

# Flash Tutorial

©2003 Created by Scott D. Lipscomb, Associate Professor, School of Music  
for the Teaching & Learning with Technology Workshop, *Northwestern University*

## ***Work Flow in Flash***

- draw or import graphics & sound files into Flash
- transform buttons, independent animations, & any other elements you intend to reuse into “symbols”
- place movie elements (vector graphics, bitmaps, symbols, etc.) on stage
- attach actions to buttons, movie clips, or frames on the timeline to make them interactive
  - in the steps outlined below, you will find that you are strongly encouraged to create two specialized layers in your Flash movies: an “action” layer (to hold ActionScript elements) and a “sound” layer (providing a single location for your audio components)
- select a frame, symbol, stroke, fill, or text block on the stage to adjust its properties via different panels

## ***Overview of Interface Elements***

- Menus
- Toolbars (**Window® Toolbars...**)
- Panels
- Timeline
- Stage
- Library
- Grid, Rulers, & Guides
- Actions (ActionScript is the Flash scripting language)
- Movie Explorer – provides a snapshot of your entire Flash project, including its construction and elements contained

## ***Some Specific Tools (Window® Tools)***

- Arrow tool – for selecting objects
- Lasso – for selecting multiple objects or portions of objects
- Line Tool
- Pen Tool
- Text Tool
- Oval Tool [hold **SHIFT** key to create perfect circle]
- Rectangle Tool [hold **SHIFT** key to create perfect square]
  - notice the “round rectangle radius” button in the “Options” area that allows you to create rectangles with rounded corners
  - this “Options area is context sensitive, its content changing as different tools are selected
- Pencil Tool, with several “modes” available in “Options” area:

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- straighten
- smooth
- ink
- Brush Tool – complex modes
  - Paint Normal
  - Paint Fills
  - Paint Behind
  - Paint Selection
  - Paint Inside
  - also Brush Size & Brush Shape options
- Erase Tool – complex Modes
  - Erase Normal
  - Erase Fills
  - Erase Lines
  - Erase Selected Fills
  - Erase Inside

**Layers – Keeping Your Graphics Separate**

- adding additional layers
  - sound layer
  - action layer
- hiding & locking layers
- frame labels
  - in the Timeline, select the frame to which you wish to add a label
  - if it is not visible already, open the Properties Window  
(**Window® Properties**)
  - in the Frame field, type a name (keep it brief)
  - in the Timeline, deselect the frame and you will see that the frame now contains a flag icon, identifying it as a “label”

**Complex Graphics on a Single Layer***When Lines Intercept & Shapes Interact*

When you create objects directly on the stage using the tools available in Flash (e.g., lines, ovals, rectangles, etc.), these objects do *not* maintain a separate identity when they intersect or overlap. Try this example:

- Select the “Oval Tool” and, in the “Colors” section of the Tool window, choose a Stroke color and Fill Color
  - before proceeding, in the Properties window, change the Stroke Height property to 5
  - you can also change the Stroke Style, if you like to change the appearance of the shape’s outline
- Draw a large oval on the stage
- Select the Arrow Tool and click somewhere in the middle of the oval you just created
- Notice how the fill of the oval is selected, but the outline is not

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- selected portions appear slightly lighter than unselected regions
- if you want to test this out, simply press the **DELETE** key and notice how the filled portion of the oval disappears, while the outline (the “stroke”) remains in place; if you did delete the fill, “Undo” the last action (**Edit® Undo**)
- Make sure that the Oval Tool is selected, set the Stroke Color to “no stroke” (press the button in the upper righthand corner of the Stroke Color Palette ... the white square with the crossed out by a red line), and choose a different fill color
- Draw a small oval inside the first oval that you drew
- Select the Arrow Tool, select the small oval you just drew and then, using the arrow tool, click & drag the small oval outside of the large oval
  - notice that the area where the small oval was drawn is now no longer filled with the fill color of the first oval
  - as long as an object is selected, you can move it around the stage as much as you like and it will not cause any alteration to other objects; however, as soon as it is unselected (or another object is selected), it merges with other graphic elements on the same layer
- If you want objects to retain their separateness when overlapping, you must place them on separate layers

**Guide Layers**

Allow you to create a “path” in one layer to control the action of a symbol in a “guided” layer; see “Motion Tweening Along a Path” below

**Mask Layers**

Allow you to focus attention on a limited area of the stage

- single layer
- multiple layers

To create a mask layer:

- **File® New**
- Create several different colored objects on the Stage
- Name this layer of your movie “objects” and lock it
- Add another layer above the objects layer and name it “mask”
- Open the layer properties window (**Modify® Layer...**) and change the layer type from “Normal” to “Mask”
- click on the “objects” layer and open the layer properties window, then change the layer type from “Normal” to “Masked” and accept the change by clicking on the OK button
  - notice that making this change has caused the label of the “objects” layer to be indented and preceded by an arrow, representing the fact that this layer is now controlled by the “mask” layer
- select the “mask” layer again, choose the Oval Tool, set the Stroke Color to “no stroke,” and set the Fill Color to black

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- Draw a circle in the middle of the stage, covering several objects on the “objects” layer below
- **Control® Test Movie**

Notice how *only* the portion of the “objects” layer that shows through when the movie is played is the section over which the black circle was drawn in

**Reusing Objects****Converting Graphics to Symbols & Symbol Instances**

One of the most powerful capabilities of Flash – and, for that matter, of Director – is the capability to reuse objects (called “symbols” in Flash or “cast members” in Director). Reusing objects also allows you a means of ensuring that your movie size stays relatively small ... if you have 250 oval shapes drawn on your stage, they can all be based on the same “oval” symbol. Individual ovals (called “instances” of the oval symbol) can be altered in several ways:

- Library panel (**Window® Library**) for viewing all objects contained in the current movie
  - To edit a symbol, simply double-click on the object in the Library; editing the symbol itself changes *all instances* based upon that symbol
- Properties window (**Window® Properties**) for editing individual instances; can change brightness, tint, or transparency (alpha)
- Scaling (**Modify® Transform® Scale**)
- Rotation (**Modify® Transform® Rotate**)
- of course, all of the techniques can be applied and/or changed over time by using keyframes in the movie Timeline

To convert a graphic image into a symbol, simply select it and choose **Insert® Convert to symbol**. Once you have created a symbol, it is ready to reuse anywhere in your movie. You can access all symbols used in your Flash movie via the Library window (**Window® Library**).

**Turning Bitmaps into Vector Graphics**

- place a copy of the bitmap image on the Stage
- select the bitmap
- **Modify® Trace Bitmap**

**Animation Basics****Creating Keyframes**

- **Insert® Blank Keyframe** – create brand new content in new frame
- **Insert® Keyframe** – duplicates contents of previous keyframe

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To add a Motion Tween animation, follow these steps:

- In the layer containing the object(s) you wish to animate, simply click on the frame where you want your animation to begin
- When you create a new movie, the first frame of Layer 1 automatically has a keyframe; otherwise, you can add one (**Insert® Keyframe**)
  - if your objects are not yet on the stage, *ensure that a keyframe on the appropriate layer of your movie is selected*, then drag the object(s) from the Library onto the Stage at the location you would like for them to appear
- Click on the final frame where you would like the animation to end, then select **Insert® Timeline® Frame->**
- Right-click (Win) or Control-click (Mac) the first keyframe of this animated sequence to open the pop-up menu and select “Create Motion Tween”
  - at this point a dashed line will connect the first frame of your animation to the last in the Timeline ... this lets you know that the process is not yet complete
- Click once again on the final frame of your animation and move the object(s) to the location where you would like it/them to be at the conclusion of this animated sequence
  - now the dashed line should have changed to an arrow pointing from the first frame of your Motion Tween animation to the last

## Sound in Flash

### *Importing Sound*

- **File® New**
- **File® Import**, then select a sound file
- **Window® Library**
  - notice the sound file has been added to your movie as a Symbol
  - if you click on the “Information” icon at the bottom of the Library window, you can determine the appropriate level & type of compression for your sound file
- **Recommended:** add a separate layer labeled “sound”
- **IMPORTANT:** click on the placeholder frame where you want your sound file to play, then select **Insert® Keyframe**
- with the frame containing the newly added keyframe selected, drag sound file from Library onto stage
  - notice that the image of the sound wave appears in the frame to confirm that a sound has been added
- while the frame with the sound file is selected, notice the Properties window now contains additional options for manipulating the sound
  - from the “Effect” drop-down box, select Custom and notice how you can control the playback of your sound file; to get to this same window, you can simply click on the “Edit” button to the right of the “Effect” drop-down

- **-Control® Test Movie**

## ***Adding Sound to a Button***

- **File® New**
- Select a button from the Common Library (**Window→Common Library→Buttons**) & drag an instance onto the Stage
- Double-click on the button to enter “Symbol Edit” mode; alternatively, you can select **Edit® Edit Symbols**
  - Just below the labels on the left side of the Timeline, you should now see the name of the button upon which you are operating to the right of the “Scene 1” label
- Decide which states (up, down, and/or over) to which you wish to attach sounds
  - **IMPORTANT:** If the frame where you intend to insert the sound does not contain a keyframe, you must add one now (**Insert® Keyframe**)
- **File® Import**
  - select an appropriate sound for each of these states
- Add a layer and label it “sound”
  - If the Library window is not open
- In the “sound” layer, click on the frame representing the state to which you wish to add a sound, then drag the appropriate sound from the Library
  - repeat this step for every state for which you wish to add a sound
- **-Control® Test Movie**

## ***Creating a more complex Flash movie ...***

### **Using Common Library Elements**

- **File® New**
- In the Properties window, set ...
  - frame rate to “12” fps
  - set background color to a color of your liking
- then, click on the “Size” button and set ...
  - stage width = 100
  - stage height = 75
  - set ruler unit to “pixels”
- then, click on “Publish” and review settings for Flash, Formats, & HTML
- save the file as “playButton.fla”
- **Window® Common Libraries® Buttons**
  - find a set of buttons you like and drag an instance of a Play button to the Stage
- test the movie (**Control® Test Movie**)
  - notice how the **mouseOver**, **mouseDown**, and **mouseOut** events respond to your interaction ... nothing happens when you press the buttons, but we’ll get to that!!
- close the Flash player and notice also that the image consists of layers

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- in the Timeline, click on the layers one at a time and you will see a bounding box on the stage identify which portion of the image is represented in that layer
- hide them one at a time, so you can see the effect
- simply by “testing” the movie, a web-ready **SWF** file was created (or “published”) and can be inserted directly into an HTML page
- Flash creates *vector graphics* ...
  - on the stage, resize the Play button (**Modify**→**Transform**→**Scale**), making it about 4 times as large as its original size
    - you can also set the width & height values by typing them directly into the Properties window (must be expanded)
  - notice that, even though the image is significantly larger, it does not distort
    - this is the difference between working with *vector graphics* rather than *bitmap* (or *raster*) graphics
- if you want to insert this into a web page using **Dreamweaver**, ...
  - start Dreamweaver
  - select the “Flash” button found on the “Common” tab of the Insert window
  - browse to find the SWF file you created when you tested your Flash movie a moment ago (not the FLA file that you edit in Flash), highlight the name of the file, then click on “OK”
    - the SWF file is saved in the same folder as its partner FLA file
  - a placeholder for the Flash object is placed on your HTML page and can be moved around and manipulated just like other objects on the web page
  - to see the movie – instead of the placeholder – click on the “Play” button in the Properties window
    - if you do not see the “Play” button, make sure that your Properties window is expanded by clicking on the down-pointing triangle in its lower right corner
    - now the movie plays as if it were in a browser window
  - click on the “Stop” button in the Properties window to return the Flash object to “Edit” mode
  - to see that the effect of using *vector graphics* within Dreamweaver ...
    - resize the movie, making it about 4 times as large as its original size
    - click on the “Play” button in the Properties window again
      - voila! ... the wonders of *vector graphic*
  - close Dreamweaver and **return to Flash**
- double-click on your Play Button on the Stage (or select **Edit**® **Edit Symbols**)

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- you have now entered Symbol Edit mode; notice that there is a new label (“Play”) in the upper left corner of the Timeline area next to the “Scene 1” label
- click through the various button “states” (Up, Over, Down, Hit) to see how the image is changed; Buttons are a special type of symbol that uses this 4-element timeline
  - the “Hit” state is not one that you see while your button is in use, but its function is very important ... it simply identifies the portion(s) of the image that are “active”
- if you were creating your own button, you would simply edit the appearance of the button object on stage to reflect the desired changes
- create a second movie entitled “stopButton fla”
  - you can do this on your own by modifying the steps above

**Starting and Stopping Sound using Actions in Flash**

- **File® New**
- In the Properties window, set ...
  - frame rate to “12” fps
  - set background color to a color of your liking
- then, click on the “Size” button and set ...
  - stage width = 250
  - stage height = 75
  - set ruler unit to “pixels”
- Save the file as “soundButtons fla”
- **Window® Common Libraries® Buttons**
  - find a set of buttons you like and drag an instance of a Play button and a Stop button onto the stage; rearrange so that they are spread evenly across the stage & at about the same vertical position
    - you can use the Grid (**view→Grid→Show Grid**) and/or Guides (**view→Guides→Show Guides**), if you like, to assist with alignment
      - alternatively, once both objects are on the Stage, you can use the “Align” commands (**Modify→Align→[select an option]**) to neatly place your objects
      - these same options are also available via the Align window (**Window→Align**)
    - feel free to readjust the movie properties (height & width)
- Test the movie (**Control® Test Movie**)
  - notice how the **mouseOver**, **mouseDown**, and **mouseOut** events respond to your interaction ... nothing happens when you press the buttons, but we’ll get to that!!
  - as you now know, you can rescale either or both buttons (**Modify→Transform→Scale**) without causing the image to pixelate
- Import a sound file (**File® Import**)



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- Set “File Type” to “All Sound Formats,” then import a sound file into your project
- Open the Library Window (**Window® Library**) and notice that both of your buttons & a sound file are listed in the Window
  - in this window, you can create subfolders to organize the “assets” (Flash’s word for all of the elements used) in your project ... for this project, since it is so small, it is not necessary to create any subfolders
- Organize Layers for your Scene
  - name the layer with the buttons appropriately: “buttons”
  - in a more complex movie, you would add other layers ... naming them helps you as you design
- set up the Stop button, so it will cause all sounds to stop [the easy way]
  - Click on the Stop button to select it
  - Open the Actions Window (**Window® Actions**)
    - make certain that you are using the Actions Window in “Normal Mode” by clicking on the drop-down menu in the upper right-hand corner of the window
  - Expand the “Index” category by clicking on it and find the “Stop All Sounds” command from the list in the left side window, then drag this text into the empty area in the right window ... that’s all there is to it! You have now created an action that will cause the Stop button, when clicked, to stop playback of all sound files currently playing
- Add sound to the Play button [a little bit harder]
  - in the Library window, double-click on the Play button to enter Symbol Edit mode
    - notice that next to the “Scene 1” label in the upper left-hand corner of the Timeline area, there is now a label with the name of the symbol used to create this button; you are now able to edit the button symbol; to return to the Scene when you are finished editing, simply click on the “Scene 1” label ... but don’t do that just quite yet
  - add a Layer (**Insert® Layer**) and name it “sound”
  - in the “sound” layer, click on the frame under “Down” [this is the button state – when it is pressed – that you want to begin playback of the sound file], then insert a keyframe (**Insert® Keyframe**)
  - while the keyframe in the sound layer of the Play button is selected, add the desired sound by simply dragging it from the Library window on to the Stage
  - click on the keyframe in the sound layer again and select “Event” from the Sync drop-down list, since you want sound file playback to be initiated by the **mouseDown event**
    - you can also change the “Loop” value from “1” to the number of times you would like your sound file to play; “99” is good when you want to give the illusion of infinite playback
- Click on the “Scene 1” label (upper left of the Timeline area) to leave Symbol Edit mode and test your movie (**Control® Test Movie**)

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- clicking the Play button should cause the sound file to start playing back (multiple copies, if you click it more than once)
- clicking the Stop button should cause all sound files being played to stop

**Animation*****Frame-by-Frame Animation***

Why do this, when you can use tweening...

***Shape-Tweened Animation***

morphing one shape into another

- **File®New**
- draw a square of any color with no outline in the lower lefthand corner of the Stage
  - use the Rectangle tool on the Drawing toolbar
  - hold the **SHIFT** key down to create a perfect square (same technique works for drawing perfect circles with the Oval tool)
- select frame 25 on the same layer of the timeline as your square
- **Insert®Blank Keyframe**
- we are going to use text in our movie but, before adding text, you should *always* embed the font(s) you use as part of your movie, so users who do not have that specific font installed will still see the text as you intend them to
  - click on the context menu in the upper right corner of the Library window and select “New Font...”
  - type a name for your embedded font and select the font on your system upon which you wish to base the embedded font
  - if you want, you can set the style of the font as bold and/or italic
- while the playback head is still on frame 25, select the Text tool and set the following properties in the Properties window
  - choose your embedded font (in the font list, all embedded fonts are followed by an asterisk
    - hint: if you want to make your embedded font easy to find, start it with an underscore (“\_”) character
    - Flash comes with several fonts that are intended to be universal (`_sans`, `_serif`, and `_typewriter`), but the method above ensures that the font will appear as you intend
  - size = 150
  - choose any color, but different than the color of your square
- click in the upper righthand corner of the Stage and type a capital “V”
- select the Arrow tool and the text you just typed will be automatically selected
- **Modify®Break Apart**
  - this turns the text into a shape; a necessary step to accomplish the “morphing” effect we want to see
- click on Frame 1 to move the playback head to that frame
- in the Properties window, set the following properties:

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- choose “Shape” from the Tweening drop-down menu
- set the Blend Type to “Angular”
  - “distributive” works best for blending smooth, curvy shapes
  - “angular” works best with sharp corners and straight sides
- leave the Easing setting at its default value
  - “easing in” causes the animation to move slower at the beginning and gradually increasing in speed
  - “easing out” causes the animation to start fast and decelerate as it continues
  - set to the middle, speed will remain constant
- if you want to add “shape hints” to alter the resulting animation, simply:
  - click on the first frame of the shape tween, then select **Modify**→**Shape**→**Add Shape Hint** (or **CTRL+SHIFT+H**)
  - move the shape hint (the numbered circle\_ to the location on the that you want to control
  - click on the keyframe located at the end of the shape tween and move the shape hint to the point in the ending shape that should correspond to the first point you marked
  - add additional shape hints as necessary
  - test your movie to see the results

***Motion-Tweened Animation***

- **File**® **New**
- Click the Oval tool on the Drawing toolbar and draw a medium sized circle (no outline, you pick a color) in the lower left corner of the Stage
  - use the **SHIFT** key if you want to make a perfect circle
- Select white as the fill color and draw a small white circle slightly on – but slightly off-center - the black circle (look a little like a billiard ball)
  - remember that once your shapes overlap on the same layer, you can no longer edit them separately; if you need to keep them separate, you must place the shapes on separate layers
- Click on Frame 25 in the timeline on the same layer as the black & white circles
- **Insert**® **Frame**
- Right-click (Win) or Control-click (Mac) the keyframe on Frame 1 and select “Create Motion Tween” from the pop-up menu
  - since motion tween works only with specific items (symbol instances, groups, & text blocks), this command automatically converts content of any other type (like our “ball”) into a symbol instance
  - open the Library window and confirm that a symbol has been added called “Tween 1”
  - notice also that the “tween” you created is not yet complete (identified by the dashed line instead of an arrow pointing from the initial keyframe to the next) ... we still have to define the *end* of our tweening motion
- move the playback head to Frame 25 and click the Arrow tool in the Drawing toolbar

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- drag the black ball to the middle of the right side of the Stage, adding a keyframe automatically to Frame 25 (notice the completed tweening arrow that is now displayed on the timeline between the two keyframes)
- you can move the playback head back & forth manually to see your animation

**Customize the Motion Tween (getting in a little deeper)**

Let's make the ball appear to grow smaller and disappear by the end of the tween

- move the playback head to Frame 25
- click the Arrow tool on the Drawing toolbar and select the ball
- **Modify® Transform® Scale and Rotate...**
- type “40” into the “Scale” box
  - as a result, the object will be scaled to 40% of its original size at this point in the animation
- while the ball symbol in frame 25 is selected, in the Properties window, choose “alpha” from the “Color” drop-down list and enter “0” in the percentage box
  - setting the alpha value to “0” results in making the ball completely transparent, so it will seem to disappear
- click on keyframe in Frame 1 in the timeline and, in the Properties window, set the following properties
  - Scale: checked
  - Rotate: CW (clockwise)
  - Times: 2
  - Orient to path: unchecked
  - Easing: -100 (all the way to the bottom of the slider)
  - Synchronize: unchecked
  - Snap: Checked

***Motion Tweening Along a Path***

- Select the layer that contains our motion-tweened animation and press the “Add Guide Layer” button
  - a guide layer will always appear *above* the layer it controls and the controlled layer will appear indented under the name of the motion guide layer
- Click on the motion guide layer if it is not already selected as the current layer
- Select the Pencil tool from the Drawing toolbar
  - choose “Smooth” as the pencil mode
- Starting near the center of the ball, draw a curvy line on the stage ending up near the middle of the right side of the stage
- **Control® Test Movie**

***Saving Animations as Graphic Symbols or Movie Clip Symbols***

Animated graphic symbols and movie clips are two kinds of animated symbols, with differences that – at first – may seem subtle and hard to distinguish

- Graphic Symbol
  - tied to the timeline of any movie in which it is placed

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- no sounds or interactivity retained, even if present in original copied frames
- **Movie Clip Symbol** (like a film loop in Director)
  - runs on its own, independent timeline
    - when in development environment you see only a static image (must Test Movie to see animation)
    - when testing movie, continues to run animation, even if playback head is stopped, as long as movieClip exists in frame where it stops
    - if number of frames over which animation extends changes, continues to run animation smoothly, without jumping from mid-animation to the beginning
  - retain sounds and interactivity

To convert existing animation into a graphic symbol or movie clip:

- Create an animation using any method outlined above
- Select all frames in all layers you wish to convert
- **Edit® Copy Frames**
- **Insert® New Symbol**
- Type a name for your symbol
- Select either “Graphic” (to create an animated graphic) or “Movie Clip” (to create a movie clip), then click on the OK button
  - Your view will then change from Movie Editing mode to Symbol Editing mode
- Select Frame 1 in the symbol timeline, and choose **Edit® Paste Frames**
- To return to Movie Editing Mode, click the current scene name in upper lefthand corner of the window
- Open the movie library (**Window® Library**) and notice that your new symbol has been added to the list

To insert graphic animation or movie clip into your movie

- select the frame in which you want your graphic animation or movie clip to appear
- drag a copy of the symbol onto the Stage
- in the timeline, select the last frame in which you want your animation to appear
  - remember that, in determining the number of frames, you must keep in mind that animated graphics depend on the movie timeline, while movie clips do not
- choose **Insert® Frame**, causing Flash to add in-between frames from the first to last frames selected
- **Control® Test Movie**

Completed movie has been saved as “movieClipVsAnimatedGraphic.fla”.

## ActionScript – the Basics

For interactivity, Flash requires three things

1. an event that triggers an action
  - a. mouse events (press, release, releaseOutside, rollover, rollout, dragOver, and dragOut)
  - b. keyboard events (occur when a key on the computer keyboard is pressed)
  - c. frame events (*must* be placed at keyframes and are triggered when the playback head reaches that frame in the timeline)
  - d. movie clip events (load, enterFrame, unload, mouseDown, mouseUp, mouseMove, keyDown, keyUp, data)
2. an action triggered by that event
  - a. these actions are attached using the Actions window (**Window® Actions**) to create ActionScript
3. the target object that performs the action or is affected by it ... can be either:
  - a. the current movie and its timeline
  - b. other movies and their timelines (e.g., movie clip instances)
  - c. external applications (e.g., internet browsers)

For the following examples, make certain that the Actions Window is set to “Normal mode” ... from the Options menu in the upper righthand corner of the Actions Window, choose “Normal Mode”. It is highly recommended that you add a separate layer to your movie that is used exclusively for Frame Actions and label it “actions.”

Adding actions to a frame:

- select the appropriate frame in the “actions” layer of the movie timeline
- select the desired action by doing one of the following:
  - click on the plus sign (“+”) in the upper left corner of the Actions window and navigate through action categories to the desired action
  - using the Toolbox List (the window in the upper left portion of the Actions window), navigate through the category subfolders to the desired action
- to add multiple actions to a frame, simply follow the previous step until all desired actions have been added

Editing the actions list:

- to change the order of actions
  - select the desired action
  - click either the up or down arrow in the upper right corner above the list of actions in the Actions Window
- to remove an action from the list:
  - select the desired action
  - click on the minus sign (“-”) in the upper left of the Actions window or press the **DELETE** key

**ActionScript Examples**

To pause a movie:

- select the frame in the “actions” layer of the movie timeline where you want your movie to pause
- in the Actions Window, select **Basic Actions® Stop**
- deselect the frame in your movie timeline to complete the process
  - confirm that an action has been added by noticing that a small “a” now appears in the intended frame of the movie timeline in the “actions” layer

Using GoTo actions to navigate within your movie:

- select the frame in the “actions” layer of the movie timeline where you want your movie to branch to a different location
- in the Actions Window, select **Basic Actions® Go To**
- Specify the new location:
  - in the “Scene” field, either type the Scene name or select the appropriate name from the drop-down list
  - specify the frame to which Flash should navigate
    - from the “Type” drop-down menu, choose one of the frame types, allowing you to refer to a specific frame number, frame label, the next/previous frame, or expression
    - if you selected “Frame Number,” “Frame Label,” or “Expression” in the previous step, you must provide the appropriate information in the “Frame” field
  - the “Go to and Play” check box should be checked if you want your movie to begin playing immediately when it arrives at the new location; otherwise, it will pause in the arrival frame

A PreLoader movie

- add a scene to your movie by clicking on the “+” in the lower right of the Scene Panel (**Window® Panels® Scene**)
  - name it “preLoader” and move it to the top of the Scene list by clicking on it and dragging
- create the animation you want your user to see while the movie loads
  - an example has been provided for you (“preLoader.fla”)
- add an “action” layer to your preLoader scene, then add the following Actions
  - in frame 1, add an “ifFrameLoaded” action (**Basic Actions® If Frame is Loaded**)
    - set the “Scene” field to the specific scene you want to begin playing when the movie has loaded
    - set the Frame Number or Frame Label field to the appropriate value ... this is the amount of your movie that must be loaded before the “preLoader” scene will end and start playback of your main movie
  - in the last frame of your “preLoader” animation “Go To” action
    - set the “Scene” field to “<current scene>”

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- set the “Type” field to “Frame Number” and the “Frame” field to “1” ... this will cause your preLoader scene to repeat until the portion of the following scene you specified above has been loaded

recommended 3<sup>rd</sup> party software:

SWiS H (<http://www.swishzone.com>) - \$49.95 (academic price: \$16.95)

- amazing program to facilitate incorporating text effects in Flash (15-day free trial)
- sorry, Mac users ... it's Windows-only!!