


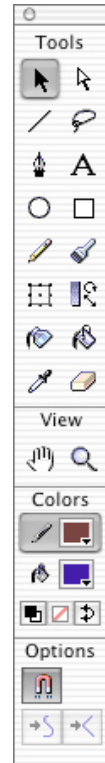


## Drawing in Flash




### Tools

- Flash combines common vector and bitmap drawing tools into one program:
  - Line & Pen
  - Polygon & Circle
  - Pencil & Paintbrush
  - Paint bucket and Eraser
- These tools draw just as you would expect them to. However, editing your work is different than in Illustrator or QuarkXpress.
- Flash includes one new tool: the Ink Bottle.
  - The Ink bottle (  ) acts as a Paint bucket for strokes and lines, adding new strokes and changing existing ones.
- Colors
  - These swatches allow you to modify lines or strokes (  ) and fill (  ) colors using the Color Boxes.
- Options
  - This context-sensitive area provides additional options for most of the tools in Flash.



### Lines, Fills and Strokes




- Flash uses a slightly different method of describing artwork than other vector programs.
- Unlike Illustrator, strokes are not automatically attached to fills, though they do interact with each other.
- Without grouping, artwork is referred to as **shapes**.

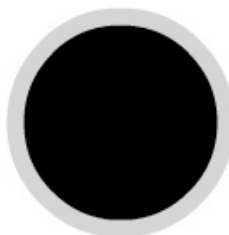
Shape	Description	Example
Lines	A shape typically created with the Pencil or Pen tool. They are separate from Fills.	
Fills	A shape typically created with the Brush or Paint bucket. They can exist with or without strokes.	
Strokes	Lines that interact with fills. Can be added (to Fills) and modified using the Ink bottle.	

- Flash Property Inspector
  - The Property Inspector allows for the editing of lines, fills and strokes.

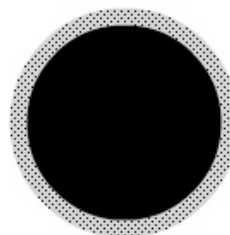


## Selection

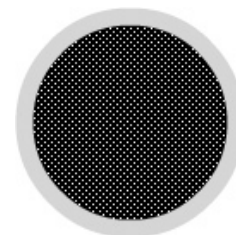
- Selection of artwork is one of the first things you'll notice that's different about Flash, and one of the most important things to learn.
- Flash uses a **shaded pattern** to indicate selections.
- Primary selection methods:
  - Using the **Arrow** tool (  ) you can select entire shapes and grouped objects at once.
  - Using the **Subselect** tool (  ), you can edit individual points in a shape.
  - Using either the **Arrow** or **Lasso** (  ) tools, you can create partial selections of a shape similar to the Marquee tool in Photoshop. In this instance Flash behaves like a bitmap editing program.
- Selection Indicators:  
Shapes selected with the Arrow tool unless noted.



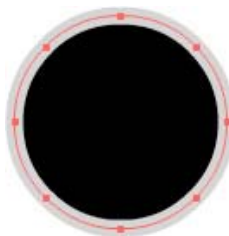

Nothing selected



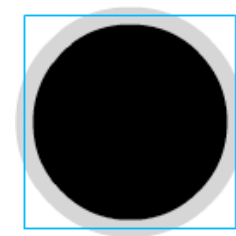
Stroke selected



Fill selected

Stroke selected with the  
Subselect tool (  )

Partial selection



Selected grouped object

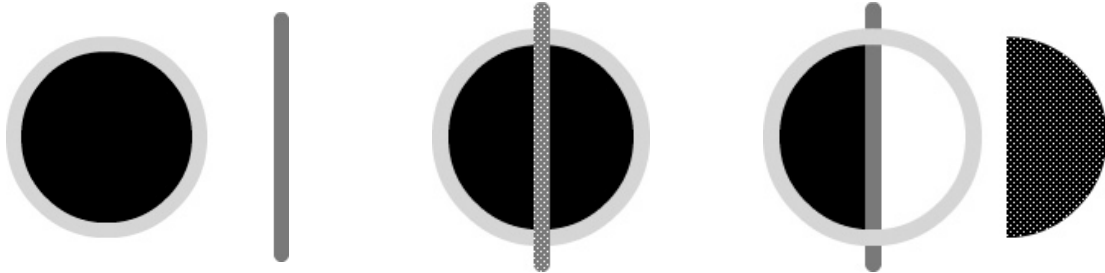
- Practice is the best way to learn selections in Flash.
- Always remember that Flash has multiple levels of **Undo** (Command-Z, Control-Z in Windows), which allows lots of room for experimentation.

## Flash Selection Oddities

- The Fill and Stroke of a shape are not attached by default and can be selected independently.
- Sharp angles, like the ones created with the rectangle tool, are not attached by default and can be selected independently.
- Objects that have been grouped will behave similarly to object groups in other vector drawing programs.

### Overlapping Objects

- Flash uses a different model for overlapping shapes than most vector drawing tools.
- Ungrouped shapes that overlap will slice where the objects intersect.



**1** Two separate Flash shapes, circle with a fill and stroke, and a line.

**2** If you select the line and drag it on top of the circle, when you release the mouse the line becomes part of the circle object.

**3** The fill and stroke of the circle and the line are now sliced into multiple parts. Here the right-side fill shape has been selected and moved to the right.

- Only when an object is **grouped** (Modify > Group) will the individual artwork components be preserved when overlapping other objects.
- However, grouped objects behave differently when it comes to animation.

### Importing Artwork into Flash

- Creating original artwork within the Flash environment can be difficult.
- Fortunately, Flash can import a number of different vector and bitmap graphic formats.
- Select supported vector formats:
  - Adobe Illustrator 8.0 or earlier (.ai and .eps)
  - Macromedia Freehand (all versions)
  - Flash Player files (.swf)
- Select supported bitmap formats:
  - GIF and animated GIF
  - JPEG
  - PNG files, including full 8-bit transparency
- Also, many programs, including Illustrator, can export into Flash's native vector format: SWF.
- To import artwork, select File > Import... (Command-R, or Control-R on Windows).
- Importing notes:
  - Not all vector artwork will import perfectly. You may need to tweak your imported artwork after bringing it into Flash.
  - When importing vector artwork, it is often best to convert your fonts to outlines to ensure they import correctly. If you need editable text, create it within the Flash environment.