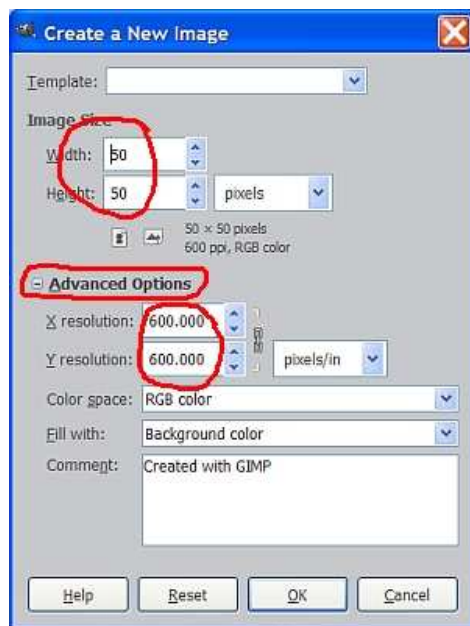


Making Seamless Shape Patterns

In just a few simple steps you can make your own seamless patterns using just about any shape you choose. I will show you how to do this in 10 easy steps.

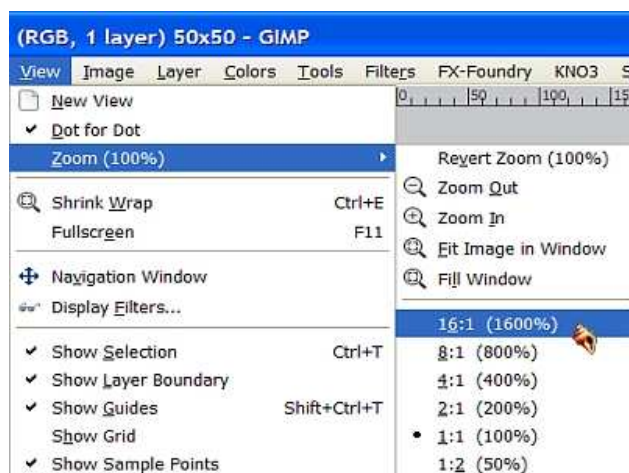
Step 1

With Gimp open, go to File>New and open a new image. Set the size to 50 x 50 and then click on the Advanced tab to set the resolution to 600 ppi.



Step 2.

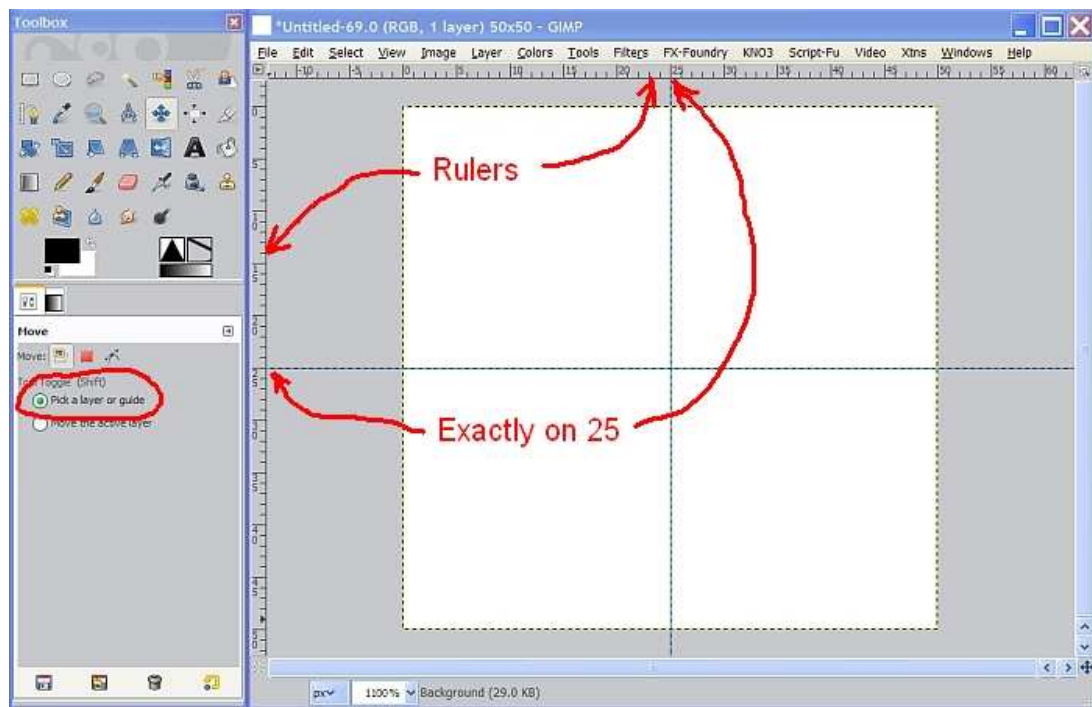
This is a very small image so we are going to have to adjust our view so we can see what we are doing. Go to View>Zoom and select 1600%, then do this again and this time select Zoom Out. This will make your image 1100% and easier to manage.



Now, that's better. Let's make some guides to help us make things more precise.

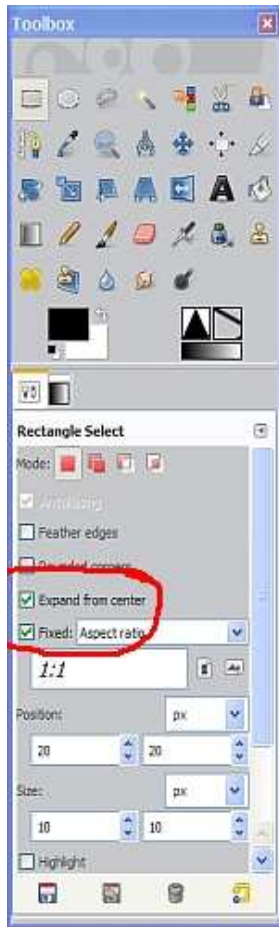
Step 3

To make guides, we need to go over to the left side of our image window and place the mouse cursor on the part with the ruler. Hold down the left mouse button and “drag” to the right as you watch the ruler at the top. You will see a vertical dotted line moving with your cursor, that's your guide. Keep moving the guide until it is exactly at 25 on the top ruler. This will place a vertical guide in the exact center of your image. Do the same at the top ruler, dragging a second horizontal guide down until it is exactly at 25 on the left ruler. Your two guides should now intersect exactly in the center of your image. If you messed something up, don't worry, you can always select the Move tool and in the tool dialog, tick the little circle where it says “Pick a layer or guide” and then use your mouse to select, drag and adjust the position of the guide.

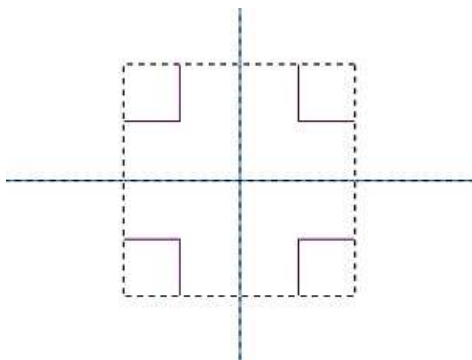


Step 3.

I'm, going to use a really simple shape to illustrate how this is done. Now that we have our guides to tell us where the center of our image is, select the Rectangle Select tool and in the tool dialog, check the two boxes that say “Expand from center” and “Fixed”. The Fixed drop down menu should already be at the default “Aspect ratio”. Change your view setting to 1600% to make the next part easier.

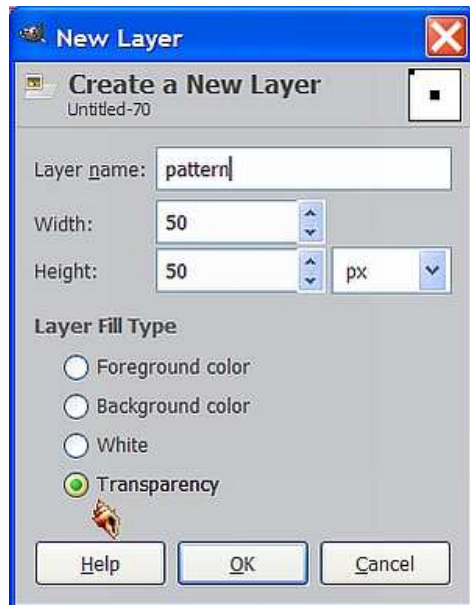


Place your mouse cursor exactly in the center of your image where the two guides intersect. If you look at the image above in the bottom portion of the Rectangle Select tool dialog, you will see two boxes underneath the word Size. You need to watch these boxes closely as you hold down the left mouse button and drag about 45° diagonally until the size in the boxes says 10 pixels, then let go of the mouse button. You'll see a bunch of "marching ants" moving along the outside edge of your selection and four smaller squares at the corners. If you don't get it right on the first try, you can go back and manually type in the number to correct it, and make your selection exactly 10 pixels.



Step 4.

Ok, we have a 10 x10 pixel selection active and we need to make our first shape. Go to Layer>New Layer and in the dialog that pops up, tick the little circle in front of Transparency and at the very top type in “pattern” then click OK.



You will see a new layer appear in the layers dialog named “pattern”. Make sure your Foreground color is set to Black (000000), then select the Bucket Fill tool. In the tool dialog, tick the little circle in front of “FG color fill” if it is not already selected. Place your mouse cursor in the middle of your selection and click one time to fill it with your Foreground color. Now we have the first part of our pattern.

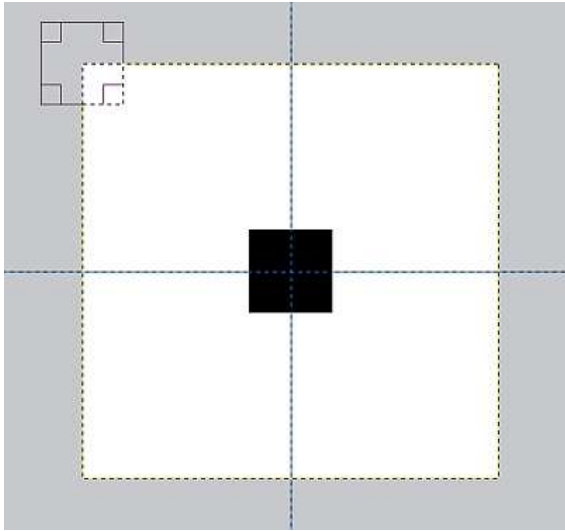
Step 5.

If you look closely you will see that your selection is still active because you can still see the “marching ants around your selection. We need to change our view setting back to 1100% again so we can see the corners of our image. We’re going to reposition the selection for the next part of our pattern. To move the selection, reselect the Rectangle Select tool, and click in the middle of the selection one time to select it. You should see the four little boxes appear again in the corners of the selection. Now we can move it. With the mouse cursor in about the middle of the selection, hold down the mouse button and drag the selection into position to where the little cross in the center of the selection (indicated the exact center of the selection) lines up exactly with the corner of our image.

Note: Patterns that are truly “seamless” means they repeat with no discernable lines, edges, or mirroring distortions making the fill area appear to be one pattern instead of several repeated patterns. To accomplish this we need to remember there will be this same pattern on all four sides of this one. since our middle square is 10 pixels square, the corners will have to be $\frac{1}{4}$ this size or 2.5 x 2.5 pixels for this particular image.

In addition, we cannot enter a size in decimal increments for pixels, so we will use the crosshair in the center of the selection as a guide to place it exactly where we need it to be.

Your selection should look something like this with one fourth of the selection covering our image. If it is not exactly right, your pattern will not be symmetrical.

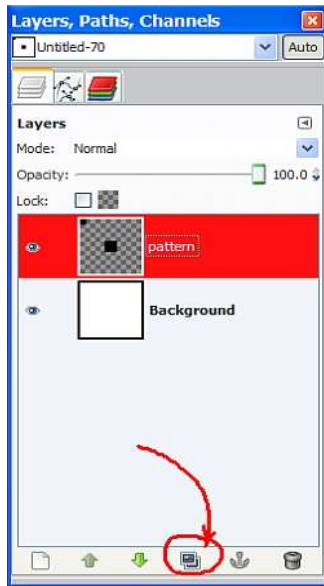


The screenshot does not pick up the little crosshair in the center of the selection but you will be able to see it as you move the selection. Select the Bucket Fill tool again (the FG color should still be set to Black) and click on the little square in the corner where the selection overlaps the image to fill it with Black.

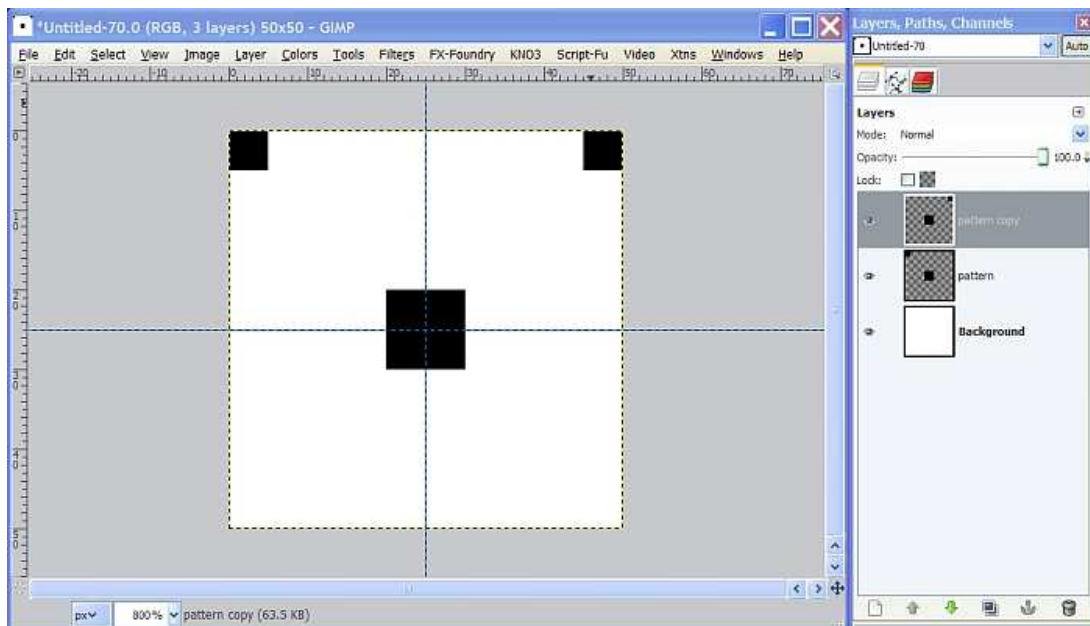
When we filled the selection, it filled all of the selection including the part that is not visible outside of our image. We need to resize the layer to get rid of the excess outside of our image. Even though you can't see it, it is still there and might interfere with our final results, so go to **Select>Select None**, then **Layer>Layer to Image Size**.

Step 6

We don't need the guides anymore so go to **Image>Guides** and select **Remove all guides**. Let's also change our view setting to 800% for the next few steps. To get the little square in all four corners we can save a lot of time by just duplicating and flipping the layer. Go to the bottom of your layers dialog and click on this button to duplicate the layer.



Now go to Layer>Transform and select Flip Horizontally. You will see the “pattern copy” layer appear in the layers dialog and you will see the little black square in the opposite corner.



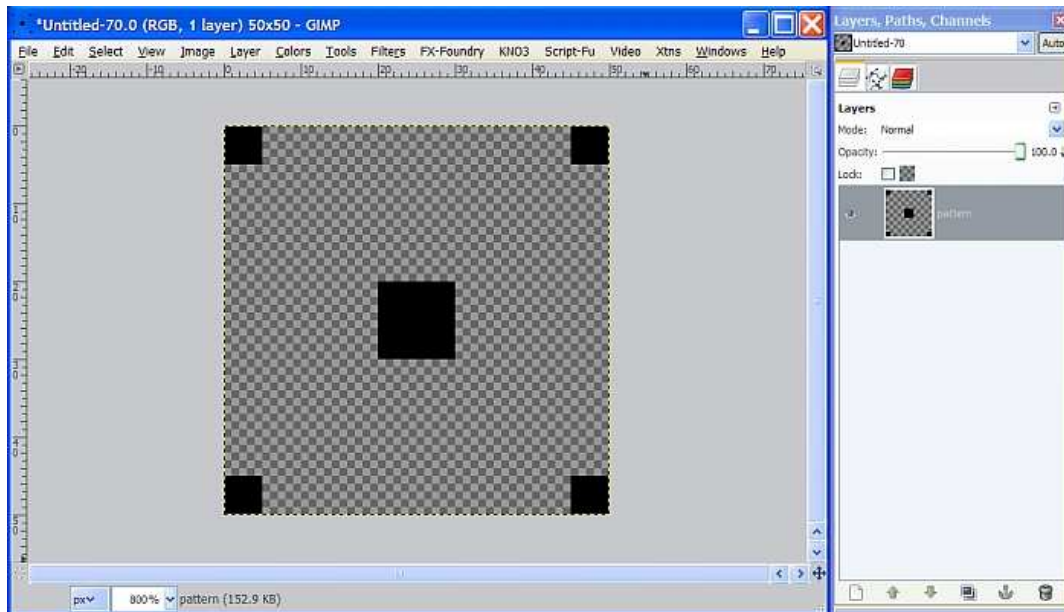
Go to Layer>Merge Down, to merge these two layers.

Step 7.

Now duplicate the layer again and this time go to Layer>Transform and select “Flip Vertically”. Go to Layer>Merge Down again and your pattern is complete! Just a couple of things left to do.

Step 8.

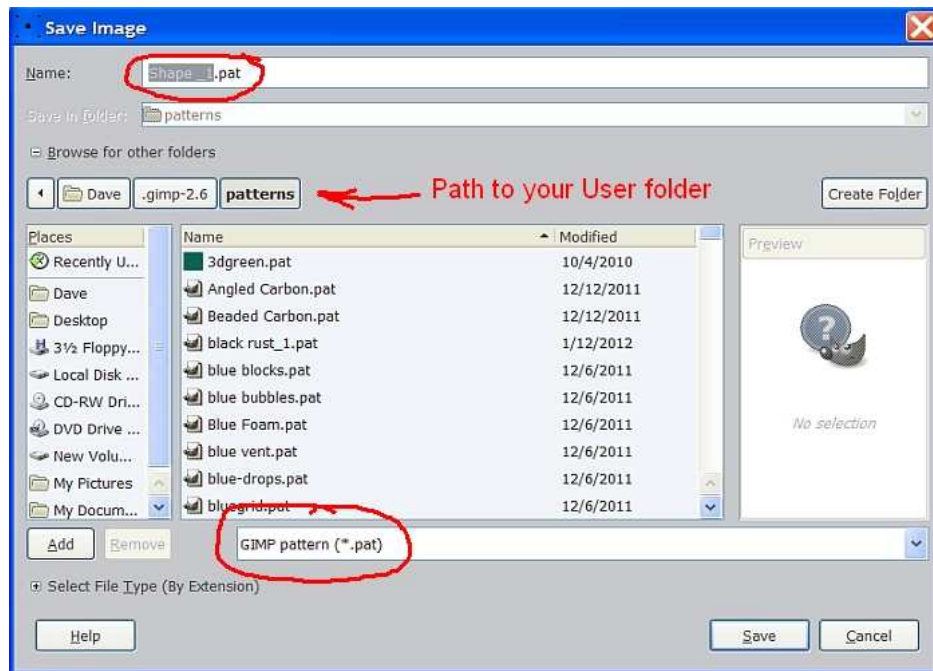
Right click on the white background layer and select Delete Layer. You should now have a single layer in the layers dialog. We are now ready to save our new pattern.



Step 9.

This will be a Gimp pattern that you can use with your Bucket tool once we're done, so Go to File>Save As and when the Save dialog will pops up, enter the name of your pattern with .pat after it, for example "Shape_1.pat". Go to the bottom of the Save dialog and in the drop down menu, select Gimp pattern (*.pat).

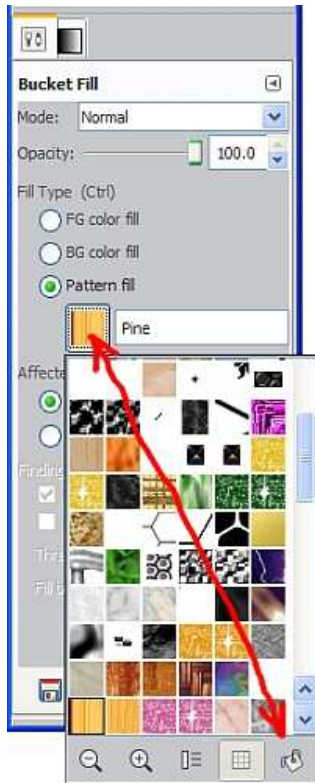
To be able to use this pattern it will need to be placed in your Gimp "user" patterns folder. I'm using Windows XP and Gimp 2.6.11 so the screenshot below shows what to do for my Operating System and my version of Gimp. This will vary depending on your OS and Gimp version. Navigate to your Gimp user folder and click OK to save your pattern.



Step 10

Now that our new pattern is saved, the next time you open Gimp your pattern will appear in the patterns window that pops up when you click on the sample pattern in the Bucket Fill tool dialog. However, if you want to use it right now you will have to “refresh” your patterns.

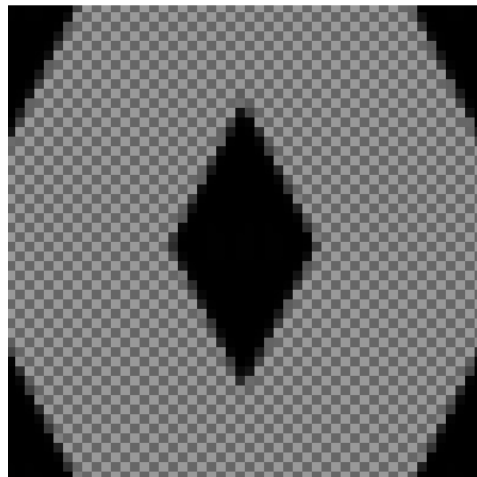
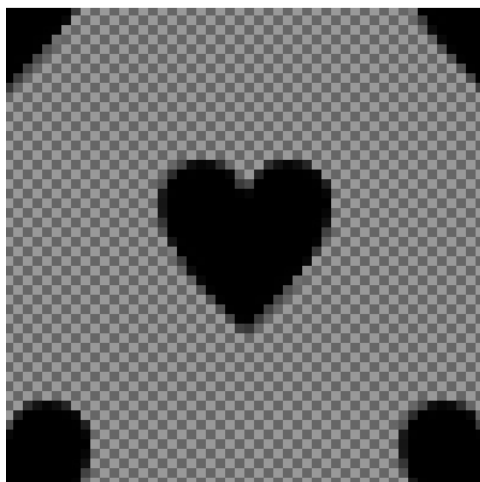
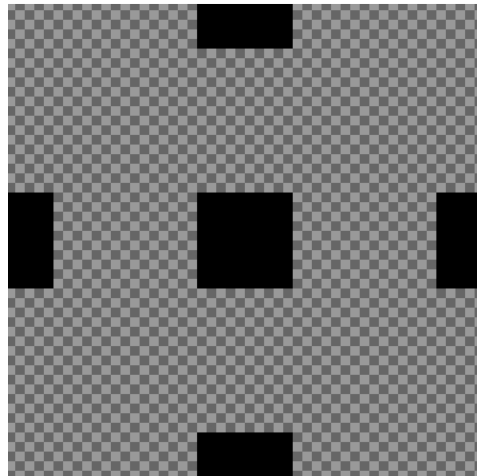
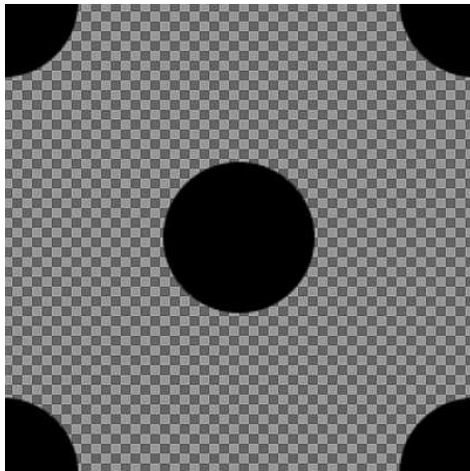
Click on the Bucket Fill tool and tick the little circle that says “Pattern fill”. When you click on the small pattern sample another window will pop up with several patterns. Go all the way to the bottom and find the little bucket icon and click on it.



When a new patterns window pops up, go all the way to the bottom again and click on the two little arrows to refresh your patterns and make your new pattern available.



Your new pattern is available to use right now without having to close and re-open Gimp. You can create similar patterns with the Ellipse Select tool to make circles or you can arrange them in a squared pattern instead of offset similar to the examples below.



You can also change the spacing between the shapes and decrease the overall size to make your pattern appear more “dense”.

I hope you found this tutorial helpful. Now go try out your new patterns.