript you'll add to the project. If the button instance's name does not exactly match the button's name specified in the code, the behavior won't function as expected.
4. To update the text label of the button that is displayed on the Stage you will need to have the button selected, go to the window menu up top and choose "component inspector" enter the text **Replay** into the label field
This label helps users understand what the button will do. It is purely visual and does not affect the performance of the code. If you'd prefer that the button display a different label, you could enter Rewind, Again, or a different label of your choosing.
5. Select the keyframe on Frame 1 of the actions layer. Open the Actions panel (Window > Actions). Copy the code snippet below and paste it into the Script window:



```
import flash.events.MouseEvent;
```

```
function onClick(event:MouseEvent):void
```

```
{
```

```
    gotoAndPlay(1);
```

```
}
```

```
replay_btn.addEventListener(MouseEvent.CLICK, onClick);
```

6. Take a few moments to read through the code. Notice that the second line begins by declaring a **function named onClick**. The last line of code uses the **addEventListener** method, which registers the function as an "event listener" for the button's "click" event. The translation of this code essentially says: "When a user clicks the button named `replay_btn`, run the function named `onClick`. When the `onClick` function runs, it instructs the playhead to jump to Frame 1 of the Timeline and begin playing the frames."
7. Choose Control > Test Movie to test the FLA file. The animation plays once and then stops. Click the Replay button to restart the animation and watch the circle move across the Stage again.
8. Close the Test Movie window and save your FLA file.

Add Sound effects

Flash® CS4 Professional offers several ways to use sound. Make sounds that play continuously, independent of the Timeline, or use the Timeline to synchronize animation to a sound track. Add sounds to buttons to make them more interactive, and make sounds fade in and out for a more polished sound track.

There are two types of sounds in Flash: event sounds and stream sounds. An event sound must download completely before it begins playing, and it continues playing until explicitly stopped. Stream sounds begin playing as soon as enough data for the first few frames has been downloaded; stream sounds are synchronized to the Timeline for playing on a website.

You place sound files into Flash by importing them into the library for the current document.

1. Select File > Import > Import To Library.
2. In the Import dialog box, locate and open the desired sound file.
You need only one copy of a sound file to use that sound multiple times/ ways in your document.
3. Insert a new layer. Name it bounce sound and be sure to place the layer below the actions layer.
4. With the new sound layer selected, drag the sound from the Library panel onto the Stage. The sound is added to the current layer.

It is recommended that each sound be placed on a separate layer. Each layer acts as a separate sound channel.

5. You'll notice that the sound file is located at the beginning of your animation and not where the ball hits the ground. Its simple to move, select frame one of the bounce sound layer and drag it to frame 10 so it is in line with the ball hitting the ground.

Test and save your animation

Add a sound to a button

1. Add a "click" sound to your library
2. double click on your button to get into it's properties.
3. Double click on down to add a sound to that event
4. In the down button's Timeline, add a layer for sound (Insert > Timeline > Layer)
5. Name the layer "click"
6. Select the frame of that layer and drag your click sound from the library onto the stage.
7. Return to your scene by choosing scene 1 and test your animation

