CGT 353 Lecture 2

Getting Started

Tour of Flash

Flash Development Tools

- The program you will become familiar with is the **Flash Authoring Tool**
  - This can be referred to as the **F.A.T.**
- Flash apps can also be written in **Flex Builder**
  - Flex Builder is an **integrated development environment (IDE)**
- **ActionScript** can be written in anything, in Notepad if you really want

Runtime Environments

- **Runtime environments (RTEs or runtimes)** are programs that can run ActionScript.

- Since AS is run by these portable runtimes, AS is itself portable.
  - **Adobe AIR** – standalone on desktops
  - **Flash Player** – web content, current player is 10
  - **Flash Lite** – mobile devices

- <u>Each runtime environment is basically the same</u>, but with a few different custom features that deal with the capabilities and security measures of each environment.

Four components of Flash

- Stage

- Toolbar

- Timeline

- Panels
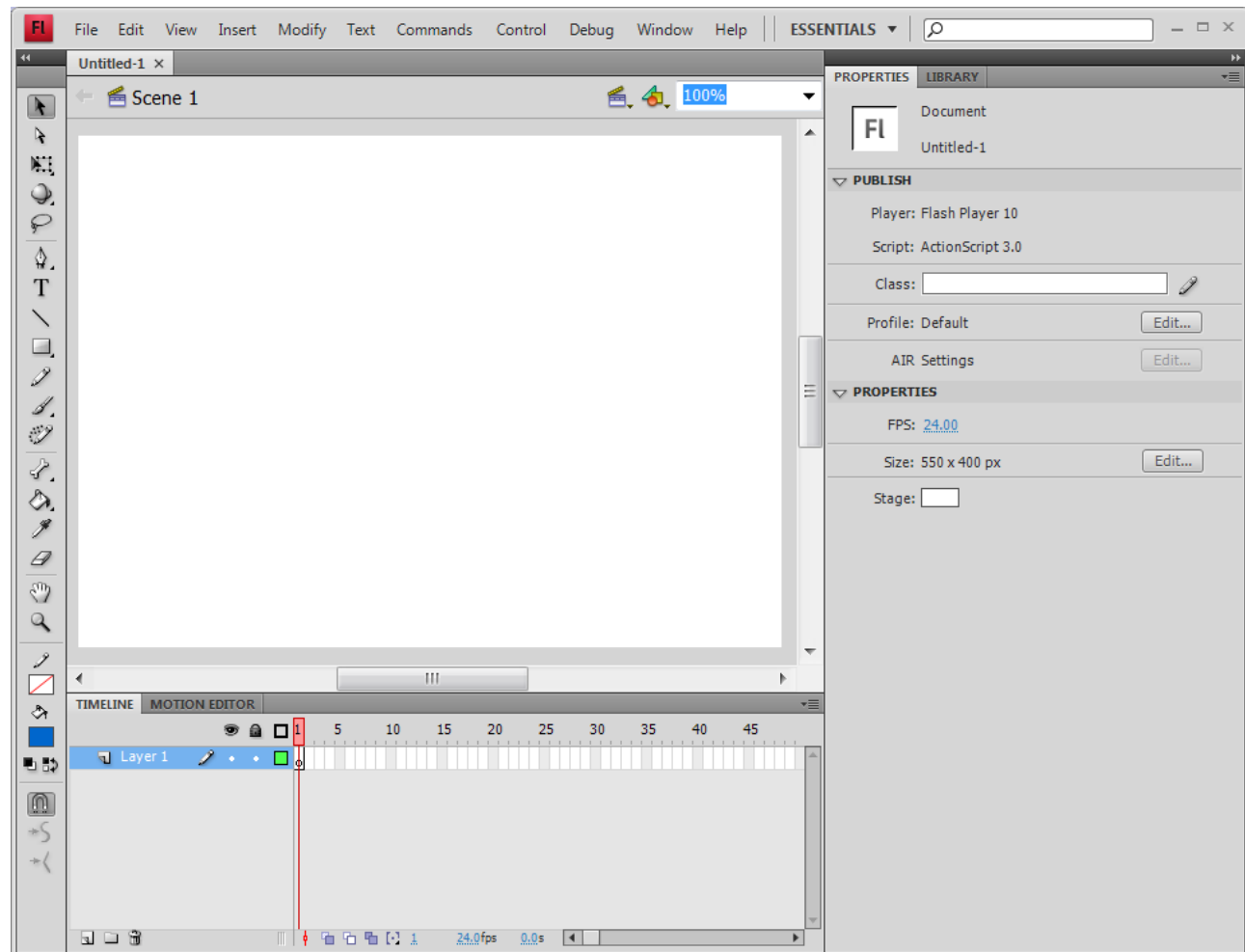
Areas of the Interface

- Spatial information
  - **What** you see (on the stage)

- Temporal Information
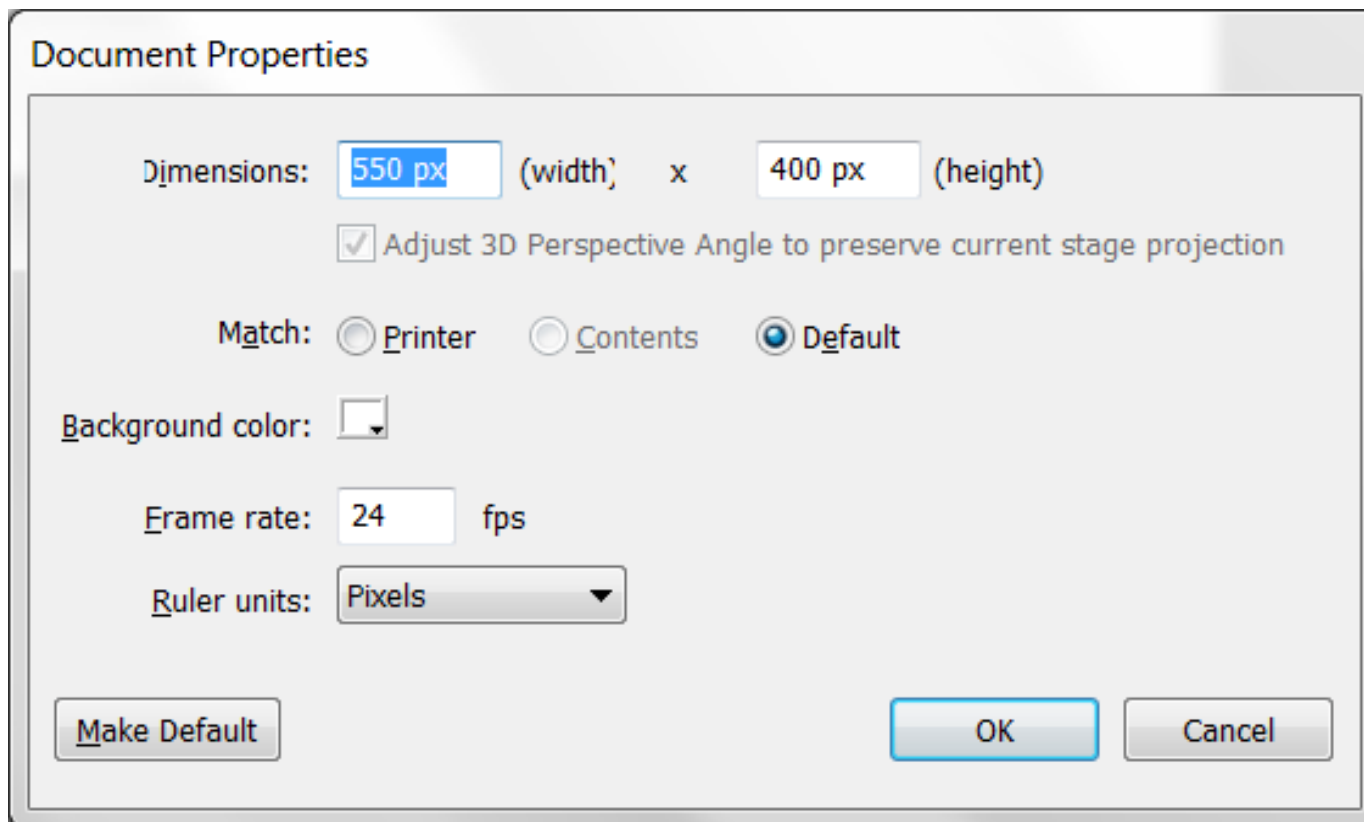 - **When** you see it (the timeline)

Timeline

- Used to lay out elements in the movie.

- Know the difference between **frames** and **keyframes.**
  - Frames are represented by little squares
    - The frame enables the object to appear on the timeline as the play head moves.
  - Keyframes are represented by little circles
    - The keyframe is a control point. If you want to change anything over time, you need to use a keyframe.

- Know that the more keyframes you have, the more problems you will have with your animations.

- The timeline is what permits you to create animations, using either frame-by-frame or tweened animations.

Timeline

- **Layers and controls**
  - show, lock, outline, motion guide, layer folder

- **Frames and controls:**
  - onion skin, multiple frames, counter, time, labels, comments
  - selecting and moving frames
  - inserting and removing frames (F5 and Shift F5)
  - copying frames (Alt drag)
  - inserting keyframes - F6
  - inserting blank keyframes F7
  - clear keyframe - Shift F6
  - difference between cutting and removing frames
 - frame view options

Document Properties

- One way of controlling file size is by adjusting the frame rate in the document properties (Modify > Document…):

Document Properties

Dimensions:	550 px	(width) x	400 px (height)

☑ Adjust 3D Perspective Angle to preserve current stage projection

Match: ◯ Printer ◯ Contents ◉ Default

Background color: ▢▾

Frame rate: 24 fps

Ruler units: Pixels ▾

Make Default   OK   Cancel

Keyboard Shortcuts

You can change keyboard shortcuts if you are used to another programs keyboard shortcuts… or simply learn what shortcuts are available
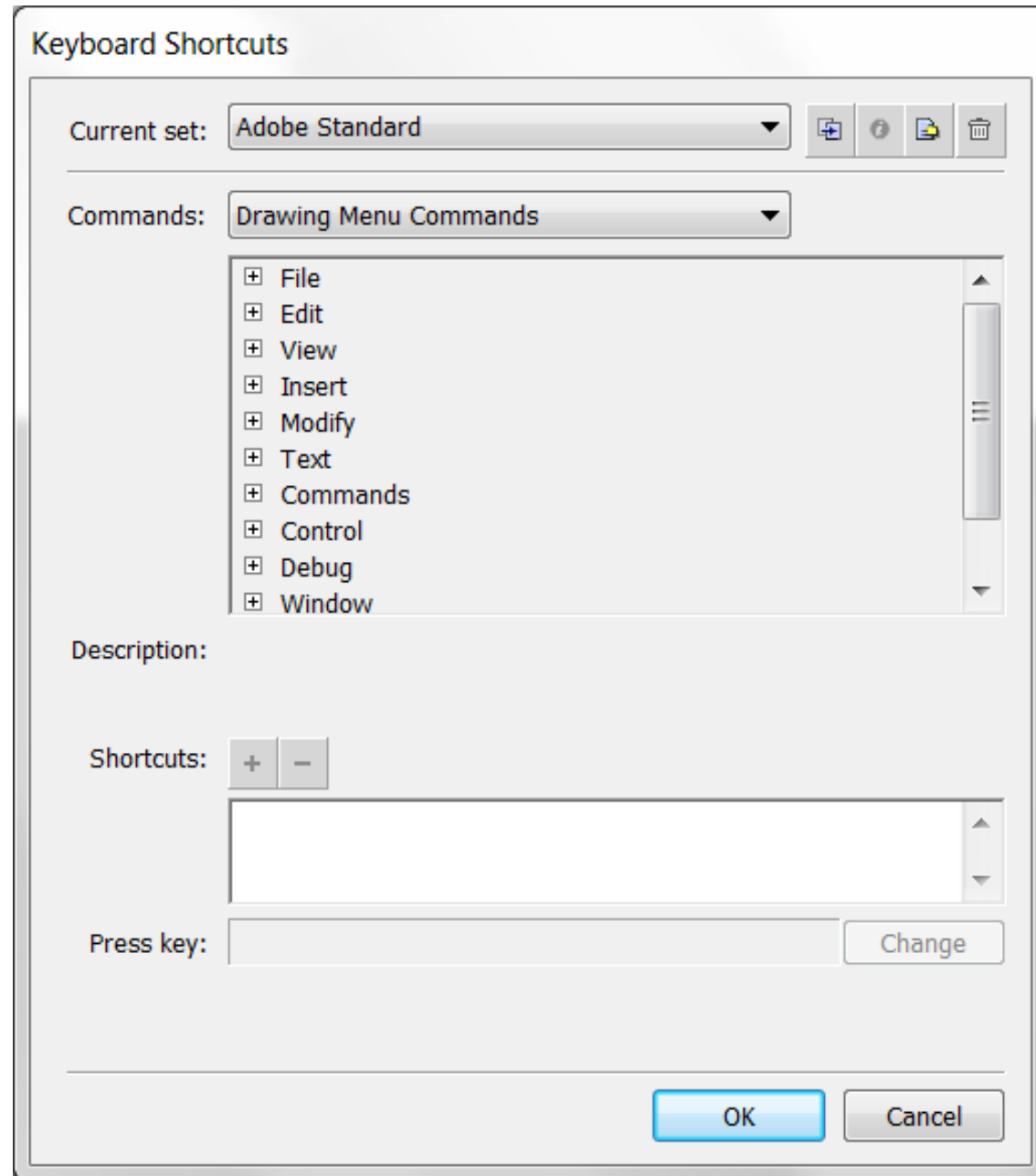
Font Mapping

- Mostly for use in a multi-developer environment

- Basically, allows you to create logical font substitutions when you don't have the appropriate fonts on your computer

- No need to worry about this just yet

Tweens

- **tweened animation** - motion of an object defined by two keyframes where the object has different fundamental properties

- **motion tweens -** (blue tint) the primary type of tweening that allows for changes in position, size, etc…

- **Note:** There is a difference between traditional motion tweening and classic tweening…

- **shape tweens -** (green tint) only applied to primitive, non-grouped shapes….

Panels
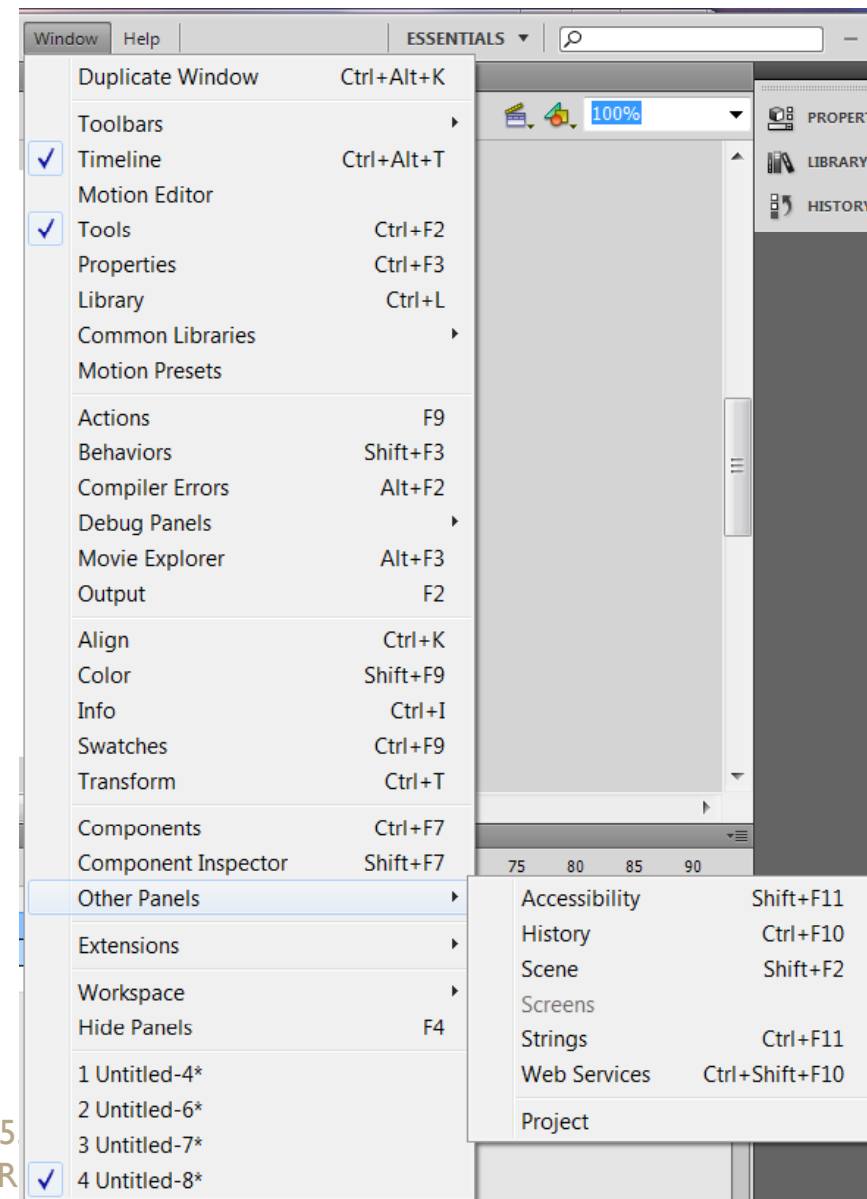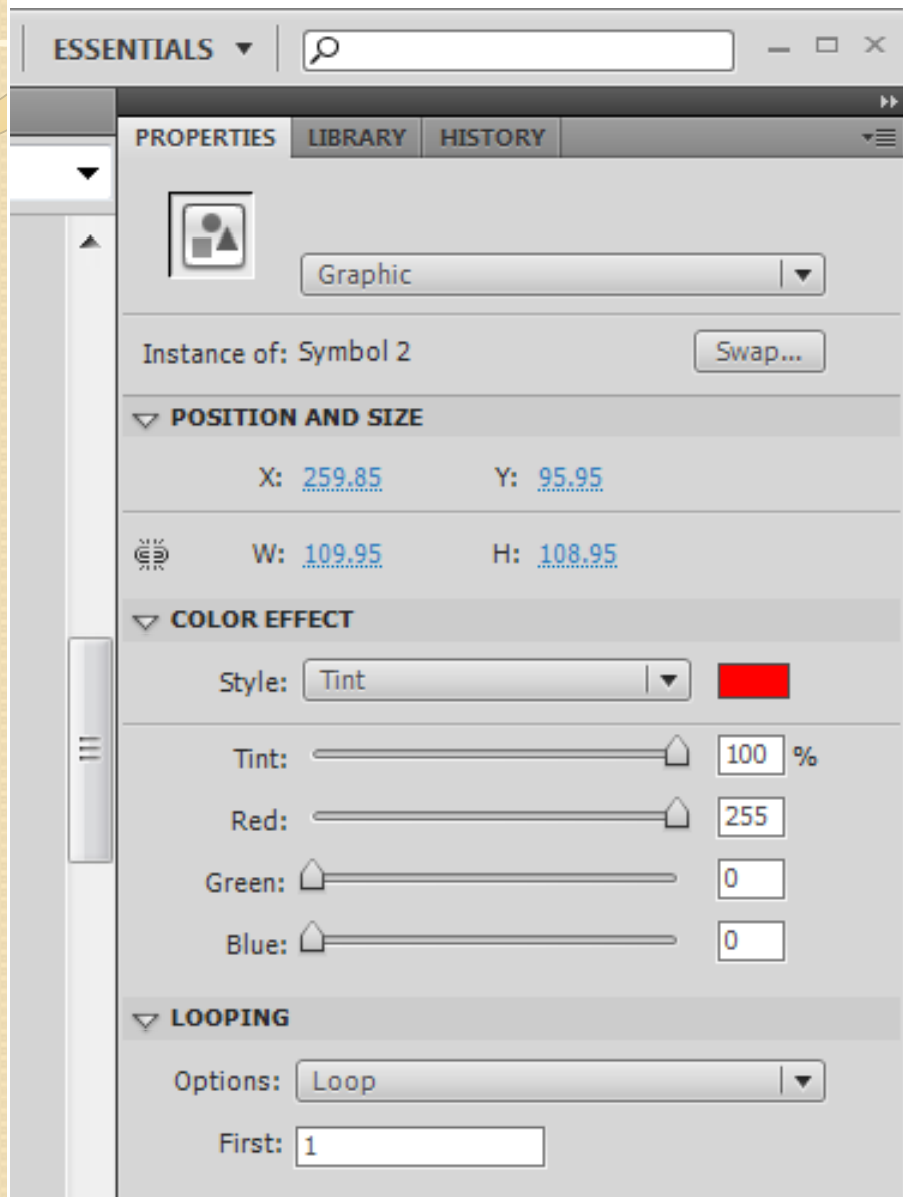
The Stage and Document Window

- Work Area

- Stage view control / Zoom control

- Hand and Zoom tools

- Breadcrumb Navigation

- Scene Panel
  - Create / Reorder / Delete scenes

Timeline Playback Basics

- **Frames** - indicate the current moment in time

- Use either of the following methods to view animation in a timeline:
  - Scrub
  - Enter
  - Control/ Enter
  - Controller

- Use the escape key to stop....

Scenes

- Each scene is a multiple main timeline in the movie.

- A lot of argument in the development community whether scenes should be used.

- For this class....**ONLY use them for animations (P1)**

- <u>Insert/ scene</u> to add a scene...

- Use the scene drop-down list to move between scenes.

- ActionScript is usually used to make that jump between scenes....

  - **Note:** To use ActionScript to jump between scenes....you need to name the scene in the script:

  - *gotoAndPlay("label","SceneName");*

Publish Settings

- Important to understand how these settings affect your published Flash apps

- Will explore various aspects of these settings throughout the semester.

Seeing the big picture

- Understand that there are several ways to deliver content with Flash.
- Newcomers to Flash often think that they will create one large flash file, insert it into their web page, and be done.
- In reality, you usually create multiple smaller Flash files and then stitch them together using other web technologies.

Don't limit your thinking

- You should not approach Flash as a be-all / end-all solution, altogether avoiding other technologies.

- You should look for ways to stitch Flash into other technologies, rather than trying to build the entire world inside Flash.

- You should use all technologies for their strengths – and master more than just *one* technology.

Additional uses

- Consider using Flash the next time you have a presentation to give…
- Consider creating a Flash movie as an interactive multimedia piece that is not web-based

- In short – don't think that Flash is the total solution. Consider everything, with Flash as part of the solution.

File Extensions

- .fla
  - ◦ .fla files contain source material for the Flash application. Flash authoring software can edit FLA files and compile them into .swf files. The Flash source file format is currently a binary file format based on the Microsoft compound file format.
- .swf
  - ◦ .swf files are completed, compiled and published files that cannot be edited with Adobe Flash. However, many '.swf decompilers' do exist. Attempting to import .swf files using Flash allows it to retrieve some assets from the .swf, but not all.
  - ◦ These are commonly used to place content inside of web pages.
  - ◦ A .swf file is actually a <u>flattened, optimized, single timeline</u> version of the fla file
- .flv
  - ◦ .flv files are Flash video files, as created by Adobe Flash, ffmpeg, Sorenson Squeeze, or On2 Flix. The audio and video data within FLV files are encoded in the same way as they are within SWF files.

File Extensions

- .f4v
  - .f4v files are similar to MP4 files and can be played back by Flash Player 9 Update 3 and above. F4V file format is second container format for Flash video and it differs from FLV file format. It is based on the ISO base media file format.

- .as
  - .as files contain ActionScript source code in simple source files. FLA files can also contain Actionscript code directly, but separate external .as files often emerge for structural reasons, or to expose the code to versioning applications. They sometimes use the extension **.actionscript**

- .fxg
  - FXG is an unified xml file format being developed by Adobe for Flex, Flash, Photoshop and other applications.

- .xfl
  - .xfl files are XML-based project files that are equivalent to the binary .fla format. Flash authoring software uses XFL as an exchange format in Flash CS4. It imports XFL files that are exported from InDesign and AfterEffects.

Other File Extensions

- .flax
- .mxml
- .swd
- .asc
- .abc
- .f4p
- .f4a
- .f4b
- .swc
- .jsfl
- .swt
- .flp
- .spl
- .aso
- .sol

- These are other files associated with Flash.
- You may or may not run into these this semester.
- If you are curious, you can look them up.

The Flash Platform

Adobe Flash Platform and web technologies
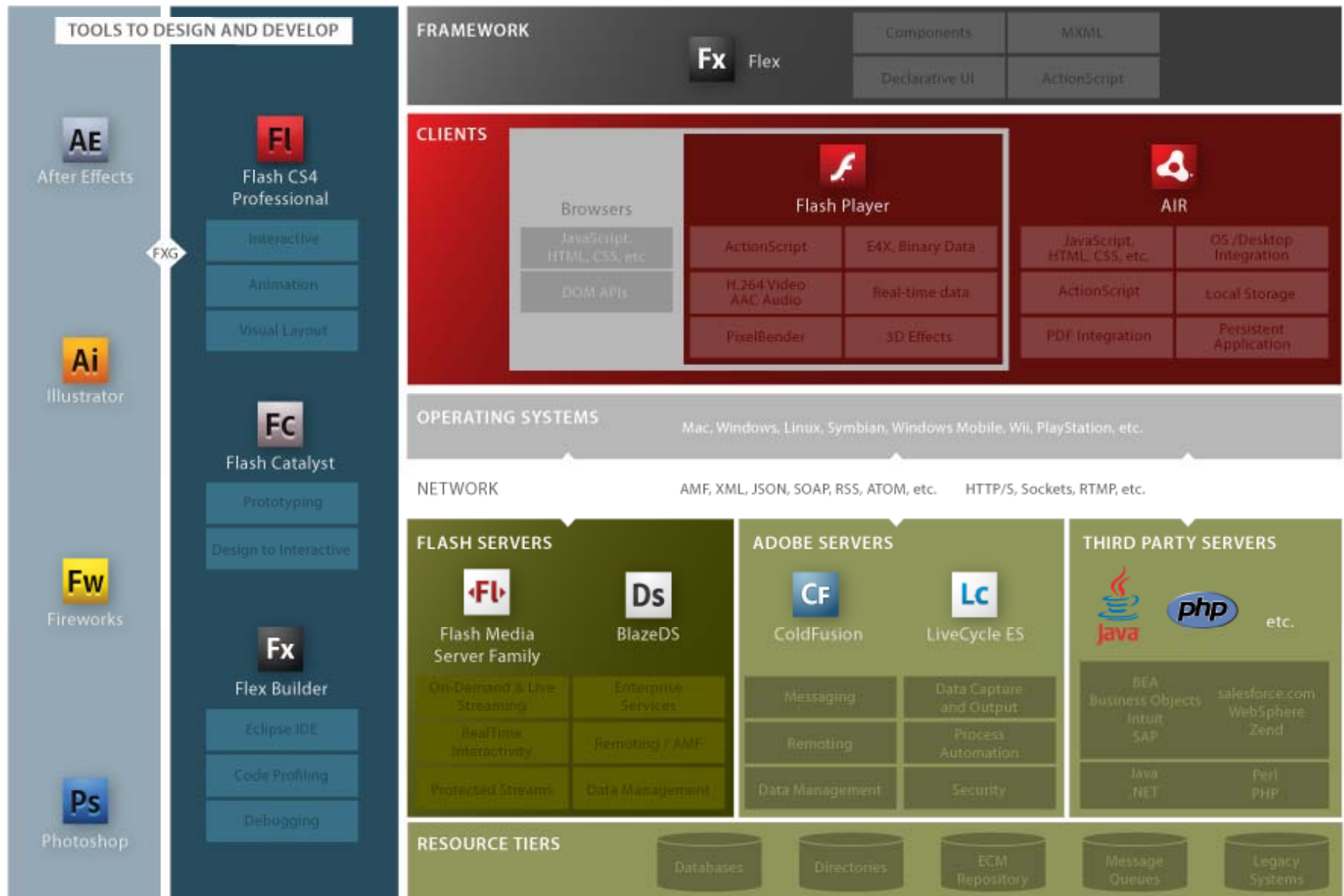
Help Features

- **General Help under Help Menu**
- **Flash Support Center:**
  - http://www.adobe.com/support/flash
- **Flash Resources Page:**
  - http://www.adobe.com/support/documentation/en/flash
- **Flash Exchange:**
  - http://www.adobe.com/cfusion/exchange/index.cfm?event=productHome&exc=2&loc=en_us
- **Flash Design Center:**
  - http://www.adobe.com/cfusion/designcenter/search.cfm?product=Flash&go=Go
- **Flash Developer Center:**
  - http://www.adobe.com/devnet/flash
- **ActionScript Technology Center:**
  - http://www.adobe.com/devnet/actionscript
- **Video Workshop:**
  - http://www.adobe.com/designcenter/video_workshop

Demo – show some features

- General Features
  - Draw an object
  - Convert to symbol
  - Motion tween
  - Change color during motion tween
  - Adjust path of motion (select vs subselect)
  - Adjust the duration of the animation
  - Create a new symbol
  - Replace 1st symbol with new symbol from library
  - Motion Editor
    - Show expand / collapse / click an area to expand a row
    - Show graph size / viewable frames (scrub the number)
    - Show scrubbing
    - Create a custom ease / make an S curve / apply ease to basic motion