

Creating and Using Custom Brush Shapes

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Introduction

Picture Window's Clone, Detail, Levels and Color, Paint and Smudge tools work with brushes. While several brush shapes (Round, Square and Diamond) are built in, you can also define your own custom brush shapes. This document describes the process of creating and using these custom brushes.

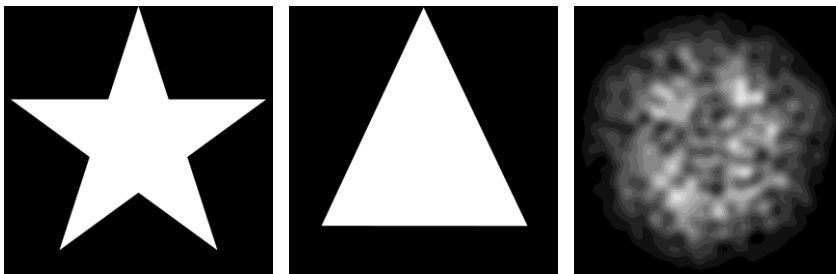
Creating a Custom Brush

Custom Brush Shape Images

A custom brush is derived from a 2000 x 2000 pixel 8-bit black and white image. Where the image is black, the brush has no effect. Where the image is white, the brush is applied full strength. Where the image is gray, you get a partial effect. Brush shape images are modified according to the current brush settings: radius, softness, transparency, brush width and brush angle to produce a mask through which the transformation is applied when you click and drag on the output image.

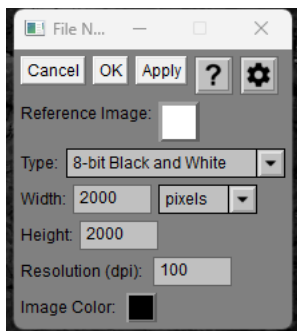
To avoid clipping the brush shape when it is rotated, the brush shape image must be black everywhere outside the largest circle that fits in the 2000 x 2000 image.

Here are some examples of custom brush shapes:



Creating Custom Brush Shape Images

There are many ways to create custom brush shape images. Most methods start by creating a black image of the required size and type using File/New:

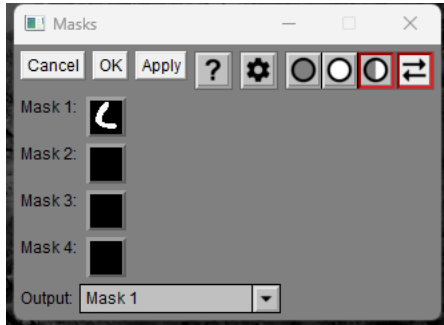


Creating Shapes by Direct Painting

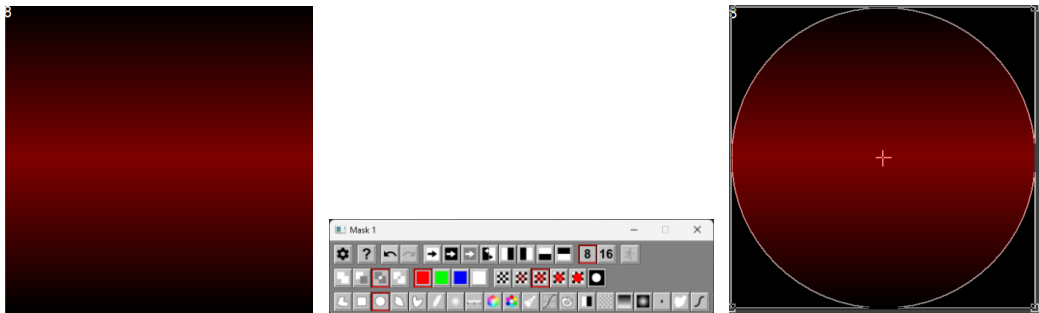
You can draw an arbitrary freehand shape on the black image using the Paint tool and a white brush.

Shapes From Masks

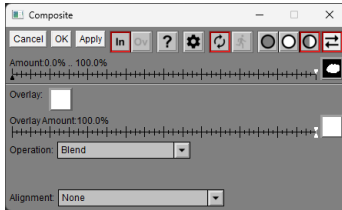
There are several ways to create a brush shape image using masks. The easiest way is to apply the Masks transformation to the 2000 x 2000 black image:



First set Output to Mask 1 and then click on the box next to Mask 1. This brings up a Mask dialog box you can use, for example, to create freehand regions, polygons, spline curves and so on. You can also blur or feather the resulting mask or create linear or oval gradients. Remember however to leave the corners of the mask black or the brush shape may be clipped when you rotate the brush. One way to ensure that the area outside of the largest circle that fits in the mask is black is to set the mask mode to Overlap and then use the Oval mask tool to draw a circle that just fits inside the mask. This will remove any part of the mask that falls outside the circle. For example, here is an example of using this method to remove part of a linear gradient mask.



Another way to achieve the same result is to use the Composite transformation instead of the Masks transformation. By leaving Overlay set to a solid white color, bringing up the Amount mask will let you color the output image white wherever the mask you create is white.



Shapes From other Transformations

You can create a random brush image using, for example, the Texture or the Add Noise transformations. Or you can just crop a piece of some other image and resize it and convert it to 8-bit black and white. Just make sure to apply an Oval gradient to the result to black out the corners.

Saving Brush Shape Images

Having created a custom brush shape, you can save it in a folder for later re-use.

Using a Custom Brush

While a number of different transformations can use custom brush shapes, they all work more or less the same way, so I will use the Paint transformation to illustrate their use as it is the simplest.

Using a custom brush has two steps – selecting the custom brush shape and painting with the selected brush.

Selecting a Custom Brush

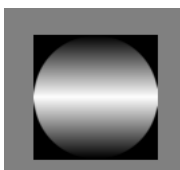
To select a custom brush, first set the Brush Shape to Custom.



Having done this, an image picker control is displayed next to the Brush Shape tool bar. Click on this square to select from the available brush shape images that are already open or to load a previously save brush shape image. A miniature version of the brush shape will then replace the white square.



The custom brush shape is also shown in the brush display, scaled according to the current Radius setting and further modified by the Brush Angle, Transparency, Softness, and Width:



Using a Custom Brush

Having selected the brush you want to use, you are now ready to apply it by clicking and dragging on the output image.

Custom brush shapes can be rotated, compressed horizontally, softened, or made transparent using the same controls as for the built-in brush shapes.

If you select an asymmetrical brush shape, you can reflect it horizontally or vertically using the buttons displayed just to the right of the Brush Angle setting.



As you move the cursor over the output image, an outline of the custom brush shape is displayed to indicate what areas it will affect. Actually, three outlines are displayed corresponding to a brush softness of 25%, 50% and 75%. For example:

