

Manual for QuiltAssistant v2.10

By Arnout Cosman, 12 May 2009.

For more information: arnout@cosman.nl

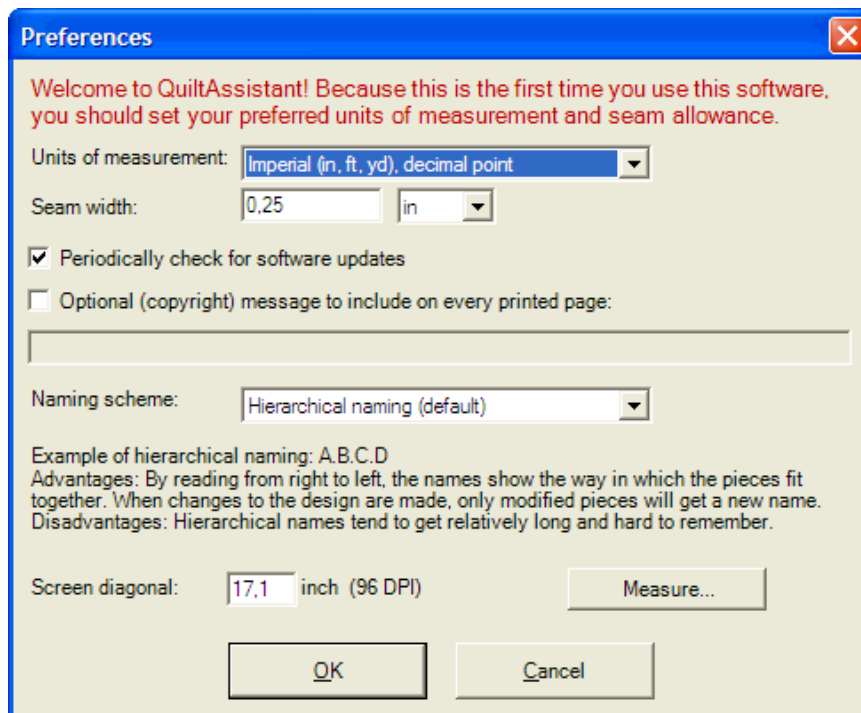
What's New?

If you are familiar with any of the earlier versions of QuiltAssistant, this list will quickly bring you up to speed on the new features to be found in QuiltAssistant v2.10. If you are new to QuiltAssistant, you may wish to skip to the introduction below and come back here later.

1. **Draw curved lines:** you can now draw 'free-hand' curves directly, without using the Edit mode.
2. **Drag curves:** in Edit mode, you can now click and drag to change the curve of lines in a natural and easy-to-use way.
3. **Partition lines:** in Edit mode, you can now sub-divide lines into equal segments, useful to connect new lines in a controlled way.
4. **Add borders:** you can now add borders to your existing design.
5. **Color Dialog:** the color dialog now includes a 'palette' feature, where you can build a selection of colors (and save them separately for later use). You can use this palette to color your design with, and also apply the palette to the entire design to make sure only those colors are used in it.
6. **Fabric Usage Print:** the option to print a list of all fabric colors used including estimates of the amount of fabric required for each color. If you based your design on an image, you may need to reduce the number of colors in the design before using this feature.
7. **Label unique colors on print:** if your design contains a limited number of colors, these will be numbered on your templates so you know which template uses which color.
8. **Export design as vector drawing:** export to WMF (Windows MetaFile) or EMF (Enhanced MetaFile) for use in other drawing software.
9. **Regular pattern for printing:** when creating a new regular pattern, you can set it to fit a single sheet of paper. Handy for printing template-sheets.

Introduction

This manual shows you how to use QuiltAssistant for two different tasks. The first is to design a quilt based on a picture, the second to draft traditional quilt blocks quickly and conveniently. Whichever you want to do, when you fire up the software for the first time, it will ask you to configure some basic settings.



Choose your units of measurement (inches or centimeters), and, most importantly, the correct seam width. Be as accurate as possible, the software doesn't mind about the number of postcomma digits.

Some other settings worth mentioning at this point:

- Check for software updates: by default, QuiltAssistant will check if a newer version is available, if an Internet connection is available.
- Screen diagonal: here you can set the size of your computer screen. If you do not the correct value, you can use the 'measure' to measure it yourself. You can safely leave this setting untouched, but when you set the right size, QuiltAssistant will be able to show your design true to scale.

You can always change these settings at a later stage using the menu option **File=>Preferences**.

Now that the basic settings are configured, you can choose to continue to design a **quilt based on a picture**, or skip to the section on **drafting traditional quilt blocks**. If you want to use QuiltAssistant to design your own paper piece patterns, you will find useful information in both sections.

Quilt based on a picture

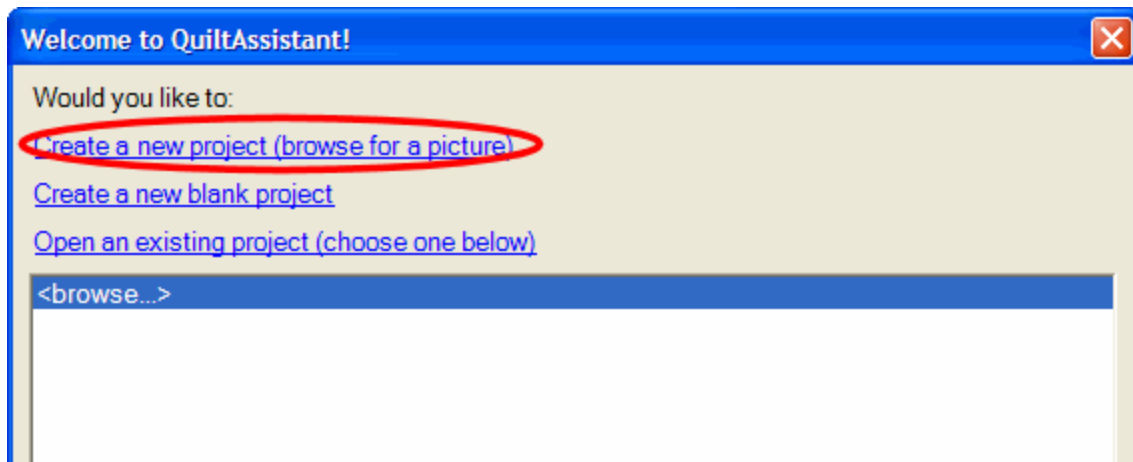
Designing a quilt based on a picture begins with the right source material. So in preparation, you should take care in selecting a suitable photo or other image. Things that determine how suitable a particular image is:

- Avoid too many details: you will most likely lose them in the finished quilt, making it hard to recognize the depicted object.
- Familiar imagery: human faces and shapes, trees, flowers, etc. are easier to recognize than e.g. an '*objet d'art*'.
- Choice of colors: images that are colorful and rich in contrast are easier to convert into pieces of fabric.

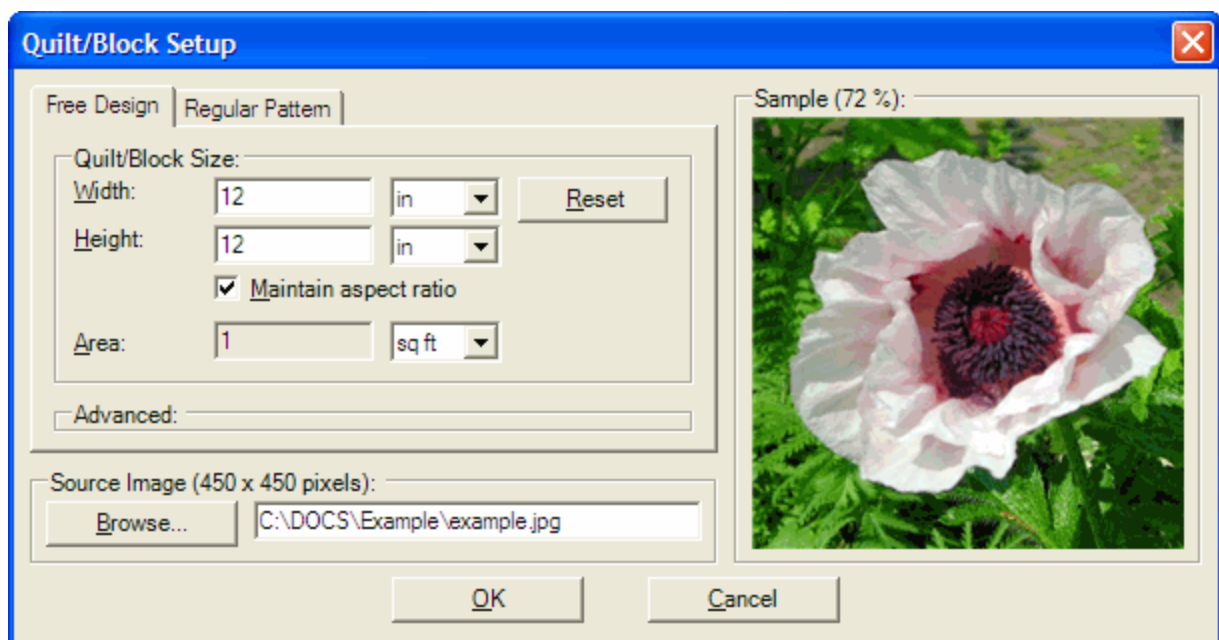
Sometimes it can be a good idea to experiment in advance with colors and contrasts in the original image, using generic image editing software.

Start a project

The startup screen allows you to create a new project based on a picture, or load one of your earlier projects, if you have any.



To start a new design: click on '**Create a new project (browse for a picture)**' and find a suitable picture on your computer. After you select one, the following dialog will appear:



Under '**Quilt/Block Size**', determine the width and height of the quilt. Beware though: the final output of the program is a set of templates on paper and for a quilt of 40" by 40" that can be 50 sheets of paper (letter or A4 format).

In this example I use 12" by 12" to cut the losses to a couple of sheets.

Click 'OK' to close this window, at which point we arrive at the most important step:

Save

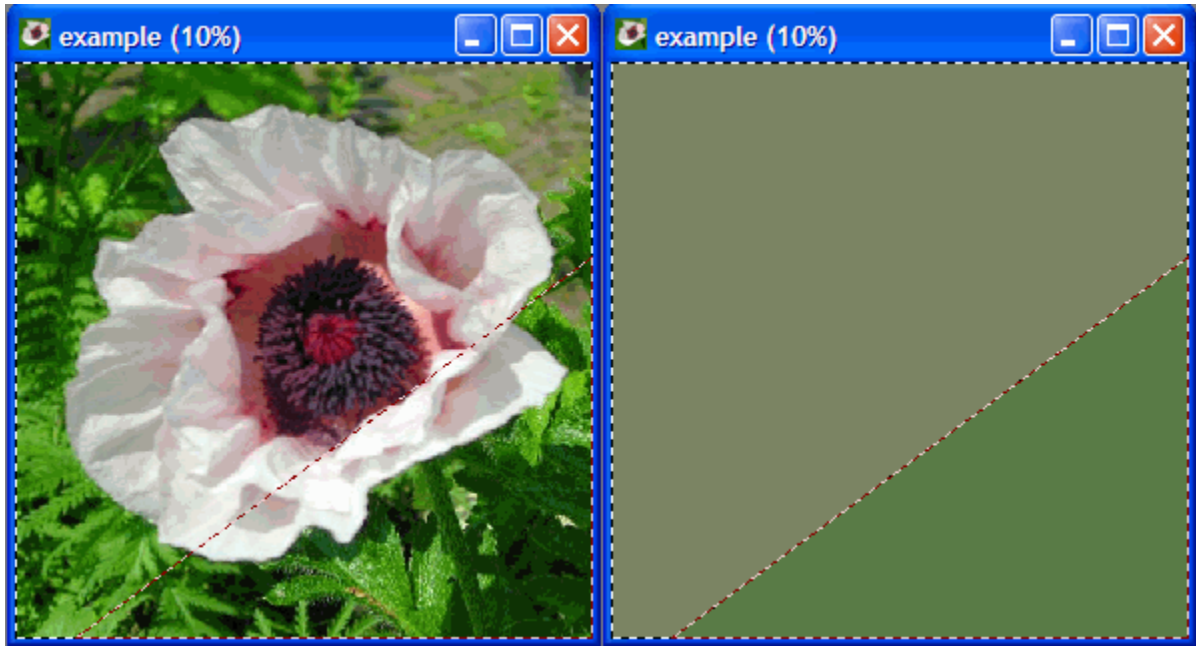
Save the file, menu **File=>Save**, (rinse and) repeat regularly. During your work, the '**Undo**' option helps you to return to a previous state, but it is nonetheless advisable to save regularly in case something goes haywire.

Save the QuiltAssistant File (with extension .QA2) in the same directory as the original

image and keep them together. QuiltAssistant does not make its own copy of the image and expects to be able to access both files in order to retrieve its data.

Dividing the image

The procedure to split the image into pieces is very simple: click (left mouse button) somewhere in the image and drag the mouse to another point. This draws a dashed line which will be the dividing line for the image. When you release the mouse button this line extends to the borders and the image is split in two pieces.

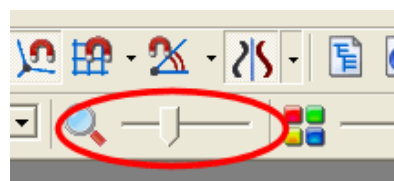


The software calculates an 'average' color for each of the pieces, which you can use to find matching fabrics. Using **'Display=>Shapes'** you can see these calculated colors, **'Display=>Image'** returns you to the original image, **'Display=>50%'** shows a blend of the two. Alternatively, use to color slider to set this value:



Other things you need to know when dividing the image:

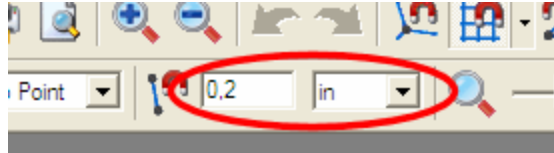
- The menu Zoom allows you to zoom into details to work on smaller pieces. For this, you can also use the scroll wheel on your mouse, or the zoom slider on the toolbar:



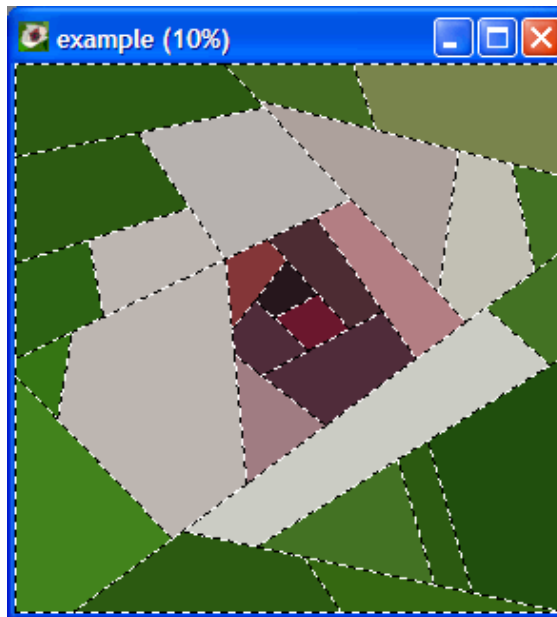
- When you draw a line through multiple pieces, all of these pieces will be split.
- If you want to work on a regular pattern, you can use the option **'Display=>Snap to**

grid' (and its associated settings under '**Display=>Grid/snap settings'**)

- To make a new division end in existing corner: '**Display=>Snap to corner'**'.
- The maximum distance between the mouse pointer and a snap point can be changed using this toolbar setting (make sure you press <enter> to confirm any changes):



And this is a simple example of an image divided into pieces:



Removing lines

Because lines are always extended to the edges of the piece you are working in, you will sometimes end up with unwanted line segments you want to remove to clean up the design. To remove a line segment, simply right click on it. Be careful, though: once you start removing line segments, you quickly run the risk of creating a design that is hard to (machine) piece.

On the other hand, if you manage to create your design without ever removing or editing lines (except for the use of the **Undo** function), you will end up with a design that is guaranteed to be paper piecable.

Statistics

At some point you will ask yourself: how big are these pieces I keep dividing, is this still doable? Enter menu option **Windows=>Information**.



In this window you can find:

- The total number of pieces in the design. Very important if you need something to brag about, otherwise totally irrelevant.
- The area/width/height of the selected pieces. You can select a piece by clicking inside it without dragging the mouse.
- The biggest area/width/height found in the design (these do not necessarily all refer to the same piece). Especially useful to find out if each of your pieces will fit on a single sheet of paper.
- The smallest area/width/height found in the design (these do not necessarily all refer to the same piece). This should give you an indication of whether or not you will still like to actually make this quilt.

When you click on one of the lines, e.g. '*Smallest width*', the matching piece in the design (having the smallest width) will be selected, so you can see which one it is.

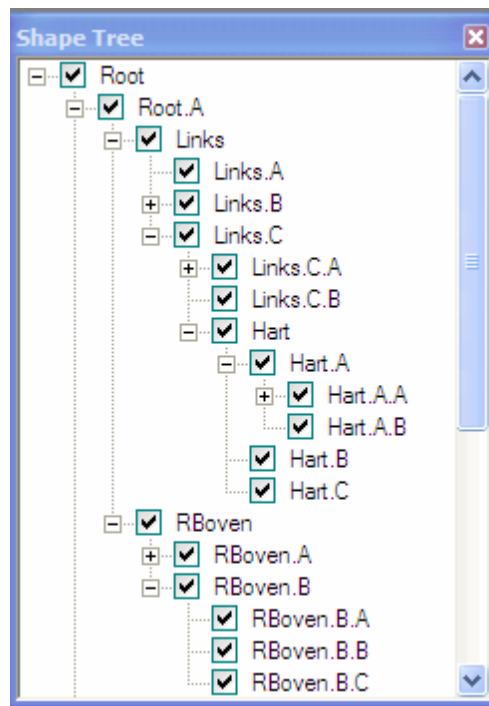
Preparation for printing

When you are happy with your design, and after you save it (!), do not just do a '**File=>Print**', but have a look at the '*Shape Tree*' first (menu **Window=>Shape Tree**). Here you can see all the pieces you created in a tree structure. When you select a line in this tree, you will see the corresponding selection in your image. Use this feature to give your pieces an intelligible name.

When you click for a second time on an already selected line in the tree, you can change the name of the node. The names of the underlying nodes will automatically be changed to match.

If you do not do this, generic names will be used, like A.D.C.A.E.F.A. During printing, the pieces are sorted to fit as many as possible on a single sheet, so if you do not change the names, you will end up with a giant jigsaw puzzle. Never mind, jigsaws can be fun, too.

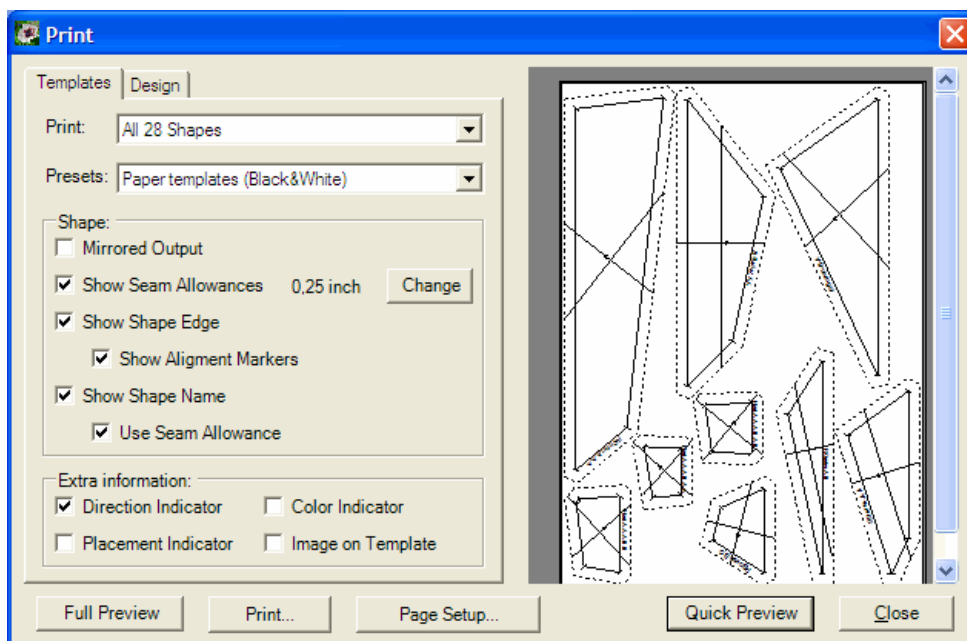
The tree structure can also help you to match printed pieces to the design and to determine the best order to sew them together.



Printing

You can print all of the pieces in one go, but you can also make a selection. The latter can be useful if you lost some pieces or want to print just a couple of pieces from a regular pattern. Use the checkmarks in the tree structure, or choose menu option '**Mode=>Select**' to show the selection in the image itself. Darker pieces are selected, lighter pieces are not selected. Left mouse button: select, right mouse button: deselect.

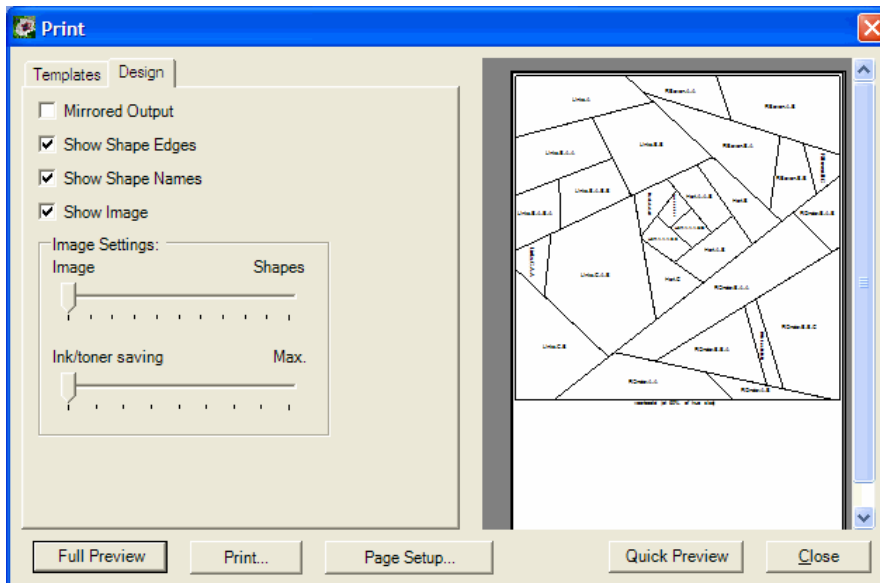
When you select '**File=>Print**' (or '**File=>Print Preview**'), the following dialog appears:



You can print templates (all, or only the selected ones) by selecting a suitable preset from the list. The checkboxes below the preset box allow you to make your own custom selection of details to print.

You can also use the 'printable fabric' preset to create your own 'cheater fabric' by printing parts of the original photo on a selection of the shapes.

Click on the 'design' tab to make an overview print of the entire design, including the names of all shapes:



Use the 'Quick Preview' button on the right to get an impression of what will be printed, or the 'Full Preview' button on the left to get a complete preview of every page to be printed.

The print preview helps you to estimate how many pages you will need to print the design. Beware that small discrepancies in margins and the printable area of the printer can cause the arrangement of the templates on the final print to differ significantly from the print preview.

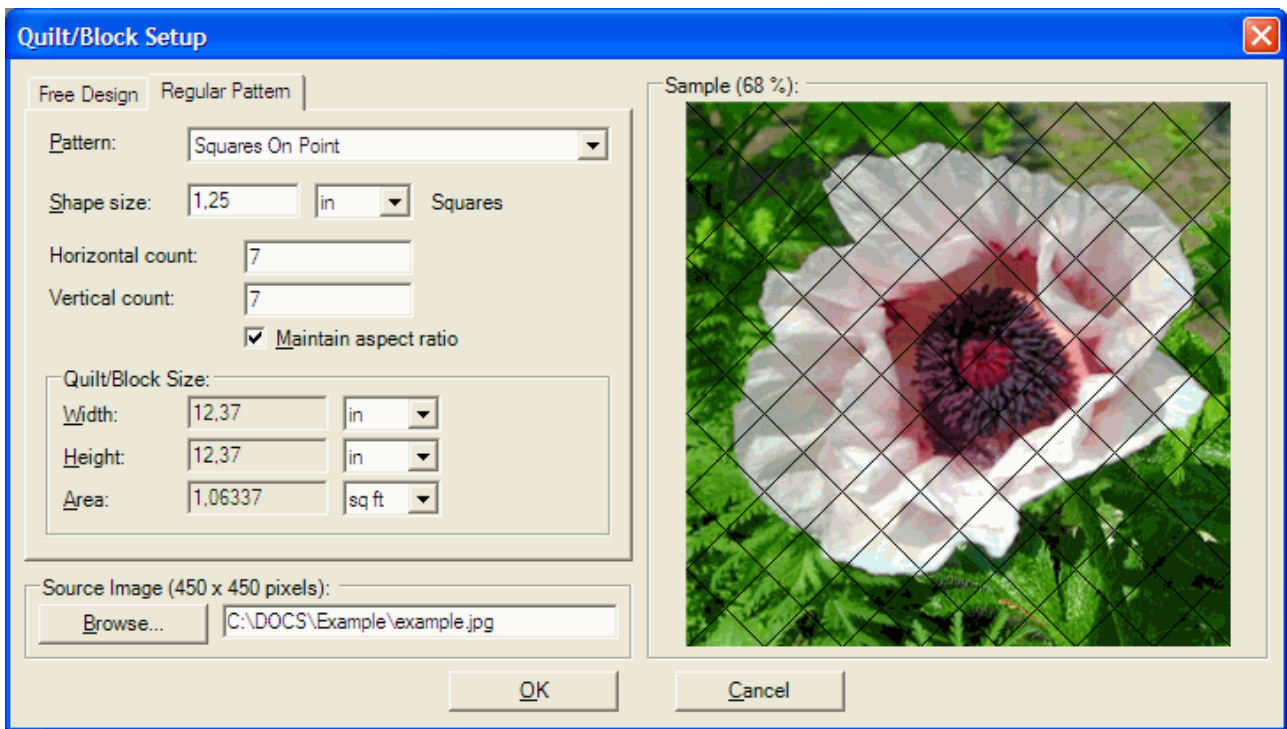
Making the quilt

There are, of course, many ways to do it, but here is my way:

- Cut the templates and sort them, based on the names I gave them.
- Layout a part of the templates on a desktop and find matching fabrics.
- I cut the fabric using a small rotary cutter, along the paper templates.
- Piece/sew together in the correct order. If you do things right, you will only need to sew straight lines on your sewing machine, without any inset corners or other difficulties.

Regular patterns

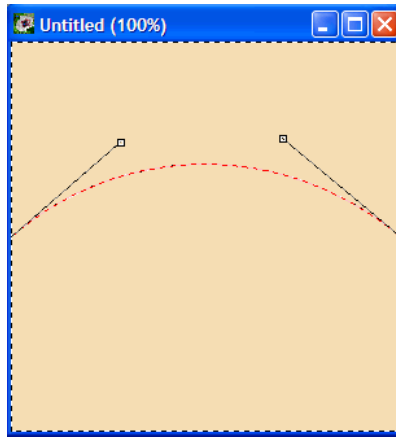
To make a quilt based on a simple grid of squares or triangles, use the 'regular pattern' tab when starting a new quilt design (**File=>New**). You can now choose the pattern type (squares, squares on point, or triangles), the size of each square/triangle and the number of division in horizontal and vertical direction. After creating a regular pattern you can add further details as described above.



Editing a design (advanced)

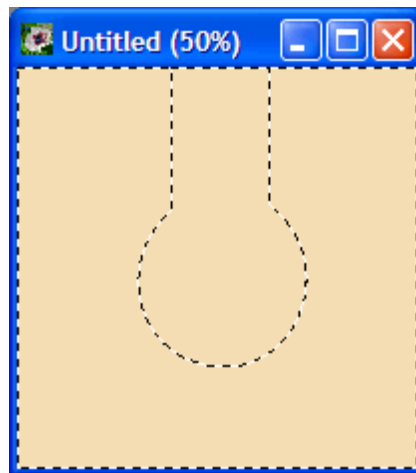
Using the **Mode=>Edit** menu option you can make changes to your existing design. In Edit mode, the following things can be done:

- Move existing corners: Click on a corner and drag it to a new position. If you move the corner to an impossible position (one that would cause edges to cross other edges, for example), the corner will snap back to its original position.
- Create new corners: Press and hold the CTRL-key, then click on an edge and drag it to a new position. A new corner will be inserted on the edge.
- Partitioning: Right-click on a line to show a context menu, and select '**Partition**'. There you can split the line into equal-sized segments, the added points can then be used to connect new lines to.
- Deform an existing edge: Click and drag any part of a line to make it into a curve. This is an easy way to create any shape you like, but for more precision, you may also want to try the following method to do the same thing.
- Modify an existing edge: Click on an existing edge. It will be selected for editing as a *bezier spline*. This means you will see two so-called *control points*, indicated by little squares, that you can drag to a new position. Dragging a control point will cause the edge to curve in the direction of this control point. If you have no experience with this, you probably need to see/do it to understand what that means. Click somewhere outside the edge and its control points to apply the change to the design.



When editing a design like this, be aware that you can easily create all sorts of inset corners and curves that can be very difficult to turn into patchwork.

If you want to practice with the editing features, here is a challenge for you:



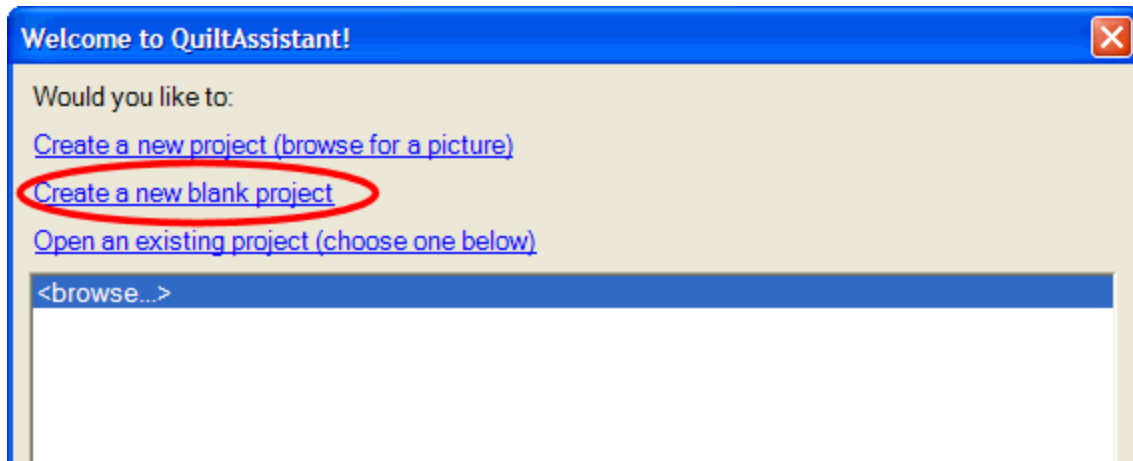
Try to make this design (consisting of just 2 shapes) by moving and adding corners and modifying edges. You may need to 'think outside the box' for this one, but if you can do it you should have a good understanding of the possibilities and limitations of the Edit mode.

Drafting traditional blocks

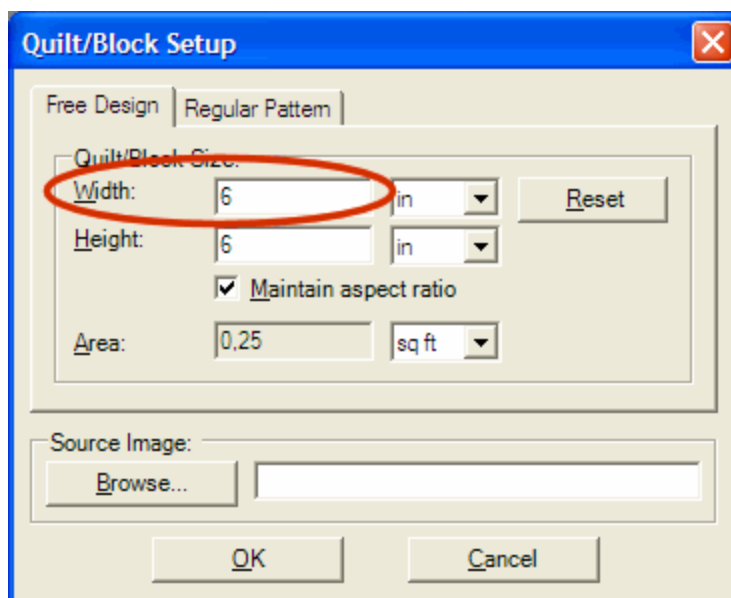
QuiltAssistant helps to draft traditional quilt blocks in record time by making use of the fact that there is a lot of symmetry in most quilt blocks. This section will show you quick and easy ways to draft some well known blocks. Once you know the techniques, you can use them to draft other traditional blocks, or experiment and make your own unique creations. QuiltAssistant makes it easy for you. Not convinced yet? Then read on!

First steps

For these examples, we will make blocks of 6" x 6". When you start QuiltAssistant, choose the option '**Create a new blank project**' to start:



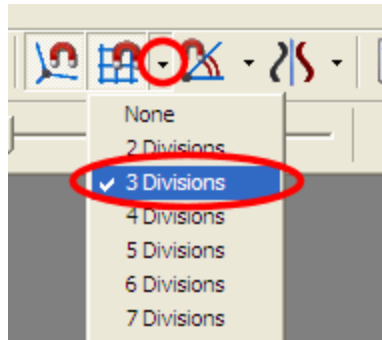
Then, in the Quilt/Block setup dialog, set the width of the block to 6" (the height will automatically follow this setting):



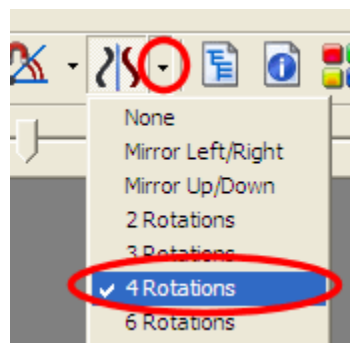
Click 'OK' to accept this setting. QuiltAssistant then shows the blank canvas for you to work on. You will need these basic steps for each of the blocks shown below.

Ohio Star

This first example shows you how to draw the Ohio Star pattern. After creating a blank 6" x 6" block as described above, set up a grid to align your pattern to. To do this, click on the little downward pointing arrow next to the 'Snap to grid' button on the upper toolbar, then select '3x3' from the list.



Like most traditional blocks, the Ohio Star is highly symmetrical, so use the symmetry tool to save time: click on the downward point arrow next to the '**Symmetry**' button and select '**4 Rotations**' from the list.



After these preparations, drawing the block is easy. Looking at the picture below, draw a line from point 1 to point 2, by clicking and dragging the mouse. Watch the mouse cursor, it will show a little magnet when it snaps to the grid, so you will know you draw a perfect vertical line.



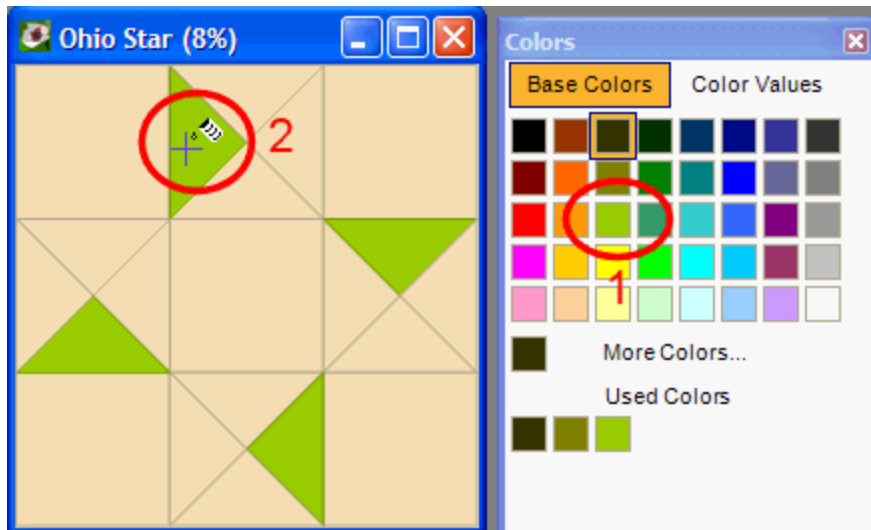
Should you make a mistake, use the '**Edit=>Undo**' (or **Ctrl-Z** key combination) to undo it. The symmetry tool will automatically complete the grid for you. Repeat this for the next line:



And that is it! With 2 simple lines you created the complete Ohio Star block. Let's give it some color to improve its looks. Click on the coloring icon on the upper toolbar:



You will get an extra window with a selection of colors. To start coloring, simply click on a color from the palette, then click in you design to apply the color. The symmetry tool will make light work of coloring as well, by coloring 4 patches with 1 click.

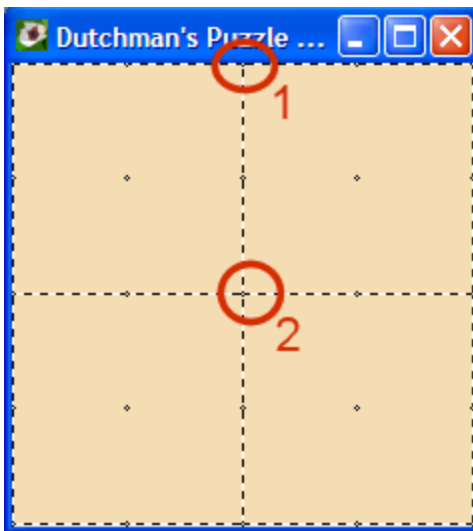


Complete the block in whichever colors you fancy. Some tips: right-click in the design to 'pick up' a color for re-use elsewhere, ctrl-click to replace a single color throughout the design.



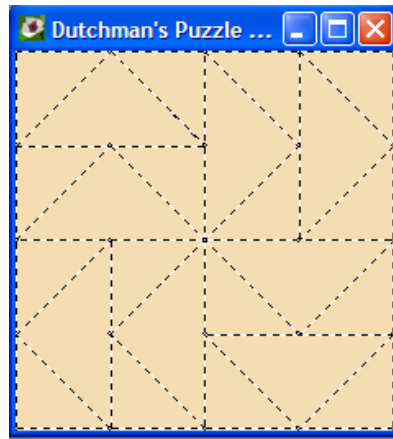
Dutchman's Puzzle

This block follows the same basic principles as the Ohio Star, so you may want to look back at it for more detailed instructions. First create a 6" x 6" blank canvas, as described above, then set the '**Snap to grid**' to '**4x4**' and set the '**Symmetry**' to '**4 Rotations**'. Now we are ready to draw, the first line goes from the top middle straight down:



The second line divides one of the little squares in half, the symmetry tool will do the work for the other squares.

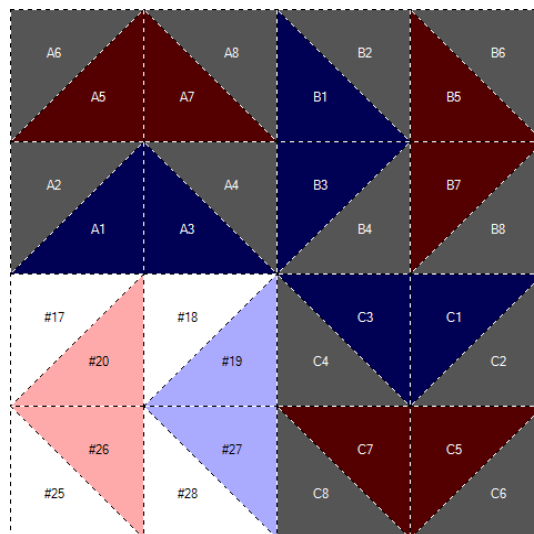
Just keep drawing the lines in one quarter of the design, and let the symmetry tool do rest:



As before, the coloring tool makes quick work of completing your design. Tip: If you do not want the coloring to be symmetric, set the 'Symmetry' tool to 'None'.

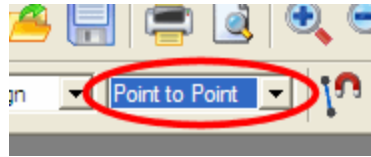


Naming the shapes: if you want to name the shapes in a design to indicate a certain sewing order, use the menu **'Mode=>Naming'** (or press **'N'**). Click each shape in the desired order to name them. Each shape you click will turn dark and be named A1, A2, A3 and so on. When you click a shape twice, it will be the start of a new series (B1, B2, B3 and so on). If you make a mistake, you can redo part of your work by clicking on the wrongly selected shape to deselect and try again.

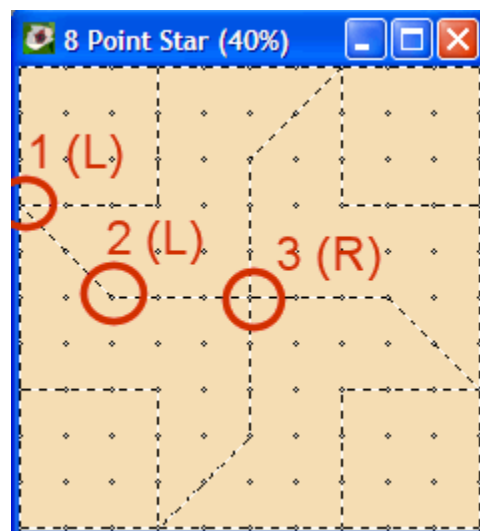
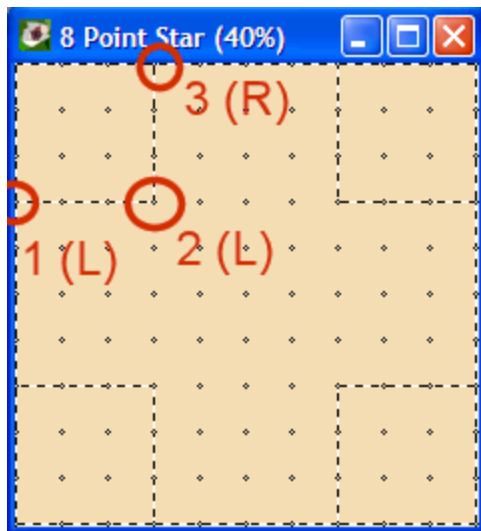


Eight-Point Star

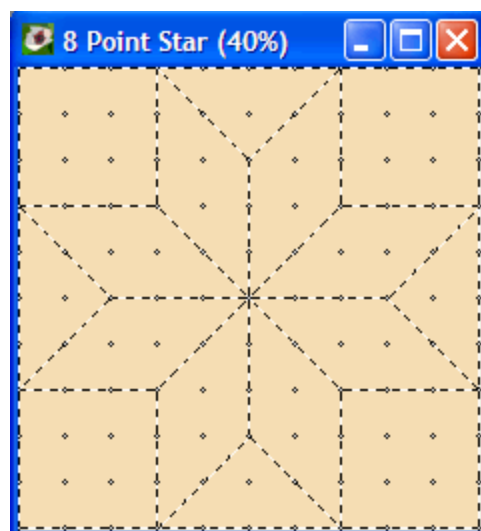
This design is a bit more difficult to create. Start with a 6" block, as before, and set the '**Snap to grid**' to '**10x10**'. For '**Symmetry**' we use '**4 Rotations**' as before (see Ohio Star for detailed instructions). Because of the special shape of the 8-point star, we will use the '**Point to Point**' setting to draw the lines (change the '**Straight Line**' setting on the toolbar):



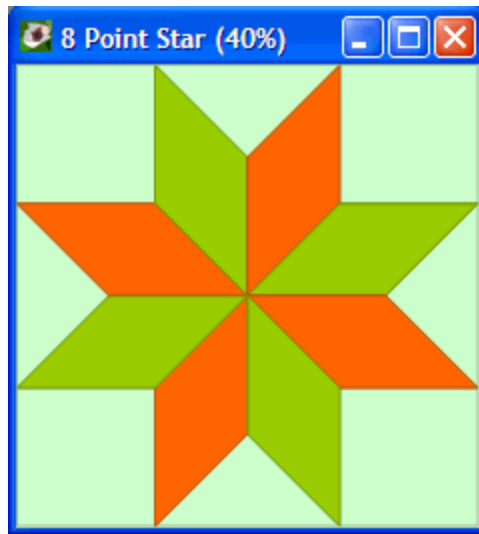
Now, following the picture below, first **left-click** on point #1, then **left-click** on point #2, and finally **right-click** on point #3 to finish drawing the first point-to-point line (picture on the left):



Repeat the exact same sequence for the second line (on the right). Now that you a feel for the process, you should be able to complete the shape without too much trouble:



Of course, no block is complete without a little color:

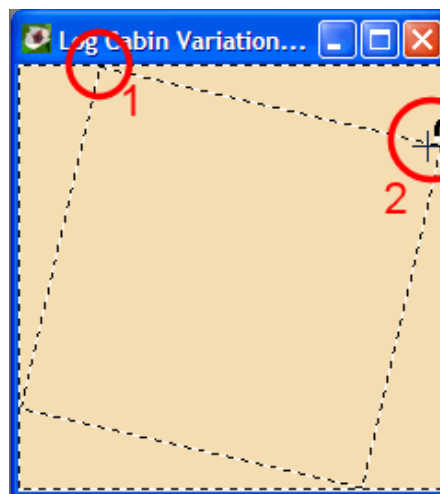


Log Cabin Variation

This variation on the Log Cabin block shows you some new tricks that makes this design easy and fun to draw. Start with a 6" block and set the **'Symmetry'** to **'4 Rotations'**, and make sure to switch the **'Snap to Grid'** off (we don't need it for this block). Instead, switch on the **'Snap to Corner'**:

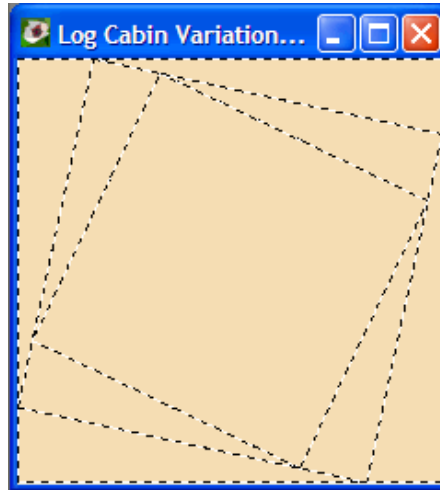


Now move your mouse to a point as close as possible to the top of the block, at about a 1/6 (1" on a 6" block) from the left, and click and drag to point #2 as shown below:

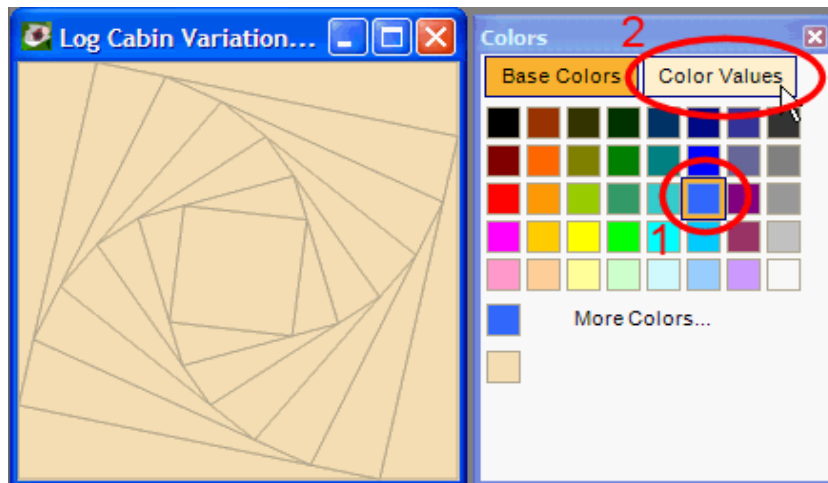


Notice that the mouse cursor will 'snap' to the start of the next line, created by the

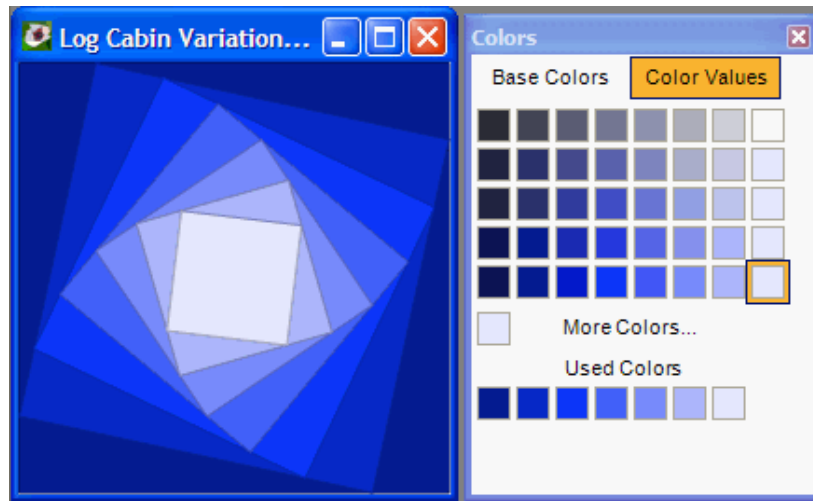
symmetry tool. Repeat this process to create the next square-in-a-square:



This is easy! Add a couple more to complete the look. Remember to use the **Undo** function (**Ctrl-Z** key combination) if you don't get it quite right the first time. When you are happy with the result, it is time to start coloring.



We will use a special function of the coloring tool to quickly get a range of shades: first pick your favorite color (1) then click on the '**Color Values**' (2) to show a set of shades based on this color. Using these shades, a perfectly colored block is just a few mouse clicks away.



Try some variations, maybe by setting the '**Symmetry**' to '**2 Rotations**' and coloring in 2 different sets of shades. Or create a completely new block with '**Symmetry**' set to 3 or 5 rotations.

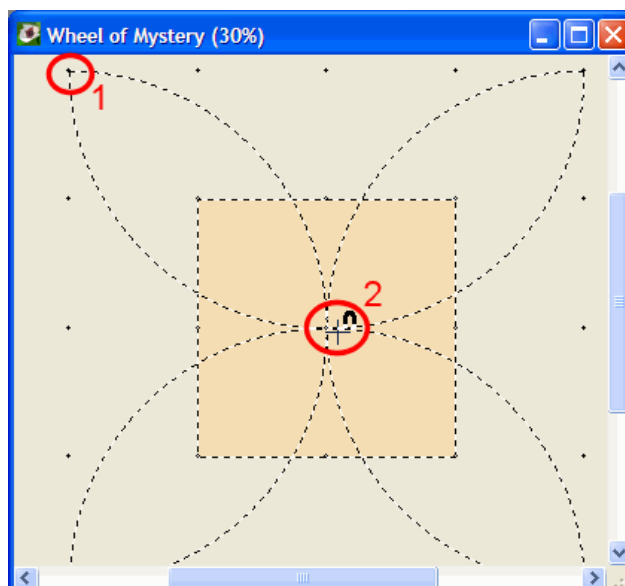
Wheel of Mystery

This block is all about getting the right kind of curves and will show you some advanced tricks. As always, start with a 6" block and set the '**Symmetry**' to '**4 Rotations**'. Then set the '**Snap to Grid**' to '**2x2**', and also set the '**Symmetry**' to '**Mirror Left/Right**'. Note that you combine 2 different symmetries (mirroring and rotation) to end up with an 8-fold symmetry.

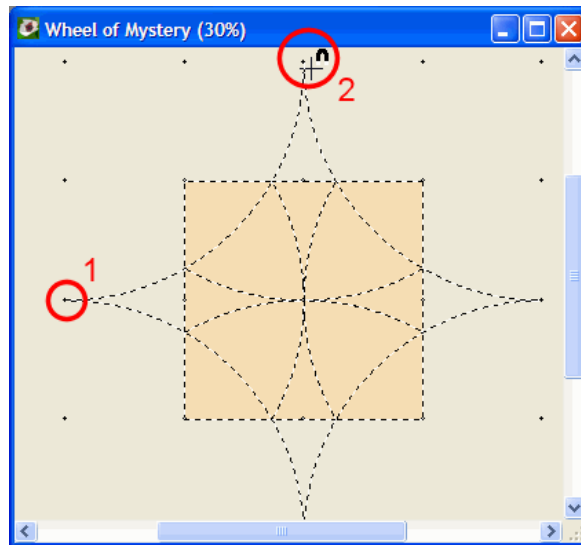
Now, to get the perfect curves, we are going to work 'outside the box'. To do this, zoom out a little, then click and drag the bottom right corner of the design window to increase its size. When you do this, scroll bars will appear, allowing you to move beyond the design canvas. As you can see, the grid also extends into this area.

We are going to draw quarter circles, so select '**Quarter Circle**' instead of '**Straight Line**' on your toolbar.

Wow, that was a lot of preparation, but it will pay off! Draw your first arc from point 1 (outside the design canvas) to point 2 (center) as shown below:

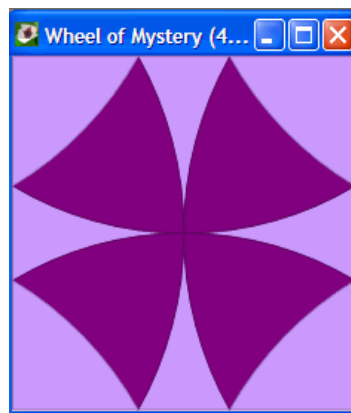


When you release the mouse, QuiltAssistant will keep only the parts of the arcs that are inside the design area and remove the rest. Eight perfectly symmetrical arcs finished, and only 1 step to go:



Note that as you move your mouse from point 1 to point 2, you should more or less follow the path of the arc that you are trying to draw, because QuiltAssistant will track your movements to decide which way to flip the arc.

Color the block to get the finished article:



To see this block in its full glory you would need a couple of different colorings and a quilt to arrange them in. So if you have Electric Quilt 5 or 6, now would be a good time to try the export function in QuiltAssistant: menu '**File=>Export=>To Electric Quilt**'. Alternatively, you can also export to a vector drawing for use in other software programs.

