

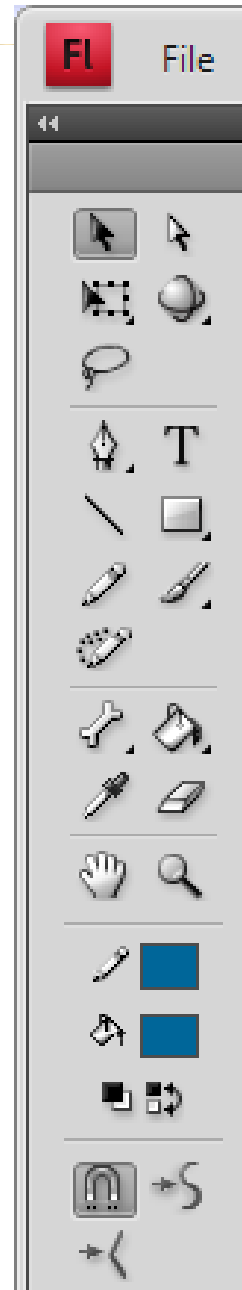


CGT 353 Lecture 3

Selections, Transforms, Drawing, Painting,
Graphics in Flash

Selection Tool
 Free Transform Tool
 Lasso Tool
 Pen Tool (submenu)
 Line Tool
 Pencil Tool
 Deco Tool
 Bone Tool (submenu)
 Eyedropper Tool
 Hand Tool

 Black and White
 Snap To Objects
 Straighten



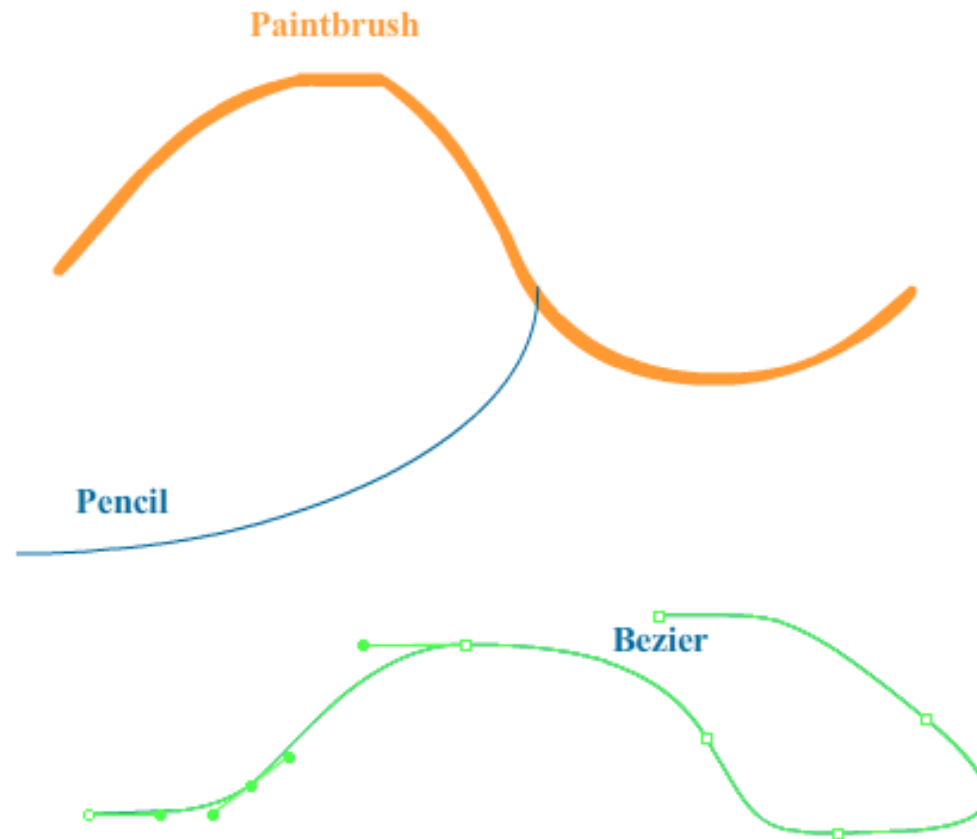
Subselection Tool
 3D Rotation Tool (submenu)

 Text Tool
 Rectangle Tool (submenu)
 Brush Tool (submenu)

 Paint Bucket Tool (submenu)
 Eraser Tool
 Zoom Tool
 Stroke Color
 Fill Color
 Swap Colors
 Smooth

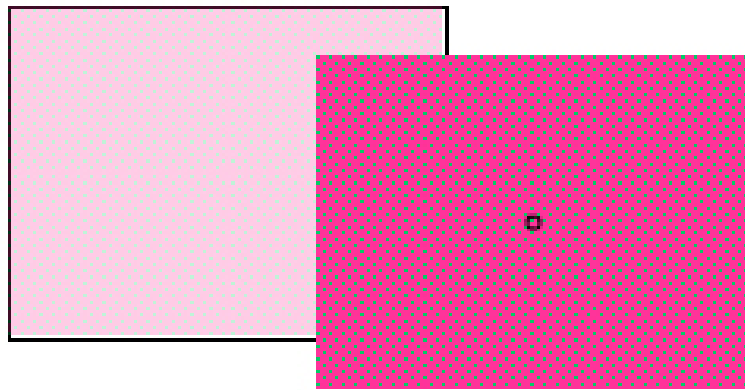
Flash Drawing Elements: Point/Bezier v Natural Drawing

- In Flash, you can draw either freeform or using Bezier curves



Detached Fills

- Fills are detached from their polygons and can be edited separately



Interactions of Base Elements

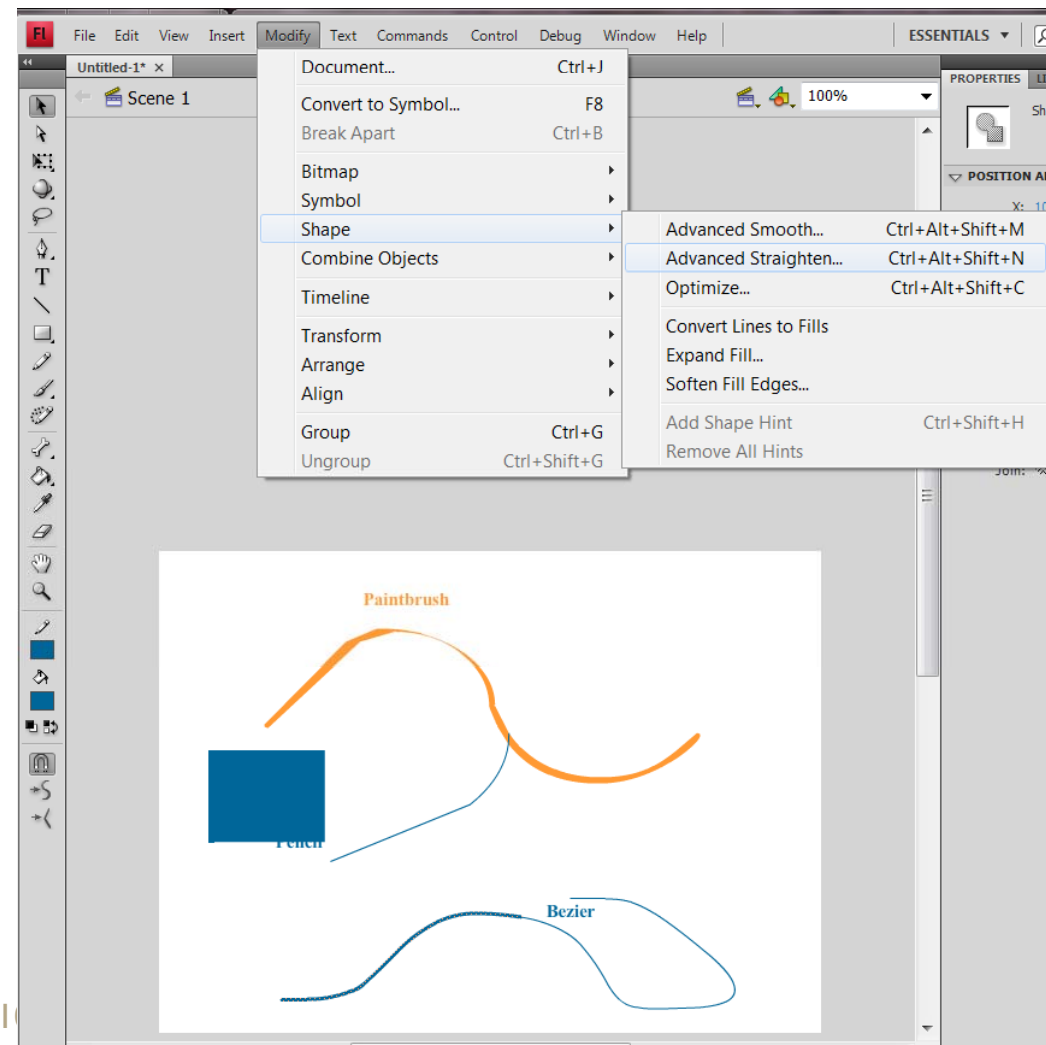
- Stage elements will intersect and react to each other if they overlap

Selection Tools and Options

- Snap to Objects
- Smooth Tool
- Straighten Tool

Shaping and Reshaping Objects

- Moving Endpoints
- Reshaping Lines



Moving and Selecting Objects

- With the arrow keys
- Press Shift to nudge 8 pixels at once
- Hold Shift key down to select multiple objects

Subselection Tool

- Allows you to work with individual points
- Can nudge points with arrow keys
- Holding Shift allows you to select multiple points
- Delete points by selecting and hitting "Delete"

Viewing Modes

- Outlines
- Fast
- Antialias
- Antialias text

Two Types of Objects: Overlay and Stage

- **Stage objects**
 - lines, arcs, polygons, and fills
- **Overlay**
 - symbols, groups, and text
- Overlay objects do not interact, whereas stage objects do

Overlay vs Stage Objects

- You can do the following with **Overlay** objects:
 - Lock
 - Align / move forward and backward
 - Break Apart
 - Distribute to Layers

- You can do the following with **Stage** objects:
 - Distribute to Layers

Transforming

- Info
- Free Transform Tool
- Transform Menu
- Copy and Apply Transform

Remembering Transforms

- Transforms are not remembered for stage objects, only overlays
- Transformations for groups are only remembered until they are broken apart or ungrouped.....
- Transformations for symbols and text objects are always remembered

Drawing and Painting

- Flash is less accurate than Illustrator, which is why it's better to do line drawings in Illustrator first.
- Be careful with complex fills, layers, etc. in Illustrator... Importing into Flash can be problematic...

Object Drawing Model

- allows you to draw new shapes that are pre-grouped

Color Swatches and Color Mixer

- Creating solid colors and fill colors
- Cannot apply gradients to lines
- Can save swatches and panel sets for later use

Creating Lines and Arcs

- **Line**
- **Pencil**
 - straighten, smooth, ink
- **Pen**
 - creating Bezier lines, adding and subtracting points

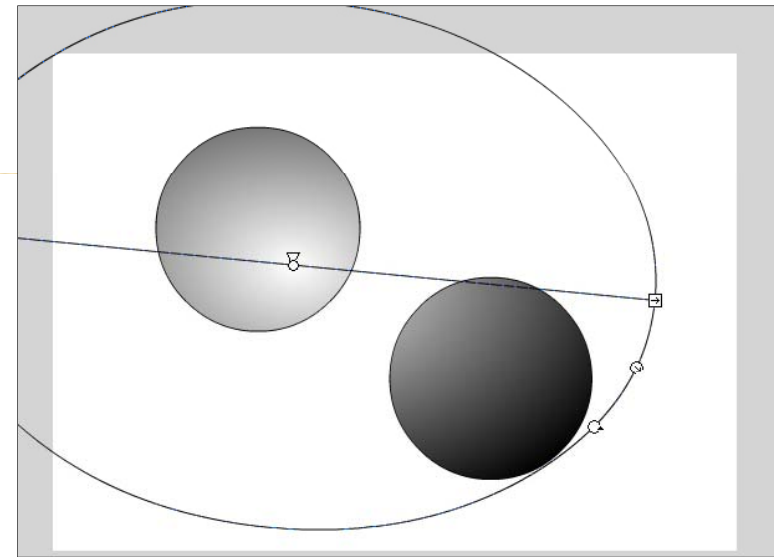
3D Tools

- **3D Rotation**
- **3D Translation**

Brush Tools and Modes

- Actually creates fills rather than lines
- Paint Normal, Fills, Behind, and Selection

Fills



- **Ink Bottle Tool and Paint Bucket Tool**
 - Gap sizes can vary with the bucket
- **Locking Fills, the Dropper, and Transform Fill Tool**
 - Allows you to extend fills into another area

Eraser Tool and Modes

- Eraser only works on stage objects
- Erase Normal, Fills, Lines, Selected Fills, and Inside
- Faucet tool clears in one sweep.

Align Panel

- Can use this panel to align to stage or even resize multiple objects

Lines and Curves

- **Convert Lines to Fills, Expand Fill, and Soften Fill Edges**
 - Create for effects work
- **Optimizing Curves**
 - Use multiple pass repeats optimization until it can go no farther

Graphics in Flash

- Flash developers should always be mindful of imaging basics.....
- Although these principles will not be reviewed thoroughly, students are expected to know and implement them.
- If you have any questions on the basics, please address them.....
- Topics discussed in class will primarily concern how image principles effect Flash authoring.
- Need to have a thorough understanding of these basics to understand how they work (or don't work) in Flash.

Resolution

- Defined as the number of color units per unit of area that represents the visual quality of an image over a given area (ppi, dpi, etc)
- In Flash, resolution is not a concern if you only use vector graphics
- Once you start using raster graphics, that is another story

Bit Depth

- the number of bits available to describe a color unit or pixel that represents color fidelity

- **File size:**

- **file size (KB) = [resolution² x (width x height) x Bit depth]**

8192

Raster Graphics in Flash

- Problem is that raster images aren't scalable.
- As such, when you import graphics into Flash, you may want to make them a bit **larger and scale down in Flash.**
- If the developer does this and the user scales the Flash movie, the raster image quality will not be effected.
- How much is up to the developer and is a bit more "art than science."

Rules: What Kind of Graphics to Use?

- Use either GIF or PNG, but rarely (if ever), use JPEG.
- Flash applies JPEG (DCT) compression to the graphics files anyway.
- If you use a JPEG, you will be doubly compressing your files and the image will be poor.
- Colors of JPEGs are never the same anyway....
- JPEGs also use lossy compression, further detracting from the image quality.
- **PNGs, which are lossless, are the best to use for Flash (raw is second best.)**

Importing Images

- Fairly intuitive...
- Note that Flash will import sequences of files if they are named appropriately.
- Will also import animated GIFs in a sequential frame order...
- Only reason to be importing animated GIFs is so that you can trace them out in order to have a completely vector animation...

Image Compression

- Can set each individual image for either lossy or lossless compression in the Library.
- Can set JPEG compression quality in the "Publish settings"

Scaling Images

- Can be good to downscale large images in Flash because people tend to resize swfs

Tracing Bitmaps

- Allow you to convert a bitmap into a vector image...
- **Color Threshold** determines the overall accuracy of the tracing...
- **Minimum Area** controls the number of adjacent pixels compared at one time...
- **Curve Fit** specifies how smooth lines are drawn...
- **Corner Threshold** affects whether sharp edges are retained or smoothed

Breaking Bitmaps Apart

- Allows certain drawing tools to affect the raster image, such as the eraser