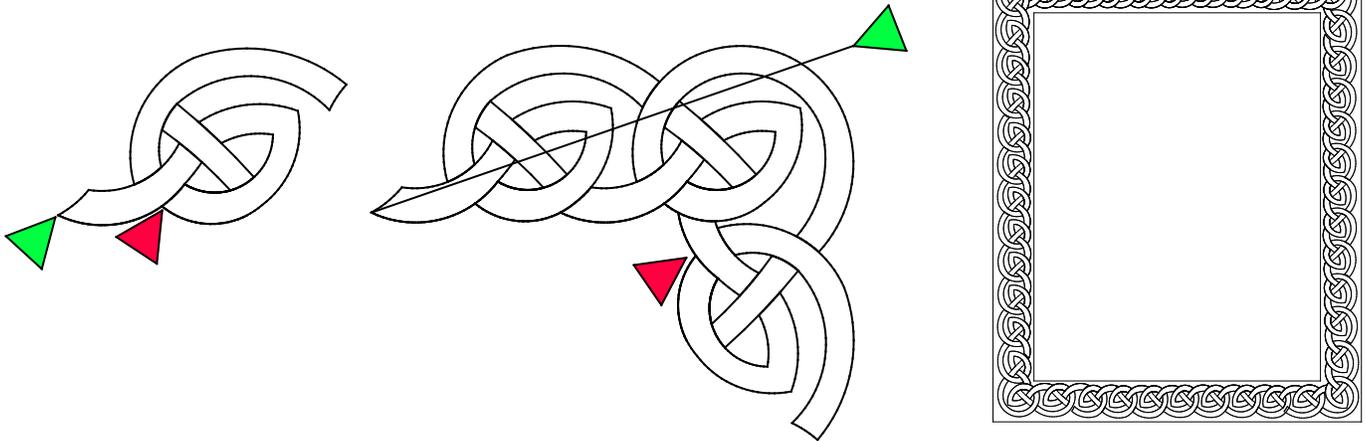


# Creating Complex Borders with CS

## Working with Interlocking and Nested Borders

By Kelly Gallagher-Abbott Copyright 2008  
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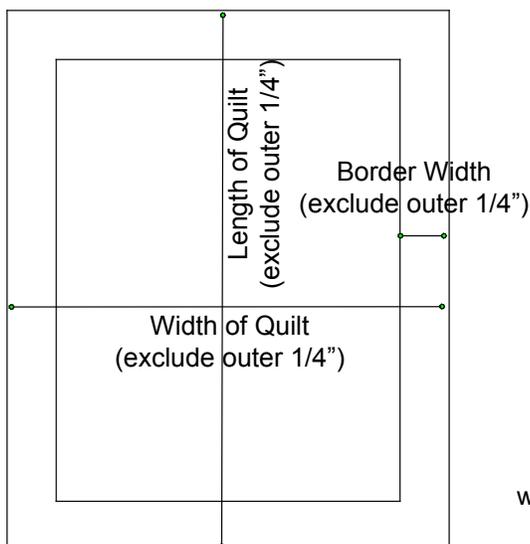
There are some awesome patterns out there that look great on quilts, but are not simple to place on a quilt. Thanks to CS, a lot of the guesswork no longer exists, but a few patterns defy logic and continue to be baffling despite all of CS's power. These wonderful Celtic Border patterns by Deb Geissler are an example of this situation.



Note where the start and ends are for these patterns (these are indicated by the green arrow for start, red for end). These points are "nested" inside the design. The start for the corner motif is actually a new-sew line from the outer corner, which makes this pattern easier to use, but the other nested points add a bit of a challenge. An additional feature of this pattern that adds complexity is the fact that the border corner units are not symmetrical - the pattern is slightly wider than it is tall. No worries, CS will help you figure this out. The final complex aspect of these patterns is the directional component - they continue around the quilt and cannot be flipped.

Here's one way to work with this pattern set:

Before loading your quilt, take the following measurements. Exclude 1/4" around the outer edge that will be covered by the binding. I just pretend this doesn't exist rather than trying to remember when to use an offset measurement in the programming.



Fill in the following measurements:

Width of Quilt: \_\_\_\_\_ inches  
 Length of Quilt: \_\_\_\_\_ inches  
 Border Width: \_\_\_\_\_ inches



The quilt I was working on had the following measurements:

Width of Quilt: 46 inches  
 Length of Quilt: 54 inches  
 Border Width: 4.5 inches

Complete the following math (come on, it's easy):

           - .5 =             
 Border Width Minus Offset of 1/4" from each side of pattern Equals Desired Height of Border

Deb includes a pdf with her corner patterns that gives you a magic number. This magic number tells you that the corner pattern will need to be 2.23 times larger than the celtic border. So, fill in the following:

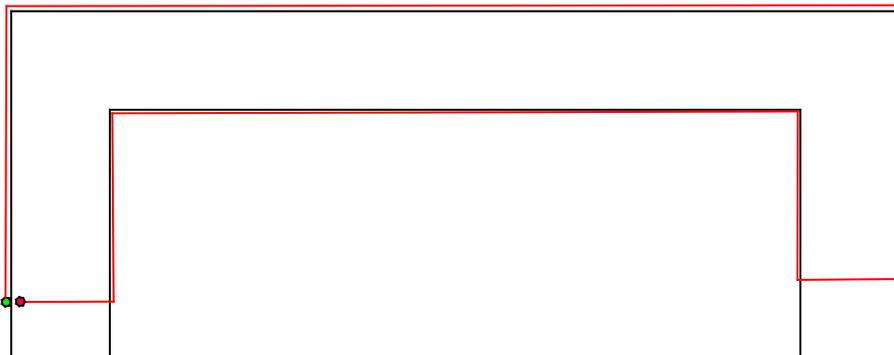
           X 2.23 =             
 Desired Ht. of Border Times Deb's Magic Number Equals Desired Ht. of Corner Unit

For my quilt, the measurements are:

4.5 - .5 = 4  
 Border Width Minus Offset of 1/4" from each side of pattern Equals Desired Height of Border

4 X 2.23 = 8.92  
 Desired Ht. of Border Times Deb's Magic Number Equals Desired Ht. of Corner Unit

Load your quilt after doing these measurements. Bring the two patterns into CS (following the User's Manual if needed). Do not use the Border/Corner function for these types of patterns. Instead, create a boundary to show the top borders and corners.



Select the Celtic Border Corner, then choose Repeat Pattern. You'll be asked to click "OK" to select the reference point. Choose the upper right corner of the quilt with the laser (click 1/4" in from the unfinished outer edge to allow for the binding) and click at this point from the head of the machine.

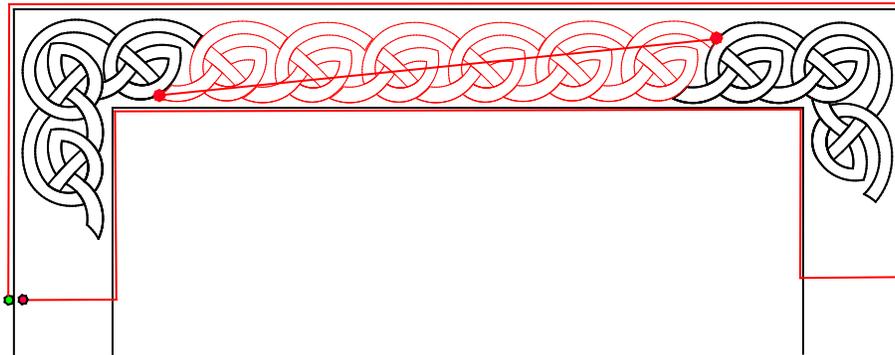
**Note:** the pattern information on your screen shows that this pattern has a reference point of "start point." Remember that Deb's pattern has a no-sew line at the beginning of the pattern from the upper right corner.

After you click "OK" on the head, the pattern will come in very large, oriented to the upper right corner of the quilt. From the keyboard/mouse, click on it to select the pattern. Now, using the pull down menus on the lower left of the screen, go to "Lock Patterns as Designed" and select "Yes." Hit the return key to lock in this choice. Also make sure the "Freeze Aspect" is "On."

Now, using the measurements you got from before, change the height to the Desired Height of the Corner Unit. The width will change automatically. Drag this pattern to where you feel it looks best, but be careful to not stretch it or resize it.

Go back and select the corner unit again from your Pattern Menu. Again select "Repeat Pattern" and another large corner unit will appear on your screen. Drag this away from the first corner to work with it. Follow the above steps, again setting the height. **After** you've set the height, right click on the pattern, and choose "Rotate 90 Degrees." Drag this into the upper left corner of your boundary, Save your project, then stitch it out.

**Note:** The two corner patterns will have different heights and widths because of their original designs. Following the above steps will keep them uniform. Do not ever use the flip functions for this particular group of patterns!



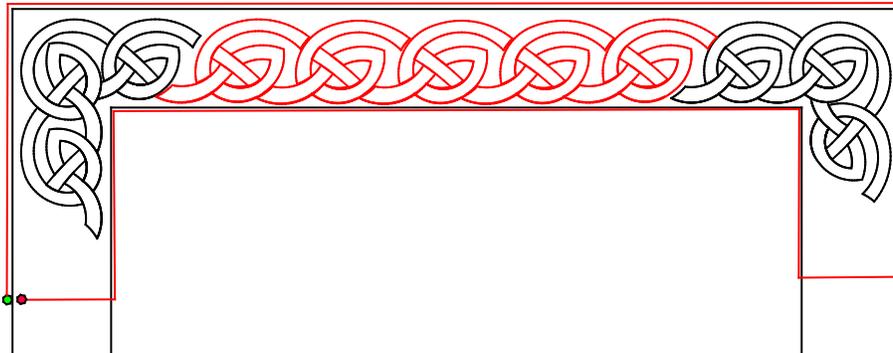
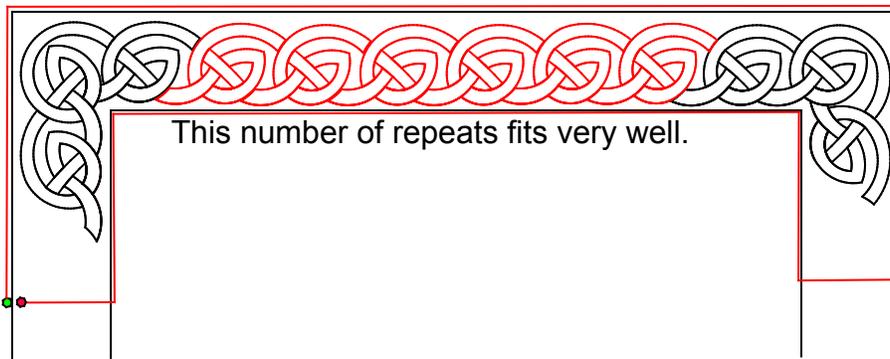
Next, using the Measure Tool and clicking on your quilt with the laser, measure from the two points shown. You'll be guessing where the border units will be fitting into the corners. This will give you an estimated number to work with for bringing in the repeated border patterns. You'll want the number given for the width - the length, height, and angle are not important.

Highlight the Border Unit in the pattern box. Select Repeat Pattern.

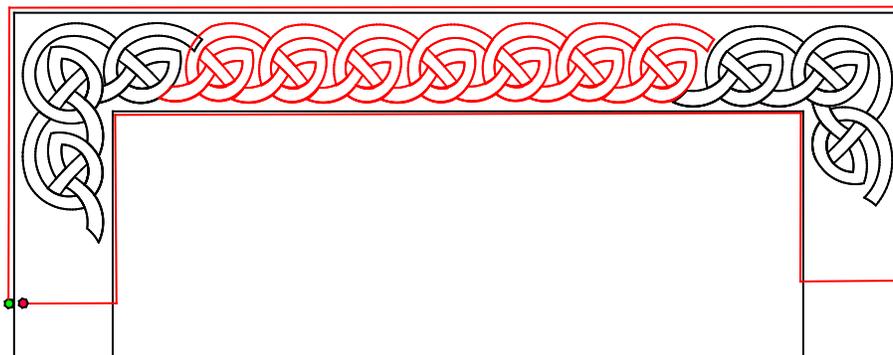
**Note:** When prompted to choose a reference point in the pop up dialogue box that appears when you choose "Repeat Pattern," ignore this and continue working with the measurements, freeze aspect, etc. Leave Startpoint as the reference point in the pattern menu. Put the Offset to zero, Lock Pattern as Designed to Off, and Freeze Aspect On. Put in the Pattern Height to your Desired Height, and then put the Total Width to what you just measured with the measuring tool. SAVE! THEN click on a reference point on the quilt top. If you choose a reference point on the quilt top prior to making these adjustments, your program will shut down! Remember to SAVE frequently! I select a random point away from my border to drop the patterns in as they're easier to adjust if you don't place them over the border units. Save again...



You may wish to add or remove repeats depending on how they fit between the corner units.



Too few or too many will cause gaps or overlapped areas at the two ends.



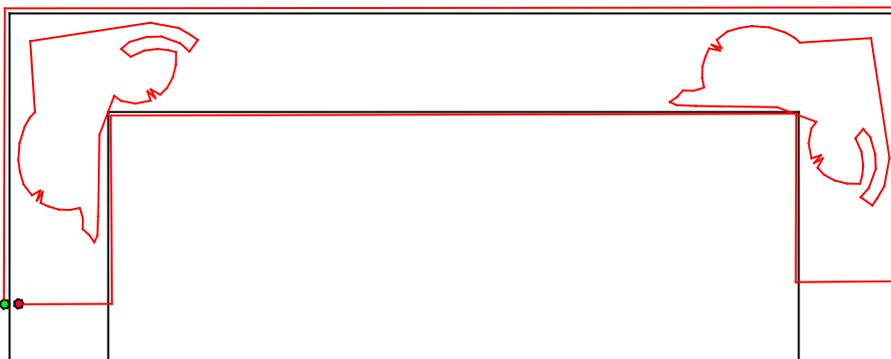
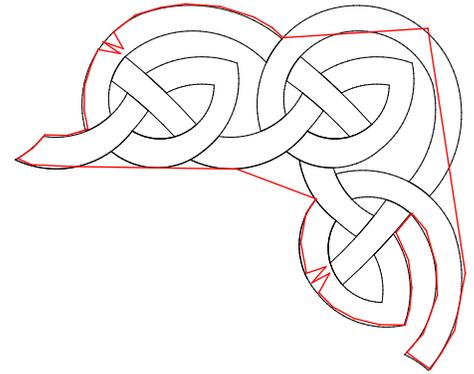
Once you've tweaked to the point you're happy, SAVE, then stitch out the border. I find that if I overstretched the pattern just slightly on the screen where the far right side overlaps the right corner unit a tiny bit, the shrinkage caused by the stitching will mean that there is no gap when you get to the far end. This factor is always dependent on your quilt's tension, your thread tension, the length of the border, and the alignment of the planets. You might want to delete or move the final repeat prior to sewing, and after the first section is done quilting, trace around the final repeat on your quilt with your Create Boundary function to show where the stitching really is on the quilt top. Move the final repeat back into place, adjusting slightly if needed, then complete the stitching. SAVE!

Whew, the hard work is done. I advance the quilt top to show the bottom border without creating a new group. You can delete the original boundary that you created from the top border, but leave all patterns on you screen. Create new boundaries showing the bottom borders. Next, select each of the patterns from the top border and right click. Toggle them each unsewn. Use the Group All function, then right click and rotate the patterns to fit into the bottom borders. Drag them in place in your boundaries, and stitch them out.



If you have the luck of working with a square quilt, you can select the repeated sections and rotate them. They could be reused after toggling them unsewn for the side borders, but for these types of border/corner units, or if the quilt is rectangular, I really recommend turning the quilt (come on, it really only takes a few minutes...).

Once the quilt is turned, you'll need to know where the corner units are and their size. I use the Create Boundary function and click around the border units. I click boundaries like shown, adding "points" where the end of the border units will need to meet up with the corner units.



Your screen will look like this.

Follow the previous directions on using the Repeat Pattern function for the side borders. You may (depending on the skills of the piecer and/or your placement of the corners) need to adjust the Square Up Quilt Measurement slightly. Stitch out this and the final border.

Feedback or better ideas? Both Deb and I would love to hear them. Just email me at [kelly@jukeboxquilts.com](mailto:kelly@jukeboxquilts.com). Hopefully, this will provide you with information you need to use your collection of border patterns!





This snowman quilt was created by Kelly for Lisa Rodgers of CA in Oct. 2009. Debra Geissler's Celtic Border and Corner patterns were used in the outer border. The snowmen were created by 6th graders, and are drawn with Tsukineko All Purpose Inks. For more information on these inks and creating fundraising quilts with artwork by children, visit [www.jukeboxquilts.com](http://www.jukeboxquilts.com).



This document was created at the request of Debra Geissler. To purchase these Celtic and other quilting patterns, please visit [www.debrageissler.com](http://www.debrageissler.com). For more information on Autosketch, patterns, and other quilt related products, visit [www.jukeboxquilts.com](http://www.jukeboxquilts.com). Kelly is also the curator of the Hoffman Challenge, and more information about this competition and traveling shows can be found at [www.hoffmanchallenge.com](http://www.hoffmanchallenge.com).

Patterns used for illustration were used with permission of Debra Geissler. Your feedback is welcome, contact [kelly@jukeboxquilts.com](mailto:kelly@jukeboxquilts.com).

