

PaintShop Pro Tutorials

by Maureen Eves-Lavis

TITLE: BASIC VECTOR SHAPE TOOLS

PaintShop Pro X7

Website: Creative-Designs

Materials: None Required

DESCRIPTION:

This tutorial will help you better understand basic vectors that can be edited without converting to a path.



REMEMBER TO SAVE YOUR WORK OFTEN

WHAT ARE VECTORS?

Vector graphics are made of lines and curves and defined by mathematical objects called vectors. Vectors maintain their crisp edges and do not lose detail when resized as they are resolution independent. Vectors consist of Nodes, Contours, Line Segments, Control Arms and Node Types. Vectors are always created on their own layers. You cannot draw a vector on a raster layer, if you try, PaintShop Pro will automatically create a vector layer.

BASIC VECTORS

The tools for drawing basic shapes such as the ellipse, rectangle or symmetric shape are located in the toolbar. These shapes can be edited without converting to a path. The rectangle can be drawn as a square and the ellipse can be drawn as a circle. Symmetric tool is a stellated shape with an optional polygon shape on the tools options palette. There are numerous settings for each of the shapes on the tools options palette.

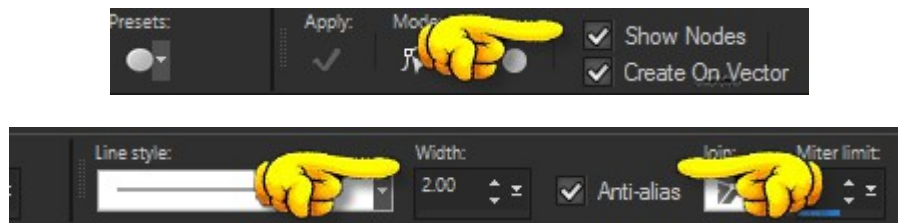
RECTANGLE

Open a canvas about 500x500.

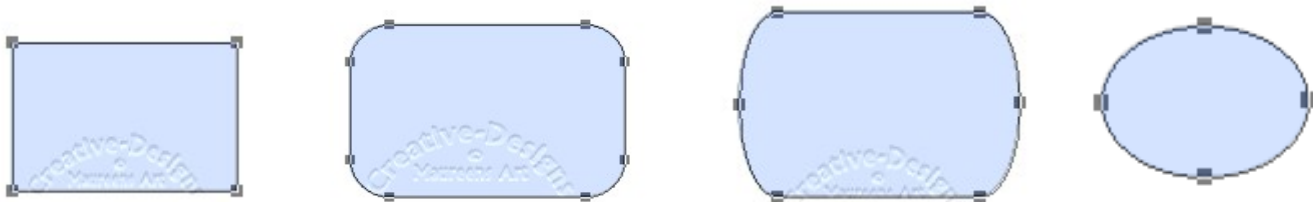
Let's begin with the rectangle tool. From the tool options palette select draw rectangle. Choose a background fill colour of your choice with a black foreground stroke.

From now on I will refer to colours only as foreground and background.

Check that the settings shown below are ticked. Also add a width of 2. Draw the rectangle.



The rectangle can be edited without converting to a path. With the left mouse click and hold the top left node, pull to the right. All nodes move together changing the rectangle's sharp corners to round. Pulling the same top left node down will turn the rectangle into an oval.



TIP: IF YOU ARE UNABLE TO SEE NODES CLEARLY WITH A COLOUR INSERT, GO TO THE LAYERS PALETTE, OPEN THE VECTOR LAYER TO SHOW THE SUB- LAYER, CLOSE THE EYE – THIS IS THE VISIBILITY TOGGLE. WHEN THE EYE IS CLOSED THE VECTOR NODES AND CONTOUR LINES ARE MORE VISIBLE.

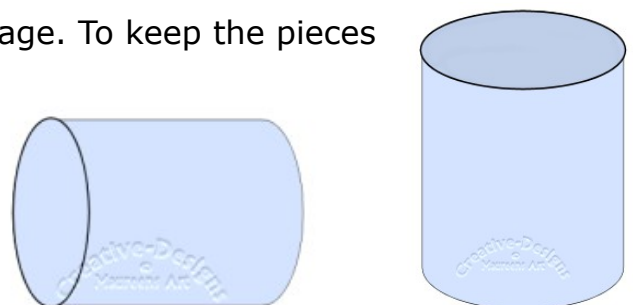
Move the nodes so the shape looks like the one on the right.

Select the ellipse tool, draw ellipse from the tools options palette. Draw an oval and place it on the left end. Great for drawing a canister.



Delete the white raster layer. Crop closer to the image. To keep the pieces intact, save as a pspimage for future use.

Close this canvas.

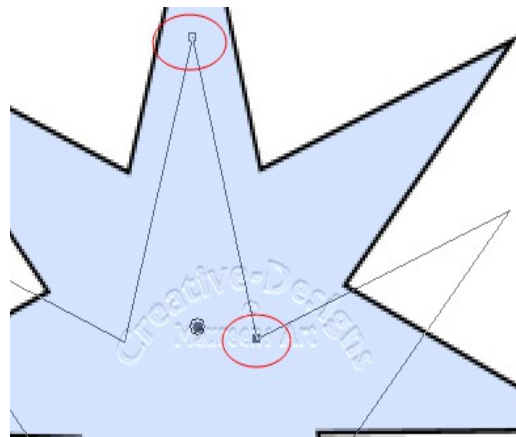


STELLATED

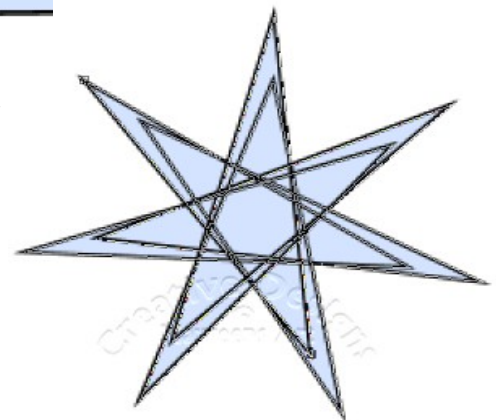
Open a new image 500x500 white raster.

Select the symmetry shape from the toolbar.

Choose draw stellated from the tools options palette. Show nodes ticked, number of 5, Leave other setting as is for now. Draw out the 7 sided star shape. The shape only has two nodes! The centre node is to grab and move the whole shape.



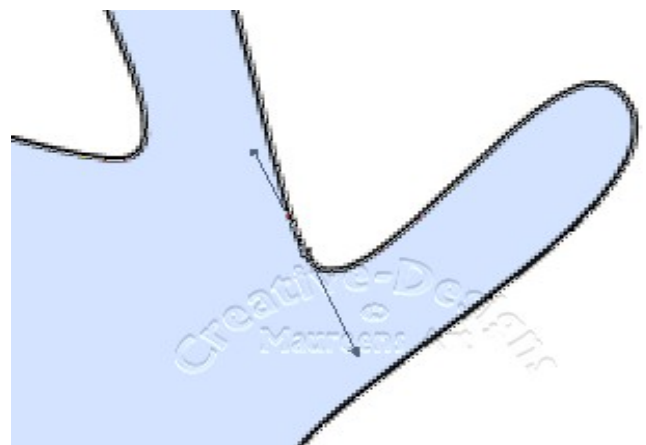
With the left mouse button, pull the node inwards. In fact, keep hold of it and move it around to see the many different shapes it takes on. You are able to perform quite complex shapes from a symmetry shape and two nodes without converting to a path.



The rest of the settings on the tools options palette will let you draw the shape with round, smooth edges.

Clear the canvas of the current image by going to edit, clear.

On the tools options palette, choose 6 sides, and tick both round inner and outer. The inner node has control arms protruding from the node.

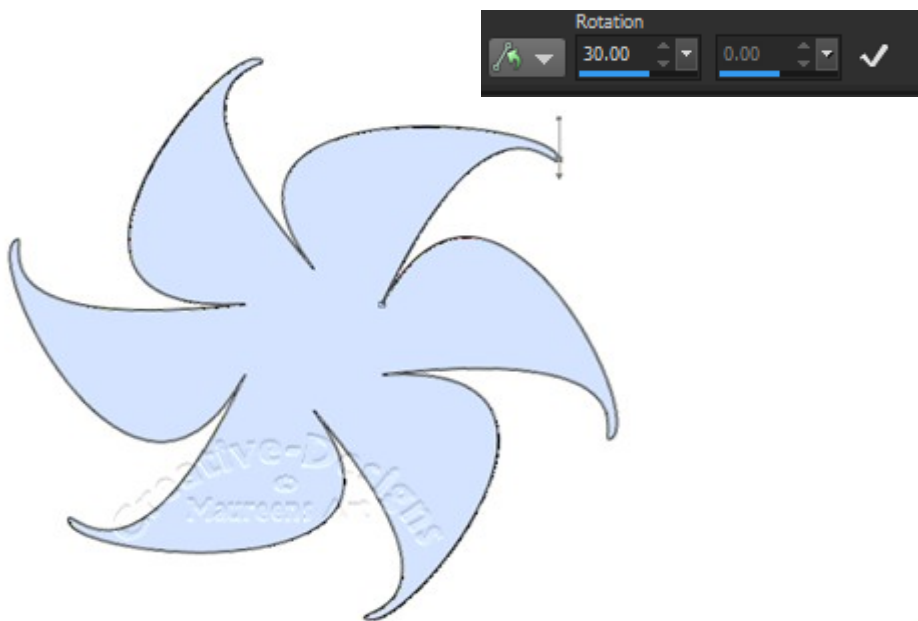
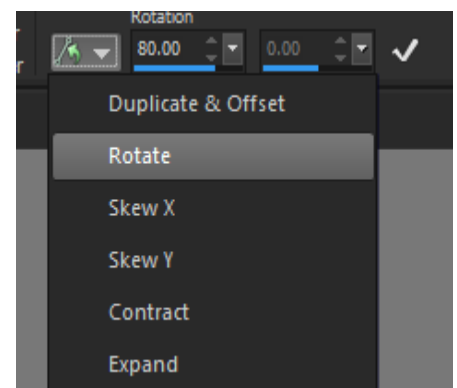
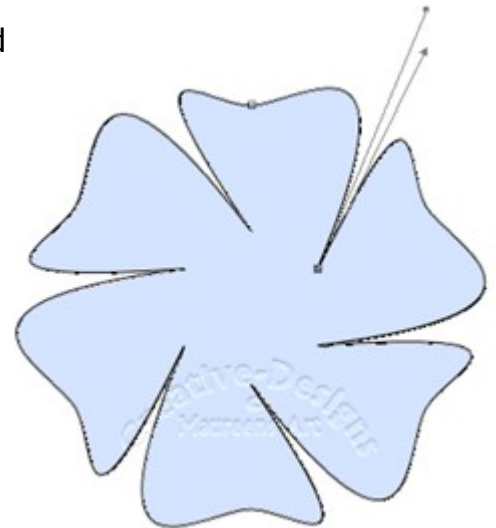


Pull both control arms upward as shown on the right. The shape is now similar to a flower. You move the nodes and control arms to form your shape.

Experimenting is fun!

With the shape tool is selected, you can change any of the settings on the tool options palette and the shape will change accordingly.

On the tool options palette is a small down-arrow. Click on it to open a transformation type menu. You decide which transform you want to use, i.e.: rotate. Set a value of 30 in rotation the click the tick button.



We have a windmill that's ready for you to change colour with a gradient or pattern, add centre pieces and a stick. There is no need to use a fill tool, just keep the vector selected with the symmetry tool and select foreground and background colour, gradient or pattern.

Save the basic shape as a PspImage.

Close this canvas.

ELLIPSE

Open a new white, raster image, 500x500 pixels.

This time select the ellipse tool. There's not much editing that can be done with the ellipse, but let's have a go.

Select a pale blue background with white foreground. Width 2.00.

Check on the tools options palette that ellipse is selected and not circle. The show nodes and create on a vector should still be ticked.

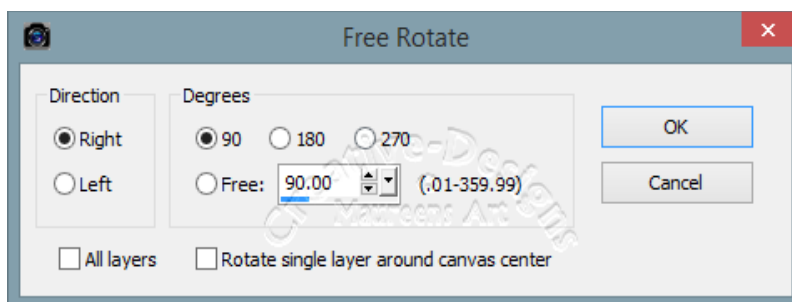


Draw a long, narrow ellipse. Make each end a sharp point as shown on the right. Name this layer vertical.

Menu, Objects, align, centre in canvas.

Go to the layers palette, **select vertical layer**, right click duplicate.

Name this layer horizontal. Go to image on the menu bar, Free Rotate. Direction – right, Degrees 90. **Untick** all layers then click ok.



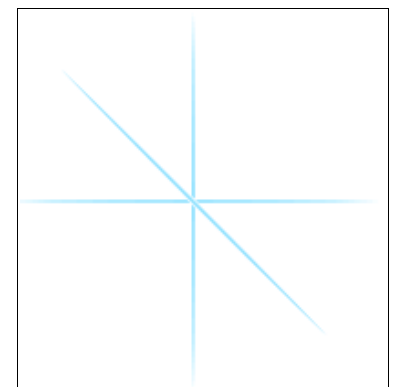
Select Horizontal layer, right click, duplicate. Name this layer 45.

Go to Free Rotate, add 45.00 in the window. Click OK.

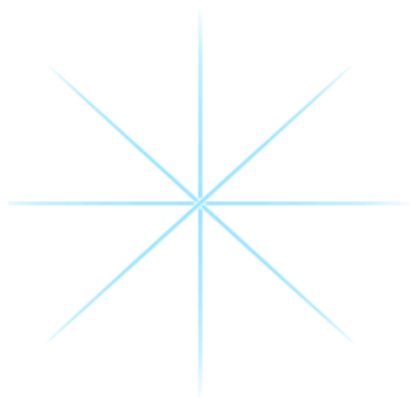
Highlight 45, right click, duplicate. Name this layer 90.

Go to Free Rotate, add 90 in the window. Click OK.

Now you have a star.



Hide the white raster 1 by using the visibility toggle. Right click on any of the star layers, merge, merge visible. The ellipse shape is no longer a vector. Merging has changed it to a raster.



The only shape left in this category is the polygon. Why not try reshaping using the settings on the tools options palette. The shape consists of one node. See what you can make from the polygon. Have fun!

This concludes the Basic Vectors Tutorial.

Further tutorials on vectors are:

Editing Vectors

Bezier Tool

Preset Shapes and Editing

Composite Preset Shapes Image

These can be found on my website at [Creative-Designs PaintShop Pro Tutorials](http://Creative-Designs.com)

