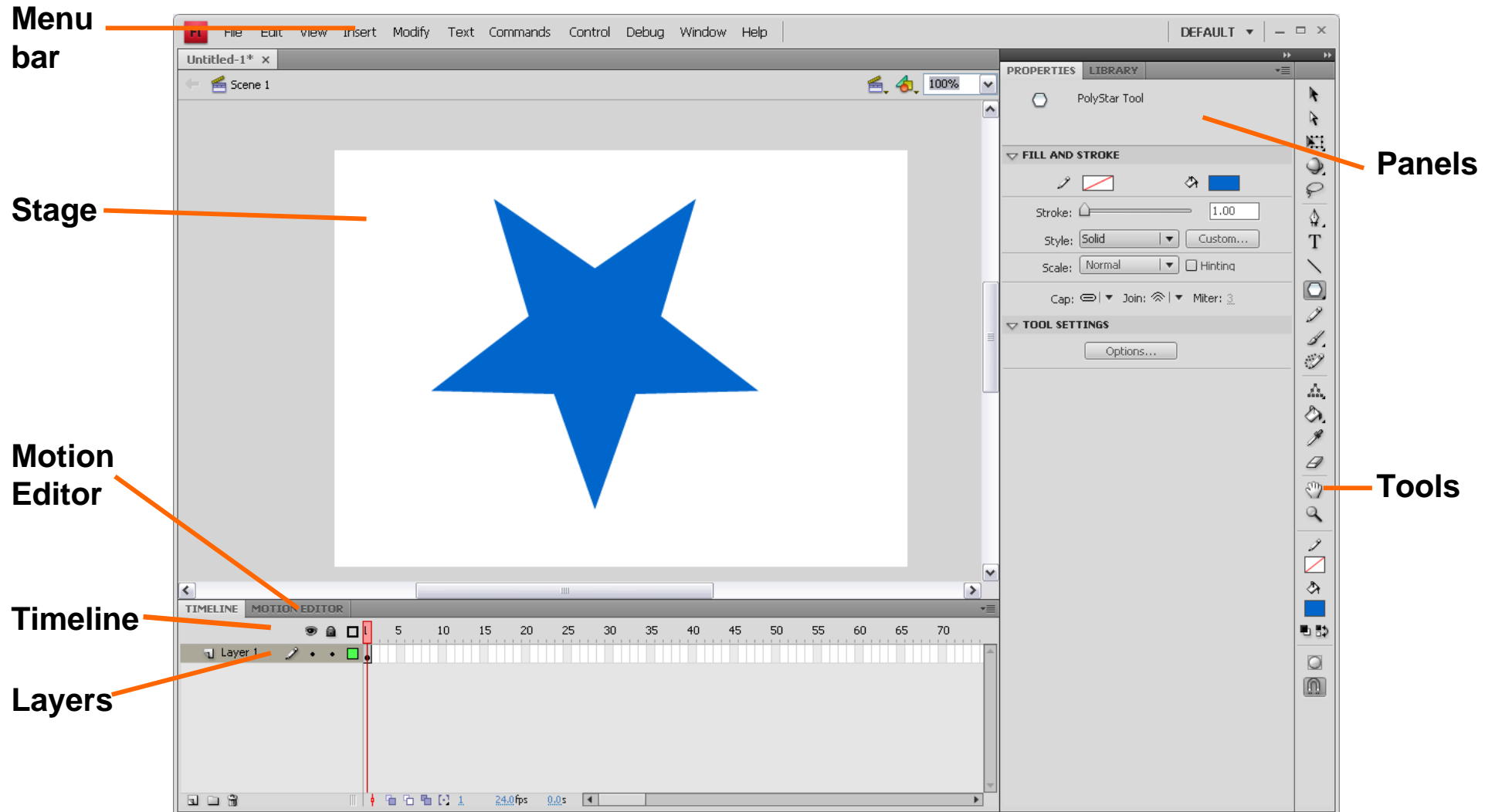


INTRODUCTION TO ADOBE FLASH CS4

Flash workspace



Stage

- Compose movie content on the Stage.
- Set Stage size by selecting Modify > Document:
- To specify the Stage size in pixels, enter values in the Width and Height boxes. The minimum size is 1 x 1 pixels; the maximum is 2880 x 2880 pixels.
- To minimize document size, click the Contents button to the right of Match (but first create all of the objects on the Stage).
- To set the Stage size to the maximum available print area, click Printer.

Tools panel

Tools create the content of a movie.

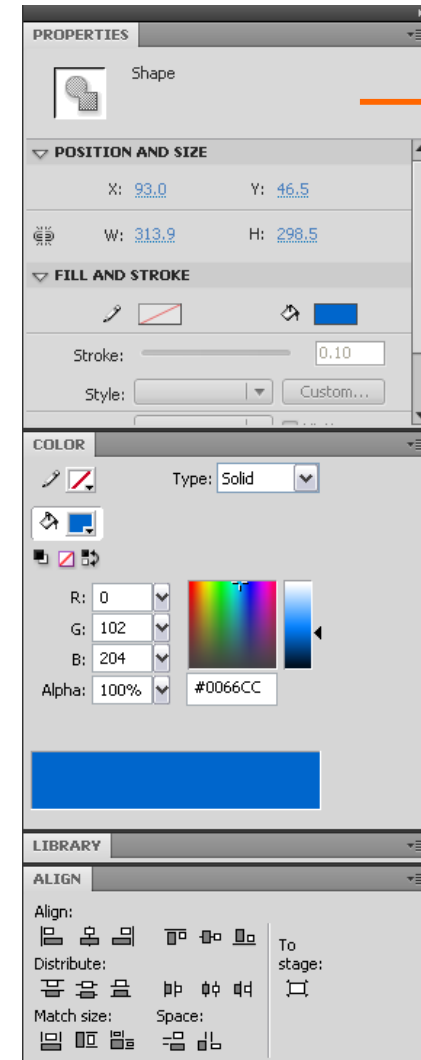
- **Selection tools:** Select, scale, distort, rotate objects
- **Drawing tools:** Draw, paint, create text, and erase objects
- **View tools:** Zoom and pan
- **Color tools:** Set stroke and fill colors
- **Options:** Modify the currently selected tool



Panels

Panels provide additional tools for creating and editing movies.

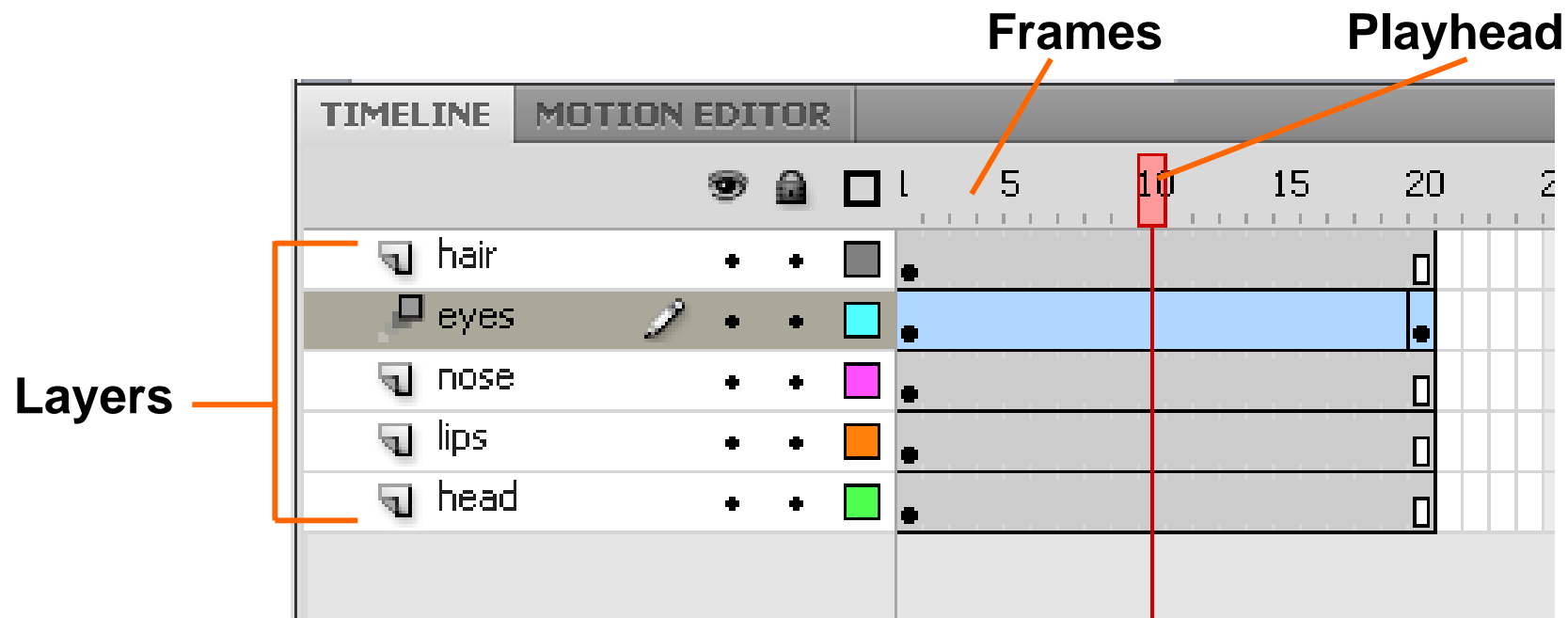
- Click the panel to view additional options for the current panel.
- You can hide or show panels by using the options on the Window menu.



Panels

Timeline

You can organize and control the content of a movie over time.



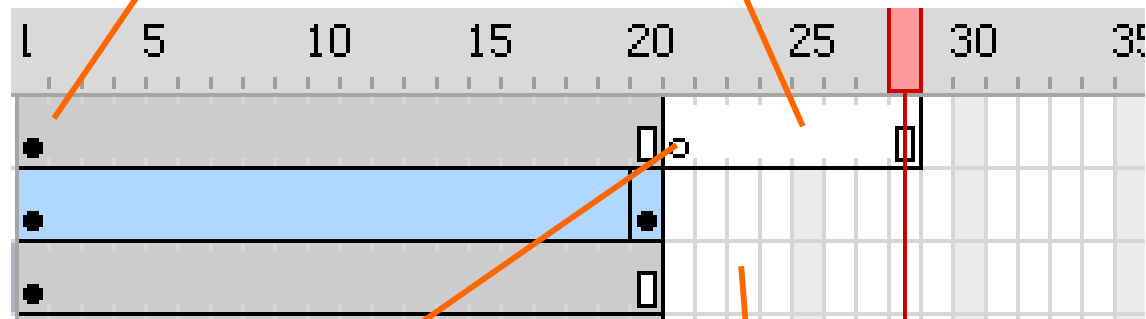
Frames and keyframes

- *Frames*: Like films, Flash movies divide lengths of time into frames, which are organized on the Timeline.
- *Keyframes*: Frames that define a change in what is displayed in a movie or include frame actions to modify a movie. When you open a new blank movie document, it contains one layer with one blank keyframe.

Frames and keyframes

Keyframe with content

Empty frames

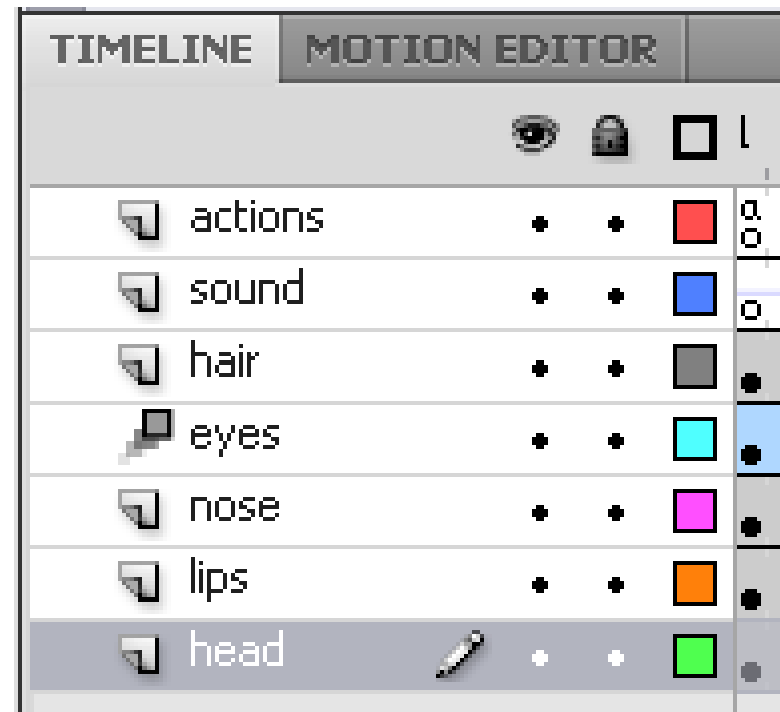


Blank keyframe

Empty slots for new frames

Layers

- Layers are like multiple film strips stacked on top of each other, each with a different element that appears on the Stage.
- Graphics
- Animations
- Text
- Sounds
- Buttons
- Frame actions



Symbols and libraries

- *Symbols* are elements you reuse within a movie to reduce file size.
- Types of symbols include *graphics, buttons, movie clips, sound files, and text.*
- A *library* is where you store and organize symbols.
- When you drag a symbol from a library to the Stage, you create an *instance* of the symbol.

Advantages of using symbols

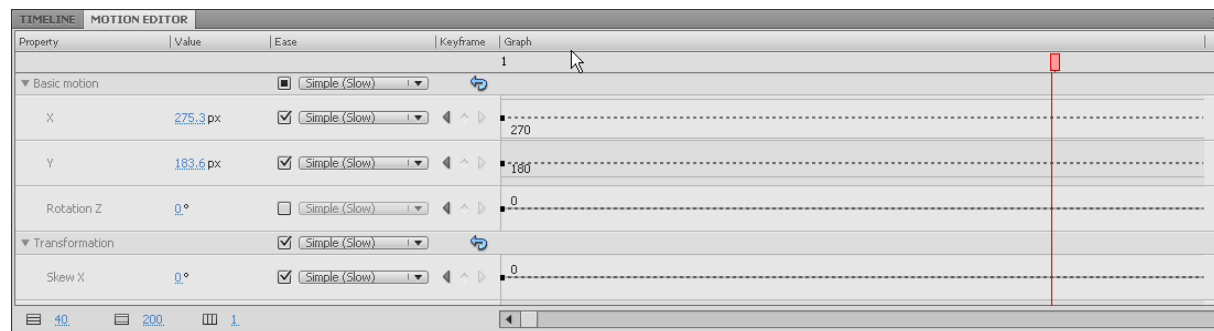
- *Easy editing:* If you change the symbol in the library, all instances of the symbol are updated automatically.
- *Smaller file sizes:* Symbols are downloaded only once, regardless of the number of instances you've included in the movie. This reduces the size of your published movies and decreases download times.

Animation with tweening

- *Tweening*: A tween is an animation that is created by specifying a state for an object property in one frame and another state for that same object in another frame. Flash calculates the values for that object's properties in between those two frames. The term tween comes from the phrase "in between."
- Flash supports three different types of tweening.
 - Motion tweens, introduced in Flash CS4 Professional, are powerful and simple to create. Motion tweens allow you to create most tweened effects.
 - Classic tweens, which were the only method for motion animation in earlier versions of Flash, are more complex to create, but provide certain capabilities that motion tweens do not.
 - Shape tweens allow you draw a shape at one specific frame in the Timeline, and change that shape or draw another shape at another specific frame. Flash then interpolates the intermediate shapes for the frames in between, creating the animation of one shape morphing into another.

Motion tweening

- Motion tweens can only have one object instance associated with them and use property keyframes instead of keyframes.
- Motion tween spans can be stretched and resized in the Timeline and are treated as a single object.
- With motion tweens, eases apply across the entire length of a motion tween span. Easing only specific frames of a motion tween requires the creation of a custom ease curve.
- The Motion Editor enables you to view all Motion tween properties and their property keyframes.



Classic tweening

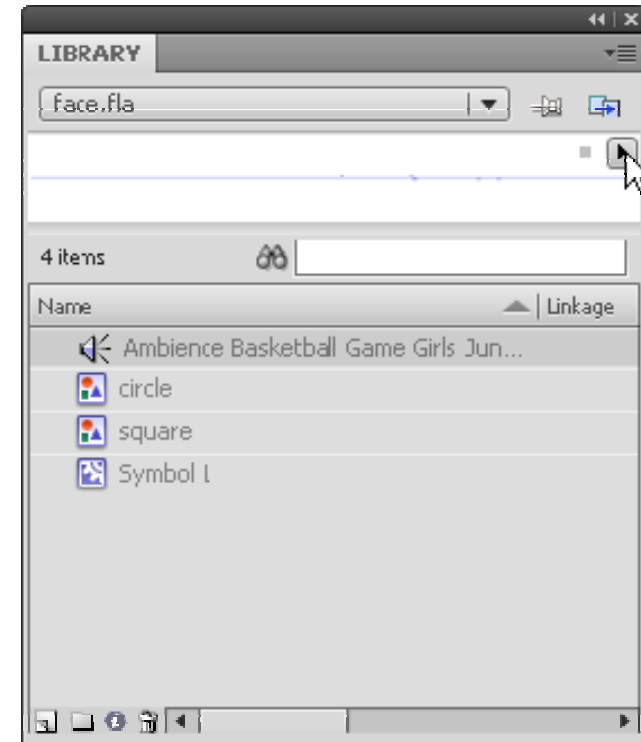
- Classic tweens use keyframes. Keyframes are frames in which a new instance of an object appears.
- Classic tweens consist of groups of individually selectable frames in the Timeline.
- With classic tweens, eases can be applied to the groups of frames between the keyframes within the tween.

Shape tweening

- Shape tweens work best with simple shapes. Avoid shapes with cutouts or negative spaces in them. Experiment with the shapes you want to use to determine the results. You can use shape hints to tell Flash which points on the beginning shape should correspond to specific points on the end shape.
- You can also tween the position and color of shapes within a shape tween.
- To apply shape tweening to groups, instances, or bitmap images, break these elements apart.
- To apply shape tweening to text, break the text apart twice to convert the text to objects.

Sound

- First, import a sound file into the library.
- Add sound to a movie by dragging an instance of the sound into a frame.
- To minimize file size, loop shorter sounds (to make them repeat).



Actions

- *ActionScript* statements instruct a movie to do something while it is playing. ActionScript can be attached to a frame or to an object:
 - *Frames:* ActionScript attached to a frame is triggered when the movie plays that frame.
 - *Objects:* ActionScript attached to an object is triggered when the viewer interacts with the object, such as moving the pointer over a hotspot or clicking a button.