

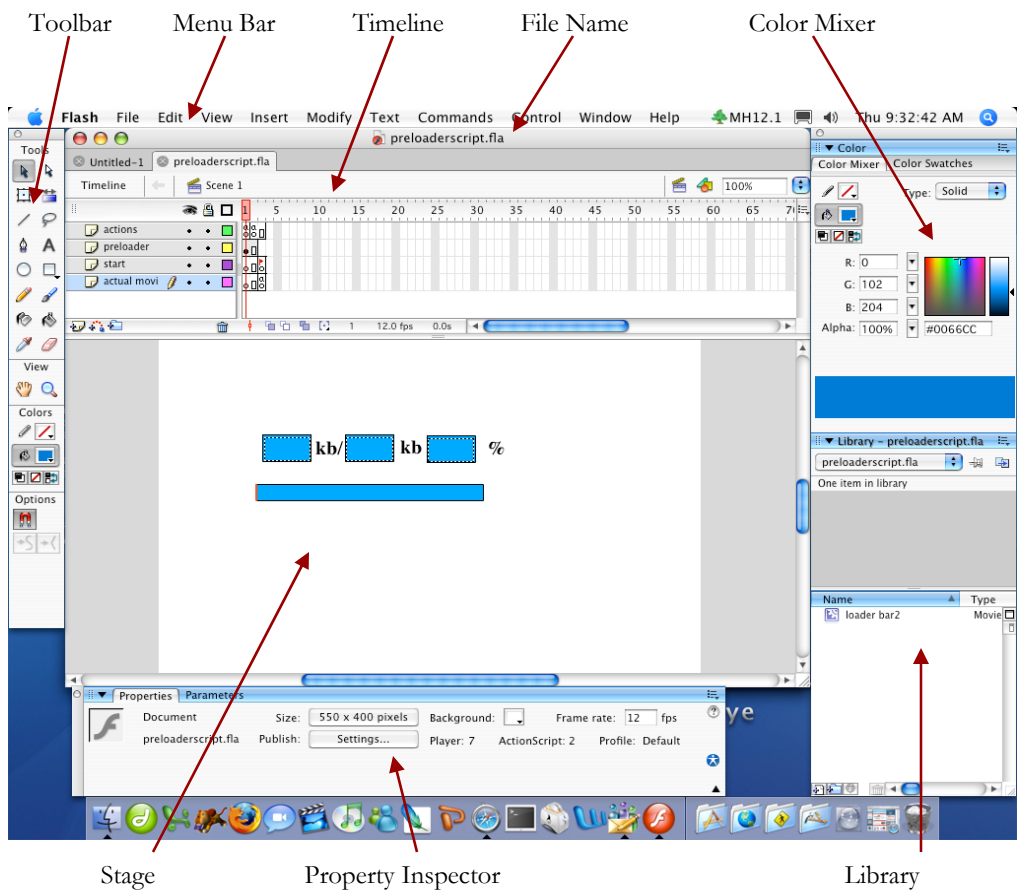
Flash 8 Basics Class

Last Update: Fall 2006

Macromedia Flash is a vector graphics based animation program that can be used for a variety of multimedia projects. From building web sites to creating games, Flash allows users to add interactivity to their projects without a massive increase in file size. Flash movies can be viewed by almost any web browser and Flash projects can be fully integrated into video projects.



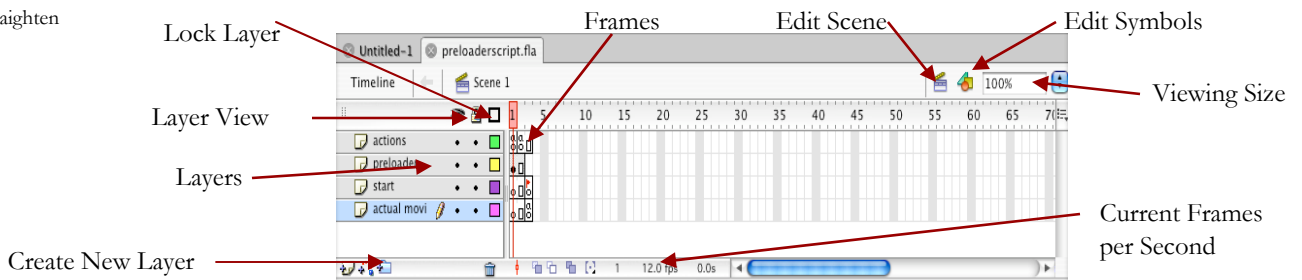
The Flash 8 Workspace



The Flash Toolbar

- Selection Tool
- Subselection Tool
- Free Transform Tool
- Gradient Transform Tool
- Line Tool
- Lasso Tool
- Pen Tool
- Text Tool
- Oval tool
- Rectangle Tool
- Brush Tool
- Pencil Tool
- Paint Bucket
- Ink Bottle
- Eraser Tool
- Eyedropper Tool
- Zoom Tool
- Hand Tool
- Stroke Color
- Fill Color
- Color Options
- Snap To Objects
- Smooth/Straighten

The Timeline



## Frames & Keyframes

**Frames** are the individual cells in the timeline which are grouped in sections of five.

**Keyframes** are frames that signify that an object, usually a symbol, is changing. The change can be related to movement, shape, alpha, or related to an action.

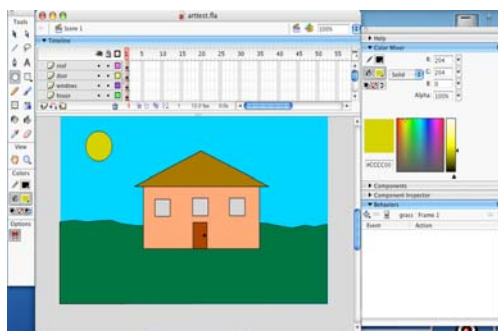
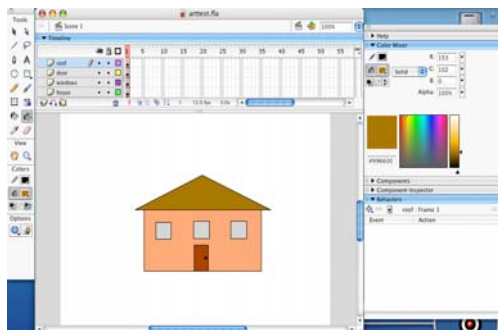
## Which Art Software?

While Flash does have its own art design program built right in, it can be tough to get the hang of how to edit and get back into the Flash document. Many designers use Photoshop or Illustrator, then import their work into Flash for use on the stage. You should experiment with both ideas and choose the one that's easiest for you to use on a consistent basis. You should know how to do some basic editing of graphics inside of Flash as it can save you a lot of time.

### Layers

As you will see in the 3D Motion Illusion tutorial, the order of layers is critical to your Flash project. Think of it as looking from the top down on an object. You'll be able to see the upper layers and maybe parts of the lower layers under it. You can also lock and hide certain layers from view while you are designing your Flash project.

## Using the Flash Art Tools

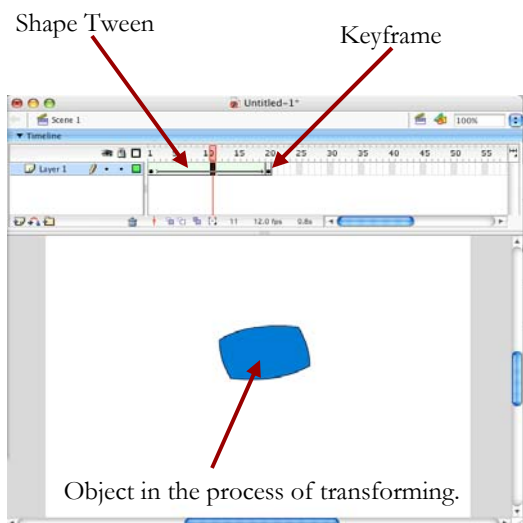


*Note: If you've used Photoshop or Illustrator, many of these tools may seem familiar to you. For first time users, however, getting used to the Pen tool, gradients, and drawing on layers will take some practice.*

The Flash art tools will let you create *vector graphics*, which are critical for use in Flash as they do not lose quality when re-sized. This section will introduce you to the basics of drawing in Flash.

- 1 Open a new Flash document. Choose Rectangle Tool and a color, then draw the base of a house. Rename the layer house. Use the Selection Tool and select the area around the rectangle (base of the house), then choose Modify-Group from the top menu.
- 2 Draw some windows and doors with the Rectangle tool, then draw a roof with the Line or Pen tool. Remember to create a different layer for each and then lock the layers so they can't be changed by accident.
- 3 Use the Pen tool to draw a grass foreground with a green fill, then choose Modify-Document from the menu to change the background to a sky blue. Again, continue to draw each new item on a different layer and you can add the sun, clouds, and more. Try to use all of the tools to get a feel for what they can do.

## Shape Tweening



- 1 Open a new Flash document. Choose either the Circle or Rectangle Tool and draw an object in the center of the stage.
- 2 Insert a keyframe in cell 20 in the timeline (right click, then select Keyframe). Use the Selection Tool and click on the object. Now delete the object that you just drew.
- 3 Draw the opposite object in step 1 (i.e., if you chose a circle, now draw a square-use a different color). Click on any frame in the middle of the timeline, then from the Tween box in the Property Inspector, choose Shape Tween. Now test your movie by pressing Enter.

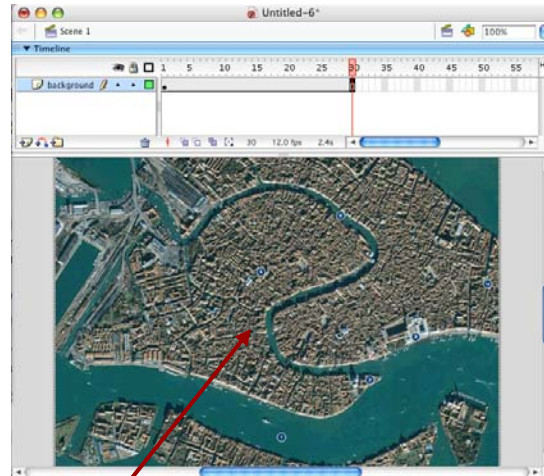
## Motion Tweening

Motion tweening is the basic building block for animating in Flash. In this section you will learn how to animate an object and make it move across a background. Then, you will learn how to make it follow a selected path across the screen.

- 1 Choose File-Import-To Stage, then select the `venice.jpg` image from the class images folder. Change the layer name to **background**. Go to position 30 in the timeline and insert a frame.
- 2 Create a new layer called **airplane**. Click in the first frame on the second layer. Choose File-Import-Import to Stage, then select `jet.png`. Click on the image you just imported, then choose Modify-Convert to Symbol, then name it **jet**. Make sure the Registration is in the center position, then choose Graphic. Move the aircraft to anywhere on the right edge of the stage.
- 3 Insert a Keyframe into space 30 on the timeline of the **airplane** layer. Move the aircraft anywhere to the left hand edge of the stage. Next, click anywhere between frame 1 and 30, then in the Property Inspector choose Motion from the Tween menu. You can then click Command-Return to watch your movie, or choose Control-Test Movie from the menu bar

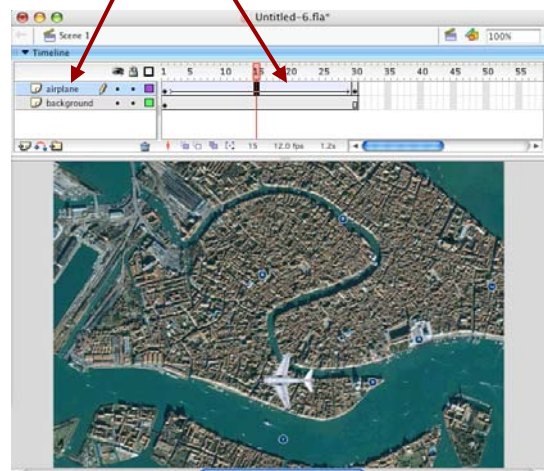
- 4 Create a new layer called **airplane2**. In the menu bar, go to Window-Library, then drag the jet symbol to the stage. Click on the **airplane2** layer, then either right click and choose Add Motion Guide, or click on the Motion Guide Layer button under the Timeline. Using the Pencil Tool, draw a path from the right side of the screen to the left side. You can use curves or any shape to create the path.

Switching to the Selection Tool, click in the first frame of the **airplane2** layer. Drag the second jet to a position on the path. In frame 30, add a keyframe, then drag the second jet to the end of the path. Finally, click anywhere in the layer and add a motion tween. Now test your movie.



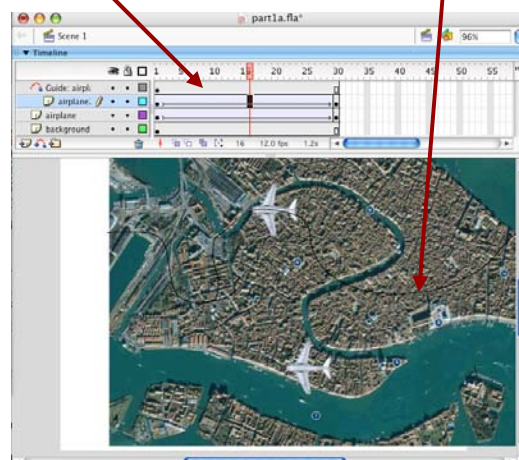
*A background image has been imported to the stage in the first layer.*

*The aircraft image is on the second layer and there is the arrow in the timeline which signifies a tween.*



Motion Guide layer

Motion Guide path



## Symbols & Instances

A **symbol** is a graphic, button, or movie clip that you have created in Flash. You only need to create the **symbol** once, then it can be used multiple times throughout your document. Your **symbol** is stored in the Library for future use. Each time you use the symbol, it is called an **instance**. An **instance** is a copy of a **symbol** and can be modified in a variety of ways.

### What Kind of Symbol?

When you convert something into a symbol, you will have three options to choose from:

**Movie Clips** are small movies or animated sequences that can be used inside a Flash document.

**Buttons** are used in designing web sites by creating buttons with rollovers or other effects.

**Graphic** is the term used for most images that will be used in Flash. This applies to all still images, icons, or text that can be animated.

### Frame by Frame

All of the effects so far in this tutorial have been done with motion tweens. While this is faster, you don't have too much control over various movements. If you need to create more elaborate effects, or want more creative control, you need to do what is called "Frame by Frame". You insert a keyframe in the timeline for each change that you wish to make, no matter how small, for each instance.

## Masks

Masks are great for creating transitions and for spotlight effects. A mask creates a window to view the layers underneath. You can use many different forms of masks, such as filled shapes, movie clips, or other graphics. You can also use shape tweening or have multiple layers underneath the mask. It is important to remember that you cannot apply a mask to another mask and a mask layer can only contain one item.

### Flash Tips

- Hold down the **SHIFT** key when drawing squares or circles to get a perfectly proportioned graphic.
- Use the **Zoom In-Out** feature to select items such as borders.
- **Save and save often!** Once you've made a mess of something in Flash, it's hard to go back.
- When doing complex animations, use the **lock** feature on certain layers.

## Loops

### Loops

Looping refers to the Flash movie playing over and over again. When you test your movie this is the effect that you will see and how it will appear when someone visits your site where the movie is inserted. If you don't want to your movie to loop when it gets published to the web, you need to uncheck the Loop box under Playback in File-Publish Settings.

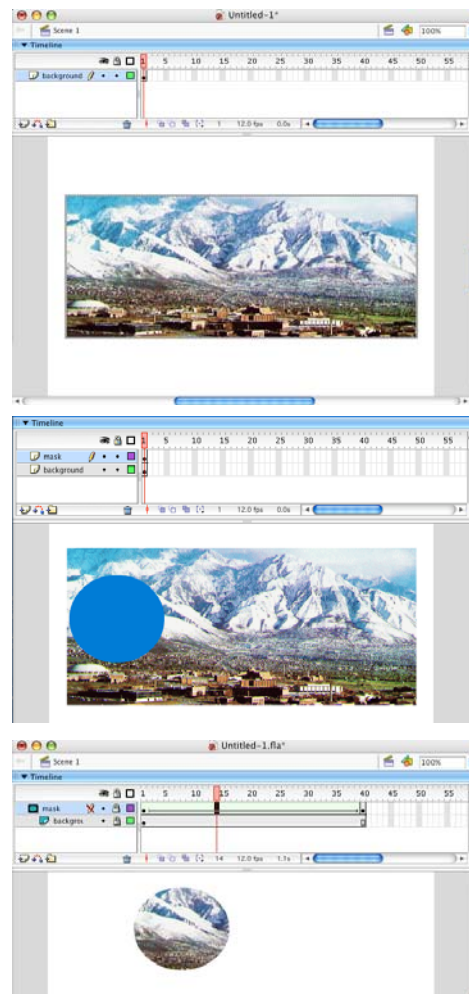
## Masking

**1** Change the name of Layer 1 to **background**. Next import the **mountains.gif** image to the stage. Insert a new layer over the background layer and rename it **mask**.

**2** Using the Oval tool, draw a circle or oval shape on the **mask** layer. Next, using the Selection tool, click on the border of the oval, then hit Delete. Drag the oval to either end of the stage. Go to frame 40 of the **mask** layer and insert a keyframe. Then, go to frame 40 of the **background** layer and insert a regular frame.

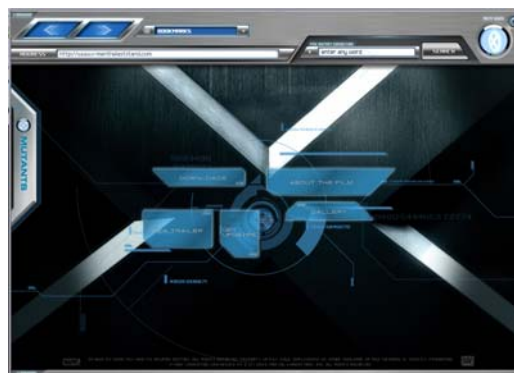
**3** Select frame 40 of the **mask** layer, then drag the oval to the other end of the stage. Click on frame 1 of the **mask** layer, then choose Shape Tween from the Property Inspector. Finally, right click on the **mask** layer and choose Mask. Now test your movie.

*You can also vary the path of the mask by adding additional keyframes.*



## Summary

By the end of this class you should be familiar with the basics of how to use Flash 8. This includes knowing the difference between frames and keyframes, the timeline, layers, and how to do basic animation. In part two of the class you will learn how to use text in Flash, along with creating more elaborate animation sequences and a sample of how to use a creative tool called Actionscript. Flash is a powerful program that can have many uses and you are only limited by your imagination.



*Flash is used to build incredible web sites like this one from the movie X-Men 3. All of the floating buttons open up interactive parts of the site.*