

## How to use drawing tools

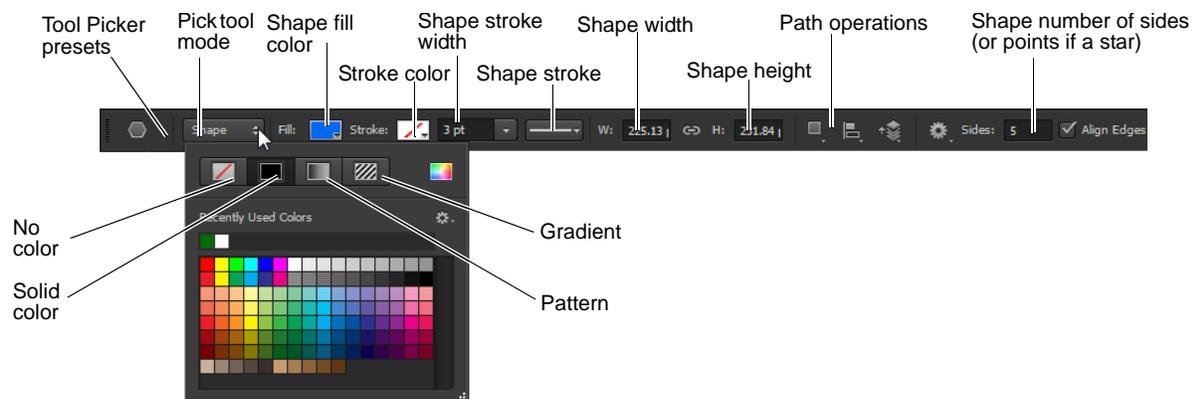
Drawing in Adobe Photoshop involves creating vector shapes and paths. In Photoshop, you can draw with any of the shape tools, the Pen tool, or the Freeform Pen tool. Before you begin drawing in Photoshop, you must choose a drawing mode from the options bar. The mode you choose to draw in determines whether you create a vector shape on its own layer, a work path on an existing layer, or a bitmap shape on an existing layer. Photoshop uses both bitmapped and vector images. *Bitmapped* images are made up of individual pixels and do not scale well; *vector* shapes are resolution-independent—they maintain crisp edges when resized, are constructed from mathematical formulas and scale very well.

### Types of shapes

This guide addresses adding shapes as shape layers, which gives you the most flexibility in determining how your shapes appear. However, adding shapes as separate layers adds to your image's file size and may eventually affect Photoshop's speed. Shape layers are added as vector *masks*—that is, they are vector shapes through which only part of the background shows.

If you're creating very simple shapes that do not need to be scaled, you can create bitmaps by using the Fill Pixels option. This option creates shapes that are *rasterized* or created from individual pixels. Because Fill Pixels shapes don't require additional layers, they can improve performance.

You set shape options in the Shape options bar (**Figure 1**).



**Figure 1** Shape options bar

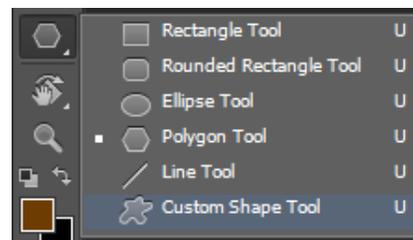
### Drawing shape layers

*Shape layers* are essentially vector masks that hide a background. They consist of two parts: a mask and a background color. Shape layers offer the most flexibility in determining a shape's appearance, position, and visibility. Because the shape masks are vector shapes, you can transform these shapes without loss of clarity.

To draw a shape in a shape layer:

1. Start Photoshop and create a new file or open an image.
2. Click one of the shape tools in the Tools panel, such as the Polygon tool.

By default, the Tools panel shows the Rectangle tool. To access other shapes, click the Rectangle tool and hold down the mouse button (**Figure 2**).



**Figure 2** Tools panel

- In the options bar, make sure Shape is selected in the Pick Tool Mode menu and New Layer is selected in the Path Operations menu (**Figure 1**).
- From the Shape Fill Color menu (**Figure 1**), select color, gradient or pattern options for the color. Set stroke color from the Stroke Color menu.

In the example (**Figure 3**), the polygon is set to Star, fill is yellow, stroke is blue, and leaving the Indent Sides By setting at its default of 50%. You can use the Polygon Options menu to select the option for the star shape and the amount by which the sides should be indented (**Figure 4**).

- Draw the shape by dragging the pointer across the canvas.

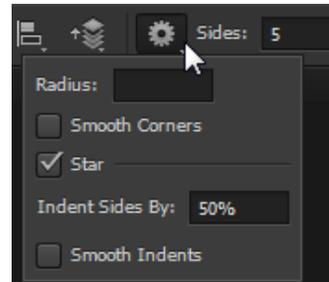
When the mouse is released, the shape and stroke fills with their selected colors (**Figure 5**).

- If the Layers panel is not already visible, choose Window > Layers.

Observe that the shape is on a separate layer with the default name of Shape 1 (**Figure 6**).



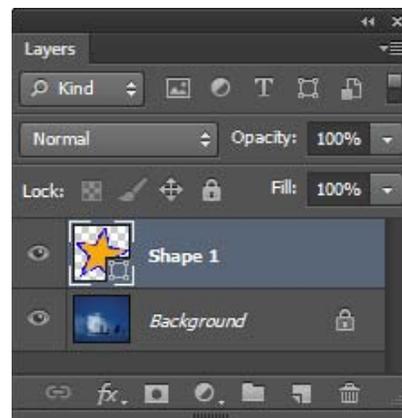
**Figure 3** Shape appearance as you draw it



**Figure 4** Polygon Options menu in the options bar



**Figure 5** Shape filled with color



**Figure 6** Shape layer in Layers panel

## Adjusting a shape's path

A *path* is the edge of a vector shape. By changing the path, you change the appearance of the vector mask and thus the appearance of the shape. One way to change the shape's path is by moving one of its anchor points. *Anchor points* appear at the shape's corners.

To adjust a shape's path:

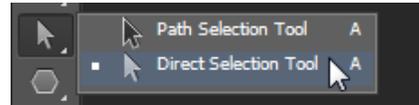
1. Click the Rounded Rectangle tool from the Tools panel (**Figure 2**).
2. In the options bar, make sure Shape is selected in the Pick Tool Mode menu and New Layer is selected in the Path Operations menu.
3. From the Shape Fill Color menu, select color, gradient or pattern options for the color. Set stroke color from the Stroke Color menu.
4. Draw the Rounded Rectangle shape by dragging the pointer across the canvas.
5. Click the Path Selection tool, hold down the mouse button, and select the Direct Selection tool (**Figure 7**).
6. Click the edge of the shape to select its path.
 

Anchor points—small hollow squares—appear at the corners of the shape.
7. Move the pointer over an anchor point.
8. Click to select the anchor point.
 

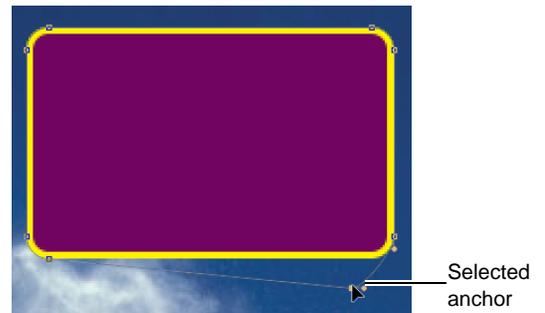
Observe that the anchor point changes from a hollow square to a solid square when you select it (**Figure 8**).
9. Drag to change the shape.
 

An dialog box alerts you that “This operation will turn a live shape into a regular path.”
10. Click Yes.
 

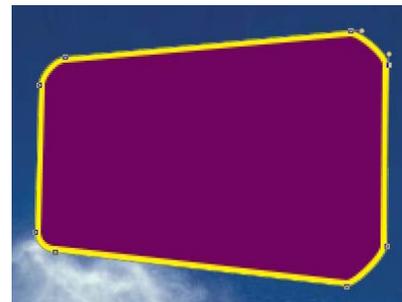
In example (**Figure 9**), the rounded rectangle shape has been considerably altered by dragging several of the anchor points to new locations.



**Figure 7** Tools panel



**Figure 8** Moving a point with the Direct Selection tool



**Figure 9** Result of moving several anchor points

## Adding to and subtracting from shape areas

You can add to or subtract from a shape layer to show more or less of the background. You set add and subtract options in the Shape options bar by using the Path Operations menu (**Figure 10**).



**Figure 10** Path Operations menu in the options bar

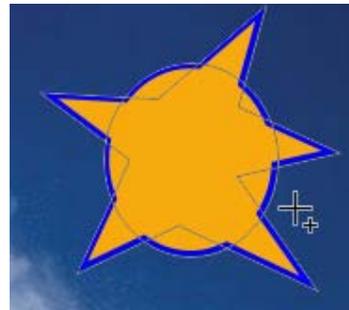
Path options for shapes include:

- *New Layer* Create a new shape layer.
- *Combine Shapes* Add to the existing shape.
- *Subtract Front Shape* Subtract from the existing front shape. You will only observe the effect of subtracting if you draw over an existing shape.
- *Intersect Shape Areas* Show only those areas where the last two shapes drawn intersect.
- *Exclude Overlapping Shapes* Show all parts of a shape except where the last two drawn shapes intersect.

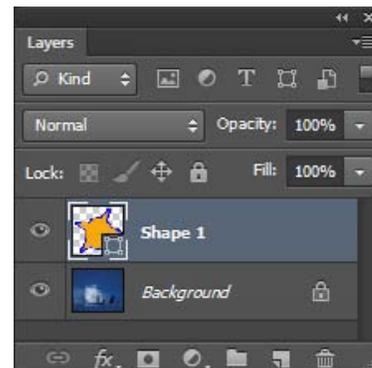
To add to a shape layer:

1. Click the shape thumbnail in the Layers panel to select the shape.
2. Select a shape tool, such as the Ellipse tool.
3. Click the Combine Shapes command from the Path Operations menu in the Shape options bar.
4. Draw a shape that adds to the image (**Figure 11**).

Observe that the new shape appears in the shape layer (**Figure 12**).



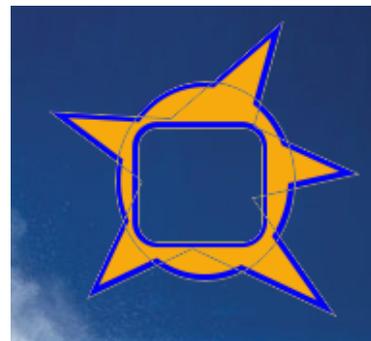
**Figure 11** Adding to a shape layer



**Figure 12** Layers panel

To subtract from a shape layer:

1. Click the mask thumbnail in the Layers panel to select the shape.
2. Select a shape tool, such as the Rounded Rectangle tool.
3. Click the Subtract Front Shape command from the Path Operations menu in the Shape options bar.
4. Draw a shape that overlaps the image (**Figure 13**).
5. Observe that the shape has been modified in the shape layer.



**Figure 13** Subtracting from a shape layer

## Controlling shape appearance with layer styles

Because shapes are on a layer, you can change their appearance by using layer styles. You can add a drop shadow to the shape, make the shape appear embossed or beveled, or more.

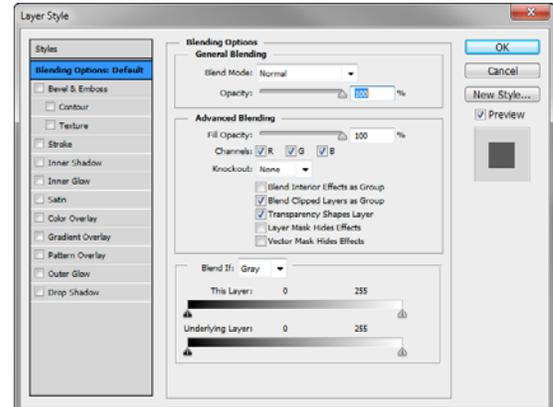
To modify a shape by using layer styles:

1. If it is not already visible, choose **Window > Layers** to open the Layers panel.
2. Double-click the shape's layer to open the Layer Style dialog box (**Figure 14**).  
A common element to add to a shape is to apply a drop shadow.
3. In the Layer Style dialog box, select the Drop Shadow option to apply a shadow. Make sure the Preview option is selected so you can observe the effects of applying the drop shadow.
4. Now, adjust the options for the shadow by clicking the phrase "Drop Shadow" itself. You can set Blend Mode, Opacity, Angle, Distance, Spread, Size, and other options for the drop shadow. Try adjusting the various options until you are happy with the effects.
5. Click **OK** to apply the drop shadow.
6. Apply one or more additional layer styles to the shape.

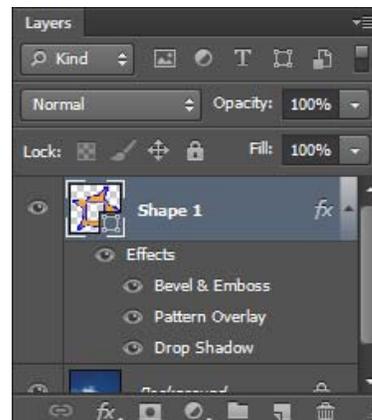
Observe the effects that appear beneath the shape in the Layers panel (**Figure 15**).

The example (**Figure 16**) shows the shape with an Outer Bevel and Texture style, to give the shape a slightly raised bumpy appearance, the Drop Shadow style, to make the shape appear slightly above the page, and a Pattern Overlay set to 30%.

**Note:** You can apply layer styles to rasterized shapes as well. However, the advantage of creating shapes on shape layers is that you can resize them without loss of resolution.



**Figure 14** Layer Style dialog box



**Figure 15** Effects applied to a shape layer



**Figure 16** Bevel with Texture, Drop Shadow, and Pattern Overlay applied