

week::eight

Introduction to Symbols & Tweening

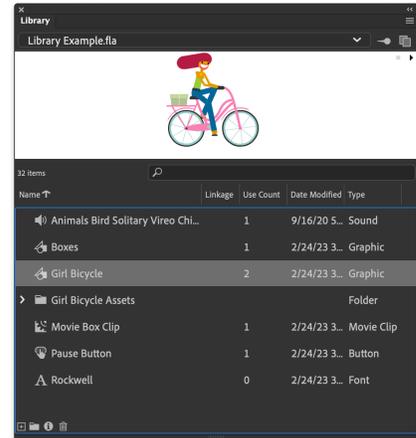
Introduction to Symbols & the Library

Defined

- Symbols are artwork objects that you create once, and then reuse multiple times within the current (and even other) Adobe Animate documents.
- Symbols can be created from merged drawing shapes, object drawing objects, primitive shapes, imported raster or vector artwork, and even sounds.
- To create a Symbol, select the object, then select **Modify > Convert to Symbol...** (F8)
- Once an object has been converted into a Symbol, it is added to the document's Library...

The Library

- The Library is where Adobe Animate stores media assets for use in your animation.
- The Library holds both elements that are placed on the Stage and unused elements.
- Not all items in the Library are Symbols.
- Imported images, sounds, video, fonts, and other items are also stored in the Library.
 - For example, when you import a raster image, it is first placed into the Library. You can then use the image by dragging it from the Library panel onto the Stage.
 - Imported vector images are automatically converted to Symbols in the Library.
- Libraries can be shared across local open Adobe Animate documents.
 - To bring in an external file directly to the Library, use **File > Import > Import to Library...**
- From now on, when importing resources always use **File > Import > Import to Library...**



Symbol Types

- There are three types of Symbols: **Graphic**, **Movie Clip**, and **Button**.
- The three types differ in how they interact with the main Timeline.

 Graphic	Creates reusable pieces of artwork and animation. They have their own timelines that move in-sync with the main Timeline.
 Movie Clip	Creates reusable pieces of artwork and animation. They have their own Timeline, and animate independently from the master Timeline. <i>Only use these if you are planning some sort of interactivity or scripting.</i>
 Button	Creates interactive buttons that respond to mouse clicks. Buttons have their own, special four-frame Timeline.

Instances

- An instance is a *copy* of a Symbol that has been placed on the Stage.
- It can differ from the master Symbol in terms of color, size, and function, and can have certain effects applied to it.

Editing Symbols

- To edit a Symbol from the main Stage, double-click on it with the Select tool.
- However, if you edit an instance of a Symbol (say, by double-clicking on the artwork), *all* instances of that Symbol are updated to match.
- Use the **breadcrumb trail** at the top of the Stage window to help navigate where you are within the Animate document.



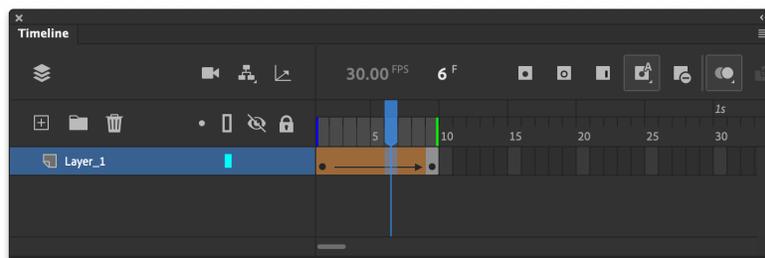
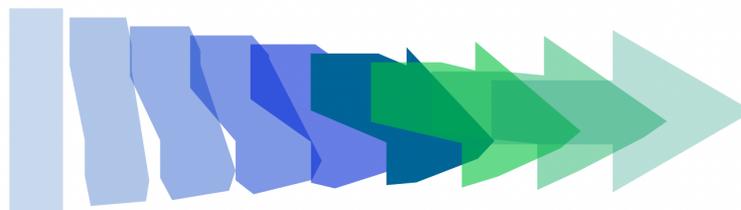
Registration & Pivot Points

- Symbols have both a Registration Point and a Pivot Point
- **Registration Points**
 - They are represented by the small plus sign (+) and is used to align artwork on the Stage.
 - When editing a Symbol, if you move artwork around on the Symbol's Stage, it changes its position relative to the Registration Point.
 - To center on the Registration Point, select all artwork in a Symbol (grouping multiple objects together), then use the Align panel, selecting Align to stage, then the horizontal and vertical center align options.
- **Pivot Points**
 - Pivot Points are the small white circle present when the Free Transform tool is used.
 - If you move that point from its default location, it will remain at that location in the future.

Tweening in Adobe Animate

What is Tweening?

- Tweening is the **automatic creation of animated frames** between keyframes.
- Tweens allow you to focus on creating keyframe content, and lets Adobe Animate do the grunt work of filling in the in-between frames.
- You cannot edit regular frames created by tweening.
 - However, you can convert them into standard keyframes for editing.
- Example Tween:
 - Notice how Animate creates the graphics between keyframes 1 and 10.
 - The keyframe in frame 1 contains a rectangle; keyframe 10 contains an arrow pointing to the right.
 - The green arrow in the Timeline indicates that a tween will occur between keyframes 1 and 10.
 - In the example below, onion skinning is turned on to show frames 2 through 9, which Adobe Animate has created for us.



Tween Types

- o Adobe Animate provides three types of tweens: **Shape**, **Classic**, and **Motion**.
- o A primary difference between the tween types is the type of graphic objects they work on.
- o Understanding this difference can help reduce frustration when a tween does not work.

Tween Usage

- o The following chart breaks down what object types a tween works on:

	Shape	Group	Symbol	Text Block	Broken Apart Text
Example					
Shape Tween	Yes	No	No	No	Yes
Classic Tween	Converts to Symbol ¹	Converts to Symbol ¹	Yes	Converts to Symbol ¹	No
Motion Tween	No ²	No ²	Yes	Yes	No

¹ When creating a Classic Tween, shape and grouped objects are, without prompting, converted to Symbols.

² When creating a Motion Tween, Adobe Animate will ask if it can convert shape and grouped objects into Symbols. It's best to say no and manually convert the objects into Symbols on your own.

Tweening and the Timeline

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

Properly-functioning **Shape Tween**
A green tint and an arrow is shown

Properly-functioning **Classic Tween**
A blue tint and an arrow is shown

Properly-functioning **Motion Tween**
A light blue tint is shown (no arrow)

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

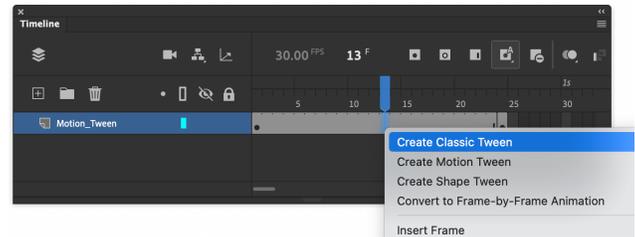
Shape Tweening (not used in this class)

What can you control with Shape tweening?	What can you NOT do with Shape tweening?
<ul style="list-style-type: none"> o The position of a shape (creating motion) o The shape of a shape (shape morphing) o The color of a shape (hue, brightness, transparency, etc.) o The gradient fill of a shape o Text that has been broken apart 	<ul style="list-style-type: none"> o Manipulate bitmap images (PNG, JPEG) o Tween grouped objects or symbols o Tween text that has not been broken-apart o Automatic rotating or use motion guides

Classic Tweening

What can you do with Classic tweening?

- Manipulate symbols
- The position of a symbol (creating motion)
- The color of a symbol (tint, brightness, transparency, etc.)
- The size, skew & rotation of a 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 Classic tweening?

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

Steps to creating a basic Classic tween:

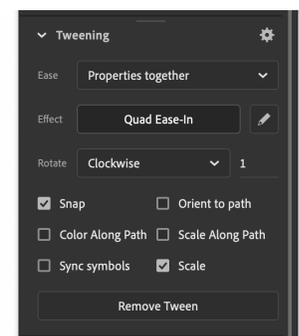
1. Create your initial object (a group, symbol or text block) in the first keyframe of a layer.
2. Create a second keyframe. It's best to copy the contents from the first keyframe (Insert > Keyframe, F6), so that Adobe Animate can keep track of a layer's objects.
3. Modify the artwork in the last keyframe to the desired appearance.
4. Using the Selection tool, select one frame between the two keyframes.
5. Either select Insert > Classic Tween, or right-click on the frame you selected and choose Classic Tween.
6. Adjust Easing options using the Properties > Frame > Tweening > Effect options.
7. Test your tween using the Playhead, or press Command-Return.

Introducing Easing

- **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.
- Animate has many easing presets, or you can craft your own using Bezier curves.

Classic Tweening Tips

- Classic 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 Adobe Animate decide based on the last keyframe.
- Unchecking the **Scale** box tells Adobe Animate to ignore object size changes when tweening.
- The pencil icon allows precision editing of the **Ease** option.
- Select **Orient to path** to have the artwork rotate to follow a path. Speaking of which...



Motion Guides

- Classic tweens can also have **Motion Guides**. These are paths that the tween will follow.
- To add, right-click on the layer name, and select *Add Classic Motion Guide*.
- On the first keyframe of the motion guide layer, draw your path.
- Back on the tween layer, move the transformation points of the artwork on both the **first** and **last frames** onto the motion guide path.
- To hide the guide path, simply hide the Motion Guide Layer.