

Using Illustrator

Selection Tools



Selection Tool – Used to select entire paths or groups by clicking them or dragging around them. If selected object(s) are included in a group, all the paths and objects in that group are selected as well.



Direct Selection Tool – Used to select portions of paths – single points or segments – by clicking or dragging those points or segments. Can also be used to select placed images or text.



Group Selection Tool – Grouped with the Direct Selection Tool, it selects up through layers. The first click selects the entire path clicked. The next click selects the group that the first path is in. The next click selects the group that this group is in and so on.



Lasso Tool – Selects points and segments within an area designated by drawing an enclosure around them.



Magic Wand Tool – Selects multiple objects with similar attributes – fills, strokes, transparency – within a specific tolerance range. For instance, all objects with a stroke weight of between 5 to 10 points.

Paths

Illustrator, unlike scanned images, uses lines instead of mosaic pixels. These lines are referred to as *paths*. Paths are the outlines of shapes. A square consists of four points and four lines connecting them. It may have a fill color and it may have a stroke color. Since this is the only information required to draw a square, whether it is a 1” x 1” square or a 10’ x 10’ square, its required disk space is the same. **The more points and lines that create a path, the more disk space required to save it.**

Pixel type graphics are superior for photographic images because of their ability to mix in varying shades of color for shading etc. But for illustrations, paths are far superior for their ability to zoom in or out without compromising the quality of the image.

Vectors

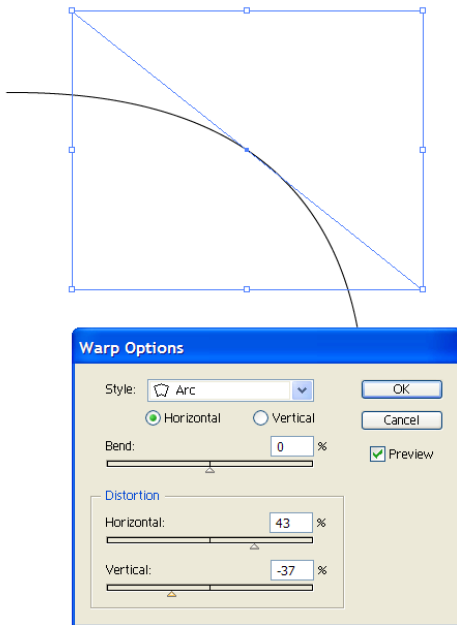
A vector is a line drawn in a specific place. Since Illustrator uses lines and points (paths) it is said to create **vector graphics**.

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Anchor Points

All paths have at least two anchor points, one to determine where it starts and one to determine where it ends.

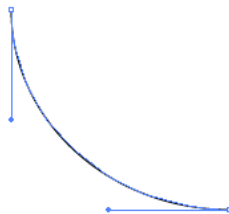
Below, is a line changed to an arc using the *Effect – Warp – Arc* options from the menu:



Prior to creating the arc, an additional anchor point was added to the middle of the arc using the *Object – Path – Add Anchor Points* option from the menu.

It can be seen how the line is bent at the anchor point added to the middle as per the settings in the arc dialog.

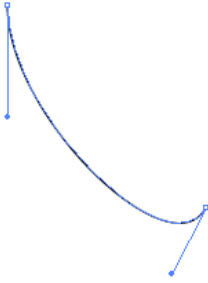
Direction Points



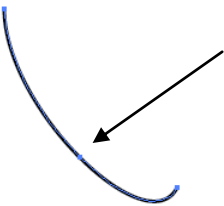
Here, is an arc drawn with the arc tool (*in the line collection tool*). Whenever a curve is created, not only are there anchor points but also *direction points*.

These direction points indicate the direction in which the line is pointing at that point. By selecting with the *Direct Selection Tool* and dragging on the direction handles, the curve can be changed as per the direction in which the handle was moved:

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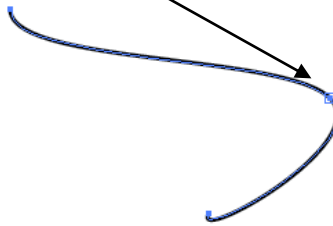
The bottom direction handle was dragged counter-clockwise to create a new curve direction at that anchor point.



By using the **Object – Path – Add Anchor Points** tool additional anchor points will be placed between each set of existing anchor points.



Selecting the **Reshape Tool** and dragging on any anchor point will also change an arc.

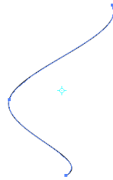
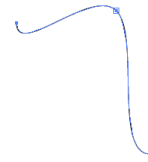


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Rotation Tool

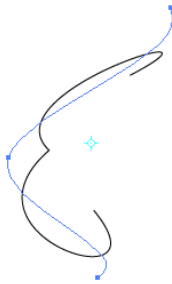


Choose the *Rotate Tool*, click on the desired object, hold the left mouse button, and drag to rotate the object.

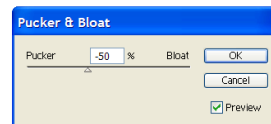
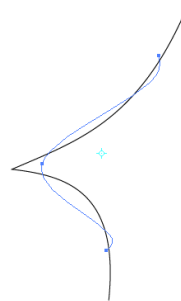
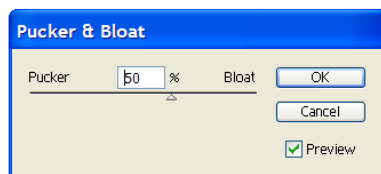


Distorting Paths

To distort a path is to realign its lines in a prescribed manner. To distort a path, use the *Effect – Distort - <Choose a distortion from the options list>* from the menu. Below is an example of using the *Effect – Distort – Pucker & Bloat* distortion:



Here, a 50% Bloat is applied to the curve. and then, a -50% Pucker is applied below. Moving the slider changes the distort from *Bloat* to *Pucker* and vice versa.

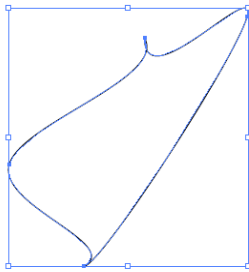


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Arranging Objects

Grouping

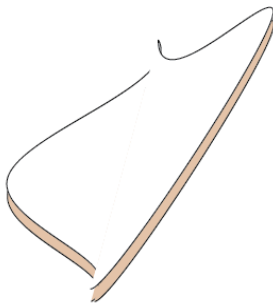
Several objects can be put together to form one object by selecting all of the individual objects and choosing the **Object – Group** options from the menu.



Here, the original curve is joined with another curve reshaped to form an object. The two curves are selected and grouped to form one single object.

Reordering Objects

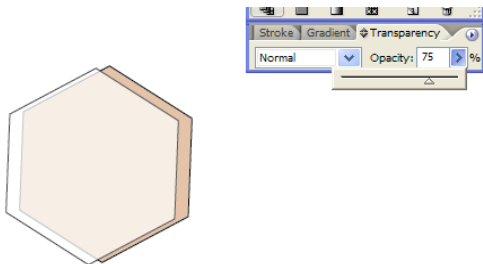
As objects are added to a document, they are stacked on top of objects already in there. Objects can be re-ordered by using the **Object – Arrange** menu options from the menu:



Here, the object to the left is created by:

1. Copying the grouped object and pasting it in the document
2. Moving the copy over top of the original offset a bit
3. Applying a fill color to the copy
4. Moving the copy to the back of the original
5. Applying a white fill color to the original (now on top)

Transparency

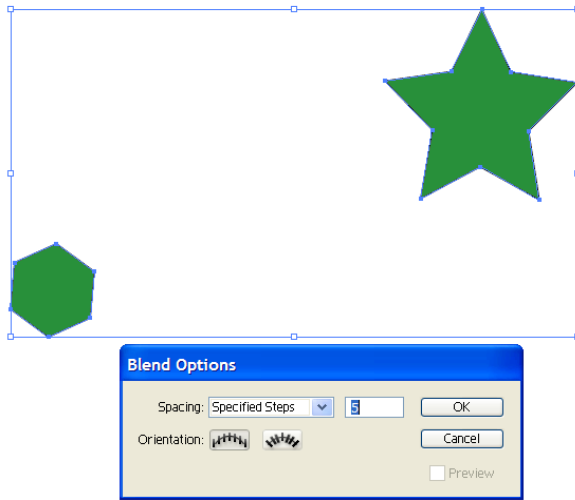


To the left is an object created from copying a polygon and adding fill colors as per above. By selecting the top object and using the **Transparency** pallet to change its opacity to 75% prior to grouping, some of the color of the polygon below shows through the top polygon.

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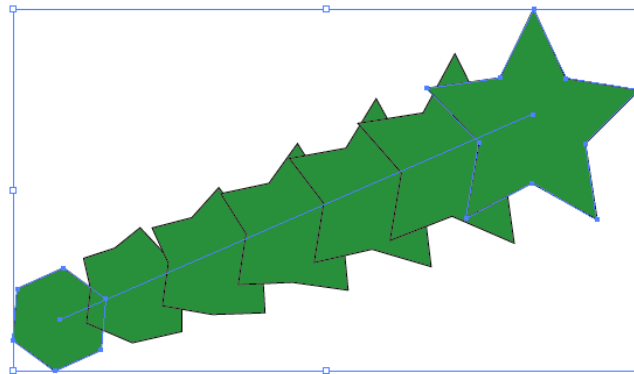
Blends

Having one shape “morph” into a different shape is called blending.



Here, a polygon and star have been placed on the document.

- Select both objects
- Choose **Object – Blend – Blend Options** from the menu
- Choose the type of orientation, and the number of steps in the blend
 - Here we choose to orient to the page and use 5 steps
- Click OK
- Choose **Object – Blend – Make** from the menu and the blend will occur:



Compound Path

Compound paths are created by placing several objects on top of each other. Then, use the **Object – Compound Path – Make** options from the menu.



Here we place a star on the document and place a circle over the top point. Then, use the options as per above. Placing smaller objects over larger objects and creating compound paths creates that transparent shape through the larger object.

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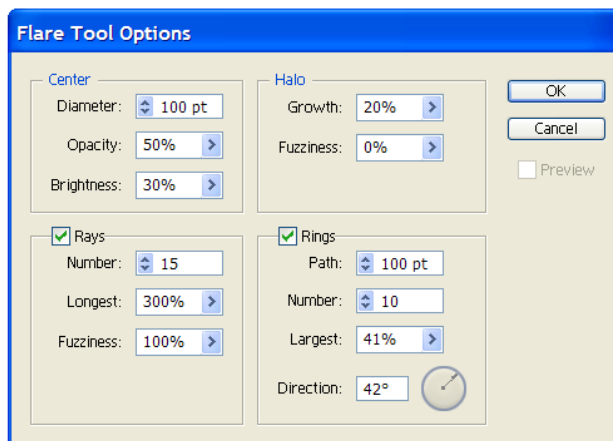
ad

Text can be customized by using the *Type – Create Outlines* options from the menu. Then, by selecting the *Warp tool* you can drag anchor points to warp the text as you desire.

Flares



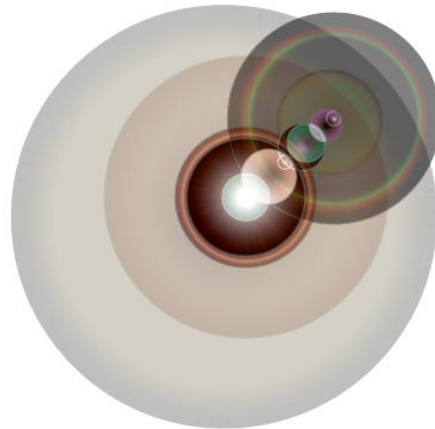
Choose the *Flare tool* from the rectangle group in the tool bar. Then, *double-click it* to open the flare option palette.



These settings:

- 100% opacity and 50% brightness
- Growth 20% and Fuzziness 0%
- Number 15, Longest 300%, and Fuzziness 100%
- Path 100 pt., Number 10, Longest 41%, and Direction 42%

Result in this object:



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Saving

Save For Web

Using the *File – Save For Web* options allow you to save the file as a JPG, GIF, PNG, SWF, or SVG formats to be inserted into a web page

Export

Use the *File – Export* options to save a file as any format not available in the *Save As* option.

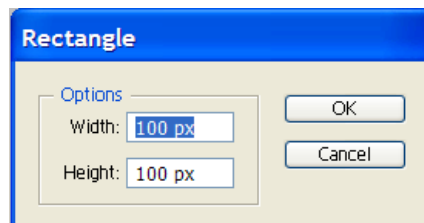
Drawing Shapes

Rectangle

- Select the rectangle tool
- Click and drag a rectangle
 - Pressing the **Shift** key snaps the rectangle into a square
- Release the mouse button

OR

Left click in the document to get the Rectangle dialog box:

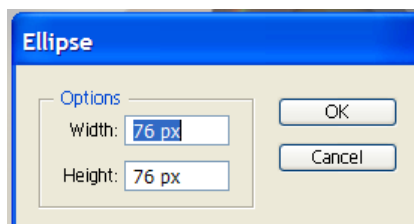


Ellipses and Circles

- Select the ellipse tool
- Click and drag an ellipse
 - Hold the **Shift** key while dragging to create a perfect circle
 - Holding the **Alt** key while clicking **prior to dragging** places the circle from its center instead of its upper-left corner

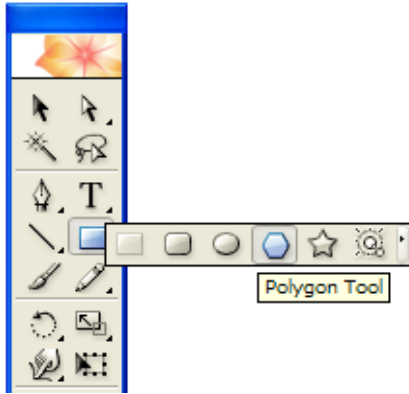
OR

Left click in the document to get the Ellipse dialog box:



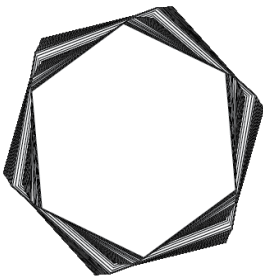
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Polygons

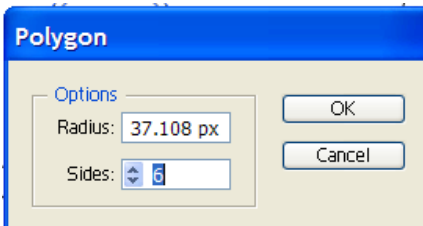


The *polygone tool* is nested with the rectangle tool in the toolbar.

Hold While Dragging	Result
Shift	Bottom edge aligned with the bottom of the document
Up/Down Arrow	Increases or decreases the number of sides
Space Bar	Changes from enlarging to moving
Tilde (~)	Creates multiple polygons while dragging



Example of multiple polygons (holding tilde) while dragging to create.



Left clicking instead of dragging results in this dialog box.

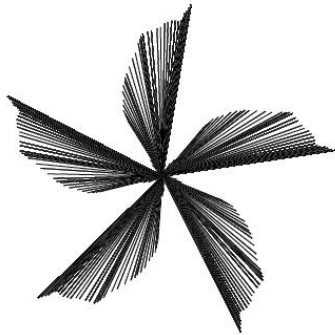
The *Radius* setting is the distance from the center to any of the sides.

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Stars

The star tool is nested along with the polygon tool.

Hold While Dragging	Result
Shift	Constrains one side of the star so two points are parallel to the bottom of the document
Up/Down Arrow	Increases or decreases the number of points
Ctrl	Constrains the inner points while the outer ones move
Space Bar	Changes from enlarging to moving
Tilde (~)	Creates multiple stars while dragging



Holding the tilde (~) while dragging the star creates a shape as appears to the left.