

Scripted Fill UI

By Chuck Uebele

Warning:

I am not trying to make money off of this script, nor am I asking for money. While I'm doing this because I enjoy it, this script is not to be altered for resale or commercial profit. This script is a work in progress. There are bugs in it. Depending upon your settings, it may hang up Photoshop. There is not a lot of error checking in the script, so it may not work under certain conditions, like in another color space than RGB. I don't know how it will work on non-English computers. I'll try and fix the bugs as I find them and post updates to this script, but I do have other things to do with my time. It's free, you get what you pay for, use at your own risk.

Intro:

Photoshop CS6's new scripted fill is a very powerful tool. Users can now modify fills with javascript and create endless variations of fills. However, to do this, the user must edit the supplied fill scripts to change the variables or create their own custom scripts. However most users will not want to do this. The new scripts, while written in javascript, do not allow some of the features found in Photoshop's ExtendScript, such as the ability to create a user interface. I've come up with a work-around for this until Adobe refines this feature in future versions of Photoshop.

My script creates a user interface (UI), which allows users to change the variables in the fill scripts and alter their behavior. This is done by my script rewriting the fill scripts with the new variables. It creates a script called TempFillScript.jsx which is then used to actually create the fill. This readme file will explain how to use my script.

Installation:

To install the script place it in Photoshop's subfolder: Presets\Scripts. This will allow you to run the script by going to the main menu and selecting: file>scripts>Scripted Fill UI. Do not put it in the Deco folder and try and run it through the fill dialog box - it will not work that way. For some features of this script you may need to have read/write privileges to Photoshop's Scripts folder.

Running the script:

As mentioned above, to run the script, select it by going to File>Scripts>Scripted Fill UI. You must have an image open. You must be on a normal visible layer. It is not recommended to use the fill scripts on a background layer. It does weird things in areas that don't have a fill pattern rendered.

Selecting a script:

The different types of scripts can be selected through the drop down list in the upper left corner of the UI.

Presets:

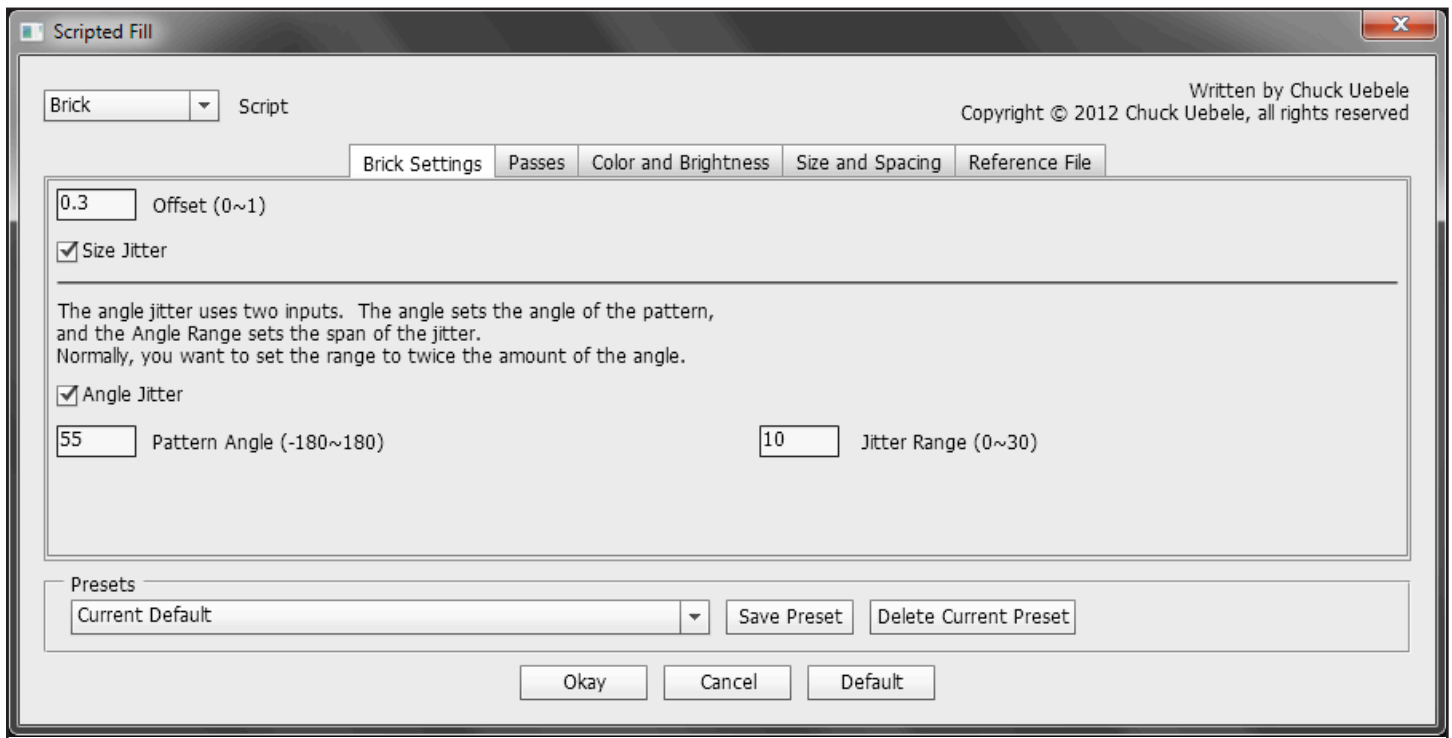
You can save a preset of your setting to an XML file. This is saved in the deco folder of Photoshop. It also saves your last used settings as the default.

Photoshop's Fill dialog Box:

Once you're happy with your settings, click the "Okay" button. This will bring up Photoshop's fill dialog box. This is where you want to select which fill pattern to use.

DO NOT change the name of the script in the drop down list. It should be TempFillScript!

Brick Script

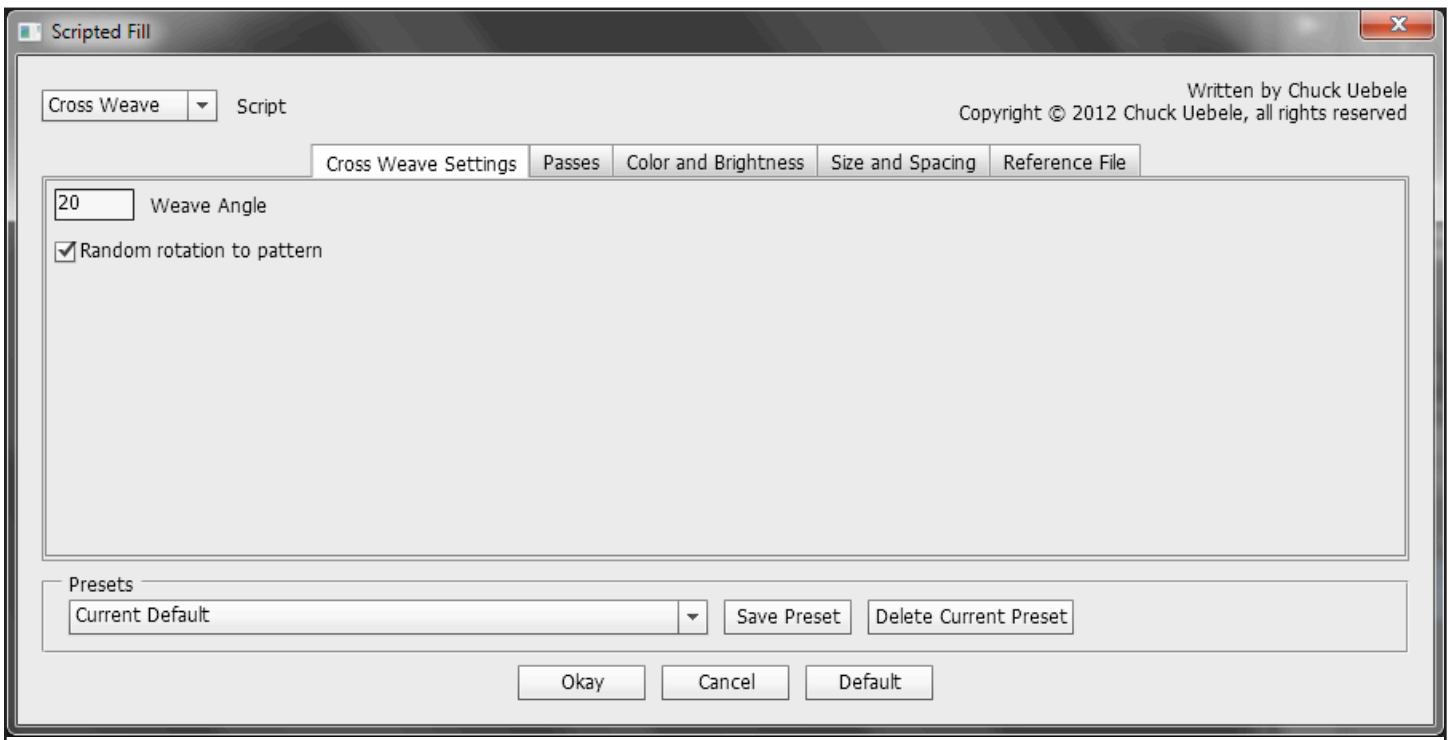


The brick script puts a pattern down in rows. You can change the offset of these rows by entering a value in the offset field. The value .5 is half the size of the pattern.

The size jitter varies the size of each pattern slightly to give a more random look.

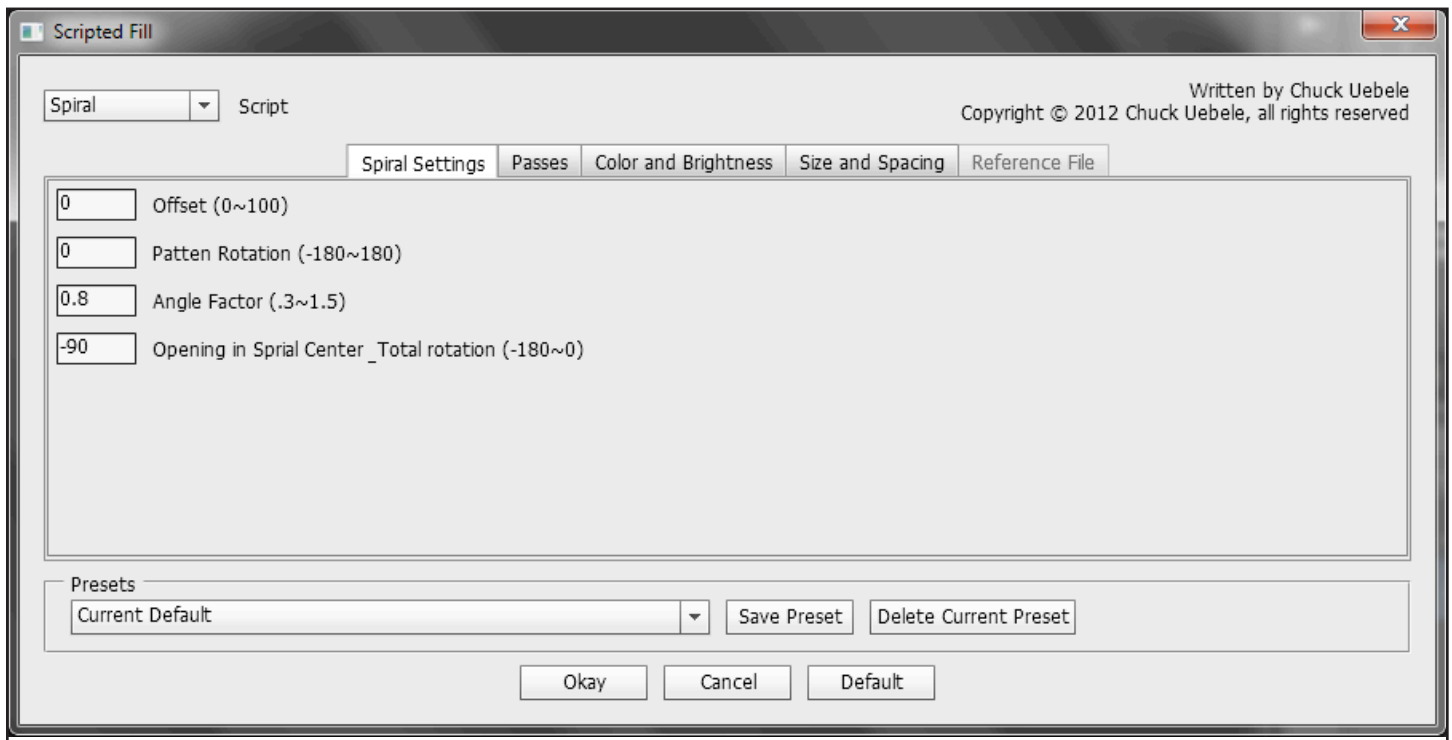
With Angle Jitter, you can rotate the pattern and/or add a slight variance to the pattern angle.

Cross Weave



There's not much in the Cross Weave script other than changing the angle of the entire pattern and adding a slight rotation jitter to individual patterns.

Spiral



The spiral script has a few settings:

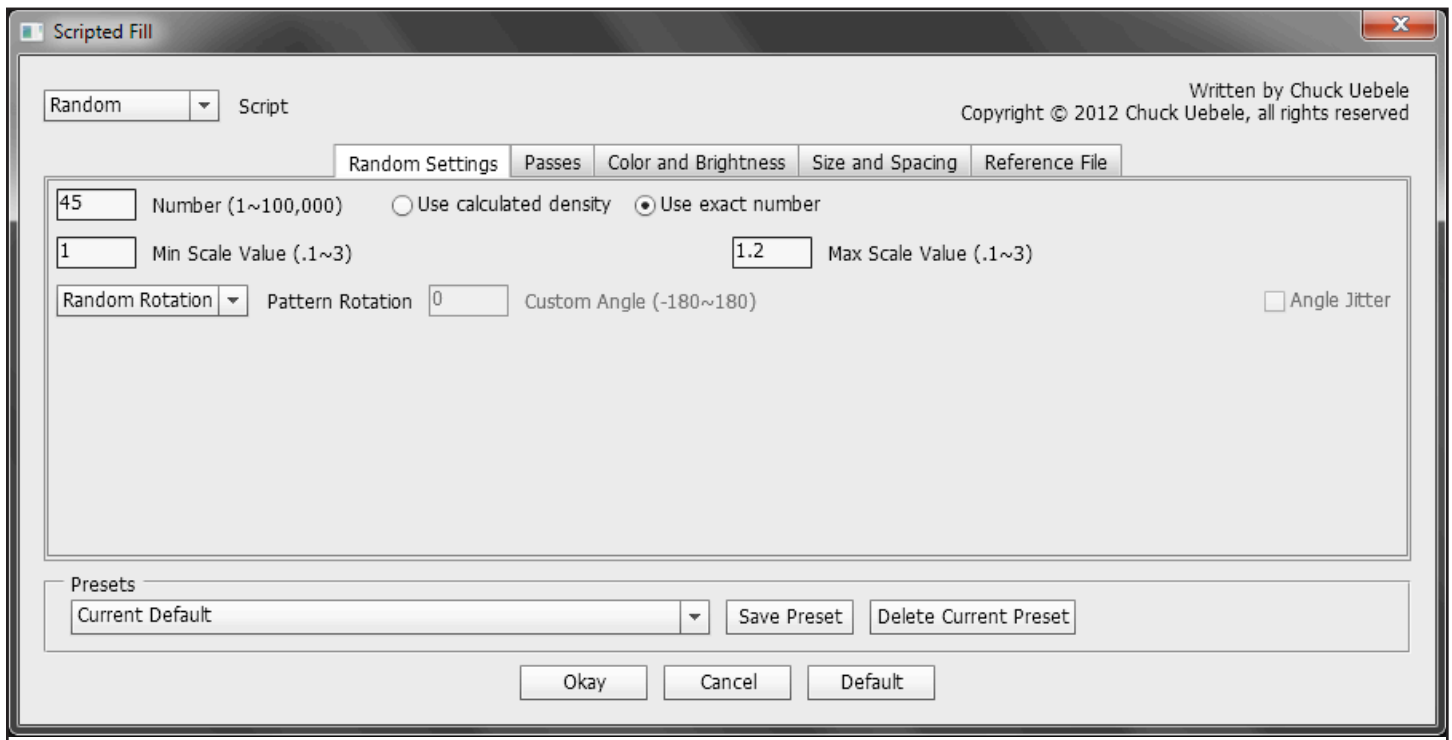
Offset controls the space between the rings of the spiral.

Pattern Rotation angles each pattern relative to the spiral.

Angle Factor controls how close the elements are along the spiral. It is a multiplicative factor for the angle between subsequent segments.

Opening in Spiral Center is actually called in Photoshop's original script: "Angle." Using a smaller number seems to tighten the center of the spiral.

Random



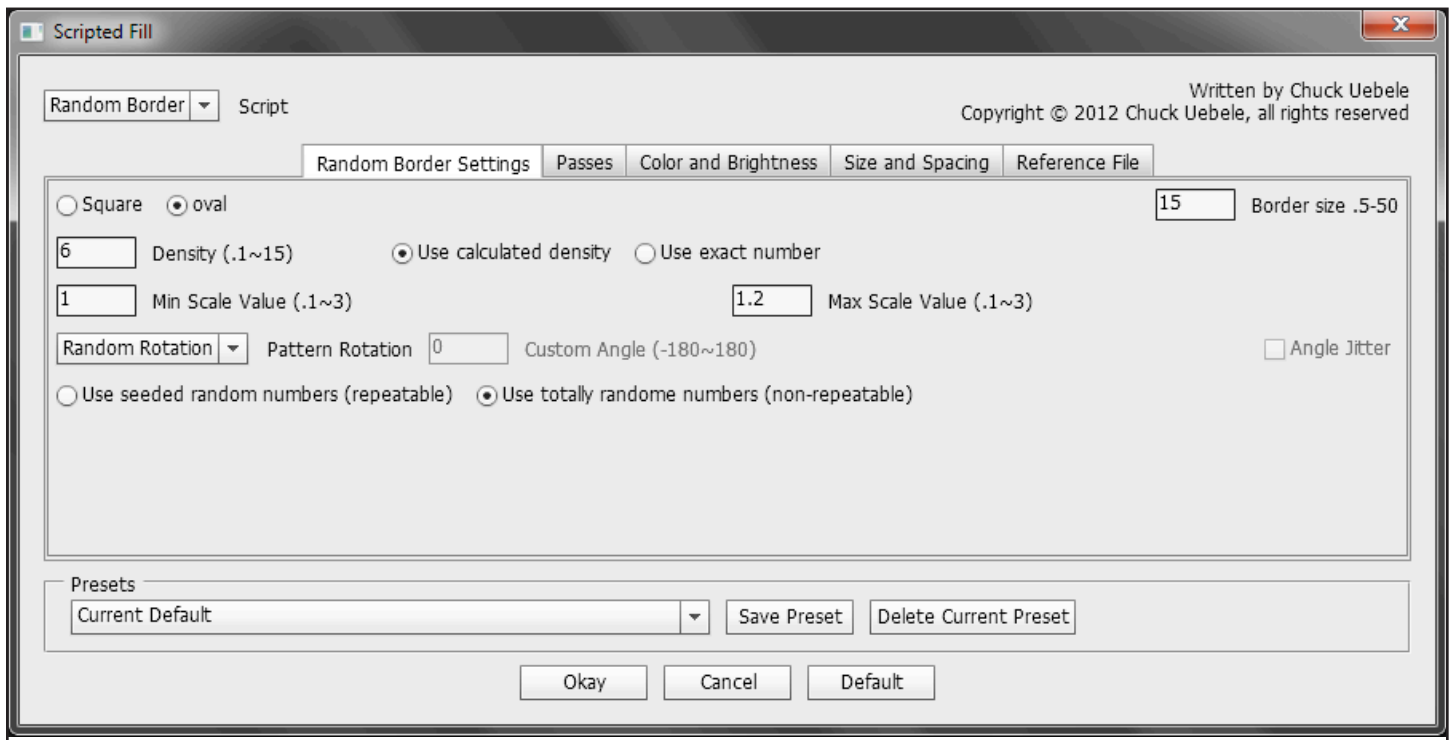
As the name implies, the Random script places the patterns in a random order.

The radio button: “Use calculated density” tried to fill the entire selection with the pattern. A few blank spots may show through, but you can always run the fill again to cover up those blank spots. If you don’t want the entire selection filled and only want a few patterns placed, you can click on the “Use exact number” radio button.

The Min and Max size fields limit the scaling done to the pattern.

With the drop down list you can either have the each pattern randomly rotated, not rotated at all, set a custom angle, or use a reference file for rotation based on density. An angle jitter can be applied to the custom angle and no angle rotation.

Random Border

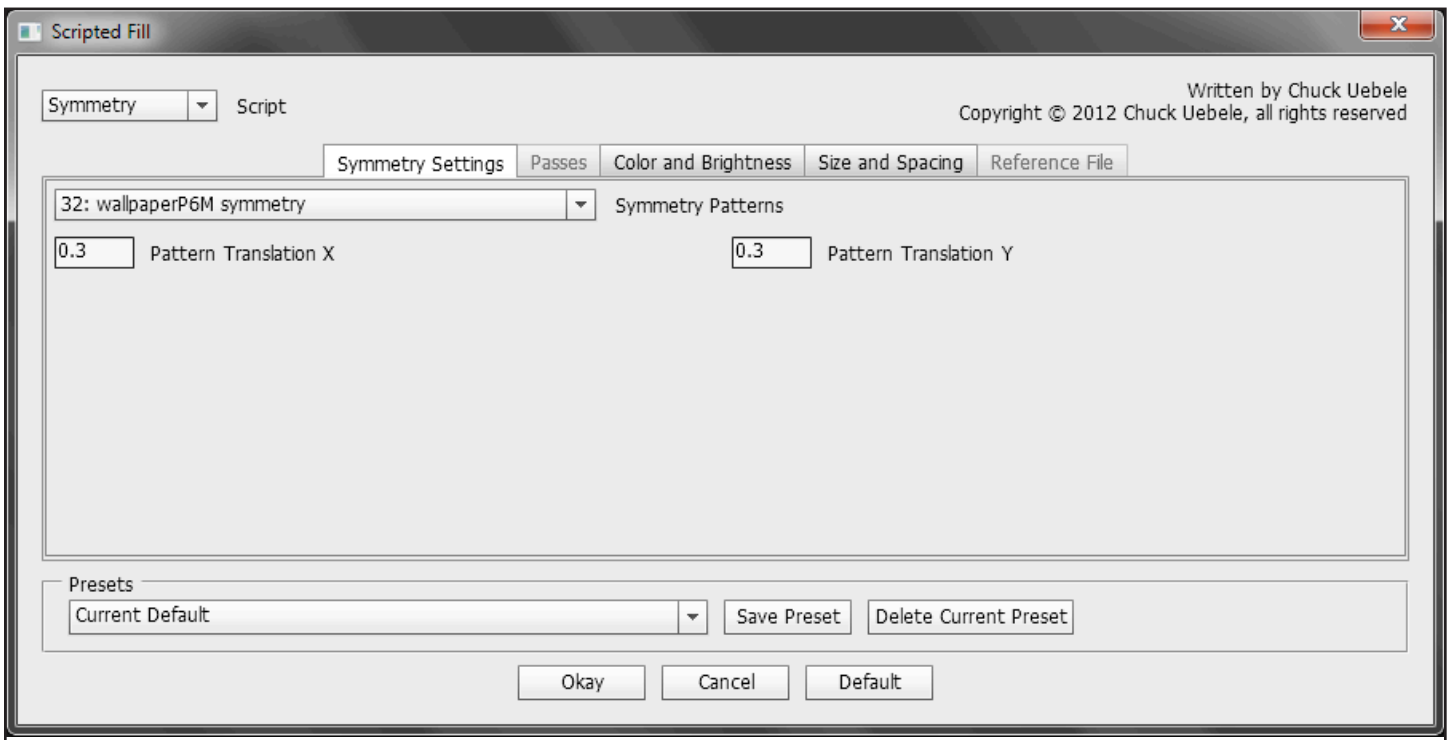


The Random Border script is similar to the Random script, so I will only go over the added fields for the Random Border.

The border shape can either be square or oval. The border size can be set as a percentage of the selection size. This may not be exact depending upon the shape of the pattern and the rotation selected.

Random number in computer are not really random, they're based on an algorithm. Most of the time this algorithm is started with a number selected by the current time, so it seems very random. However, you can specify what the starting number (seed) will be, and you can have the pattern repeated every time you run the script. this is useful if you want to do multiple passes of you fill and want the pattern's to line up. So with the Random Border script, you can select a seeded random number or one that does not repeat.

Symmetry

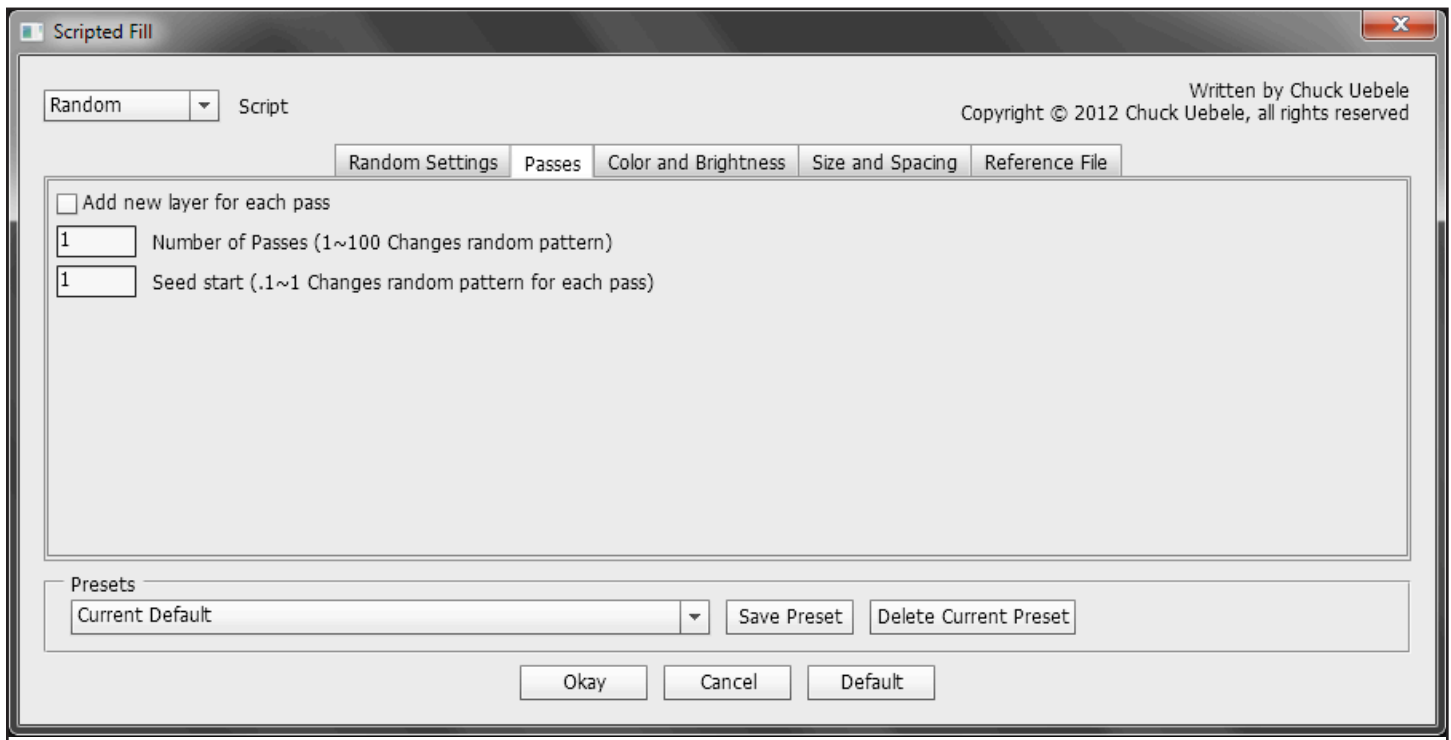


The Symmetry script has several different “modules” that can be run through the drop down list. Some are as simple as just two mirrored patterns. Some fill the selection, others don’t.

The pattern translation adjust the pattern placement within each “frame” of the symmetry. It is suggested to try values of 0 and 7.5.

The Symmetry pattern operates slightly different than the other scripts, so some of the other adjustments in the other tabs of this UI will not work at this time.

Passes



With the current supplied photoshop scripts, there is no way to change the pattern for part of the fill. This might change in future versions of Photoshop. In the meantime, I've come up with a work-around. With the controls in the passes tab, you can stop the fill and change the pattern. It's best if your all you patterns are the same size, as it will reread the pattern size and adjust the spacing accordingly. so if you want your patterns to line up correctly, they need to be the same size.

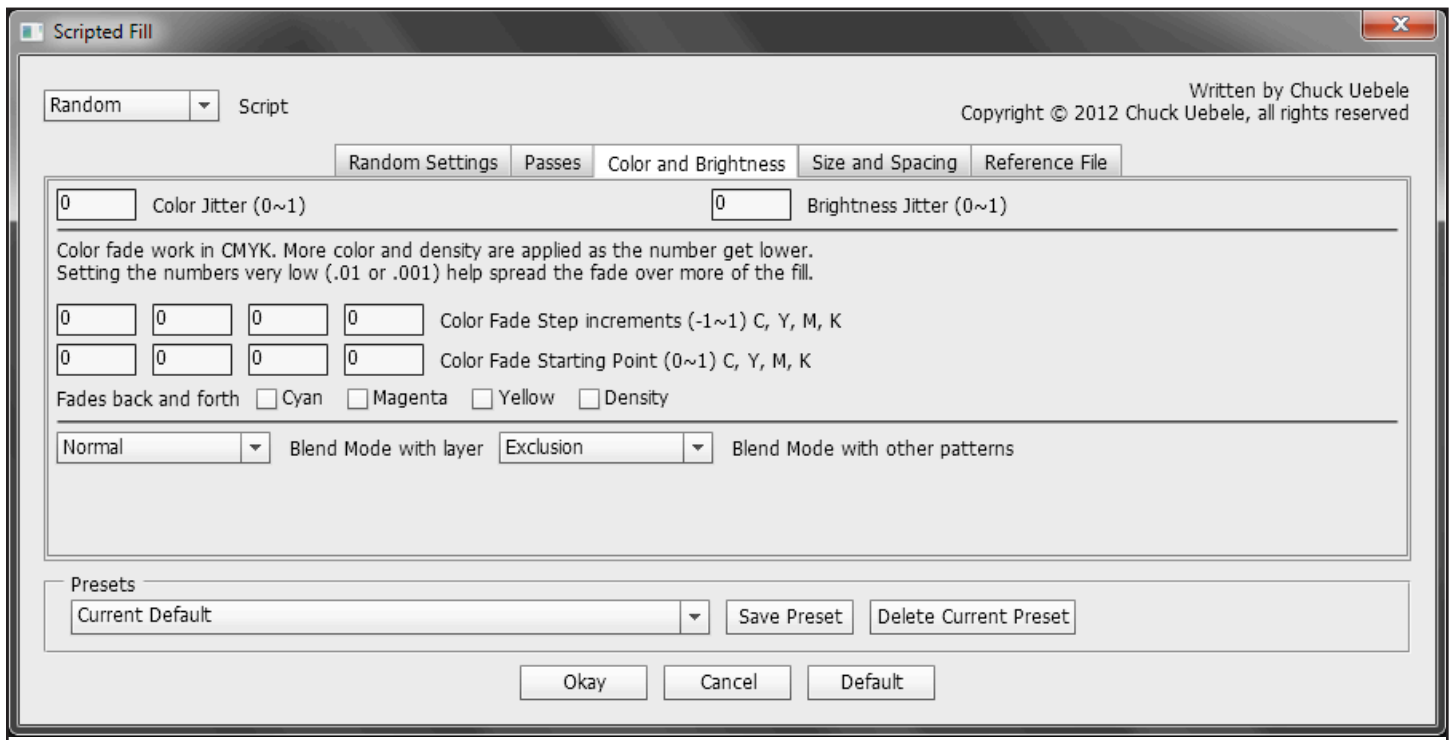
What happens with this is it will bring up the fill dialog box between each pass so that you can change the pattern. You can't change the other settings in the UI once you click okay.

With the Add new layer checkbox, you can add a new layer each time a pass is made. This is useful if you want to apply layer styles to some of the patterns or other editing. One bug with the Photoshop's fill is that the patterns have a faint white area around them. By using the add new layer feature, you can add an dark inner glow to the fill pattern to minimize this. Hopefully Adobe will fix this issue soon.

With the Seed start number, you can change the starting number of the random seeded pattern, thus changing the random look.

This feature does not work with the Symmetry script at this time. Maybe later. It also isn't practical with the Random script, so it has been disabled from that.

Color and Brightness



Under the color and brightness tab, you can add some color effects and change the blending modes of the fill.

A bit about applying color: The color is added to the pattern with CMY values. A value of one adds no added color while a value of 0 adds the maximum value. The black value or density adds an even number to all the color values.

The top two controls add color and/or density jitter to the patterns. With this, a number closer to zero add less jitter.

You can have the color “fade” or change for each pattern placed. Again if you remember that 0 is full color and 1 is no color you can sort of figure out how many patterns you may want the fade to span and input a starting number for that. The change can happen pretty quickly, so I would suggest starting with numbers like .01 or even .001.

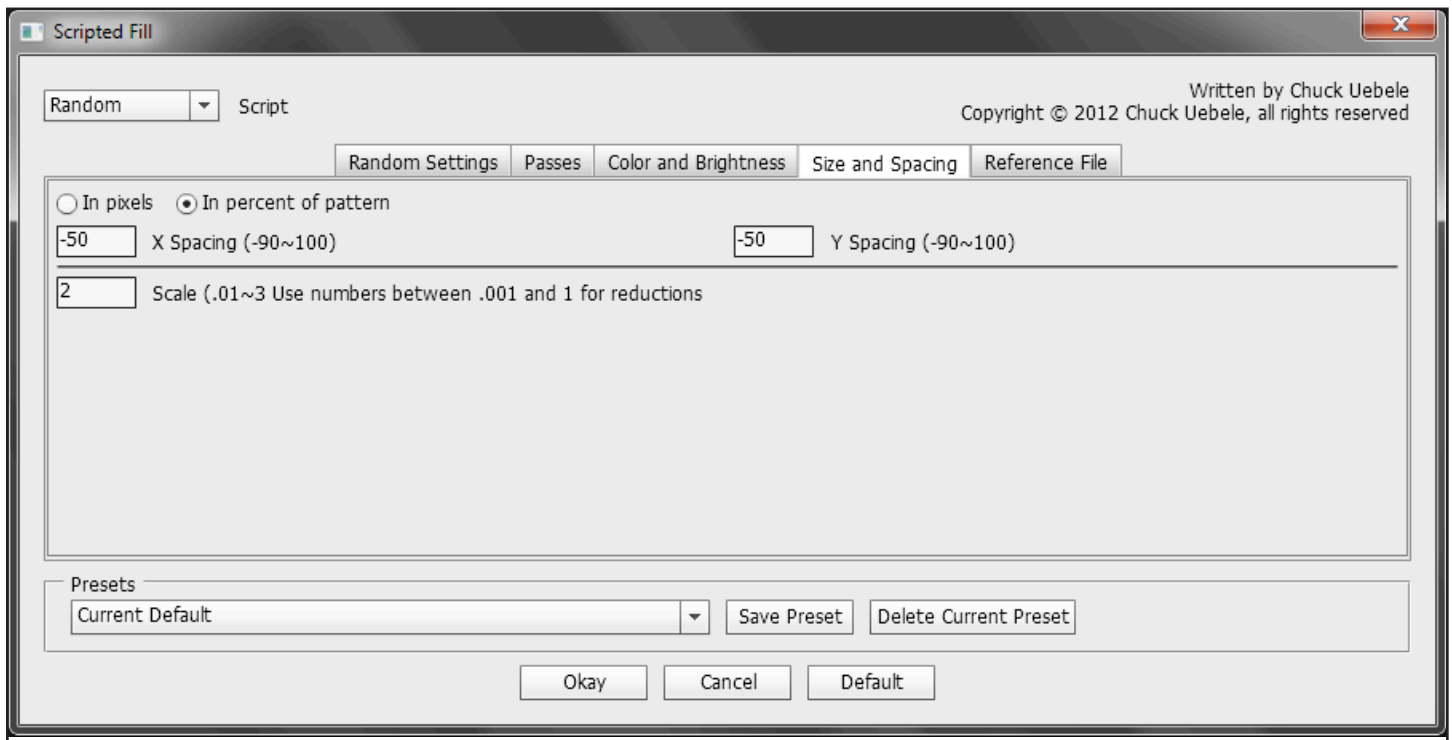
The color fade starting point allows the fade to start at something other than 0, or in the case of a negative number 1. that way you can do a slight fade and not have it go to the maximum color, which can be very dark.

You can also have the fade go back and forth.

With the blend modes, there are two ways to apply a blend mode. the first drop down list applies the blend of the entire fill pattern with the layer being filled. It's actually better just to put your fill on a blank layer and apply the blend mode there as you can adjust it better and it's non destructive.

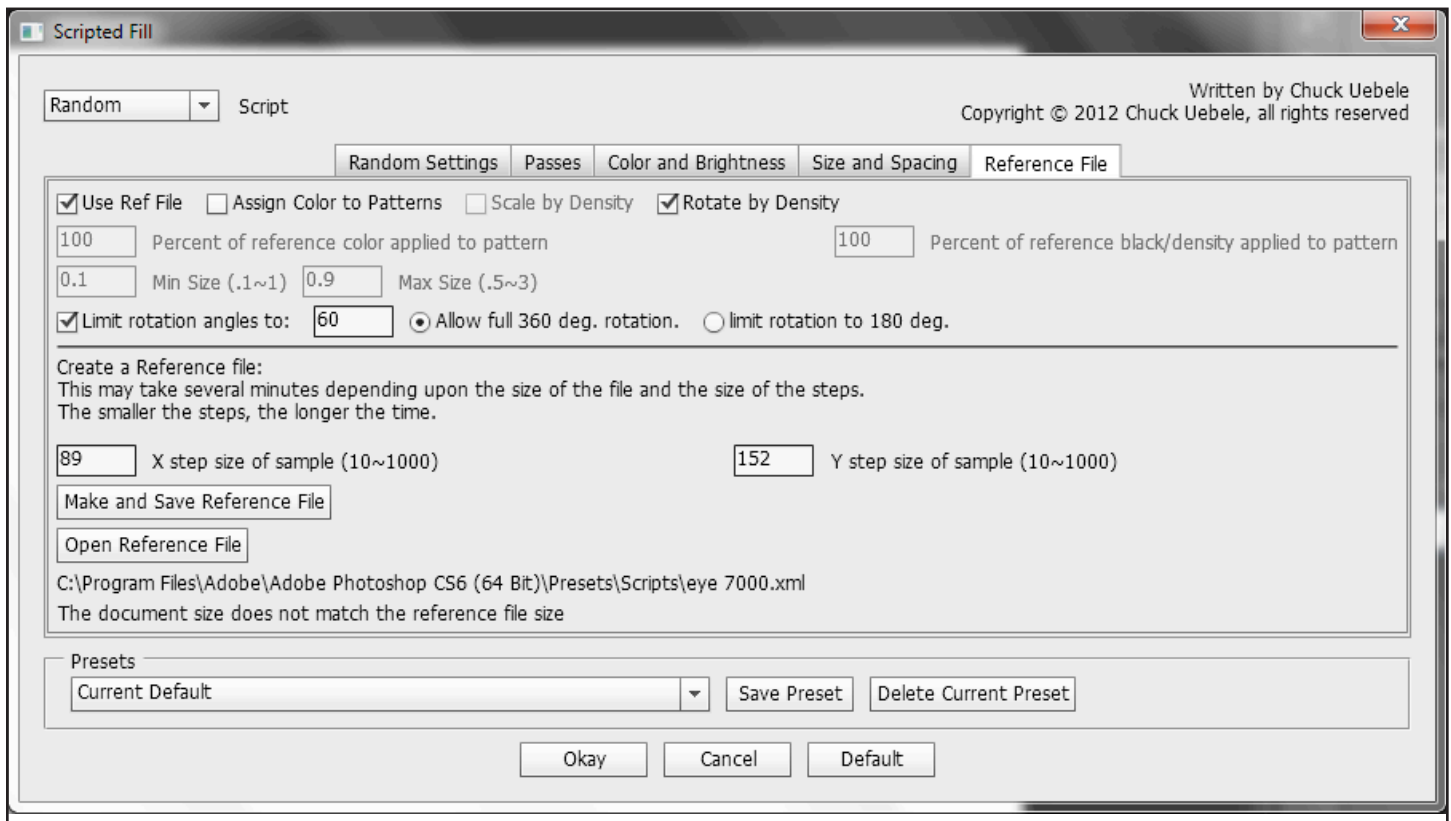
The other blend mode is applied between each pattern. This can not be done any other way and can create some interesting fills.

Size and Spacing



Size and spacing works with most the script types and affects the size of the pattens as well as the space around them. You can set the space to work in pixels or a percentage of the pattern.

Reference File



Creating and using a reference file does several things: It can take color values from the image and applies them to the fill patterns. It can also be used to only put a pattern in an area that in the original image that is not transparent - sort of like a mask, but the edges of the pattern are not clipped, which can make for some interesting fills. It can also size and/or rotate the patterns based upon the density of the reference file.

The reference file is not a feature in Adobe's scripted fill. It's something I designed. When I found that you could change the color of the patterns, I asked Adobe if you could sample the color with the fill scripts, and they said, "No." So again, I came up with a work-around. This process is a little slow in that it goes through the image using the color sampler and creates an XML file of the color values at various steps that are imputed through my UI. If the file is large and/or the step sizes are small the process can take more than several minutes, and it might make Photoshop hang.

To use this feature, enter the step size in the X and Y boxes. Most often, it's best to enter in the size of the pattern. Then click on the "Make and Save Reference File" button. You can save the files for later use, as they do take a while to create. You can see the color sampler going through the image taking readings. Once it's done creating the file, the name and size of the file will appear below the "Open Reference File" button. It's a good idea to double check that the correct reference file is opened if you assign a preset. Sometimes this acts odd, which I have to figure out why.

After creating or opening a reference file, select what you want to do with check boxes at the top of the UI. As mentioned above you can assign color values, create a "mask," and size depending upon image density.

You can also vary how much of the original color is to be applied to the pattern. Since adding the color darkens the pattern, it's best to start with a light neutral pattern. Due to tonal values in the original pattern, and possibly other factors, the colors are not real accurate - they tend to be a bit more saturated.