

- **Font** - Create this type of symbol from the Library window options so you don't have to embed fonts in your site.

### Naming conventions

The Library stores symbols in alphabetical order. In order to keep symbol types grouped together, name each symbol using the first letter of the type of symbol that is it first, followed by a comma, then the name of the symbol. When you are working with many symbols, this helps you find the particular symbol quickly and consistently.

### Example:

- g, balloon
- m, balloon movie
- s, balloon squeaky sound
- b, balloon button
- ac, balloon movement action script in movie

### Exercise:

1. Create a simple shape on the stage, such as a red balloon.
2. Let's save this shape into the Library by making the balloon a graphic symbol.
  - Using the Arrow tool, draw a selection box around the whole balloon.
  - With it selected, from the **Insert** menu, choose **Convert to Symbol**.
  - A Symbol Properties dialog box appears with 3 Behavior options. Flash defaults to the Movie Clip behavior.
  - Select the Graphic behavior.
  - Name your symbol: g, balloon. Click OK.
3. Delete the balloon from the stage.
4. From the **Window** menu, choose **Library**. You'll see your balloon symbol in the Library window.
5. Drag the balloon symbol (g, balloon) out of the library onto the stage.
6. Now you have an "instance" of the balloon on the stage.
7. Let's change the appearance of the balloon instance.
  - Using the properties menu, change the alpha to 50%, change the tint, and change the scale and rotation.
8. You'll see the original symbol is unaffected. You can keep pulling in the same symbol over and over again but change each instance any way you want. These attributes can also be changed for different keyframes.

**Note:** If you plan on animating each instance independently, put each instance on a separate layer. Animation requires "tweening", which will only work on one symbol on one layer at a time.

### Making a movie symbol from the balloon graphic symbol

- From the **Insert** menu, choose **New Symbol**.

- Choose Movie Clip as the Behavior if it's not already selected, and name your symbol: "m, balloon movie." Click OK. Movie symbols have their own timeline. This can get confusing.
- You are now in the symbol editor, which looks just like the stage (because it has its' own independent timeline). One way you can tell you are in symbol editing mode is by looking at the upper left hand corner, which will have the movie symbol you just named after the scene name.
- In the Library window, drag the "g, balloon" symbol out onto the m, balloon movie stage.
- Select frame 10 on your timeline and then from the **Insert** menu, choosing **Keyframe** from the top menu. (Keyframe will duplicate the last keyframe with something in it.)
- Move the animation scrubber to the second keyframe and select the balloon or click on that frame (this will pick everything in that keyframe).
- Modify the balloon instance by rotation, scale, alpha and/or color.
- Now we need to create a "tween" between the first keyframe and the second keyframe. To do this:
  - Click in the Timeline somewhere between the first and second keyframes.
  - In the property inspector, select the Motion option from the Tween dropdown menu. You can only use the motion tween on symbols. You can also add automatic rotation, easing, and other options at this point in the frame window.
  - There should be an arrow displayed in the Timeline area between the two keyframes. If you select something else, the motion tween should show up on a light blue field. (Shape tweens are green.)
  - Now if you scrub through the frames, you'll see the balloon changing smoothly from frame to frame.
  - Let's make this action loop continuously. To do that, let's assign an action to the last keyframe, telling it to return to the first frame of its Timeline again.
  - Click on the last frame and choose window>actions, the Frame Actions dialog box appears.
    - Make sure you are in normal mode in the Frame window. (check upper right pull-down arrow)
  - Click on the "Actions" book display action categories, select the "Movie Controls" book and find GoTo. It will default to frame 1, which is fine. Now, the movie will loop continuously.

### **Button Symbol**

- Now we will make a button using both the g, balloon and the m, balloon movie. The button symbol has 4 default states: Up, Over, Down and Hit. These states reflect what's happening when the button is doing nothing, when the mouse is over it, when the mouse clicks on it, and the hit zone for the button.
- Go back to the main stage.
- From the **Insert** menu, choose **New Symbol**.

- Choose Button option and name it: 'b, balloon.' You are now in the symbol editing mode again.
- Select the "Up" frame. Drag the g, balloon symbol from the Library onto the stage. This is what the button will look like "at rest."
- For the "Over" state, we want the exact same position, but another color, so we're going to copy the "Up" frame and paste it into the "Over" frame (or, click to select the "over" frame and hit F6, or you can also just choose Keyframe from the Insert menu, and it will copy the contents of the last keyframe).
- change the color of the balloon using the property inspector.
- Now when you rollover this button, it will change color.
- Next, select the "Down" keyframe area. From the **Insert** menu, choose **Keyframe** and drag in m, balloon movie from the Library.
- For the "Hit" area, it doesn't show at all, so you can use the symbol or draw a hit area in this state.

Your button is created now. Let's test it.

- Go back to Scene 1 and drag your new "b, balloon" out onto the stage.
- Test your button by choosing **Test Movie** from the **Control** menu.

Congratulations! You've made a movie, and a button with a movie in it!

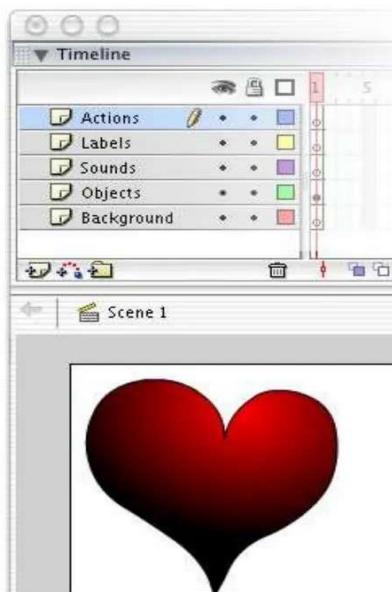
## Animating in Flash

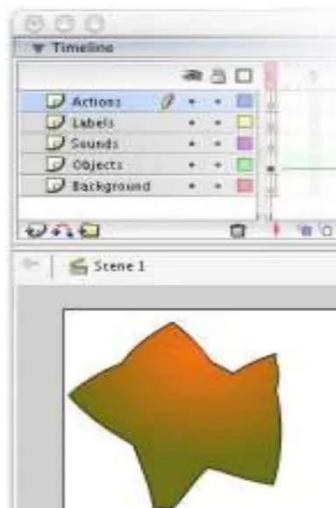
Animation in Flash is easy! Let's look at a couple of different ways to achieve animation in Flash.

We built tweens in the "Button and Symbols making" tutorial, but let's do a quick review.

### Shape Tween

- Draw a shape at frame 1. (Try a simple shape, like a heart.)
- Insert a blank keyframe at frame 30 in the Timeline. Draw another shape (like a star) in a different color at frame 30. The two shapes should be on the same layer. Click on the area between the two frames in the Timeline. The area will turn black.





#### Motion Tween

- Create a symbol or pull one out of the Library onto a new layer on frame 1.
- Insert a keyframe at frame 30. This will keep the symbol on frame 30.
- Modify the symbol by changing the position, scale, rotation, and alpha. (Use the Effects panel for the alpha). Select the area between the frames on the timeline and it will turn black.
- Open the Frames Panel and choose Motion Tween. A light blue bar with a solid arrow will appear between the two frames. When you scrub back and forth in the Timeline, the symbol will move, scale, rotate and the alpha will change.
- Motion Tween has other options. You can choose the direction of the rotation from the pull-down menu in the Frames Panel and have the tween automatically rotate the object the number of times you specify.

Animations can be reused. For example, let's say you create an animation in a movie symbol of a bouncing ball. You could pull that ball out of the Library as many times as your computer can handle. You can put them all on independent layers, animate the position, scale, tint, alpha, etc.

#### Animating along a Path

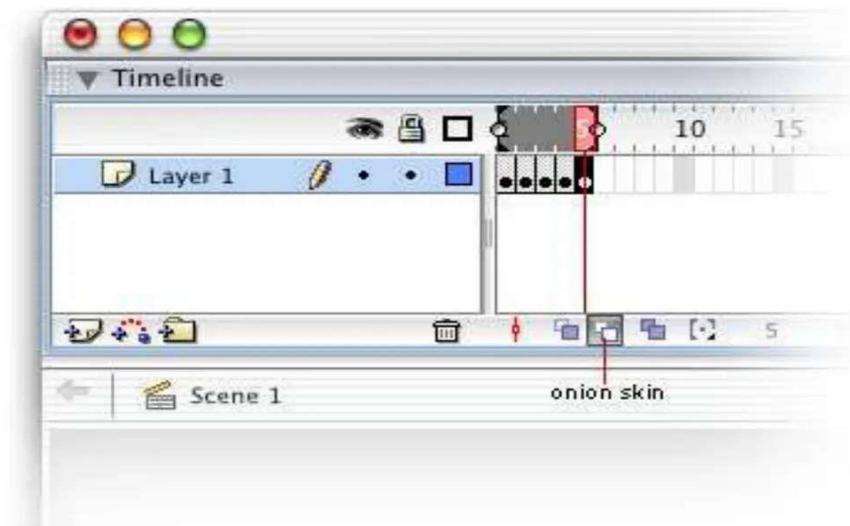
Let's say you want a small airplane to follow a path from the ground up to the clouds.

- Create a movie symbol of a little airplane with an animated propeller.
- Drag the symbol out onto the stage. You may want to add a runway and some clouds in the sky to make your animation more complete.
- Select the airplane layer and from the **Insert** menu, choose **Motion Guide**. This creates a new layer called a Guide Layer on top of the airplane layer.
- Insert another keyframe in the Guide:airplane layer at the point where you want the motion to stop.
- Using the Pencil tool, draw a curve that you want the airplane to follow from the runway to the clouds. (It won't show up in the movie)
- Select the first keyframe in the airplane layer. Select the Arrow tool and move the airplane to the beginning of the curve.

- Now select the last keyframe. Move the airplane along the curve to the end of the curve.
- Double-click the first keyframe to open the Frame panel. Choose Motion from the Tweening menu and check Snap (snaps the registration point to the path).
- Scrub along the Timeline, and the airplane will follow the curve from first to last frame. When you publish, the plane's propellers will move. (Movie animations do not display in Flash on the stage.)

### Frame by Frame Animation

This is the most file-size intensive method, but sometimes it's the only way to get the effect you want. You can turn on a nifty feature called Onion Skinning to see surrounding frames so you can more accurately draw your frame.



### Exercise:

- In frame one, draw a dog.
- In frame seven, from the **Insert** menu, choose **Keyframe**. This copies the dog from frame one through frame seven.
- Insert a new layer above the dog layer. You can call it "feet."
- Click on the Onion Skin icon from the options under the Timeline. You will see a faded version of the first frame.
- Click and move each of the dog's legs.



- If you like, you can continue to do this for another few frames for the eye lids and the tail.
- Turn off the Onion Skin button.
- Now scrub through your animation. You now have a dancing, tail-wagging winking dog.

## Using Sound in Flash MX

There are several ways to use sound in Flash MX. You can loop sounds to play continuously, independent of the timeline, or synchronize your sounds to an animation. You can import and edit your sounds in the Sound Panel.

### Importing

Import sounds into Flash by choosing **Import** from the **File** menu. The following audio file formats can be imported into Flash:

- WAV
- AIFF
- MP3

If you have QuickTime 4 or higher, you can also import these file formats:

- Sound Designer II (Macintosh)
- Sound Only QuickTime Movies (Macintosh and Windows)
- Sun AU (Macintosh and Windows)
- System 7 Sounds (Macintosh)
- WAV (Macintosh and Windows)

Flash stores audio files in the Library as a symbol along with the graphics, movies and buttons. Sound files are indicated by a loudspeaker icon. Because the sound is a symbol,

you only need one copy of it and you can use it in many ways in your Flash movie. In the Library and on the Timeline, audio files are represented as sound waves.

#### **Two types of sounds in Flash -- event sounds and stream sounds**

- Event sounds must download completely before they start playing and they will continue playing until explicitly stopped (usually by a stop action). Event sounds are associated with an event such as a mouse click, and are independent of the Timeline.
- Stream sounds begin playing as soon as there's enough data to play. These sounds are synchronized to the timeline. Flash forces the animation to keep in sync with the sound. If it can't draw frames fast enough, Flash will drop frames to keep the sound in sync.

#### **Editing with the Sound Panel**

The Sound Panel allows you to modify the properties of the selected sound, for example:

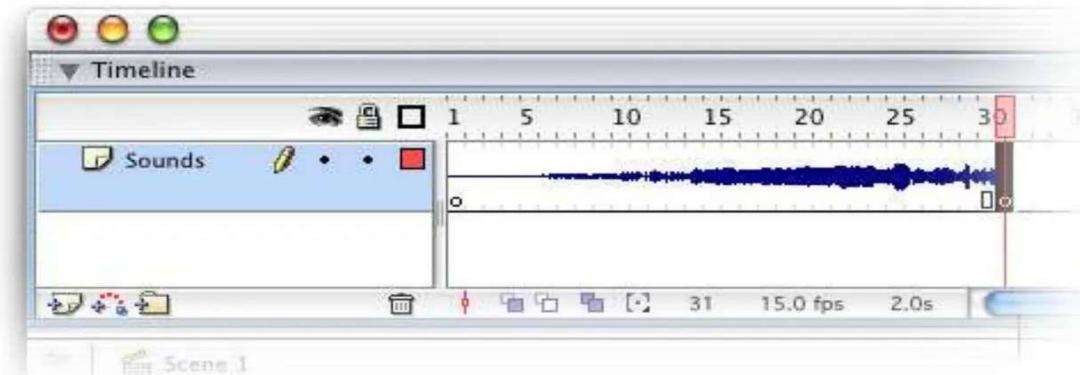
- specify if the sound is an Event or Stream
- start a new sound, or Stop the sound
- apply effects to the sounds, such as None (which strips any previous effects off the sound), Fade In or Out, Left to Right, etc.
- If you choose Custom, you can modify the in and out points of the fade, the duration, etc. in the window that opens up. Click on the boxes at the corners of each channel and also add points along the line by clicking.

#### **Exercise:**

- Import a sound file by choosing Import from the File menu. You can download a sample .wav file named slide\_whistle\_3x.wav. If you have Flash you can download the finished [sound.fla](#) file. If you don't have Flash, a 30-day trial version is available at Macromedia.



- Open the Library Panel, and click on the sound symbol you just imported. You will see it in the Library window with a play arrow. You can listen to the sound you just imported by clicking on the arrow at the top right of the Library window.
- Name and select layer: Sounds
- Add keyframes at frame 1 and frame 45 (or somewhere on the Timeline past the duration of the sound). It's not necessary to do this, but it gives you a look at the file in the Timeline.
- Drag the sound onto the stage. You should see it on the layer as a waveform. You can get a better look at this by increasing the height of your layer.
- From the **Modify** menu, choose **Layer**.



- At the bottom of this window, you can change the layer height. Change it to 200% and click OK.

- Open the Sound Panel. Select the sound on the Timeline. The information about that sound file will show up in the Sound Panel. It will also be visible in the top pull-down menu. If you have other sounds imported, they will be in the menu also. You can change the sound file you're editing from here. Directly under that you will see the sound file information, MHz and file size.

#### **You can apply different effects to your sound**

1. None - choosing this will remove any previous effects
2. Left channel
3. Right channel
4. Fade left to right
5. Fade right to left
6. Fade in
7. Fade out
8. Custom – when you choose this, another window will open, allowing you to edit both audio channels.

The edit button opens up the same audio channel editor. Choose each effect, open the editor and look at each effect. If you click in one of the channels, it will change to Custom, but these effects can be used as starting points to get the effect you want or use them as is.

The best way to get a feel for the sound editor is to apply each effect to your sound, listen to it and try some things in the custom effect editor.

Below the effects panel is the sync menu. It has the following options:

1. Event – associated with specific actions, not tied to the timeline (like a sound accompanying a mouse click)
2. Start – same as Event, but will create a new instance of that sound if it is already playing.
3. Stop – stops the specified sound
4. Stream – syncs the sound with the animation, forces the animation to play at the same rate as the sound, dropping frames if necessary.

You can loop the sound the number of times you type in the box. Don't loop streaming sound; it will increase your file size dramatically.

#### **Have fun!**

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#### **Saving and Publishing in Flash MX/8**

##### **Saving Flash movies**

To save your working site with all its layers, animations, etc. from the **File** menu, choose **Save**. Flash will save it as a Flash movie with a .fla extension. This is similar to Photoshop where you save your working site with all its layers, channels and text as a .psd file. Archive this file. When you're ready to show your creation to the world, you

must publish or export your .fla file into a file format that will play back on the Web or be viewed as a still image or a series of images.

### Publishing Flash movies on the World Wide Web

One of the most popular ways to make your multimedia project available to the world is by putting it on the World Wide Web. An easy way to accomplish this is by choosing **Publish Settings** from the **File** menu. The Publish command creates the Flash Player file (SWF) and the HTML document that inserts your Flash Player file into a Web browser.

To publish your Flash project, first click **Publish** then **OK**.

This dialog box gives you the opportunity to create different file formats -- GIF, JPEG, PNG, and QuickTime -- and the HTML needed to display them in the browser window. These alternative formats enable a browser to display your movie's animation and interactivity for users who don't have the Flash Player installed.

## Introduction to Adobe Fireworks

Pictures and image working are best handle by design programs and fireworks to be specific is the popular for web images

### How to edit images in Macromedia Fireworks

#### Image Size and Canvas Size

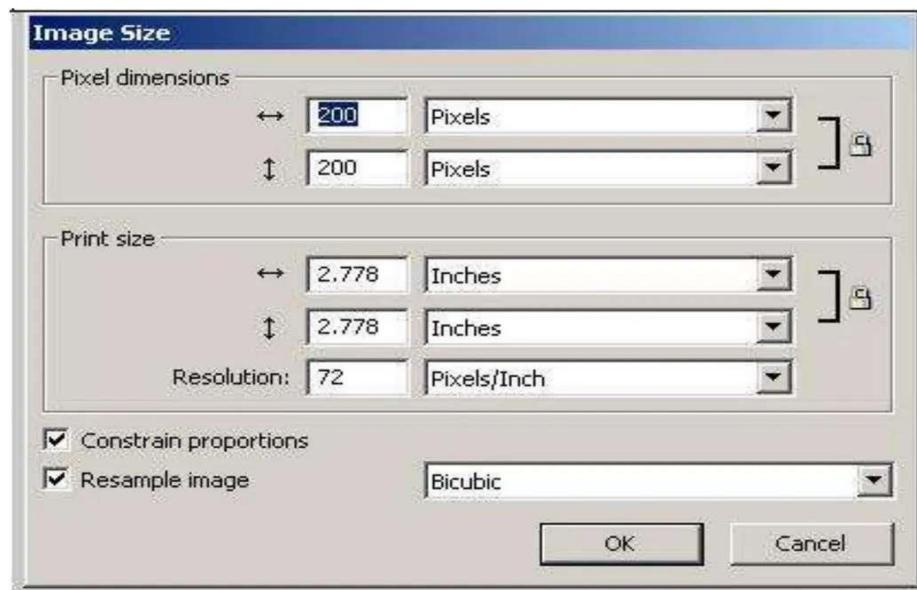
These are two different things. If you adjust the image size it will change the size of your image. If you adjust the Canvas Size it will change the size of the canvas or background that your image is on.

To adjust the image size:

- Go to **Modify – Canvas – Image Size**
- You should see...



- Adjust to the size you want to use the finished image at.



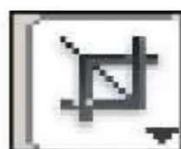
To adjust the Canvas Size:

To adjust the **Canvas Size**, do as above but select **Canvas Size** instead of Image Size.

### Cropping

Sometime there is part of an image that you don't want included or perhaps you just want to change the shape of your image.

- Open your image in Macromedia Fireworks
- Select the Crop Tool



- Click and drag over the area you want. You can adjust this by moving the black square handles that appear (see below).

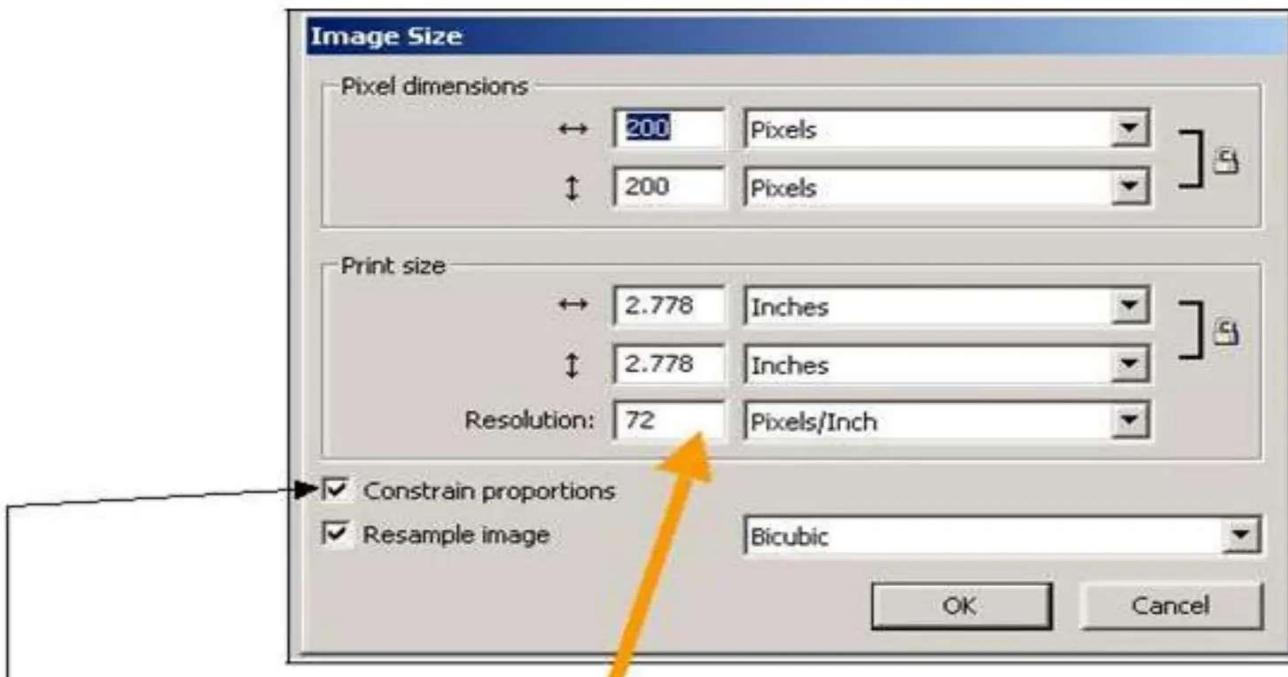


- When you are happy with your selection, **Double Click inside the area you have selected** to crop it.
- Go to **File – Save As – Call it ‘Cropped image of .....**
- Using **Save As** means you can keep the original picture as well in case you want to use it again.

## Resolution

To change the resolution of an image:

- Got to **Modify – Canvas – Image Size**

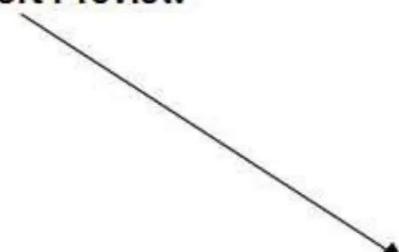


- Adjust the resolution here.
- If the Constrain proportions box is checked and you make the resolution smaller, the image dimensions will get smaller as well.

#### 4. Exporting

To export or change the file format:

- Open the image you want to use.
- Got to **File – Export Preview**



- You should see...

