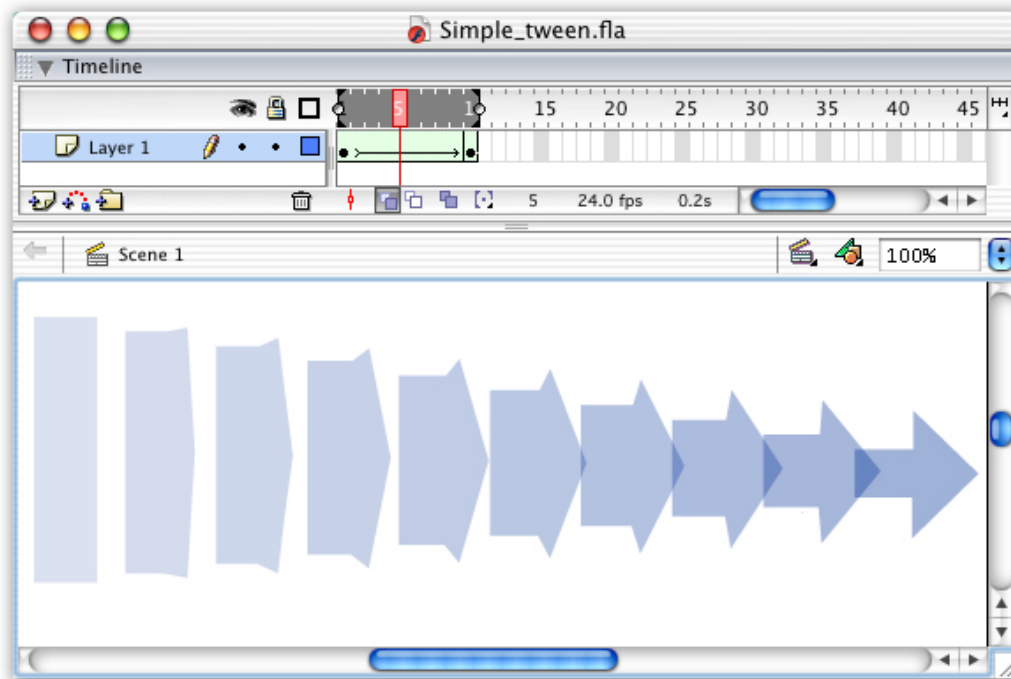


## Flash Tweening

### What is Tweening?

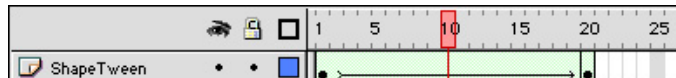
- The process of creating frames between keyframes in an animation.
- Tweens allows you to focus on creating keyframe content, and lets Flash do the grunt work of filling in the frames between.
- You cannot edit frames created by tweening.
- Tweening Example:
  - Notice how Flash creates the graphics between the two keyframes 1 and 10.
  - The keyframe in frame 1 contains a rectangle.
  - The keyframe in frame 10 contains an arrow shape pointing to the right.
  - The green arrow in the Timeline indicates that a tween will occur between keyframes 1 and 10.
  - Onion skinning is turned on below to show frames 2 though 9, which Flash has created for us.



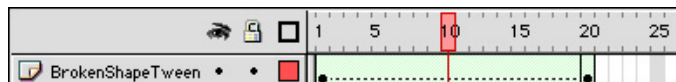
### Tweening and the Timeline

- Flash indicates tweening in the Timeline with a right-pointing arrow that spans the duration of the tween.
- Incorrect tweens are represented by dotted lines in the Timeline.

Properly-functioning Shape Tween  
A green tint is applied to the frames



Broken or Incorrect Shape Tween  
Dotted lines appear instead of an arrow


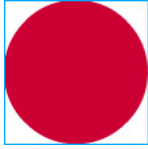
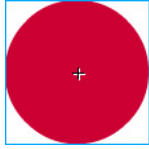




Properly-functioning Motion Tween  
A blue tint is applied to the frames



## Shape and Motion Tweening

- Flash provides two different type of tweening: **Shape** and **Motion**.
- The primary difference is the type of objects they work on.
- Understanding this difference can help reduce frustration when tweening.

	Shape	Group	Symbol	Text Block	Broken Apart Text
Example					
Shape Tween	Yes	No	No	No	Yes
Motion Tween	No	Yes	Yes	Yes	No

## Shape Tweening

### What can you control with Shape tweening?

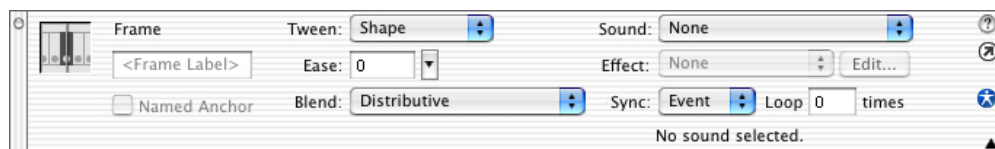
- The position of a shape (creating motion)
- The shape of a shape (shape morphing)
- The color of a shape (hue, brightness, transparency, etc.)
- The gradient fill of a shape
- Text that has been broken apart

### What can you NOT do with Shape tweening?

- Manipulate bitmap images (GIF, JPEG, PNG)
- Tween grouped objects or symbols
- Tween text that has not been broken-apart
- Automatic rotating or use motion guides

### Creating Shape Tweens

- The steps to creating a basic shape tween:
  1. Create your initial shape in the first keyframe of a layer.
  2. Create a second keyframe. You can either copy the contents from the first keyframe (Insert > Keyframe, F6), or create a blank keyframe. (Insert > Blank Keyframe, F7)
  3. Modify the artwork in the last keyframe to the desired shape.
  4. Using the Arrow tool, select a frame located between the two keyframes.
  5. From the Properties panel (Window > Properties), select Shape from the Tween pull-down menu. (Easing adjusts the speed of the animation. Easing out means the animation will gradually slow down; easing in means that it will gradually speed up.)
  6. Test your tween using the Playhead.



### Shape Tweening Tips

- Shape tweening acts on an entire layer at once. All shapes contained on a layer are animated by the tween.
- To animate multiple shapes at the same time and in different manners, separate the shapes onto different layers.

## Motion Tweening

### What can you do with Motion tweening?

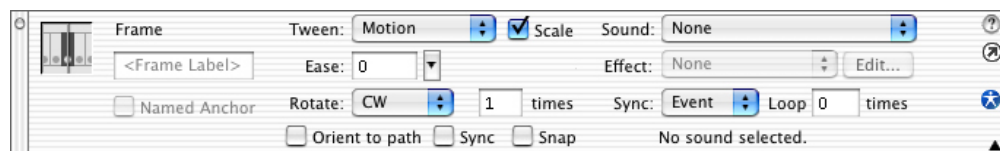
- Manipulate grouped objects, symbols, images and editable text
- The position of an object or symbol (creating motion)
- The color of a symbol (hue, brightness, transparency, etc.)
- The size and skew of an object or symbol
- Automatic rotation of an object or symbol
- Use motion guides
- Tween editable text
- Manipulate bitmap images (GIF, JPEG, PNG)
- Orient to path and audio synchronization

### What can you NOT do with Motion tweening?

- Tween the shape of a object or shape (shape morphing)
- Tween shapes or broken-apart text
- Tween multiple shapes or objects on the same layer

### Creating Motion Tweens

- The steps to creating a basic motion tween:
  1. Create your initial object (a group, symbol or text block) in the first keyframe of a layer.
  2. Create a second keyframe. It's best to copy the contents from the first keyframe (Insert > Keyframe, F6), so that Flash can keep track of a layer's objects.
  3. Modify the artwork in the last keyframe to the desired appearance.
  4. Using the Arrow tool, select a frame located between the two keyframes.
  5. From the Properties panel (Window > Properties), select Motion from the Tween pull-down menu.
  6. Test your tween using the Playhead.



### Motion Tweening Tips

- Motion tweening allows for automatic rotation of objects. From the Rotate menu in the Frame panel, select either CW (Clock-wise) CCW (Counter Clock-wise) and specify the number of rotations, or select Auto and let Flash decide based on the last keyframe's content.
- Unchecking the Scale box tells Flash to ignore object size changes when tweening.
- In order to use the Effects panel to modify objects, you must first convert the shape or object to a Symbol first.
  - To create a Symbol, select the object you wish to convert, and then select Insert > Convert to Symbol... (F8). Now you will be able to make adjustments using the Effects panel.
  - Be sure to do this first **before** creating the last keyframe of your tween.
  - While there is more to be said about this feature, this should at least get you started with Symbols.