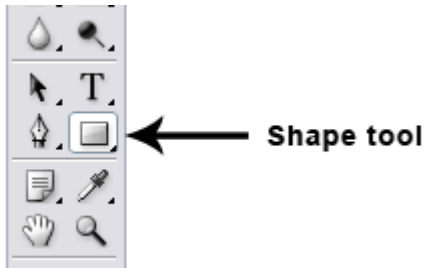


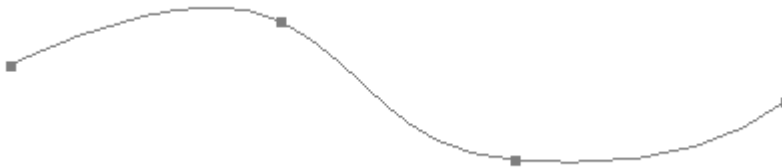
This handout is an introduction to get you started using the Shape tool.



What is a shape in Photoshop?

The Shape tool makes it possible to draw shapes such as rectangles, circles, lines and so-on. These can be filled with colour and fill effects.

There is a characteristic difference between a shape and an image such as a photograph. A shape is created by what is called a *vector* path (this is similar to how type is created).



A path

A vector path is a line that is drawn by co-ordinates. For instance a line going from A to B takes a particular route. The points of the route are mapped by co-ordinates in a similar way to using grid references on a map. When using the Shape tool, the beginning and end points of the path are joined to make a shape. The shape can then be filled with colour.

When a shape is drawn it appears in its own layer in the Layers palette. *It is possible to combine pixel based images and shapes in the same document but they cannot be mixed on the same layer.*

Shapes are useful for creating things such as logos and graphics. Because they are created by vectors it is possible to resize and transform them many times without any loss of quality (unlike pixel based images). Software such as Illustrator and Freehand are vector drawing programmes and are used extensively in commercial art for creating logos and illustrations.

Filters cannot be applied to shapes without converting them to pixels first (rasterizing).

Getting started

Create a new document, 800 X 600 pixels. Holding down the mouse on the Shape tool in the Toolbox will reveal the options for drawing different shapes. Choose the Ellipse shape.

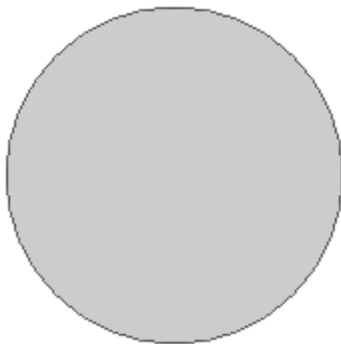
In the Options panel ensure that the *Shape layers* button is highlighted. This will create a filled shape.



Choose a colour for the shape.

Click and drag on the document and draw an ellipse. Holding down *Shift* as you draw will create a perfect circle. The shape can be repositioned with the Move tool

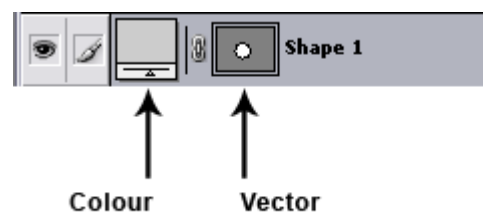
When the shape is drawn it will have an outline.



Shape showing outline (path)

This outline is the path that makes the shape. This path is there as a guide only and will not print in the final artwork.

In the Layers palette a new shape layer is created.



This layer has two thumbnails; a thumbnail for the colour and one for the vector shape. Double clicking on the colour thumbnail will open the colour picker to change the colour. Clicking on the vector thumbnail will hide the path on the shape.

Draw another shape

When drawing more than one shape it is possible for them to be created on separate layers. For this to happen make sure that the *New Shape Layer* button is highlighted in the Options panel. Shapes on different layers can be treated as separate objects with different colours and fills.

Note:

If the path of the previous shape is visible then the new shape will have the same fill as the previous shape. To specify a new colour before drawing make sure that the path of the previous shape is hidden.

Changing a shape

A shape can be adjusted from the one that was first drawn. There are two ways of doing this.

One method is to draw another shape on the same layer that combines with the first shape.

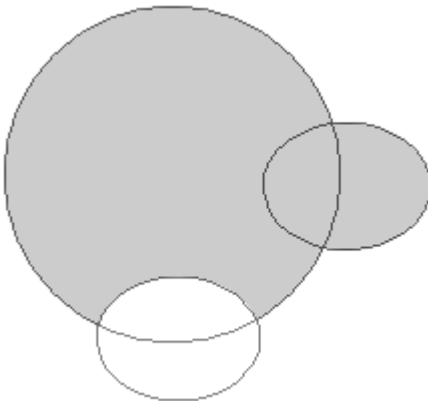
Another method is to manipulate the path of a shape so that the shape is changed in some way.

Combining shapes

Combining shapes enables you to add to, subtract from or intersect a shape.

Create a new document as before and draw a shape. Before drawing a second shape, go to the Options panel and click on the *Add to shape* button. Choose another shape if required and draw the new shape so that it overlaps the first shape. The two shapes are now combined on the same layer and they can be moved together when using the Move tool. Shapes on the same layer cannot have different fills.

Add another shape to the same layer but this time choose Subtract from shape area in the Options panel. The new shape will subtract an area from the previous shape.



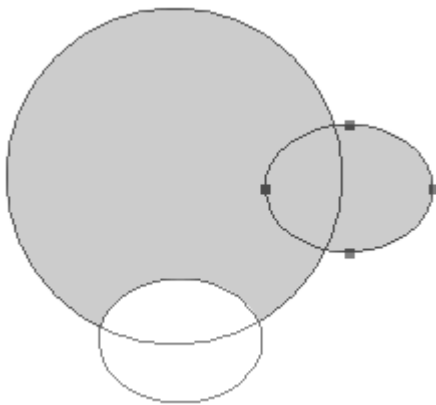
You will notice that all three shape paths are visible and have not combined to make a new single path. We can use this to our advantage because it allows us to reposition the individual paths if necessary.

Repositioning combined paths

The shape tool has its own special path selection tools.



Holding the mouse on the path selection tool will reveal the Path Selection and Direct Selection tools. Choose the Path Selection tool and click on one of the combined shapes in the document. The path will become highlighted in a way that reveals the path nodes/anchor points of that path (more about these in *Manipulating a path* below).



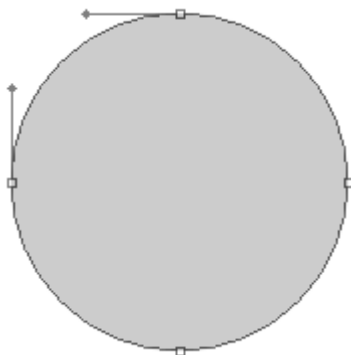
It is now possible to reposition that particular path with the Path Selection tool and thereby change the combined shape.

Manipulating a path

The path of a shape can be changed by using the Direct Selection tool.

Create a new document and draw a circle with the Shape tool.

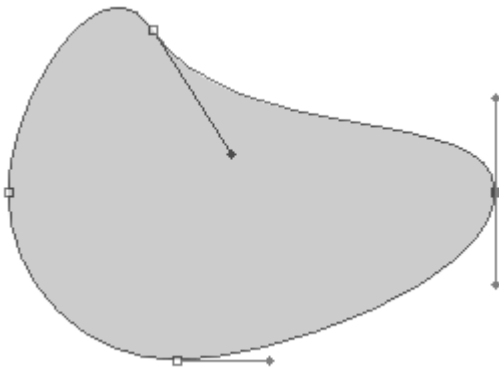
Choose the Direct Selection tool and *click on the path* of the shape. You will see that the anchor points of the shape are revealed along with two stems coming out at a tangent from the path. These are known as *Bézier* handles



The anchor points reveal that the path of the circle is made from four segments.

With the Direct Selection tool, click on an outer end of a Bézier handle and move it. This will change the curve of the shape.

Click on an anchor point on the path to highlight it and move it. This will move the path to another position.



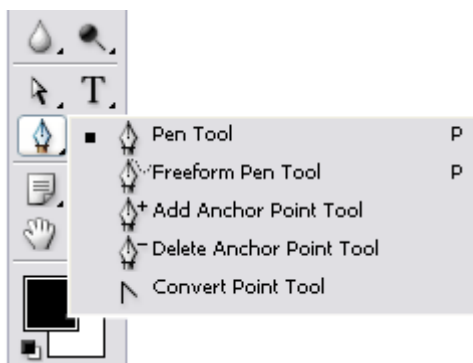
Moveable anchor points are those that are filled with grey. Empty anchor points will remain in position until selected. It is possible to use the arrow keys to fine-tune the position of highlighted anchor points. Shift click on anchor points to select more than one.

Reposition the whole shape without changing it by using the Path Selection or Move tool.

Shapes with corners

Shapes that have corners e.g. rectangles, do not have Bézier handles. Selecting the anchor points on these shapes with the Direct Selection tool only enables repositioning of the anchor point.

Corners can be changed into a curve and given Bézier handles by using the Convert Point tool.



To change a corner to a curve, click and drag on it with the Convert Point tool. This will pull out Bézier handles and adjust the path. When doing this it may be that the curve is drawn out so that the path overlaps itself. If this is not required, simply change direction when dragging the Bézier handle.

Useful links:

http://www.digitaltutors.com/digital_tutors/video.php?v=52

<http://www.myjanee.com/tuts/shapes6/shapes63.htm>