

Home Screen

The Quilt Path Software help file will show you how easy and fun it is to design your quilts, pantographs, and patterns. As you go through the Help sections, you'll get a terrific overview of the Quilt Path Software, whether you have it running or not.

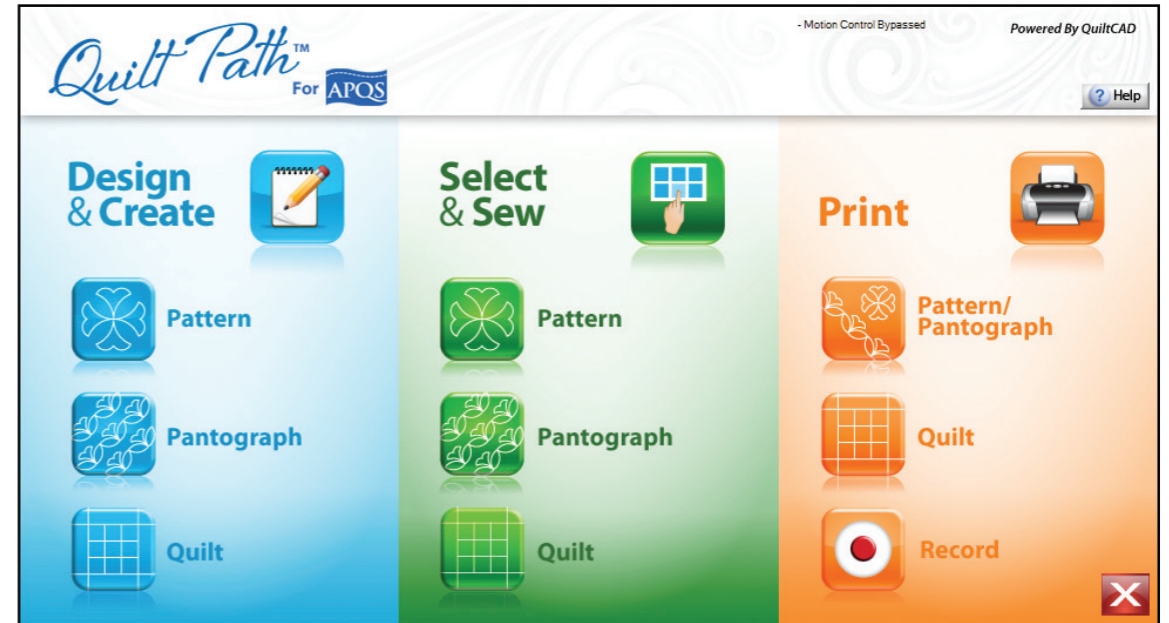


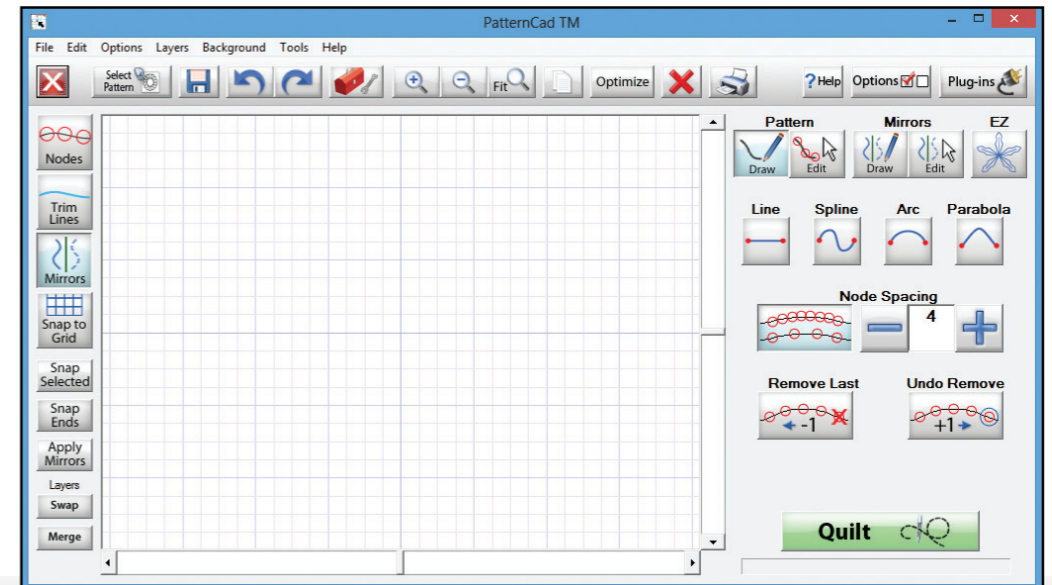
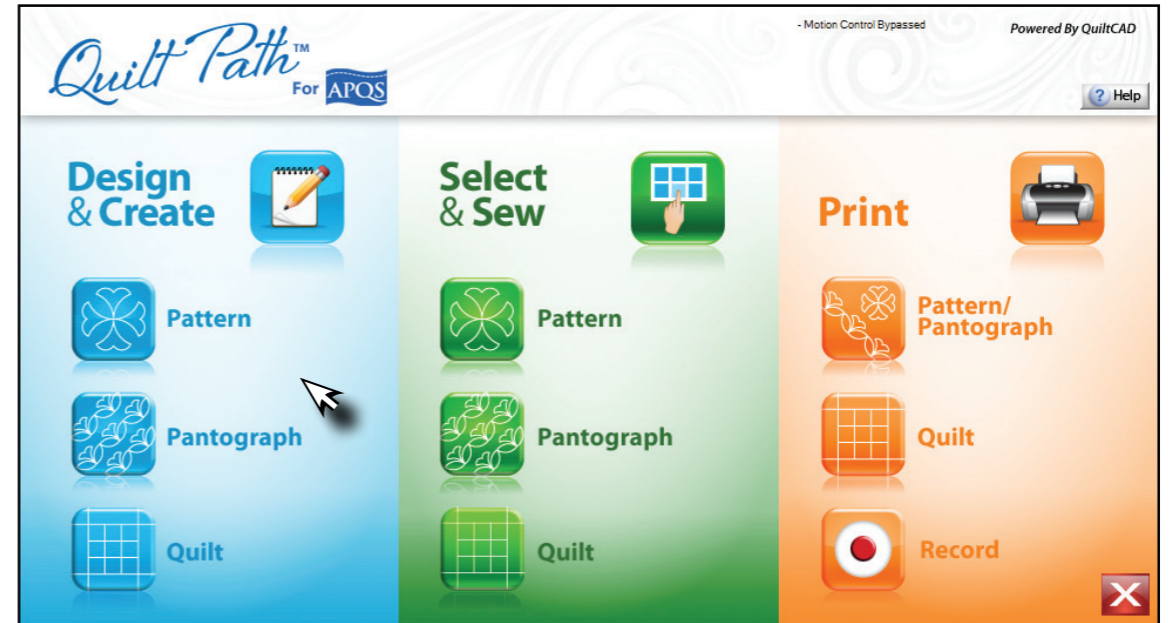
Table of Contents

Home Screen.....1	Pick a Mode35	Move70	Print Selection Tools103
Table of Contents..... 2	Pick a Pattern37	Stagger71	Print Options.....104
Design & Create - New Pattern	EZ Mode:	Flipping Patterns - Horizontal72	Record / Free Motion105
PatternCAD™ 3,4	Pantograph Size38	Flipping Patterns - Vertical73	Record Options.....106
Tool Bar.....5	Pattern Count39	Rotate74	Setting Safety Area107
View and Node Options..... 6	Rows.....40	Design and Create:	Quilting Screen Overview.....108
Menu Bar..... 7-9	Nesting.....41	New Quilt with QuiltCAD™75	Quilting Settings109
PatternCAD - Right Click Menu 10	Stretch & Center42	File Menu76	Quilting Settings Continued.....110
Preferences 11,12	Pattern Height43	Edit77	Quilting Settings: Margins.....111
Pattern Tools- Draw..... 13	Staggering Patterns44	Select.....78	Quilt as Single Pattern112
Line Examples.....14	Flipping Patterns45,46	Tools.....79	Quilt as Rows.....113-117
Edit Menu..... 15	Step Size47	Help.....79	Optimization Screen118
Select..... 16	Basic Mode:	Menu Bar80	Pattern Preview Pane119
Size..... 17	Pantograph Size48	Quilt Selection Area81	Optimization Tools120
Move.....18	Pattern Size.....49	Open and Save82	Placement Methods
Flip..... 19	Pattern Count50	Pattern Tools.....83	One Point.....121
Rotate..... 19	Rows.....51	Pattern Tools - Size84	Two Point.....122,123
Transform Group.....20	Nesting.....52,53	Move.....85	Block124,125
Mirrors - Draw.....21	Row Selection54	Step Size86	Tilted Block126
Mirrors - Edit: Size..... 22	Fit and Pattern Wrapping55,56	Selection Tools.....87	Four Points128
EZ, Easy Pattern Creator..... 23	Size.....57	Quick Select88	Multi-Point130
Flakes - Mirror Type.....24	Flip58	Quick Border Select.....89	Automated Bobbin Pull Feature132
Polygons - Line Type..... 25	Move59	Rotate, Flip.....90	Repair a pattern.....133,134
Poly Mirrors - Mirror Type..... 26	Stagger60	Merging Blocks.....91	Plug-ins: Import135,136
Spirals - Line Type27	Rotate.....61	Advanced Tools Menu92	Plug-ins: Export137
Bow Ditches - Line Type28	Advanced Mode:	Repeat Pattern93	Plug-ins: Virtual Long Arm.....138-145
Hilberts - Mirror Type29	Pantograph Size.....62	Triangle Blocks94	Optimization Screen145
Design & Create: New Pantograph with	Pattern Count63	Row Rippling.....95	Plug-ins: Fonts146-149
PantoStacker™30	Rows.....64	Select & Sew: Pattern.....96	
Menu Bar31	Nesting.....65,66	Select & Sew: Pantograph.....98	
Ruler32	Row Selection67	Select & Sew: Quilt100	
Zoom33	Fit and Pattern Wrapping68	Print: Pattern/Pantograph101	
Set Screen Scaling.....34	Pattern Size.....69	Print: Quilt102	

Design & Create - New Pattern

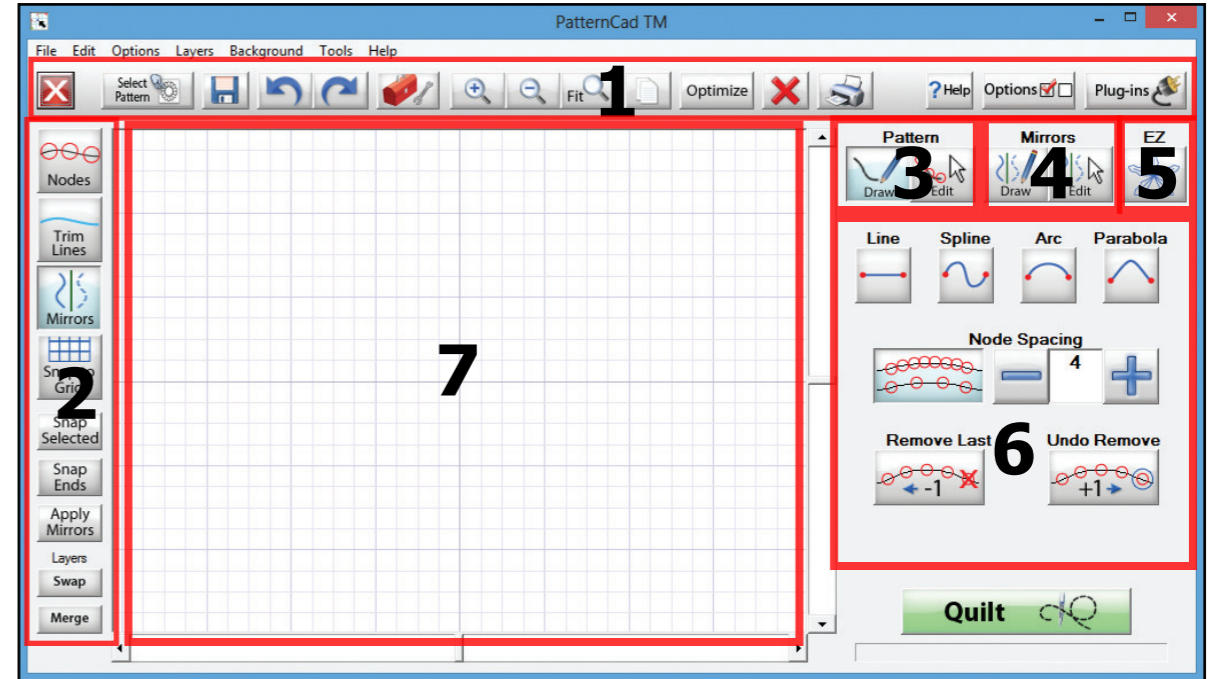
Within the Quilt Path Software software is PatternCAD. This portion of the software allows you to create your very own patterns that you can place onto your quilt. There is no limit on what you want to create!

We will cover each option and what it is capable of. To access PatternCAD tap the Pattern button under Design and Create.



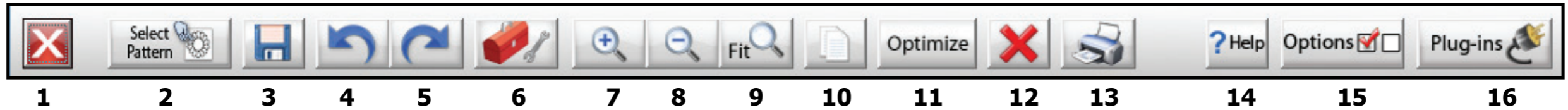
PatternCAD™

PatternCAD is a very powerful tool that allows you to create patterns. From simple line patterns to complex designs with multiple sections. There are numerous tools to help you achieve the results you are looking for. There are different tools within the application that enable you to change and create a wide variety of patterns. We will break them down into sections first, then cover each section and how they can be applied.



- 1. Tool Bar** — A quick way to access functions you may use often; Save, Undo, Re-do, Zoom in, Zoom out, etc.....
- 2. View and Node options Quick Menu** — This menu allows you to show or hide trim lines, nodes, and mirrors.
- 3. Pattern Tools** — The pattern tools are what allows you to choose the type of line you wish to make. It also allows you to edit patterns already created.
- 4. Mirror Tools** — The mirror tool is used to create items that may repeat such as a snowflake, using this you can make an 8 sided pattern by only creating one section.
- 5. EZ Pattern** — This option allows you to load preset design schemes, and from there you can add what ever you prefer and change the presets.
- 6. Current Tool Menu Area** — This area will display the functions of the Pattern Tools, Mirror Tools, and EZ pattern tools.
- 7. Drawing Plane** — This is the working area of the pattern, this is where all the magic happens!

Tool Bar



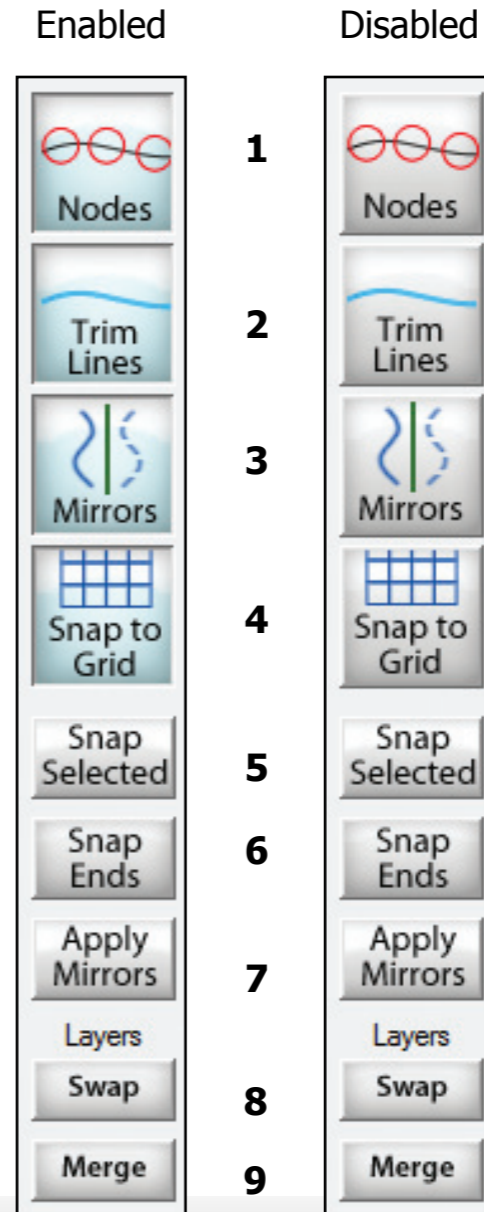
- 1. Exit** — Exits PatternCAD.
- 2. Select Pattern** — Opens the Pattern Selection window.
- 3. Save** — Saves your current pattern.
- 4. Undo** — Removes last action performed.
- 5. Re-do** — Replaces the action of an Undo.
- 6. Tool Box** — Opens menu for layers, background, and templates.
- 7. Zoom In** — Zooms in on the Pattern Grid.
- 8. Zoom Out** — Zooms out of the Pattern Grid.
- 9. Zoom Fit** — Will Zoom into the current items selected.
- 10. Copy Selected** — Copies and Pastes the selected nodes.
- 11. Optimize** — Opens the Optimization screen.
- 12. Delete All** — Deletes all nodes on the screen.
- 13. Print** — Allows you to print the pattern.
- 14. Help** — This menu allows you to access this help file, and see detailed information about the application.
- 15. Options** — Access to the [Preferences Menu](#)
- 16. Plug-ins** — Access to the Font plug-in and it allows you export or import patterns.

View and Node Options

The tools on the left are more geared towards how you see the pattern and how the pattern grid reacts to your input.

Node = a basic unit used to build data, a point on a grid or graph.

- 1. Nodes Enabled** — Displays pattern nodes.
- 2. Trim Lines Enabled** — Displays all trim lines for the pattern.
- 3. Mirrors Enabled** — Displays Mirrors on the pattern.
- 4. Snap to Grid Enabled** — When you draw a line, the nodes will snap to the pattern grid.
- 5. Snap selected** — This option connects 2 nodes so they become part of a continuous line.
- 6. Snap Ends** — Connects the starting node to the ending node.
- 7. Apply Mirrors** — This will make the Mirrored nodes permanent.
- 8. Swap** — Switches between the layers of the pattern.
- 9. Merge** — Merges the layers, only 2 layers are available.



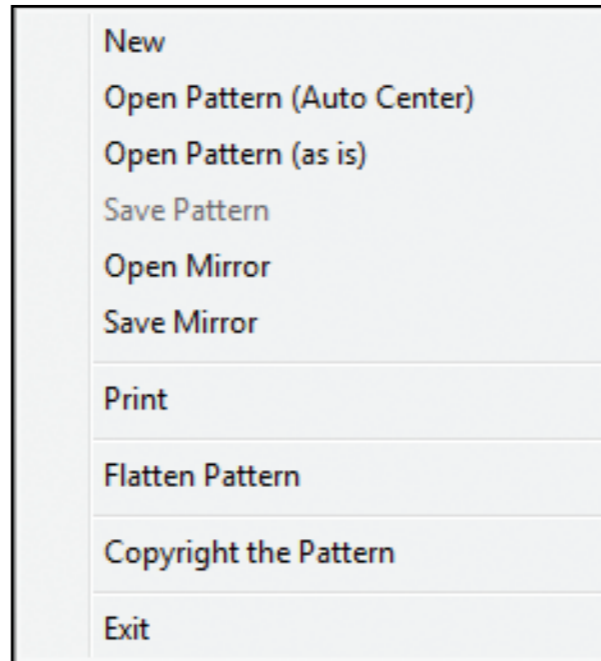
Menu Bar

File Edit Options Layers Background Tools Help

File

The file menu is mostly used to open a new file, and existing file and save the file.

- **New**
Opens a blank template to create a new pattern.
- **Open Pattern (Auto Center)**
Open an existing pattern file and center it on the working space.
- **Open Pattern (As Is)**
Opens a Pattern without changing the orientation.
- **Open Mirror**
Opens a saved mirror layout.
- **Save Mirror**
Saves mirror settings for future use.
- **Print**
Opens the print Menu

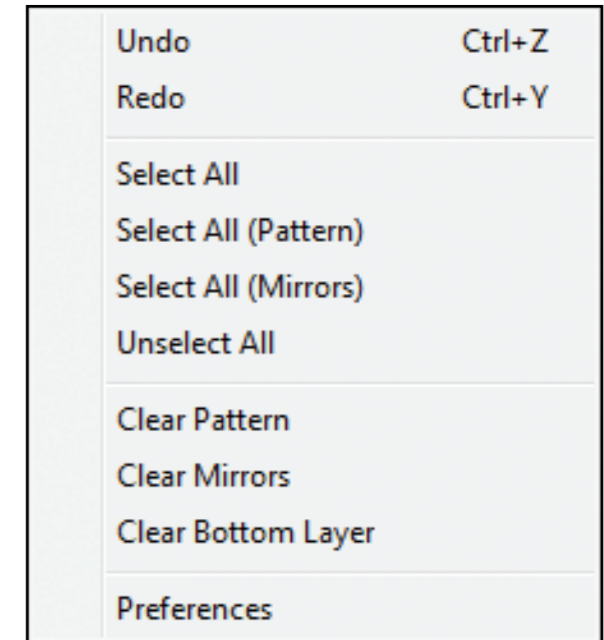


- **Flatten Pattern**
Applies all layers of the image onto one layer.
- **Copyright Pattern**
Copy right your pattern, Take credit for your work!.
- **Exit**
Exit the application

Edit

The edit menu is used to Undo or Redo an action, Select different layers of the pattern, Rest the patterns and access the Preferences menu.

- **Undo**
Undo the last action, You can undo to your first action.
- **Redo**
Re applies an action if the Undo feature is used.
- **Select All**
Selects all items in PatternCAD
- **Select All (Pattern)**
Selects only the Pattern Nodes
- **Select All (Mirror)**
Selects only the Mirror Nodes
- **Unselect All**
Deselects all nodes.
- **Clear Patter**
Removes pattern nodes.



- **Clear Mirrors**
Removes all mirror nods
- **Clear Bottom Layer**
Removes the Unselected Layer
- **Preferences**
Opens the [Preferences](#) Menu

Menu Bar



Options

The options menu shows you the current line type you are using, represented by the check mark. It also allows you to choose a different line type to draw with.

- **Draw Lines**

Sets the Draw tool to Lines.

- **Draw Splines**

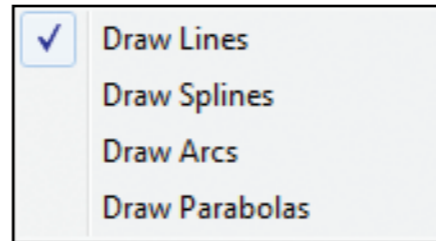
Sets the Draw tool to Splines.

- **Draw Arcs**

Sets the Draw tool to Arcs.

- **Draw Parabolas**

Sets the Draw tool to Parabolas.



Layers

There are 3 types of layers in PatternCAD; Top Layer, Bottom Layer, and the Mirror Layer.

The Bottom Layer is the same as Top Layer, but any changes you make to the Bottom Layer will not affect the Top Layer. And the same applies if you make changes to the Top Layer, the Bottom Layer will not be affected. The Bottom Layer is the default Layer.

The Mirror Layer shows the mirror and the lines it will duplicate, but they are not applied to the pattern file until you select Apply Mirrors. Also mirrors will only be applied to the layer that is currently active.

- **Copy to Bottom Layer**

Copies the selected items on the Top layer and applies them to the Bottom Layer.

- **Swap Layer**

Switches between the two Layers.

- **Merge Bottom to Top**

Merges items from the Bottom and applies them to the Top.

- **Merge Top to Bottom**

Merges items from the Top and applies them to the Bottom.



Click [Here](#) to see some examples of these drawing tools.

Menu Bar



Background

The background menu allows you to apply a specific image or grid to the PatternCAD drawing plane.

- **Clear**

Removes the Grid and any loaded Image

- **Grid**

Places or removes the grid on the drawing plane.

- **Load Image**

When this option is selected you are able to browse your computer and load jpg image or bitmap as the background. Once its loaded you can trace the image.

- **Fade**

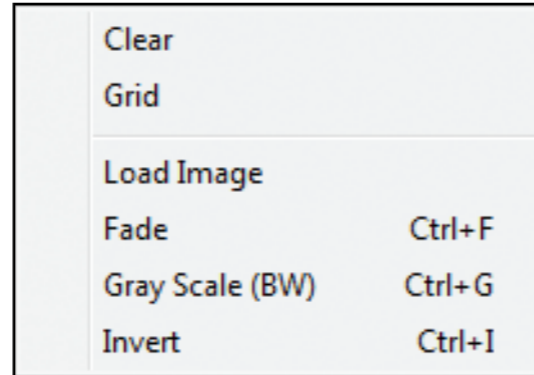
Applies a fade to the background image. This works best if you are having a hard time seeing the image and your lines.

- **Grey Scale**

Changes the background image to grey scale. All color is removed.

- **Invert**

Inverts the color of the background image. Sometimes that can be useful when the image is hard to see.



Tools

The tools menu allows you to access three pre made templates to create patterns with. You can also move the start and end point of a pattern.

- **Triangle Template**

Places a triangle on the Top Layer, this can be used as a border for a pattern.

- **Triangle Template 2**

Places a triangle on the Top Layer with a single line, double sided mirror. Great for creating Triangle patterns.

- **Triangle Template 3**

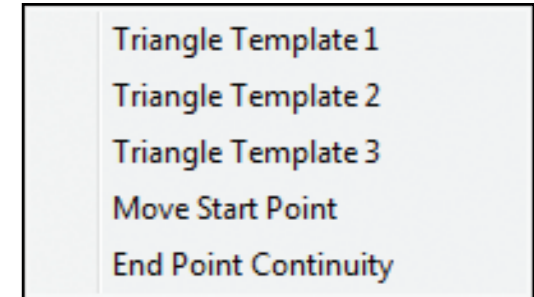
Places a Triangle on the Top Layer and a two line double sided mirror with the triangle. Perfect template for creating On Point Block Patterns.

- **Move Start Point**

Select any Node, and choose this option. The start point will be moved to the selected Node.

- **End Point Continuity**

This option will bring up two mirrors one on each side of the pattern. One at the start point and one at the End Point. It will then show you the pattern as if it was in a row. This option will be used when you want to make sure the point of your pattern line up.



PatternCAD - Right Click Menu

You can right click on the Drawing Plane at anytime to access this menu. From here you can quickly switch between Draw or Edit, Sketch or Mirrors. There are also options to Optimize, Undo, Redo, Select all, and much more. All of these commands can be found on the menu to the right. However there are some powerful tools here as well.

- **Clear**

The Clear option allows you to clear a specific element of your pattern. You can remove one of the following items and it will not clear the entire drawing plane; Pattern, Mirrors, Trace Layer, or All.

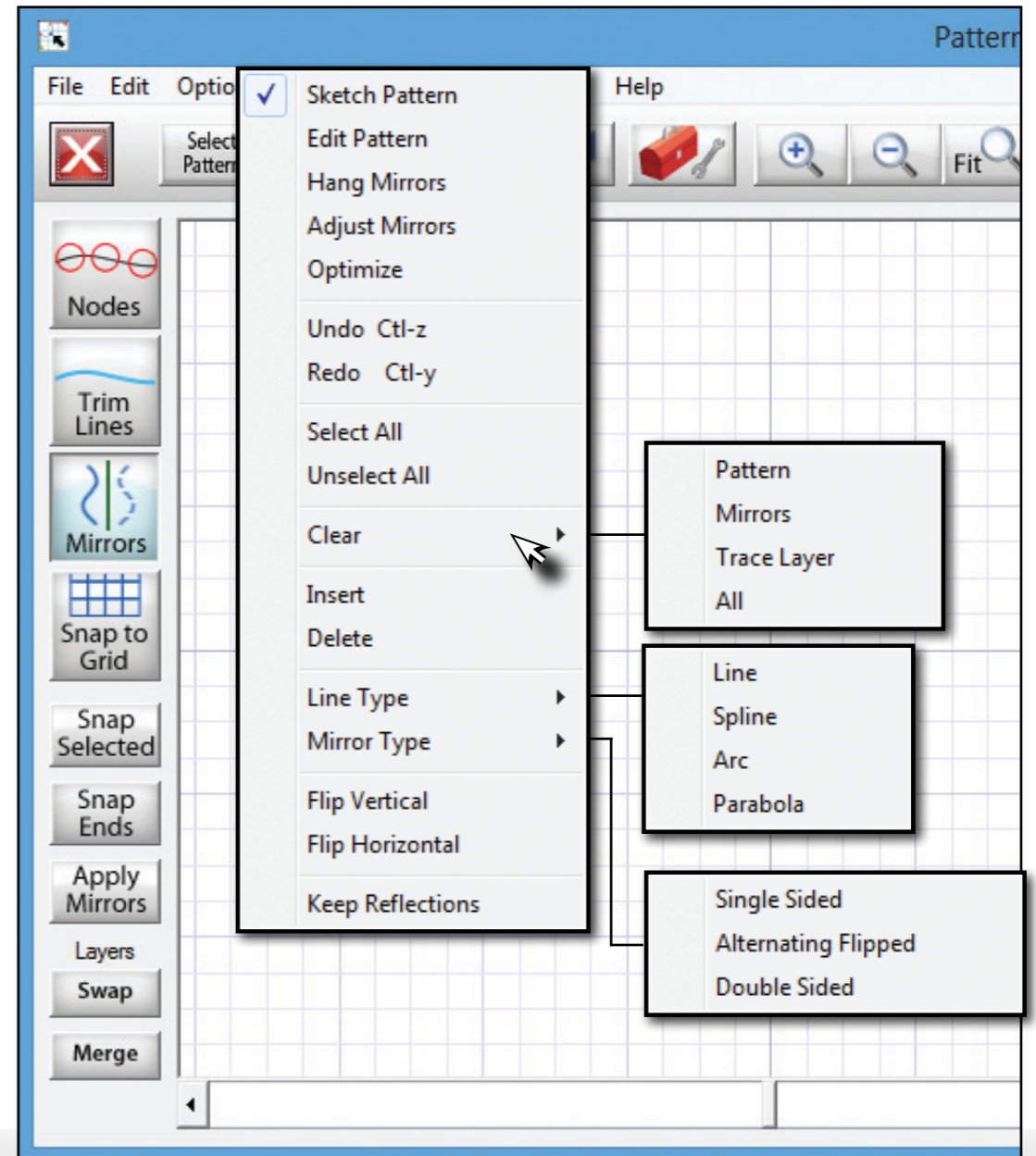
- **Line Type**

This option can be very useful. You can draw a Line segment and then convert it to any of the following; Line, Spline, Arc, or Parabola. To change a segment from one type to the other you must select the segment in edit then right click and choose Line Type.

- **Mirror Type**

Similar to the Line Type, this option give you the ability to change one or multiple segments of a mirror to convert them into different types of mirrors; Single Sided, Alternating Flipped(there must be multiple segments in the mirror), and Double Sided.

To change a mirror from one type to the other you must select the mirror in edit then right click and choose a new Mirror Type.



Preferences

The Preferences Menu allows you to change the colors of the different tools and block selections. To change a color just tap the color box next to the item to wish to adjust.

A couple of key items to take note on is that this preference menu has settings for QuiltMotion, PatternCAD, QuiltCAD, PantoStacker, Printing, and the Print/Export module.

You can change the color used to represent certain object, Lines, handles, Trim Lines.

If at anytime the settings get to messed up you can always click default to set the settings for that category back to what they were when the program was installed.

There are a couple settings under PatternCAD we want to cover.

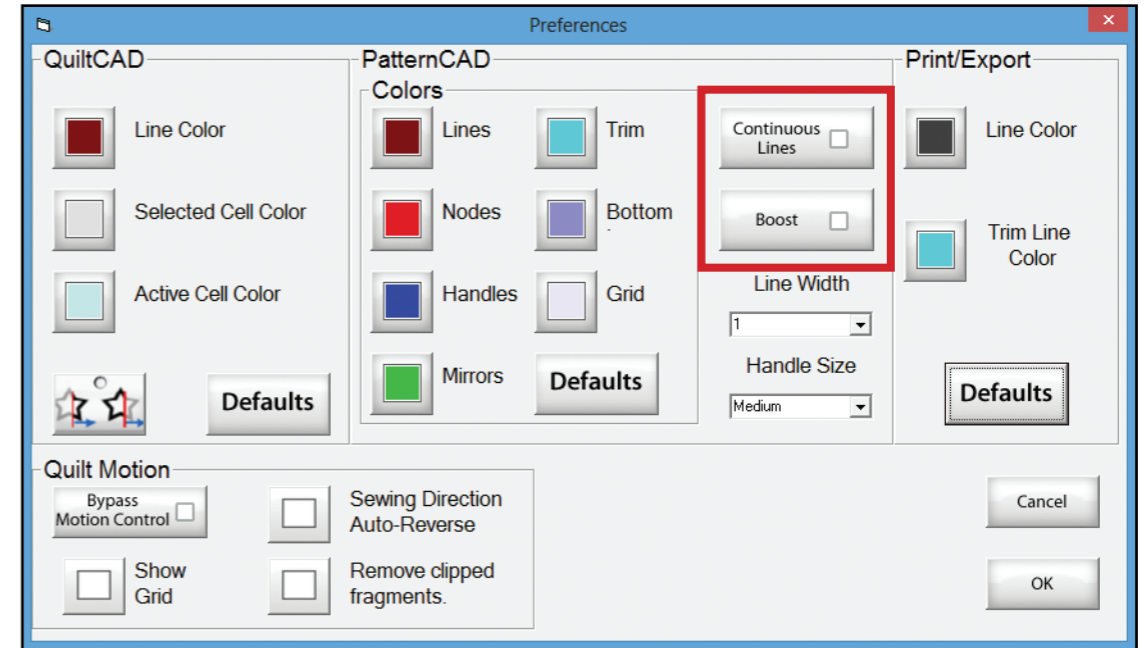
- **Continuous Line**

With this option enabled, each node that you add will be connected to the previous ones end point regardless of the line type.

This setting is ideal for creating a pattern in a continuous line without creating too many pattern segments.

- **Boost**

The Boost option enables a higher refresh rate when drawing a pattern. This mean each change you make is reflected immediately and the entire pattern is redrawn. Without it enabled the pattern is drawn one segment at a time, this is the recommended setting.



- **Line Width**

This setting allows you to change the width of the lines in PatternCAD. Great tool if you have such a large pattern.

- **Handle Size**

Change the Size of the handles, making them easier to select.

Preferences Continued

- **Pattern Wrapping**

Under the QuiltCAD section you will see an icon with stars in it, this is the pattern wrapping tool. When this is enabled (compressed) a pattern will wrap around one edge of the quilt and place the remaining portion of the pattern in the first block.

When this option is not turned on the pattern will not extend back to the first block. By default, this option will be disabled.

- **Bypass Motion Control**

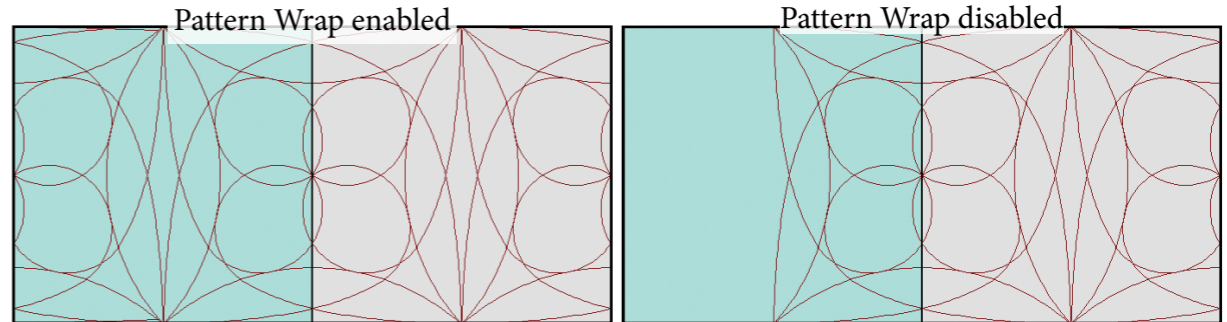
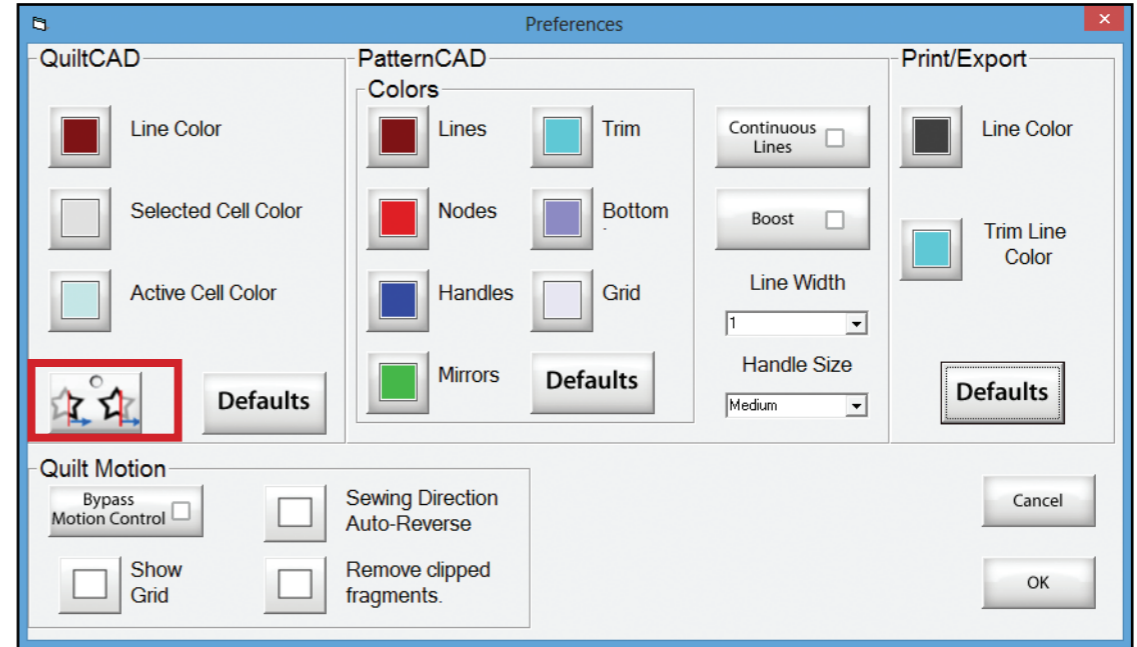
This option should only be enabled when you have installed QuiltCAD onto a computer that will not have QuiltMotion connected to it. This way you can show the functionality of QuiltCAD without receiving errors that it cannot connect to QuiltMotion.

- **Show Grid**

Turns the Grid on the placement screen on or off.

- **Sewing Direction Auto Reverse**

When enabled the software will try and sew the pattern selection in the most effective way, making sure it does not take unnecessary movements



- **Remove Clipped Fragments**

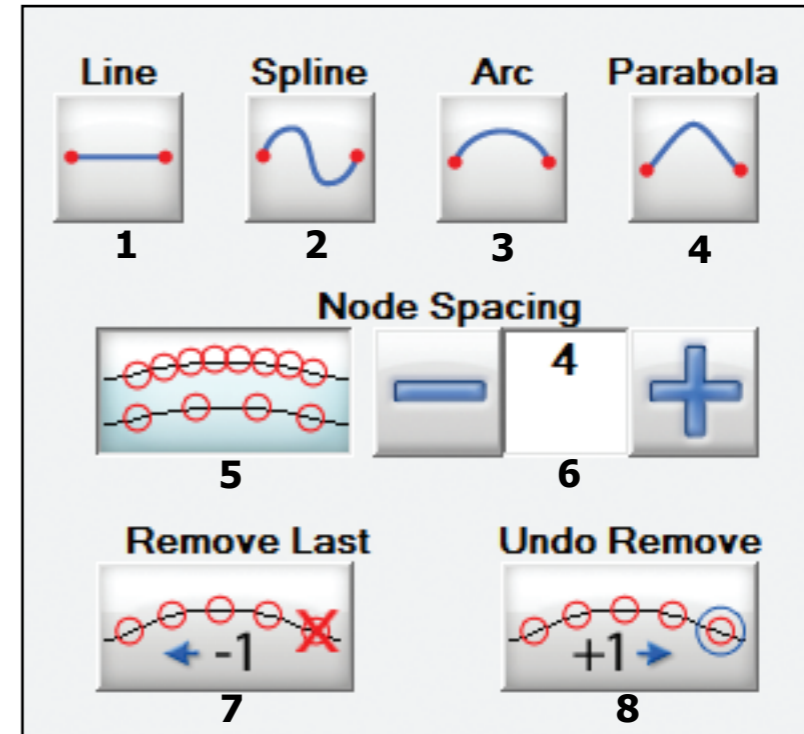
If you have this setting enabled, and you use any pattern wrapping option the software will remove fragments that are considered too small to sew. The size of your pattern can greatly effect this setting.

Pattern Tools- Lines

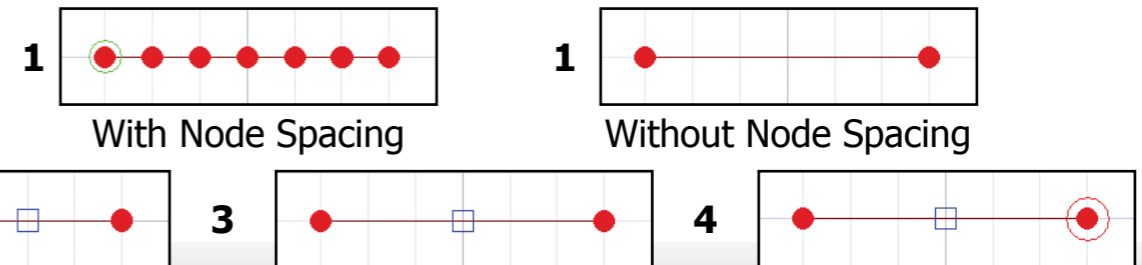
The Pattern tools option is broken up into two categories; Draw and Edit. We will cover the Draw functions first then move into editing.

PatternCAD offers some of the best ways to create patterns for all types of skill ranges, from beginners to experts. So lets get a good understanding on what they do and how they can be used!

- 1. Line** — Changes the drawing type to a line, or by node.
- 2. Spline** — Changed the drawing type to a spline.
- 3. Arc** — Changes drawing type to Arc.
- 4. Parabola** — Changes drawing type to Parabola.
- 5. Node spacing On/Off** — With this option you can choose to create a line with multiple nodes. Or by two, a starting node and an ending node. The Line option is the only one that will use these settings.
- 6. Node Spacing** — Sets the space between each node by using the + or -.
- 7. Remove Last Node** — Removes one node, the last node placed.
- 8. Undo Remove** — Replaces the node that was removed.



Here are some small examples of each type of line. You will notice the blue square, this is called a handle. This means the line has a point that can be moved and stretched to create the splines, arcs, and parabolas.



Pattern Tools - Line Examples

Line with Node Spacing:

- This setting is great when you are trying to draw an item with that is round, or smooth.

Line without Node Spacing:

- This setting works best for straight lines and items that have sharp corners.

Spline:

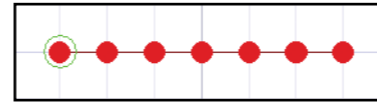
- A spline is a smooth line with two points you are able to adjust, these points are indicated in blue.

Arc:

- By dragging the blue box, the line will become a smooth, symmetrical arc.

Parabola:

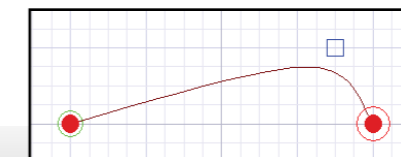
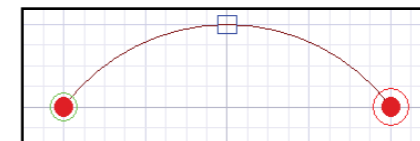
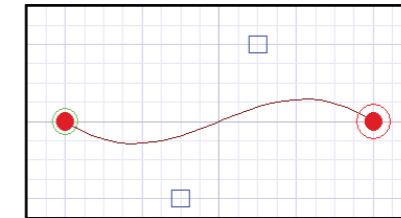
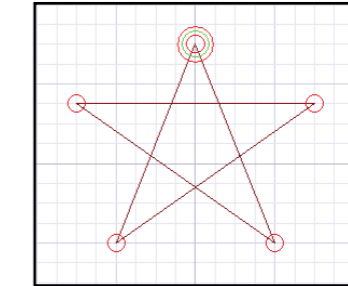
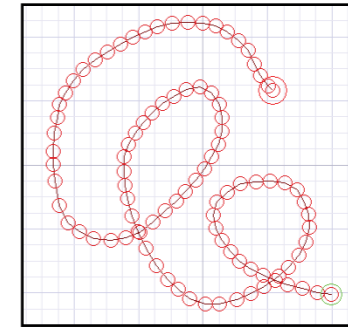
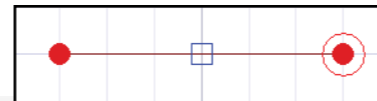
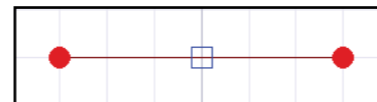
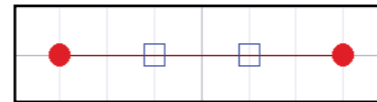
- Similar to an Arc, you can drag the box to extend the line, but the line will stretch in the direction you pull it.



With Node Spacing



Without Node Spacing

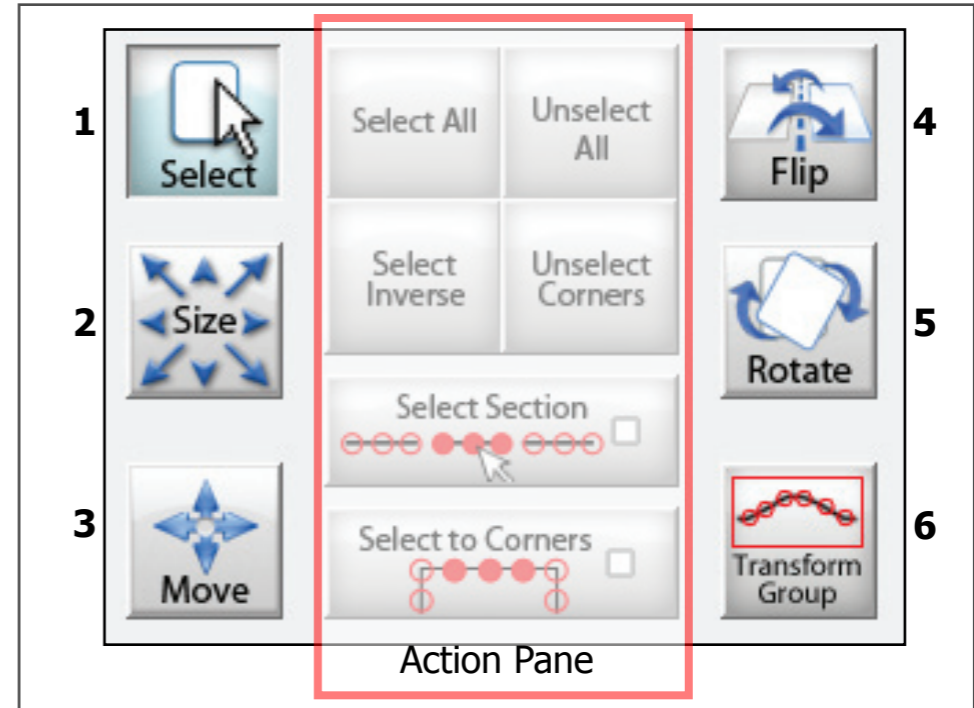


Pattern Tools - Edit Menu

The Pattern Edit section gives you the ability to change the pattern as a whole, or node by node. With the Edit menu there are 6 tools offered. Each one has a corresponding menu as to what that tool is capable of.

Let's cover the basics then review each one.

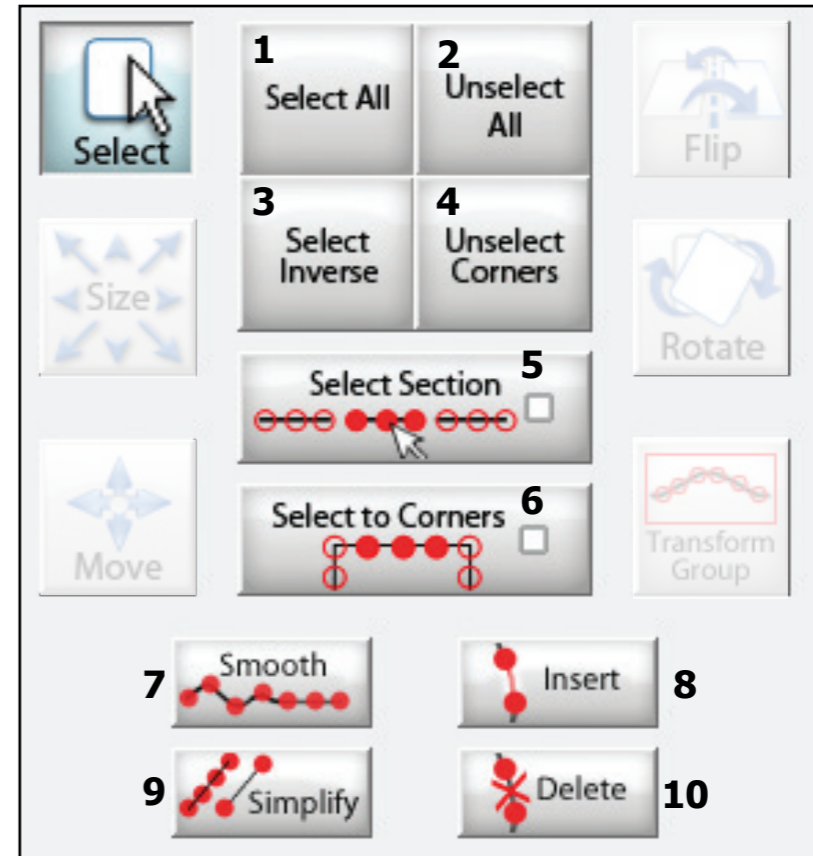
- 1. Select** — Displays the Select menu and selection options.
- 2. Size** — Changes to the Size menu, allowing you to change the pattern size.
- 3. Move** — Opens the Move menu, allowing you to move nodes or sections.
- 4. Flip** — Opens the Flip menu, allowing you to flip nodes and patterns.
- 5. Rotate** — Opens the Rotate menu, allowing you to rotate the pattern.
- 6. Transform Group** — One of the newest tools in PatternCAD. This tool allows you to manipulate the an entire pattern, or a specific selection by stretching, skewing, and warping.



Pattern Tools - Edit: Select

The select tool has many options to cater to a number of scenarios. Such as selecting all, inverse selection (opposite), sections, and corners.

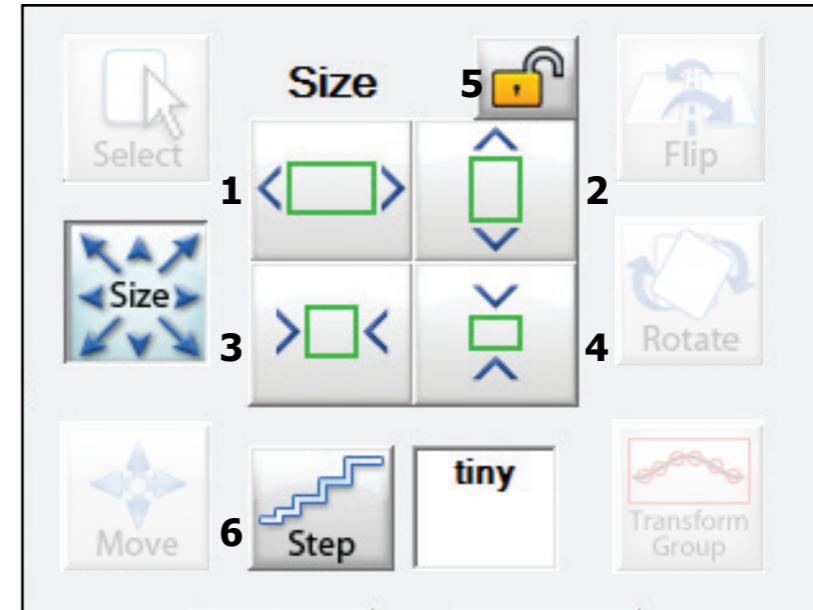
- 1. Select all** — Selects all Nodes.
- 2. Unselect all** — Deselects all nodes.
- 3. Select Inverse** — Deselects current nodes, and selects nodes that were not previously selected.
- 4. Unselect Corners** — Unselects the corner nodes leaving segments nodes selected.
- 5. Select Section** — When enabled it gives you the ability to select an entire section by tapping one node of that section.
- 6. Select Corners** — When enabled, you can select an entire corner by tapping a single node in that corner.
- 7. Smooth** — Smooths the pattern by moving nodes and making the pattern more rounded.
- 8. Insert** — Inserts nodes into your current selection. Must be a line with more than three nodes.



- 9. Simplify** — Removes unnecessary nodes giving the pattern better definition.
- 10. Delete** — Deletes Selected nodes.

Pattern Tools- Edit: Size

The sizing tool is used to make the pattern, or pattern segment larger or smaller. You can expand your selection height and width. The increment of change will be determined by your step size.



- 1. Increase width**— Increases the width of the selection.
- 2. Increase height** — Increases the height of the selection.
- 3. Decrease width** — Decreases the width of the selection.
- 4. Decrease height** — Decreases the height of the selection.
- 5. Aspect Ratio lock** — When enabled, the lock will be closed. This means the width and height will change at the same time. When disabled, the lock will be open and any changes made to height will not effect width and vice versa.

- 6. Step Size** — How much the pattern will grow or shrink. There is no numerical formula associated with the step size:
 - **tiny** — A small increment of movement.
 - **Small** — A slightly bigger increment of movement than Tiny.
 - **Medium** — A bigger increment than Small.
 - **Large** — A large increment in movement as compared to Medium.
 - **JUMBO** — The Largest movement increment.

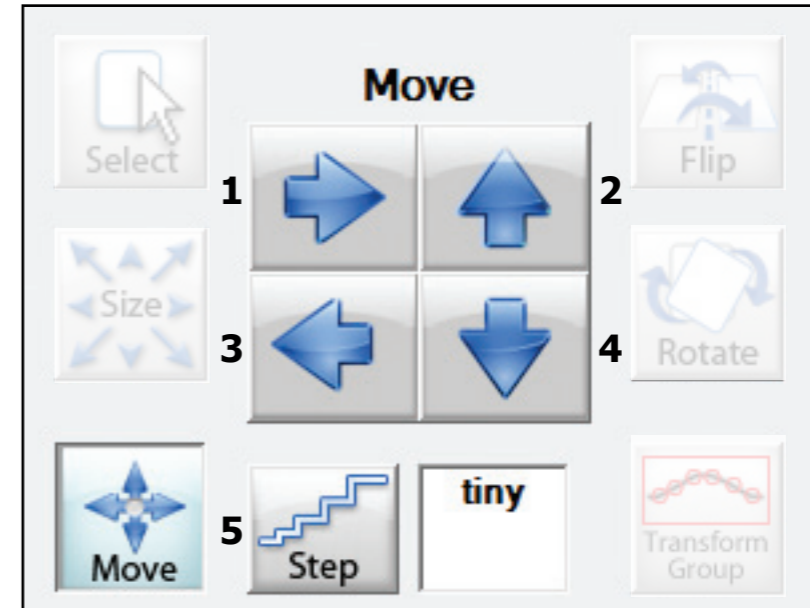
Pattern Tools- Edit: Move

The move tool allows you to move single nodes or entire selections. The amount of movement will be determined by your step size.

1. **Move Right** — Moves the node or segment to the right one step.
2. **Move up** — Moves the node or segment up one step.
3. **Move Left** — Moves the node or segment to the left one step.
4. **Move Down** — Moves the node or segment down one step.
5. **Step Size** — How much the pattern or selection will move.

There is no numerical formula associated with the step size:

- **tiny** — A small increment of movement.
- **Small** — A slightly bigger increment of movement than Tiny.
- **Medium** — A bigger increment than Small.
- **Large** — A large increment in movement as compared to Medium.
- **Jumbo** — The Largest movement increment.

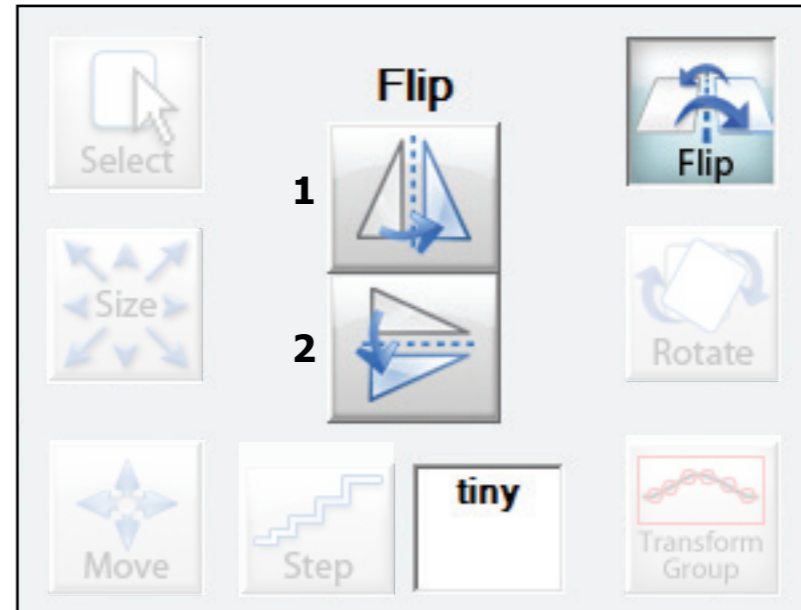


Pattern Tools- Edit: Flip

The flip tool allows you to flip specific nodes or sections of the pattern, or the entire pattern.

1. **Flip Vertically** — Flips the selection or pattern Vertically.
2. **Flip Horizontally** — Flips the selection or pattern Horizontally.

There is no step size associated to this tool.

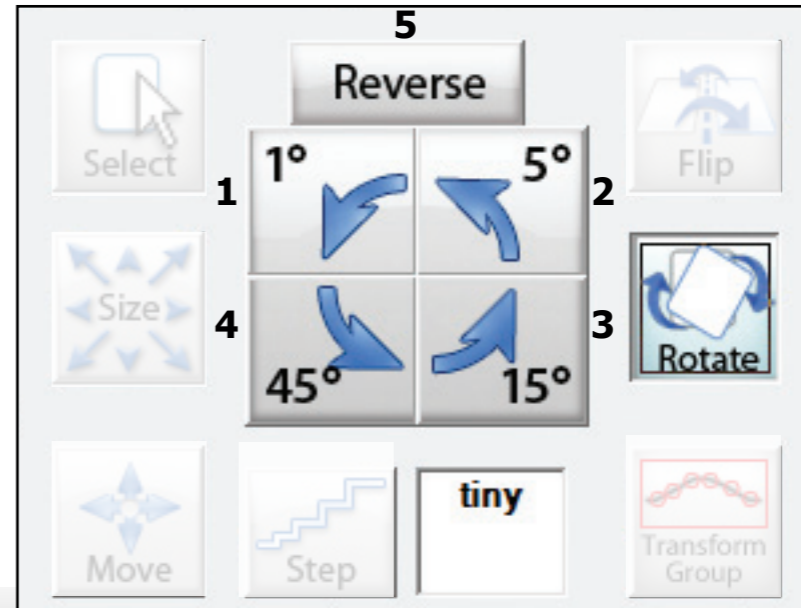


Pattern Tools- Edit: Rotate

The rotate tool allows you to change the angle of a pattern. There is not step size associated with this tool.

1. **Rotate 1°** — Rotates the pattern or selection 1°
2. **Rotate 5°** — Rotates the pattern or selection 5°
3. **Rotate 15°** — Rotates the pattern or selection 15°
4. **Rotate 45°** — Rotates the pattern or selection 45°
5. **Reverse** — Changes the direction the pattern will rotate.

By default the pattern will rotate to the left, reverse makes it rotate right.

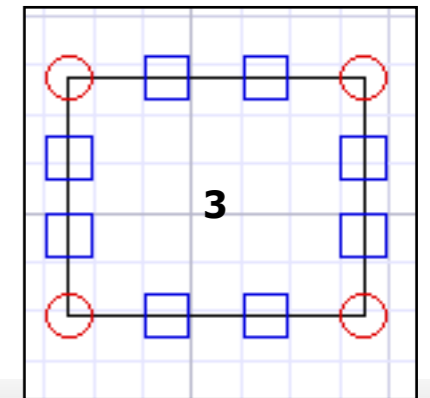
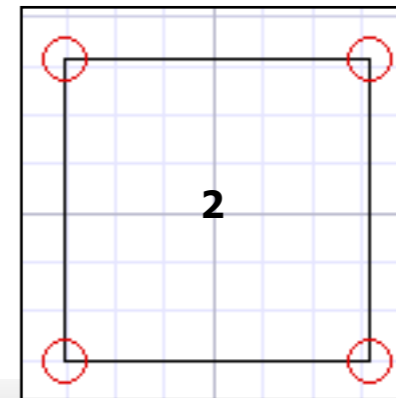
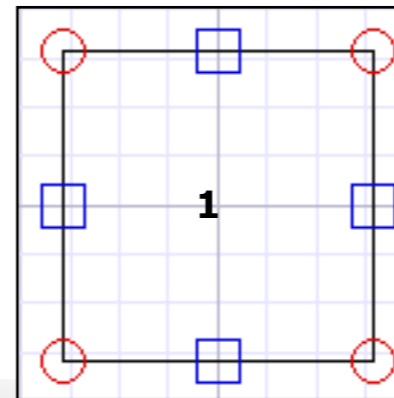
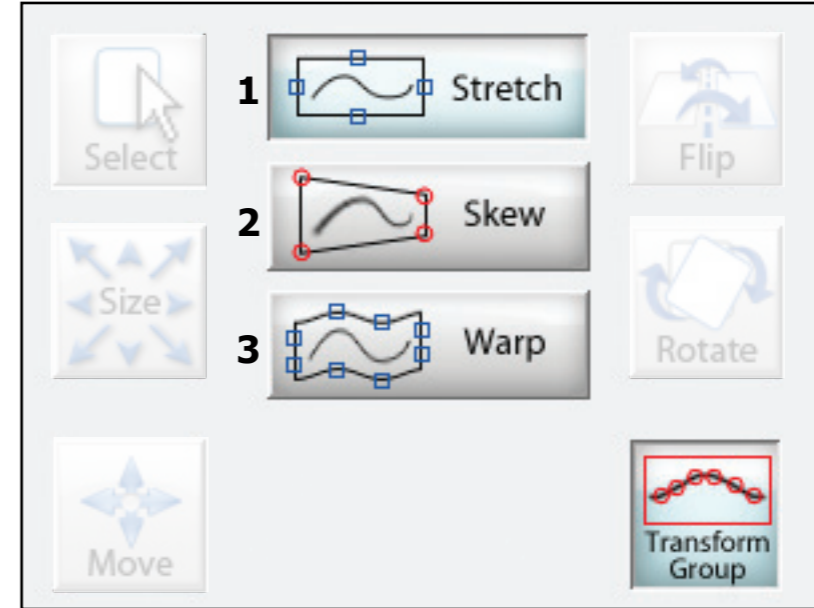


Pattern Tools- Edit: Transform Group

Transform Group is one of the newest tools to be implemented into PatternCAD. It allows you to make changes to the entire pattern without going in and modifying each individual tools setting. To access this tool, you must have nodes selected.

- 1. Stretch** — This options allows you to stretch the pattern. The red circles are to stretch the pattern by its corners. The blue boxes are to stretch just the top and bottom or sides.
- 2. Skew** — Skews the pattern selection to give it a skewed or elongated pattern.
- 3. Warp** — This tool allows you to warp the pattern using 4 corner nodes, plus 8 additional side nodes. Each spot is moved independently and will apply its effect to that portion of the pattern.

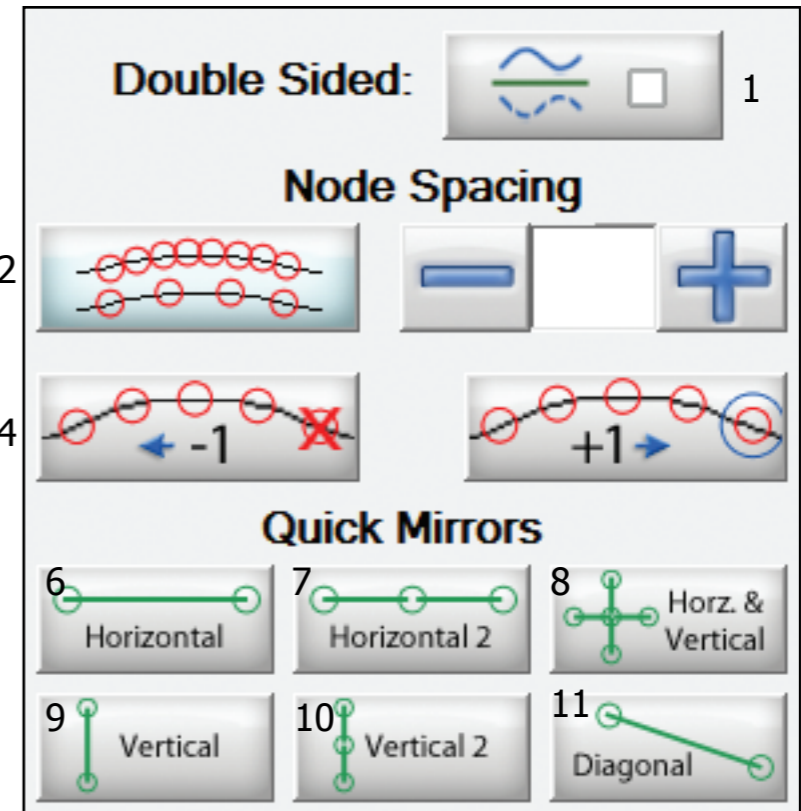
When you are done designing your pattern don't forget to [Optimize](#) it!



Mirrors - Draw

Mirrors can take a simple pattern and turn it into the centerpiece of your quilt. Lets look at some of the settings and what they are capable of.

- 1. Double Sided Mirror** — Enables and Disables the Double Sided mirror.
- 2. Mirror Draw Tool** — This is the option you will use to place a mirror where you want. And also the size and if there will be more than one segment to the mirror. When you enable mirror segments you can adjust the length of the segment with the + and - buttons.
- 3. Mirror Segment Length** — Adjust the distance between each mirror segment.
- 4. Remove one segment** — goes back one segment in the mirror line.
- 5. Add one segment** — will add the segment back if it has been removed.
- 6. Horizontal** — Places a horizontal mirror, one segment.
- 7. Horizontal 2** — Place a horizontal mirror with two segments.
- 8. Horizontal and Vertical** — Places four mirror segments. 2 horizontally and 2 vertically, each the same length.



Quick Mirrors allow you to quickly place preset Mirror segments. Once you select and place one, it can be edited to your liking.

- 9. Vertical** — Places a vertical mirror with one segment.
- 10. Vertical 2** — Places a vertical mirror with two segments.
- 11. Diagonal** — Places a diagonal mirror with one segment.

Mirrors - Edit: Size

Size

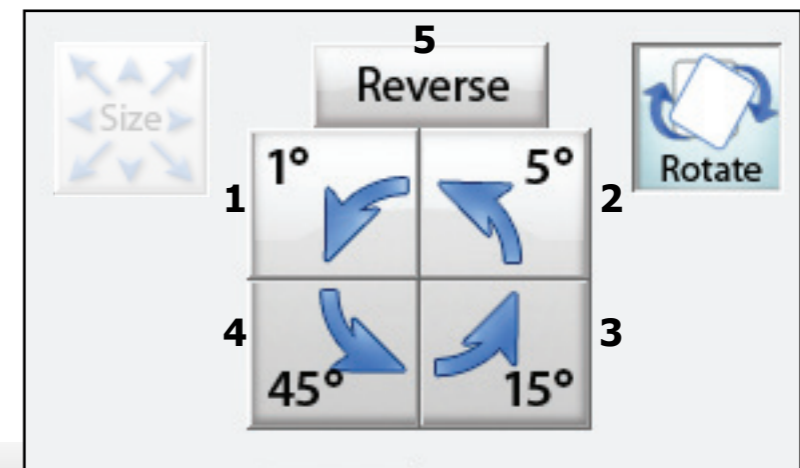
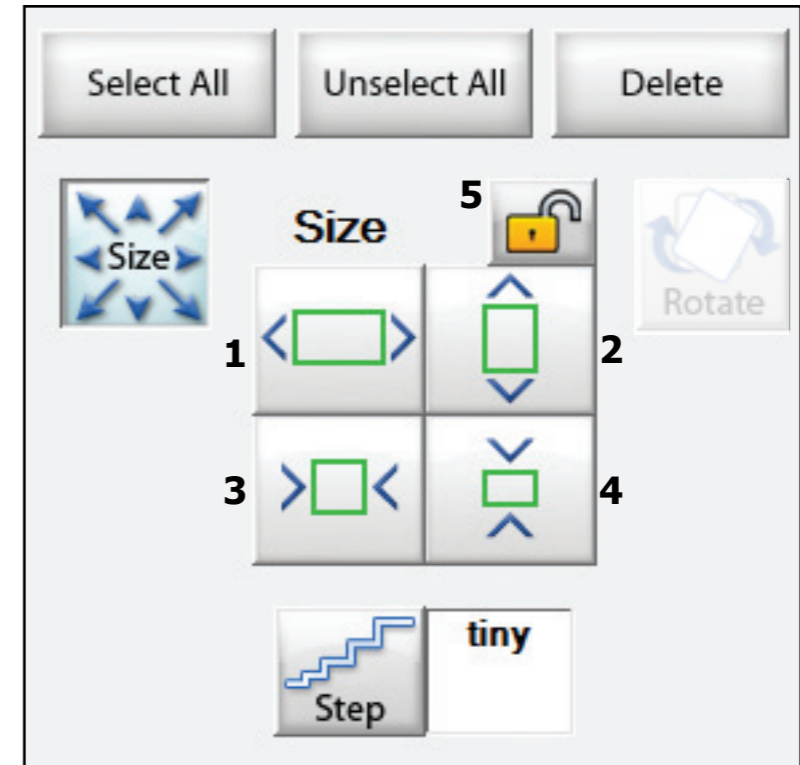
1. **Increase width** — Increases the width of the mirror.
2. **Increase height** — Increases the height of the mirror.
3. **Decrease width** — Decreases the width of the mirror.
4. **Decrease height** — Decreases the height of the mirror.
5. **Aspect Ratio lock** — When enabled, the lock will be closed. This means the width and height will change at the same time. When disabled, the lock will be opened, and any changes made to height will not effect width and vice versa.

Tap [Here](#) for information regarding step size.

Rotate

1. **Rotate 1°** —Rotates the mirror or selection 1°
2. **Rotate 5°** — Rotates the mirror or selection 5°
3. **Rotate 15°** — Rotates the mirror or selection 15°
4. **Rotate 45°** — Rotates the mirror or selection 45°
5. **Reverse** — Reverses the direction the mirror will rotate.

By default the pattern will rotate to the left, reverse makes it rotate right.

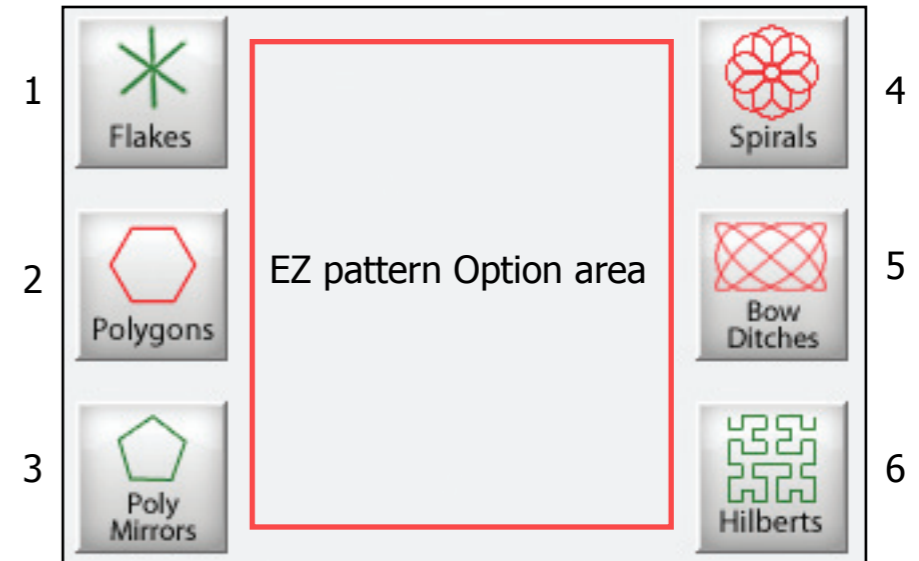


EZ, Easy Pattern Creator

The EZ section offers tools to quickly make patterns with some pre-set settings or you can use them as base settings to create something unique!

There are six EZ templates, some are mirrors while others are lines.

- 1. Flakes, Mirror type** — Places a “snow flake” mirror on the design space. You can have a minimum of 1 branch of the flake and maximum of 16. You also have the option of making the Mirror single or double sided.
- 2. Polygons, Line type** — Places a polygon into the design area. You can set how many sides it has from a minimum of 3 sides to a maximum of 50.
- 3. Poly Mirrors, Mirror type** — Places a polygon mirror onto the design area. You can set how many sides it has from a minimum of 3 sides to a maximum of 50.
- 4. Spirals, Line type** — Places a spiral line onto the design area. You can set how many spirals there are from a minimum of 2 to a maximum of 75. You can also set the radius of the spirals from a minimum of 2 to a maximum of 25.
- 5. Bow Ditches, Line type** — Makes a looping pattern, this one will be more square than the spiral option. The maximum change for all options on this EZ pattern is 16.
- 6. Hilberts, Mirror type** — Great for making a stipple pattern.



Green = Mirrors

Red = Lines

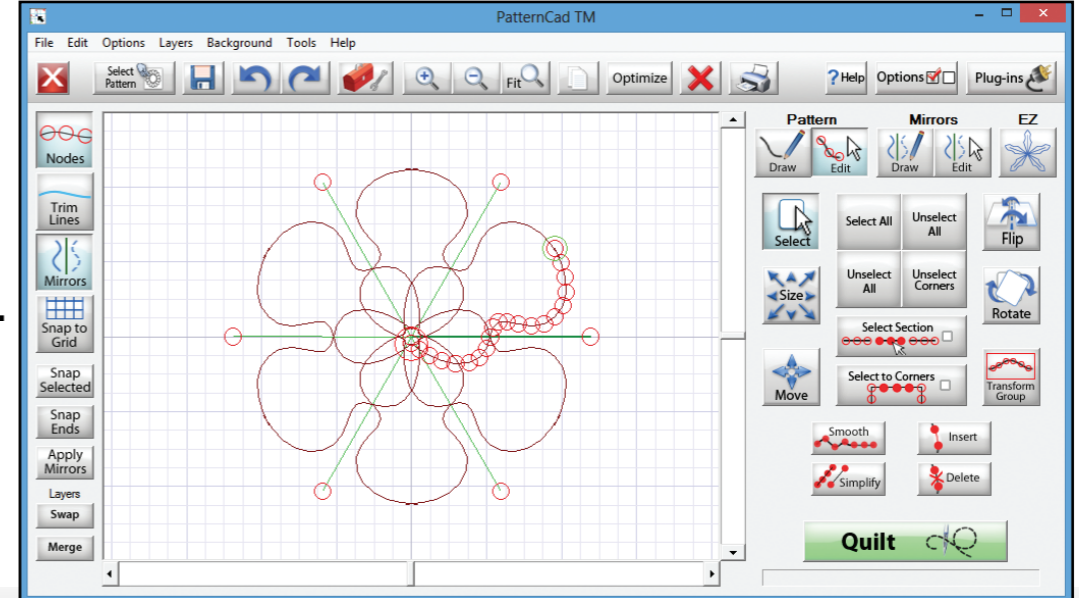
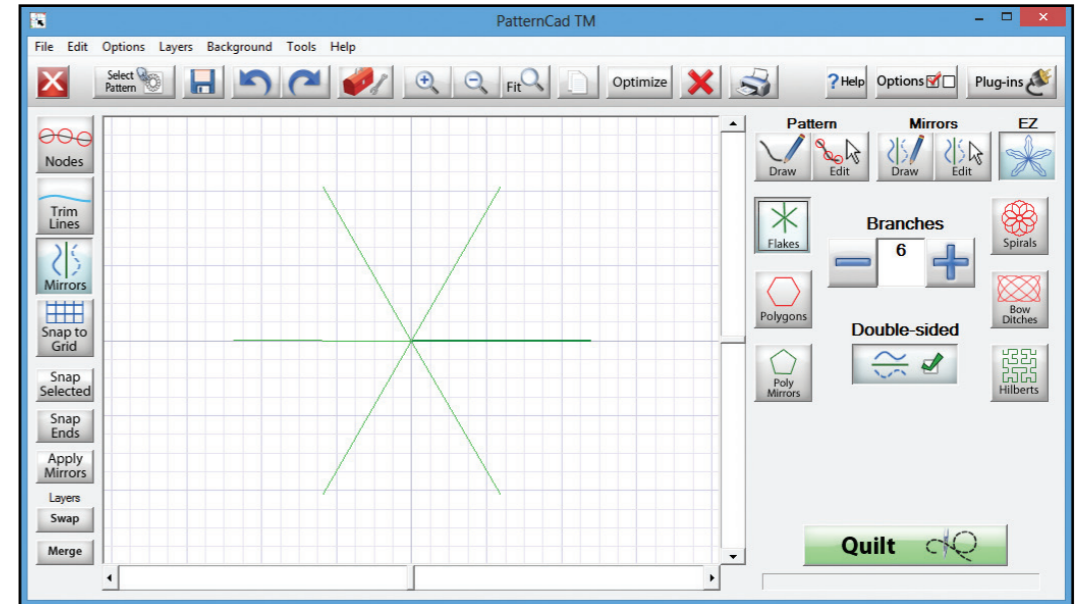
EZ: Flakes - Mirror Type

By default the Flake will start out with six double sided mirrors. You can change the number of Mirrors and choose to have it Double Sided or not.

- Minimum Mirrors 1
- Maximum Mirrors 16

You can adjust the length of the mirrors in the Edit Mirrors section.

Here is an example of the Flake EZ pattern.



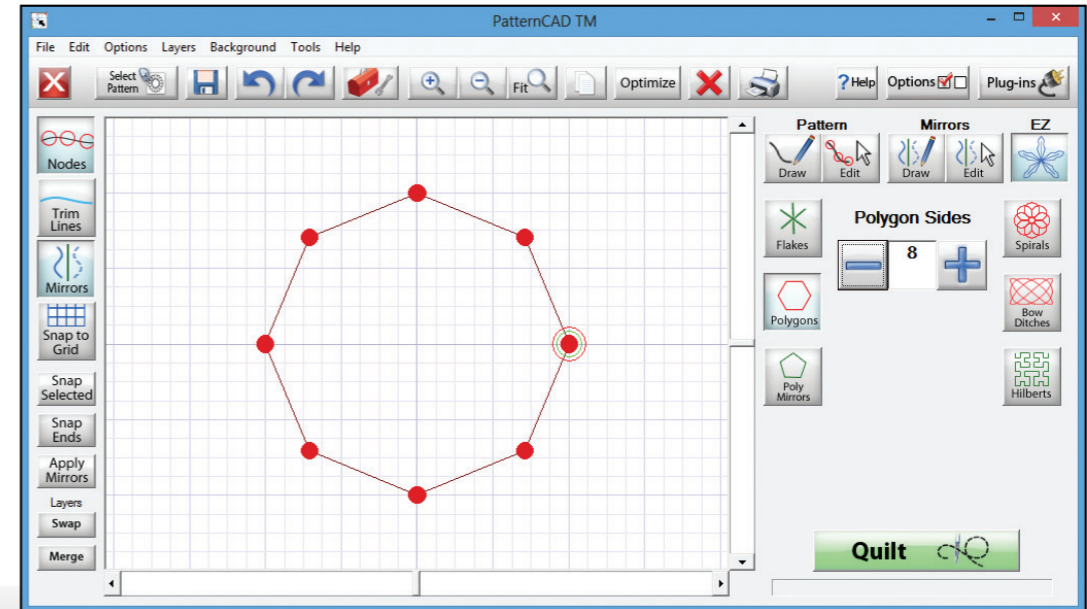
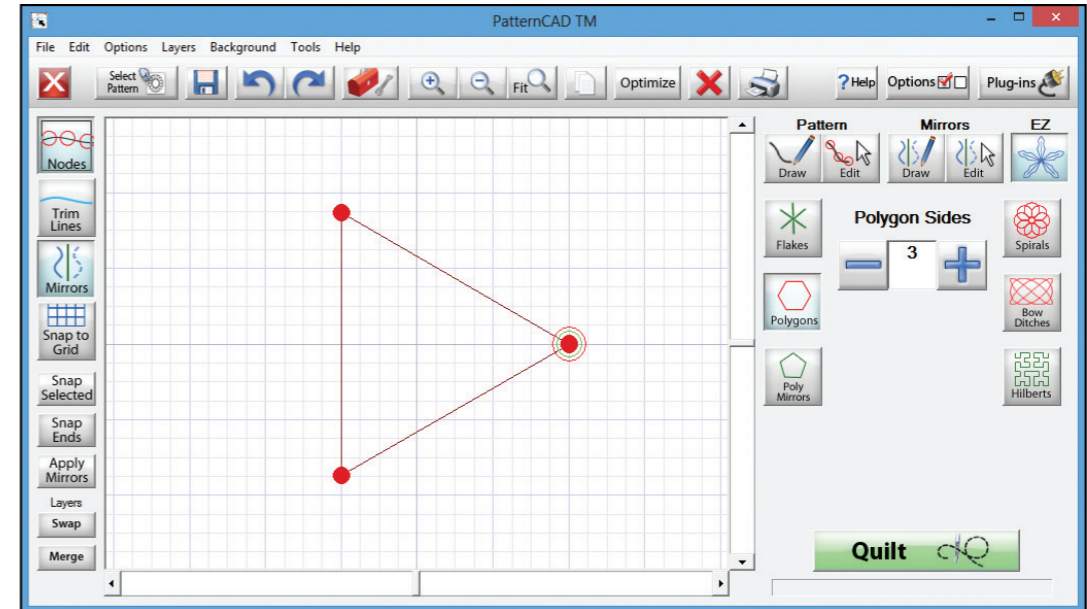
EZ: Polygons - Line Type

The Polygon EZ creator is fairly basic. It will create a polygon based on the number of side you prefer it to have.

- Minimum Sides 3
- Maximum Sides 50

If you set the maximum Sides to 50 it will create a very nice circle to work with, but don't forget it is a object with 50 sides.

Here is an example of a 8 sided Polygon.



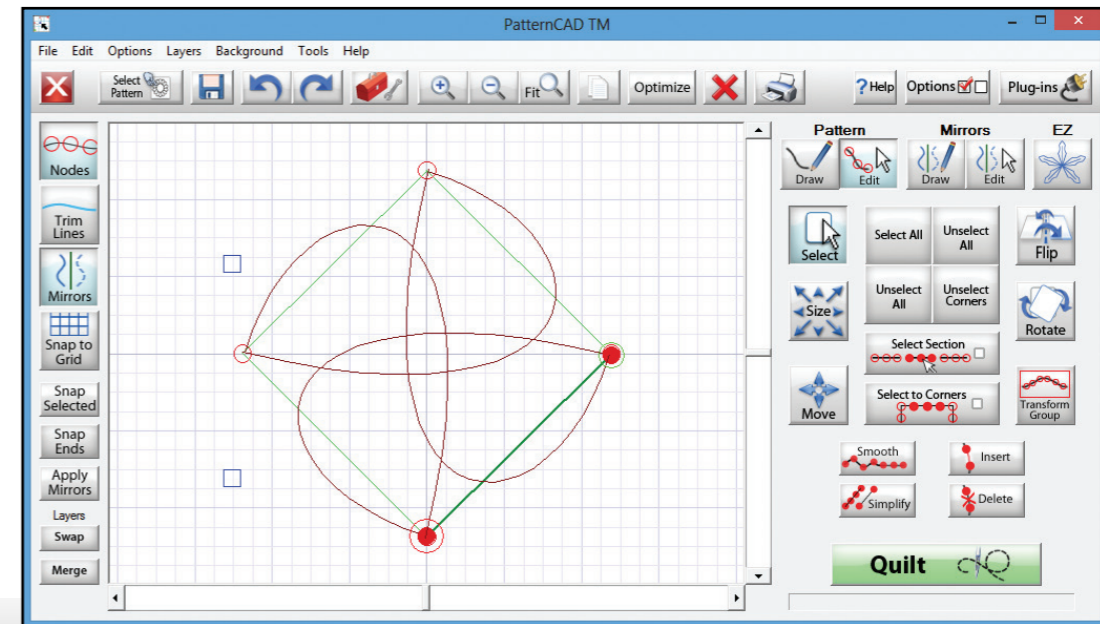
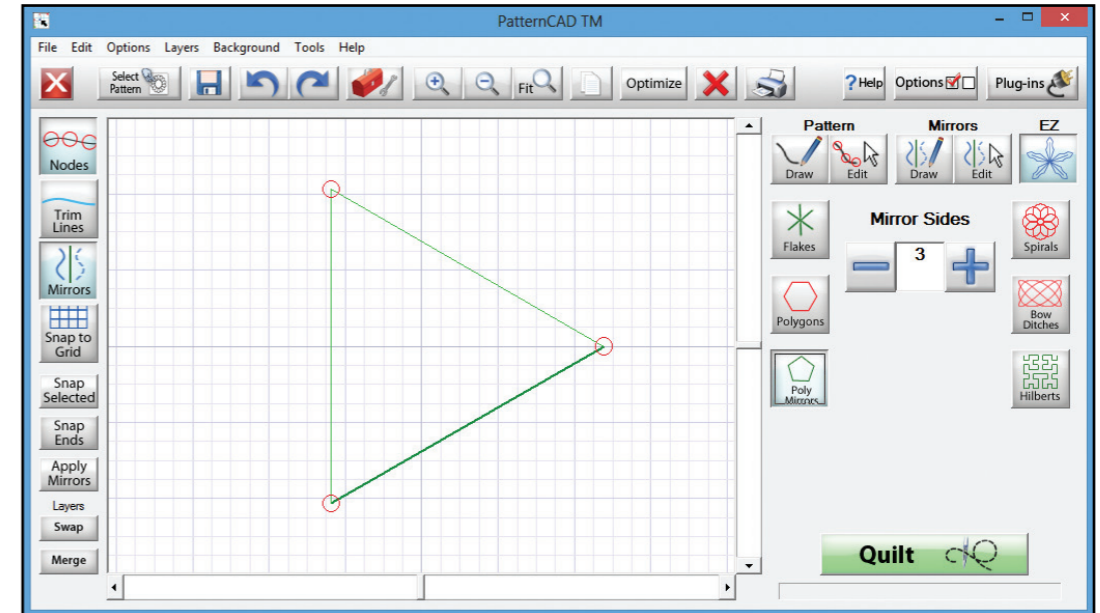
EZ: Poly Mirrors - Mirror Type

The Poly Mirror has the same settings for the Polygons. It will create a polygon mirror based on the number of side you prefer it to have.

- Minimum Sides 3
- Maximum Sides 50

If you set the maximum Sides to 50 it will create a very nice circle to work with, but don't forget it is a object with 50 sides.

Here is an example of a 4 sided Poly Mirror with 1 Parabola.

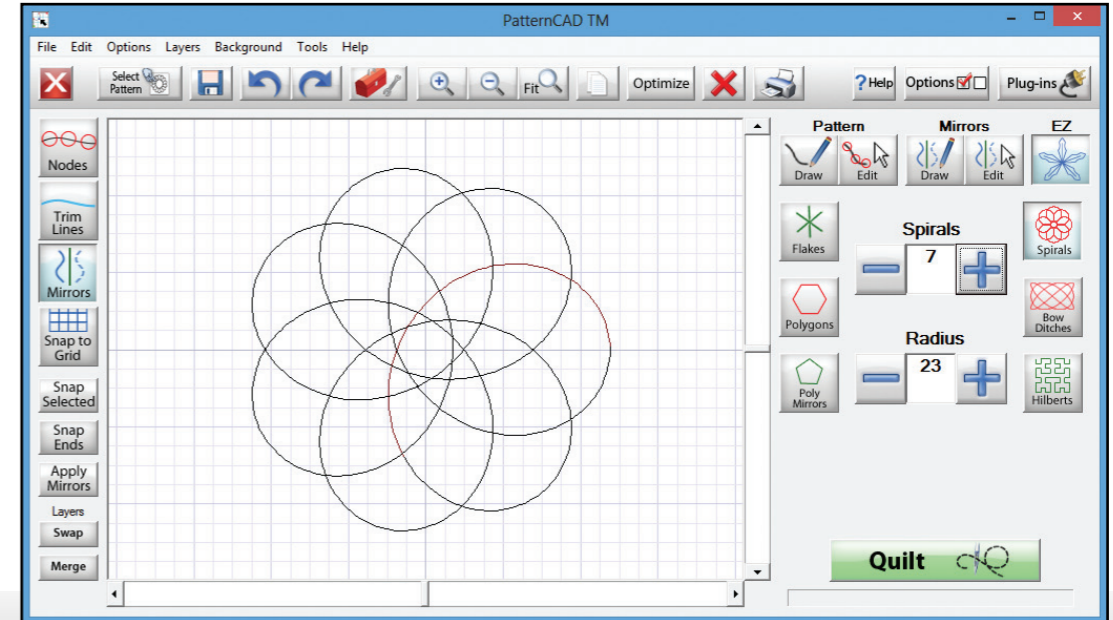
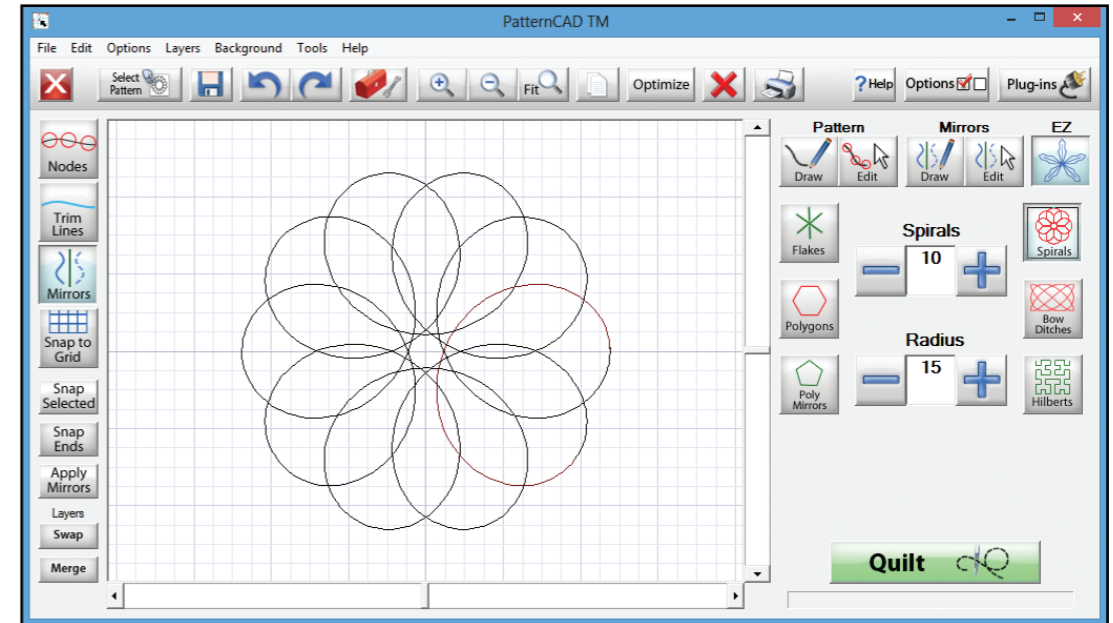


EZ: Spirals - Line Type

The Spiral Option quickly makes a pattern by setting how many spirals it will have, and then the radius of those spirals. This type of patterns start and end points will be the same.

- Minimum Spirals 2
- Maximum Spirals 75
- Minimum Radius 2
- Maximum Radius 25

Here is an example of a 7 Spirals with a radius of 23.



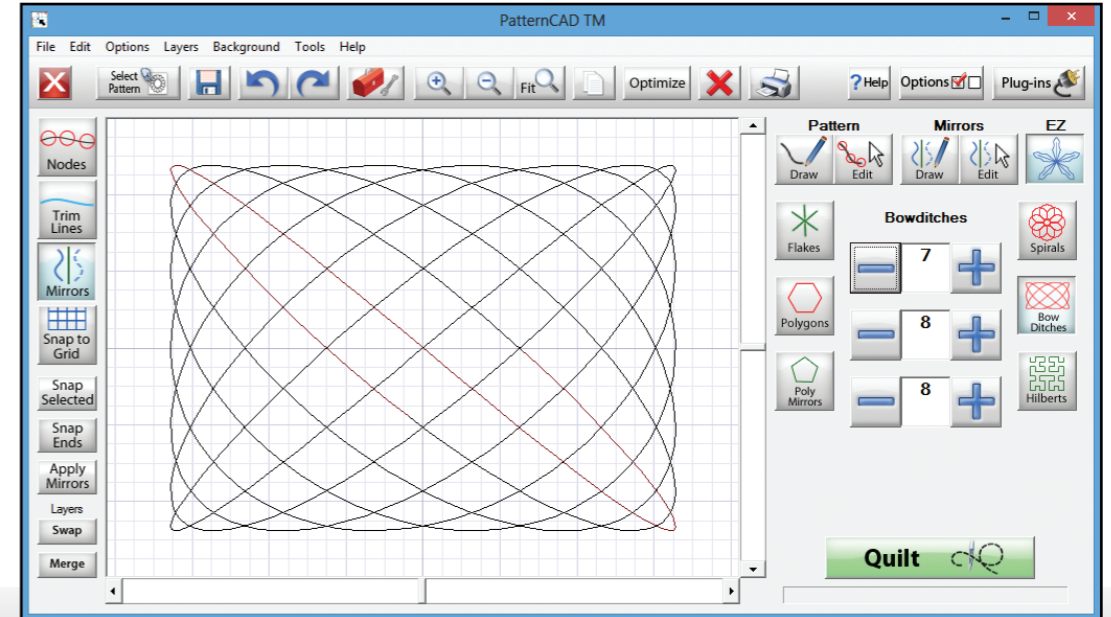
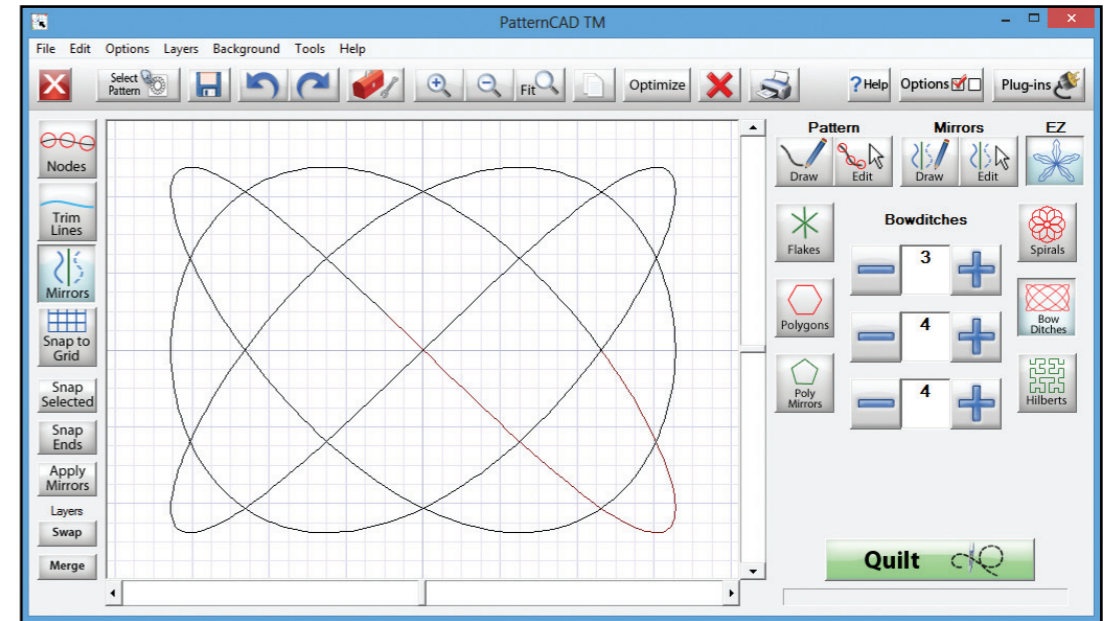
EZ: Bow Ditches - Line Type

The Bow Ditches is a great way to design quick and easy patterns for filling space on your quilt.

There are 3 settings for the Bow Ditches, each one will effect the pattern differently.

This gives you the ability to create a wide variety of patterns.

Shown here is an example with the settings at 7, 8, and 8



EZ: Hilberts - Mirror Type

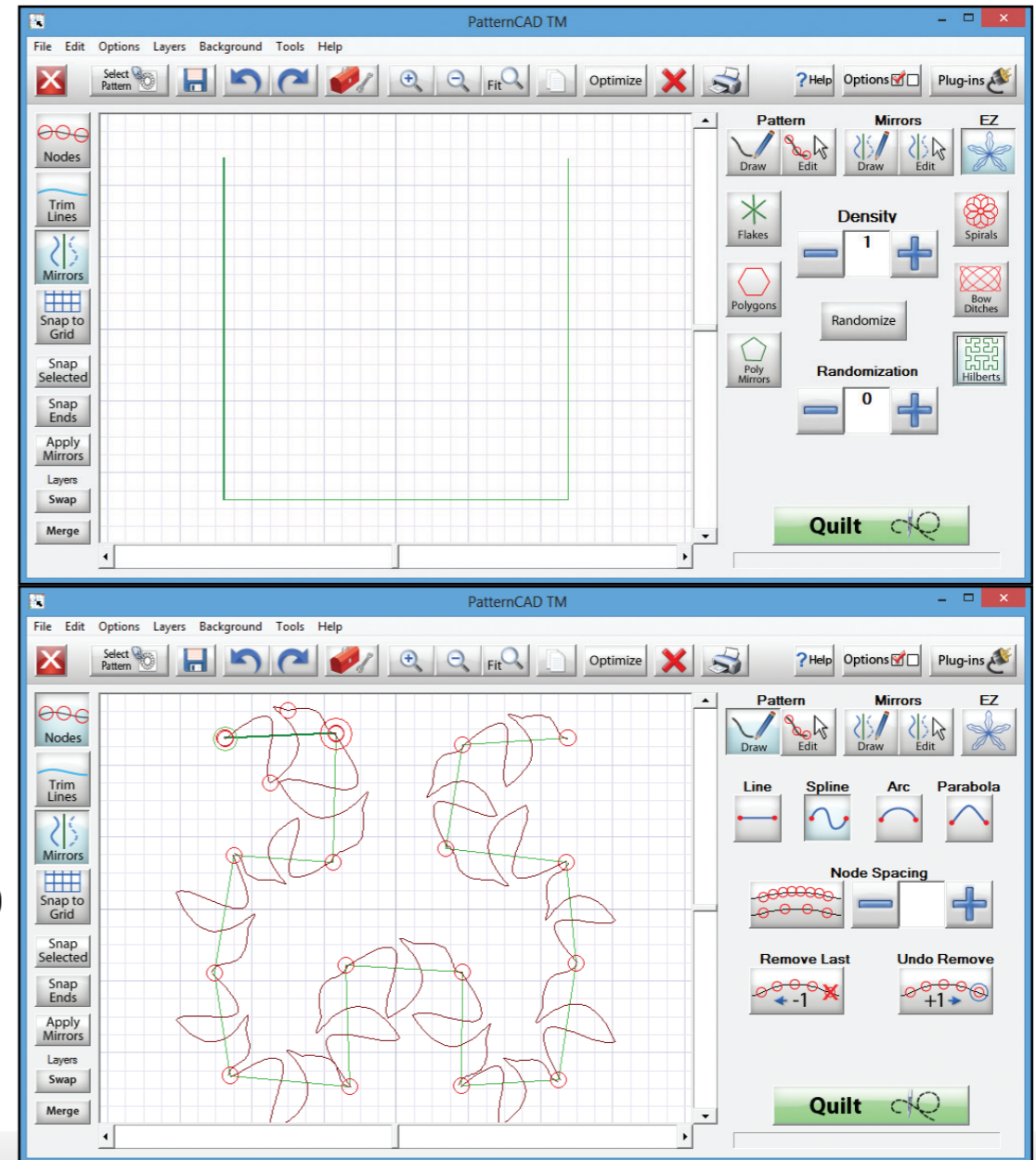
A Hilbert is a line or loop that grows in size while becoming gradually more complex.

This pattern creator helps you easily create a complex mirror design. These can be used to create customer stipple patterns, or complex fill patterns.

There are two options for this pattern template; Density and Randomization.

The density settings relates to how many mirror, or how complex the line is. The randomization is the articulation on the line, giving them an angle instead of being straight, further increasing the complexity of the design.

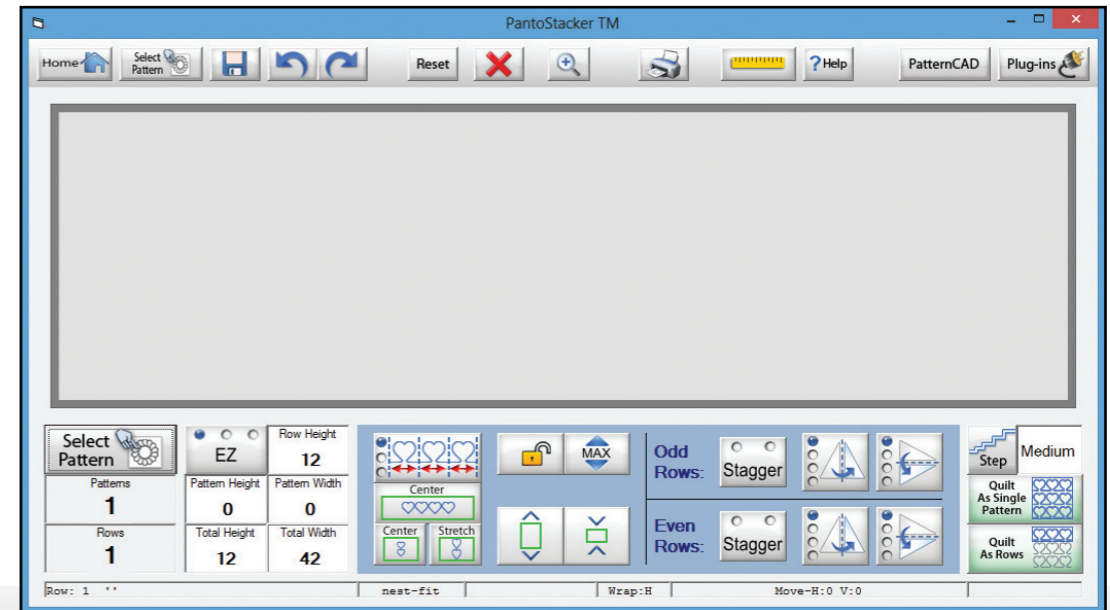
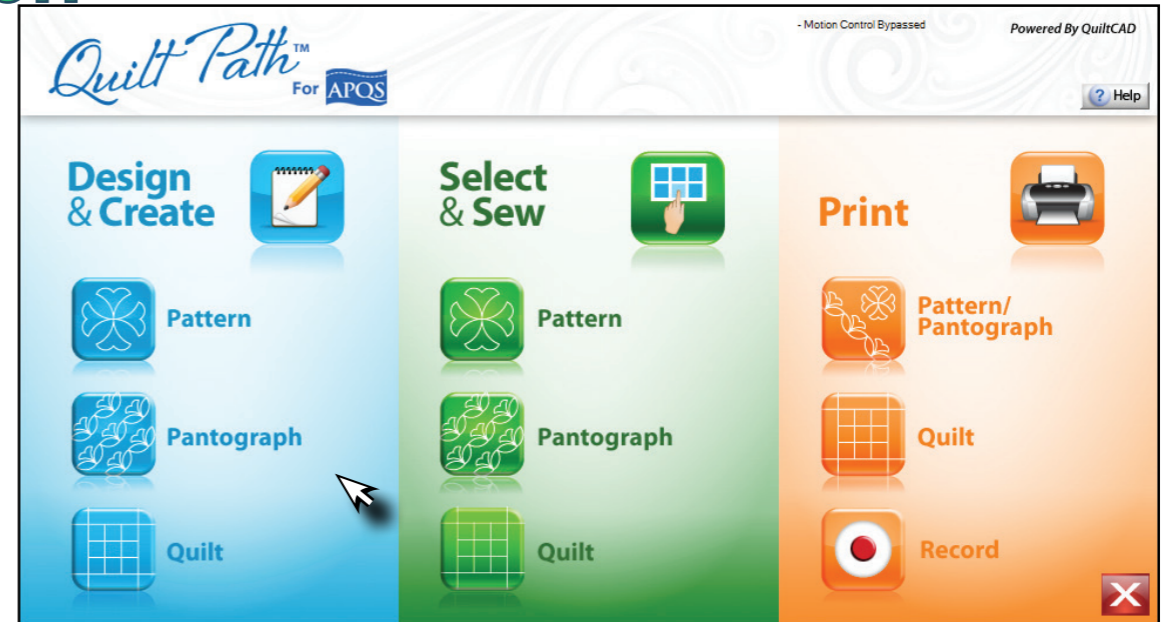
This Hilbert has a Density of 2 and Randomization of 0



Design & Create: New Pantograph with PantoStacker™

In this section we will cover the tools used to create a pantograph under the Design & Create heading while covering each function. You can follow along making your own or just cover a specific setting and function.

When you first tap this button, it will take you to the screen to set your safety area. The dimension of the safety area you set will be the dimension for the new pantograph. This screen will connect to QuiltMotion at first, if you do not set the safe area you will not be able to access this portion of the application. Some of the options are similar to the New Quilt option with some slight differences as to where they are located. Be aware different modes offer different tools.



Menu Bar



Lets go over the functions of the menu bar at the top before we proceed.

- 1. Home** — Returns you to the Home screen for the Quilt Path Software.
- 2. Select Pattern** — opens the pattern selection screen.
- 3. Save** — Saves your current pantograph as a pattern so it can be used later.
- 4. Undo** — will remove the last step preformed.
- 5. Redo** — will reinstate the last undo performed.
- 6. Reset** — Resets all changes within the pantograph.
- 7. Delete All** — Deletes all settings, including selected pattern and sizing.
- 8. Zoom** — Zooms in, tap and drag to move.
- 9. Print** — Opens the print setup screen.
- 10. Ruler** — Used to gather measurement data regarding your quilt. You can also [apply the measurements](#) to the quilt or pantograph.
- 11. Help** — Access to this Help file.
- 12. PatternCAD** — Opens PatternCAD.
- 13. Plug-ins** — Displays the Plug-ins available, such as the Import/Export module, Virtual Long-arm, and Fonts.

Ruler

The Ruler function allows you to get measurement data about certain points and distances on your quilt, or the size of a block or pantograph. This data can also be used to set your Quilt size, Block size, and pantograph exactly to the measurement that you acquire by using the Apply Measurement button.

There are three types of rulers Block, Width, and Length.

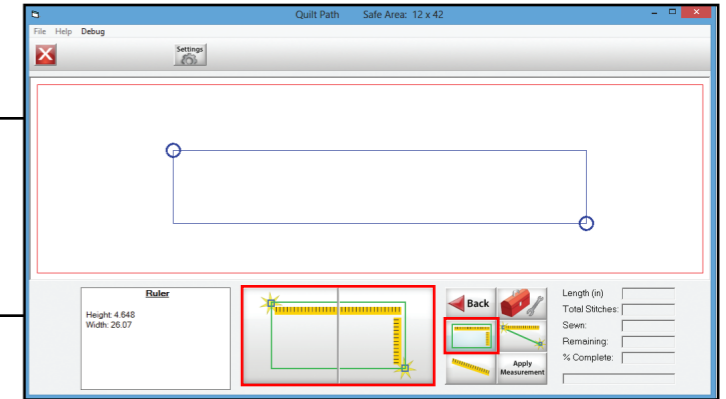
To take a measurement move your machine to the start point of your measurement and click the left button of the ruler screen to set the point. Then move your machine to the end point of your measurement and press the right ruler button. The data will be reported to you in the window on the bottom left. Once you set your points you can then cycle between the three types of rulers and apply the one suited for your needs.

If you apply the measurement while in QuiltCAD the Block ruler will apply your measurements to all the blocks on your quilt, you can still modify rows and columns. The Width ruler will change the total width of your quilt. The Length ruler will only report a length.

If you apply the measurement while in PantoStacker the Block ruler applies the measurement to the entire pantograph, the row height will equal the total height divided by the number of rows. The Width ruler will only effect your pantograph width, you can still set the height.

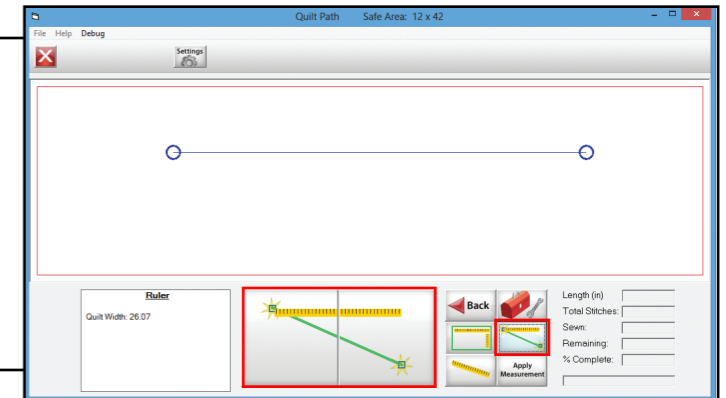
Block

Provides the height and width of the measurement.



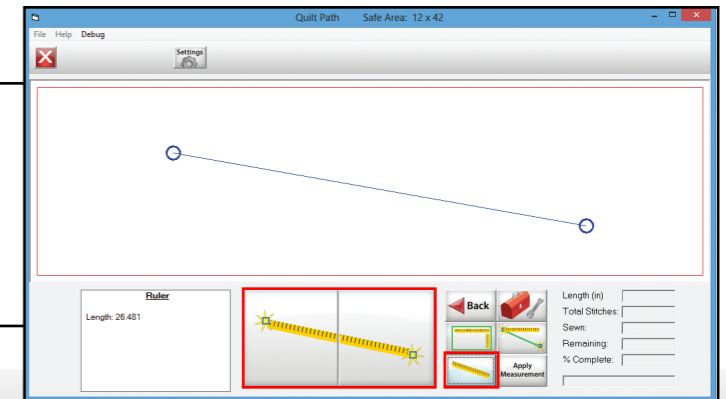
Width

Provides the horizontal measurement between two points. The end points do not have to be aligned to get the exact measurement.



Length

Provides the distance between the two point your specify. This is the default ruler setting.



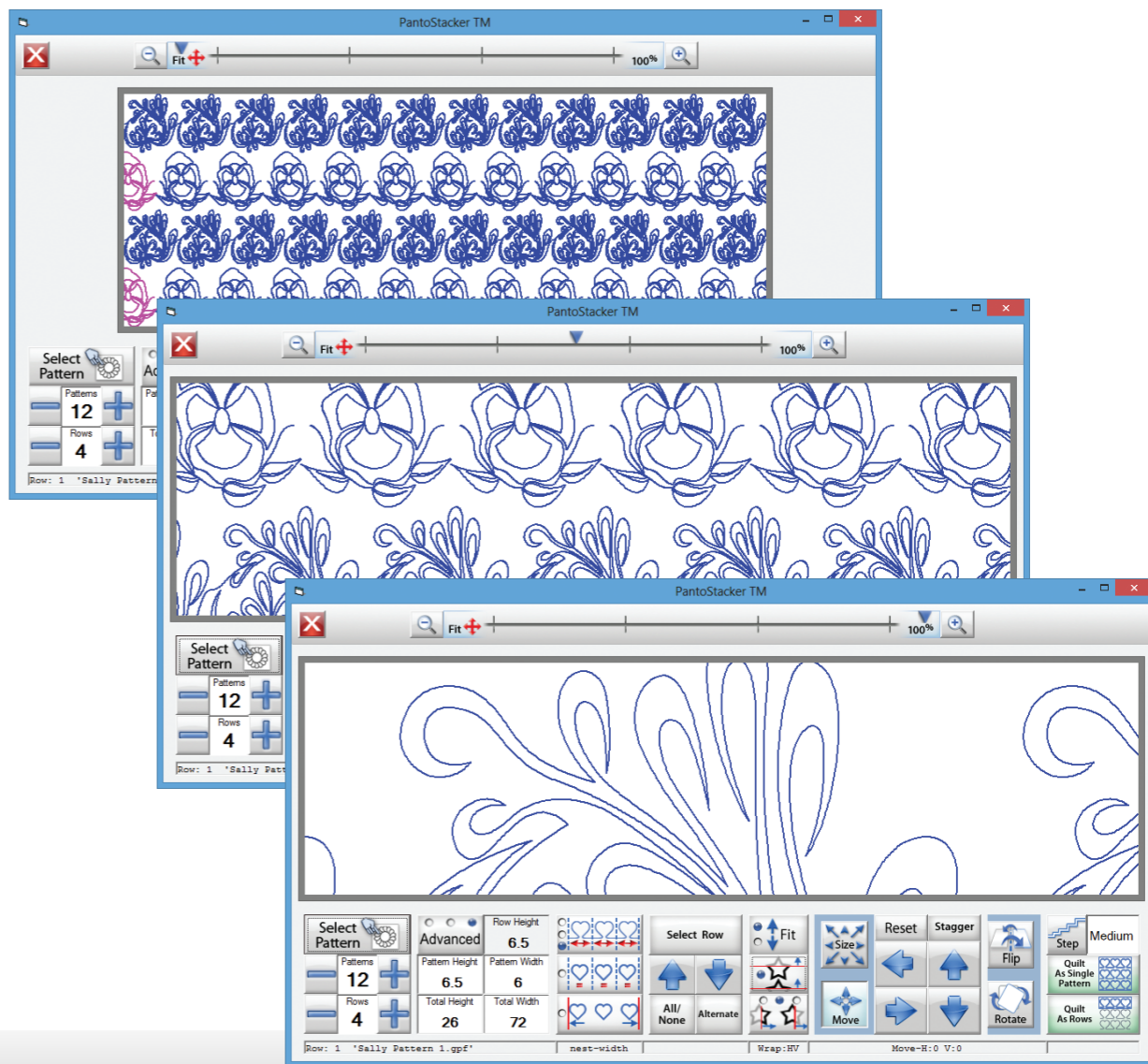
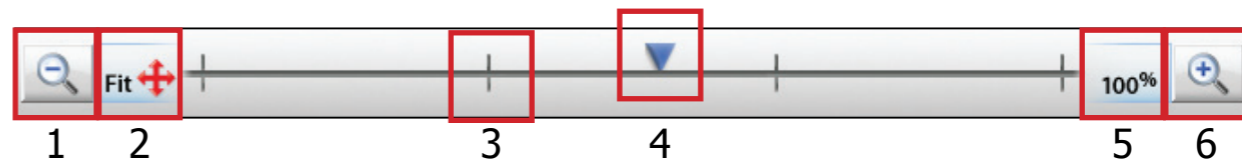
Zoom

The zoom feature allows you to zoom in and out on your pantograph from viewing a 42" wide pattern that fits on a 10" screen, up to viewing the pattern at 100% of its actual size.

- 1. Zoom Out** - Used to zoom out in smaller increments.
- 2. Fit** - Changes the Zoom to fit the entire pantograph on the screen.
- 3. Quick Zoom Marker** - Each vertical tick on the Zoom bar allows you to quickly jump to a certain zoom increment.
- 4. Current Zoom Level** - This marker represents the current zoom level of your pantograph.
- 5. 100%** - Zooms in on the pantograph and displays it as the actual size it will be sewn.**
- 6. Zoom In** - Used to Zoom in with smaller increments.

**You must set the screen scale setting in the software for the pattern to be represented correctly.

Instructions to set this can be found on the next page.



Set Screen Scaling

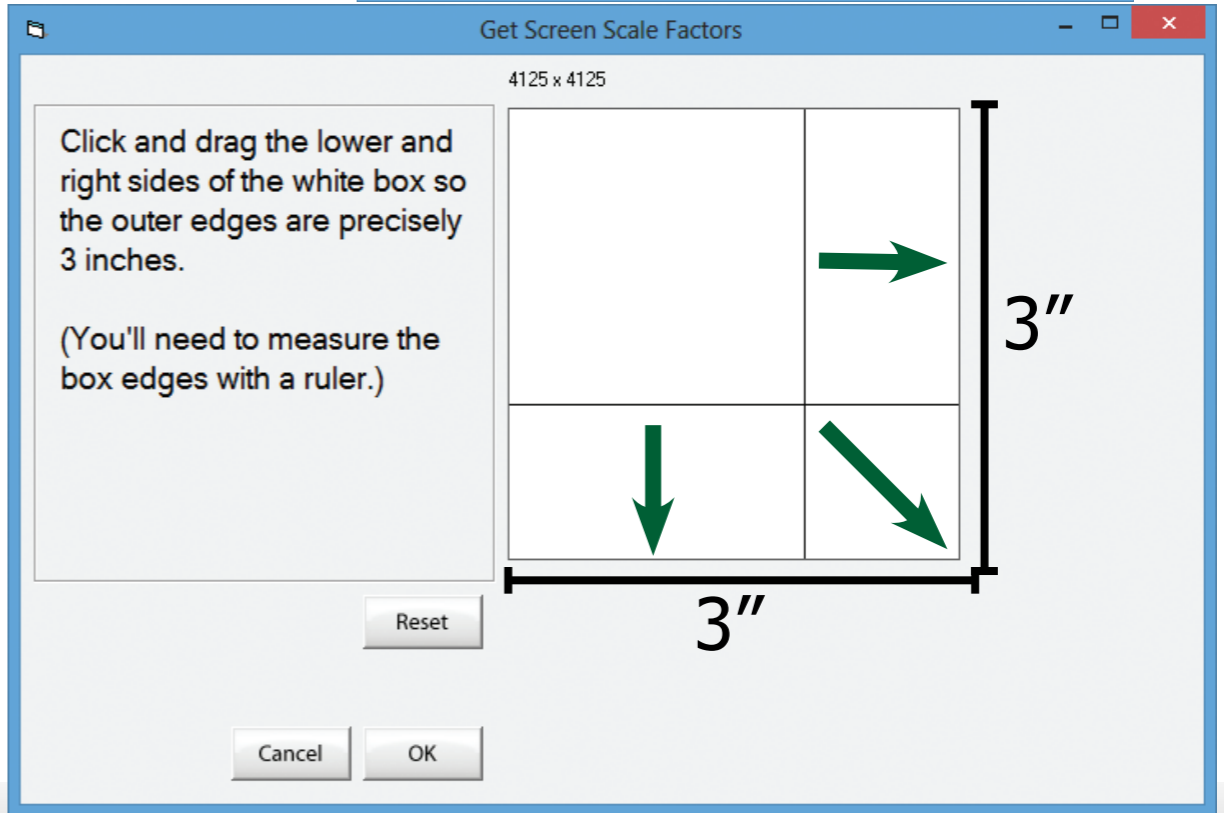
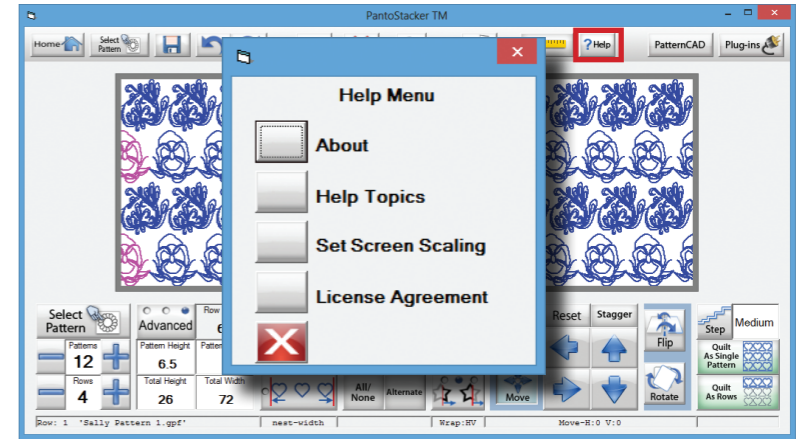
To access the Screen scaling menu click on Help. On the pop-up menu select Set Screen Scaling.

The **Get Screen Scale Factors** will then be displayed.

In order to set the screen scaling you will need a physical ruler that is at least three inches.

1. Place the ruler on the screen and drag the bottom right corner of the block down and out.
2. Once the inside lines shown here, match up to three inches you can click OK to save the setting.

Depending on your screen resolution this setting will vary.



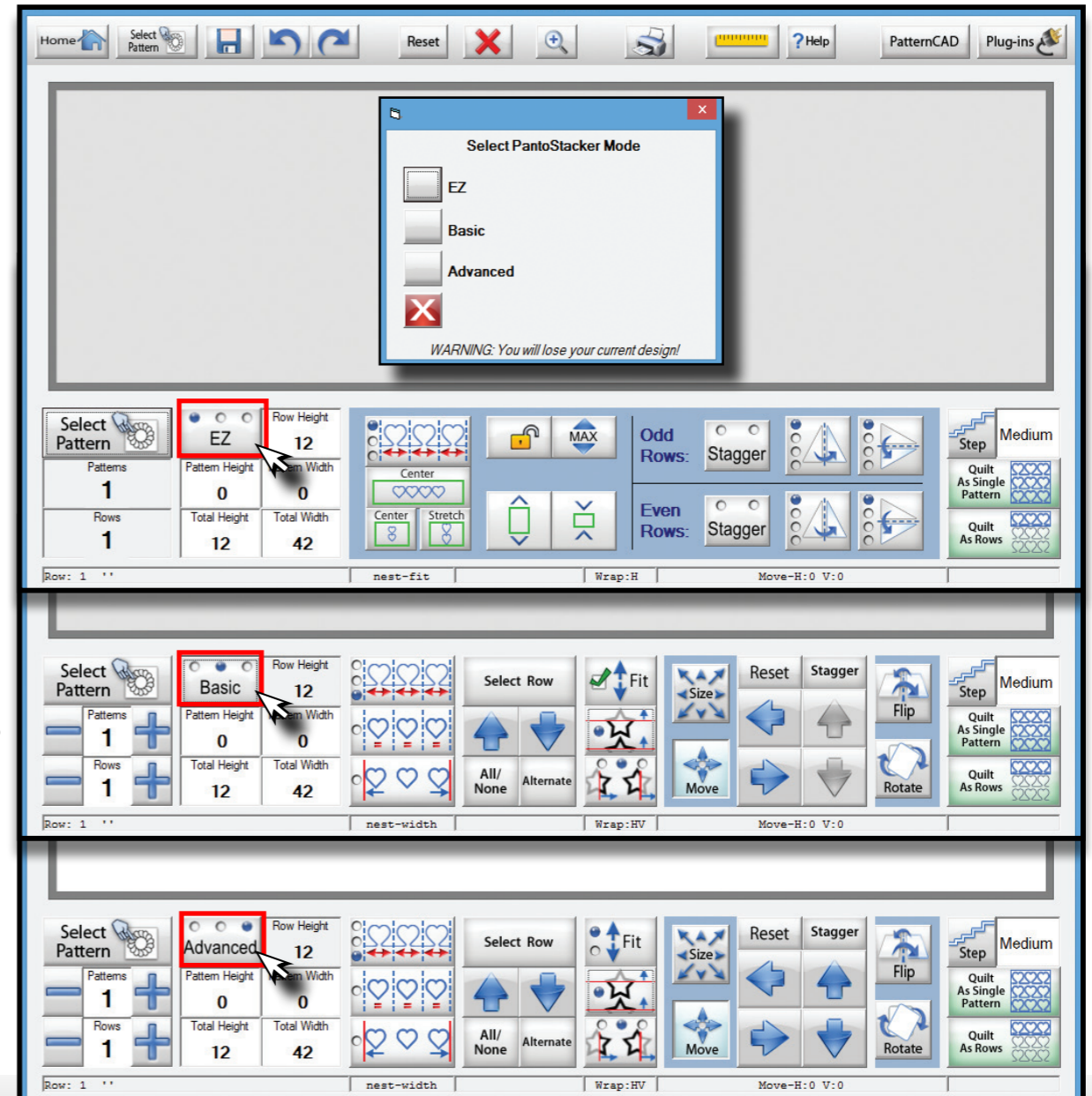
Pick a Mode

There are 3 modes inside the PantoStacker™ portion of the software. Each mode offers different options to manipulate the pantograph size as well as the patterns inside the pantograph.

To switch between these mode you can click the mode button highlighted in red.

- **EZ** - This mode allows you to set the size of the pattern, the row height and the total size of the pantograph. The Patterns and Rows will change accordingly to fit the best suited number of patterns and rows to fill the pantograph dimensions you create. By default the QCT software will start in this mode.
- **Basic** - In this mode you are able to control all aspects of the patterns and pantograph; Pattern Size, Pantograph size, Pattern count, and left to right position. However you are unable to move the rows up or down. You can have up to 99 rows with a maximum of 50 patterns per row. This mode also allows you to apply changes to a selected row(s) instead of all rows.
- **Advanced** - This mode gives the most control over what you are creating, it is capable of doing all functions offered by two other modes in addition to being able to move the vertical alignment of the row(s). The fit option also works differently giving you more options for shifting patterns or using a specific size to achieve a specific style of pattern.

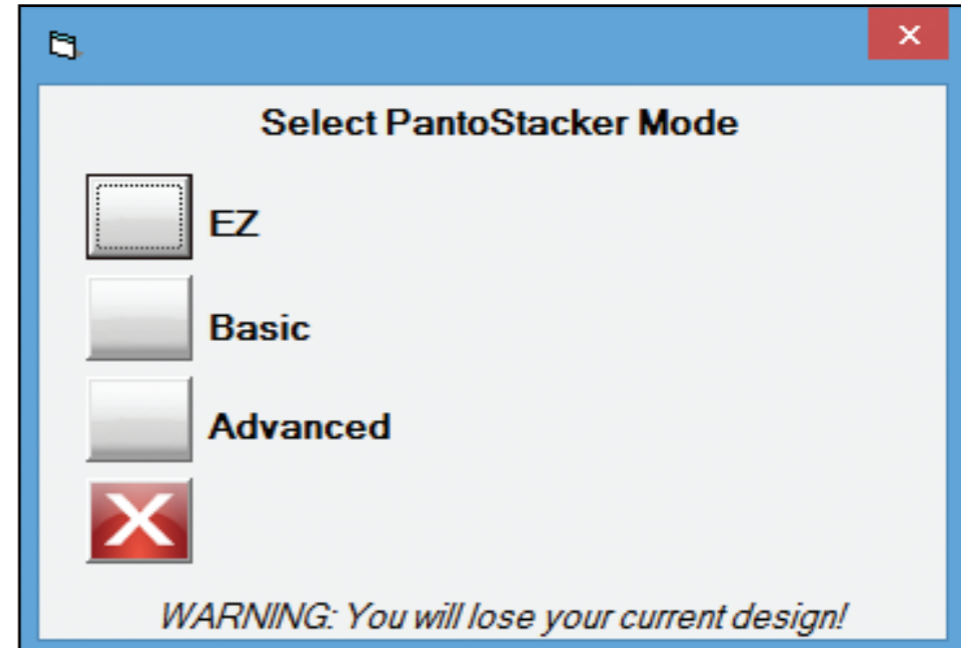
You can go directly to a specific mode by click on the words in blue



When switching between the different types of modes you will see the prompt shown here.

Please note if you click to change your mode, your current design and all the changes made to it will be lost.

If you do not want to lose your current pantograph settings select 'X' Save your pantograph and then open it in a different mode.



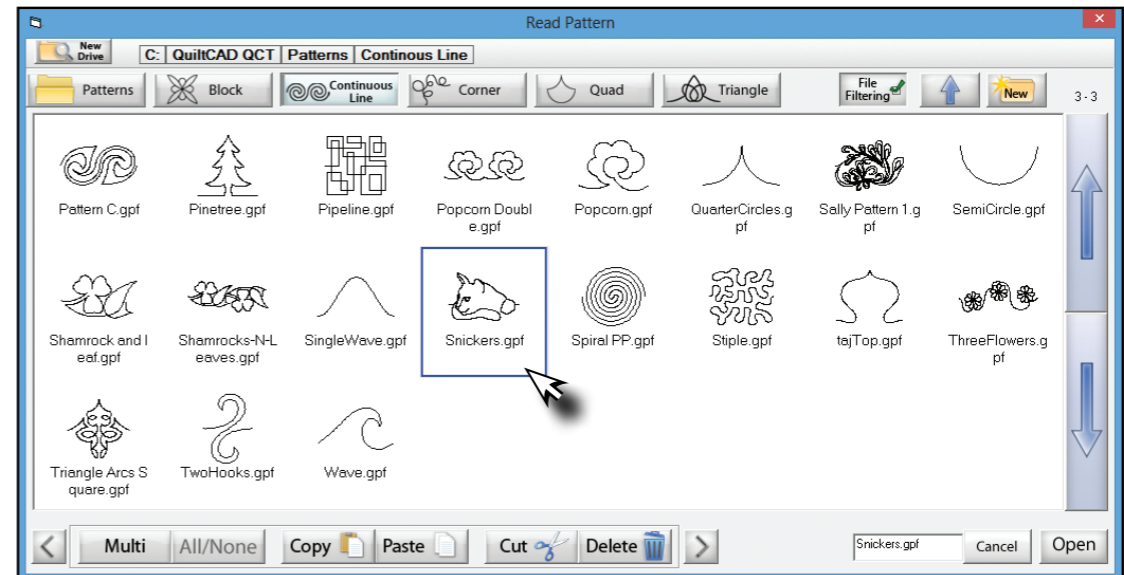
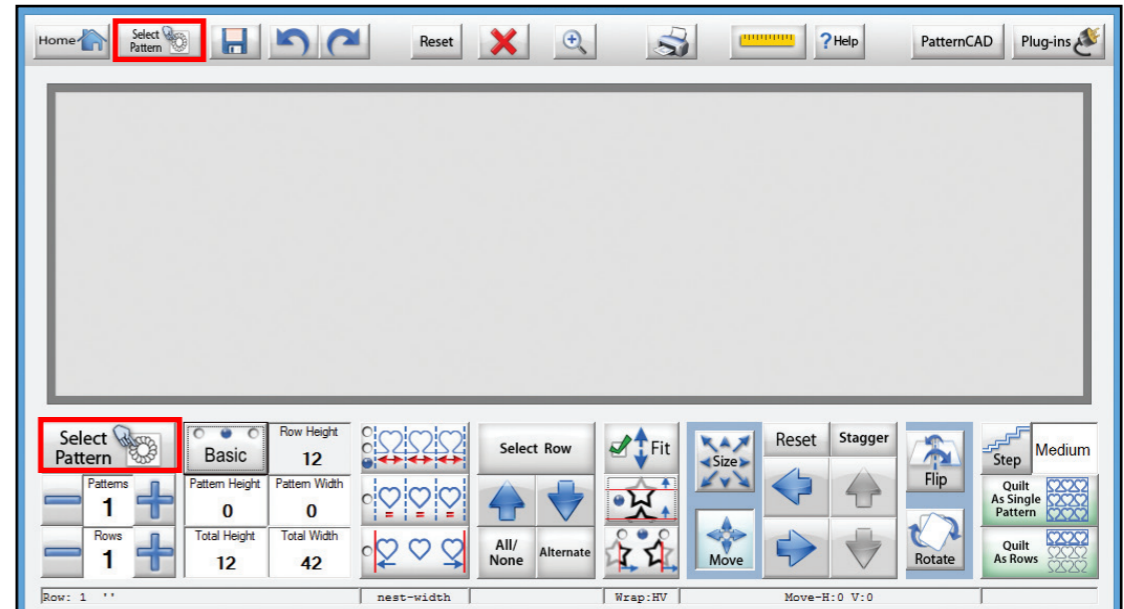
Pick a Pattern

There are 2 ways to open the pattern selection window. There is one icon at the top on the menu bar as covered previously, and there is another on the bottom left of the pattern options menu bar.

All modes open a pattern the same way.

This will bring up the pattern selection window.

For all of the examples regarding the PantoStacker™ we are going to select the 'Snickers.gpf' pattern under the Continuous Line category. Tap on OK once you found the pattern or a different one you wish to use, you can also double tap the pattern to select it.



EZ Mode: Pantograph Size

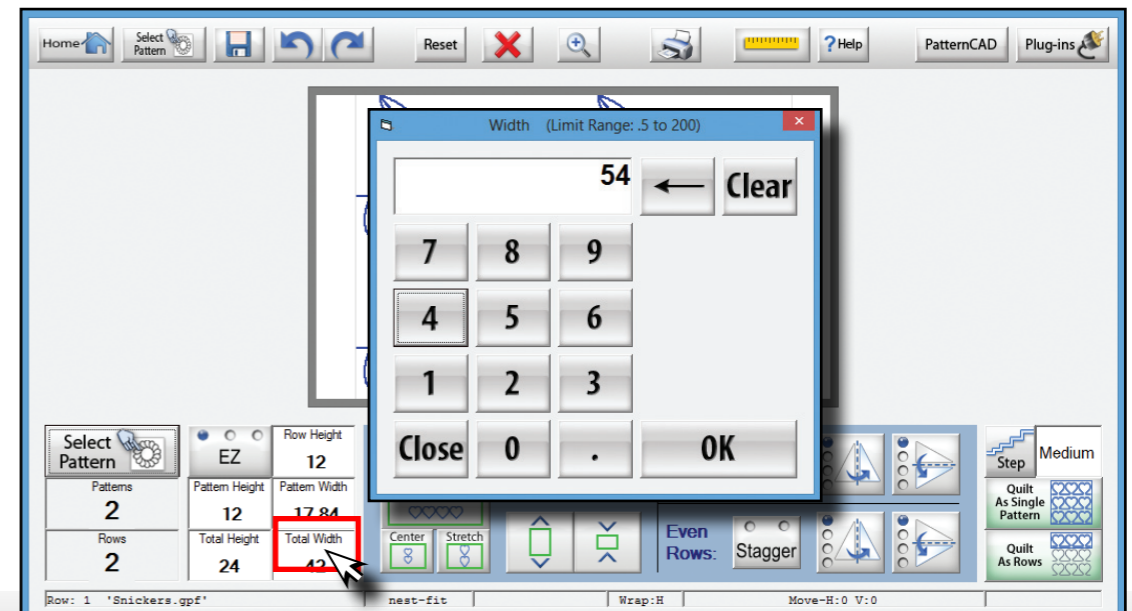
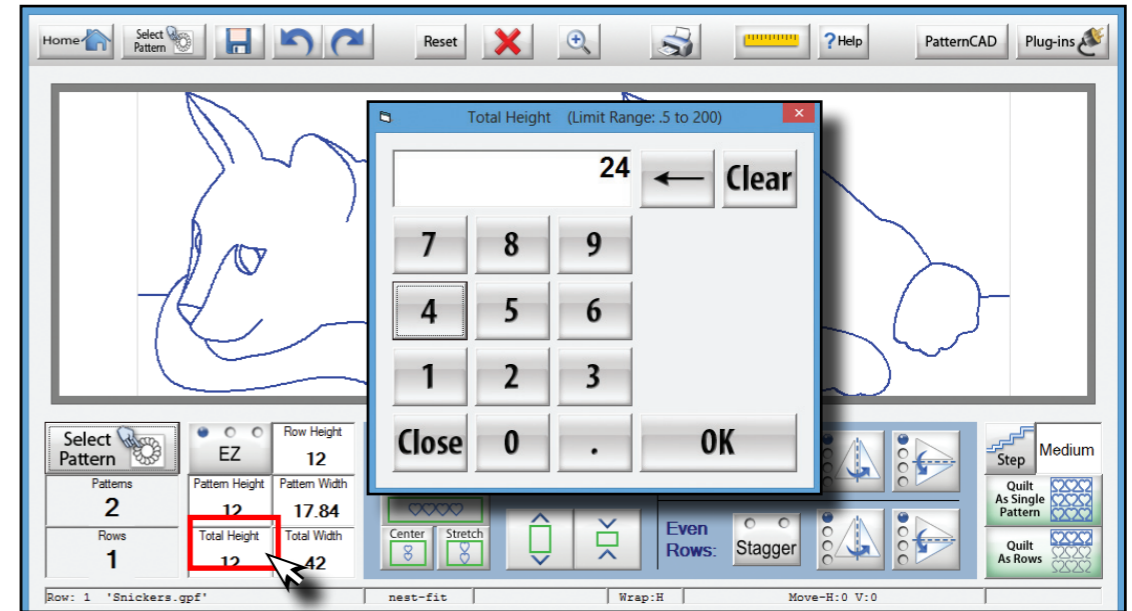
The pattern will now be shown on your pantograph, but you will also notice that the program placed two patterns. You must set your safety area, those dimensions will be used for the pantograph layout. But if the pattern you selected is less than half of the 'Total Width' it will place two patterns automatically to fill the space on the pantograph. The maximum height and width you can set is 200", and the minimum being 1".

Step 1

Tap on the 'Total Height' box this will display a screen you can enter the total height of your pantograph, the height can be changed at any time. For this example, we want to change the total height of the pantograph to 24". Type in 24 and click OK. Now you will notice that the Pattern Height is now 12" as well as the Row Height. This is because there are two rows now. The value shown in the Pattern Height is Total Height divided by the number of Rows on the pantograph.

Step 2

Now change the width. Tap on the 'Total Width' box, this will display a screen you can enter the width of your pantograph. Here you are going to set it to 54". Once you click on OK you should now have two rows and three patterns per row.

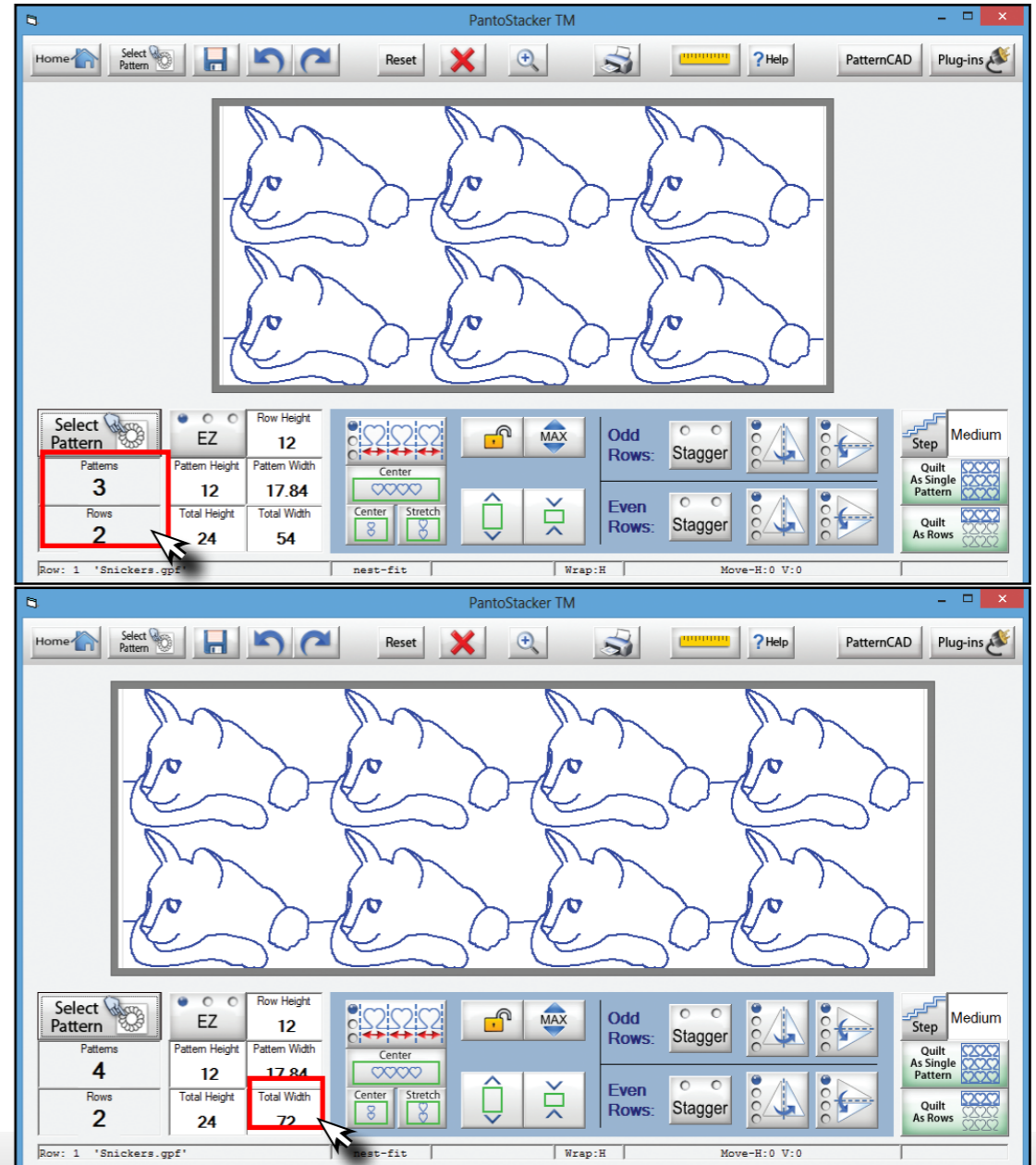


EZ Mode: Pattern Count

The pattern count in the EZ mode is determined by the Total Width you set in relation to the size of the pattern when the pantograph is created. In this example you can see that we have three patterns per row with two rows. This is because the pattern height when we selected it was set to 12", which in turn makes the pattern width 17.84". If we wanted to add more patterns to this pantograph we would need to increase the Total Width.

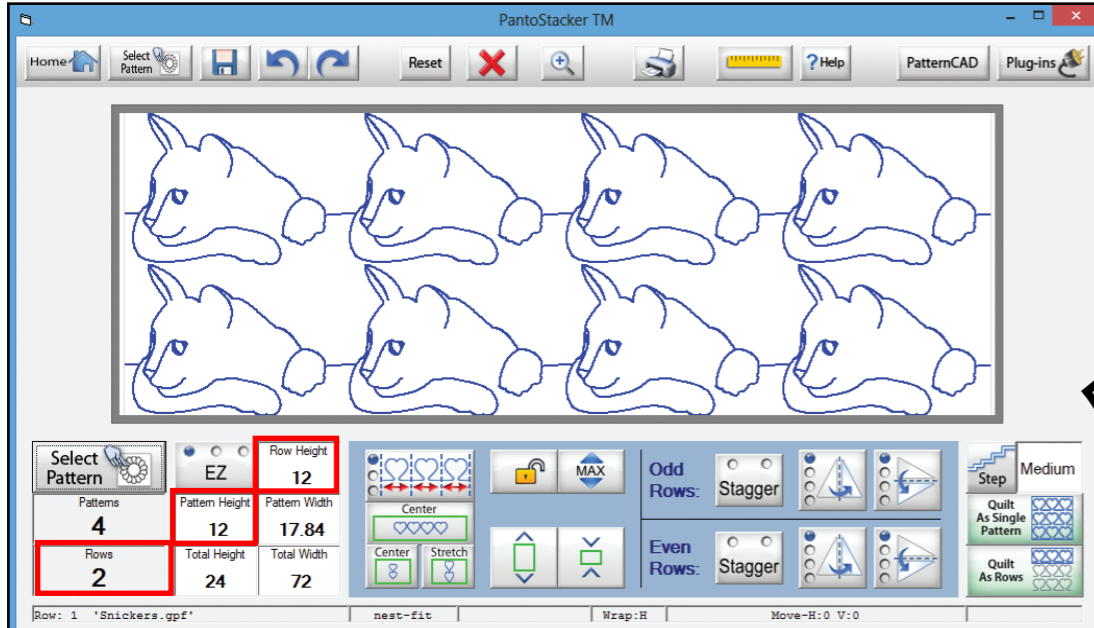
Change the Total Width to 72 and you should now see four cats instead of three. From here you do have the ability to sew what you currently have created, but there are many more things that can be done with this pantograph.

Let's take a look at nested styles, pattern wrapping, pattern flipping, and staggering the pattern.



EZ Mode: Rows

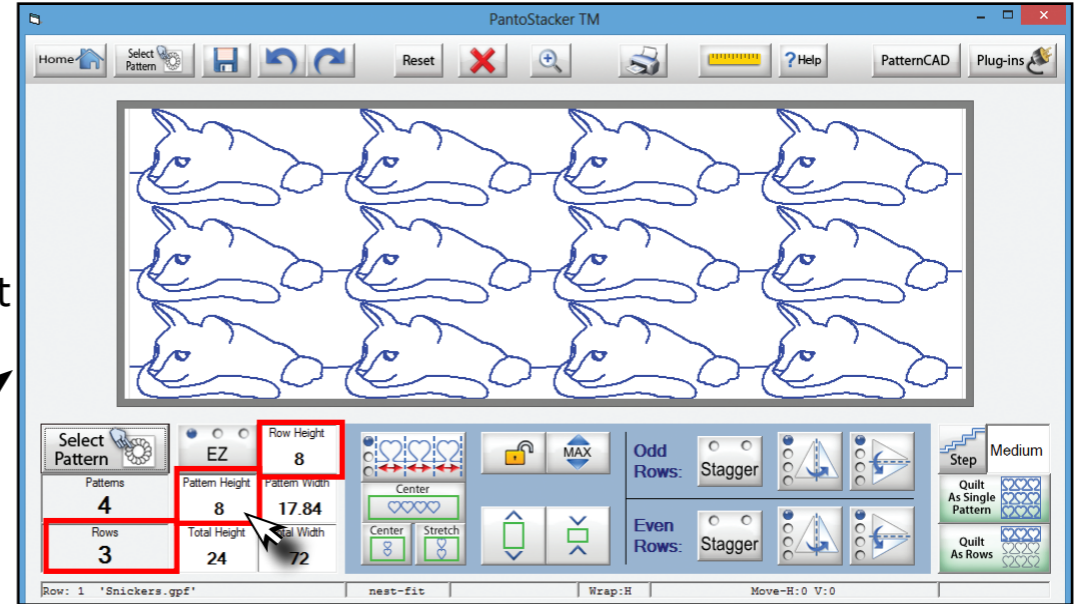
As mentioned earlier, we are not able to choose the amount of rows we want the pantograph to have. But you can add rows by increasing the Total Height **or** modifying the Pattern Height.



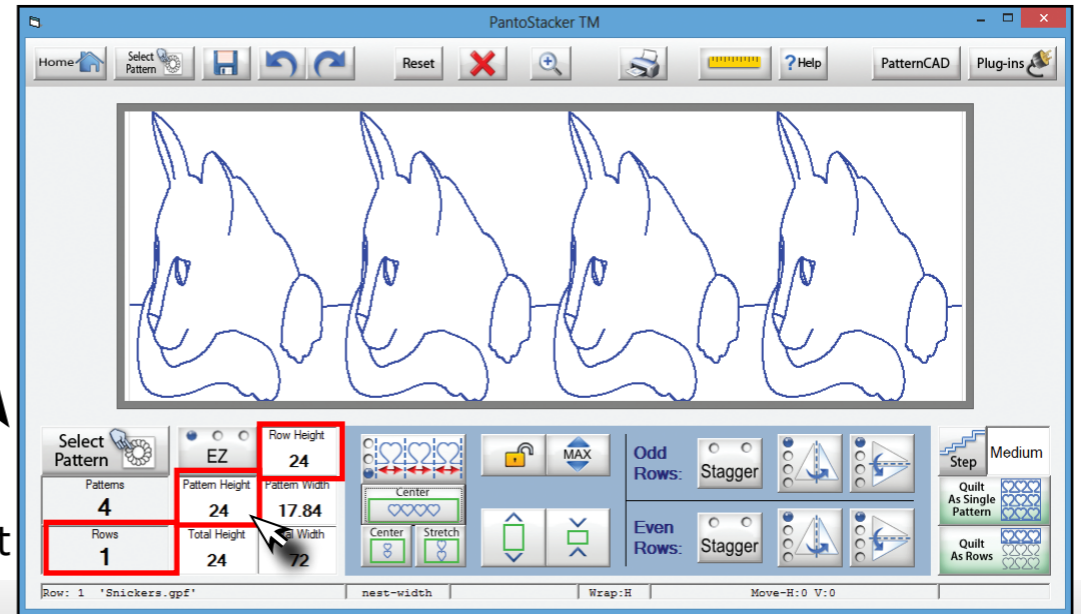
Current Example

You can see that the Row Height is changing in accordance to what you set Pattern Height. The software will automatically start filling in or taking away the patterns that will fit within the limits.

Decrease Pattern Height



Increase Pattern Height



EZ Mode: Nesting

Nesting a pattern is when you stretch multiple patterns and connect them within the pantograph. In this mode the start and end points are used to connect the patterns. You can nest patterns three different ways:

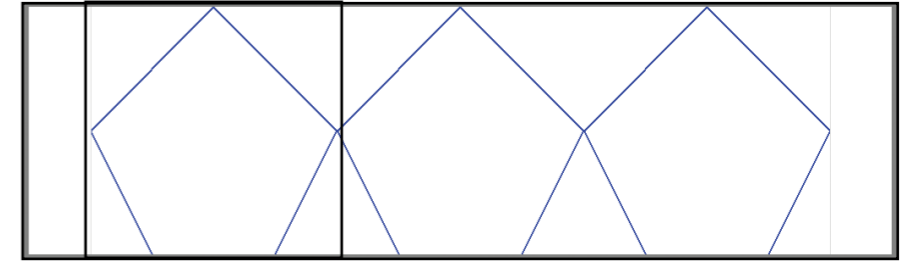
- **Width** - By using the total width of the pattern the pantograph will create a non overlapping repeating pattern.
- **Fit** - Creates an overlapping repeating pattern using the maximum number of patterns that will fit inside the pantograph.
- **By Ends** - Creates an overlapping repeating pattern that will wrap around the pantograph with the maximum number of patterns that are required to fill the entire pantograph.

There are also some patterns that do not display well using the main Nested option, but depending on your pattern there are 3 types of nesting; Fit, By Ends, and By Width. Some might look perfect using the Edge option. Be sure to try all three if the current one you are using just isn't doing what you want it to.

When you have the Nested option selected the patterns are automatically being sized so that the start and end points connect to make one continuous line. Therefore the system removes the ability to change the width of the pattern.



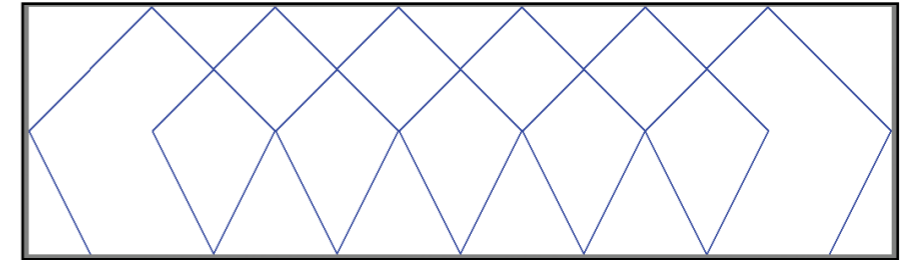
Width



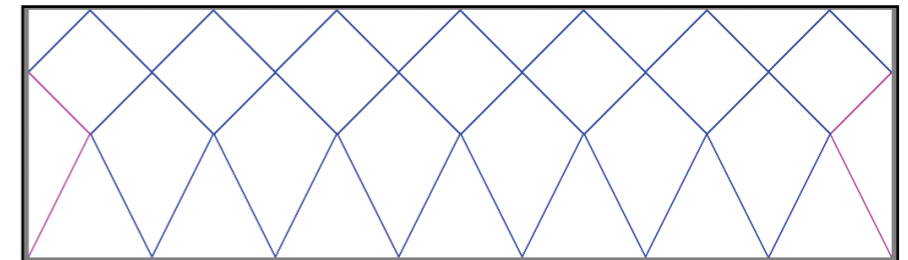
The green box represents the width of the pattern.



Fit



Ends



EZ Mode: Stretch & Center

The Stretch & Center options coexists with the Nesting options.

These allow you to stretch or center the pattern according to the total width of the pantograph.

- **Center** - Will keep the aspect ratio of the pattern while using the maximum number of patterns allowed in the total width of the pantograph.
- **Stretch** - Will stretch the pattern to fill the total width of the pantograph.

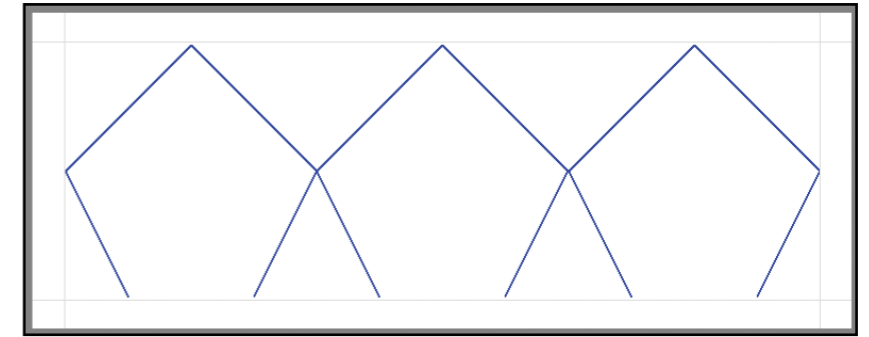
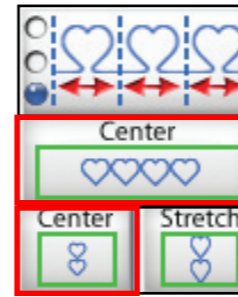
In addition to the Stretch & Center option you can also stretch or center the patterns in the pantograph horizontally. They work in the same fashion as the vertical center and stretch.



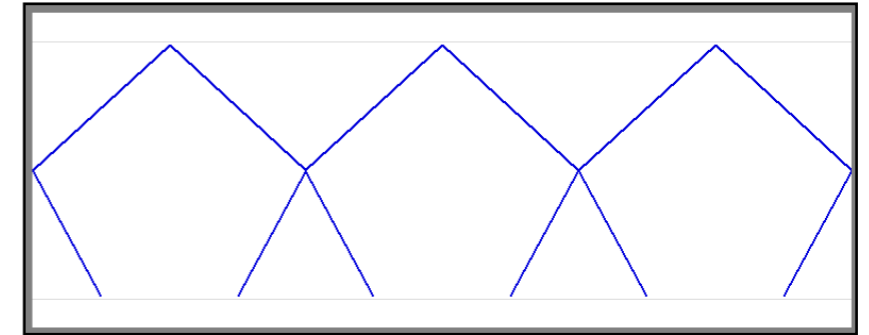
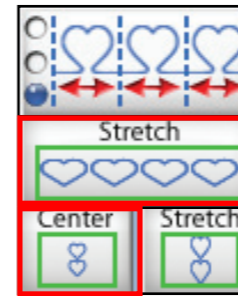
- **Center** - Will keep the aspect ratio of the pattern while using the maximum number of patterns allowed in the total height of the pantograph.



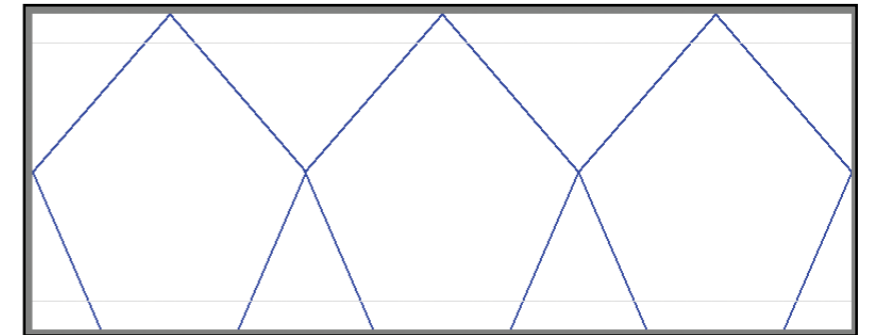
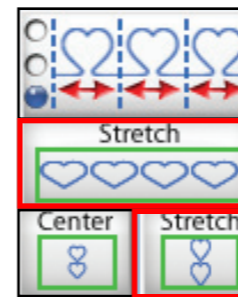
- **Stretch** - Will stretch the pattern to fill the total height of the pantograph.



Pantograph 10" x 26" Pattern 8" x 8"



Pantograph 10" x 26" Pattern 8" x 8.67"

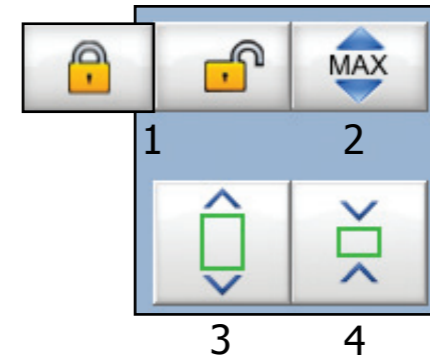
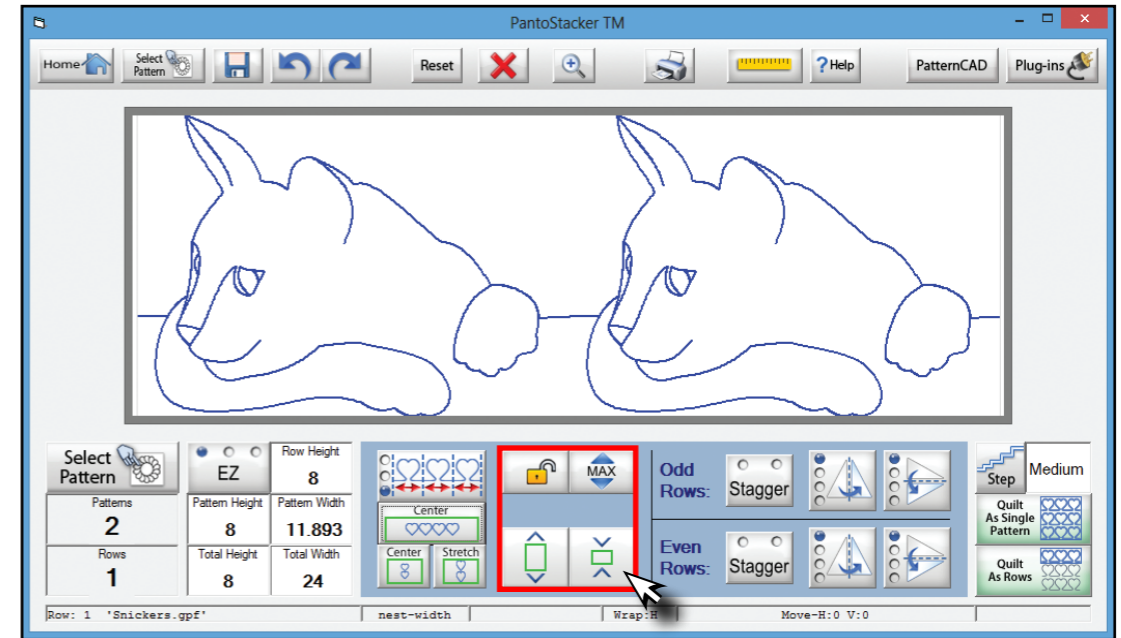


Pantograph 10" x 26" Pattern 10" x 8.67"

EZ Mode: Pattern Height

These options allow you to modify the height of the pattern inside the pantograph. The icon with the blue arrows directly relates to the Pattern Height field.

- 1. Aspect Ratio Lock** - When the lock is closed, the aspect ratio of the pattern will not be lost. This means if you decrease or increase the height the width will change as well. When the lock is open, the aspect ratio will not be kept. If you increase the height the width of the pattern will not change.
- 2. Max Height** - Changes the pattern to fill the Total Height available.
- 3. Increase Height** - Used to increase the pattern height one step at a time.
- 4. Decrease Height** - Used to increase the pattern height one step at a time.

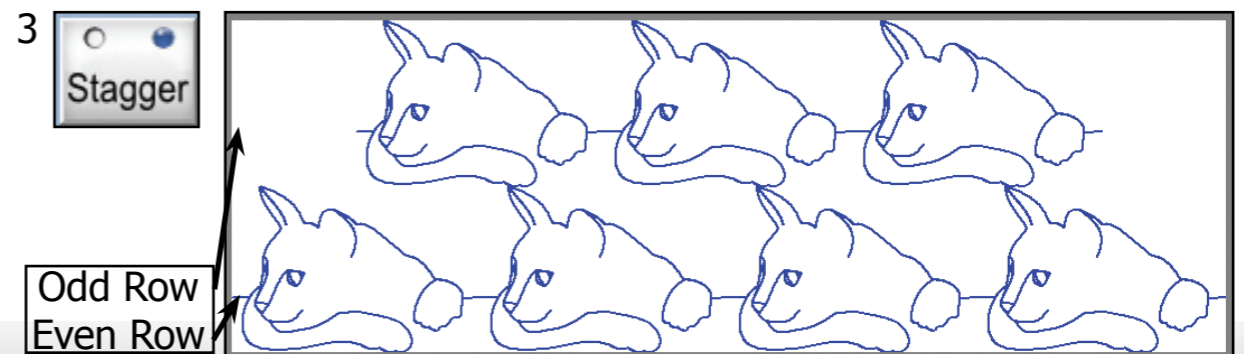
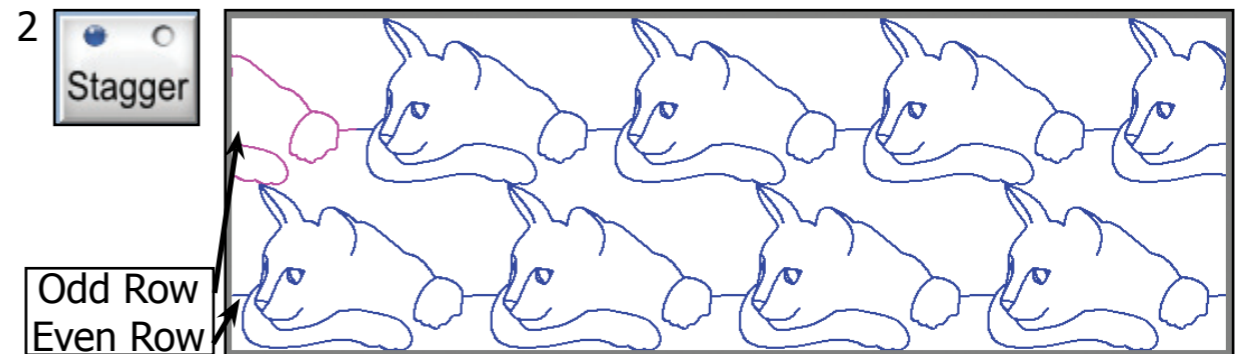
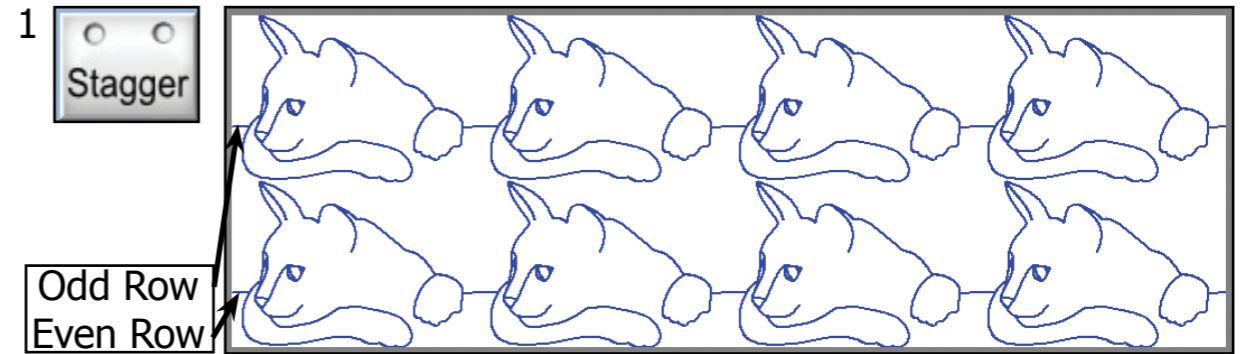
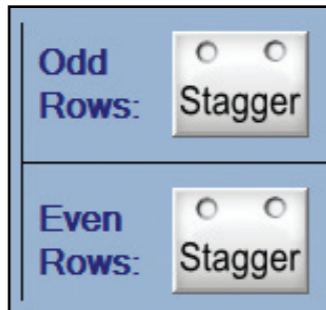


Staggering Patterns

Staggering is having the application automatically offset the patterns in the pantograph rows by half. This is a great tool to create repeating rows.

Please note, there are 2 options for staggering and flipping, you can apply the changes to the Odd numbers rows, or the Even numbered Rows.

- 1. No Stagger** - Patterns will be centered in the pantograph.
- 2. Stagger with Wrap** - Patterns will be staggered on the row and will wrap around the pantograph.
- 3. Stagger without Wrap** - Patterns will be staggered on the selected row but will not wrap around the pantograph. If the pattern has to be 'cut' it will be removed

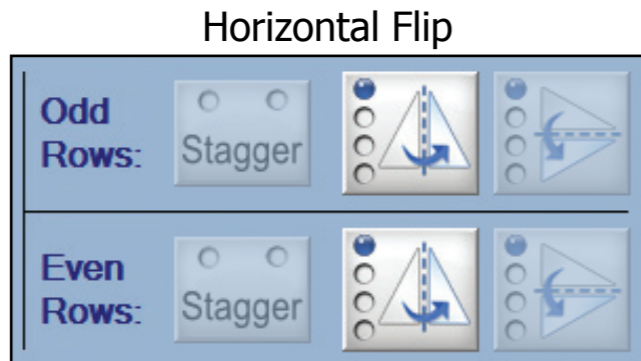


Flipping Patterns

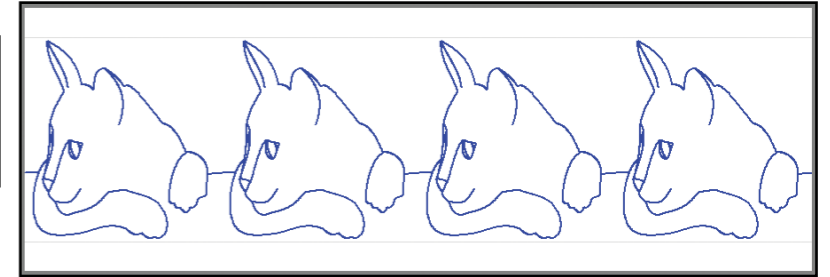
The flip option allows patterns for the entire row, or every other pattern in the row, to be flipped vertically and horizontally. There are three different ways in which the flip feature works, by default there is no flip applied.

- 1. Tap once** — Flips all patterns.
- 2. Tap twice** — Only flips the odd numbered patterns:
1,3,5,7,9.....
- 3. Tap three times** — Only flips the even numbered patterns:
2,4,6,8,10.....

The same rules apply to both Odd and Even Rows



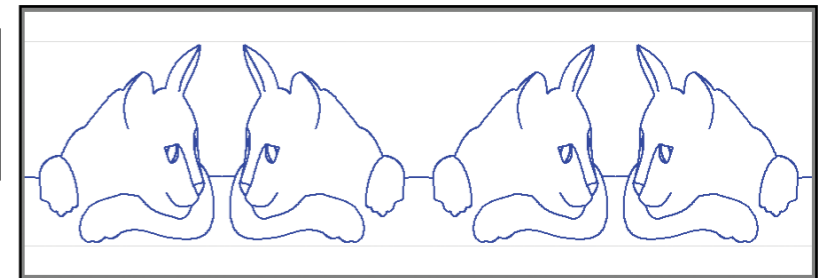
Original Setting



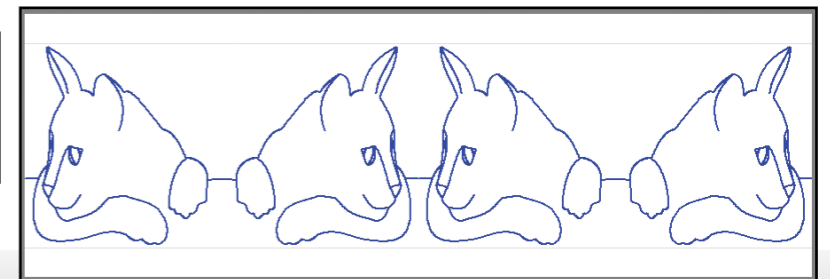
One tap: All



Two Taps: Odd



Three Taps: Even

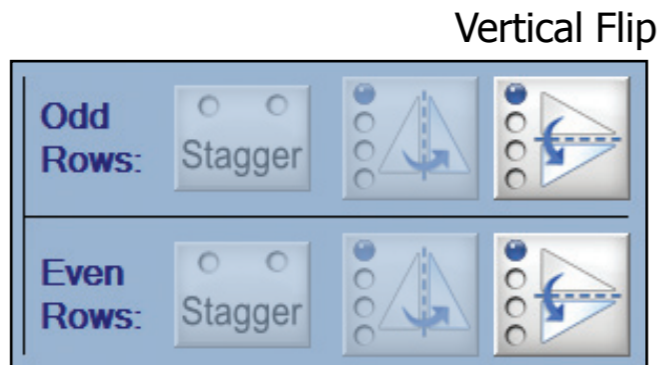


Flipping Patterns Continued

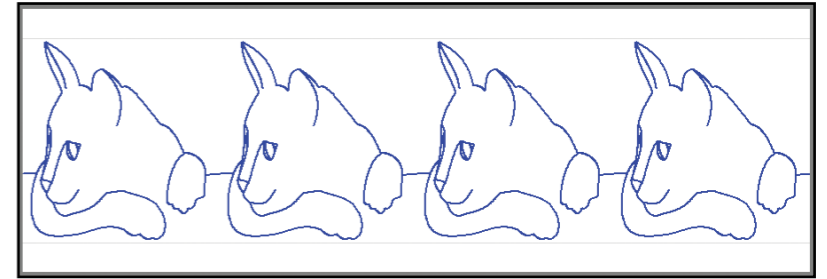
The flip option allows patterns for the entire row, or every other pattern in the row, to be flipped vertically and horizontally. There are three different ways in which the flip feature works, by default there is no flip applied.

- 1. Tap once** — Flips all patterns.
- 2. Tap twice** — Only flips the odd numbered patterns:
1,3,5,7,9.....
- 3. Tap three times** — Only flips the even numbered patterns:
2,4,6,8,10.....

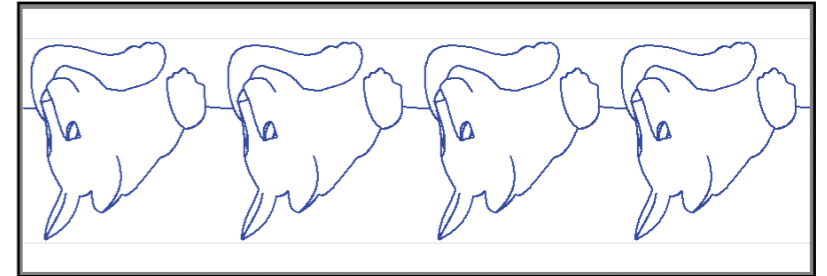
The same rules apply to both Odd and Even Rows



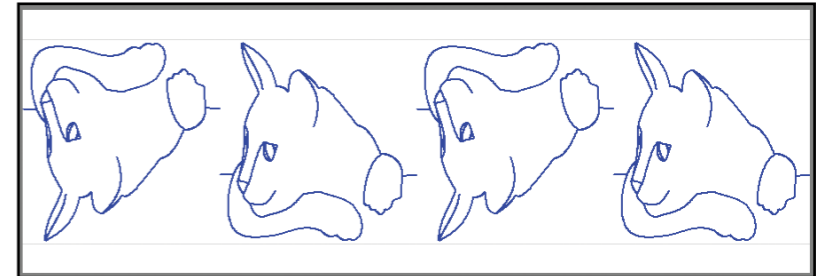
Original Setting



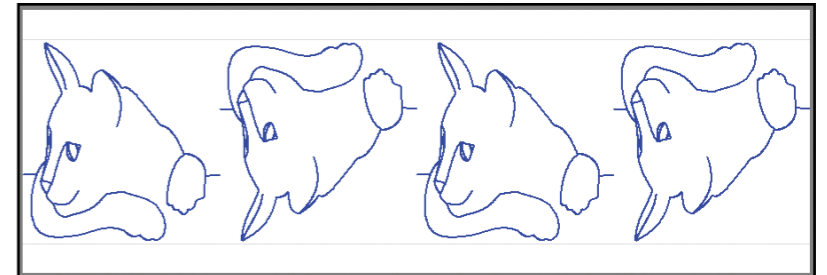
One tap: All



Two Taps: Odd



Three Taps: Even



Step Size

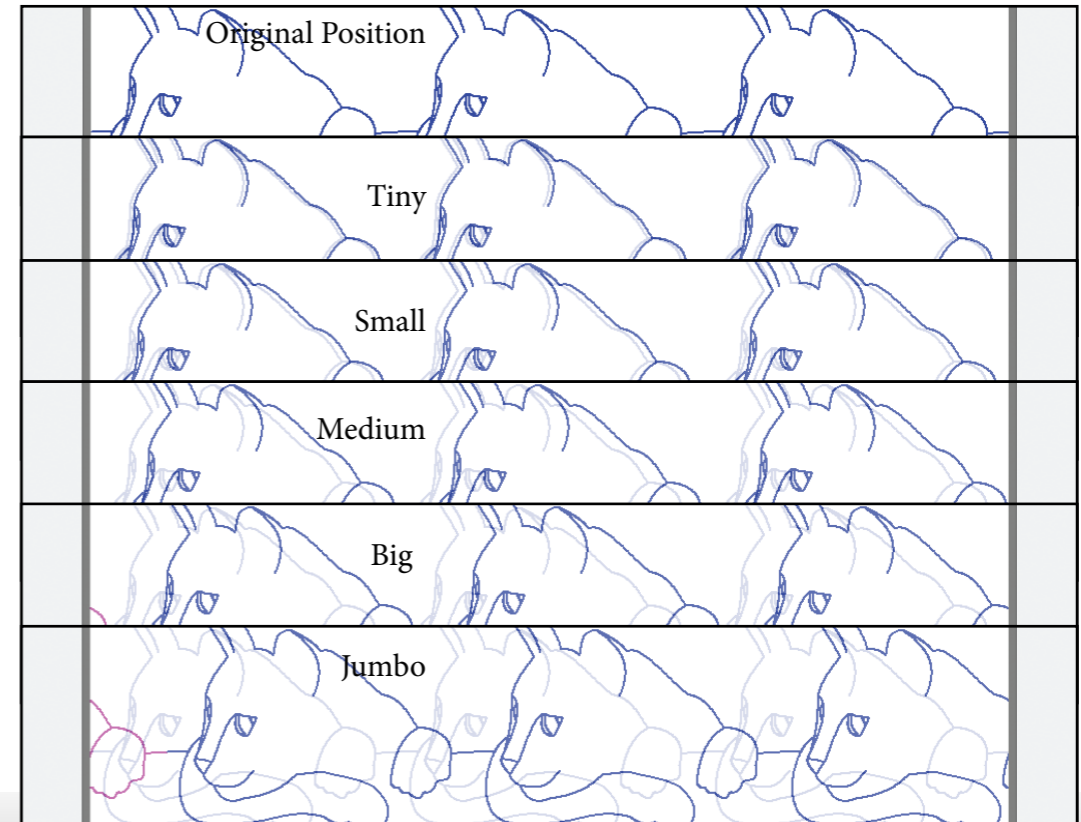
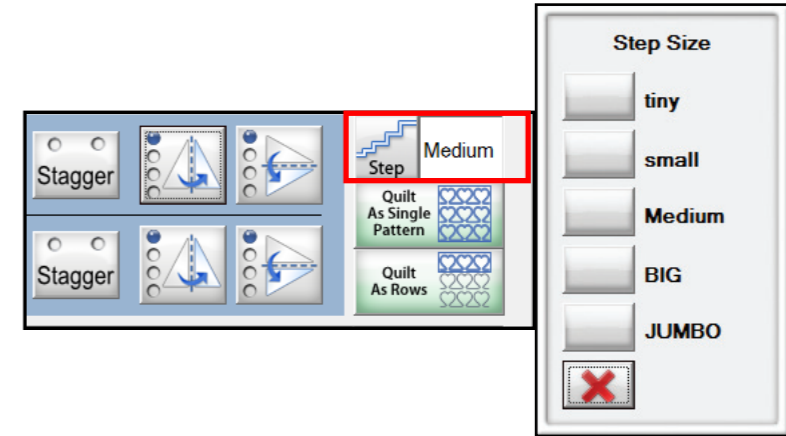
The "Step Size" setting is used to change how much distance or proportion will be effected per tap.

There is no numerical formula associated with the step size, they are simply increments of size according to the pattern or pantograph size.

- **Tiny** — A small increment of movement.
- **Small** — A slightly bigger increment of movement than Tiny.
- **Medium** — A bigger increment than Small.
- **Big** — A larger increment in movement as compared to Medium.
- **Jumbo** — The largest movement increment .

In the examples shown you can see each step size as if tapped once, each step size is from the patterns original position. You can see how the Tiny and Small are best used for fine tuning the pattern, while the Big and Jumbo are best used for larger advancements.

The same rules apply when setting the Step Size to change the size of the pattern.



Basic Mode: Pantograph Size

Once you select a pattern it will now be shown on your pantograph. You must set your safety area, those dimensions will be used for the pantograph layout.

The maximum height and width you can set is 200", and the minimum being 1".

Step 1

Tap on the 'Total Height' box this will display a screen you can enter the total height of your pantograph, the height can be changed at any time. For this example, we want to change the total height of the pantograph to 24". Type in 24 and click OK. Now you will notice that the Pattern Height is now 12" but the Row Height is 24".

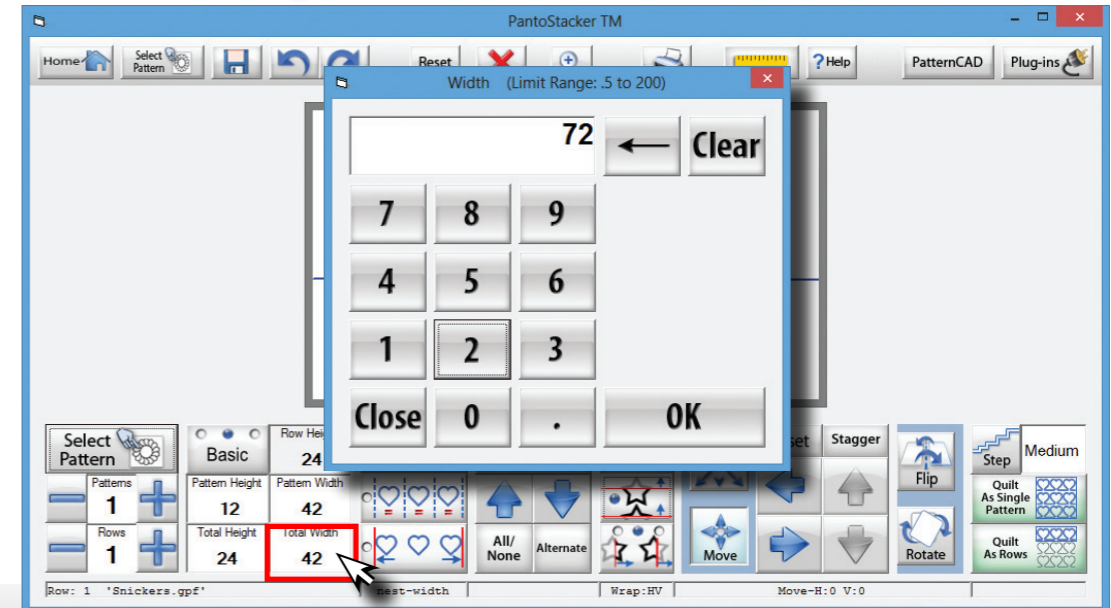
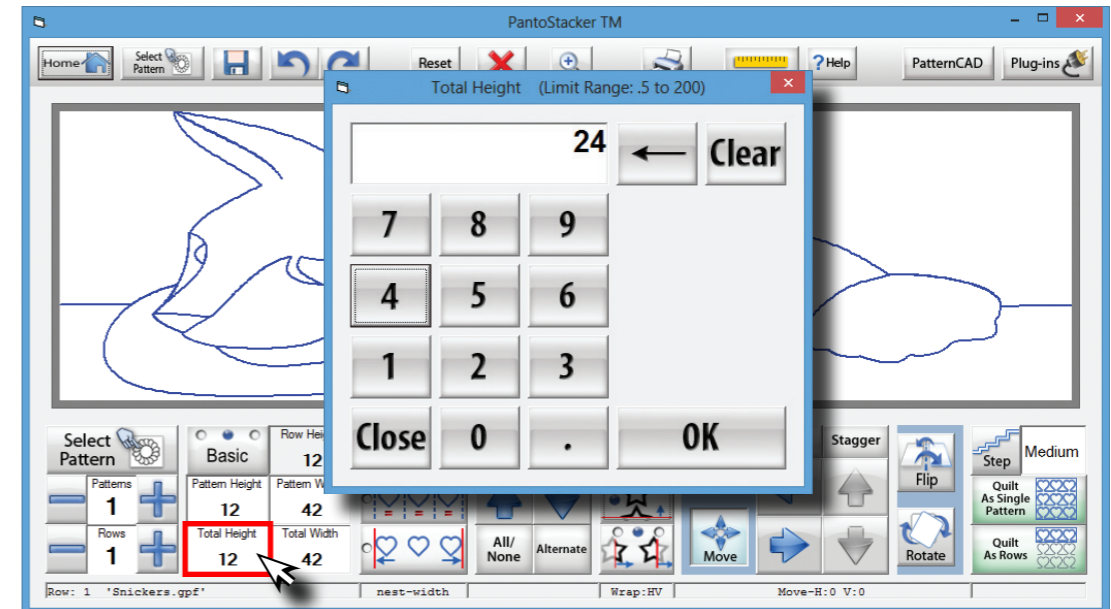
This mode will not automatically add patterns or adjust the pattern dimensions.

Step 2

Tap on the 'Total Width' box, this will display a screen you can enter the width of your pantograph.

Here you are going to set it to 72.

Once you click OK you should now see your pantograph setup with the size 24" x 72", with one pattern and one row.



Basic Mode: Pattern Size

The Basic Mode allows you to change the size of your pattern. However, the size of the pattern cannot be changed when the **Nested** option is selected. By default this option will be set to Nested by Width, to change the pattern width click a different nested style, for this example we will use the Evenly Spaced Nested Option.

Step 1

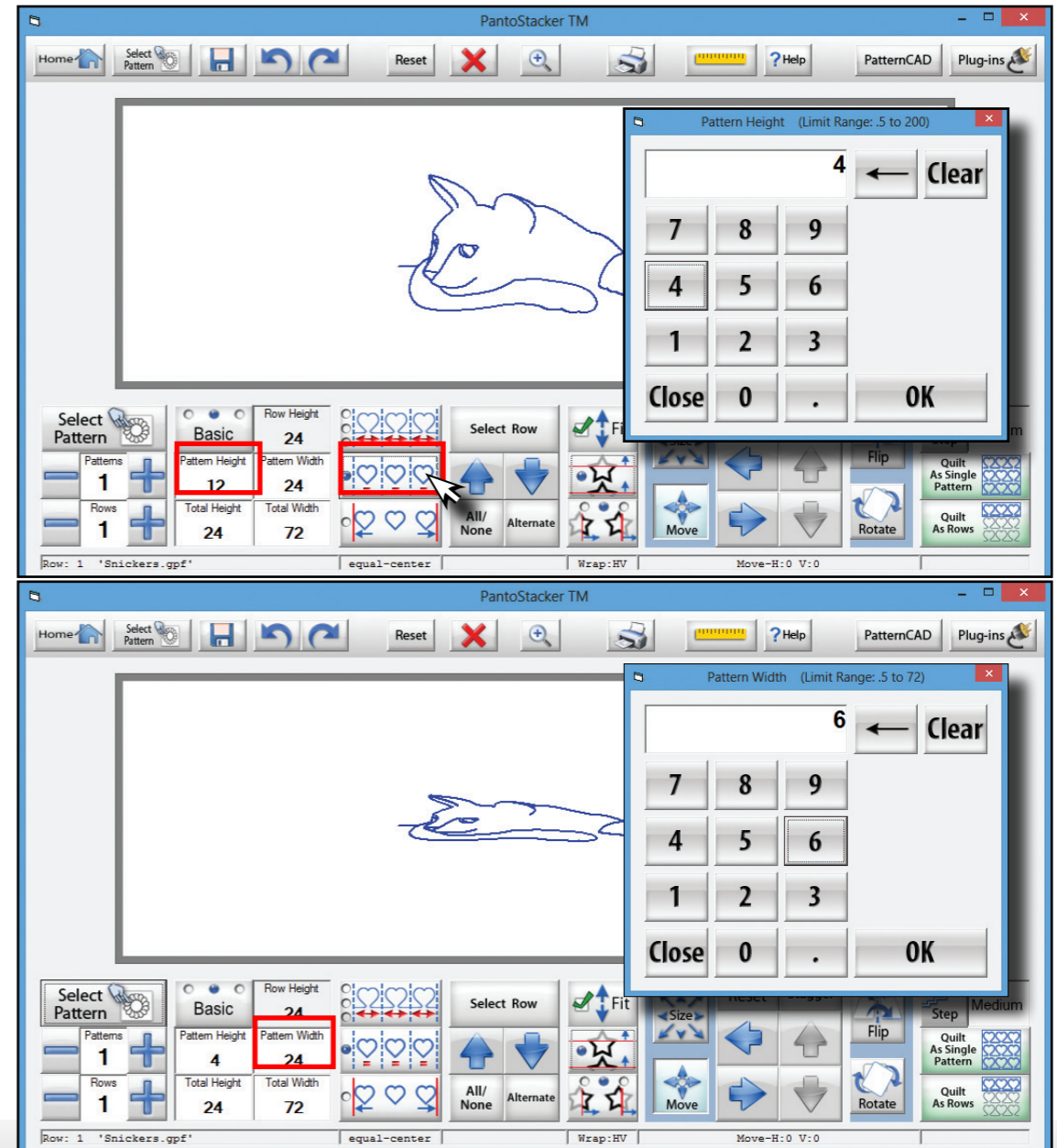
Click the "Pattern Height" box, this will display a screen you can enter the width of your pantograph, type in 4 and click OK.

Step 2

Tap on the 'Pattern Width' box, this will display a screen you can enter the width of your pantograph. Set the width to 6 and click OK.

Once you click OK you should now see your pattern setup with the size 4" x 6", with one pattern and one row.

Click [here](#) for more information regarding **Nesting** options.



Basic Mode: Pattern Count

Now, one pattern on a pantograph is not that interesting especially that small, so let's add some more.

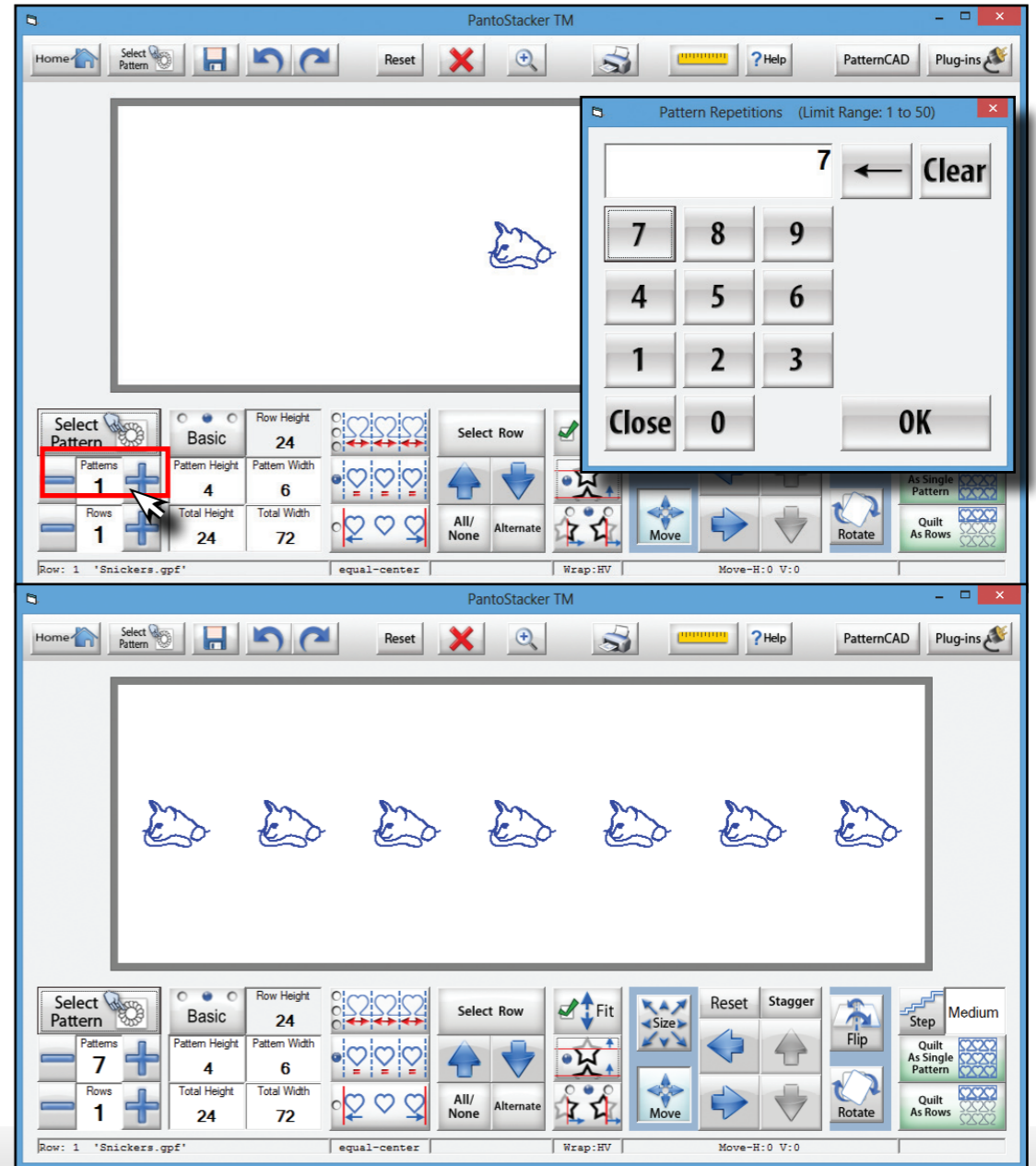
To add or take away patterns you can tap the + or - symbols under the Select Pattern icon. This will add one pattern at a time.

Another way to change the number of patterns on the pantograph is to tap the number that is being displayed for the patterns, this will open a box and allow you to type in a number.

Go ahead and set it to 7 patterns using the + or by typing in the amount.

Looks good for some small cats right? From here you do have the ability to sew what you currently have setup, but there are many more things that can be done with this pantograph.

Let's take a look at rows, nested styles, pattern wrapping, and much more.



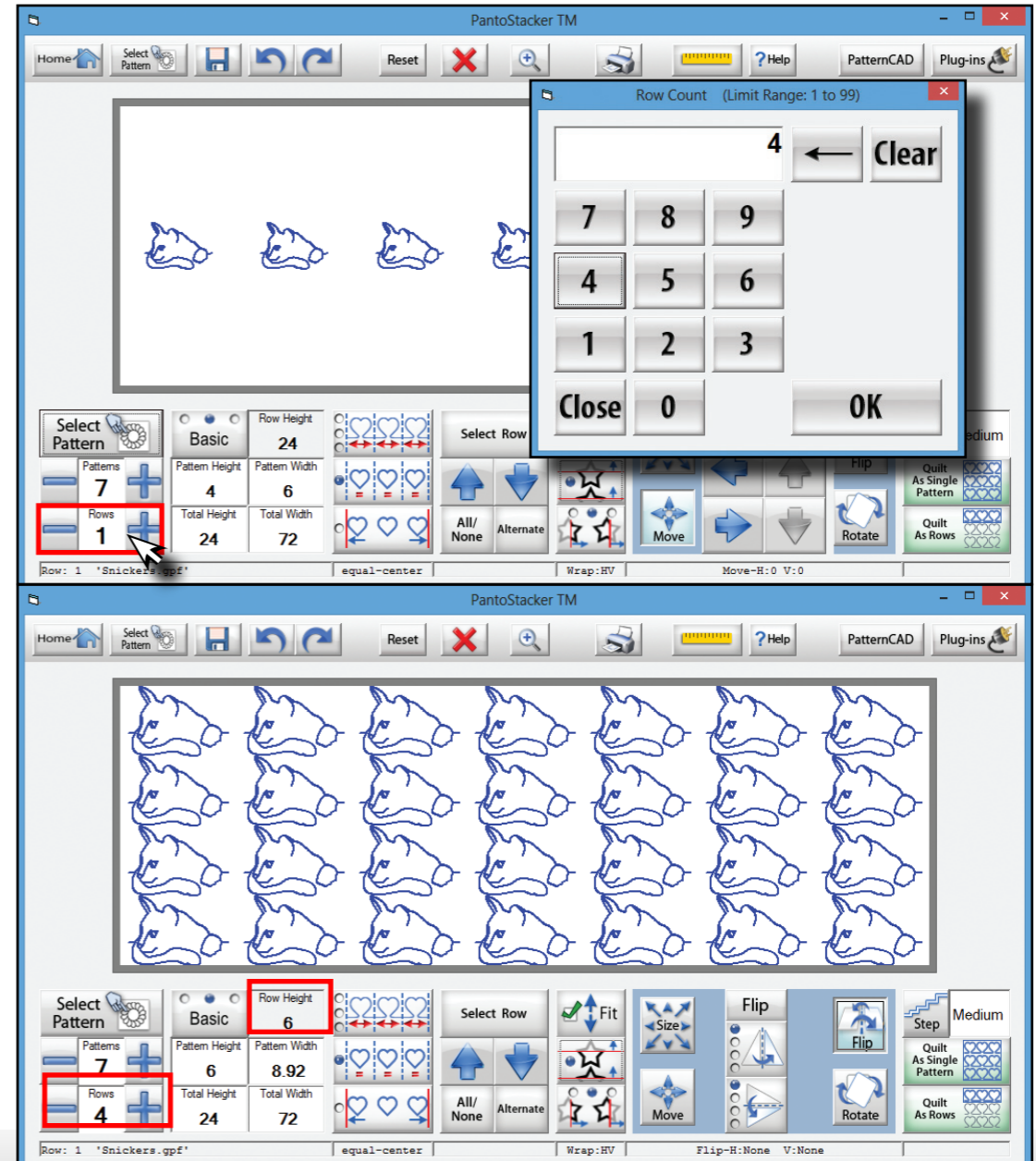
Basic Mode: Rows

Just below the Pattern Count option there is one that says Rows.

This works similar to the Pattern Count. You can use the - or + key to add a row or remove a row. You can also click on the number that displays the current amount of Rows and type in the number of Rows you want to your pantograph to have.

For this example I want to make four Rows.

- Click the + symbol, or type in the number four for the rows. And you will see that the Pattern Height and Width has changed. This change is related to the rows that have been added, the program is trying to fill the pantograph with the most patterns that it can. You can change the Pattern Height back to whatever you prefer, but you cannot change the Row Height. The Row Height is your Total Height divided by the number of Rows you have.



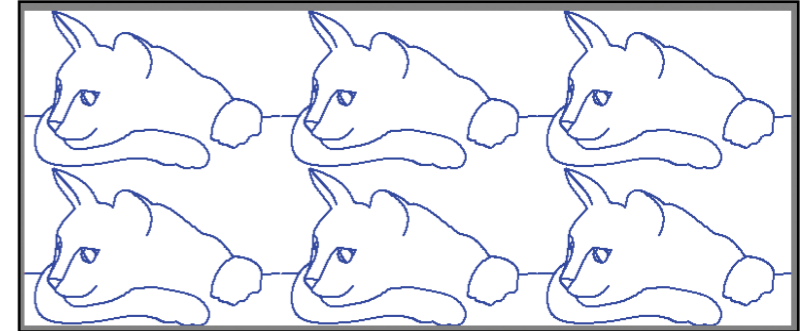
Basic Mode: Nesting

- **Nested** — The patterns will stretch to connect within the pantograph, and the pattern edges will line up to the next pattern. With this option, the pattern will lose its aspect ratio depending on how many patterns are in the block.
- **Centered** — The patterns are evenly spaced and centered in the pantograph.
- **Edge** — The patterns will be evenly spaced, but the outside patterns will touch the side of the pantograph edge.

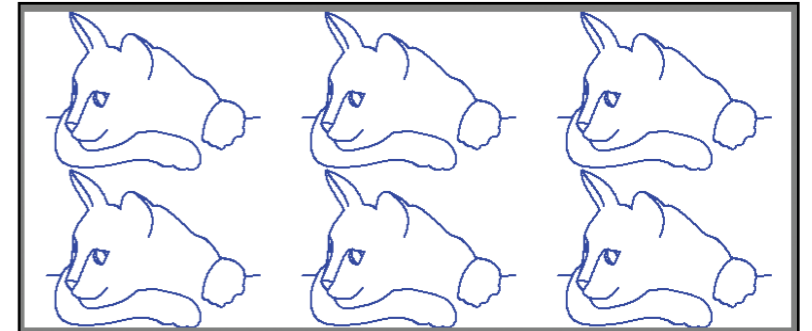
When you have the Nested option selected the patterns are automatically being sized so that the start and end points connect to make one continuous line. Therefore the system removes the ability to change the width of the pattern.



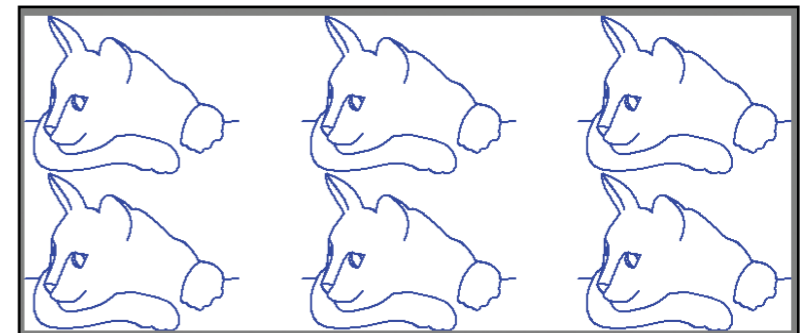
1. Nested



2. Centered



3. Block Edges



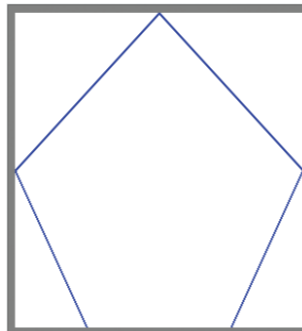
Basic Mode: Nesting Continued

There are some patterns that do not display well using the main Nested option, but depending on your pattern there are 3 types of Nested options;

- **Fit** - Creates an overlapping repeating pattern using the maximum number of patterns that will fit inside the pantograph.
- **By Ends** - Creates an overlapping repeating pattern that will wrap around the pantograph with the maximum number of patterns that are required to fill the entire pantograph.
- **By Width** - Using the total width of the pattern the pantograph will create a non overlapping repeating pattern.

Be sure to try all three if the current one you are using just isn't doing what you want it to.

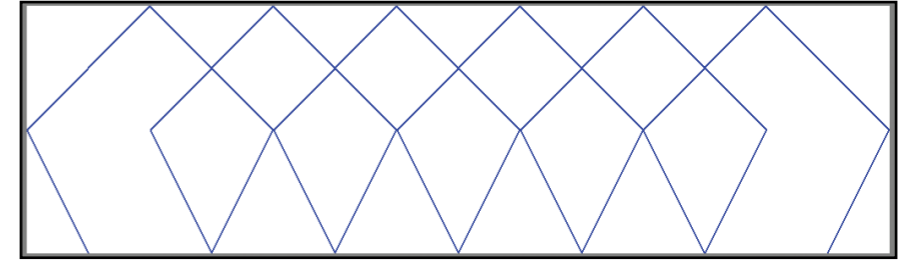
We are going to use a pattern made by someone in this example, as this is the time when the issue will most commonly arise.



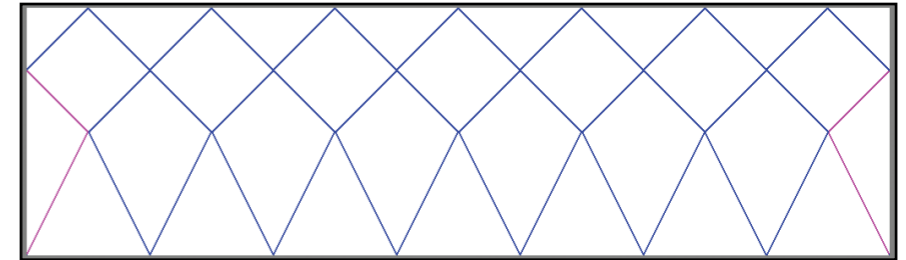
Original Pattern



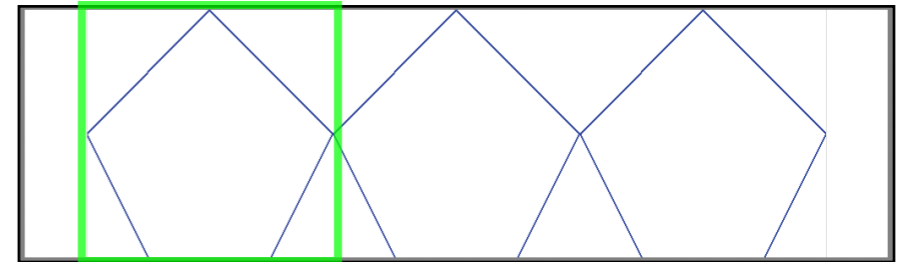
Fit



Ends



Width



The green box represents the width of the pattern.

You can see that the three different Nested Options treat the pattern differently.

Basic Mode: Row Selection

The Select Row button allows you to individually select a row to modify, you can also navigate up and down the Rows you have created by using the Up and Down arrows.

- **All/None** — This option allows you to select all rows or none of them. A great tool for when things get cluttered.
- **Alternate** — Selects the Alternate rows you currently have selected. This will be used often when [staggering](#) rows on a Pantograph.

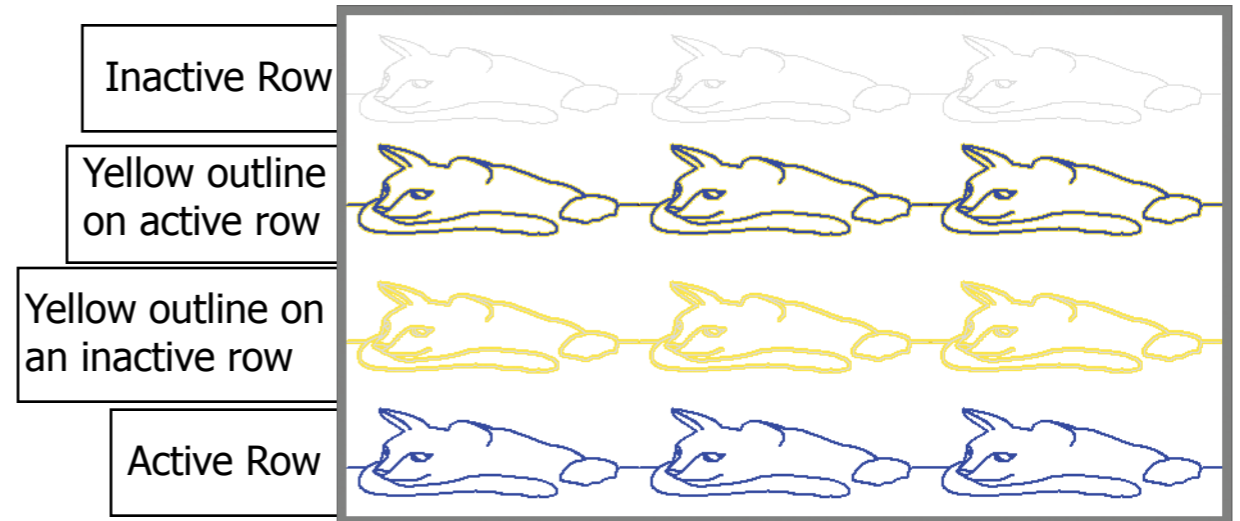
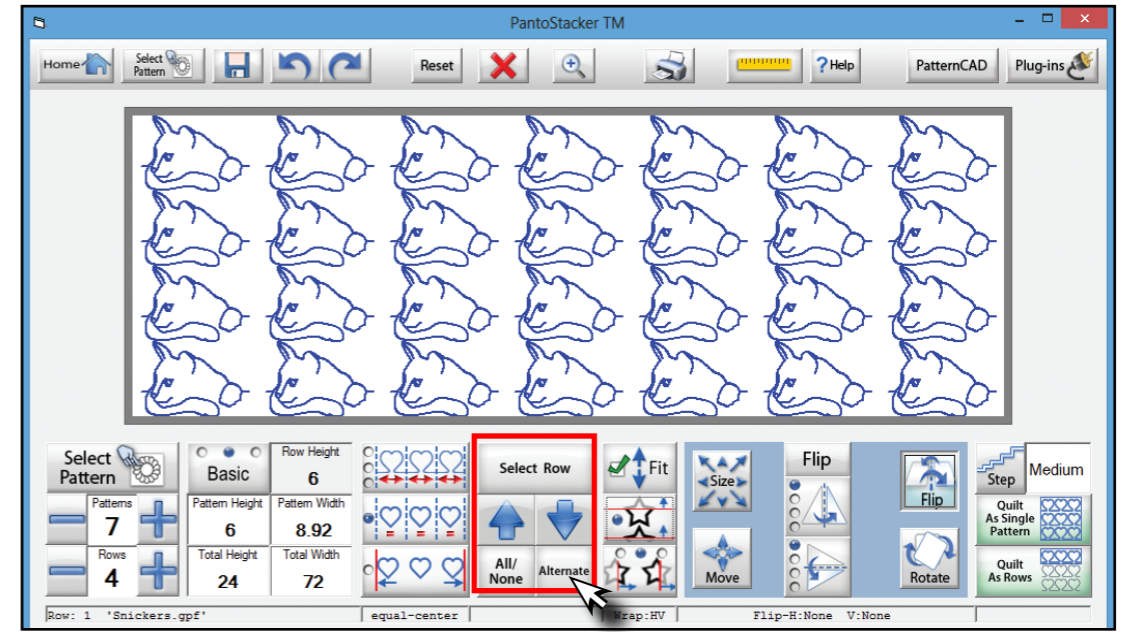
[Staggering](#) will be covered here.

By selecting a single row one at a time you are able to change the pattern count, pattern size, and position of the pattern in that row.

You can use the Select Row button in combination with the Up and Down arrows to select a row to modify or you can select a row by tapping on it.

When selecting a row, the yellow outline around the pattern indicates the row can be selected or deselected.

When a row has been selected the pattern will be outlined in blue, and any changes you make to the pantograph will only effect those rows.



Basic Mode: Fit and Pattern Wrapping

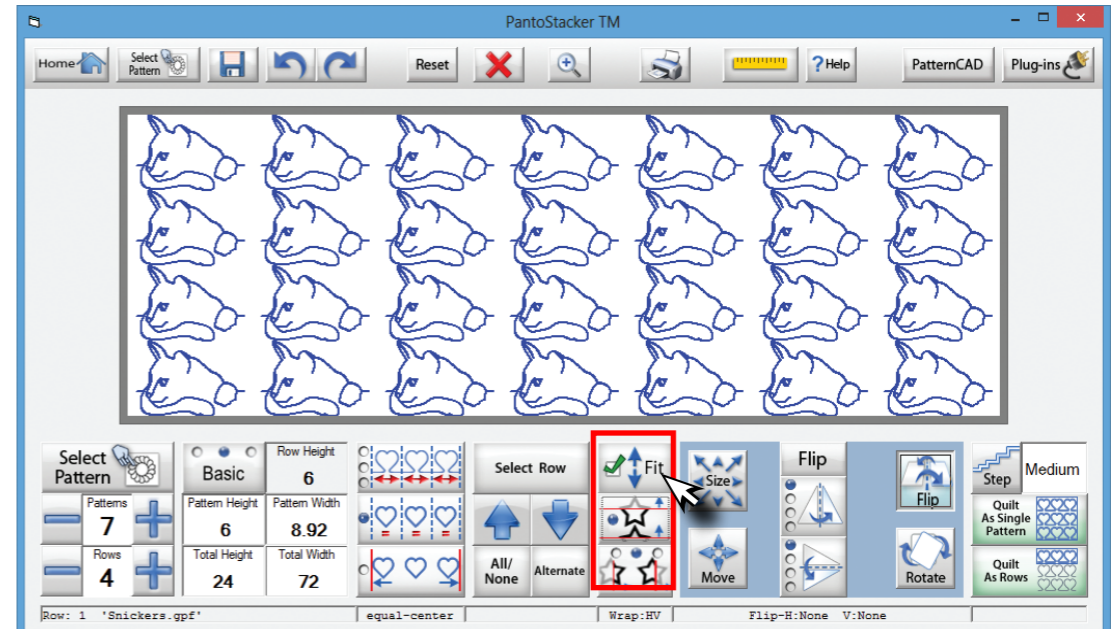
- **The Fit feature**

When enabled: Makes it so the pattern will fit inside the Total Height and Width of the pantograph. This will also effect the unselected patterns as they will change size to accommodate for the patterns that are being modified.

If the option is disabled, or unchecked the pattern will grow in size but will remain centered in it's row.

- **Pattern Wrapping: Vertical**

When enabled: If the pattern becomes taller than the Total Height, or is moved to the edge of the pantograph, the pattern will 'wrap' from the top and come through on the bottom of the pantograph. At the same time, the bottom of the pattern will 'wrap' to the top of the pantograph.



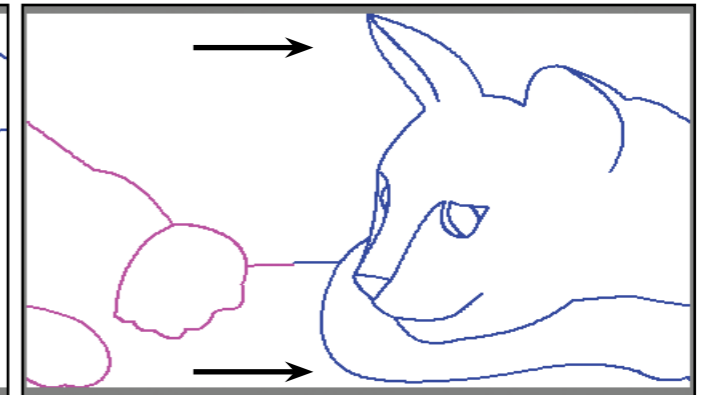
Enabled



Disabled



Vertical Wrapping



Horizontal Wrapping

The portion of the pattern in pink represents what has been wrapped around the pantograph.

Basic Mode:

Fit and Pattern Wrapping Continued

- **Pattern Wrapping: Horizontal**

There are three modes for the Horizontal wrapping:

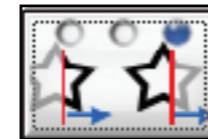
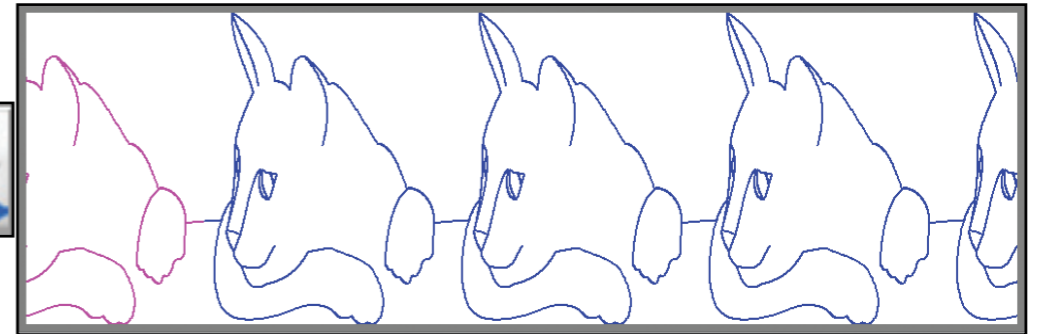
- 1. Disabled** - When this setting is enable no horizontal wrapping will occur, left or right. If part of the pattern is cut off the software will leave it there to be sewn.
- 2. Enabled-** If the pattern becomes wider than the maximum width, or is moved beyond the edge of the pantograph, the pattern will 'wrap' from the right and come through on the left of the pantograph. At the same time, the left of the pattern will 'wrap' to the right of the pantograph. By default this option will be selected.
- 3. Smart Wrap** - This will remove a pattern that is not a complete pattern, any amount of the pattern that is cut off due to wrapping will be removed.



1



2



3

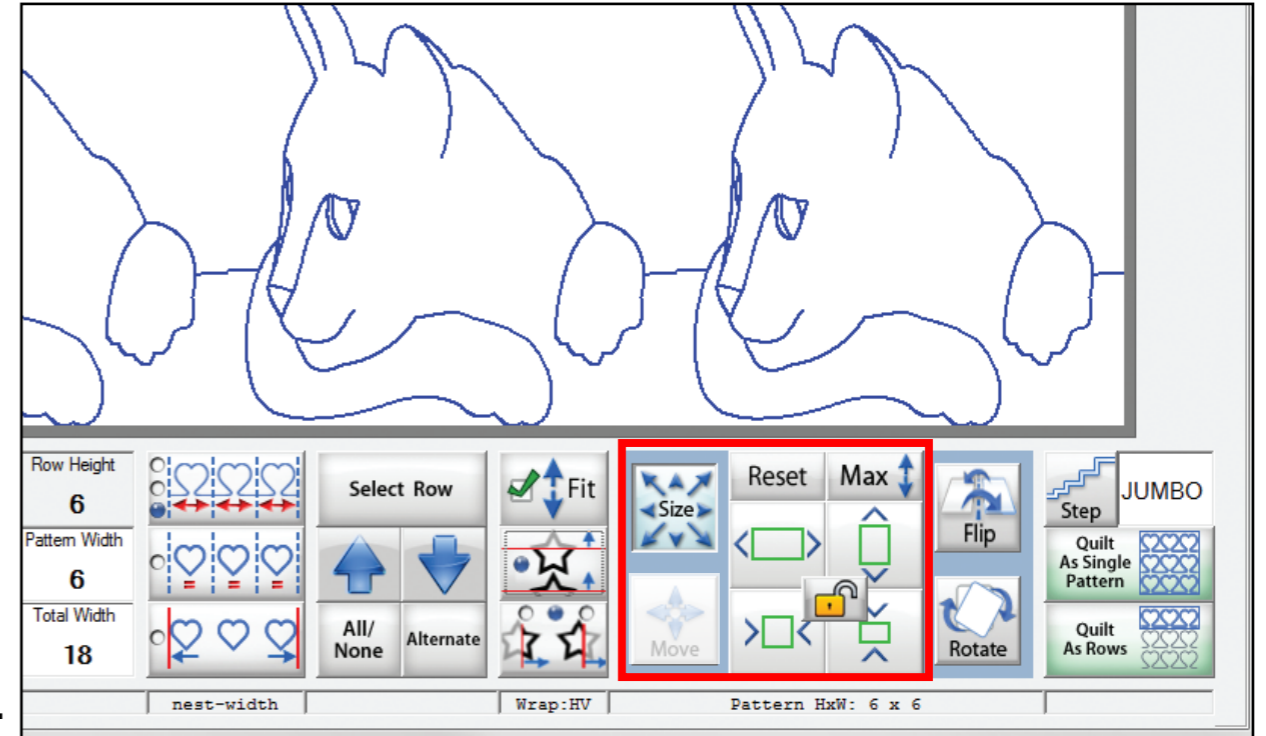


The portion of the pattern in pink represents what has been wrapped around the pantograph.

Basic Mode: Size

The Size option allows you to change the height and width of a selected pattern, row, or the entire pantograph.

- **Reset** — Resets the pattern to default size.
- **Max** — Changes the pattern size to match the Total Height.
- **Increase Width** — Increases the width of the selected pattern.
- **Increase Height** — Increases the height of the selected pattern.
- **Decrease Width** — Decreases the width of the selected pattern.
- **Decrease Height** — Decreases the width of the selected pattern.
- **Aspect Ratio Lock** — Locks the Aspect Ratio of the pattern, any changes you make to the height will be reflected by the width. And in turn any changes to the width will change the height.



Basic Mode: Flip

We can flip patterns for the entire row, or every other pattern in the row vertically and horizontally. There are three ways in which the flip feature works.

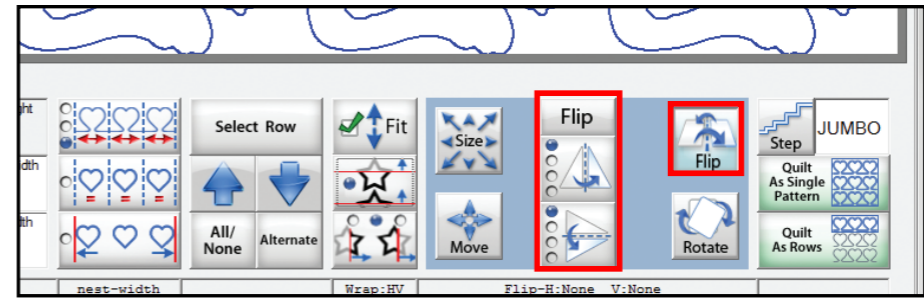
- **Tap once** — Flips all patterns.
- **Tap twice** — Only flips the odd numbered patterns:
1,3,5,7,9.....
- **Tap three times** — Only flips the even numbered patterns:
2,4,6,8,10.....

The same rules apply to both horizontal and vertical.



Original Orientation

If you tap the "Flip" icon all flips that have been added will be reset and the pattern will be set to its original orientation.

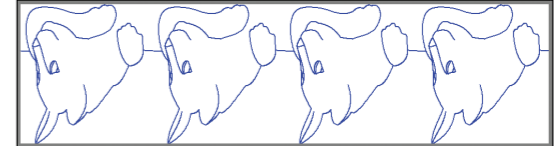


Horizontal Flip →

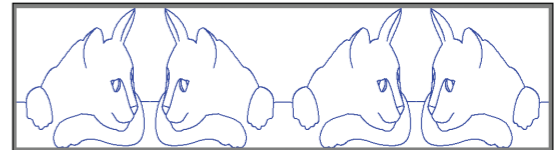


One tap : All

Vertical Flip →



Horizontal Flip →

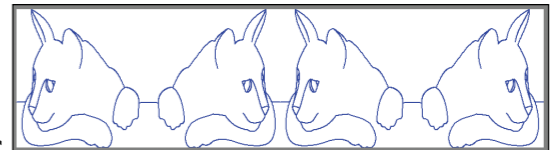


Two Taps : Odds

Vertical Flip →



Horizontal Flip →



Three Taps : Evens

Vertical Flip →



Basic Mode: Move

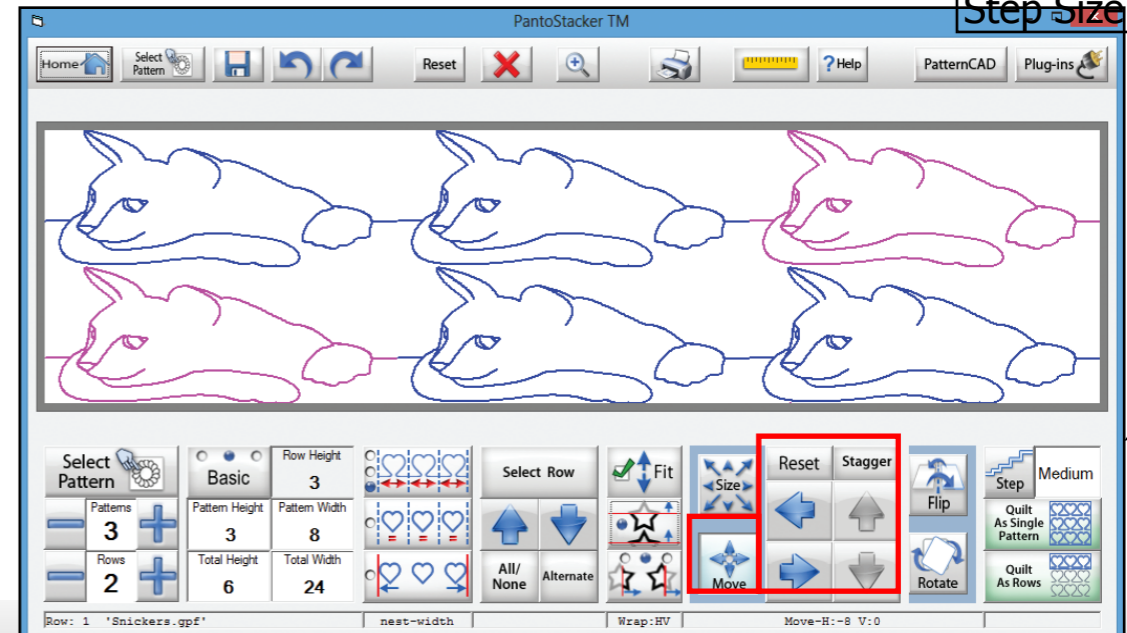
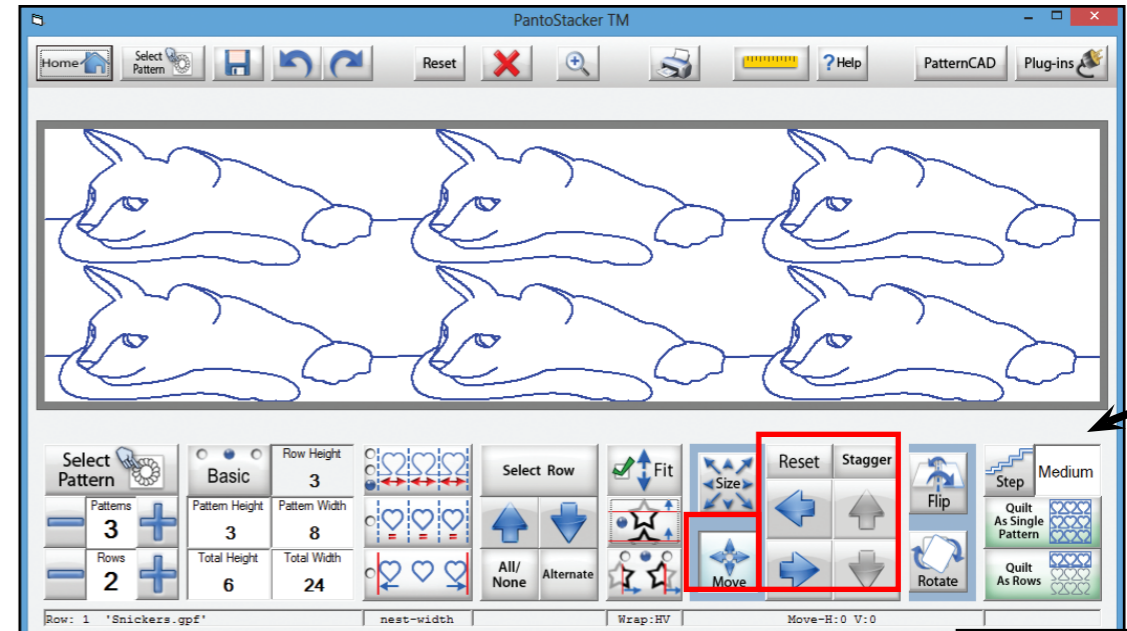
You can change the location of the patterns left to right at anytime.

There are two key things to point out; Take note of your step size, the movement of the pattern is based on this setting.

If you want the pattern to wrap around, please make sure the [Pattern Wrapping](#) option is enabled.

In this example we set the Step Size to medium, tapped the right arrow about 10 times. With Row Wrapping enabled you can see the right is now partially on the left side on the top row, and the opposite on the bottom row.

If you tap the "Move" icon, the pattern will move back to its original location.



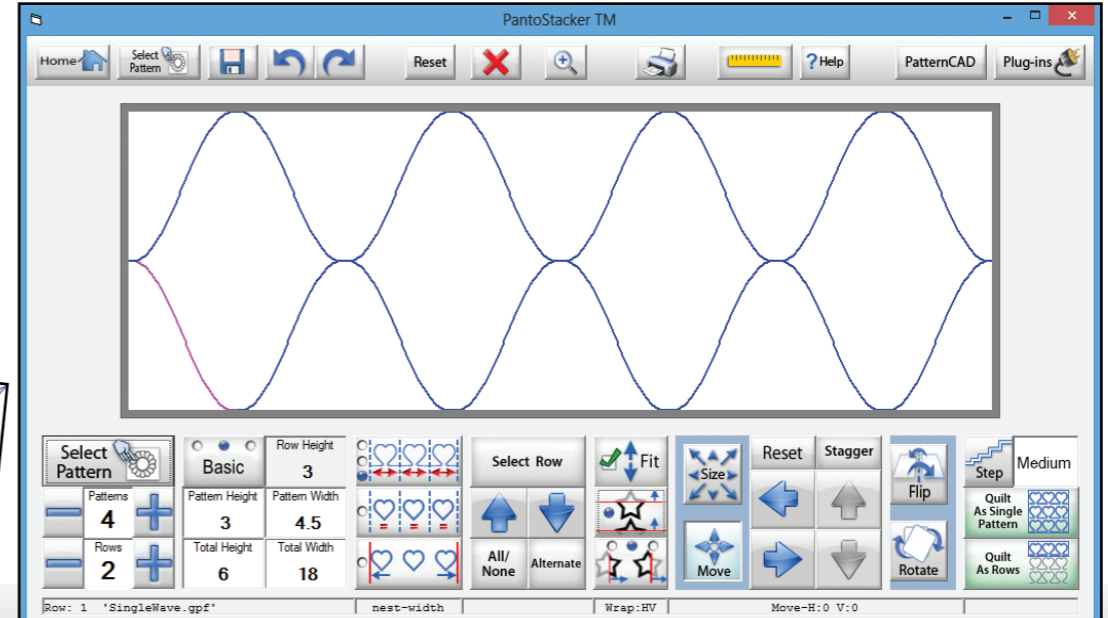
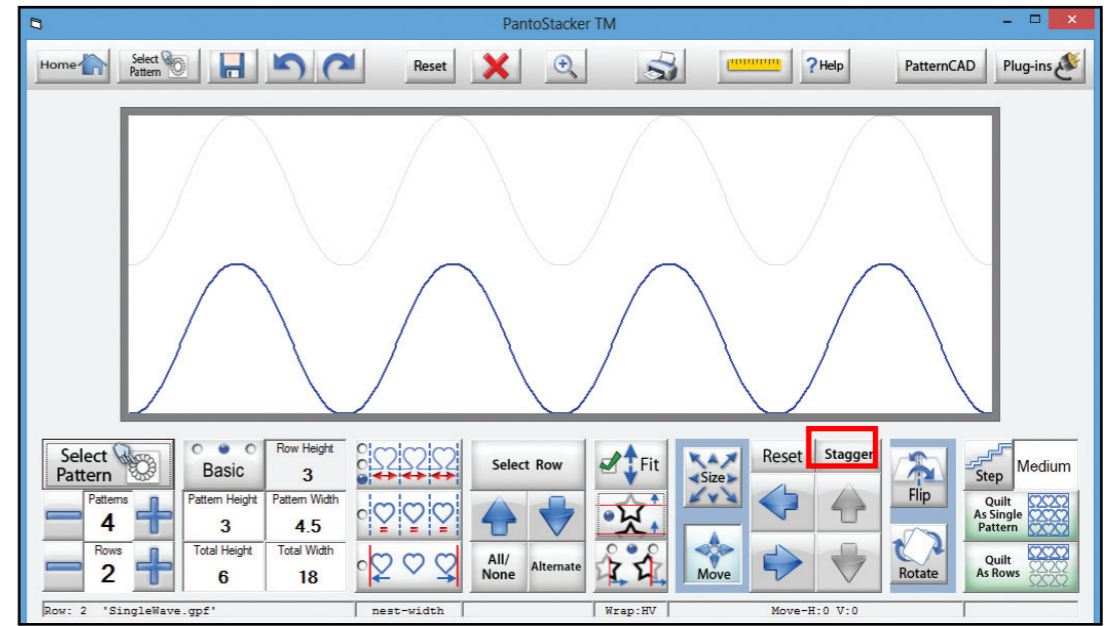
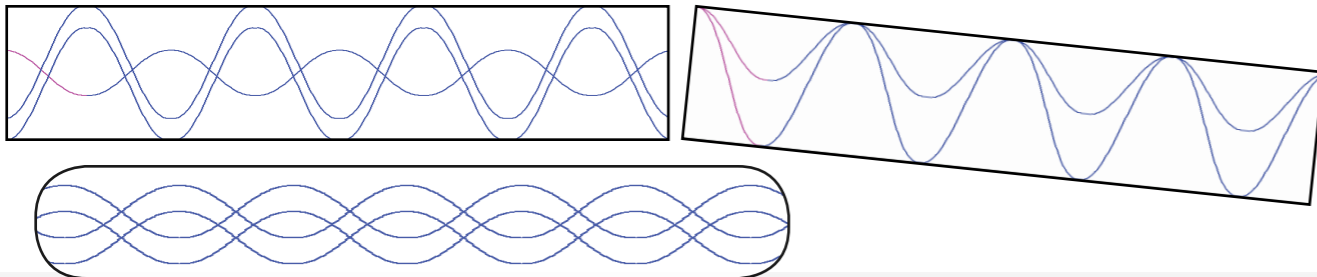
Basic Mode: Stagger

The Stagger option is a new feature in the PantoStacker™ section of the QCT software.

With one click of the button you can quickly align alternating rows and have the patterns Staggered by centering the row below or above to the middle of the pattern on the opposing row.

1. Choose the pattern file, here we will use SingleWave.gpf.
 2. Set the pantograph to two rows with four patterns per row.
 3. Click the Alternate button under the Select Row option. It will deselect the odd numbered rows and even numbered rows selected.
 4. Click the Stagger option.
 5. Click All under the Select Row option.
- This option makes it possible to use any simple continuous line pattern and turn them into a unique and original creation.

The possibilities are endless.



Basic Mode: Rotate

You can also rotate the patterns in the pantograph. The value in the middle of the arrows to rotate the pattern is the current degree of rotation the pattern is set to, by default it will be zero.

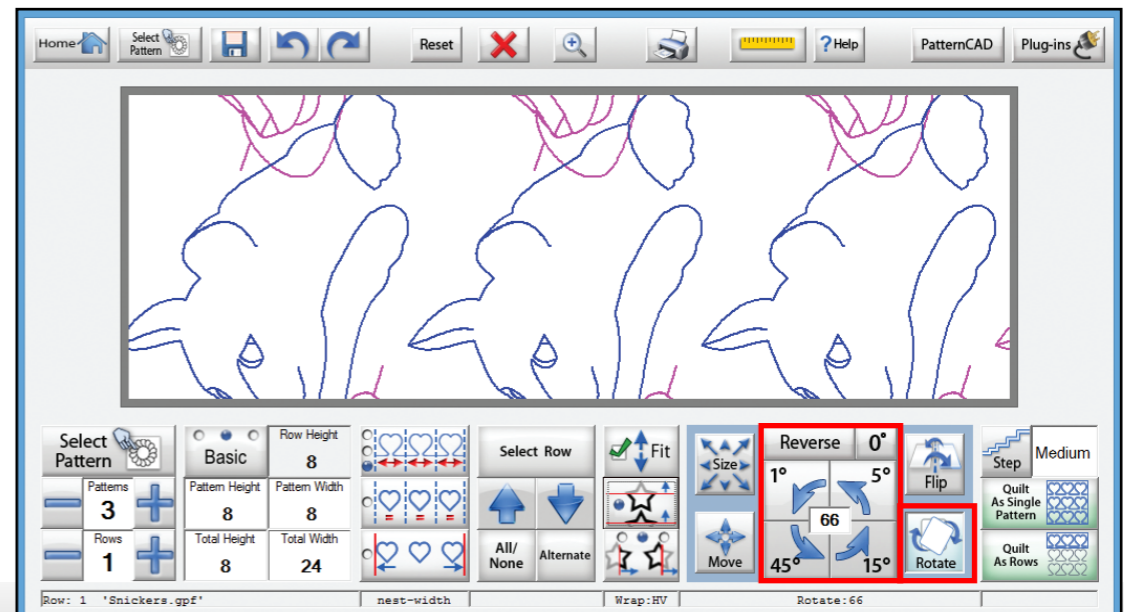
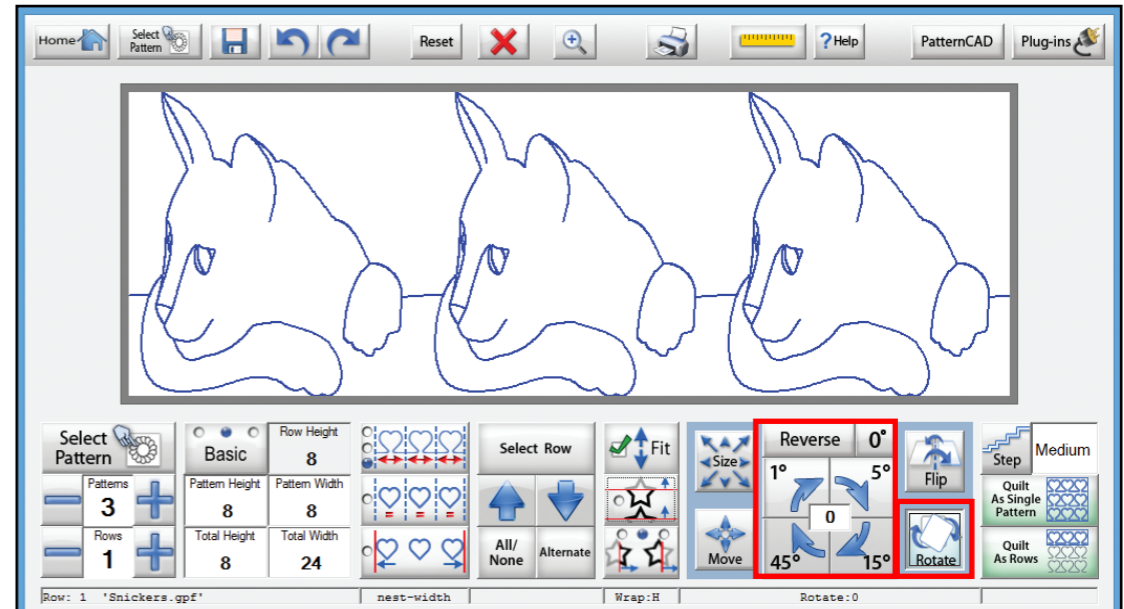
The pattern can be rotated in increments of 1, 5, 15, and 45 degrees. By default the rotation will be set so the pattern rotates to the right, this can be changed by tapping the "Reverse" icon. You will notice the direction of the arrows changes when this icon is tapped.

Just to see how it all works, lets set this pantograph to have a 66° angle to the pattern.

1. First tap the Reverse icon.
2. Now tap each increment one time, 1, 5, 15, and, 45.

Now if you still have [Pattern Wrapping](#) enabled you will see the parts of the pattern that were cut off are now coming through the other side of the pantograph.

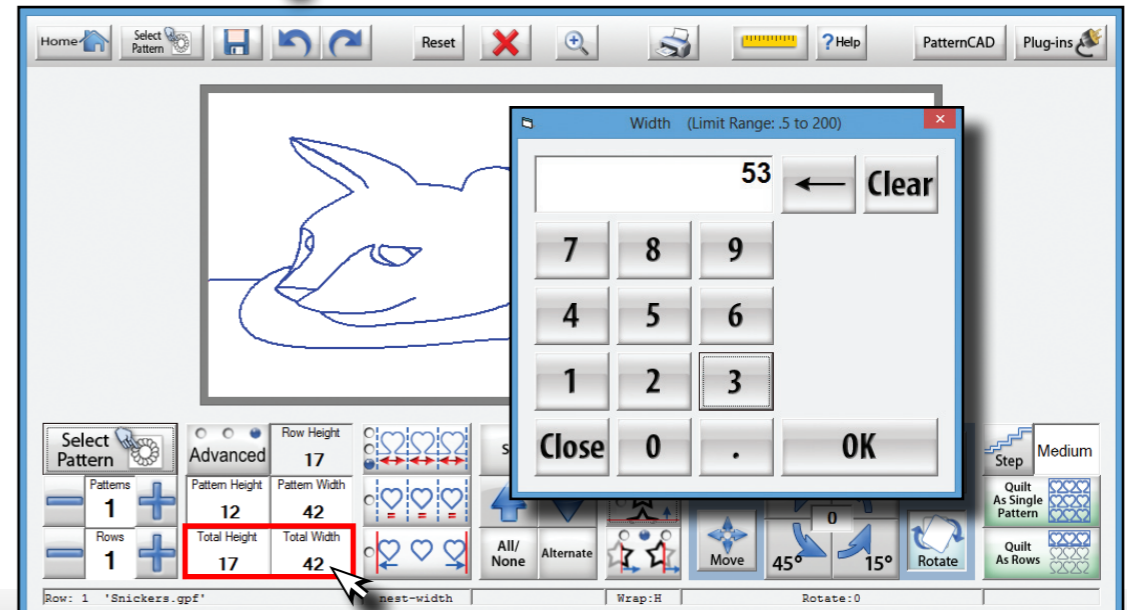
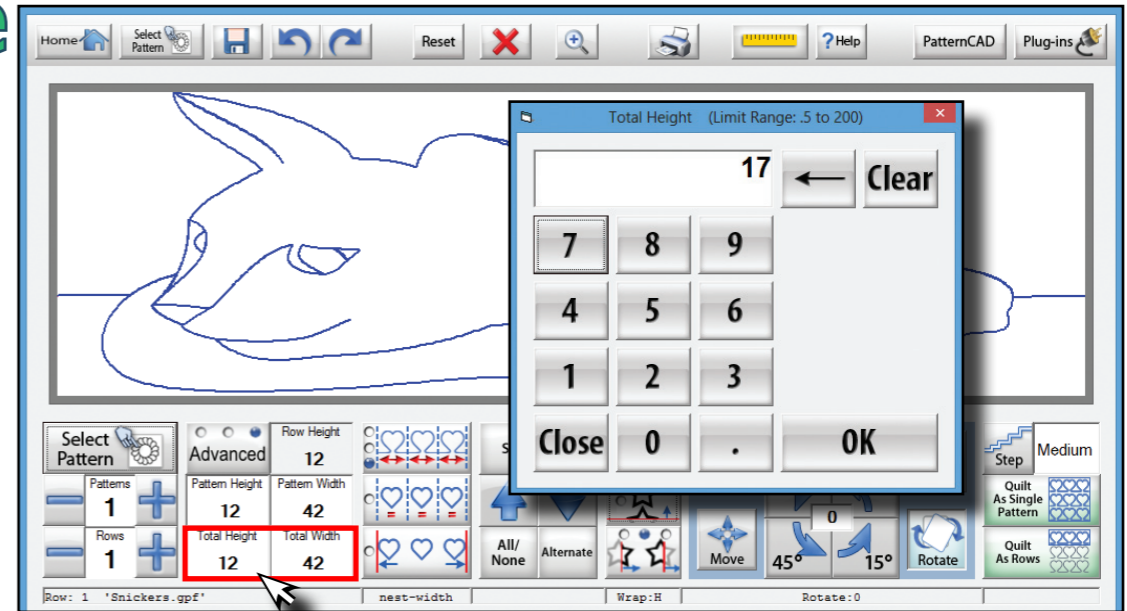
The last option is the 0° icon, by tapping this it will reset the orientation of the pattern back to zero.



Advanced Mode: Pantograph Size

The Advanced mode offers the most control and features that can be applied to the patterns and pantograph. You must set your safety area, those dimensions will be used for the pantograph layout. The advanced mode will not change the size of the pattern unless prompted to, such as a nested option or changing the size with the aspect ratio checked. The maximum height and width you can set is 200", and the minimum being 1". You can change these settings at any time to accommodate the patterns within the pantograph.

1. Select a Pattern file.
2. Tap on the 'Total Height' box this will display a screen you can enter the total height of your pantograph. For this example, we want to change the total height of the pantograph to 17". Type in 17 and click OK.
3. Notice that the Pattern Height is still 12", but the Row Height is 17". This is because the advanced mode is letting you set the exact size of the patter you want.
4. Now change the width. Tap on the 'Width' box, this will display a screen you can enter the width of our pantograph. Here you are going to set it to 53". The pattern width may change depending on our nested options.



Advanced Mode: Pattern Count

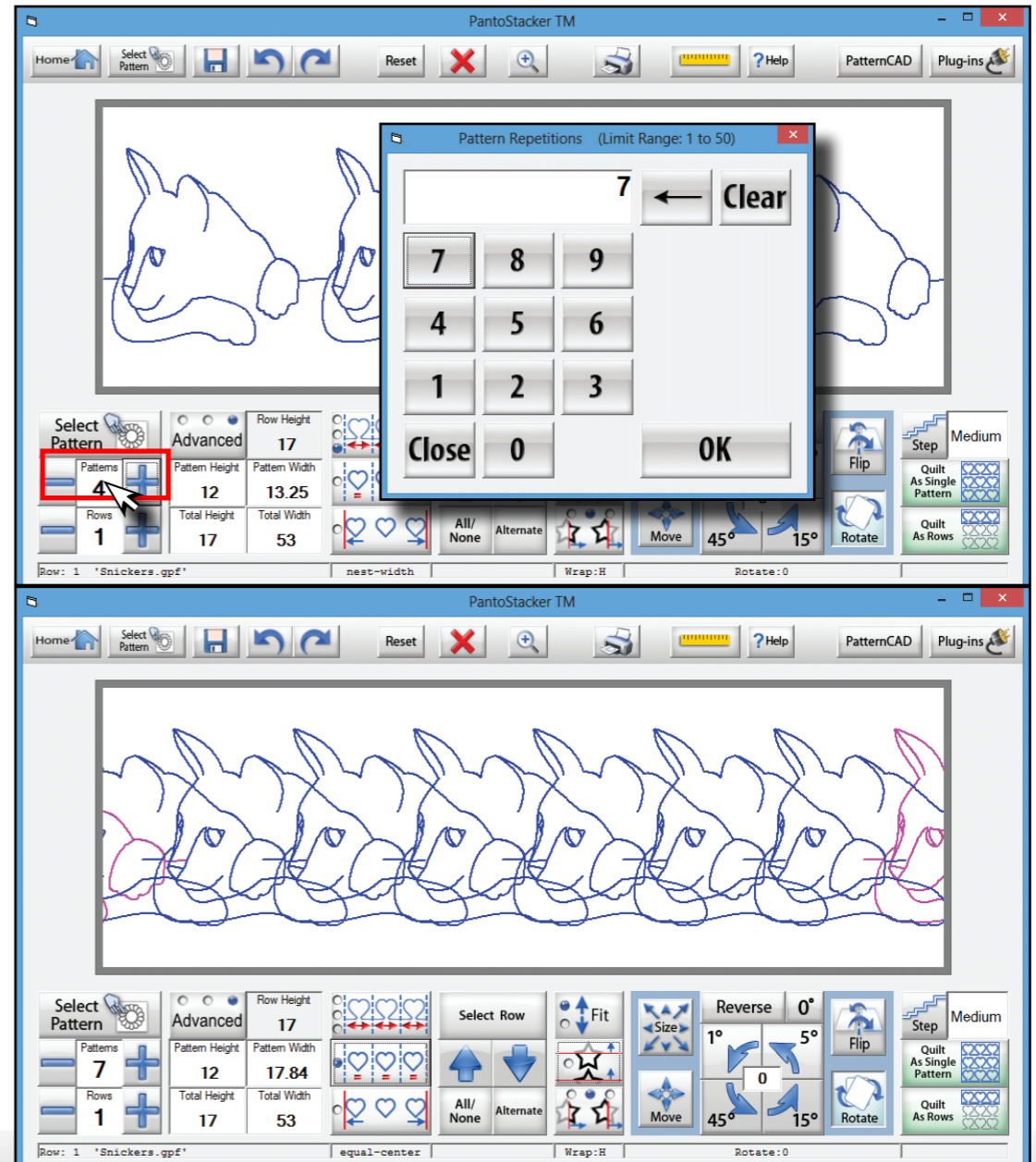
To add or take away patterns you can tap the + or - symbols under the Select Pattern icon. This will add or remove one pattern at a time.

Another way to change the number of patterns on the pantograph is to tap the number that is being displayed for the patterns, this will open a box and allow you to type in a number.

Make sure you change your nested type, or the software will automatically add patterns.

- Change your Nested mode to Center or Edges.
- Set the pattern count to 7 by using the + or by typing in the amount.

You can see how the patterns have stacked on top of each other. This is due to the advanced mode not making changes to the pattern. You can resolve this a couple ways. We could change the nesting option, this would change the size of our pattern by changing the width. Or we could change the size of the pattern or the pantograph with the dimensions we choose. All options would make the patterns fit better. Lets take a look at these methods and features.



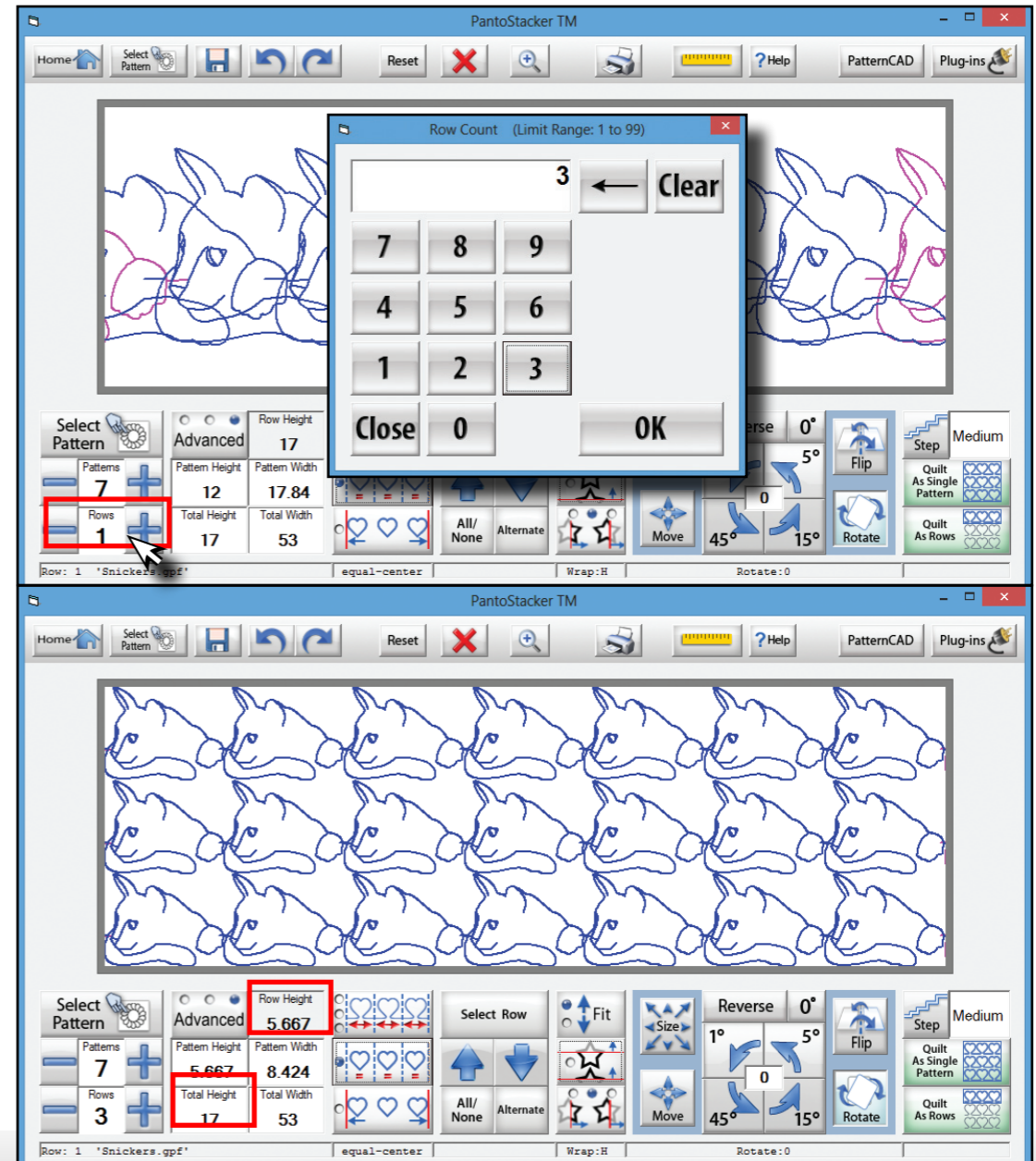
Advanced Mode: Rows

Just below the Pattern Count option there is one that says Rows. This works similar to the Pattern Count. You can use the - or + key to add a row or remove a row. You can also click on the number that displays the current amount of Rows and type in the number of Rows you want to create.

Click the number in the Rows box or use the + symbol and make three rows.

Note that the Row Height is changing, this is related to the row(s) that have been added, but not the Pattern Height.

You will also see that there is only one pattern on the row. Advanced Mode allows you to choose different patterns for each row, so when a new row is added you have to set up that row's pattern information by [selecting that row](#). You can add the same pattern or a different one.



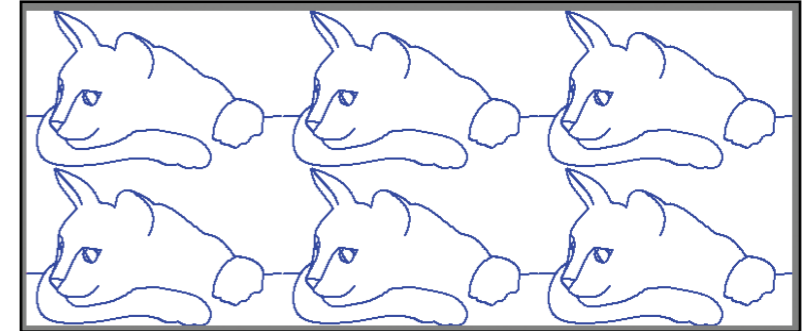
Advanced Mode: Nesting

- **Nested** — The patterns will stretch to connect within the pantograph, and the pattern edges will line up to the next pattern. With this option, the pattern will lose its aspect ratio depending on how many patterns are in the block.
- **Centered** — The patterns are evenly spaced and centered in the pantograph.
- **Edge** — The patterns will be evenly spaced, but the outside patterns will touch the side of the pantograph edge.

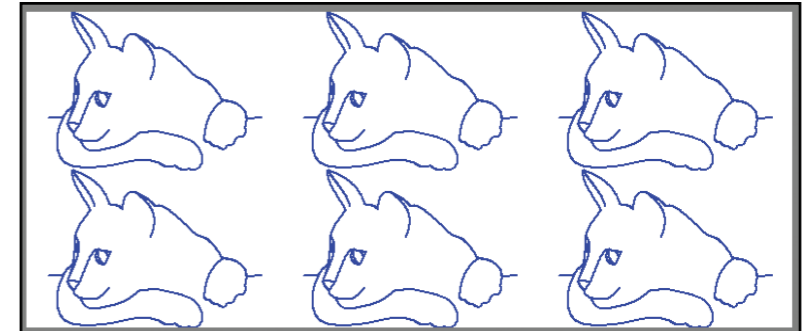
When you have the Nested option selected the patterns are automatically being sized so that the start and end points connect to make one continuous line. Therefore the system removes the ability to change the width of the pattern.



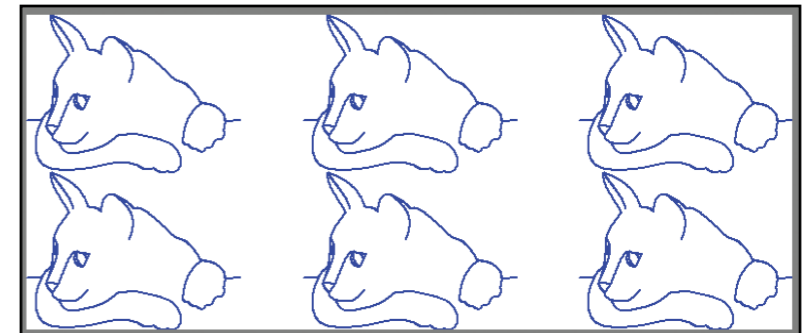
1. Nested



2. Centered



3. Block Edges



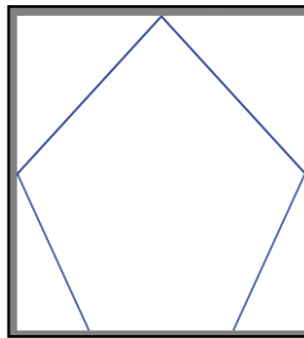
Advanced Mode: Nesting

There are some patterns that do not display well using the main Nested option, but depending on your pattern there are 3 types of Nested options;

- **Fit** - Creates an overlapping repeating pattern using the maximum number of patterns that will fit inside the pantograph.
- **By Ends** - Creates an overlapping repeating pattern that will wrap around the pantograph with the maximum number of patterns that are required to fill the entire pantograph.
- **By Width** - Using the total width of the pattern the pantograph will create a non overlapping repeating pattern.

Be sure to try all three if the current one you are using just isn't doing what you want it to.

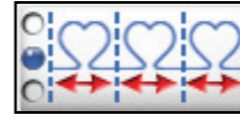
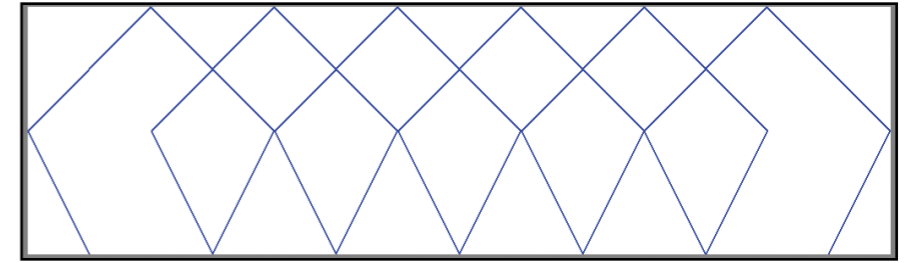
We are going to use a pattern made by someone in this example, as this is the time when the issue will most commonly arise.



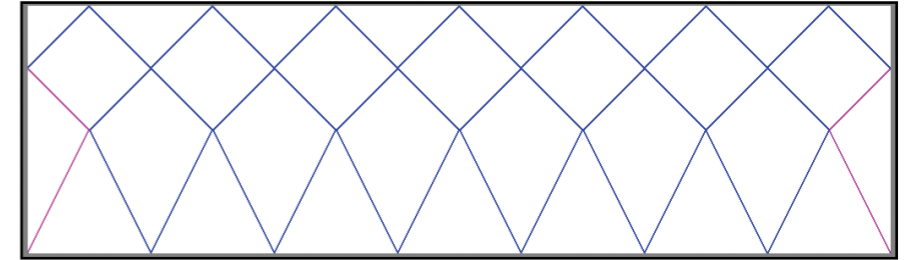
Original Pattern



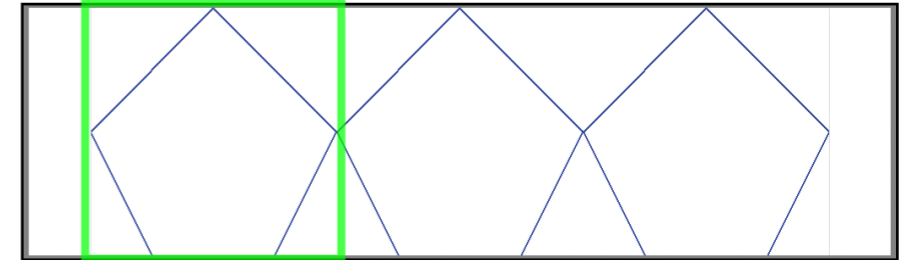
Fit



Ends



Width



The green box represents the width of the pattern.

You can see that the three different Nested Options treat the pattern differently.

Advanced Mode: Row Selection

The Select Row button allows you to individually select a row to modify, you can also navigate up and down the Rows you have created by using the Up and Down arrows.

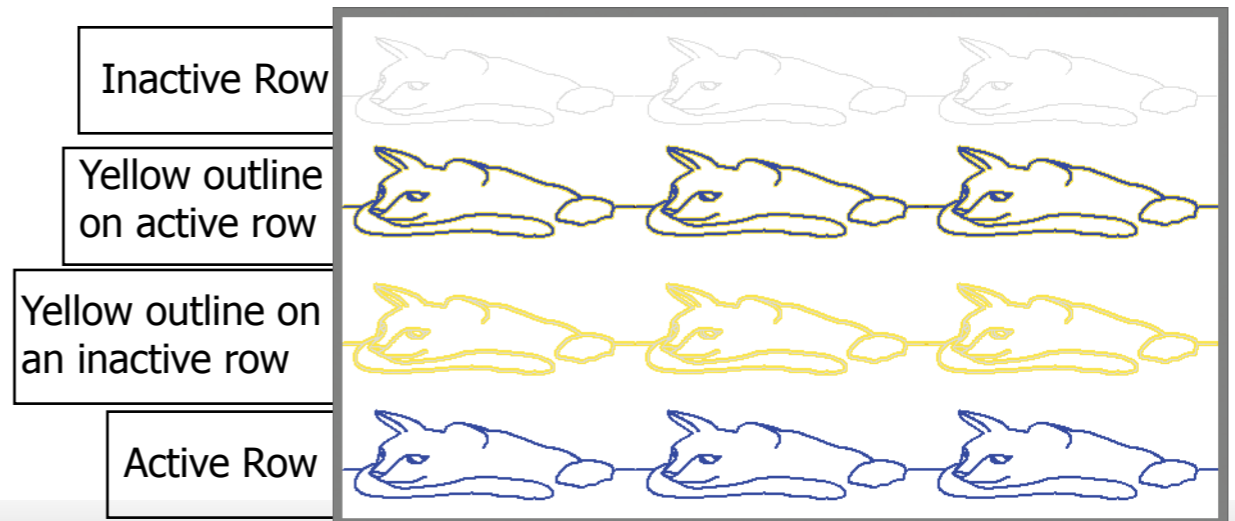
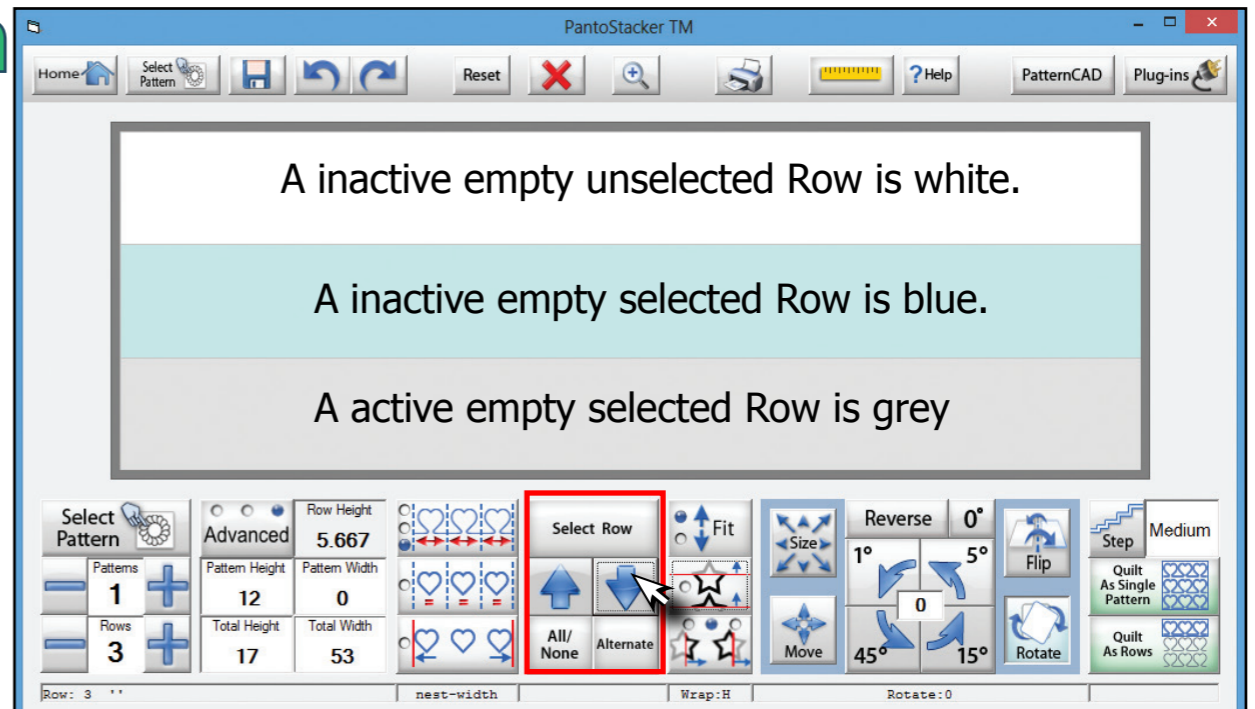
- **All/None** — This option allows you to select all rows or none of them. A great tool for when things get cluttered.
- **Alternate** — Selects the Alternate rows you currently have selected. This will be used often when staggering* rows on a Pantograph.

By selecting a single row one at a time you are able to change the pattern count, pattern size, and position of the pattern in that row.

You can use the Select Row button in combination with the Up and Down arrows to select a row to modify or you can select a row by tapping on it.

When selecting a row, the yellow outline around the pattern indicates the row can be selected or deselected.

When a row has been selected the pattern will be outlined in blue, and any changes you make to the pantograph will only effect those rows.



Advanced Mode: Fit and Pattern Wrapping

- **The Fit feature**

Option 1: Makes it so the pattern will fit inside the Total Height and Width of the pantograph. This will also effect the unselected pattern as they will change size to accommodate for the patterns that are being modified.

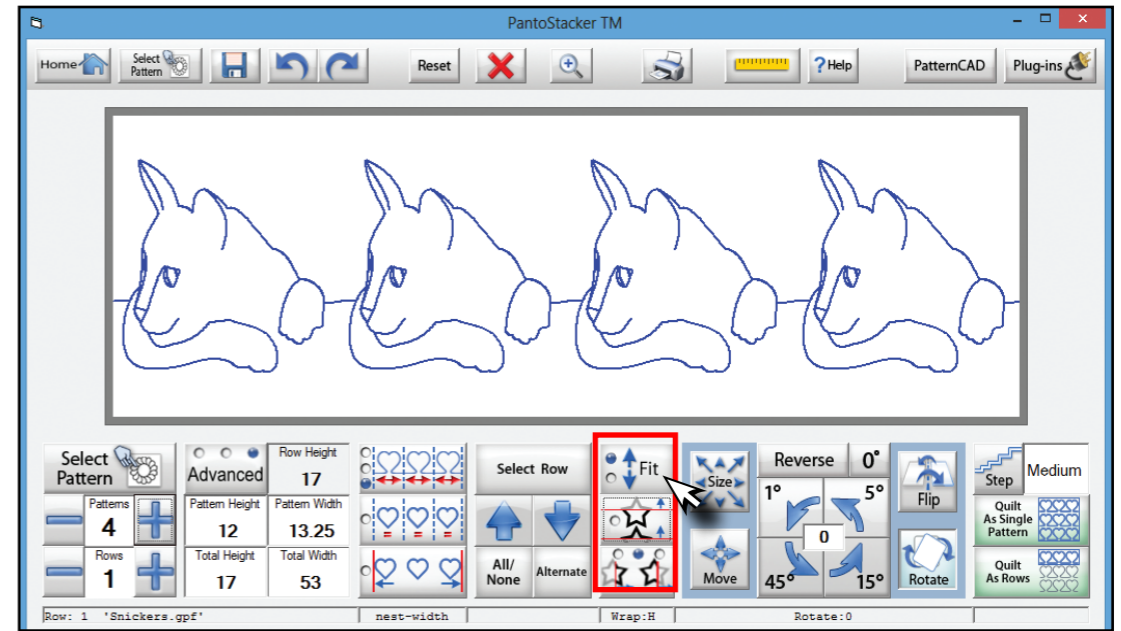
Option 2: The pattern will grow in size but will remain centered in it's row. The change in size will not effect unselected rows.

- **Pattern Wrapping: Vertical**

When enabled: If the pattern becomes taller than the Total Height, or is moved to the edge of the pantograph, the pattern will 'wrap' from the top and come through on the bottom of the pantograph. At the same time, the bottom of the pattern will 'wrap' to the top of the pantograph.

- **Pattern Wrapping: Horizontal**

When enabled: If the pattern becomes wider than the maximum width, or is moved beyond the edge of the pantograph, the pattern will 'wrap' from the right and come through on the left of the pantograph. At the same time, the left of the pattern will 'wrap' to the right of the pantograph.



Vertical Wrapping

Horizontal Wrapping

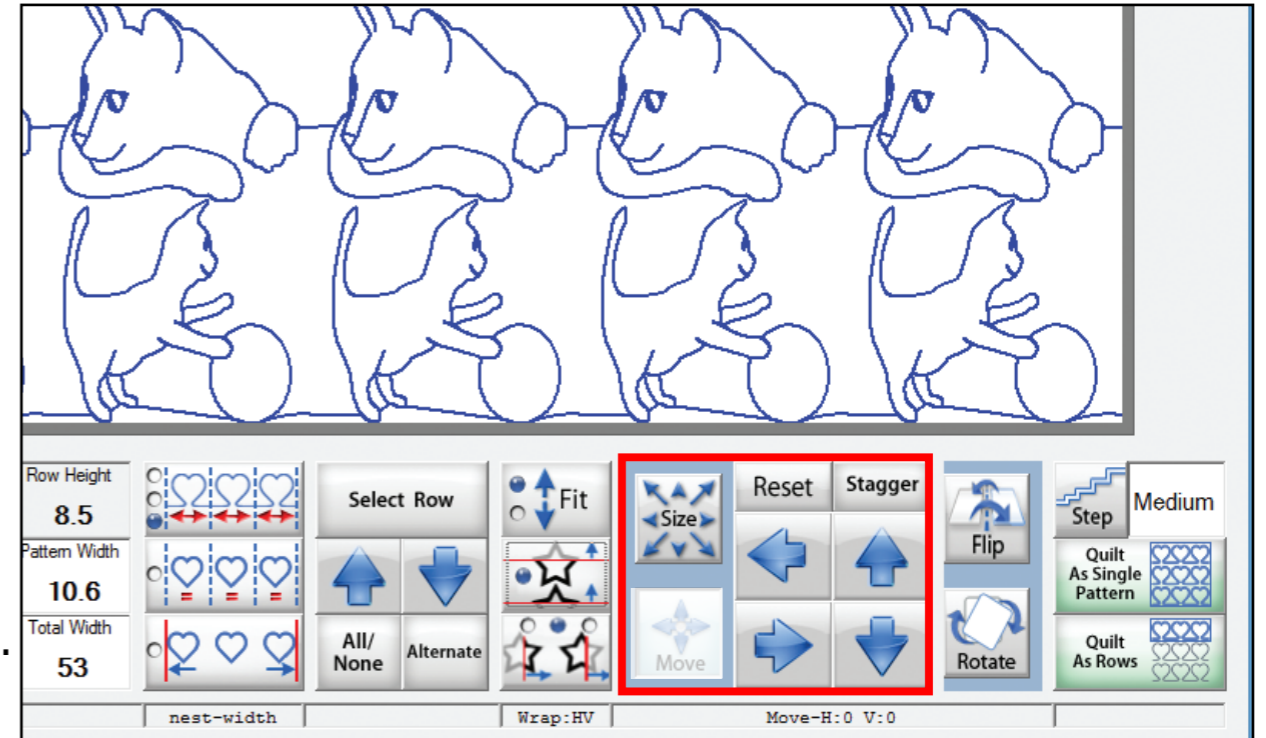
The portion of the pattern in pink represents what has been wrapped around the pantograph.

Advanced Mode: Pattern Size

The Size option allows you to change the height and width of a selected pattern, row, or the entire pantograph.

To demonstrate, use the All/None feature to deselect all rows. Then click one row to work with. Change the Pattern count down to one.

- **Reset** — Resets the pattern to default size.
- **Max** — Changes the pattern size to match the Row Height.
- **Increase Width** — Increases the width of the selected pattern.
- **Increase Height** — Increases the height of the selected pattern.
- **Decrease Width** — Decreases the width of the selected pattern.
- **Decrease Height** — Decreases the width of the selected pattern.
- **Aspect Ratio Lock** — Locks the Aspect Ratio of the pattern, any changes you make to the height will be reflected by the width. And in turn any changes to the width will change the height.

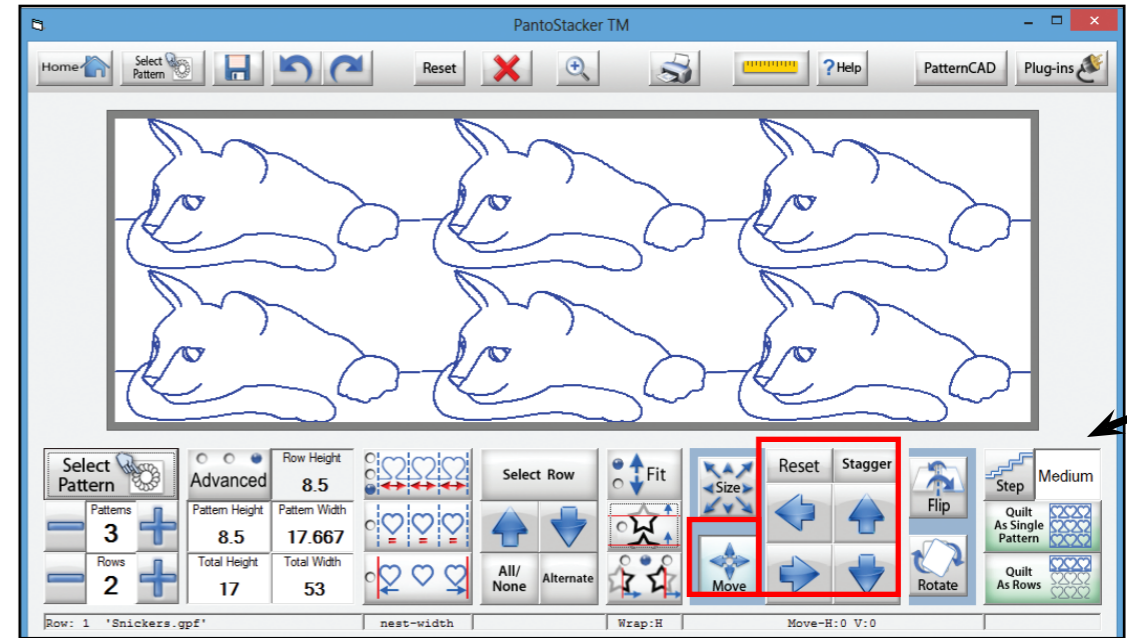


Advanced Mode: Move

You can change the location of the patterns left to right at anytime, or up and down with the Advanced mode.

There are two key things to point out; Take note of your step size, the movement of the pattern is based on this setting.

If you want the pattern to wrap around, please make sure the Pattern Wrapping option is enabled.

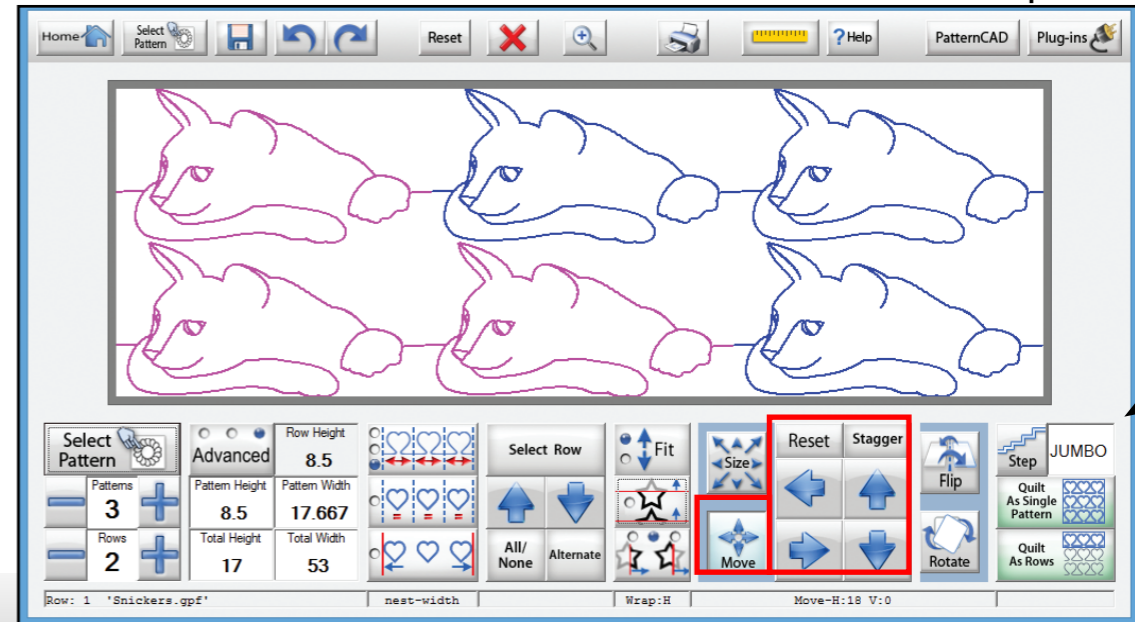


Step Size

In this example we set the Step Size to Jumbo.

With Row Wrapping enabled you can see the right is now partially on the left side on the top row, and the opposite on the bottom row.

If you tap the "Move" icon, the pattern will move back to its original location.



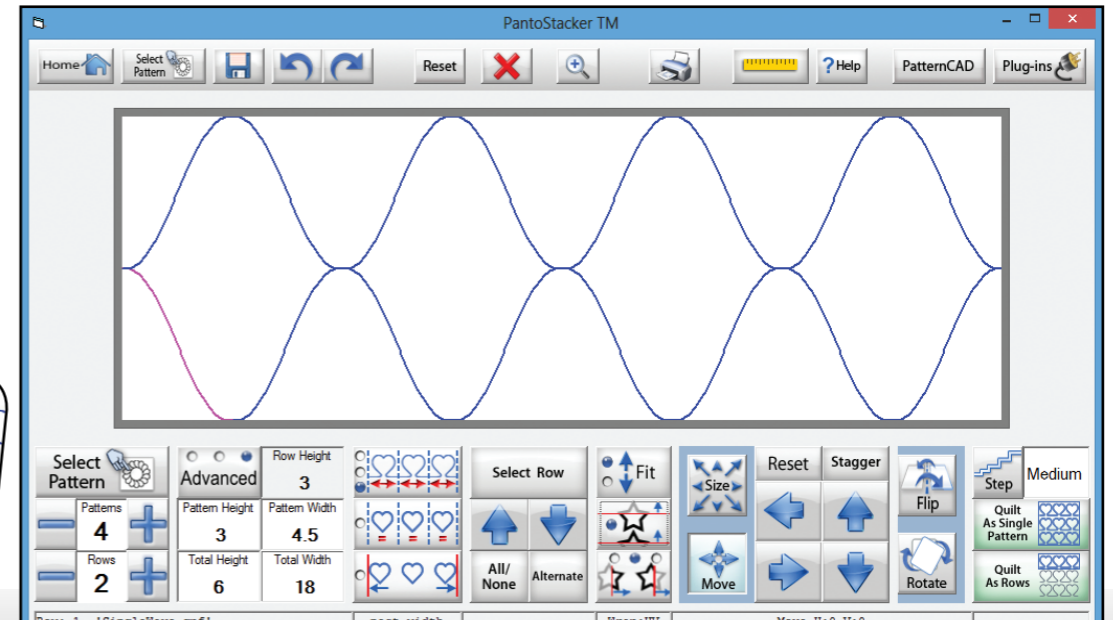
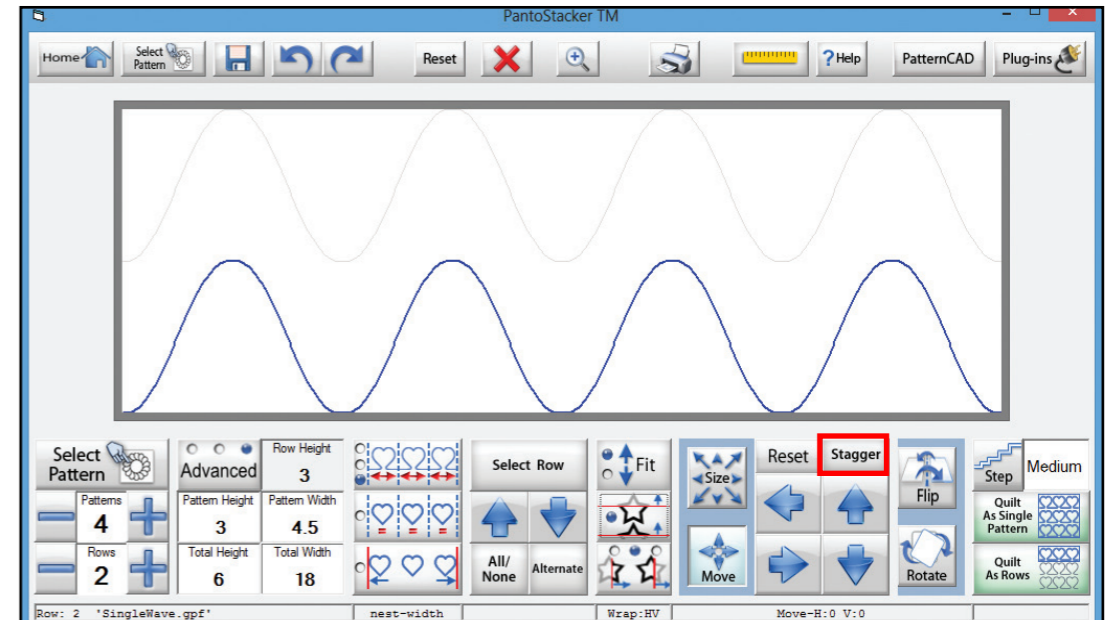
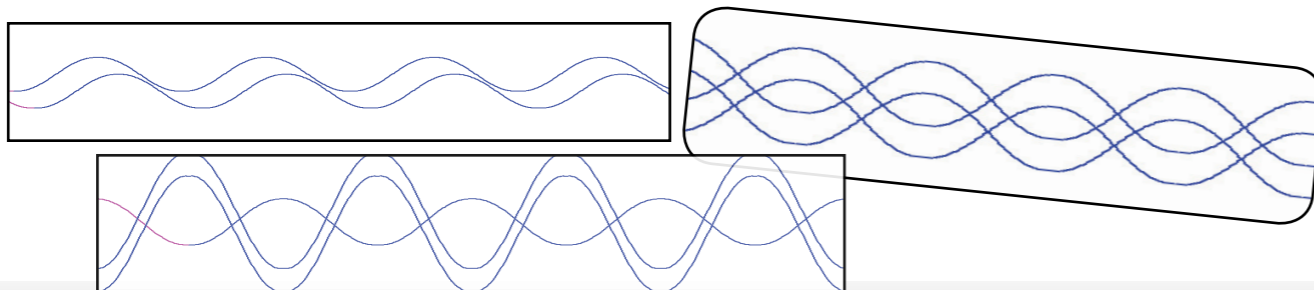
Advanced Mode: Stagger

The Stagger option is a new feature in the PantoStacker™ section of the QCT software.

With one click of the button you can quickly align alternating rows and have the patterns Staggered by centering the row below or above to the middle of the pattern on the opposing row.

1. Choose the pattern file, here we will use SingleWave.gpf.
 2. Set the pantograph to two rows with four patterns per row.
 3. Click the Alternate button under the Select Row option. It will deselect the odd numbered rows and even numbered rows selected.
 4. Click the Stagger option.
 5. Click All under the Select Row option.
- This option makes it possible to use any simple continuous line pattern and turn them into a unique and original creation.

The possibilities are endless.



Advanced Mode: Flipping Patterns - Horizontal

There are three different ways in which the flip feature works, by default there is no flip applied.

- 1. Tap once** — Flips all patterns.
- 2. Tap twice** — Only flips the odd numbered patterns:
1,3,5,7,9.....
- 3. Tap three times** — Only flips the even numbered patterns:
2,4,6,8,10.....

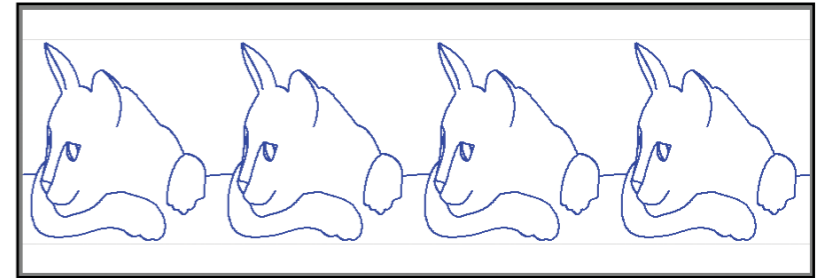
The same rules apply to both Odd and Even Rows



Horizontal Flip



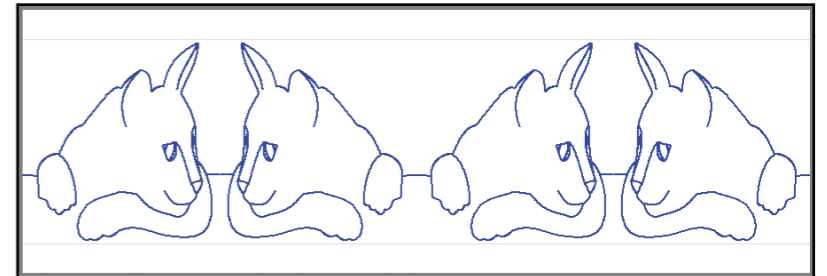
Original Setting



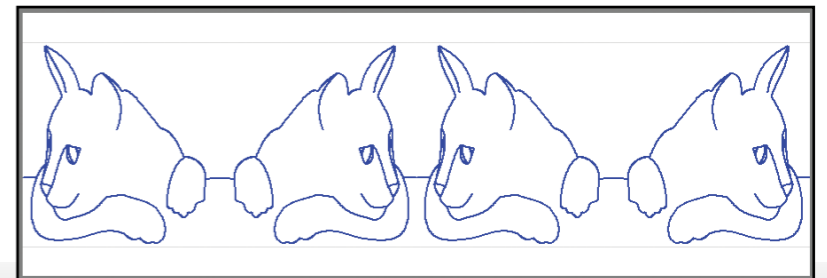
One tap: All



Two Taps: Odd



Three Taps: Even

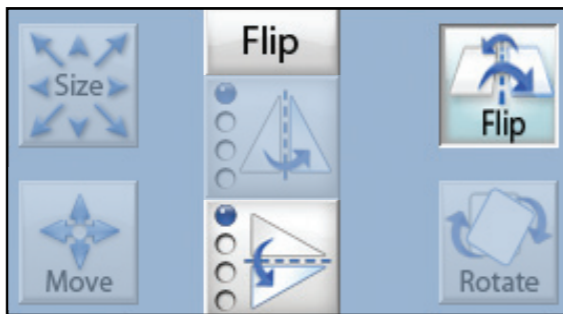


Advanced Mode: Flipping Patterns - Vertical

By default there is no flip applied.

- 1. Tap once** — Flips all patterns.
- 2. Tap twice** — Only flips the odd numbered patterns:
1,3,5,7,9.....
- 3. Tap three times** — Only flips the even numbered patterns:
2,4,6,8,10.....

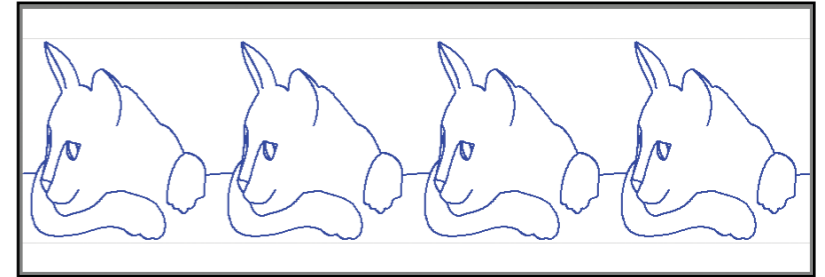
The same rules apply to both Odd and Even Rows



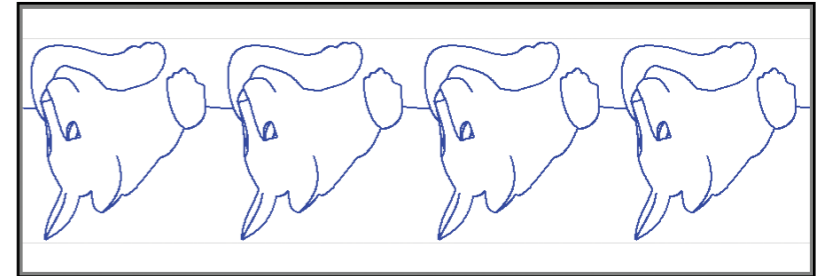
Vertical Flip



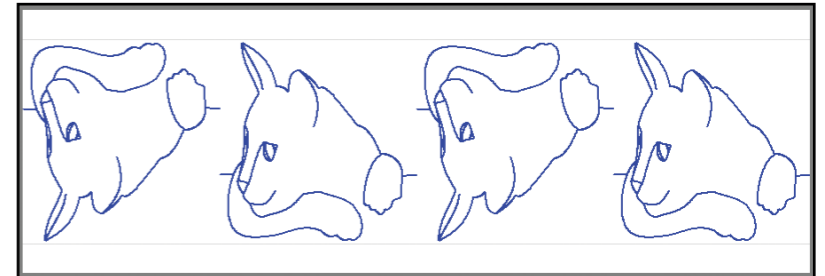
Original Setting



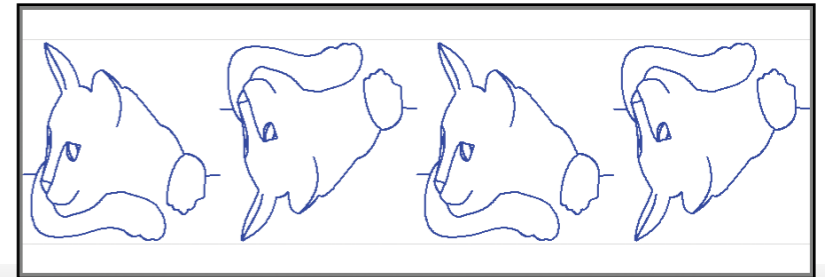
One tap: All



Two Taps: Odd



Three Taps: Even



Advanced Mode: Rotate

We can also rotate the patterns in the pantograph. The value in the middle of the arrows to rotate the pattern is the current degree the pattern is set to, by default it will be zero.

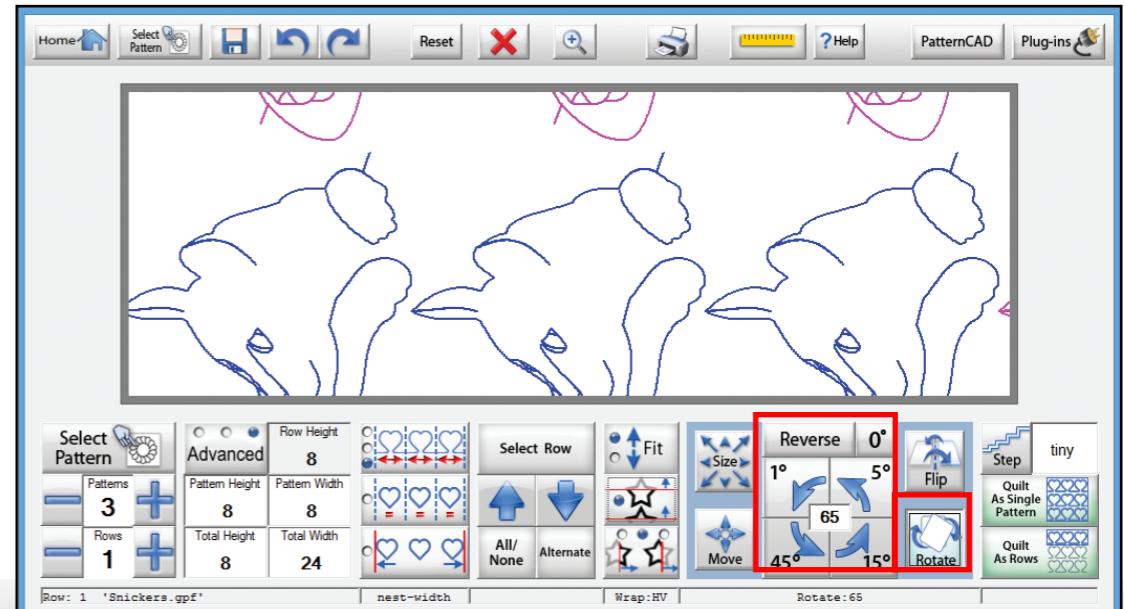
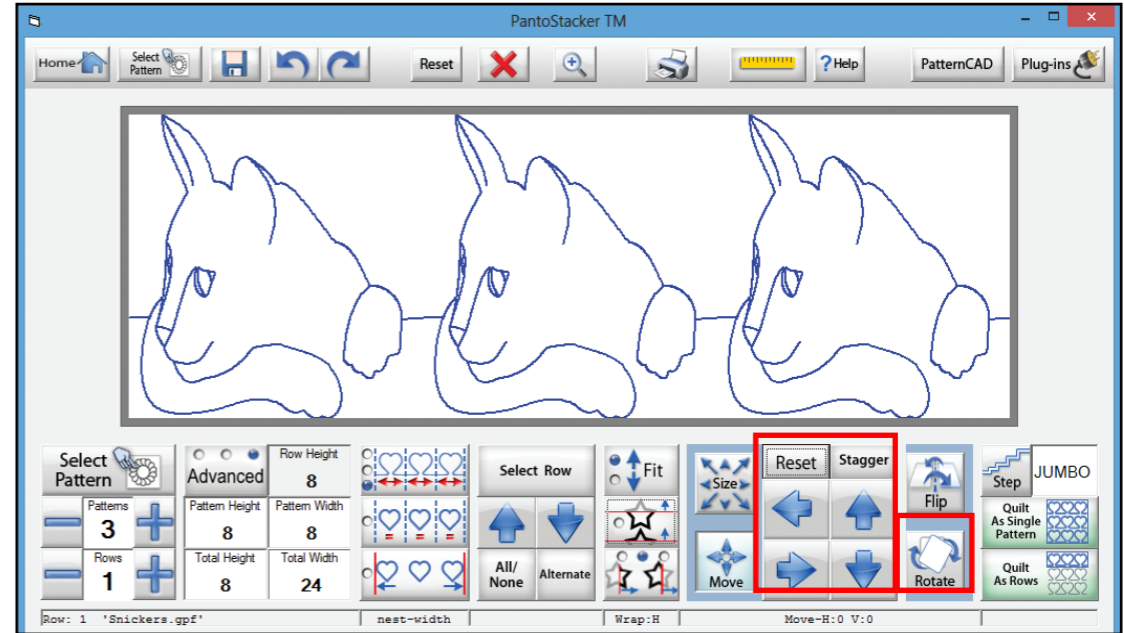
The pattern can be rotated in increments of 1, 5, 15, and 45 degrees. By default the rotation will be set so the pattern rotates to the right, this can be changed by tapping the "Reverse" icon. You will notice the direction of the arrows changes when this icon is tapped.

Just to see how it all works, lets set this pantograph to have a 66° angle to the pattern.

1. First tap the Reverse icon.
2. Now tap each increment one time, 1, 5, 15, and, 45.

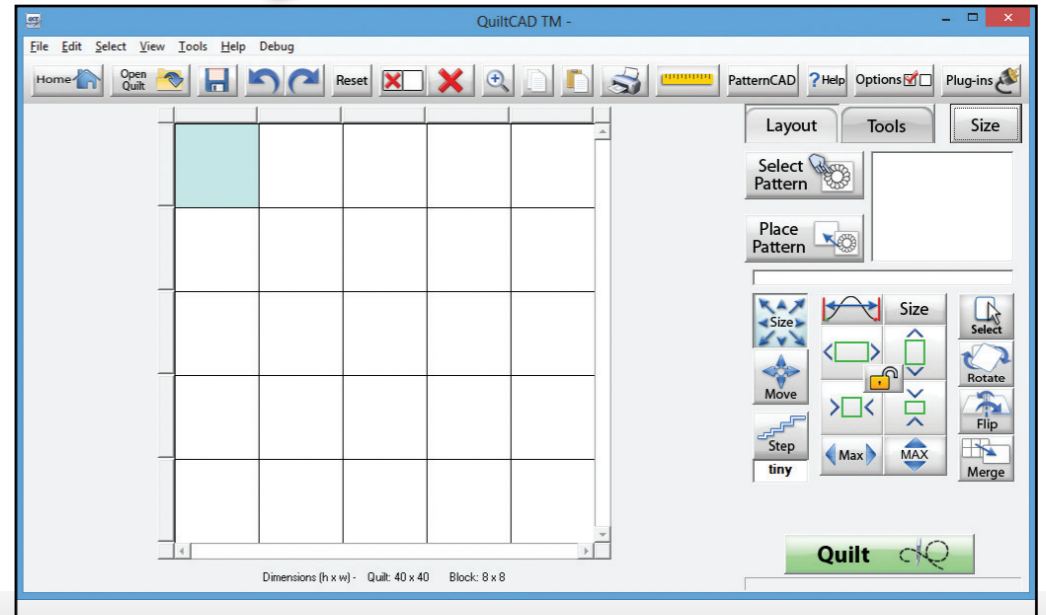
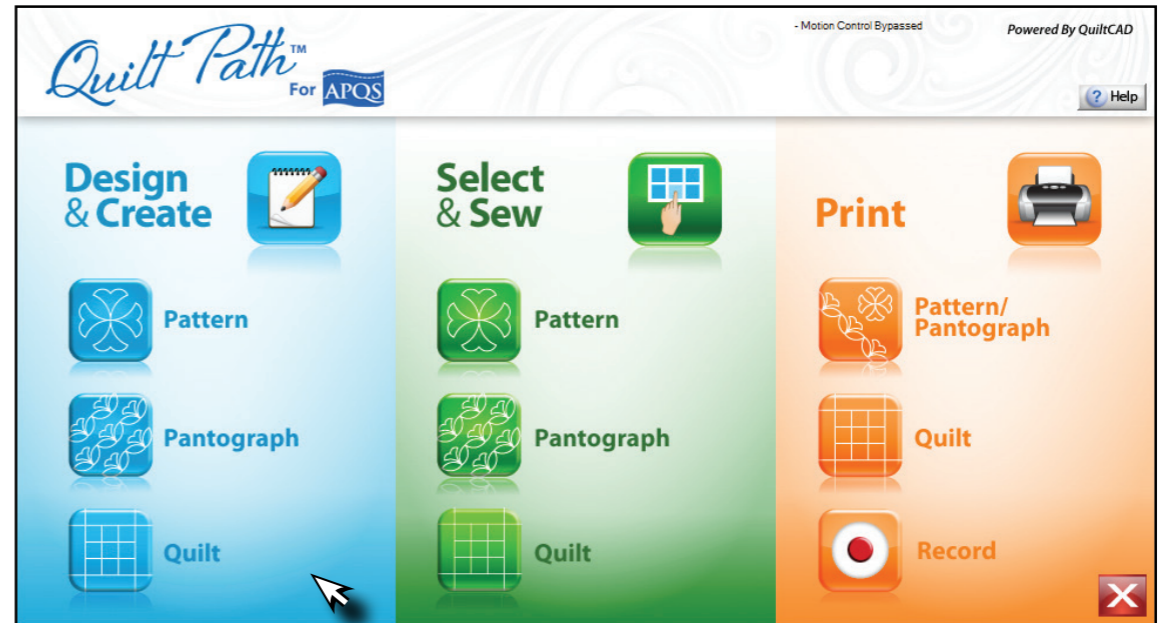
Now if you still have [Pattern Wrapping](#) enabled you will see the parts of the pattern that were cut off are now coming through the other side of the pantograph.

The last option is the 0° icon, by tapping this it will reset the orientation of the pattern back to zero.



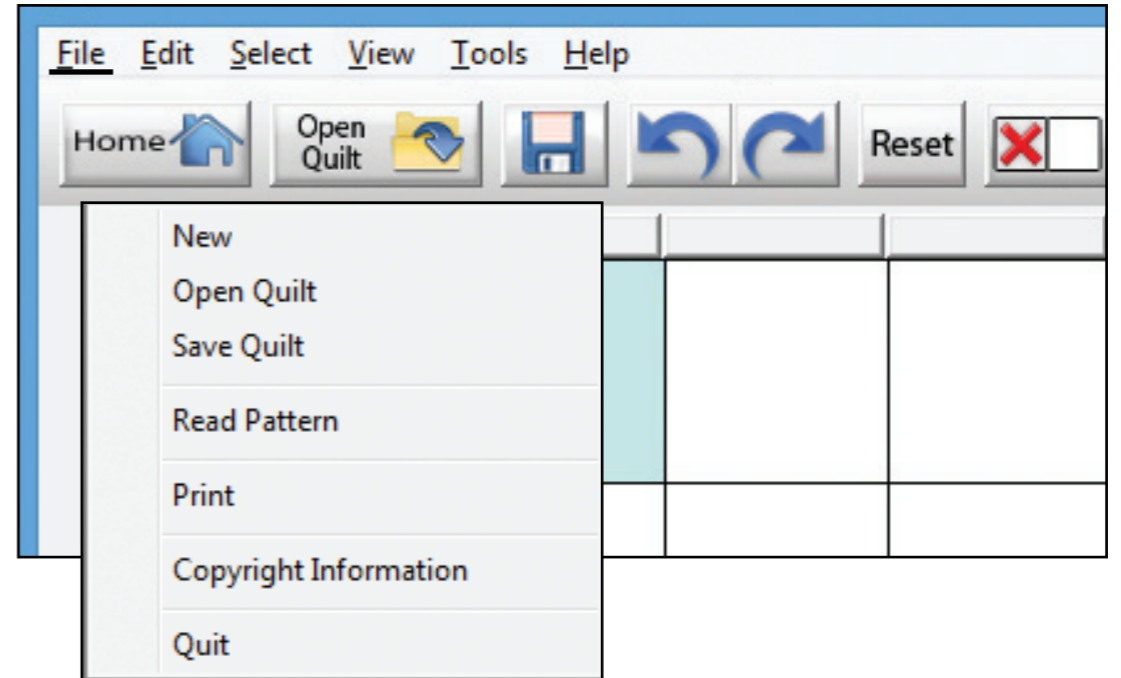
Design and Create: New Quilt with QuiltCAD™

Now, let's take a look at Quilt Path Software main features. As you take the tour, we hope you appreciate the simplicity we've designed into Quilt Path Software. First you'll find all of the Quilt Path Software tools are ALWAYS in the same place. We have none of those annoying tear away tool bars that re-size themselves, are most of the time hidden, and hide other things! We also do not have hundreds of microscopic icons to decipher. Our tools are clearly labeled, always there, and easy to use.



QuiltCAD: File Menu

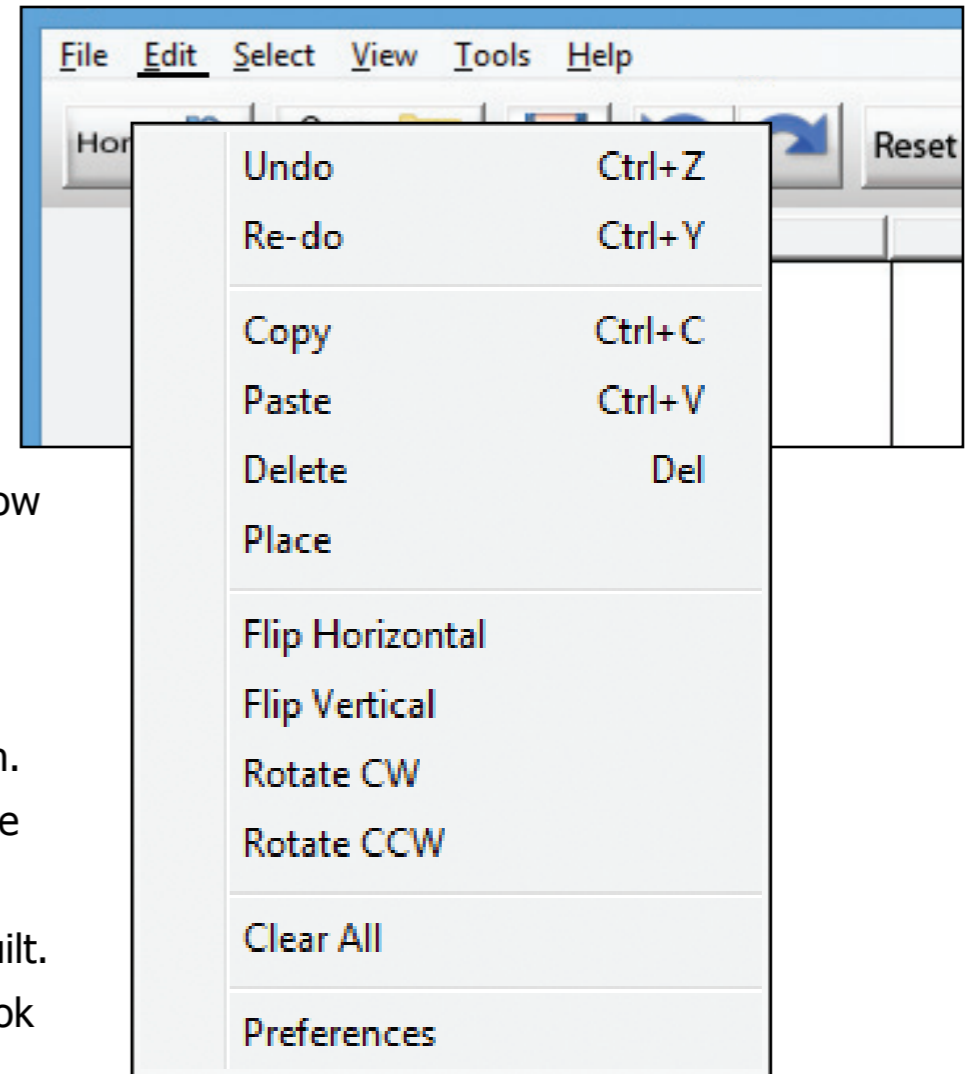
- **New** — Restores Quilt Path Software to default settings. Prompts you to save the quilt you currently have open.
- **Open Quilt** — Opens a quilt that has been previously saved.
- **Save Quilt** — Opens the screen to save your Quilt.
- **Read Pattern** — Opens pattern selection window.
- **Print** — Lets you print selected patterns, or the whole quilt, to a printer.
- **Copyright Information** — Displays any copyright information of a selected pattern.
- **Quit** — Closes Quilt Path Software.



Many of these commands can be quickly found on the tool bar just below the Menu bar.

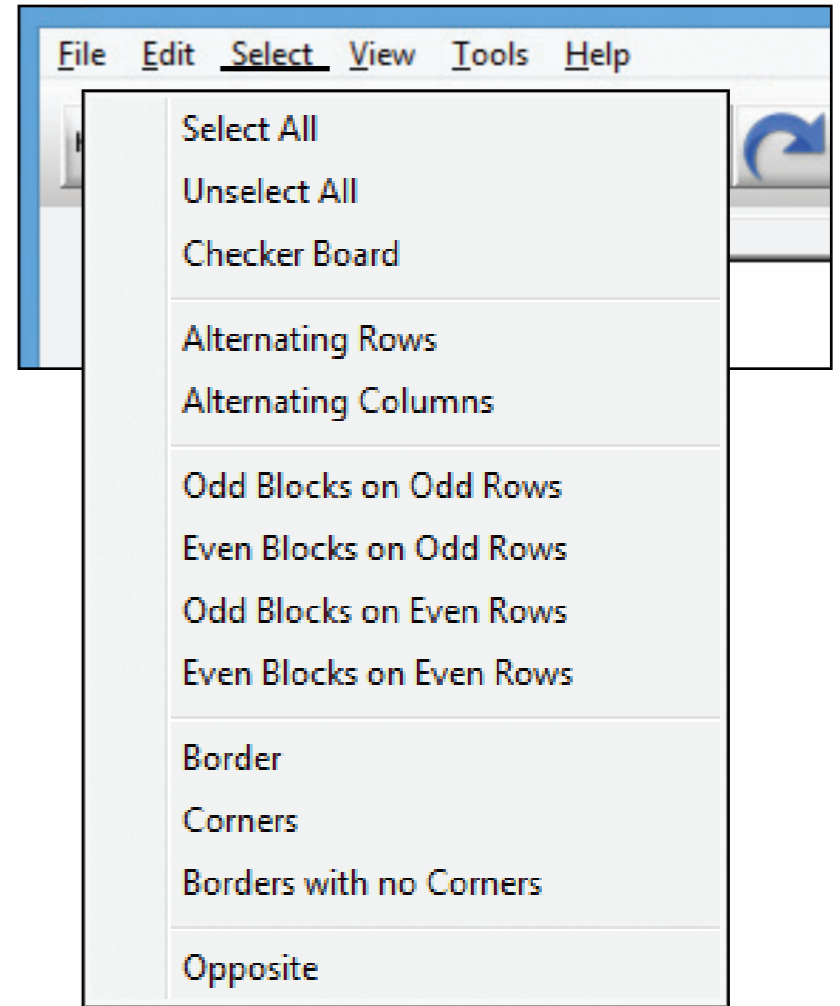
QuiltCAD: Edit

- **Undo** — Undoes last action performed.
- **Re-do** — Restores last action if undone.
- **Copy** — Copies the pattern and block format of the selected block(s).
- **Paste** — Places the pattern and block format of the copied blocks.
- **Delete** — Clears the pattern and block format of the selected block(s).
- **Place** — Places the current pattern displayed in the "Pattern Selection" window into the selected block(s).
- **Flip Horizontal** — Will flip the selected pattern(s) horizontally.
- **Flip Vertical** — Will flip the selected pattern(s) vertically.
- **Rotate CW** — Will rotate the selected pattern(s) 45° in a clock-wise direction.
- **Rotate CCW** — Will rotate the selected pattern(s) 45° in a counter-clock-wise direction.
- **Clear All** — Will remove all patterns and formatting from all blocks on the quilt.
- **Preferences** — Opens the preference menu which allows you change the look of the QuiltCAD screen.



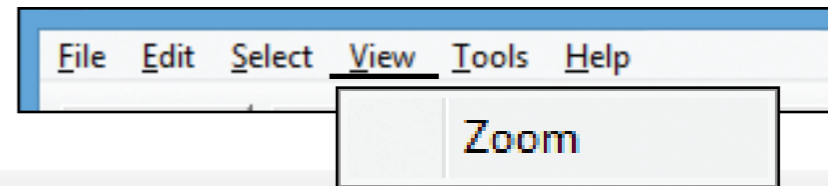
QuiltCAD: Select

- **Select All** —Selects all blocks of the quilt.
- **Unselect All** — Unselects all blocks of the grid.
- **Checker Board** — Selects every other block in a checkerboard pattern on the quilt.
- **Alternating Rows** — Selects every other row.
- **Alternating Columns** — Selects every other column.
- **Odd Blocks on Odd Rows** — Selects blocks 1,3,5... in row 1,3,5...
- **Even Blocks on Odd Rows** — Selects blocks 2,4,6... in row 1,3,5...
- **Odd blocks on Even Rows** — Selects blocks 1,3,5... in row 2,4,6...
- **Even Blocks on Even Rows** — Selects blocks 2,4,6... in row 2,4,6...
- **Borders** — Selects all outside blocks of the quilt.
- **Corners** — Selects the four corner blocks of the quilt.
- **Borders No Corners** — Selects the outside blocks except the corners.
- **Opposite** — Selects the unselected blocks and unselects all selected blocks.



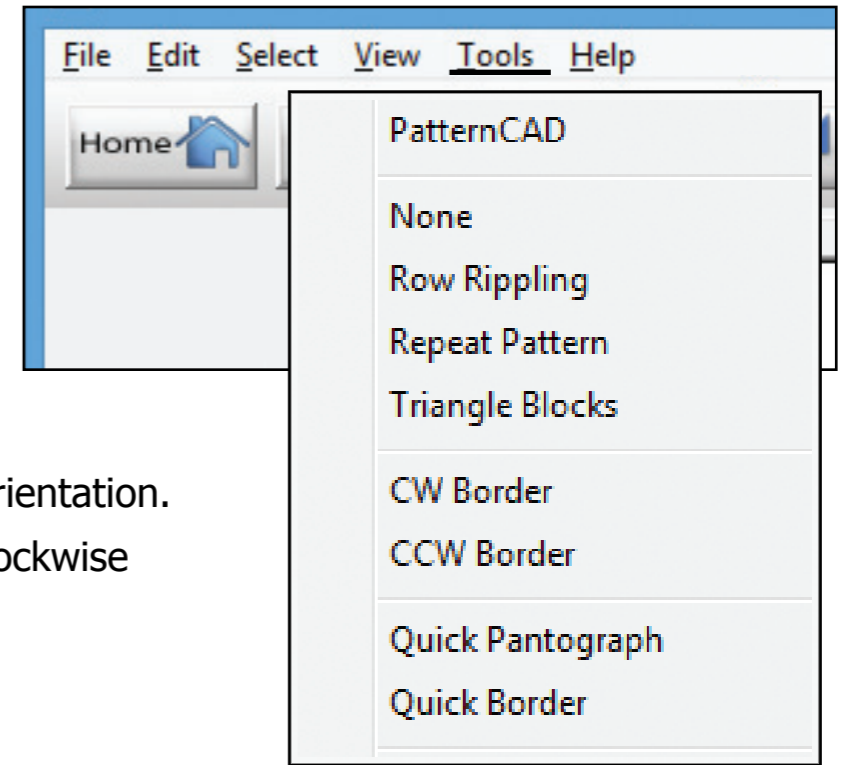
View

Zoom — Will enlarge the view of the selected blocks.



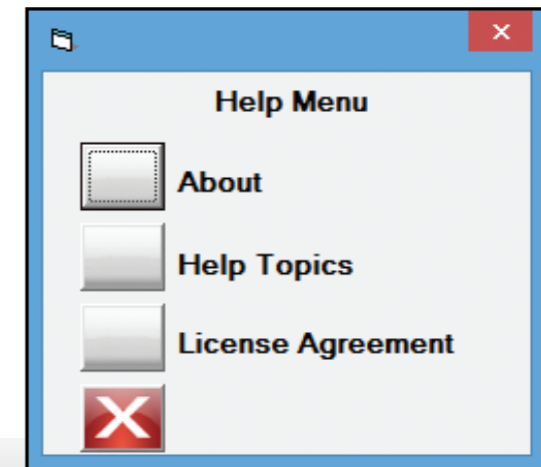
QuiltCAD: Tools

- **PatternCAD** — Opens PatternCAD.
- **None** — Does what it says
- **Row Rippling** — Gives you choices to ripple a pattern or a row.
- **Repeat Pattern** — Lets you place two or more of the same pattern into one block.
- **Triangle Blocks** — Gives you tools for placing triangles into a block.
- **CW Border** — Will auto arrange and size the patterns in the border to a clockwise orientation.
- **CCW Border** — Will auto arrange the patterns and size in the border to a counter-clockwise orientation.
- **Quick Pantograph** — Reduces the quilt view down to a single row.
- **Quick Border** — Auto arranges the patterns in the border to a continuous border.

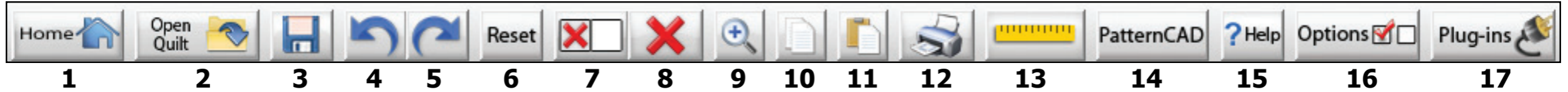


Help

- **About** — Displays the current version of QCT software that you are using, as well as the firmware version.
- **Help Topics Menu** — Access to this help guide and more.
- **License Agreement** — Displays the EULA for QCT software.



QuiltCAD: Menu Bar



- 1. Home** — Will Take you back to main Quilt Path Software screen, exit.
- 2. Open Quilt** — Opens menu to use a previously saved Quilt.
- 3. Save Quilt** — Saves the Quilt you are currently working on.
- 4. Undo** — One step back to undo an unwanted operation.
- 5. Re-do** — Replaces the actions removed by Undo.
- 6. Reset** — This will reset the selected block size to what it was set at when the quilt was created. Use this to un-merge blocks.
- 7. Delete Selected Blocks** — Clears all patterns in the blocks you have selected.
- 8. Delete All** — Clears all blocks, selected and unselected.

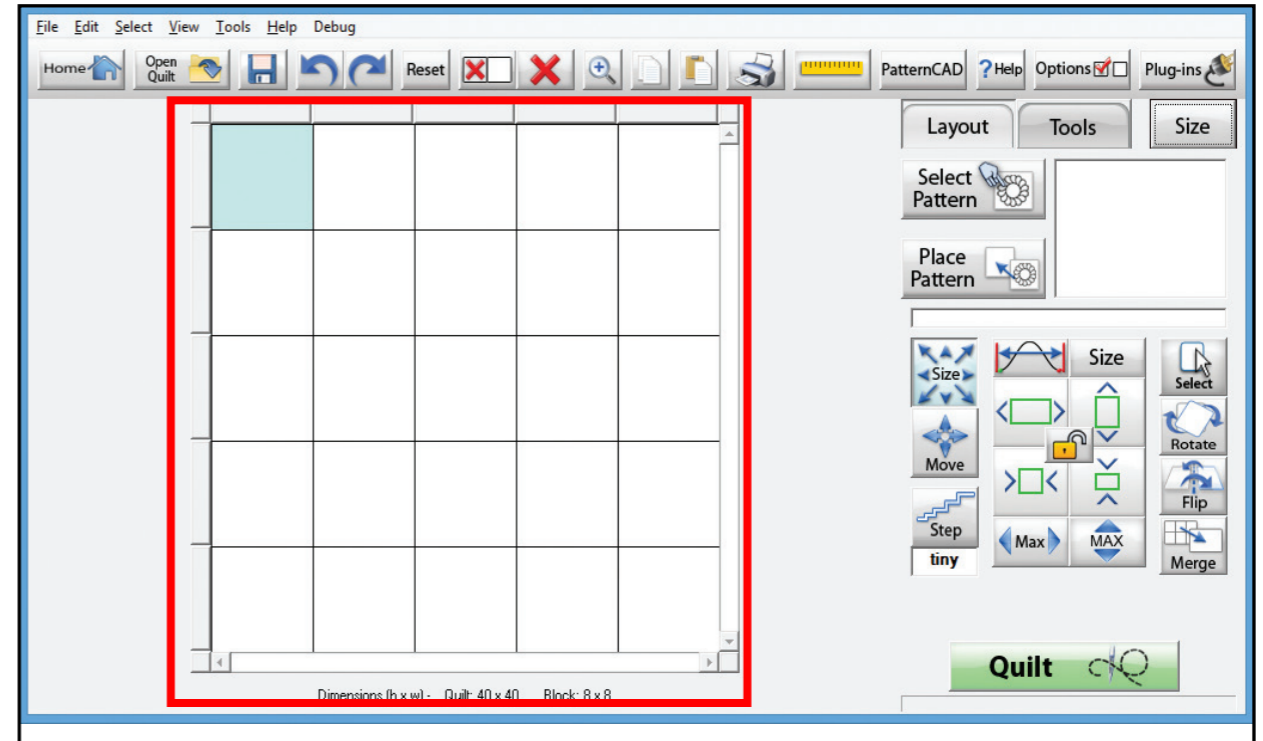
- 9. Zoom** — Zooms in on selected Blocks. Tap once to zoom in, tap again to zoom out.
- 10. Copy Pattern** — Copy's selected pattern to clipboard.
- 11. Paste Pattern** — Pastes the pattern copied by Copy Pattern.
- 12. Print** — Opens the print menu to print the selected blocks.
- 13. Ruler** — Connects to QuiltMotion and used to measure your Quilt or blocks.
- 14. PatternCAD** — Launches PatternCAD.
- 15. Help** — Access Help Menu.
- 16. Options** — Opens the [Preferences](#) Menu.
- 17. Plug-ins** — Import/Export Module.

QuiltCAD: Quilt Selection Area

Here is the heart of QuiltCAD, the layout of your quilt.

'The Quilt' is a graphical spreadsheet that permits you to precisely plan and view your continuous line art stitch designs.

The squares represent the blocks of your quilt, the number and size of the blocks can be easily set to the dimensions or your choice. The buttons surrounding the squares provide powerful block selection tools. From simple pictures to astonishingly intricate patterns, you will truly enjoy the ease that you can design and implement your continuous line art into your quilts.



QuiltCAD: Quilt Layout

When you open a new quilt the default setting is a quilt layout. The quilt size is 40" x 40" and the block size is 8" x 8", but can be changed by tapping Size.

Now you can see the Quilt Setup dialog box, which allows you to change the number of rows and/or columns, the quilt size, and the block size. When you change any one of the options at least one other option will change to keep the ratio the same. Once you have everything set up the way you want, you can tap OK.

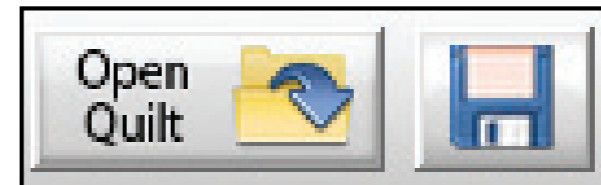
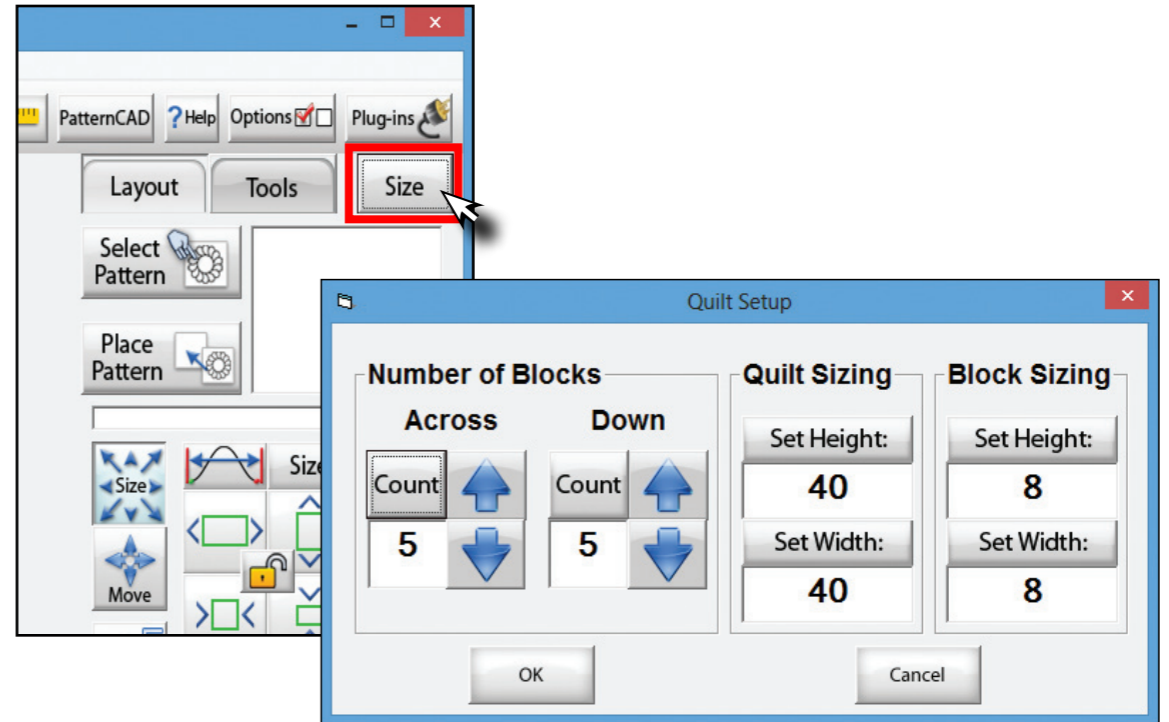
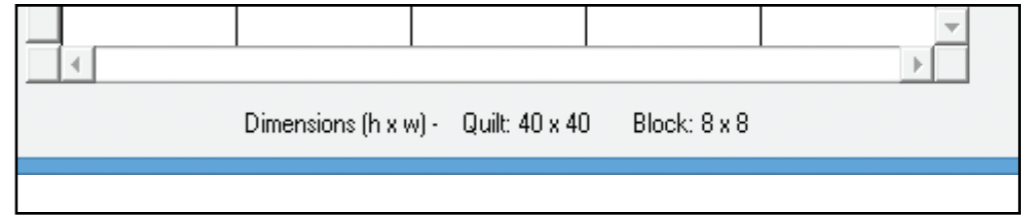
Open and Save

Open Quilt —

Opens a quilt previously saved so it can be sewn or modified.

Save Quilt —

This option will save the current quilt you are working on so it can be opened at a later time.



QuiltCAD: Pattern Tools

- 1. Select Pattern** — Will open the Pattern Directory.
- 2. Place Pattern** — Places selected patterns.

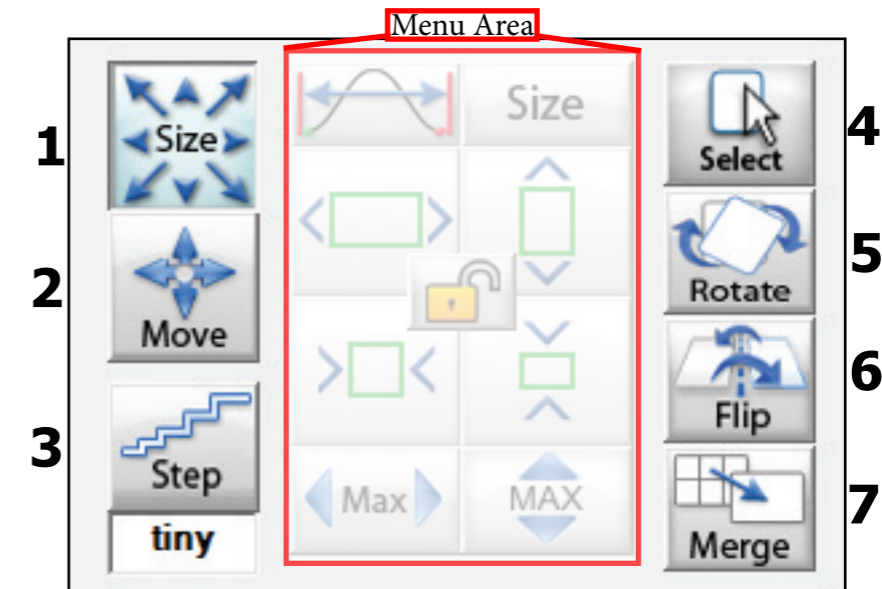
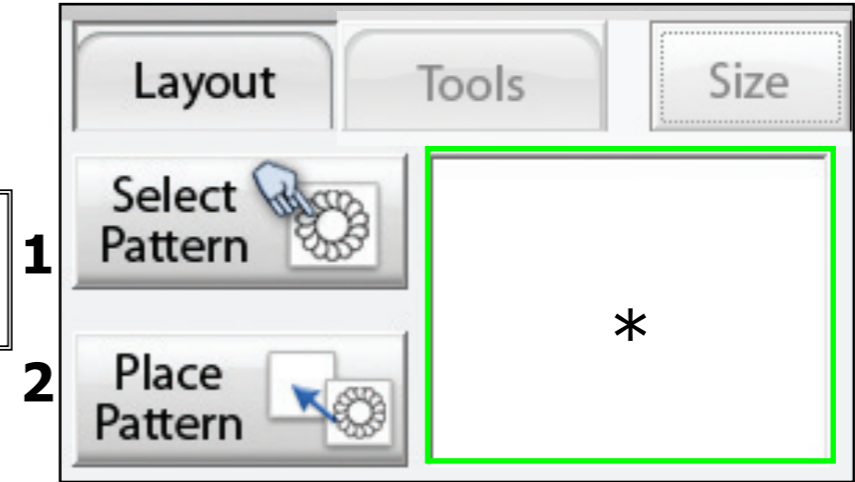
* By tapping here you can also use the pattern preview window to place the selected pattern.

This area is used to change the pattern size and orientation of the patterns within the block. We can also merge blocks here.

We will briefly cover the layout options then each one in depth.

Please note the menu area will change depending on the pattern option you have selected.

- | | |
|--|---|
| 1. Select — Selection options for the quilt and borders. | 5. Size — Used to change the size of the pattern. |
| 2. Rotate — Rotates the pattern. | 6. Move — Moves the location of the pattern; up, down, left, right. |
| 3. Flip — Flips the pattern vertically and/or horizontally. | 7. Step — Changes the step size; tiny, small, Medium, BIG and JUMBO. |
| 4. Merge — Merges selected blocks | |



QuiltCAD: Pattern Tools - Size

This category is used to change the height and width of the pattern.

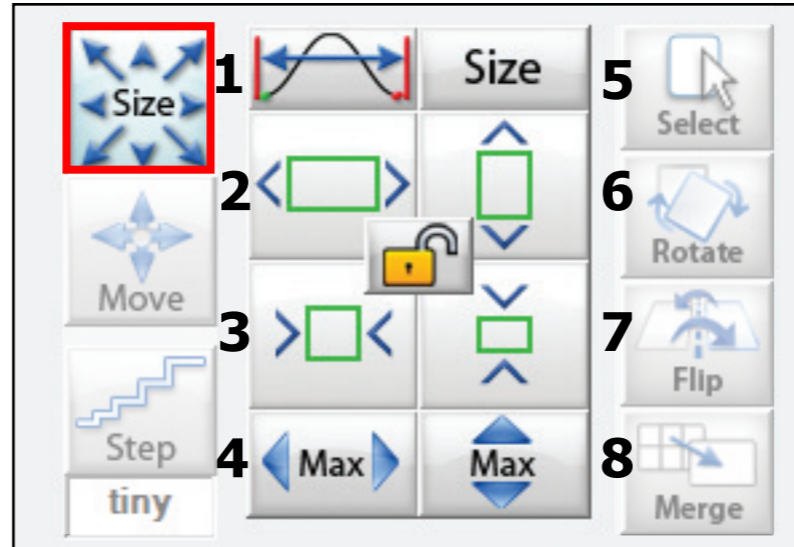
1. Max Width for pattern start and end points

— This will stretch the pattern until the start and end point reach the block border. Please note that this will make the pattern go beyond the block it was placed in.

2. Increase width — Increases the width of the pattern by 1 step*.

3. Decrease width — Decrease the width of the pattern by 1 step*

4. Max block width — This will stretch the pattern until the side of the pattern reach the block border. Please note that this may make the pattern go beyond the block it was placed in, and will change the aspect ratio.



* — The increment of change will depend on your [step size setting](#).

5. Reset pattern size — resets the pattern to the default size and orientation in the block.

6. Increase height — Increases the height of the pattern by 1 step*

7. Decrease height — Decreases the height of the pattern by 1 step*.

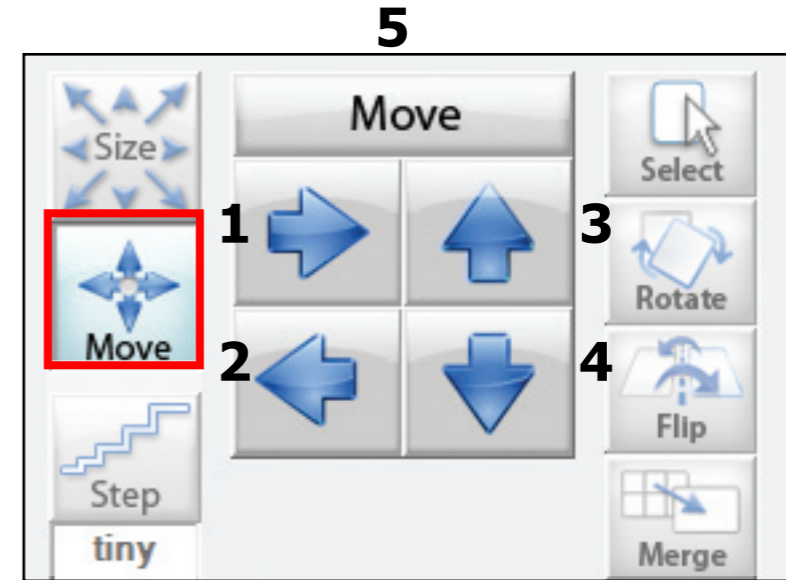
8. Max block height — This will stretch the pattern until the top and bottom of the pattern reach the block border. Please note that this may make the pattern go beyond the block it was placed in, and will change the aspect ratio.

9. Aspect Ratio lock — When the lock is open the aspect ratio will not be kept for the pattern. This means if you make it wider, the height will not change at all. When the lock is closed the aspect ratio will be kept. So if you change the width of the pattern the height will change at the same step size and retain the aspect ratio.

QuiltCAD: Pattern Tools - Move

This option is used to change the position of a pattern within a block.

- 1. Move Right** — Moves the pattern one step* to the right.
 - 2. Move Left** — Moves the pattern one step* to the left.
 - 3. Move up** — Moves the pattern one step* up.
 - 4. Move Down** — Moves the pattern one step* down.
 - 5. Reset Move** — Resets the pattern to the original location in the block.
- The distance the pattern will move is determined by your step size setting.



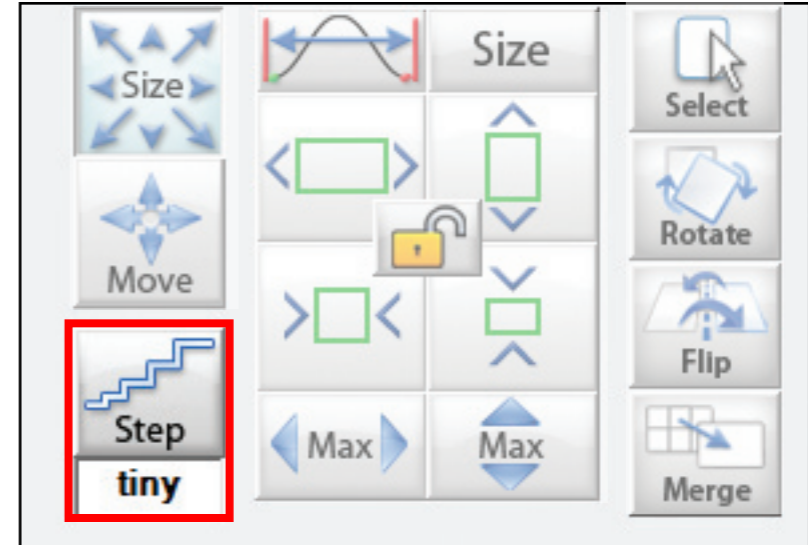
QuiltCAD: Pattern Tools - Step Size

This option is used to change the size of the steps that QuiltCAD makes when making changes to the pattern.

There is no numerical formula associated with the step size, they are simply increments in size according to the block or quilt size.

- **Tiny** — A small increment of movement.
- **Small** — A slightly bigger increment of movement than Tiny.
- **Medium** — A bigger increment than Small.
- **Big** — A large increment in movement as compared to Medium.
- **Jumbo** — The Largest movement increment.

Each click on the Step icon will cycle through the different step size.

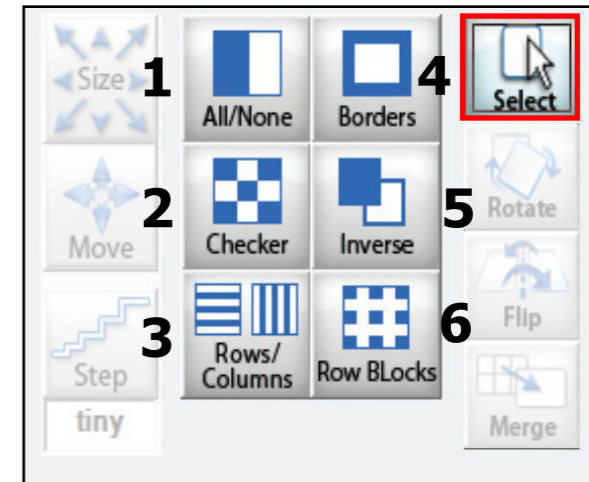


Step sizes are like the steps you take, a jumbo step is much larger than a small step.

QuiltCAD: Pattern Tools - Selection Tools

Selecting rows, columns and blocks

QuiltCAD provides you with powerful tools to create continuous line patterns as borders on your quilt. It all begins with selecting which blocks you want to put your patterns in. QuiltCAD block selections are 'persistent'. That is, once you select a block it stays selected until you do something else to deselect it. When a block is selected it will be grey (by default), when a block box is not selected it will be white. The light blue box represents the last block you made changes to.



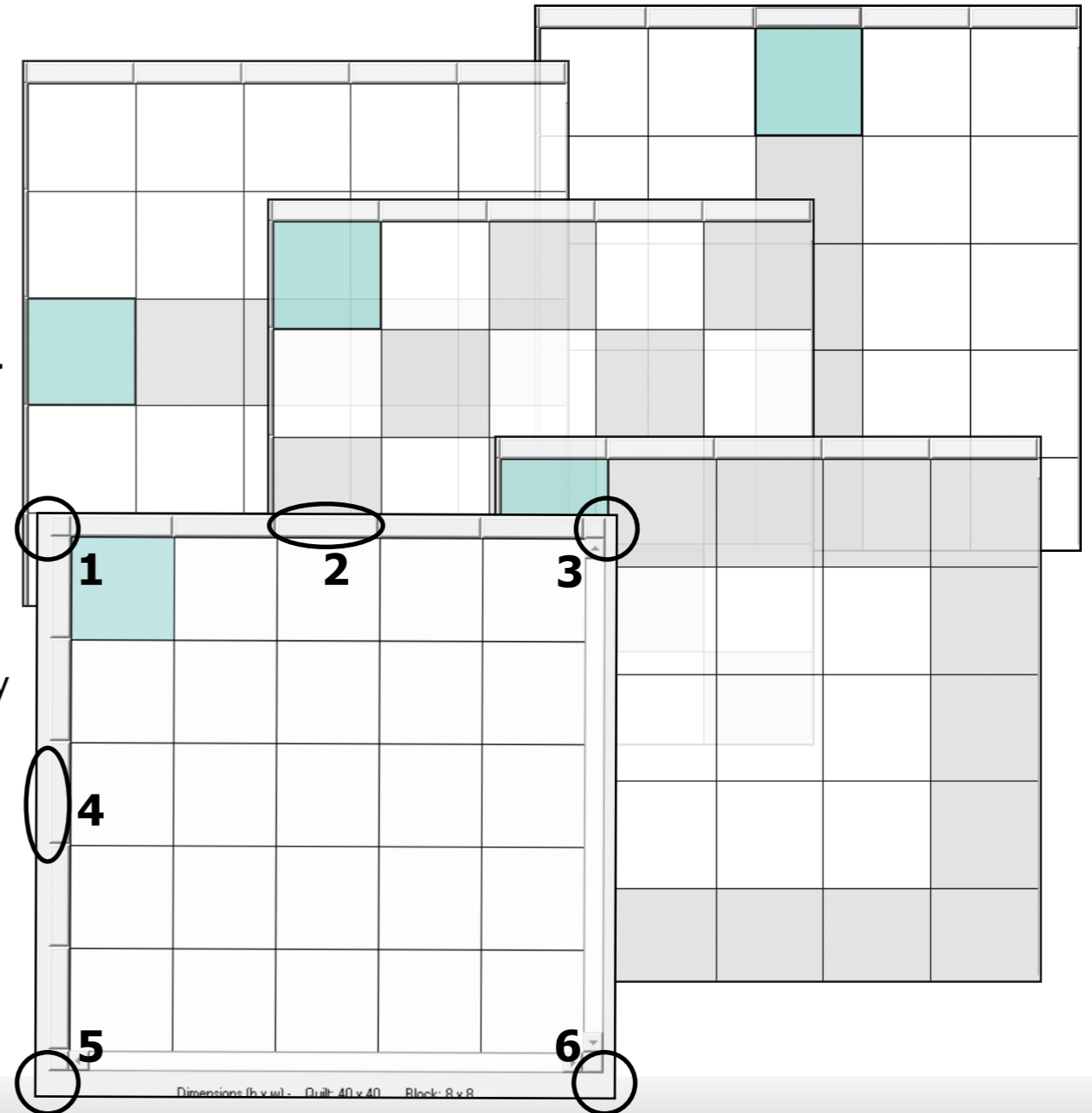
- 1. All/None** — tap once select all blocks. Tap twice and it deselects all blocks.
- 2. Checker** — Selects every other block in a checker pattern. Tap it again to select the opposite blocks.
- 3. Rows/Columns** — By tapping once it will select every other column. Tapping twice will select every other row.

- 4. Borders** — One Tap selects the whole border. Two taps selects just the corners. Three taps highlights the border without corners.
- 5. Inverse** — Selects the opposite of what is currently selected.
- 6. Row Blocks** — This feature combines the Checker function with the Rows/Columns function. It selects every other row (then column) and selects the checkerboard blocks for those rows.

There are two ways to select rows, columns, borders, and alternating blocks. You can use the menu shown on this page, but you can also use the Selection tools around the outside of your quilt area as well.

QuiltCAD: Pattern Tools - Quick Select

- 1. All or Nothing** — Tapping this button once will select all blocks on your quilt. Tapping it a second time will deselect all blocks.
- 2. Columns** — By tapping this you can select all blocks in a column.
- 3. Borders** — Please see the next section.
- 4. Rows** — By tapping this you can select all blocks in a row.
- 5. Checkers** — Tapping this option will select the blocks on the quilt in a checker pattern. Tapping it a second time will select the opposite blocks.
- 6. Select Opposite** — Selects the opposite blocks that are currently selected, and deselects the blocks currently selected.

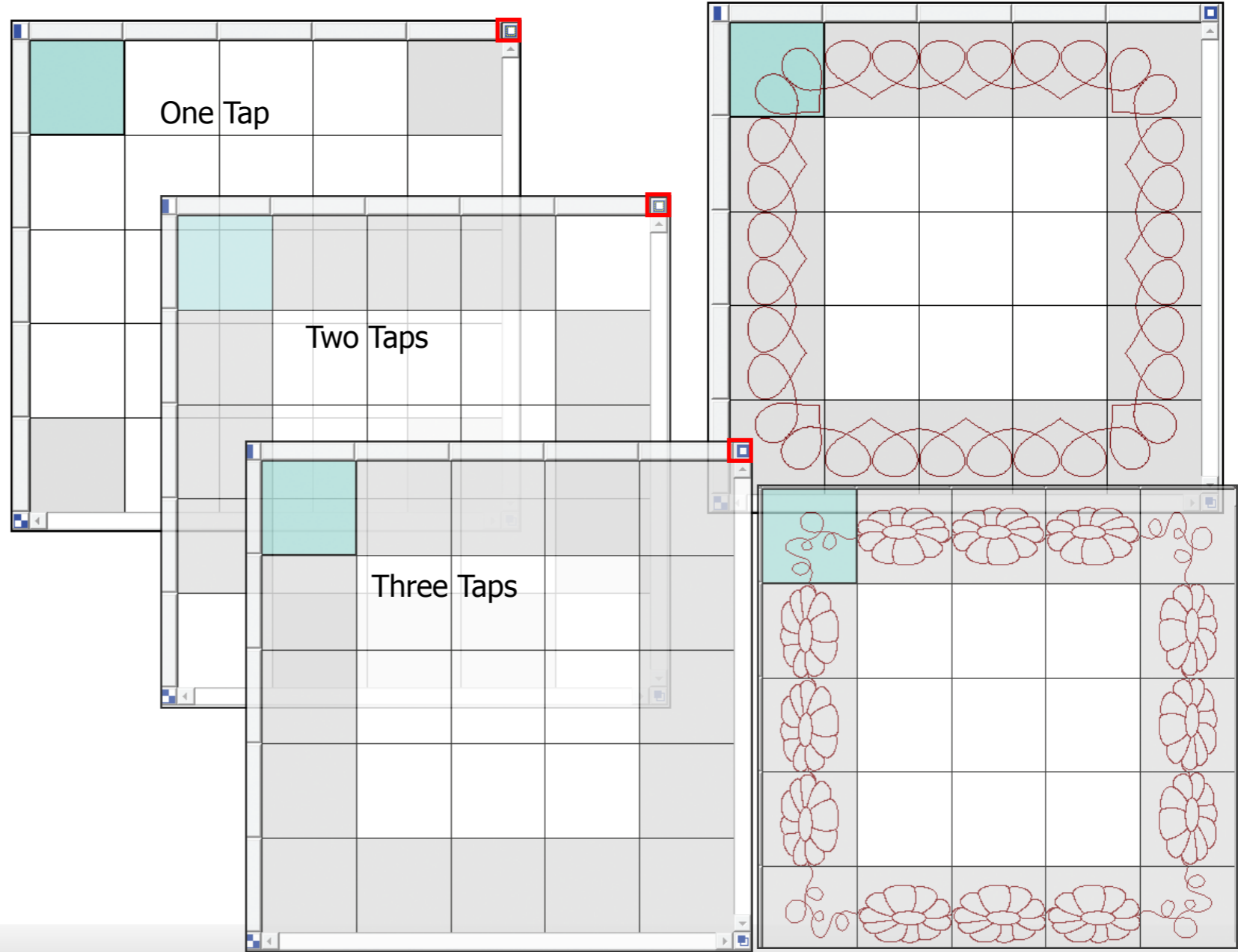


QuiltCAD: Pattern Tools - Quick Border Select

This tool is found on the top right of the Quilt Selection window.

- Tapping it once will select the corners first, so you can place the same pattern in all four corners.
- Tapping it again it will select the outside blocks minus the corners, and not the corners.
- The third time you tap it all the border blocks will be selected.

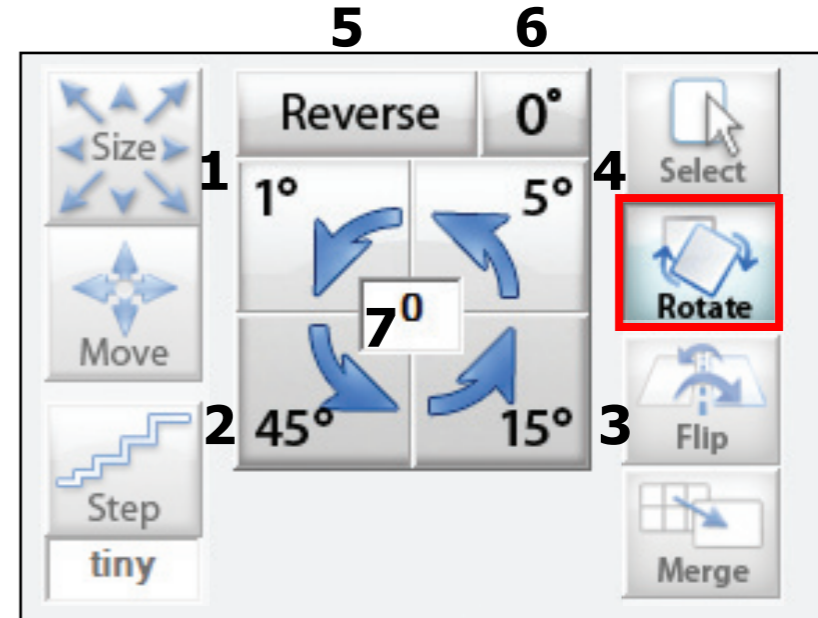
Once you place your patterns using these block selections tools you can easily go to the Tools menu and choose CW or CCW border to have QuiltCAD automatically size and align the border.



QuiltCAD: Rotate

You will use this option if you wanted to rotate the pattern within the block.

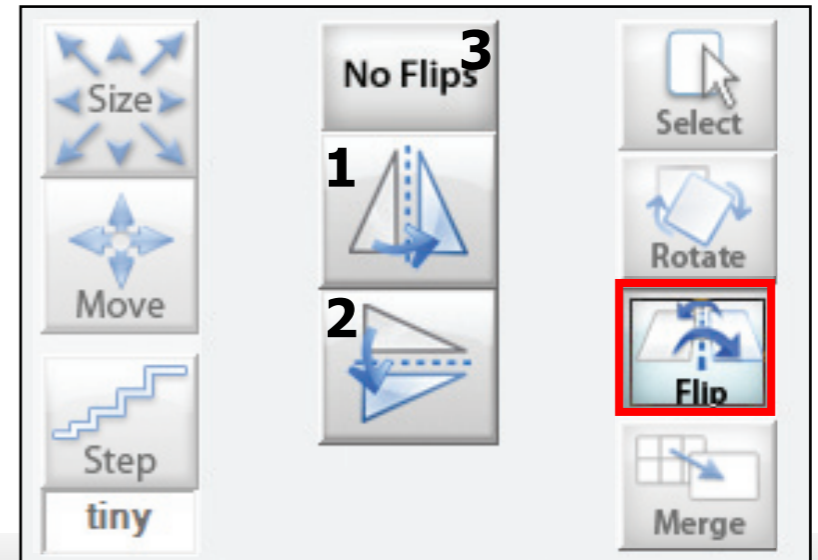
1. **Rotate 1°** — Rotates the pattern 1°
2. **Rotate 45°** — Rotates the pattern 45°
3. **Rotate 15°** — Rotates the pattern 15°
4. **Rotate 5°** — Rotates the pattern 5°
5. **Reverse** — Change the direction the pattern is rotating.
6. **0°** — Sets the pattern back to a centered position within the block.
7. **Current Pattern Rotation** — This area displays the current degree of rotation of the selected pattern.



QuiltCAD: Flip

Used to change the orientation of the pattern in the block.

1. **Flip Vertically** — Flips the pattern Vertically.
2. **Flip Horizontally** — Flips the pattern Horizontally.
3. **No Flips** — Resets the pattern to the original position.

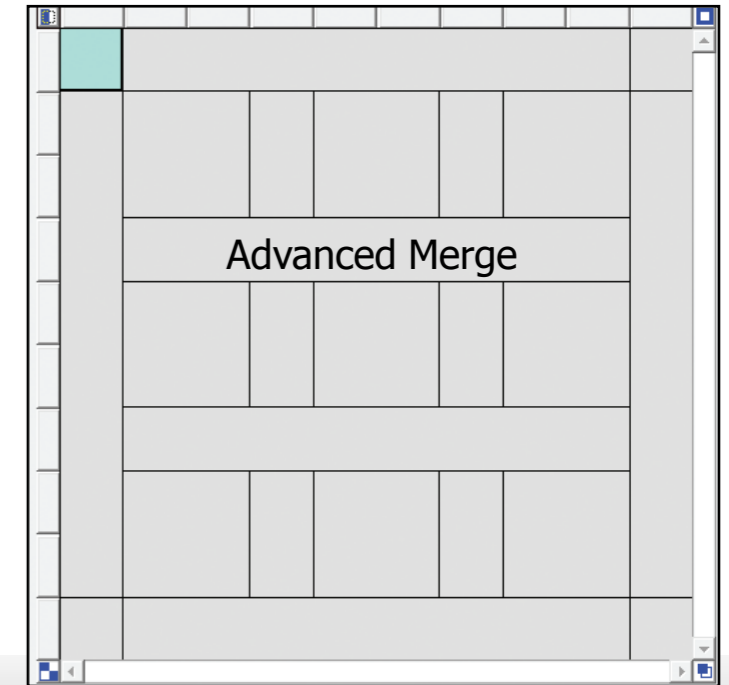
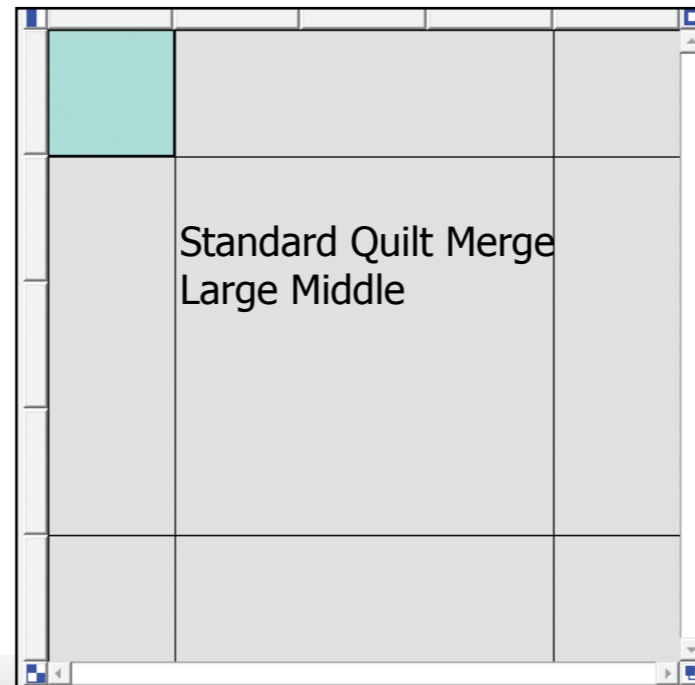
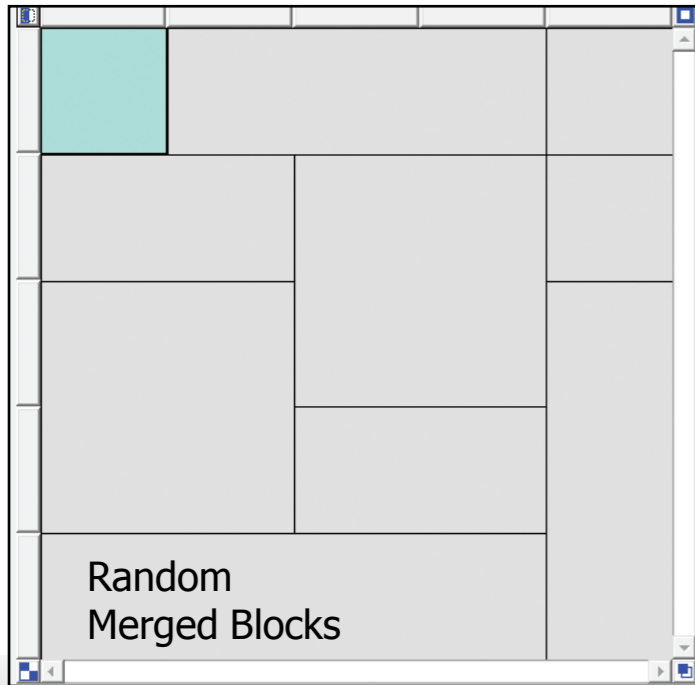
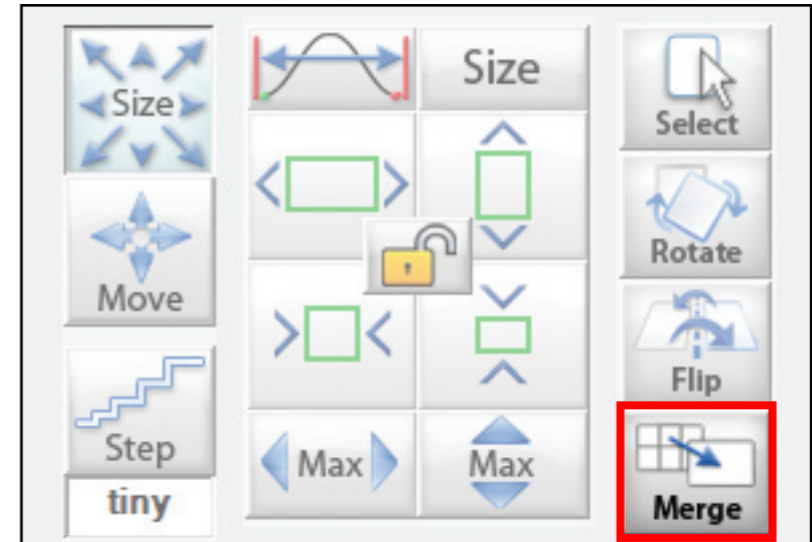


QuiltCAD: Merging Blocks

This option does not change the Menu area.

Merge : This option is used to make one block from two or more blocks. The blocks must be next to each other, you cannot merge a block from one side of a quilt to the other side. You could however merge the entire row or column.

You cannot merge corners. The merged blocks must be square, horizontal, or vertical.

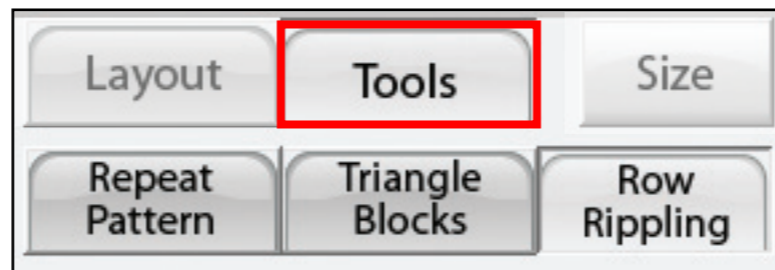


QuiltCAD: Advanced Tools Menu

There are even more options to change your patterns.

We will cover the Advanced Tools briefly then each one in depth.

- **Repeat Pattern** — This option allows you to add multiple patterns into one block, and change how they are spaced within the block.
- **Triangle Blocks** — This tool allows you to break the block down into two or four triangles to place patterns. This is great for corner or triangle patterns.
- **Row Rippling** — Here you can set some really cool effects to your row and patterns such as zigzags or arcs. These options go beyond the block and will effect entire rows that you select.

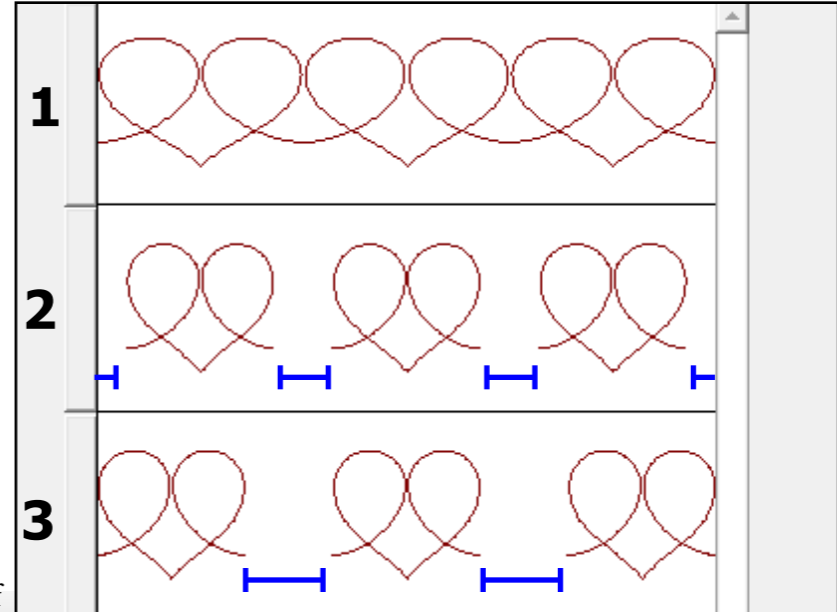
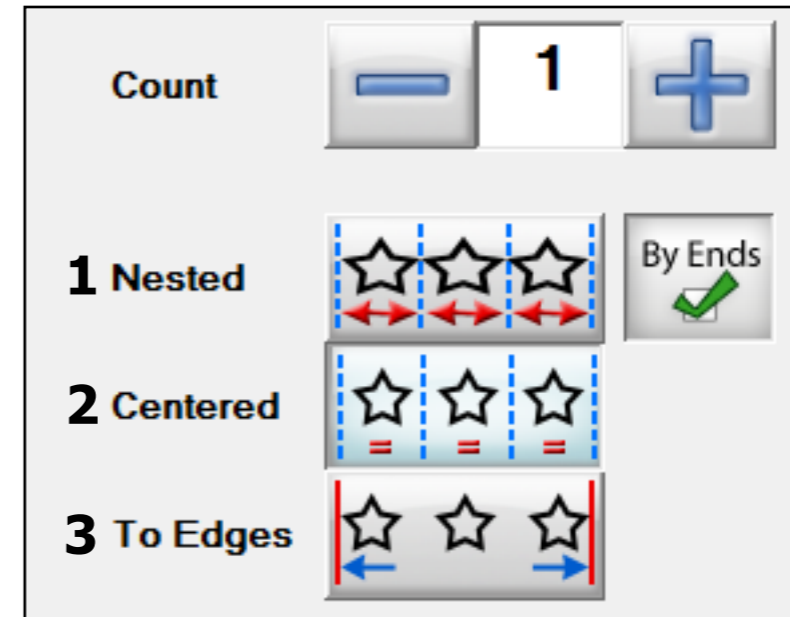


QuiltCAD: Repeat Pattern

This option is used when you want to place more than one pattern into a single block, or merged block. When you create a pantograph this would be a great way to duplicate the pattern all the way down the quilt. Much like a fill method, the repeat pattern option also allows you to specify how the patterns will sit in the block. To repeat a pattern, use the + an - keys to adjust the number of patterns. In the example 3 patterns are being repeated.

- **Pattern Count** — Here you can use the + or - symbol to add or remove patterns from your selected block. You can also tap in the middle and set the number of patterns as well.
- 1. Nested** — The patterns will stretch to connect within the block, and the pattern edges will line up to the next pattern. With this option, the pattern may lose its aspect ratio depending on how many patterns are in the block.
 - **By Ends** — This option is used when you want to make the repeating patterns connect by the start and end points, or by the maximum width of the pattern.
 - 2. Centered** — The pattern is evenly spaced and centered in the block.
 - 3. To Edges** — The patterns will be evenly spaced, but the outside patterns will touch the side of the block edges.

Example Pattern : catball.gpf



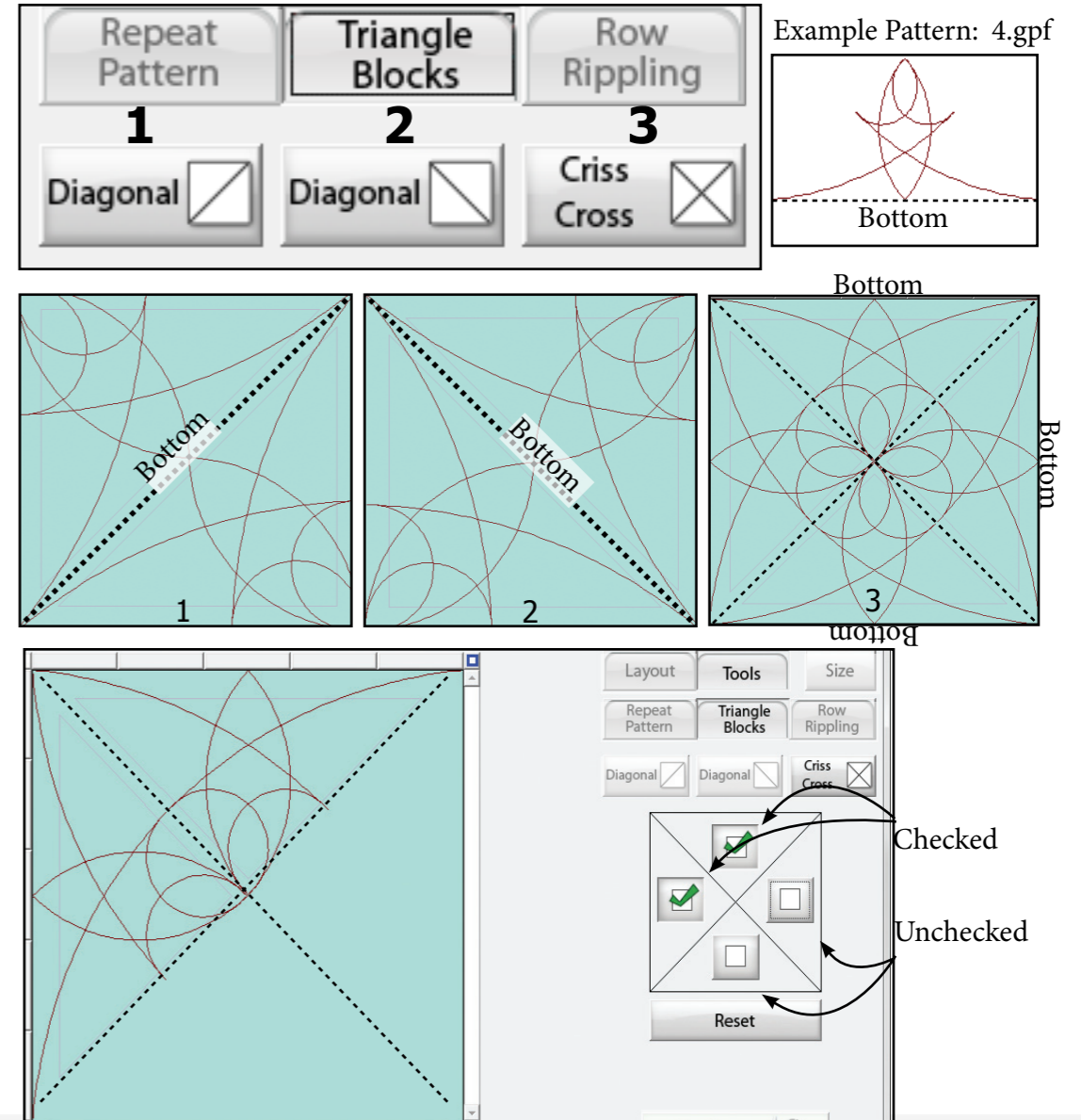
QuiltCAD: Triangle Blocks

This tool is designed so you can place a single or multiple patterns in a block either diagonally or crisscross. This tool works best with triangular patterns, or patterns that need to be placed in a corner of a quilt.

There are three options for the Triangle Block tool.

- 1. Diagonal (to the left)** — This will create two triangles in the block that will start from the bottom left corner and go to the top right. The bottom of the triangle will now be the dividing line in the block.
- 2. Diagonal (to the right)** — This will create two triangles in the block that will start from the bottom left corner and go to the top right. The bottom of the triangle will now be the dividing line in the block.
- 3. Crisscross** — This option will create four triangles in the selected block. Please be aware, that the bottom of the pattern will now be placed to the outside edge of the block.

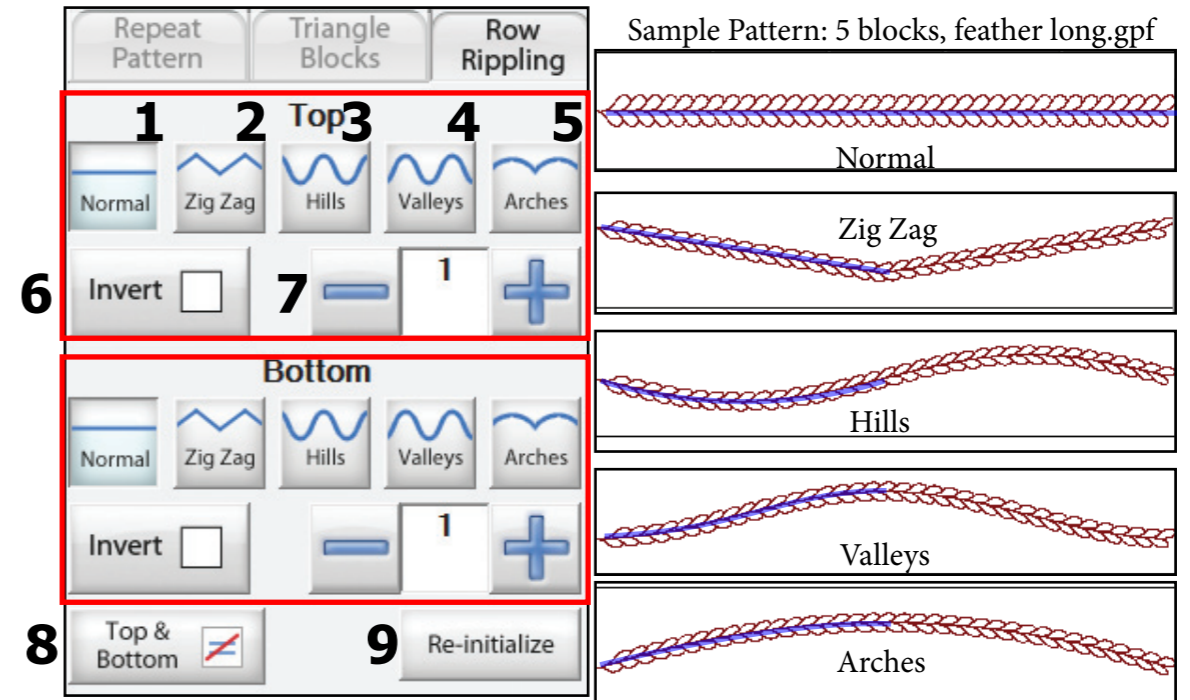
You may have also noticed when you choose any of these options, a preview window appears. This window enables you to choose which portion of the triangle block you would like to have the pattern appear in. When you place a check mark into the selection area the pattern will be placed in the correspond area of the block. To remove it, remove the check.



QuiltCAD: Row Rippling

Row Rippling lets you add some rather astounding effects to your quilt's patterns. Out of all the other tools, this one gives you the most options to modify the entire row on the quilt. As you can see there is a Top and Bottom option. The reason for this is the Row Rippling tool will split the selected row down the middle allowing you to change the top part of the selected pattern and the bottom part separately. This can lead to some amazing creations on your quilt.

- 1. Normal** - No change to the pattern.
- 2. Zig Zag** - A sharp point that is added to the pattern.
- 3. Hills** - A rolling type of ripple.
- 4. Valleys** - Slightly more pointy than Hills.
- 5. Arches** - Creates a smooth arched effect.
- 6. Invert** - Inverts the ripple effect.
- 7. Ripple Count** - The number of ripples for a selection.
- 8. Top&Bottom** - When enabled the top and bottom ripple count will be the same. When disabled the Top and Bottom ripple can have their own settings.
- 9. Re-initialize** - Resets all a rippling.



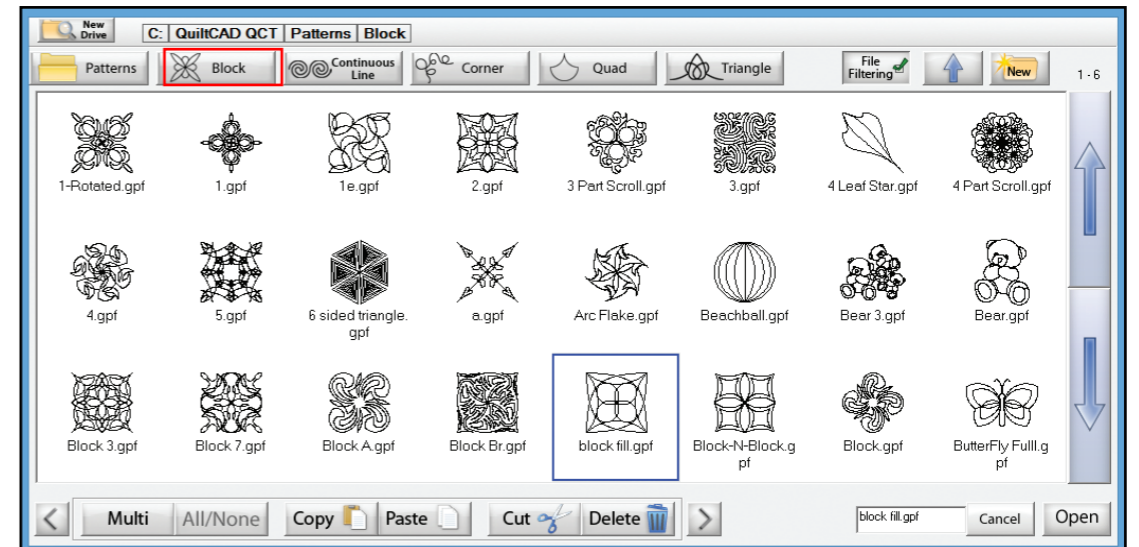
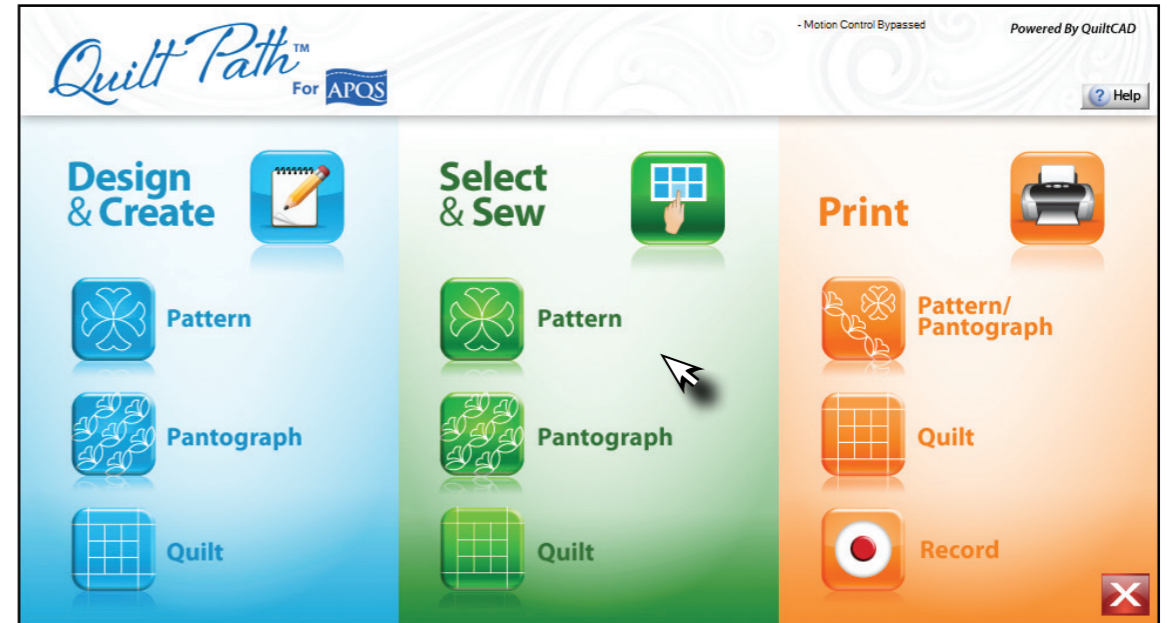
Select & Sew: Pattern

With the Select & Sew feature you can be quilting in just a few simple steps, with a single pattern, a pantograph, or an entire quilt. Lets check it out!

When you tap the Pattern option under the Select & Sew the first screen you will see is the pattern selection screen.

For this example we will use the Fill1.gpf from the Block pattern section, but you can use any pattern you would like.

To open a pattern you can double tap the pattern you want to open, or tap it once to highlight it and then tap OK to open the pattern file.



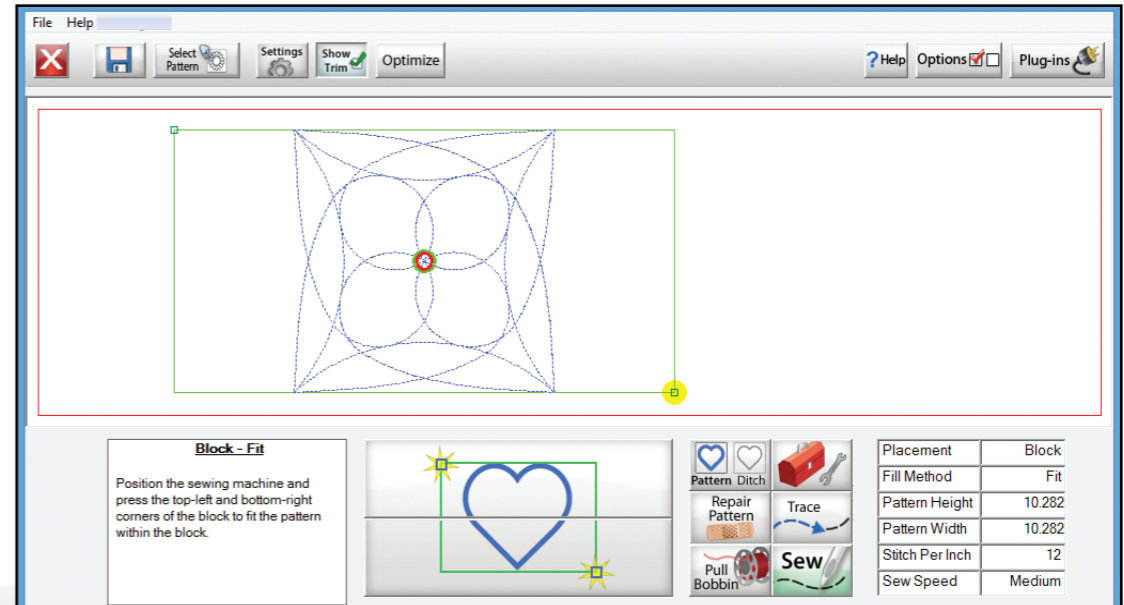
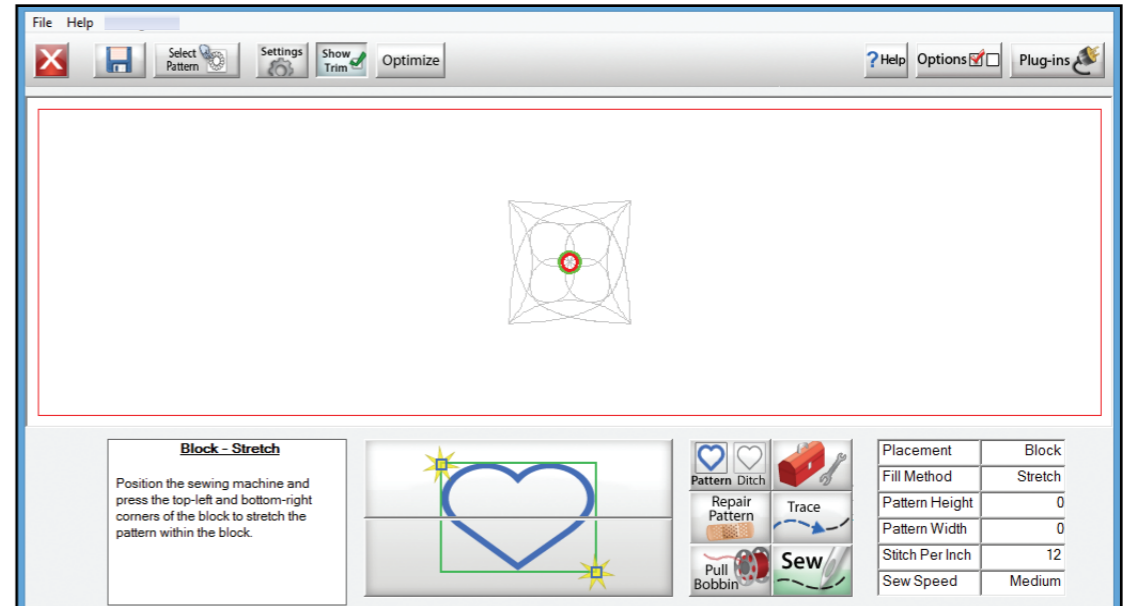
Select & Sew: Pattern Continued

Now that you have chosen a pattern there are 4 steps:

1. Set your Safety Area
2. Place you pattern
3. Pull Bobbin
4. Sew the pattern!

From there you can either choose another pattern, or place the same one in a different spot.

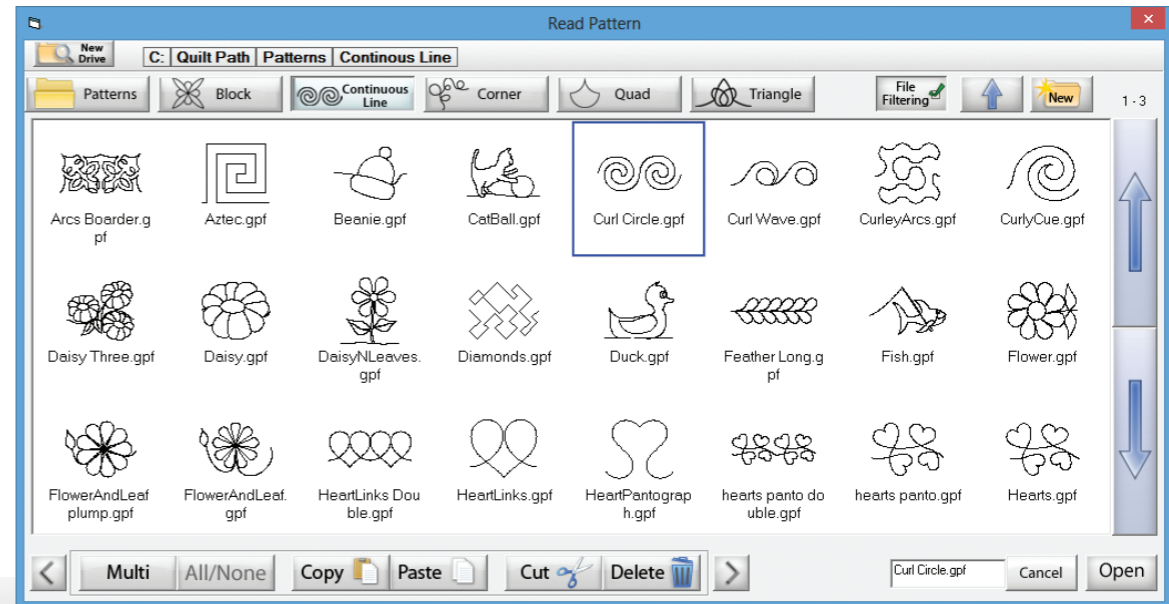
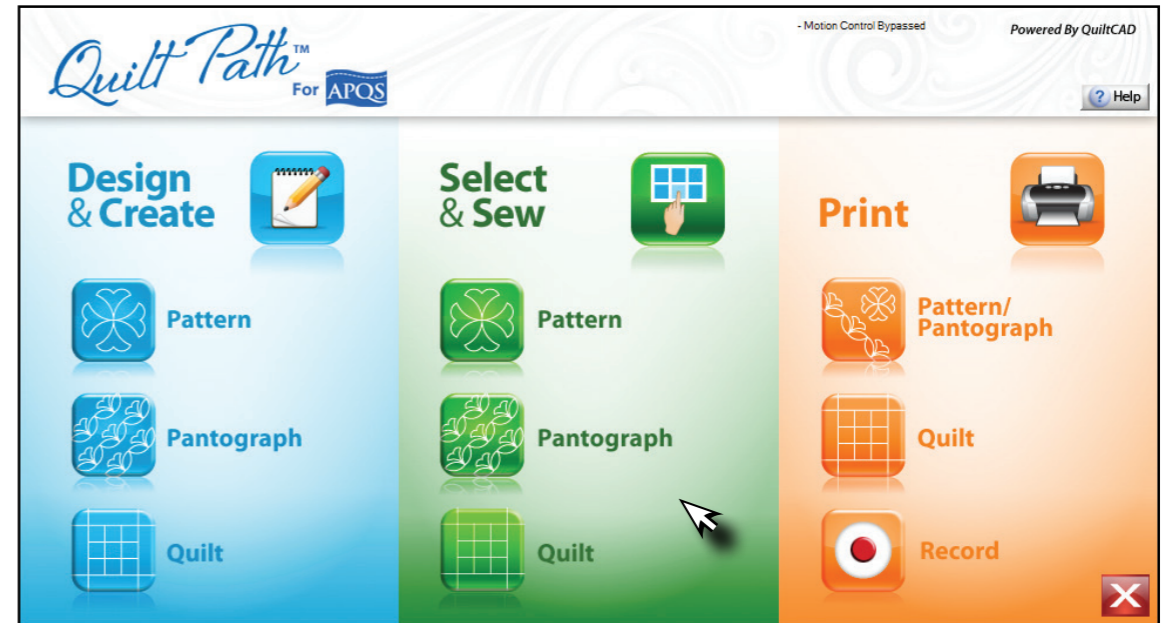
This allows you to quickly sew any number of patterns you need.



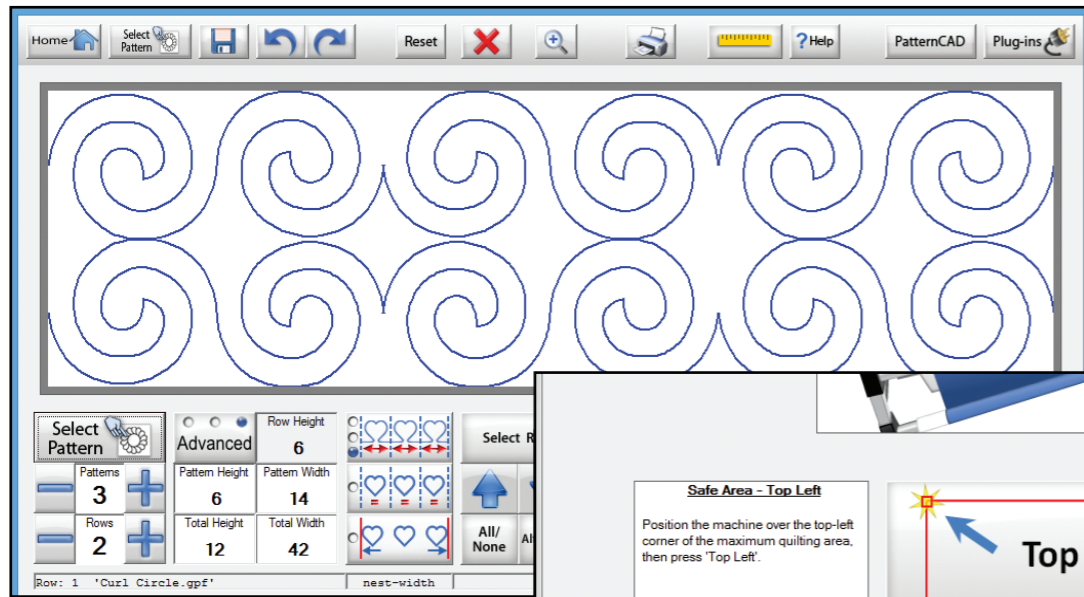
Select & Sew: Pantograph

There are 6 steps to go from creating a pantograph to quilting:

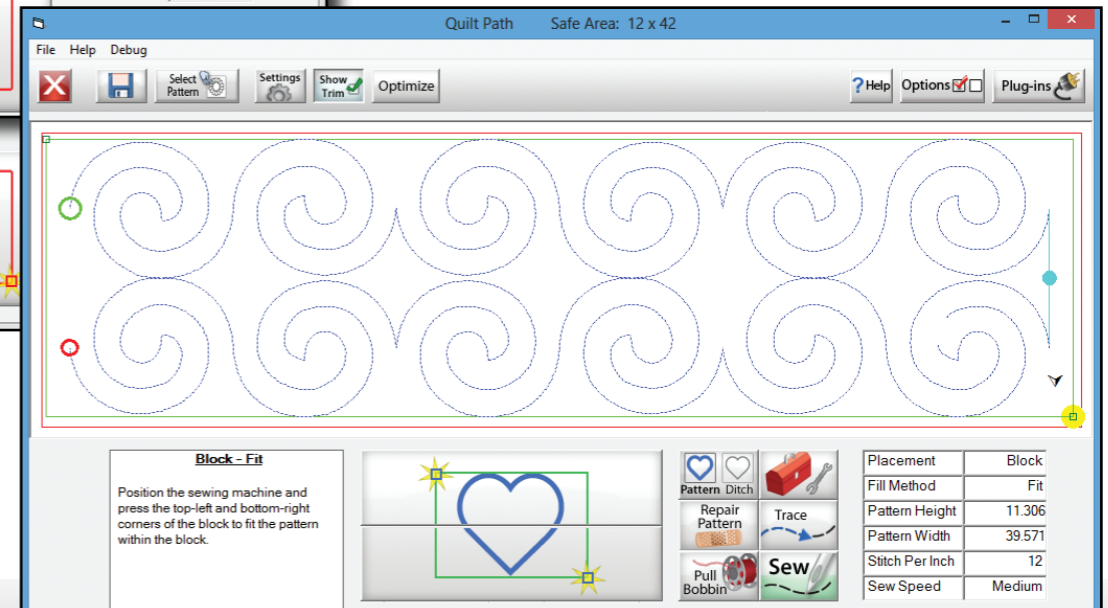
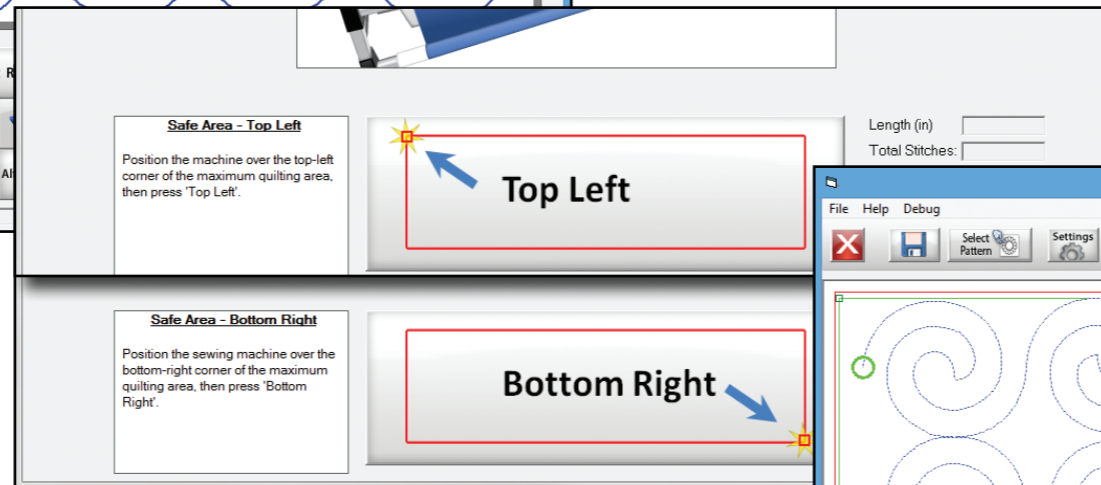
1. Select a saved Pantograph.
2. Adjust pantograph settings, if needed.
3. Set your safety area.
4. Place your pantograph.
5. Pull Bobbin.
6. Quilt the pantograph.



Select & Sew: Pantograph Continued



The Quilt Path Software was designed to flow as smoothly as possible, and once you get the basics down you will be amazed how quickly you can create custom Patterns, and Pantographs, and even more amazing Quilts!

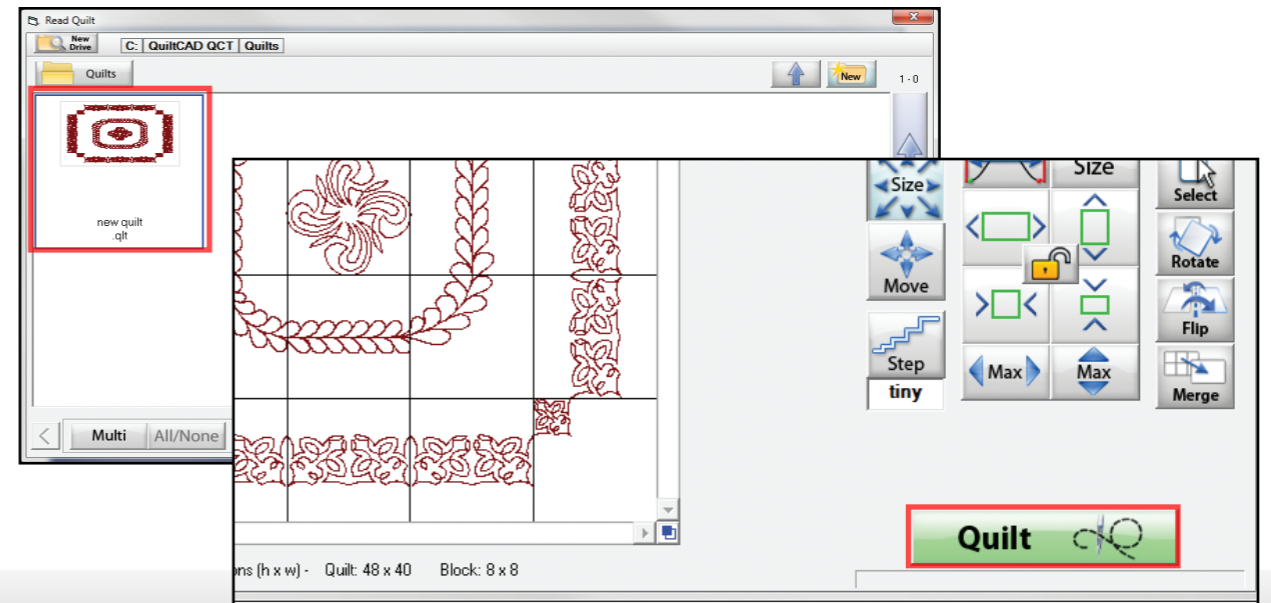
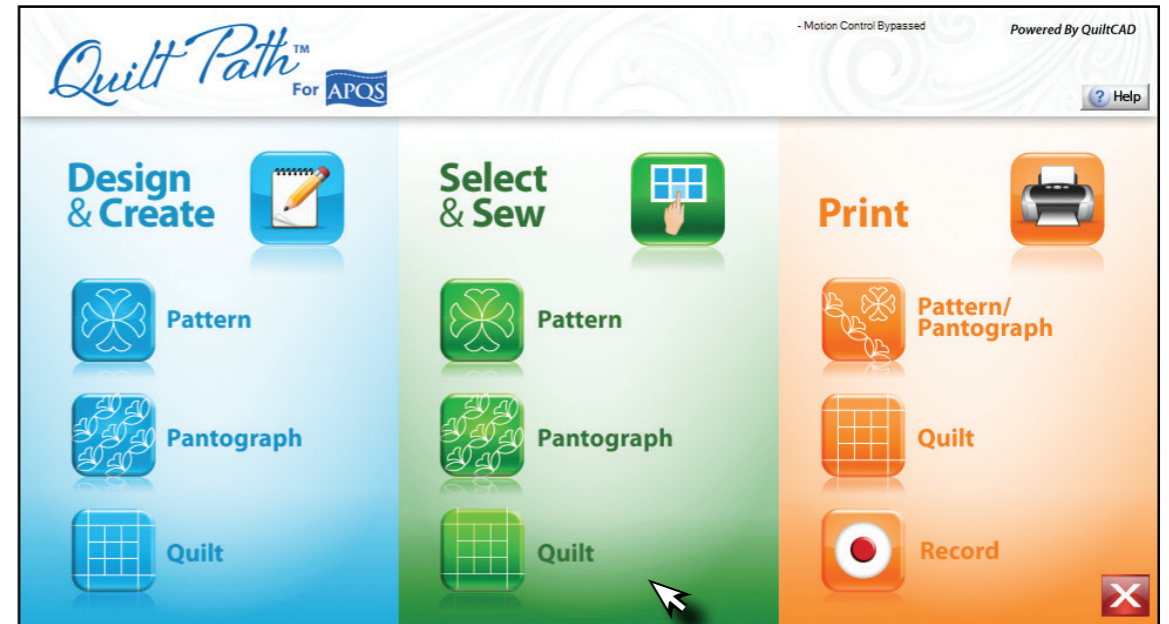


Select & Sew: Quilt

The Select & Sew: Quilt option gives you the ability to quickly access previously made quilts, or open a quilt file from another location or person.

Similar to all of the Select & Sew features, when you tap on the Quilt option, the Read Quilt window will open.

1. Double tap the Quilt file you wish to work with, or tap the Quilt file and tap "Open".
2. You will now see the QuiltCAD screen. Select the block, row, column you wish to quilt and tap the Quilt icon.



Print: Pattern/Pantograph

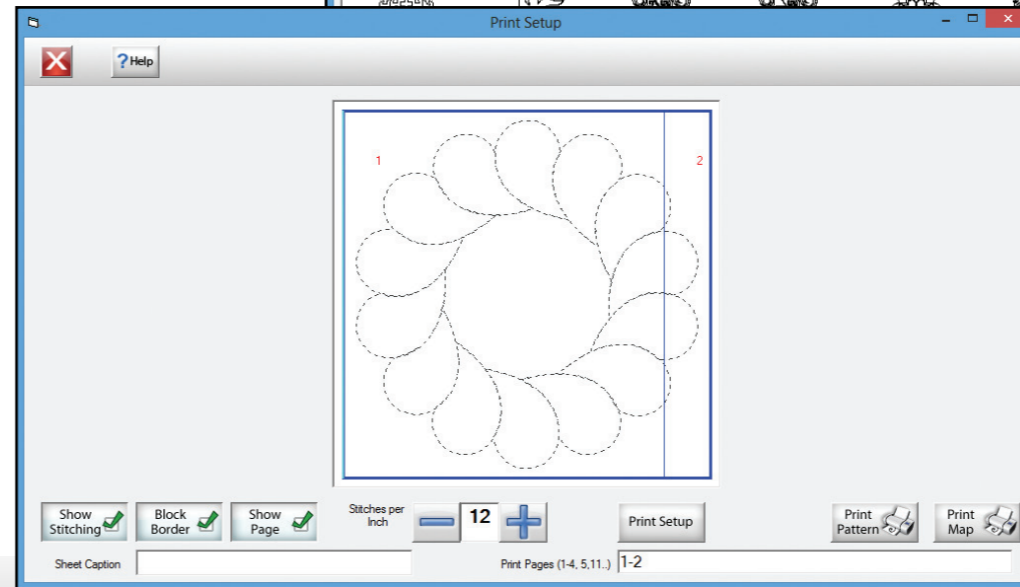
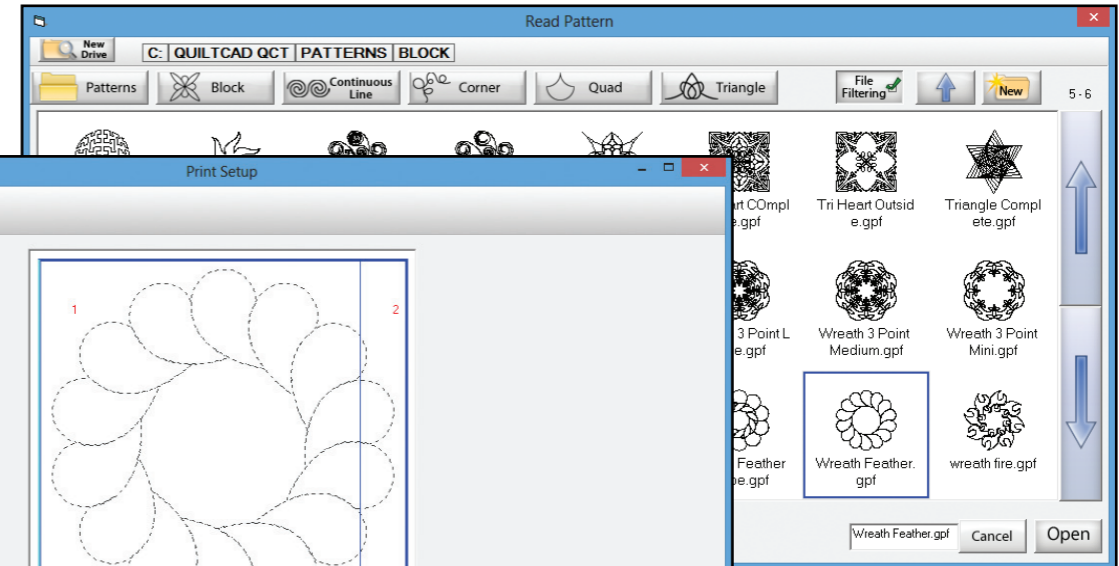
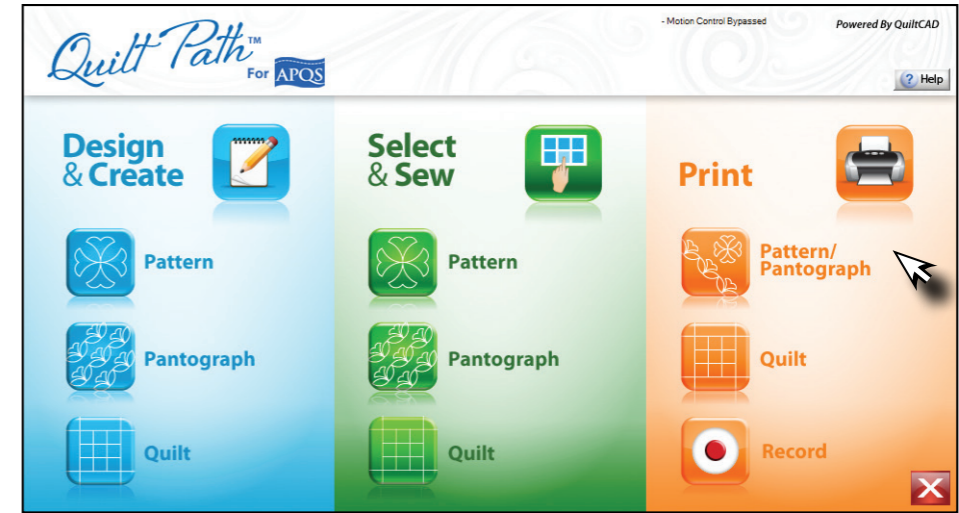
This area allows you to print a single pattern, or pantograph with many patterns. These can be used with freehand quilting or used to see how the pattern will rest on the quilt.

You can tap [here](#) to see information regarding printing options.

Steps to Print a pattern

1. Select the Pattern you wish to print.
2. Check your print settings.
3. Tap Print Pattern.

Its that easy!



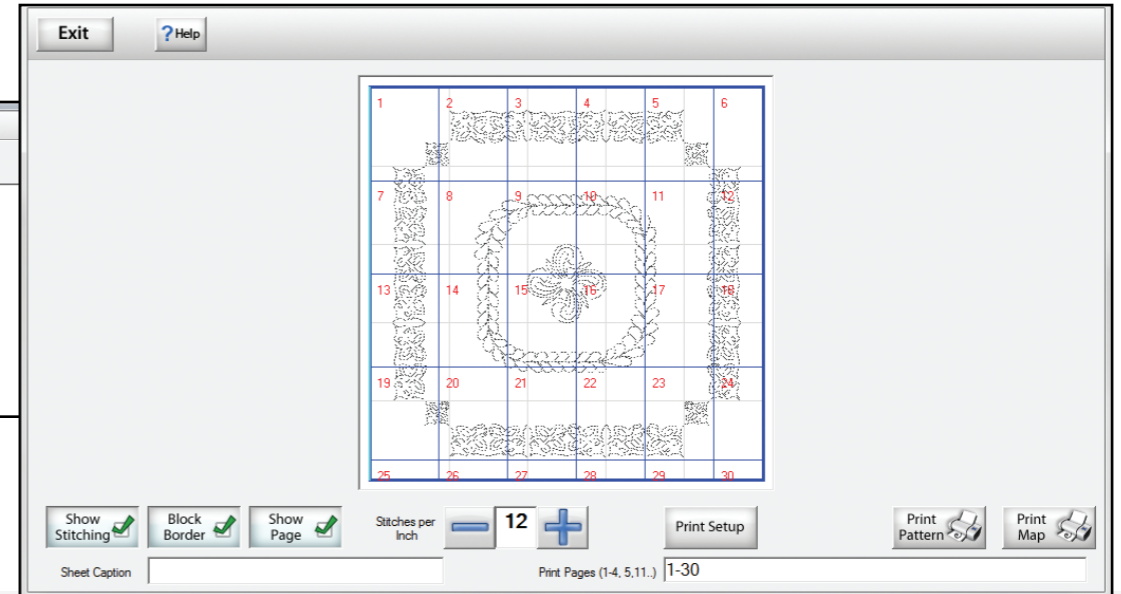
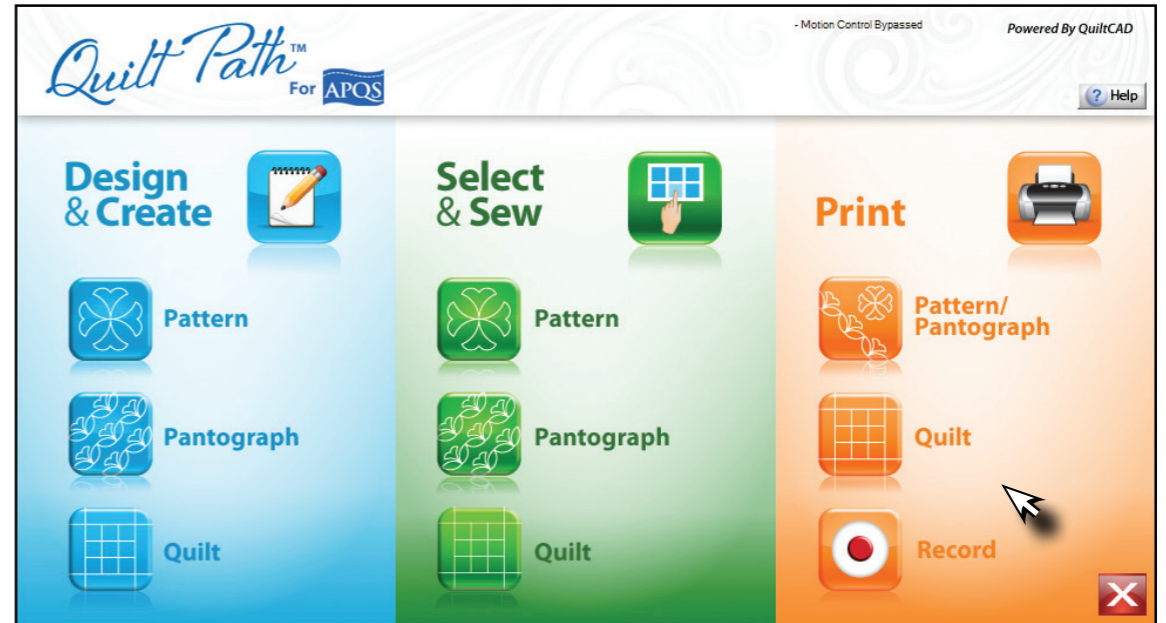
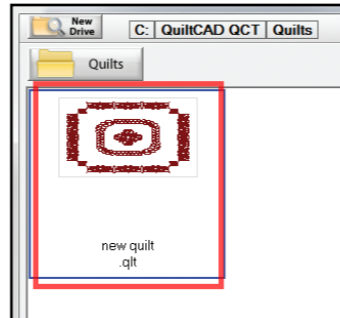
Print: Quilt

Printing a Quilt can be a very useful tool for your layout. In order to print one you will have to first create the quilt and save it as a QLI file.

This allows you to select the quilt in the printing section.

1. Tap on Quilt under the Print heading.
2. Select a previously saved Quilt.
3. Set the area you wish to print and tap Print.

You can choose to print a row, a single pattern, or the entire quilt from here.

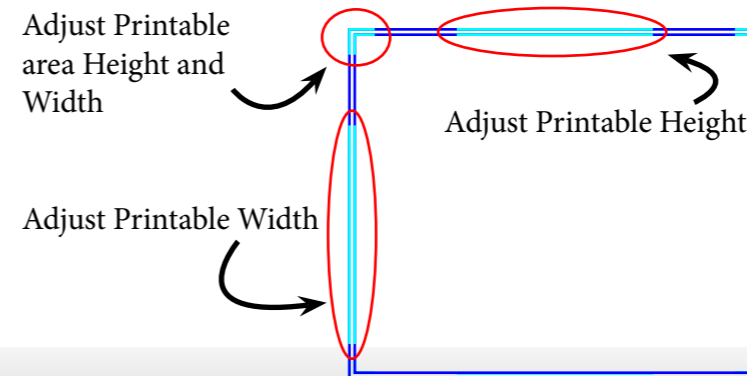
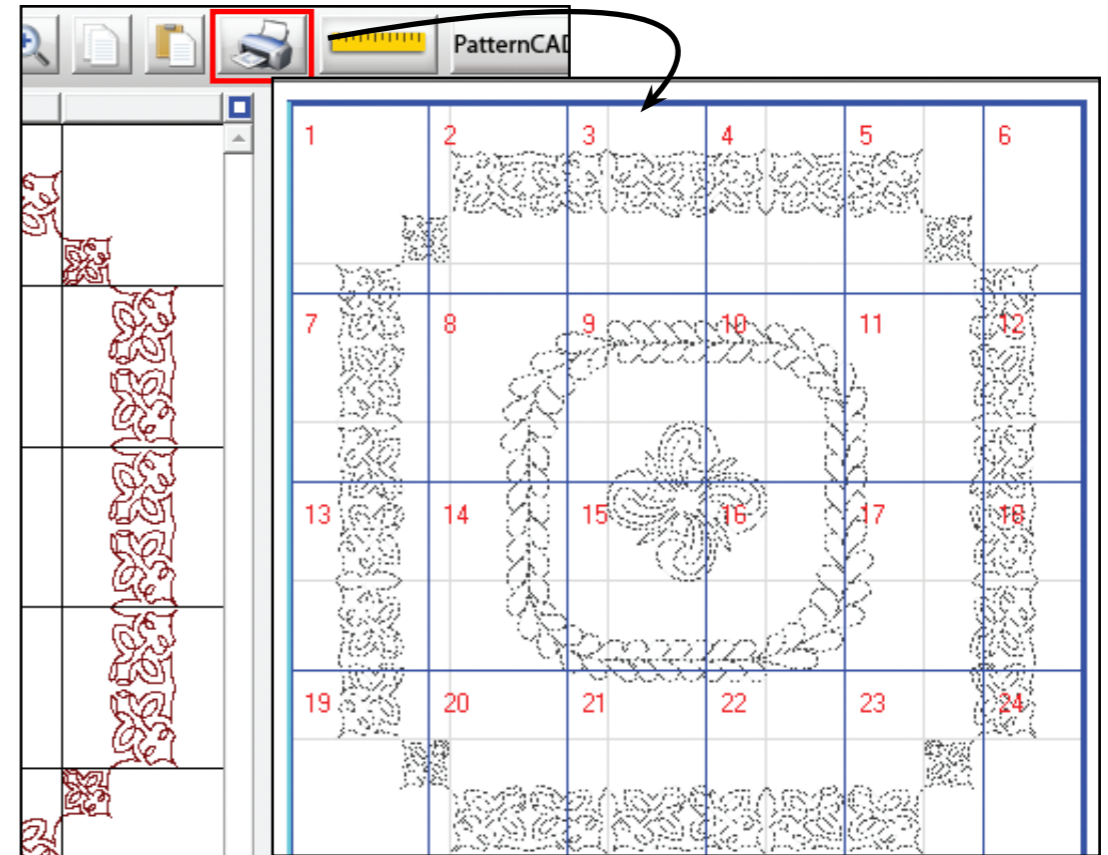


Print Selection Tools

QuiltCAD offers the ability to print out a quilt you have created. This can have many uses from seeing how the quilt will actually look to printing it out so it can be traced onto the quilt if you want to create it with free motion sewing. Currently, only paper sizes of 8.5 x 11 are supported. To print your selection, simply tap the Printer icon in the menu bar. If you have no specific row, column, or block selected the print setup will open and display all printable patterns. You can selectively choose rows, columns, or blocks to print individually .

Here we created a new quilt using the default size and added a different pattern to each row. As we had no specific block selected you can see the entire quilt is being displayed. Within the print setup screen there are a few options you can change at the bottom of the screen and there are some that you can only access with your mouse.

Using your mouse, put the cursor over the top left corner of the area to be printed. You should notice that the blue line changes to a light blue line. This means that object can be selected and moved. This allows you to select an area to be printed instead of printing the entire quilt. Shown here are the different areas that can be used to change the print area.



When you change the printable area the page numbers will change accordingly.

Print Options



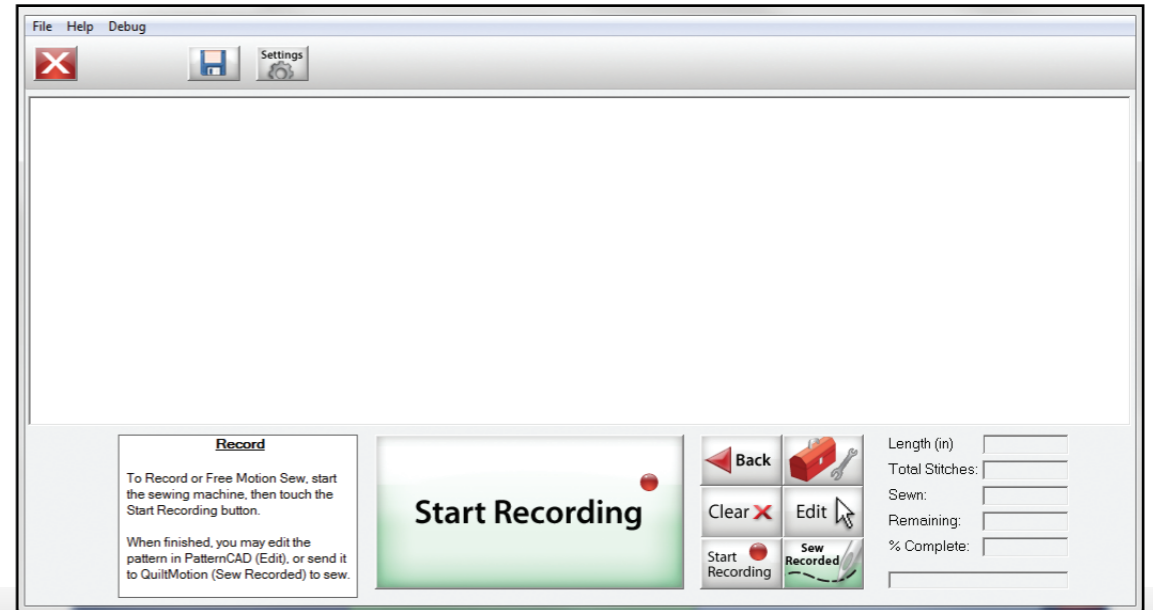
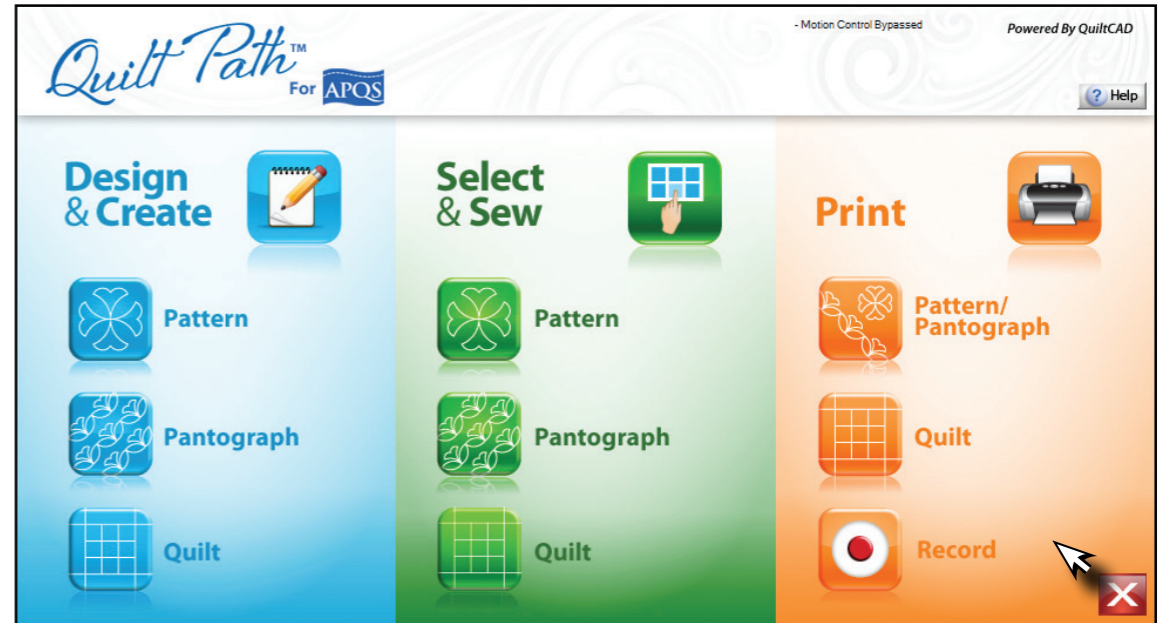
Across the bottom of the screen there are options on how the quilt will be displayed.

- 1. Show Stitching** — When this option is turned on, the stitches will appear on the screen and when the quilt is printed. If this option is not selected, a solid line will be displayed and printed.
- 2. Block Border** — This option shows or hides the block borders of the quilt.
- 3. Show page** — Here you can choose to have page numbers displayed, or they can be hidden.
- 4. Stitches Per Inch** — With this setting you can adjust the SPI using the + or -, and it will be displayed when you print the pattern or quilt.
- 5. Sheet Caption** — Allows you add a special note to the print pages.
- 6. Print Setup** — Allows you to select a printer to print to.
- 7. Print Pattern** — Prints all pages from the preview window, unless specified by the “Print Pages” option.
- 8. Print Map** — This will print a map of how the printed pages would be placed together.
- 9. Print pages** — You can specify if you want a range of pages to be printed from the preview screen, or individual pages to be printed.

Record / Free Motion

The Record feature lets you record movement from freehand quilting, or from a pattern you are tracing. You can then choose to sew what you have traced, or save it for later to place onto a quilt.

When you first tap the Record button you may have to set your safety area. Once that has been set you will see the Record screen.



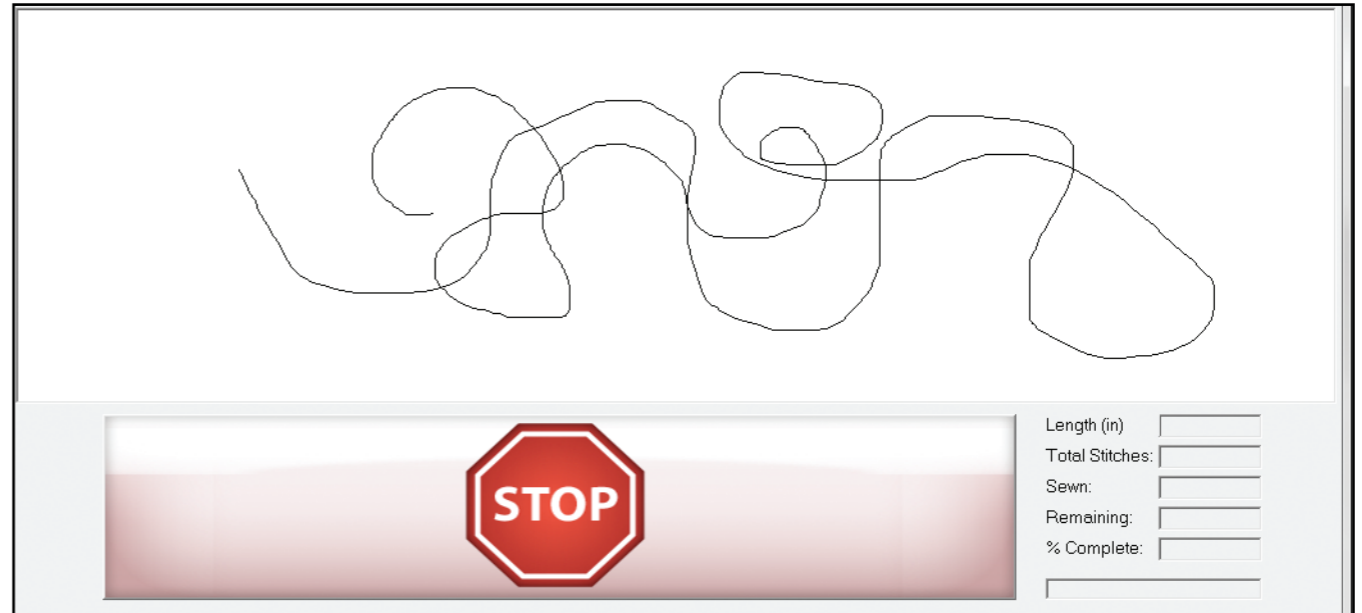
Record Options

- 1. Start/Stop** — Starts and stops the recording process.
- 2. Back** — Back to main menu.
- 3. Tools** — Opens the Tools menu; Reset Safety area, unlock carriage.
- 4. Clear** — Clears all pattern data on the record screen.
- 5. Edit** — Takes the pattern it recorded and opens it in [PatternCAD](#).
- 6. Start Recording** — Starts recording pattern.
- 7. Sew Recorded** — Sews the recorded pattern.

After you select Start Recording and begin to move the carriage, you will see a line being drawn as you go. When you are content with your creation, select Stop. If there is something that is needing to be added, you can continue to record by clicking the Start Recording button again.

Or you can save the design that is currently being displayed.

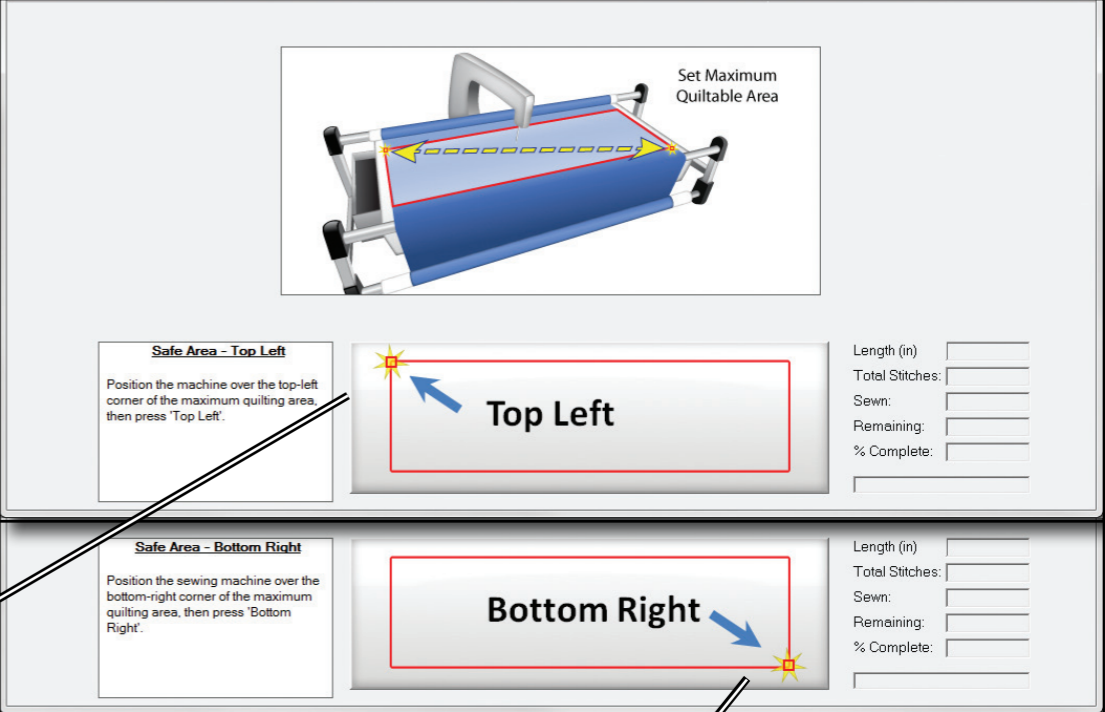
Lastly, you can click the button to Sew Recorded, this will take you to the placement screen so you can sew your new pattern!



Setting Safety Area

The Safety Area is the area you define that is an acceptable range of movement for the sewing machine on your frame. Before you can choose any placement or sewing options, your safety area must be set.

Please note, your safety area should be the entire quilting space you have available, not just the area of the quilt you will be placing the pattern.



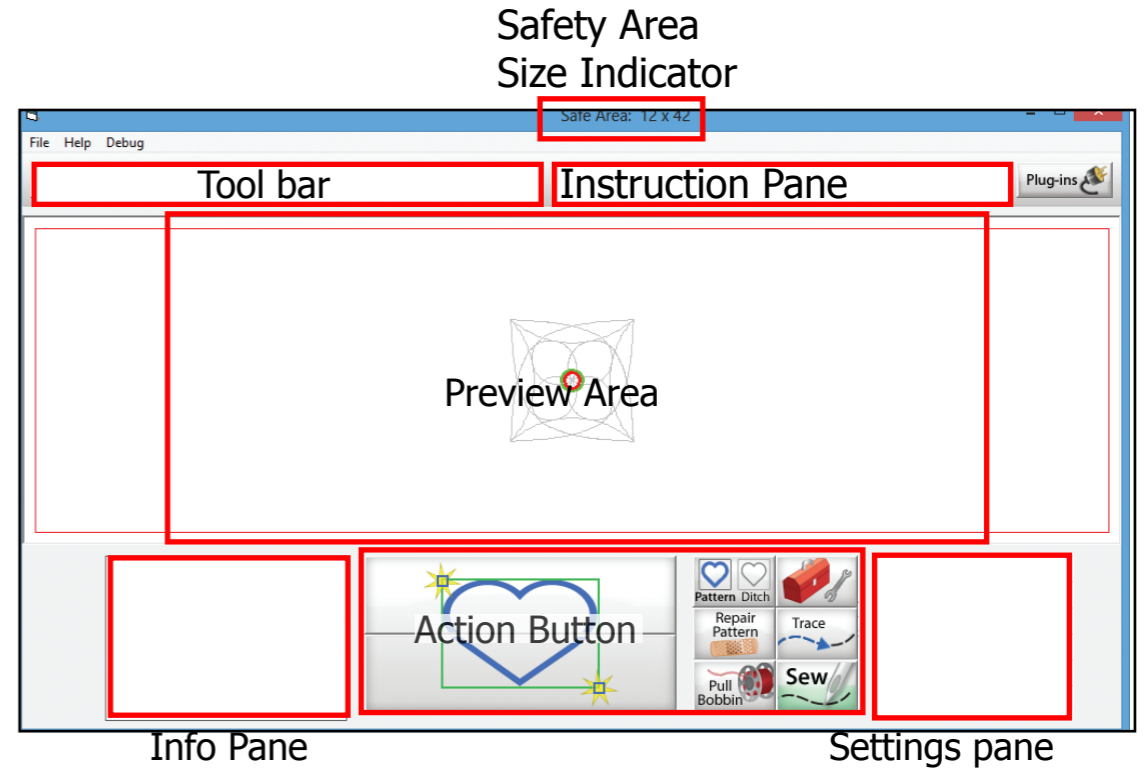
The software interface is divided into two main sections for setting the safety area. The top section is titled "Safe Area - Top Left" and includes an illustration of a quilting machine with a blue fabric on the frame. A red dashed line indicates the "Set Maximum Quiltable Area". Below the illustration, there is a text box: "Position the machine over the top-left corner of the maximum quilting area, then press 'Top Left'." To the right of this text is a button labeled "Top Left" with a blue arrow pointing to the top-left corner of a red-outlined rectangle. To the right of the button are input fields for "Length (in)", "Total Stitches", "Sewn", "Remaining", and "% Complete". The bottom section is titled "Safe Area - Bottom Right" and includes a text box: "Position the sewing machine over the bottom-right corner of the maximum quilting area, then press 'Bottom Right'." To the right of this text is a button labeled "Bottom Right" with a blue arrow pointing to the bottom-right corner of a red-outlined rectangle. To the right of the button are input fields for "Length (in)", "Total Stitches", "Sewn", "Remaining", and "% Complete".



Quilting Screen Overview

In this section we will cover the quilting options and settings. Options such as; setting your safety area, setting your quilting speed, tie-off count, and placement methods.

- **Tool bar** — Allows you to access to place a pattern, settings, optimize, etc.
- **Instructions Pane** — Shows you what step should be performed next.
- **Preview Area** — This is a visual display of the pattern Quilt Path Software is currently setup for. It will show the safety area, your pattern, and the border for the pattern. This way you can see what it looks like before you begin to quilt.
- **Info Pane** — Will give you tips and information regarding your current placement method and action.
- **Action button** — This is what you will use to interact with the application when setting the safety area and placing a pattern.
- **Settings Pane** — This will show your current placement method and quilting settings.



Quilting Settings

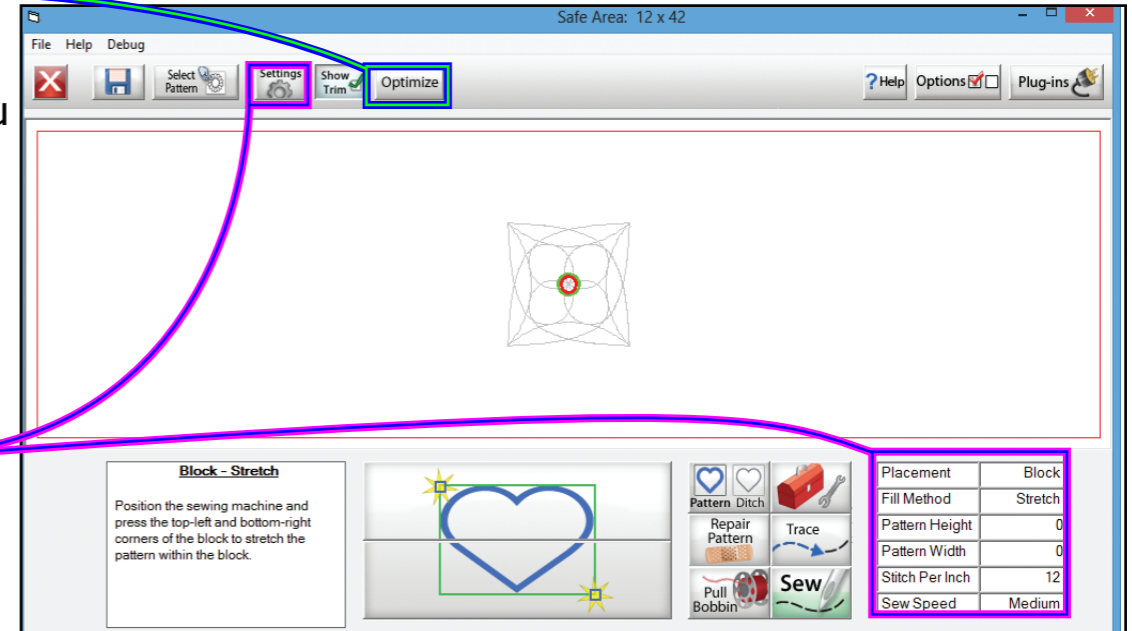
Once the safety area is set we can now access the tools and placement methods. We can also change specific settings for QuiltMotion or the sewing machine, such as stitches per inch, the tie off count, and the sewing speed.

From here you can also access the Optimization screen. This screen allows you to change the order of the pattern, or pantograph that will be sewn. You can also remove trim lines and animate the stitching of your selection to see how it will be sewn onto your quilt.

Tap the Settings button or the information pane on the bottom right change these settings.

The settings screen is broken down into 5 categories:

- Sewing settings
- Pattern statistics
- Pattern Margin
- Ditch Margin
- Placement Methods



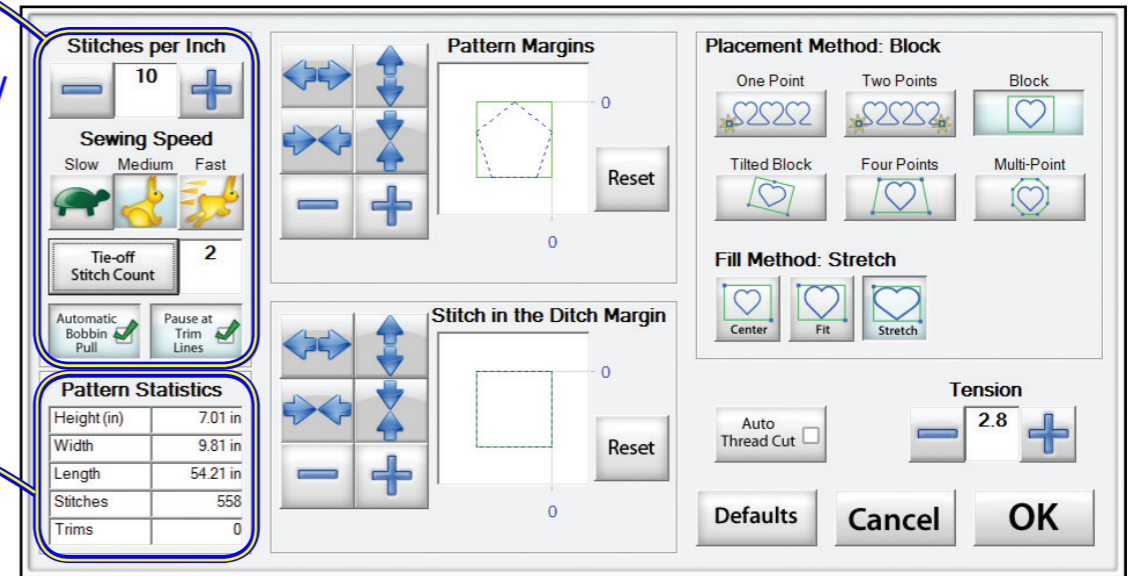
Quilting Settings Continued

Sewing settings

- **Stitches Per Inch** — Minimum 6, Maximum 15.
- **Sewing Speed**— How fast the carriage will move on the frame.
- **Tie-off Count** — Set Tie-off amount. 0 to 5
- **Automated Bobbin pull** — enables and disables the *Assisted / Automated Bobbin pull* feature.
- **Pause at Trim Lines** — When enabled Quilting will stop at trim lines so they can be cut.

Pattern statistics

- **Height** — Pattern as shown on screen.
- **Width** — Pattern as shown on screen.
- **Length** — Displays the pattern as if one straight line.
- **Stitches** — total amount of stitches in the pattern.
- **Trim lines** — for patterns with more than one section.



Auto Thread Cut and the Tension settings are only available to sewing machines that supports functions.

Quilting Settings: Margins

The Margin is an invisible border around the pattern or ditch. When the pattern margin is set to 0 the pattern will be placed into the box that you define, and it will fit to the block corners. But if you set a margin this will override the placement and fill method and make the pattern go beyond the invisible box, or kept inside, by the distance you set.

The increments you can change the margins to are;

1/8", 1/4", 3/8", 1/2", 5/8", 3/4", 7/8", 1", 1 1/8", 1 1/4", 1 3/8", 1 1/2", 1 5/8", 1 3/4", 1 7/8", and 2".

To set the margin size you can use the arrow icons or the plus and minus symbols.

If you use the arrow you will adjust the margin height and width separately. By using the plus and minus symbols the margin will change to the same size for the height and width.

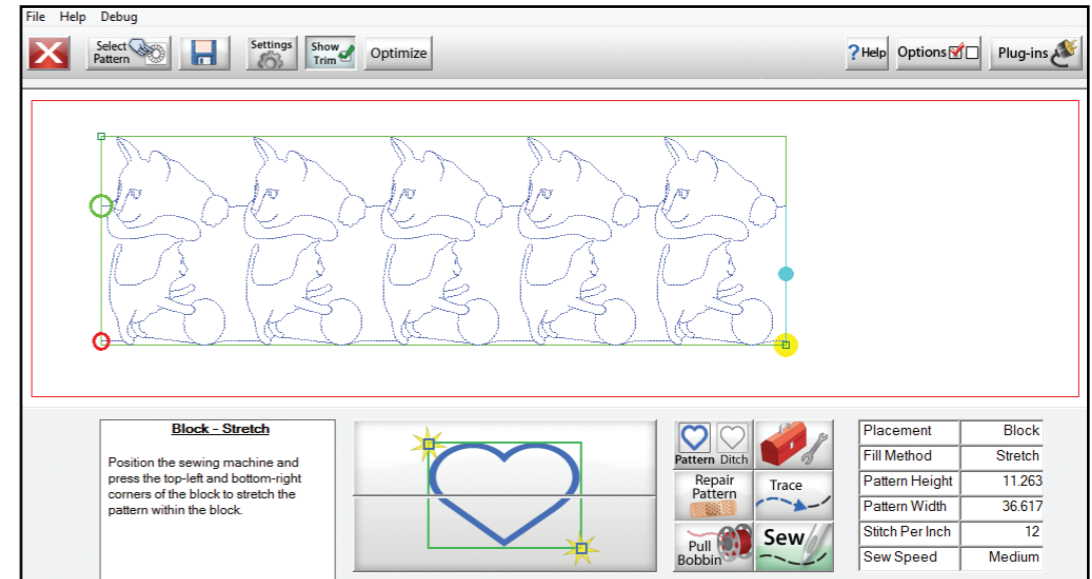
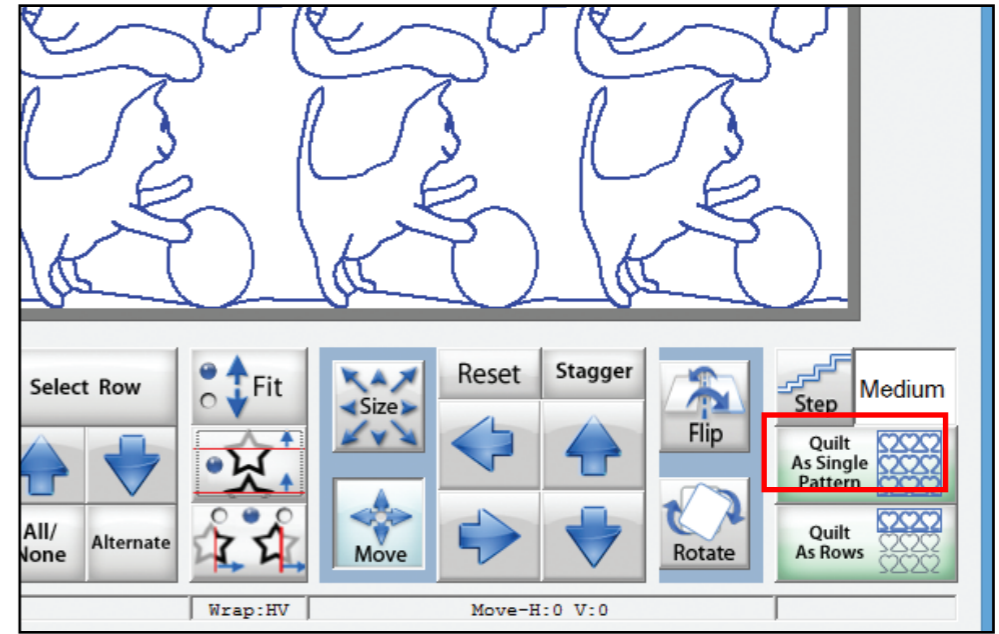


Quilt as Single Pattern

There are two ways you can sew your pantograph, as a single pattern, or one row at a time.

Quilt as a Single Pattern is the same as the Sew button in QuiltCAD. Using this sew option it will take the entire pantograph and move it to the placement screen. When placing your pantograph, it will be like placing a block or selection from QuiltCAD. You can still use all the different placement methods, but that method will be applied to the whole pantograph.

This sewing method is best used for tall single rows, or if you have a machine with a long neck you can do multiple rows at a time. Ultimately it all depends on what you are looking to place in that row on your quilt.



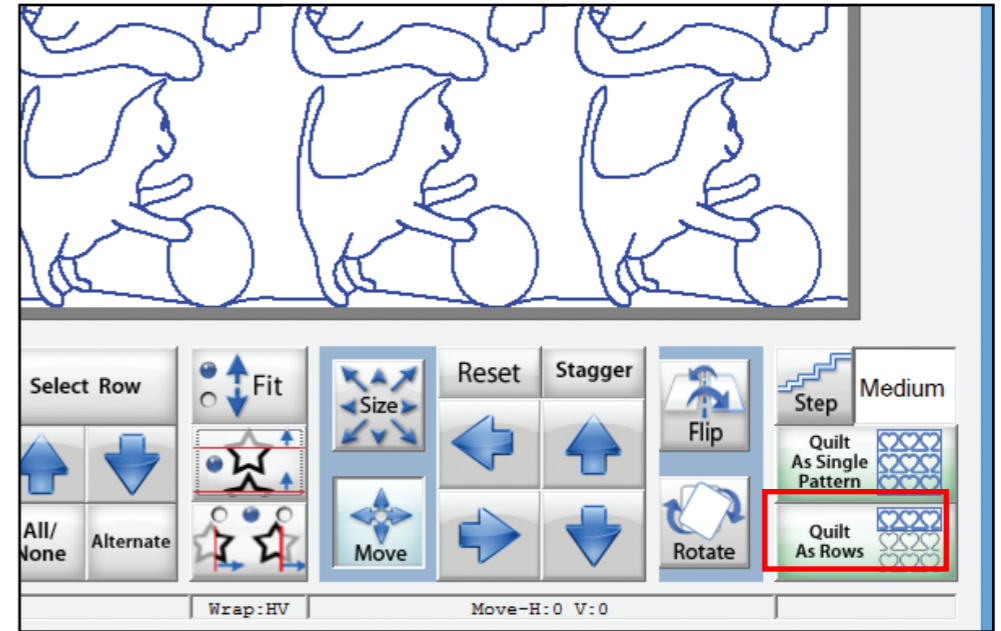
Quilt as Rows

The Quilt as Rows sewing option allows you to sew one row of the pantograph at a time. This way you can plan out your entire quilt in PantoStacker and have it sew one row at a time, allowing you to roll your quilt and sew the next row without going back and creating or selecting the next row of the pantograph.

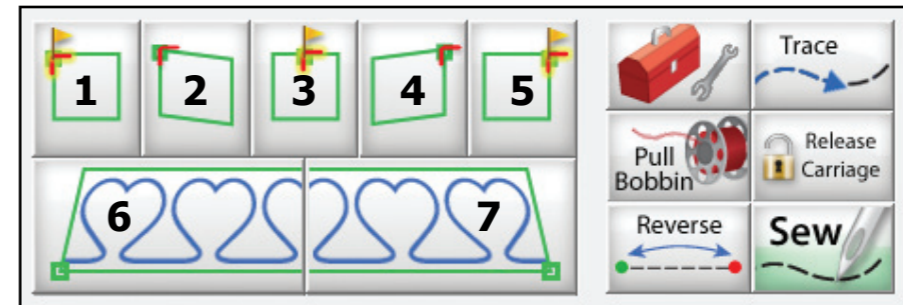
With this sewing method you are only able to place the pattern using the methods shown, you cannot place them using Two Point or Tilted Block for example.

The methods that are available in this mode:

- 1. Top Left Corner** - Uses the Top Left corner of the row as the marker to place the row. This method will not distort or change the size of your row.
- 2. Top Left Corner Distort** - Uses the Top Left corner of the row as the marker to place the row. This method has the ability to distort and change the size of your row.
- 3. Center** - Uses the top Center point of the row as the placement marker. This method will not change the size of your row.
- 4. Top Right Corner Distort** - Uses the Top Right corner of the row as the marker to place the row. This method has the ability to distort and change the size of your row.
- 5. Top Right Corner** - Uses the Top Right corner of the row as the marker to place the row. This method will not distort or change the size of your row.



- 6. Distort Lower Right** - Used to align the bottom right corner of your row.
- 7. Distort Lower left** - Used to align the bottom left corner of your row.



Quilt as Rows continued

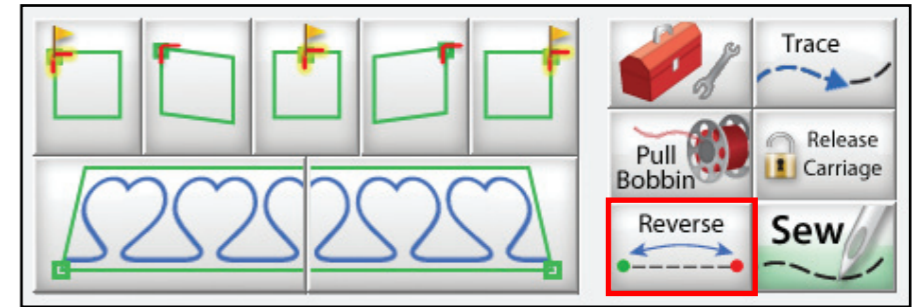
Another feature that is available in this mode if the reverse button. This allows you to quickly change the start and end point of your row, allows you to sew more efficiently.

Here are some examples of the different placement buttons being used.

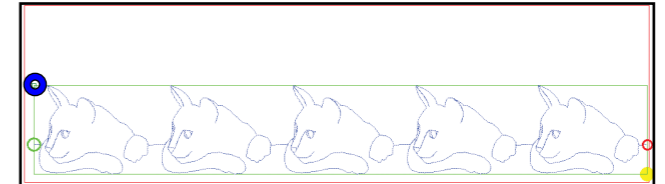
The Distort Top Left and Top Right will change the angle of the pattern, it also have the ability to change the width of the pattern with these buttons.

When you use the Distort placement options, they have the ability to skew, stretch, and shrink the pattern. The opposing corner will stay anchored while the corner option you use will adjust the pattern to that position.

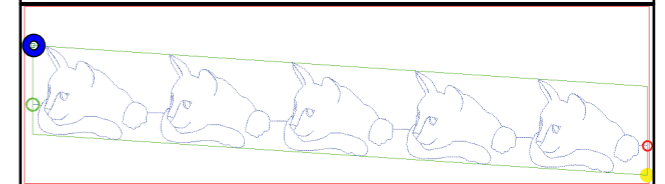
After you place the corner, you can then use the Align Bottom buttons to align the bottom portion of the row.



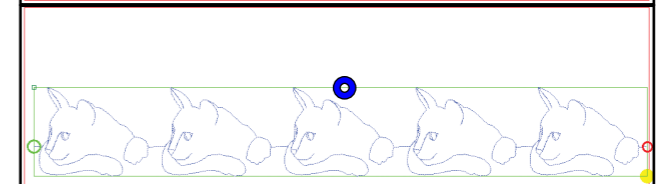
Top Left Corner



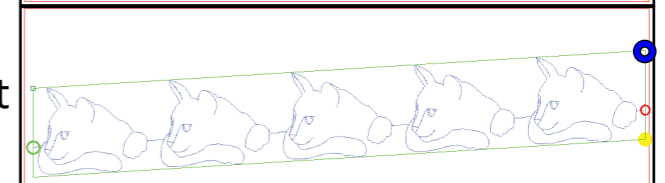
Top Left Corner Distort



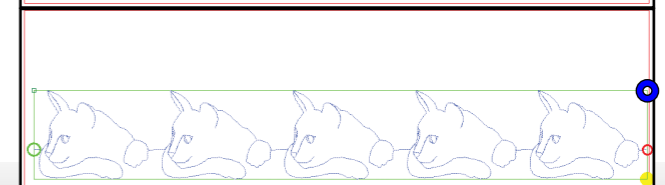
Center



Top Right Corner Distort



Top Right Corner



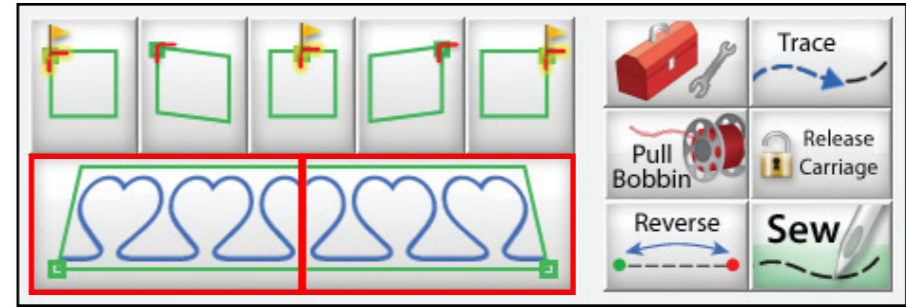
Quilt as Rows continued

The Align Bottom bottoms allow a more accurate placement.

In this example the align feature has been exaggerated to show how much you are able to adjust the pattern.

To create an alignment such as this you would:

1. Place the Top Left Corner.
2. Place the Top Right Corner Distort.
3. Use the Align Bottom Right.
4. Finally Align Bottom Left.



PS Placement

Select the top block corner or pattern start to place the entire block. The lower block corners may be used to adjust for tilt or stretching.


TAP here to view the Pattern Map.

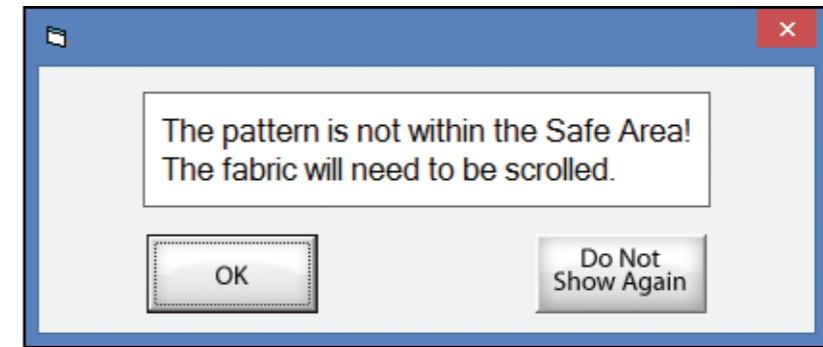
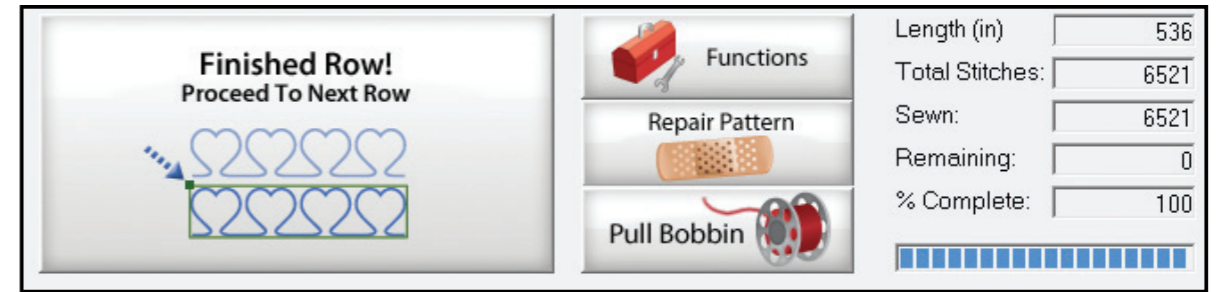
Placement	Block
Fill Method	Stretch
Pattern Height	14.21
Pattern Width	52.684
Stitch Per Inch	12
Sew Speed	Medium

Quilt as Rows continued

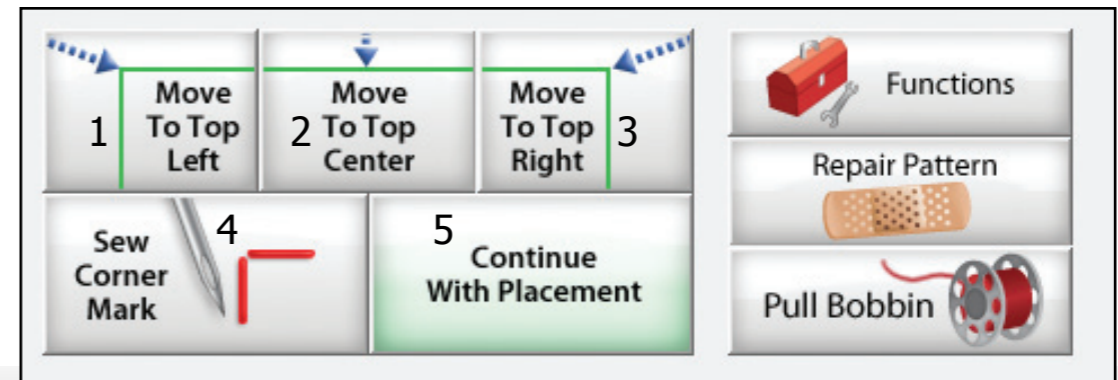
When you finish sewing the first row you will see a message shown here to the right. Once you click the button to proceed, the software will indicate that the next row is outside of the safety area, and you will need to roll your fabric in order to continue.

Once you click OK the next screen you will see is the Sew Marker screen. The marker that is sewn is the top left corner, top center, or top right corner of the block for the next row to be sewn. This will be used as a reference marker when you are place the next row.

- 1. Move to Top Left** - Moves the sewing machine to the Top Left Corner of the next row.
- 2. Move to Top Center** - Moves the sewing machine to the Top Center of the next row.
- 3. Move to top Right** - Moves the sewing machine to the Top Right Corner of the next row.
- 4. Place Marker** - Sews a marker consisting of two stitches. 
- 5. Continue with Placement** - After you sew the mark, tap this, roll the fabric on your frame, and continue to place the next row.



There is an option to "Do Not Show Again", but we recommend that you do not to push this button until you are comfortable with the Sew as Row method.



Quilt as Rows continued

Now that you have tapped the Continue With Placement button you can continue to place the second row.

Use the Marker that was sewn as your alignment point. Make any adjustments to the pattern that may be needed and sew that row.

You can also choose to go back a row, or forward if you have more than two rows.

Tap on the Box that says PS Placement, this will change that screen and show you a menu where you can select different rows.

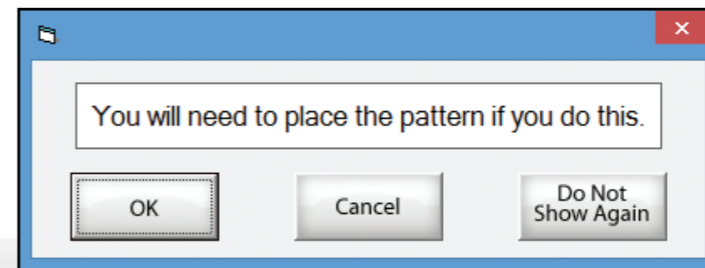
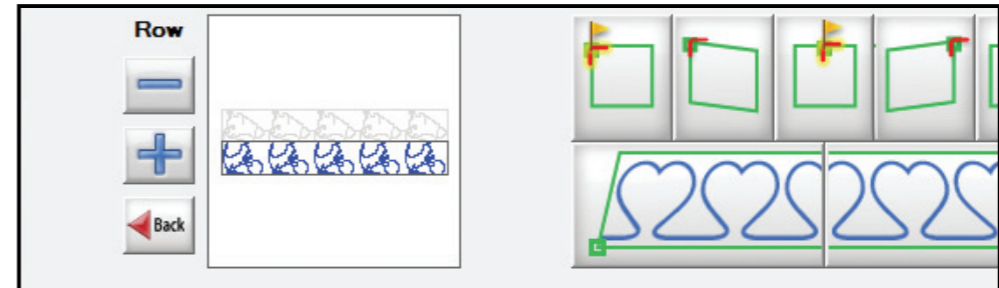
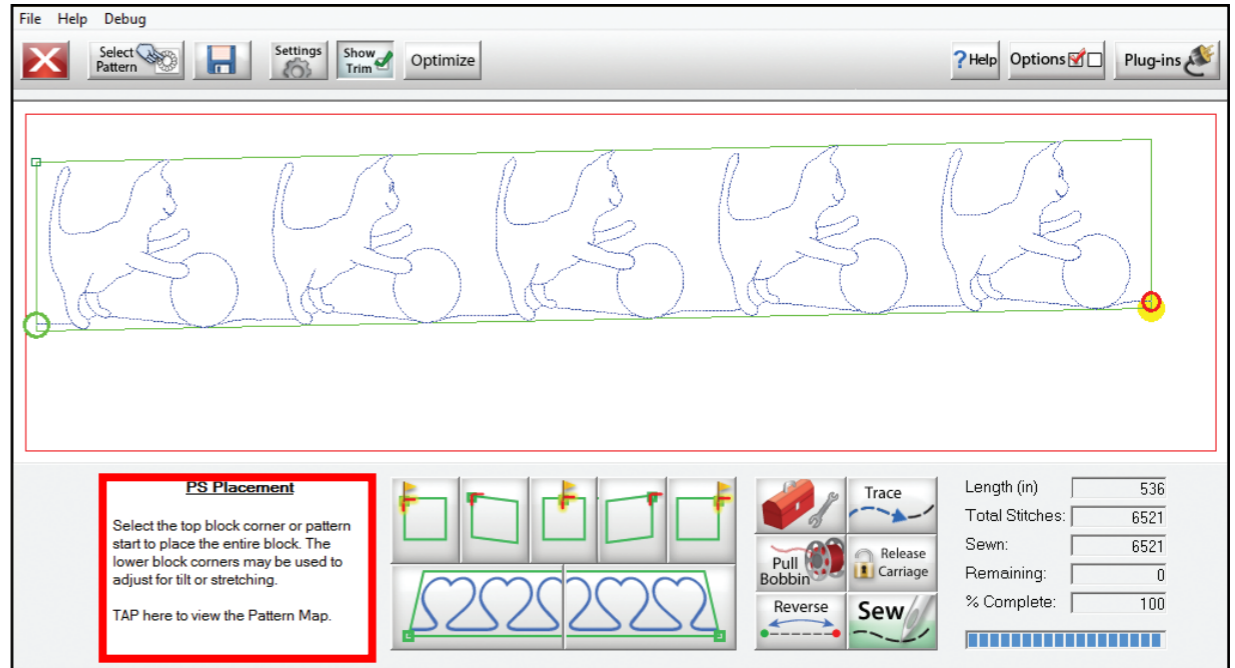
You must use the + and - buttons in order to select a different row. When you push either of these buttons you will receive a message that you must place this row in order to continue.

If you click OK, the screen will display the row you selected.

Cancel will take you back to the row selection screen.

If you are familiar with the row selection process you can choose 'Do not Show Again'.

You can also click Back to return to the regular placement screen.

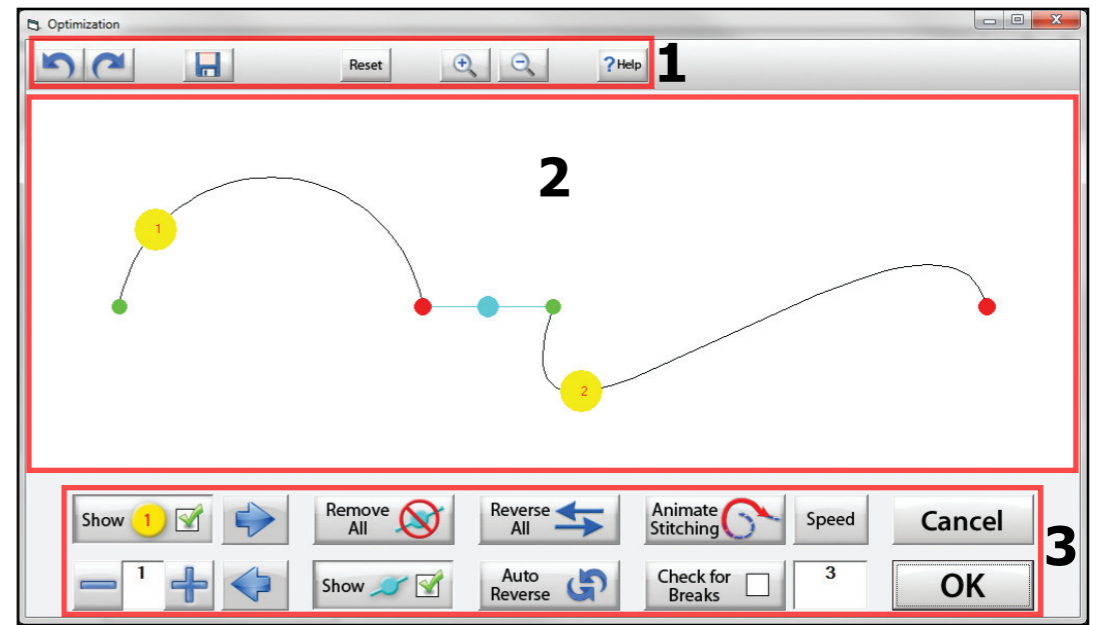


Optimization Screen

When creating a pattern, or pantograph, you want to make one that will quilt as efficiently as possible. By doing so, you will save time and be able to make more quilts! In order to accomplish, this lets go over the tools available in the optimization screen.

We will break down the optimization screen into three areas.

- 1. Quick Tools** — Here you will find Undo, Re-do, Save, Zoom, and Help.
- 2. Pattern Preview Pane** — Here you can set the direction a pattern will sew, which section will sew first. It also display the trim lines.
- 3. Optimization Tools** — These tools allow you to show and hide trim lines and section numbers. You can also reverse the order of an entire pantograph. Lastly, it allows you to see how the pattern will stitch.

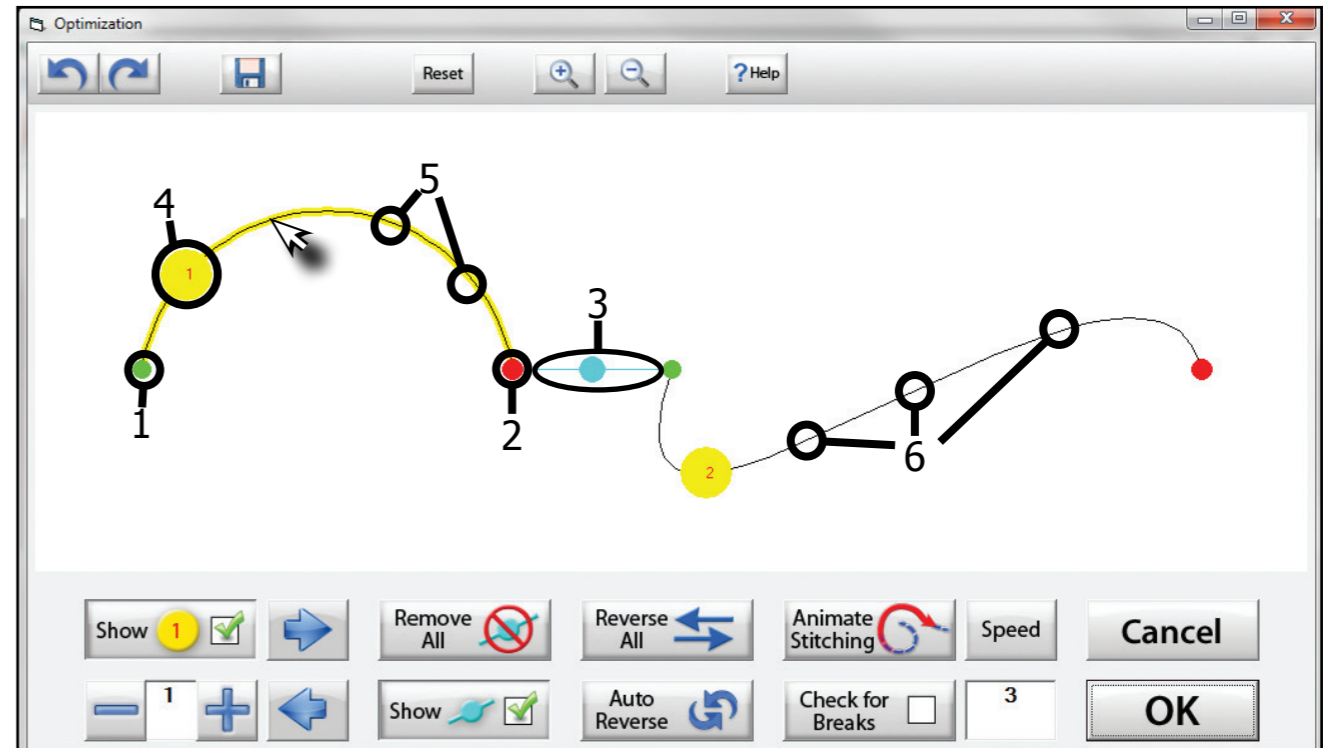


Quick Tools

- | | |
|--|--|
| 1. Undo — Undo last action. | 5. Zoom-in — Zooms in.
Maximum of 3 taps |
| 2. Redo — Reapply last Undo. | 6. Zoom-out — Zooms Out |
| 3. Save — Opens save pattern window. | 7. Help — Opens this help file |
| 4. Reset — Resets pattern to its original state | |

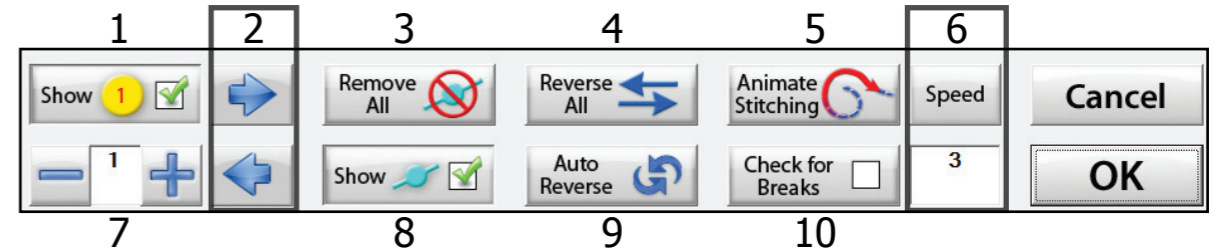
Pattern Preview Pane

- 1. Start Point** — This is where the pattern will begin sewing.
- 2. End Point** — The stopping point of the pattern.
- 3. Trim Line** — A section of thread that will need to be cut, and is not part of the pattern.
- 4. Section Number** — These represent the order that the sections will be sewn in.
- 5. Selected Section** — If you hover your mouse over a segment of a pattern you will see it highlighted in yellow. This will also show you what that section consists of. By tapping once it will swap the start and end points of the section, and you can reverse the order that section will sew.
- 6. Unselected Line** — A normal line that represents the pattern.



Optimization Tools

- 1. Show Section Numbers** — Enables and Disables showing section numbers.
- 2. Move Section Numbers** — Moves the location of the section number on the pattern. It does not change the order of the pattern.
- 3. Remove All Trim Lines** — Removes all trim lines from the pattern and places a line that will be sewn in its spot.
- 4. Reverse All** — Reverse the sewing path of the entire selection.
- 5. Animate Stitching** — Will show the pattern being traced in the order that it will sew on the quilt.
- 6. Animation Speed** — Set the speed of the animated stitching.
- 7. Section Number** — When you set this to a section number, then tap on a section it will change that number to the one you want. This allows you to manually change each section number.
- 8. Show/Hide Trim Lines** — Enables and Disables trim lines from being shown.
- 9. Auto Reverse** — Will optimize the pattern automatically, in the reverse direction it started at.
- 10. Check for Breaks** — when enabled you will be prompted to remove trim lines during animated stitching.



Tap **OK** to accept your changes, or **Cancel** to discard them.

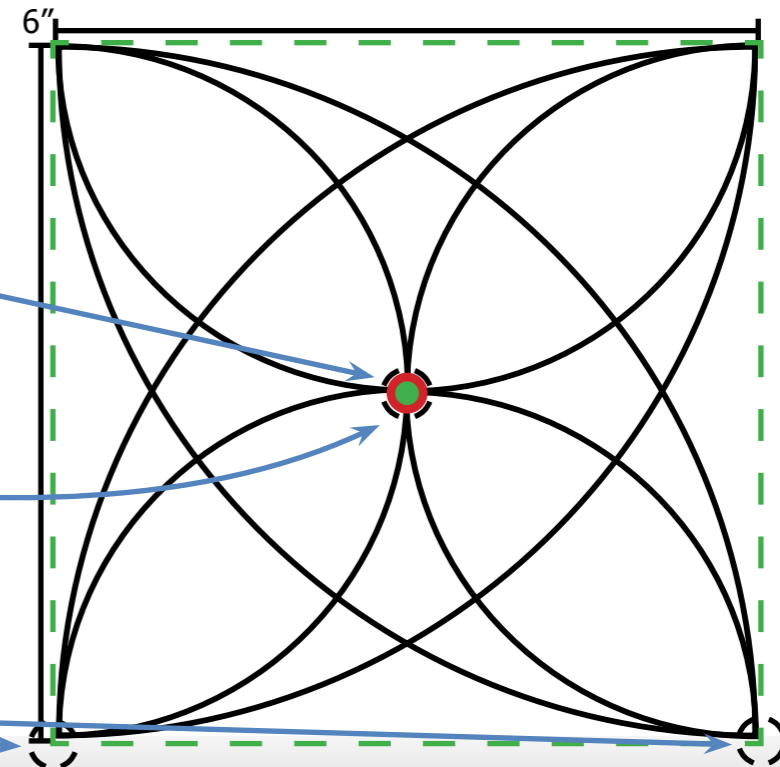
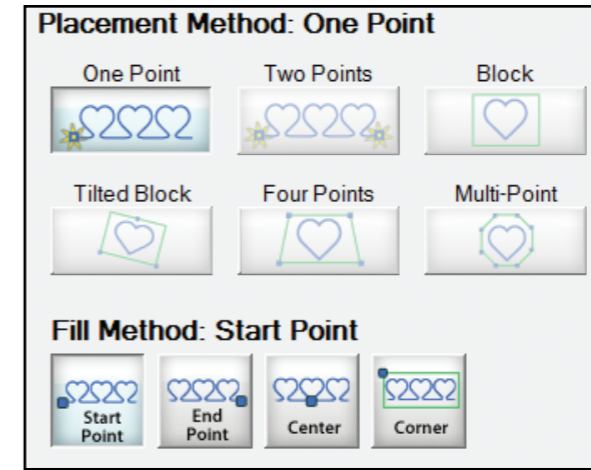
Placement Methods

There are 6 Placement methods, and varying Fill Methods for each. We will cover each with examples.

One Point

This method is used by defining one point on the quilt for the pattern to be placed. The scale of the pattern is defined within QuiltCAD for this option and will not change regardless of the fill method.

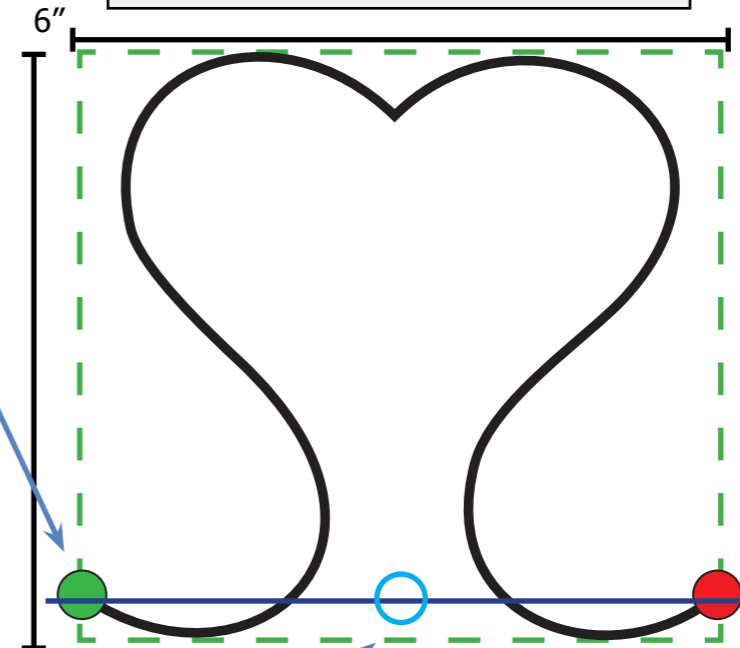
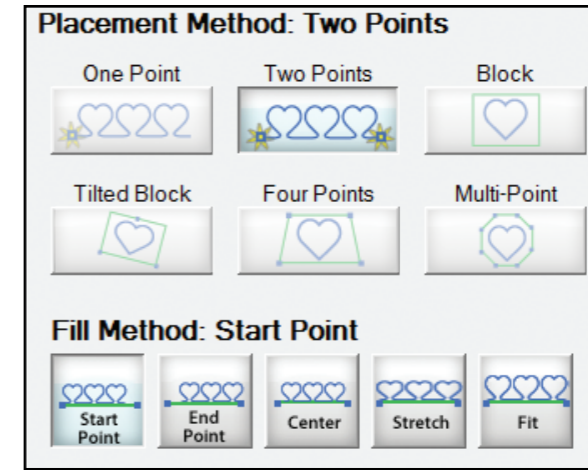
- **Start Point** — The pattern will be placed using the starting point of the pattern.
- **End Point** — The pattern will be placed using the end point of the pattern.
- **Center** — The pattern will be placed using the center of the pattern.
- **Block Corner** — The pattern will be placed by selecting any specified corner of the block the pattern is in.



Two Point

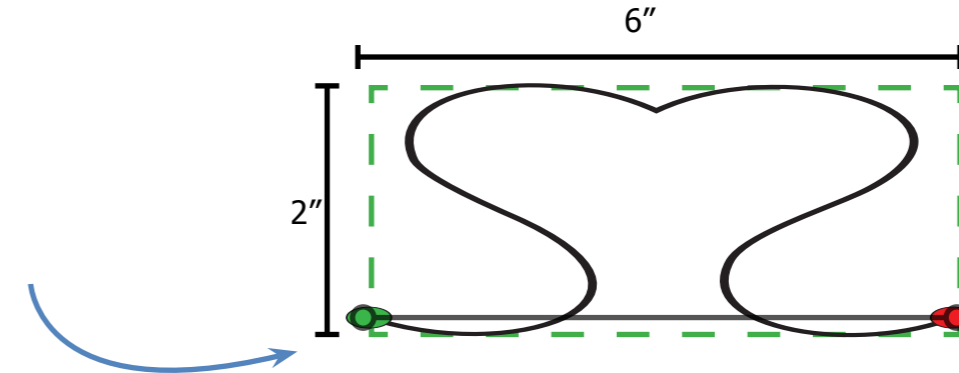
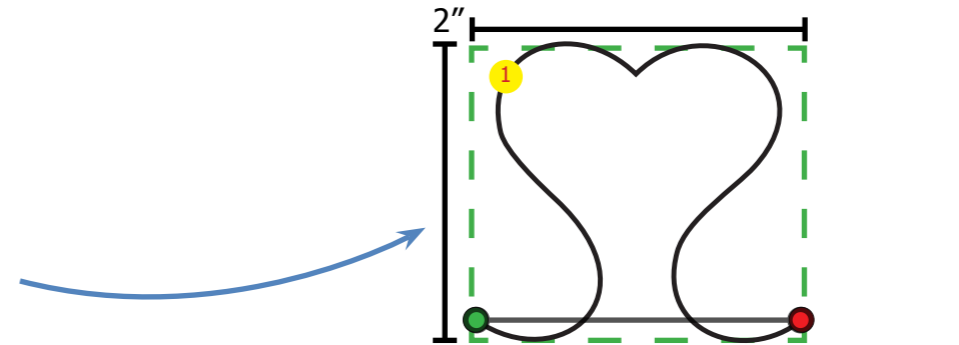
This method is used by defining two points on the quilt for the pattern to be placed. The scale of the pattern can be changed within QuiltMotion using this placement method.

- **Start Point** — The pattern will be placed using the start point of the pattern; the scale of the pattern will be retained from QuiltCAD regardless of the distance between the 2 points you select.
- **Center** — The pattern will be placed using the center of the 2 points defined; the scale of the pattern will be retained from QuiltCAD regardless of the distance between the 2 points you select.
- **End Point** — The pattern will be placed using the start point of the pattern; the scale of the pattern will be retained from QuiltCAD regardless of the distance between the 2 points you select.

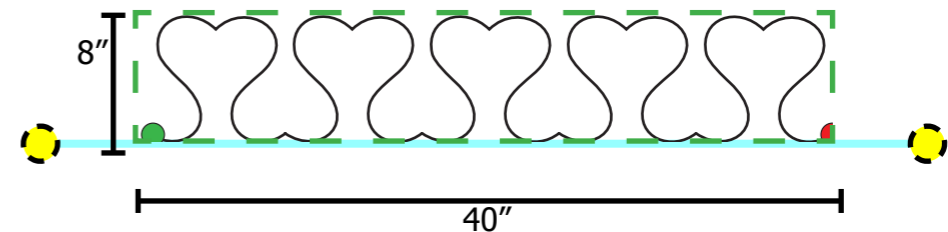


Two Point Continued

- **Fit** – The pattern will be placed between the two points you define, the points used will be the start and end point of the pattern. The size of the pattern will increase or decrease depending on the distance between the two points. The pattern will retain its aspect ratio, meaning the height and width will remain even.
- **Stretch** – The pattern will be placed between the two points you define, the points used will be the start and end point of the pattern. The size of the pattern will increase or decrease depending on the distance between the two points. The pattern will not retain its aspect ratio, meaning the height and width will change.



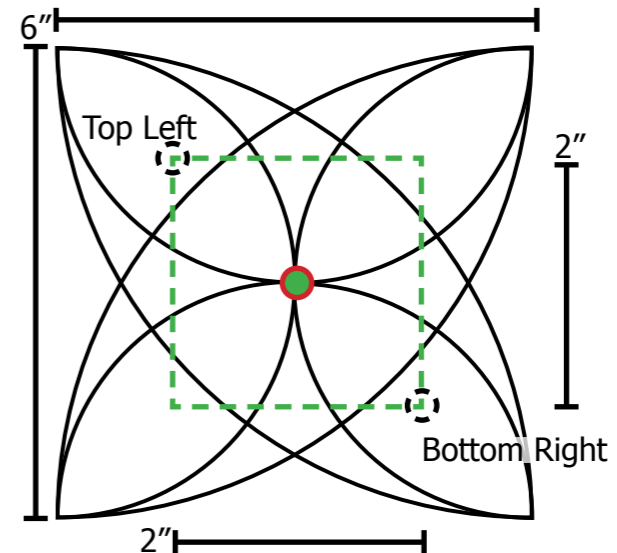
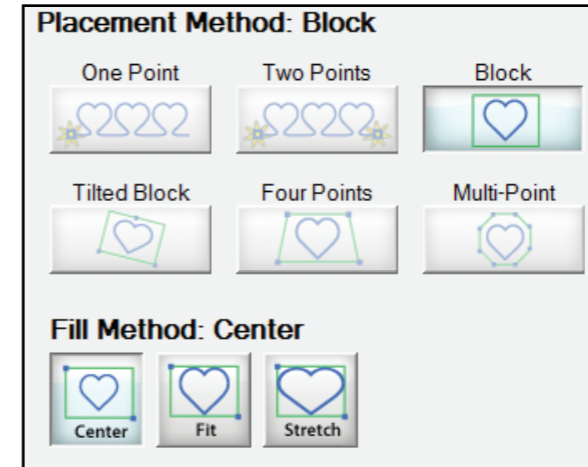
Here is an example of this Placement Method with a pantograph using the Two Point, Center Method.



Block

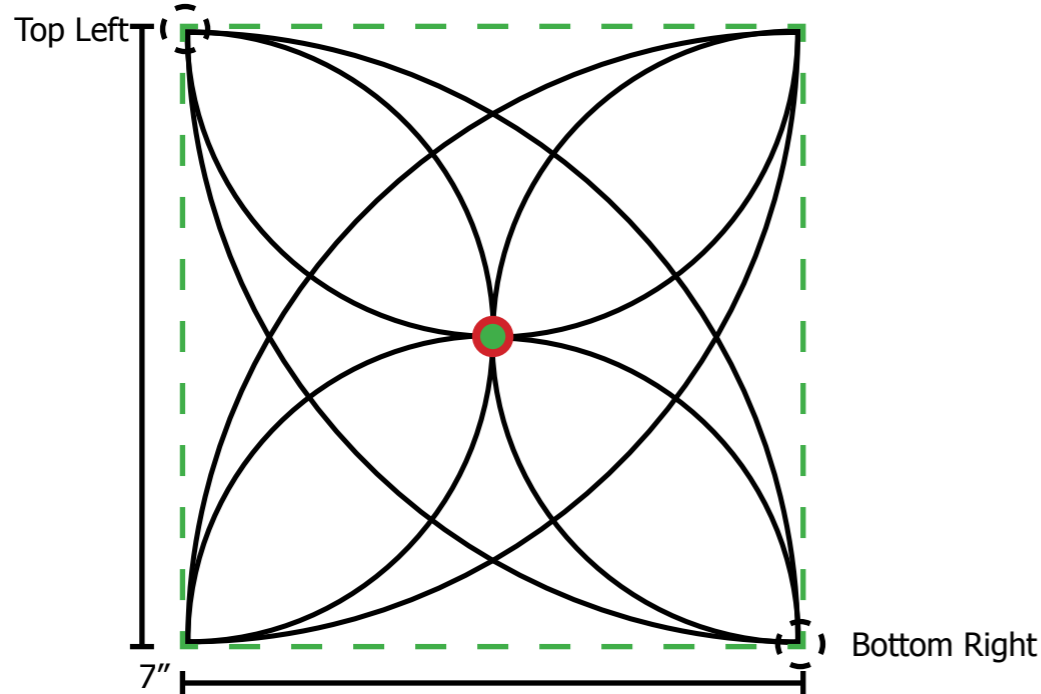
This method is used by defining two points on the quilt for the pattern to be placed. This option is similar to the Two Point placement method as you will define two points to place the pattern, but unlike the previous method you will be creating a block by choosing the upper left then lower right of the box containing the pattern much like defining a safety area. This method allows you to change the size and scale of the pattern. For this method we will go back to using the Fill1.gpf.

- **Center** – The pattern will be placed in the center of the block that has been defined by selecting the upper left and lower right. The scale of the pattern will be retained from QuiltCAD regardless of how big or small the block size is set.

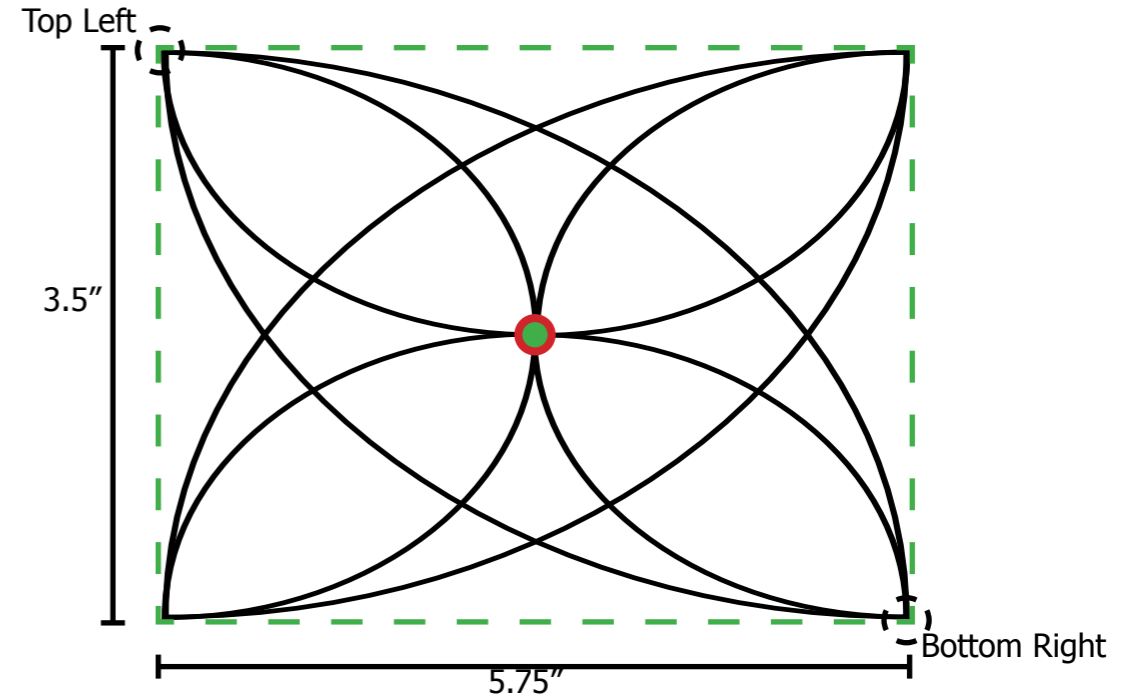


Block Continued

- **Fit** – The pattern will be placed to fit within the block that has been defined by selecting the upper left and lower right; the scale of the pattern will change to the size of the block created. With this method the aspect ratio of the pattern will be retained.



- **Stretch** — The pattern will be placed and stretched to fit the block that has been defined by selecting the upper left, lower right; the scale of the pattern will change to the size of the box created. Using this method the pattern will be stretched in height and/or width to expand to the shape of the block.



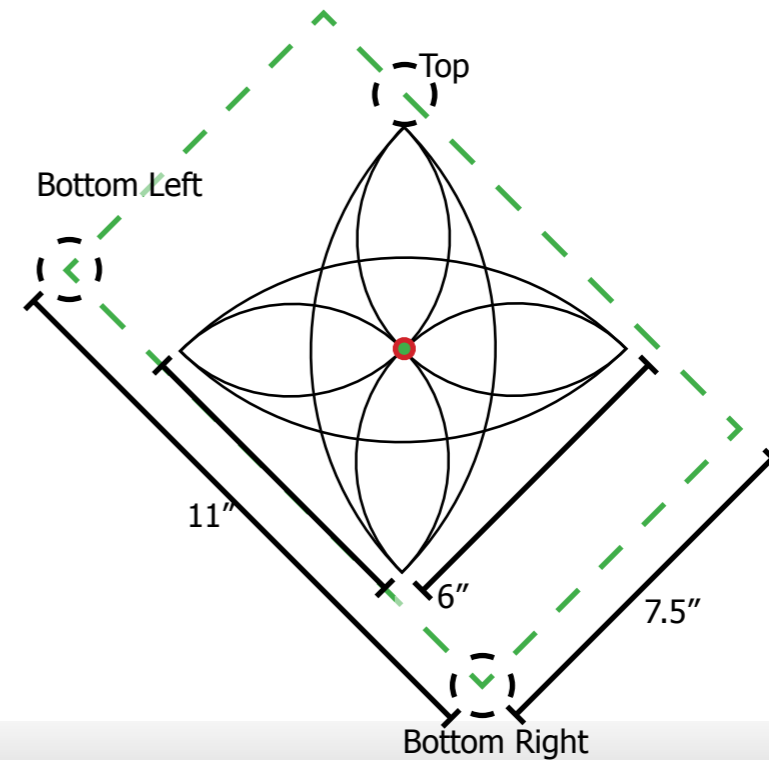
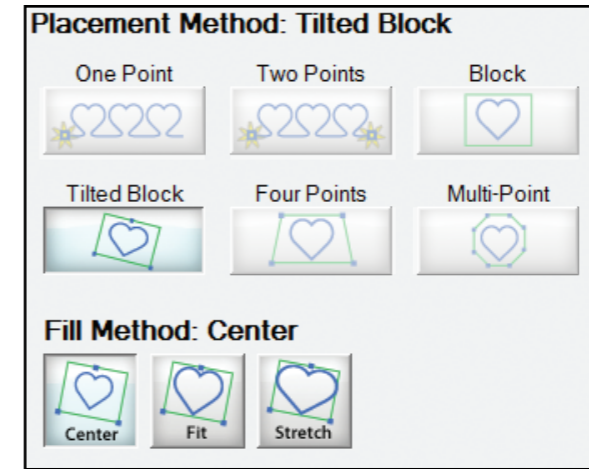
Tilted Block

Or more commonly known as 'On Point'.

This method is used by defining three points on the quilt for the pattern to be placed. This option is unique; to create a tilted block you will specify the lower left corner of the block, then the lower right corner, then the top of the block. These points will create an exact square but on a tilt, the two bottom points reflect the tilt of the box while the top point will reflect the height of the box.

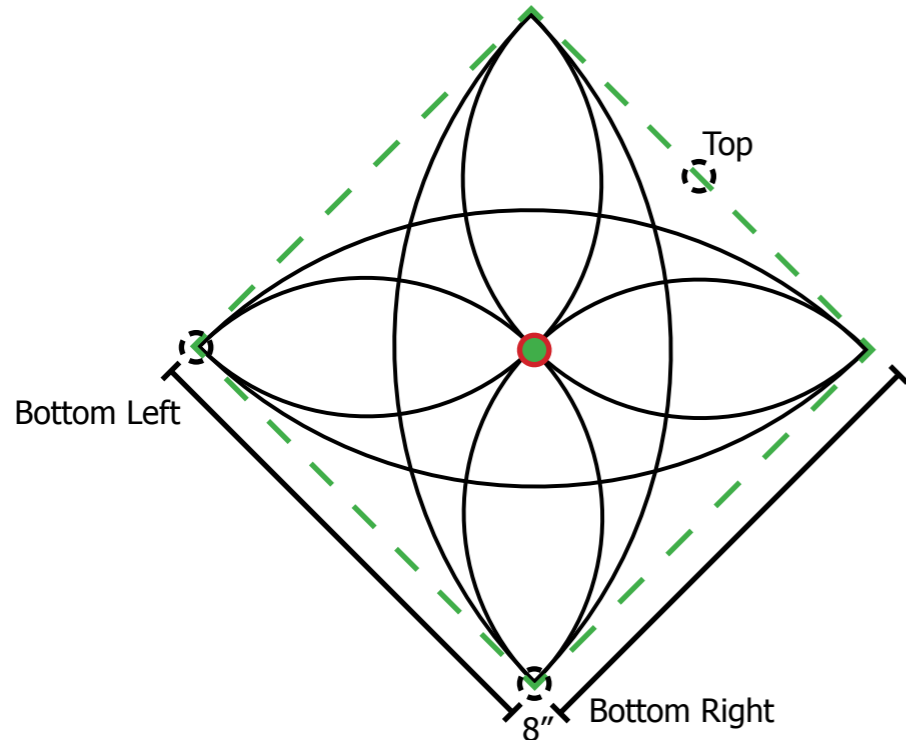
We will continue to use the Fill1.gpf pattern as an example.

- **Center** — The pattern will be placed in the center of the block that has been defined by selecting the lower left and lower right. The scale of the pattern will be retained from QuiltCAD regardless of how big or small the block size is set.

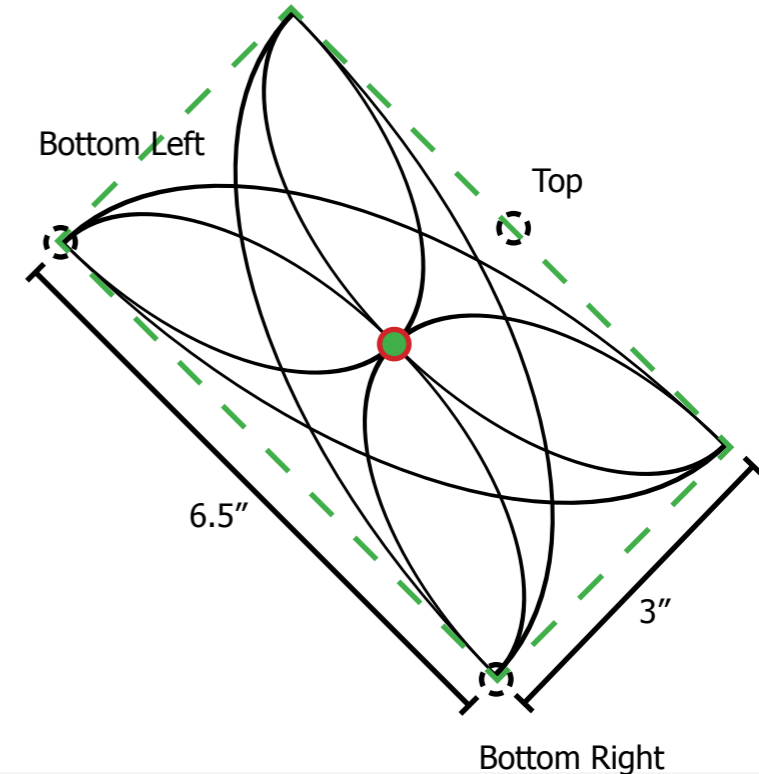


Tilted Block Continued

- **Fit** — The pattern will be placed to fit within the block that has been defined by selecting the lower left and lower right; the scale of the pattern will change to the size of the block created. With this method the aspect ratio of the pattern will be retained.



- **Stretch** — The pattern will be placed and stretched to fit the block that has been defined. The scale of the pattern will change to the size of the box created. Using this method the pattern will be stretched in height and/or width to expand to the shape of the block.

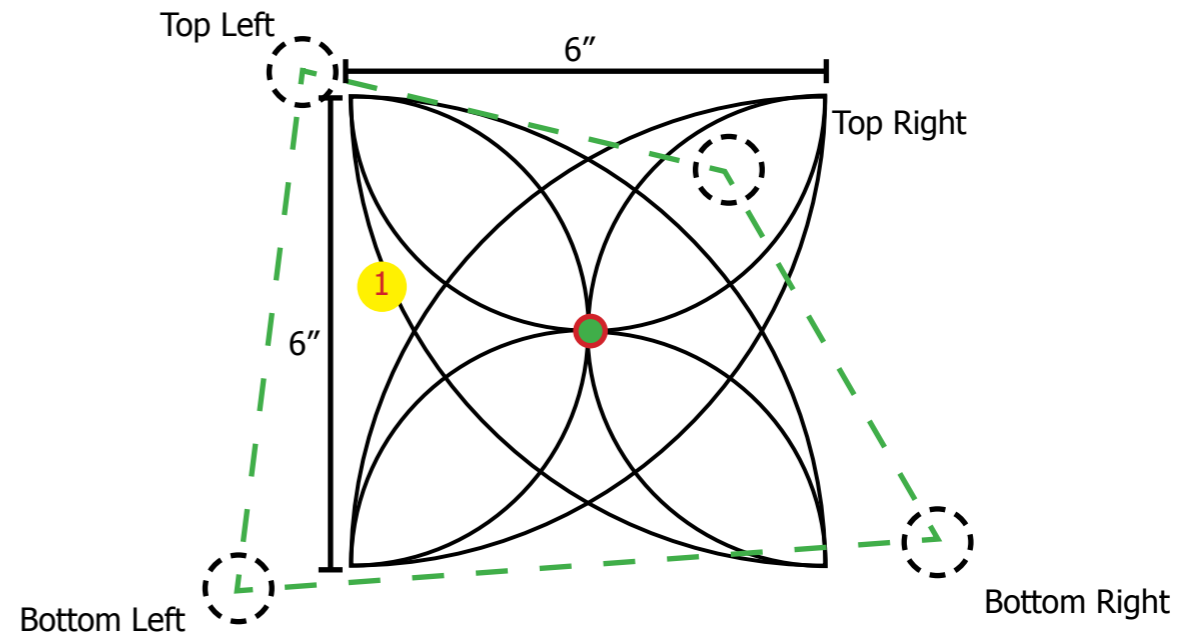
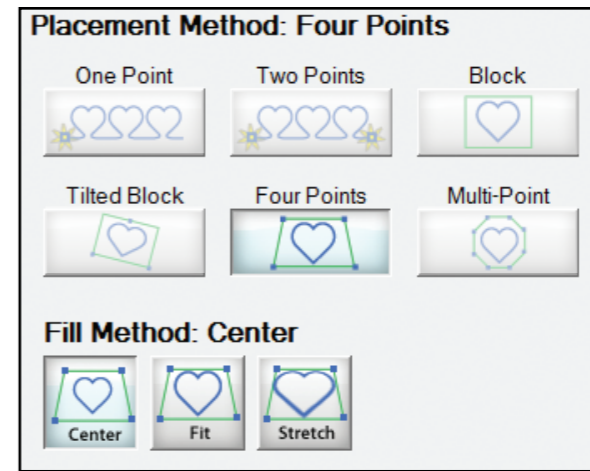


Four Points

This method is used by defining 4 points on the quilt for the pattern to be placed. This method gives you the ability to skew the pattern and stretch the pattern beyond any other placement method; to create the block you will define 4 points, upper left, lower left, upper right, and lower right.

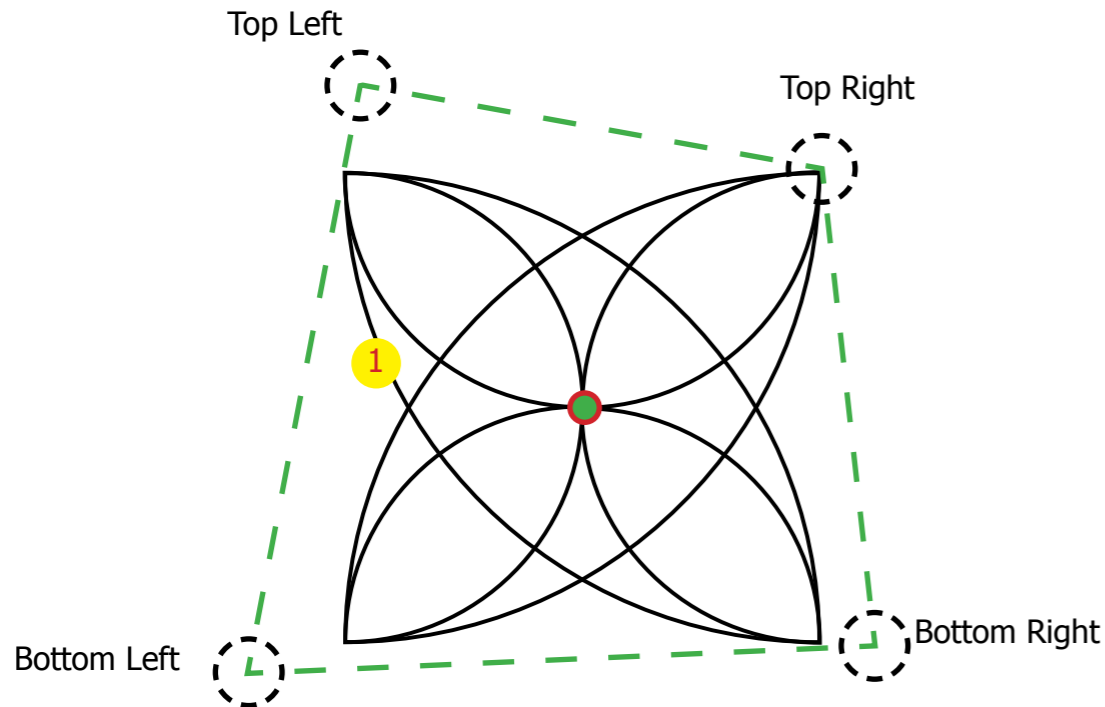
We will continue to use the Fill1.gpf pattern.

- **Center** — The pattern will be placed in the center of the four points that have been defined by selecting the upper left, lower left, upper right, and lower right; the scale of the pattern will be retained from QuiltCAD.

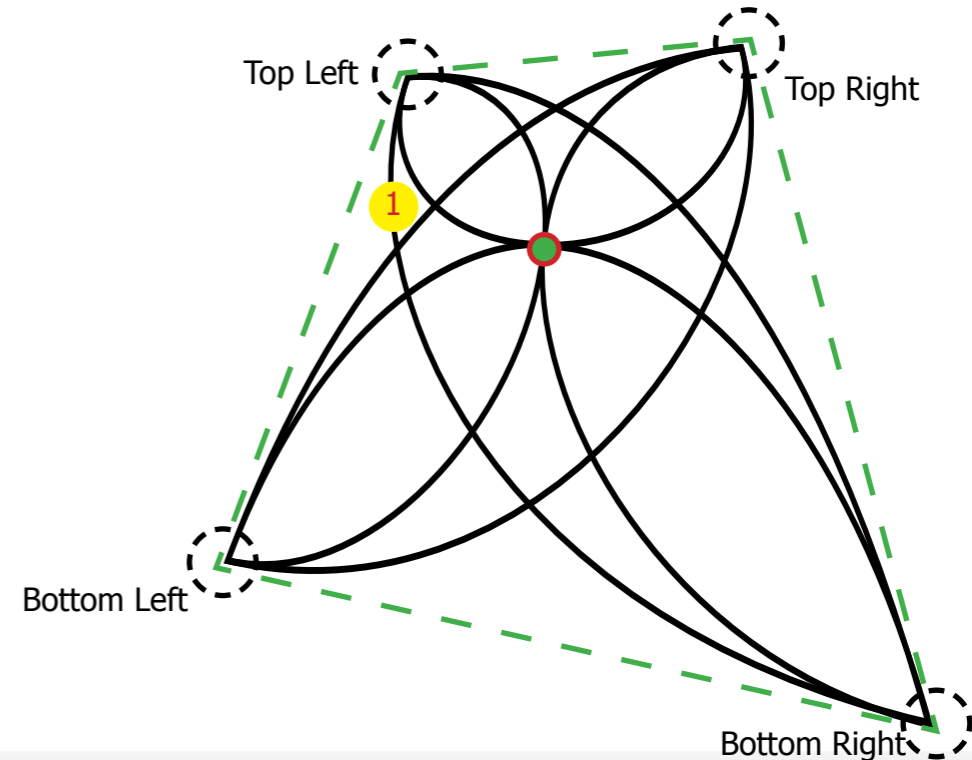


Four Points Continued

- **Fit** – The pattern will be placed to fit within the four points that have been defined by selecting the upper left, lower left, upper right, and lower right; the scale of the pattern will change to the size of the four points created. With this method the aspect ratio of the pattern will be retained.



- **Stretch** — The pattern will be placed and stretched to fit the four points that have been defined by selecting the upper left, lower left, upper right, and lower right; the scale of the pattern will change to the size of the box created. Using this method the pattern will be stretched and skewed in height and/or width to expand to the shape of the four points that have been defined.



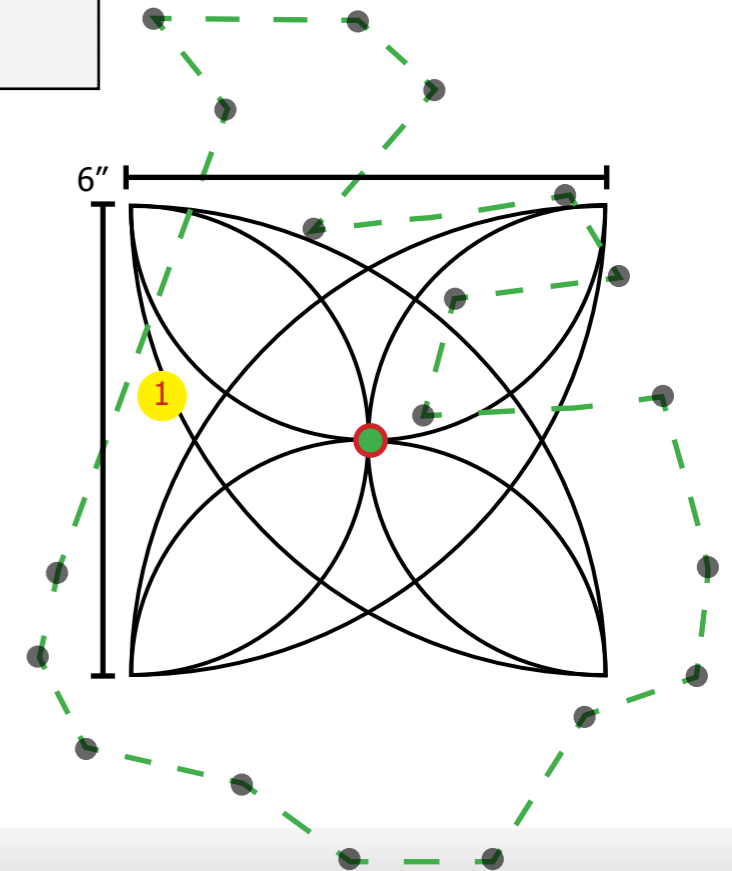
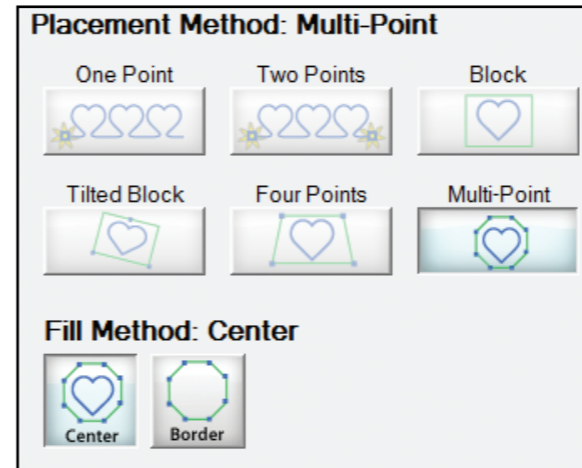
Multi-Point

This method is used by defining one or more points on the quilt for the pattern to be placed. This method only has two fill methods, Center and Border. This Placement method is unique as it can be used as a One Point, Two Point, Four Point and beyond.

The Border Fill Method will not place a pattern, it will only sew a line for the points you define.

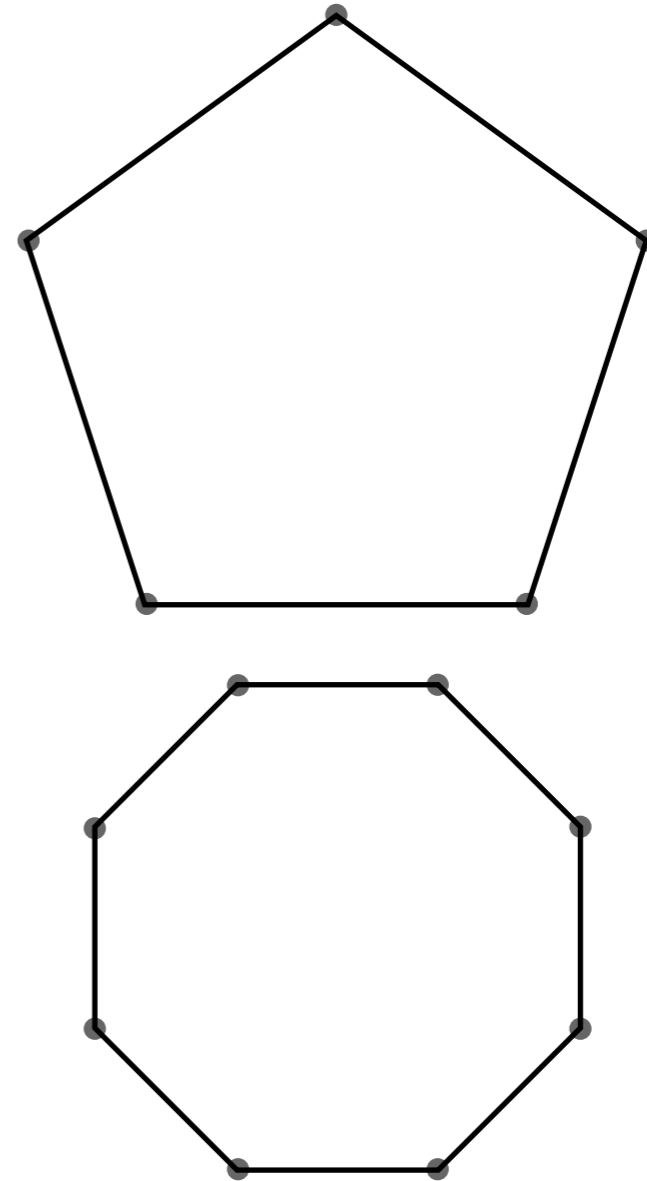
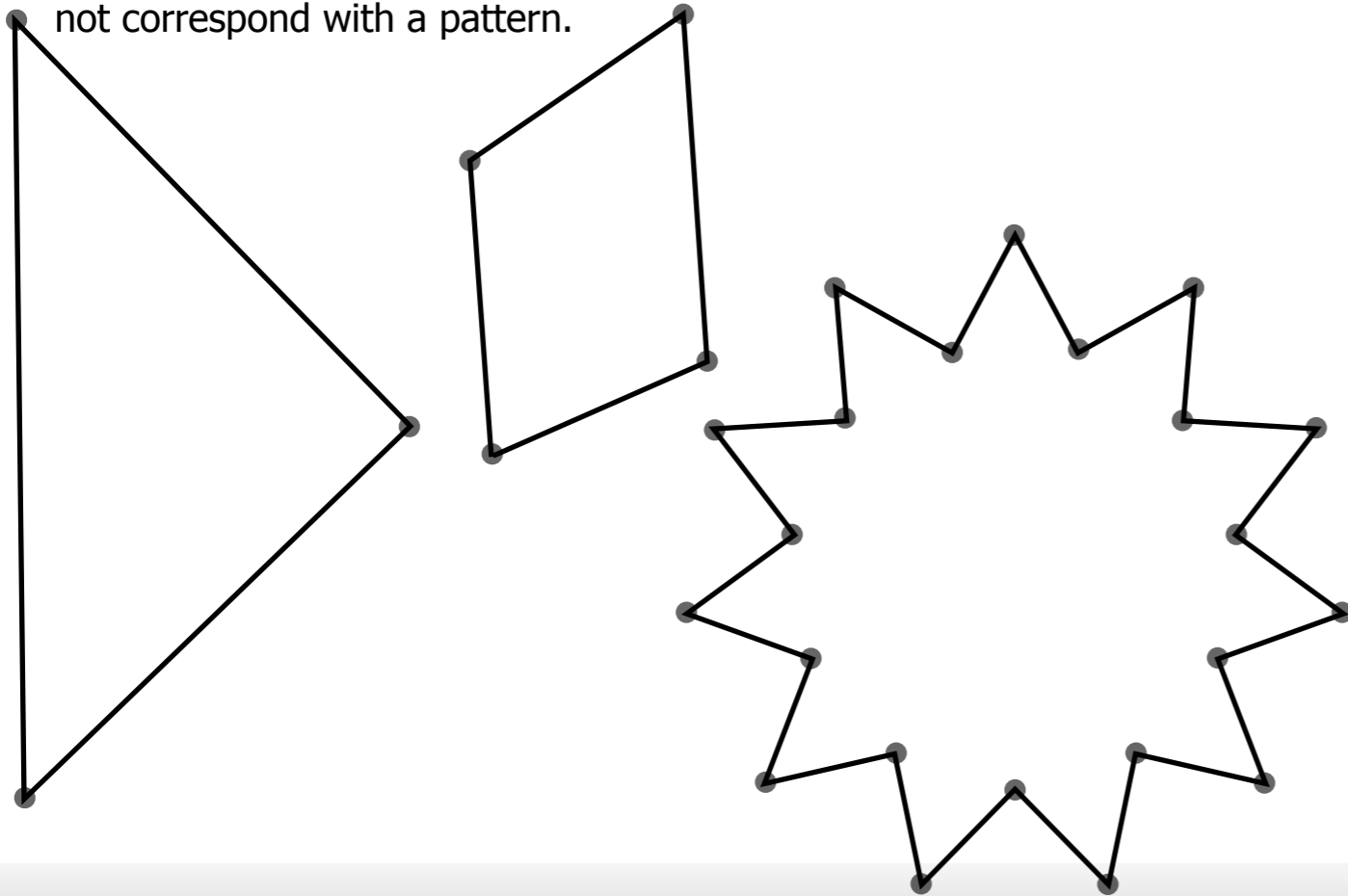
- **Center** – The pattern will be placed in the center of the points that you define. The size of the pattern will be kept from QuiltCAD. The current limit as to how many points can be created is set to 1 - 1,000.

In this example I created 19 points. You will use the "Select" option to choose a location for a point. Once you have specified all of the points, tap "Close and Sew".



Multi-Point Continued

- **Border** — This fill method will sew that the line that you create by selecting the points on the quilt. No pattern will be placed. This fill method is used for creating borders or sewing in a ditch that does not correspond with a pattern.



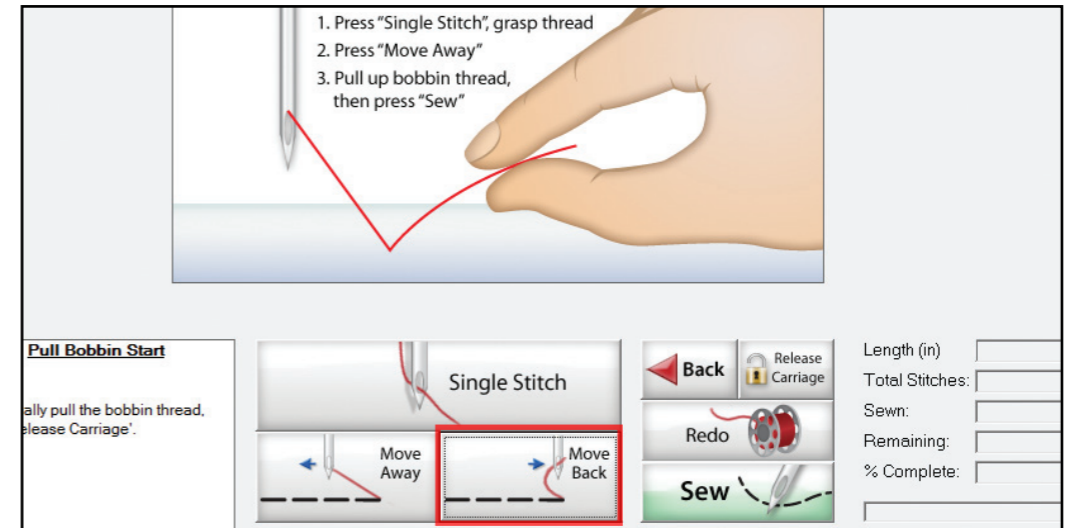
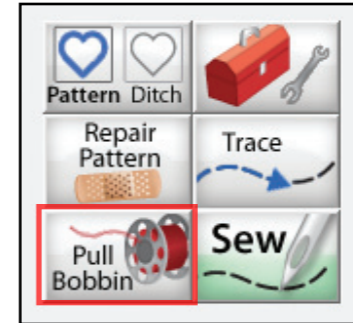
Automated Bobbin Pull Feature

Another new and awesome feature of the Quilt Path Software is the Automated Bobbin Pull Feature. When enabled QuiltMotion will assist you in pulling up the bobbin thread. Normally you would have to tap a button each time you wanted to proceed.

To Enable the assisted bobbin pull open the Settings Menu and make sure the Assist Bobbin pull is checked.

1. With this feature enabled just tap the pull bobbin feature, QuiltMotion will move to the start point of the pattern/pantograph and the machine will do one stitch, then move to the side.
2. You can then grab the bobbin and pull it through.
3. Now tap "Move back" and the machine will move back to its starting location.
4. Press Sew, and the pattern/pantograph will sew.

This feature can save you a lot of time by not having to tap each step.



Repair a pattern

Threads will break. Bobbins will run out, but luckily we have created a way to easily recoup from these situations.

The Repair feature allows you to continue sewing from the last break without having to replace the pattern.

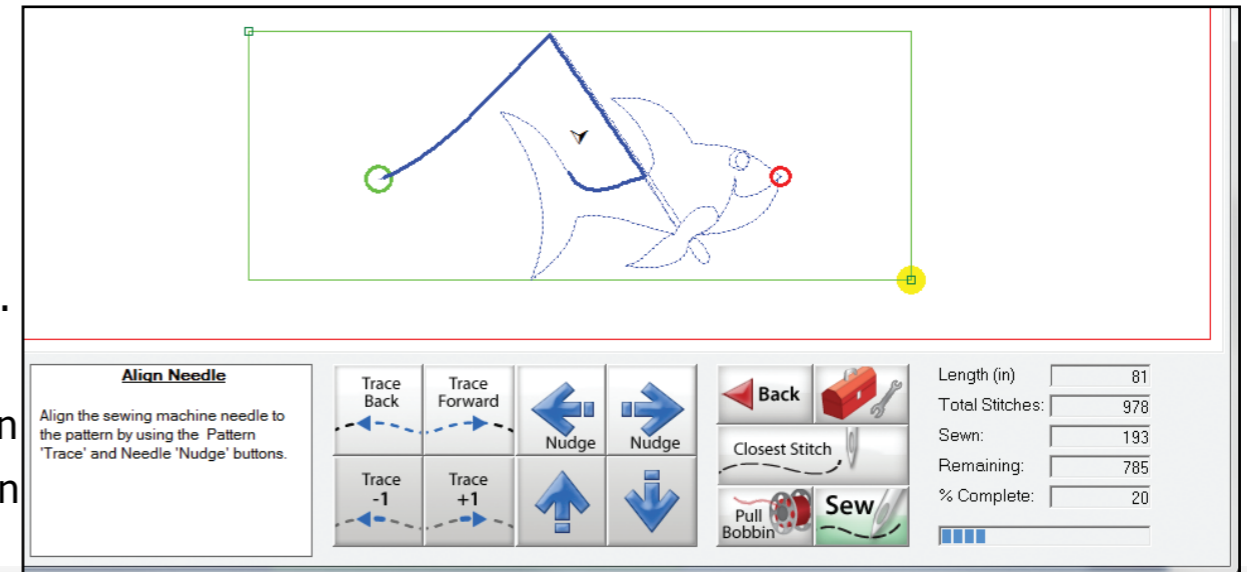
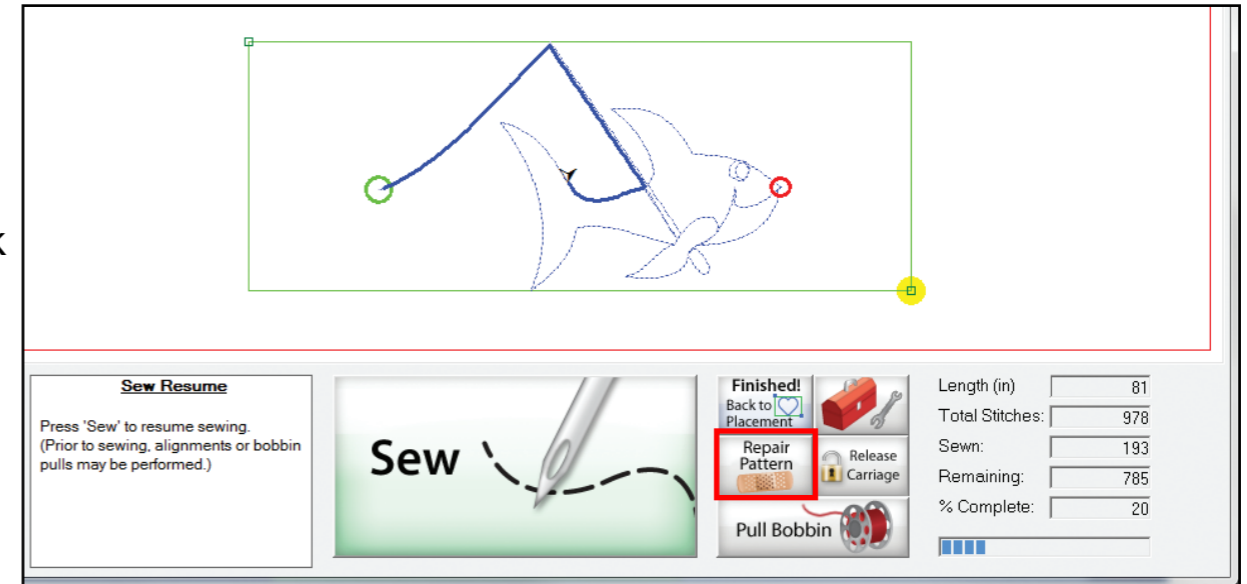
There are a couple ways you can fix the pattern; by tracing it to the break, or by using the closest stitch feature.

When you stop the software or if it is notified of an error while sewing you will see the screen that allows you to continue sewing, go back, access the tools menu, align, release the carriage and pull bobbin. To repair the pattern you need to select Align, not Back.

If you choose the back option the pattern placement will be set back to the original starting point, and any information as to where the last area of the pattern was sewn will be lost.

Once this is clicked you will now see the menu to repair your pattern.

Please note, if you need to replace a bobbin and the carriage is not in a convenient place, you can use the Release Carriage option and then the Align to continue where you left off.

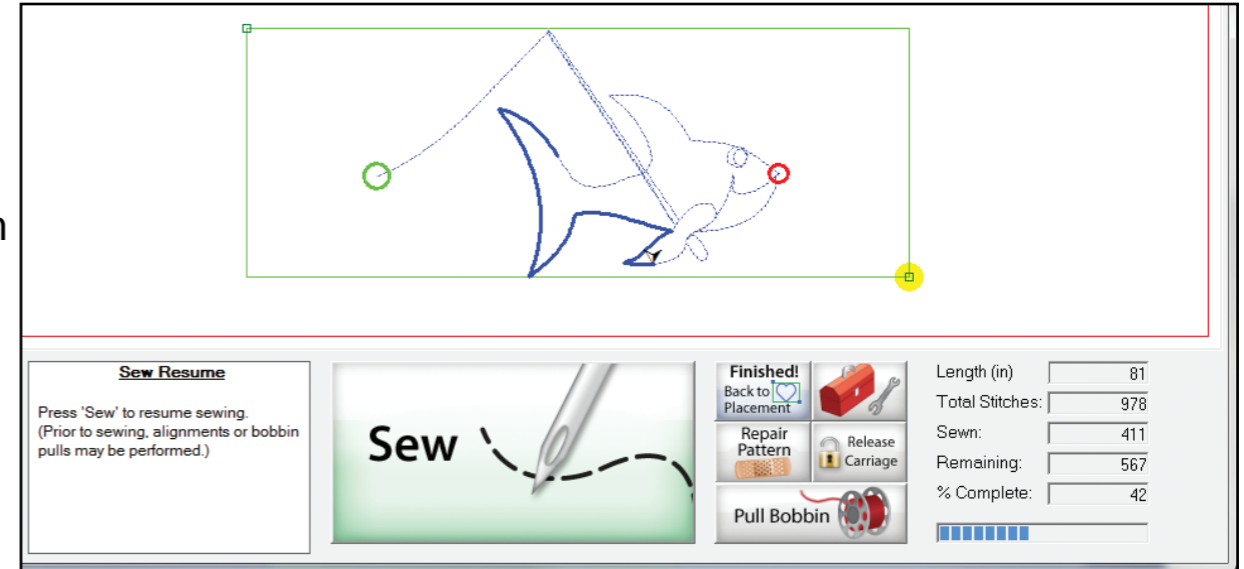
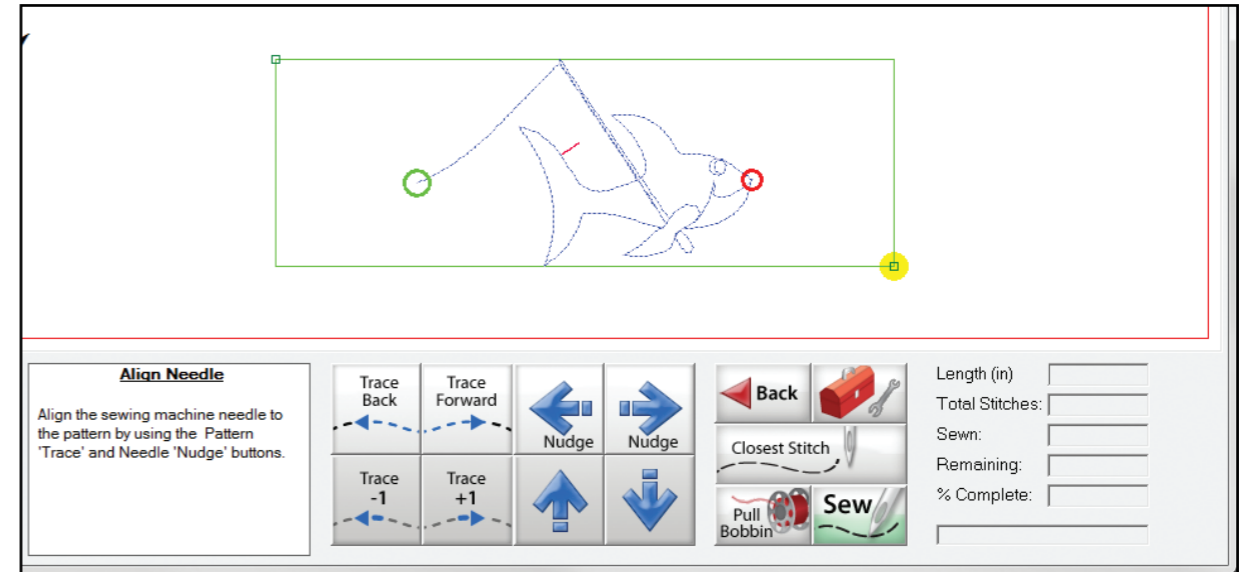


Repair a pattern Continued

Closest Stitch

1. Move the Needle of the machine to the closest spot where the break occurred.
2. Click Closest Stitch. The machine will move to the closest stitch it is next to.
3. Click Trace Back or Trace Forward to make sure you are on the correct path.
4. Use the Trace -1 or +1 to set the new starting point.
5. Pull the Bobbin.
6. Click Sew. The system will continue sewing from this point.

If the pattern is not exactly aligned with what is being traced you can use the Nudge arrows in the direction you need to adjust the needle of the machine. Nudging moves QuiltMotion the distance of a stitch, this causes the entire pattern to shift allowing it to be laid on top of what currently exists.

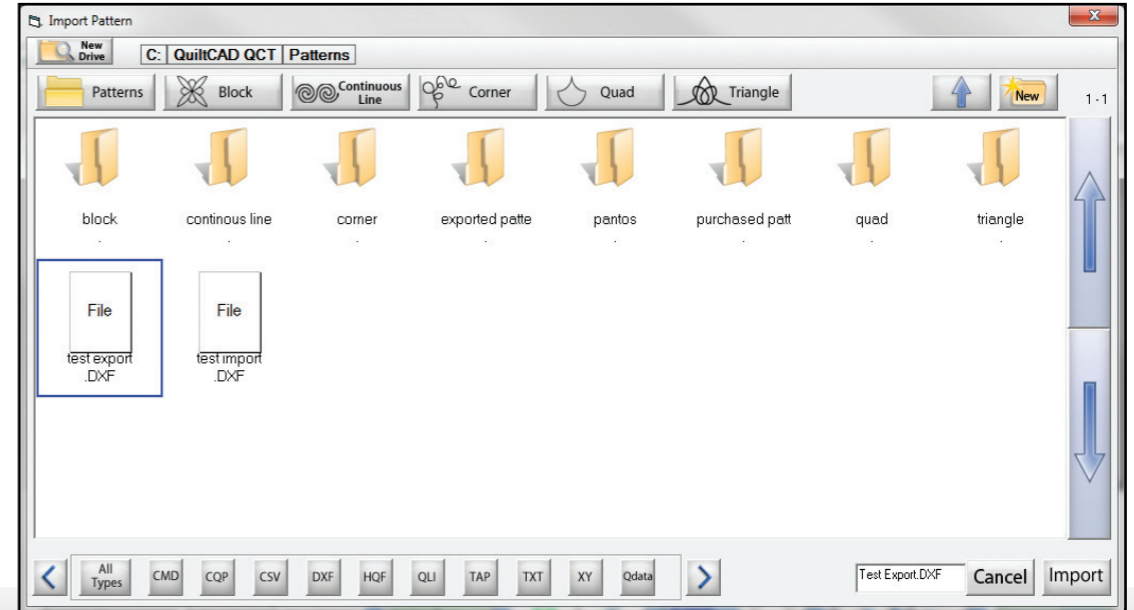
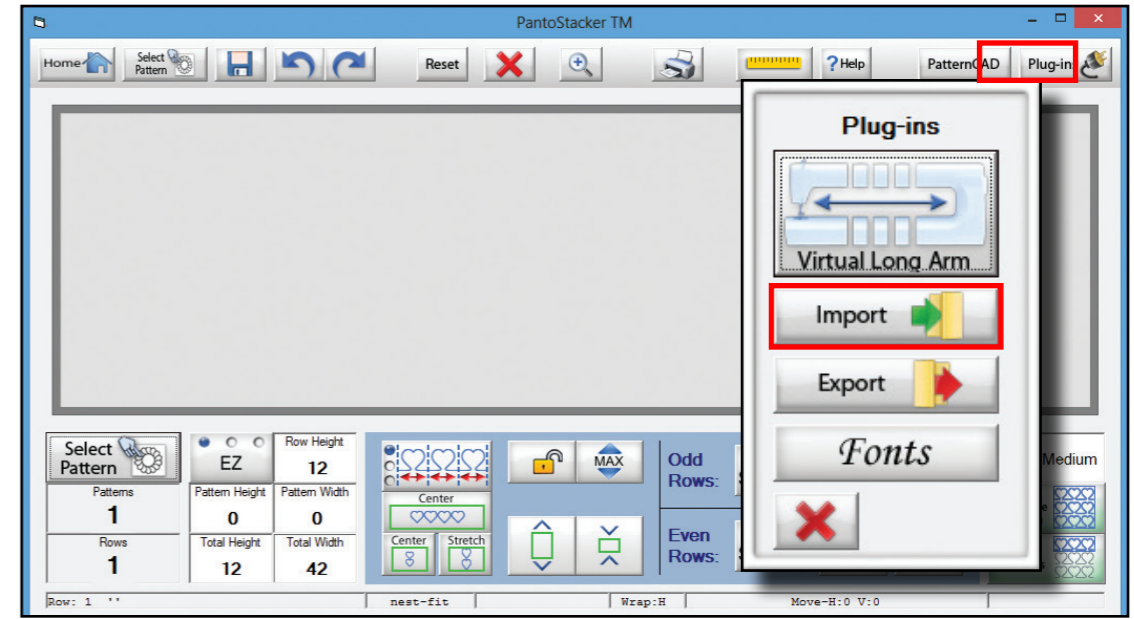


Plug-ins: Import

The import feature allows you to import the following pattern file types; .CMD, .CSV, .DXF, .HQF, .QLI, .TAP, .TXT, .XY, .4DQ, and .QDATA. Once imported they can be saved as a .GPF file and used in the QCT software, or converted into another extension using the [Export](#) feature.

The Plug-in button can be accessed within any section of the software.

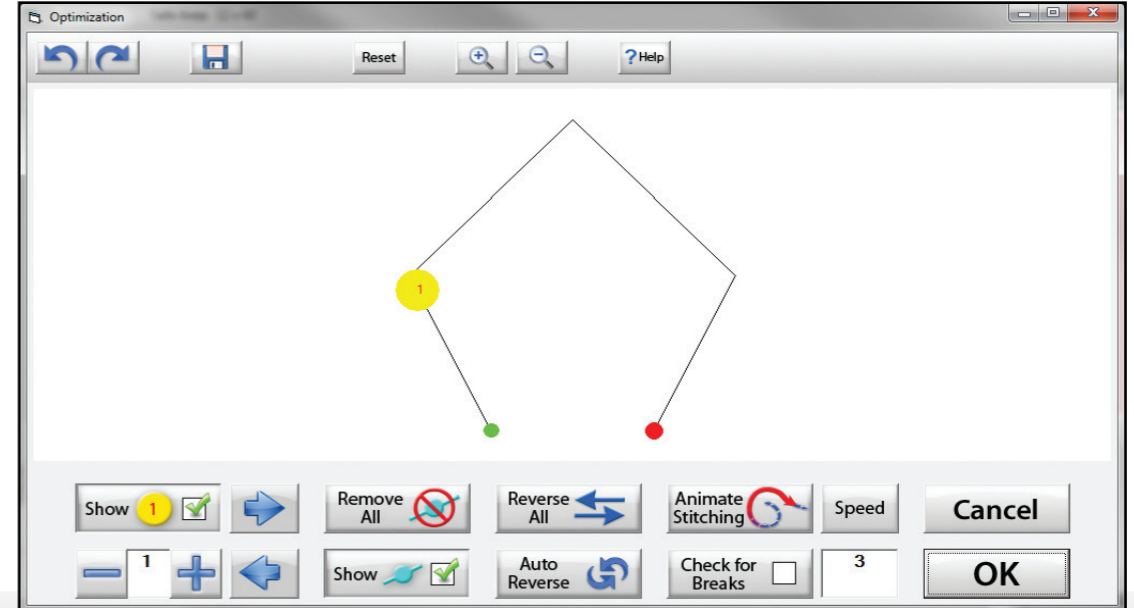
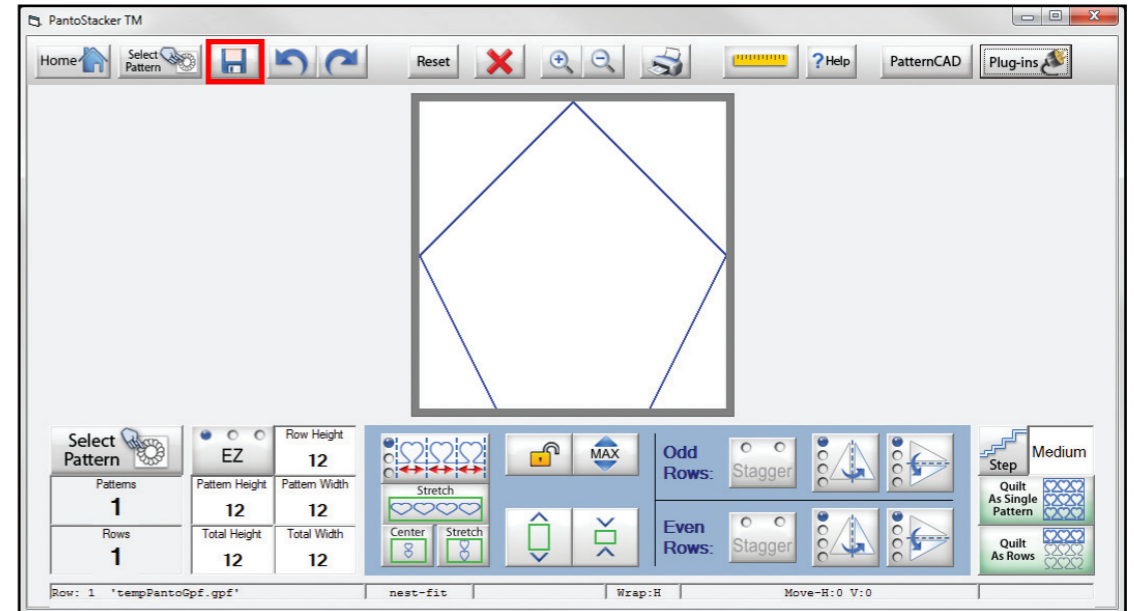
1. Click Pug-ins.
2. Click import.
3. A window will open allowing you to browse to the location of the file you want to import.
4. Locate the file you want to import. You can set a filter to show all file types or just one type.
5. Double Click the pattern.



Import Continued

- The pattern will load as if you had used the Select Pattern button.
If you are in the Quilt modules, the pattern will open in the optimization screen.
- Click the Save Icon to save the pattern.
- Name the new pattern File and Click Save

Now you can use the pattern any time you wish in the future.

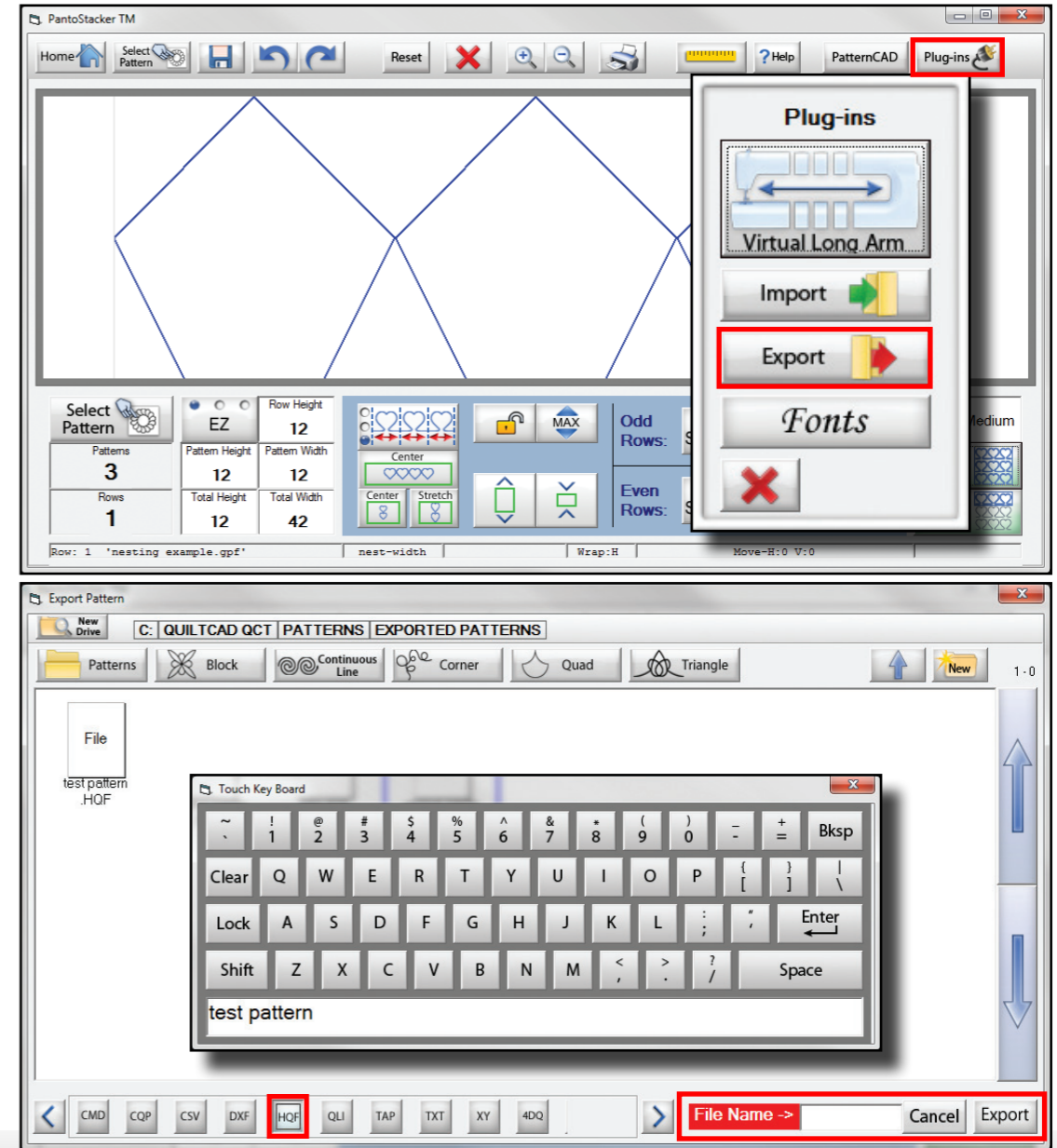


Plug-ins: Export

The Export feature allows you to export a pattern so it can be used within other quilting software applications.

1. You must have a pattern currently open or selected.
2. Click Pug-ins.
3. Click Export.
4. A window will open allowing you to browse to the location you want to save the file too, and set the type of file.
5. Locate the folder you want to save the pattern.
6. Set the pattern file type.
7. Click in the File Name box to name the pattern.
8. Type the name of the file and click export

You can now browse to the folder you exported the file, and copy and move it to another application that can utilize that file format.



Plug-ins: Virtual Long Arm

The Virtual Long Arm plug-in gives you the ability to cut a large pattern into smaller parts, allowing the final product to be larger than what your sewing machine may be capable of.

To use the feature you must first create a pattern, preferably one that is larger than the throat of your machine.

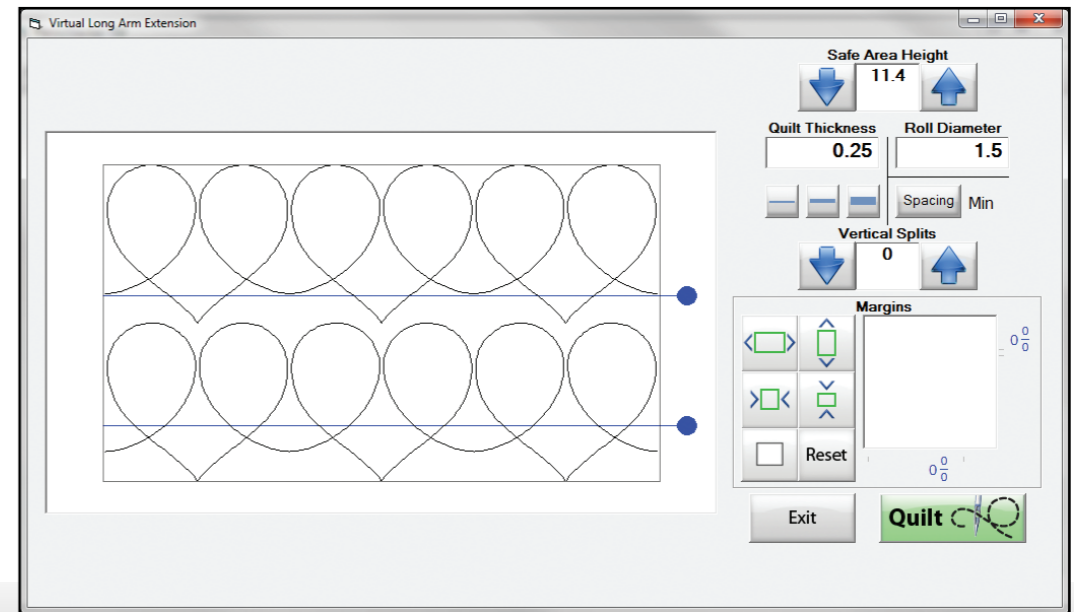
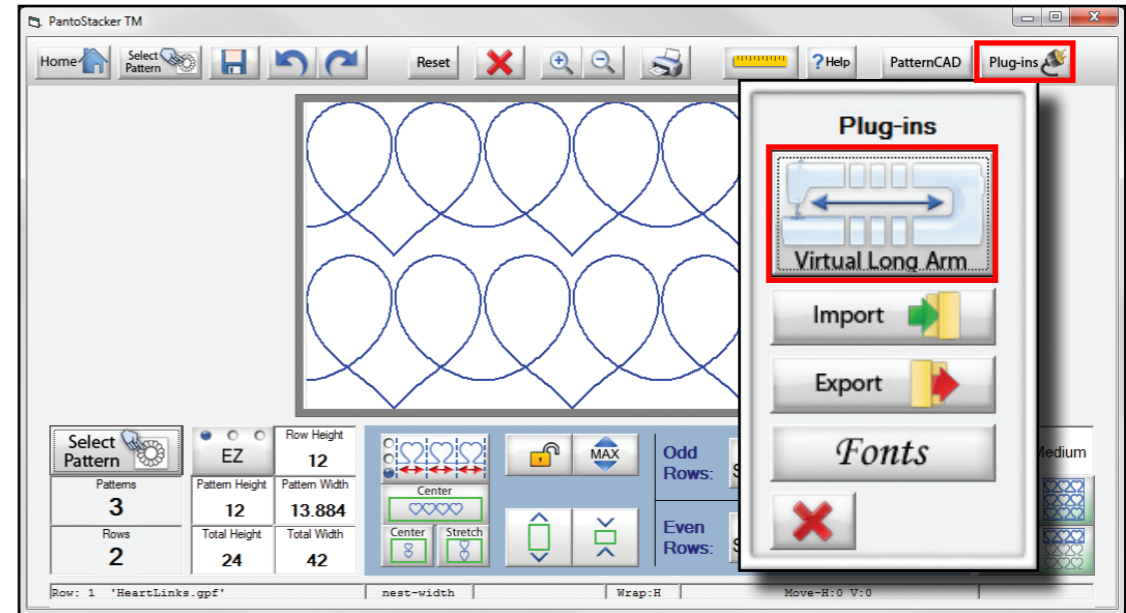
In this example we are using a 12" machine, but I am going to set the total Height to 24".

Once you are happy with your layout you can open the VLA via the Plug-ins button.

This is the VLA Main Menu, here you can adjust the settings for the height of the Safe Area, Quilt Thickness, Roll Diameter and you can also add Vertical splits.

The VLA also has the ability to set margins for the pattern selection.

- **Safe Area Height** - Here you can manually set the Safety Area height. By adjusting this setting the VLA will begin to add horizontal Splits to the pattern.
- **Quilt Thickness** - This will have an effect on where the pattern is cut, the thickness can offset the actual size available.
- **Spacing** - This will automatically adjust the line where the pattern is cut to best fit your safe area thickness and roll diameter.
- **Vertical Splits** - Add vertical splits to the pattern and make more parts that can be sewn.



Virtual Long Arm Continued

After you set you size of your splits and Safe Area Height, we can now send the pattern or quilt over to QuiltMotion so we can begin to sew the segments.

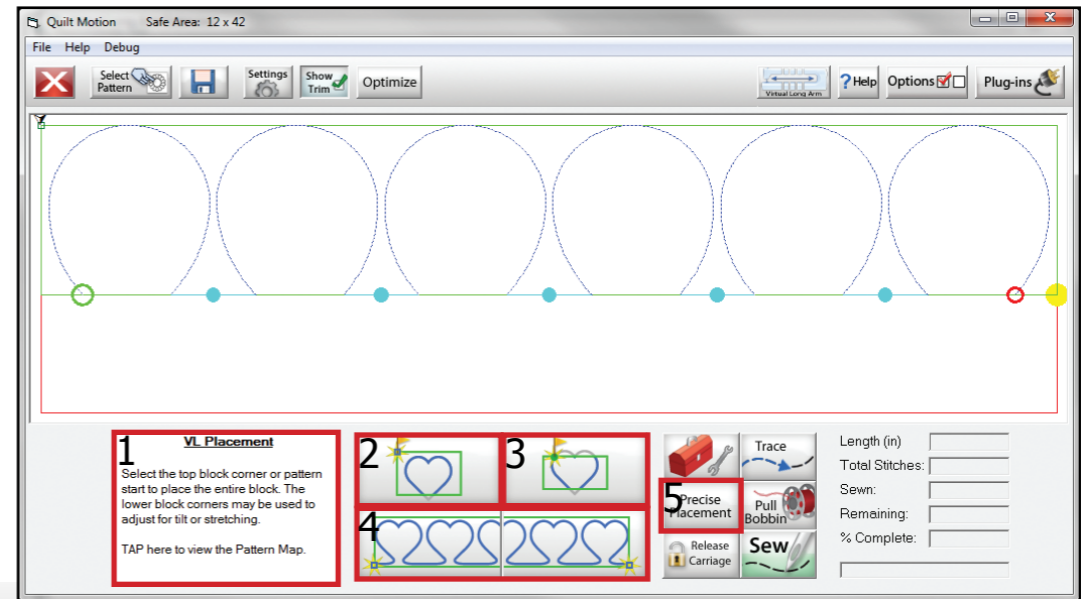
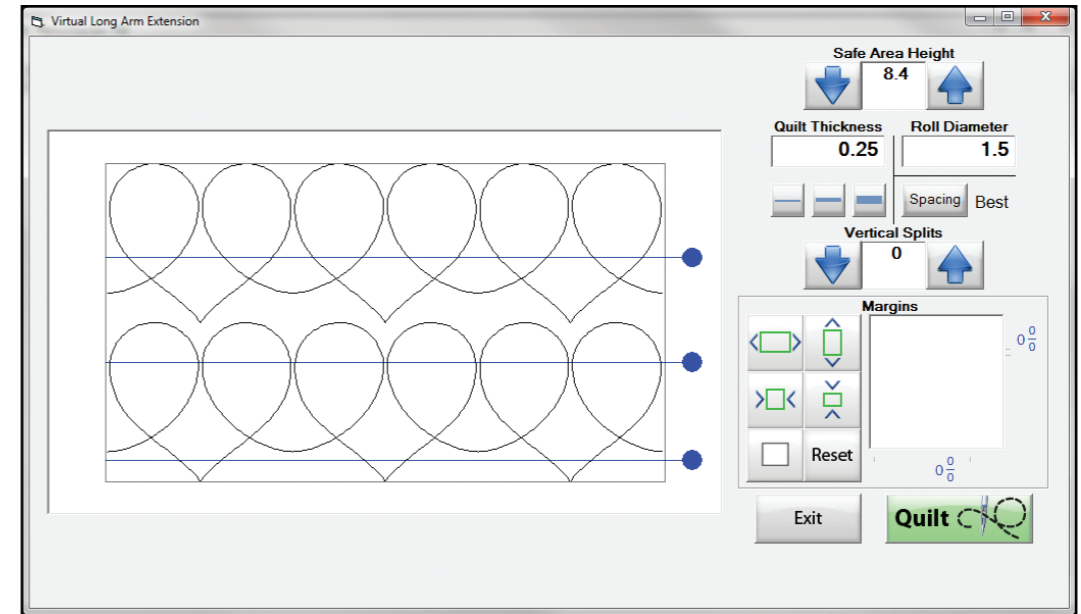
You can also set a margin for the pattern or quilt, this works the same way the margin settings for your pattern placement.

- Click the Quilt button to start the sewing process.

Once the pattern is loaded you will then see the first segment of the pattern you are going to sew.

There are some key differences on this screen, but it will function very similar to the regular placement screen. One big difference to point out is that you only have one type of placement method. This placement methods offers two points to place the pattern. And you can also stretch the bottom of the pattern if it needs to be aligned.

- 1. VL Placement** - Tap here top Open the menu that allows you to choose which segment you want to sew.
- 2. Block Corner** - Places the pattern shows using the block corner.
- 3. Pattern Start Point** - Place the pattern using the Start point of the Pattern.
- 4. Align Bottom** - These two buttons allow you to align the bottom left and bottom right corners of the block, allowing better placement.
- 5. Precise Placement** - Changes the standard VLA placement screen to the Precession Placement screen.



Virtual Long Arm Continued

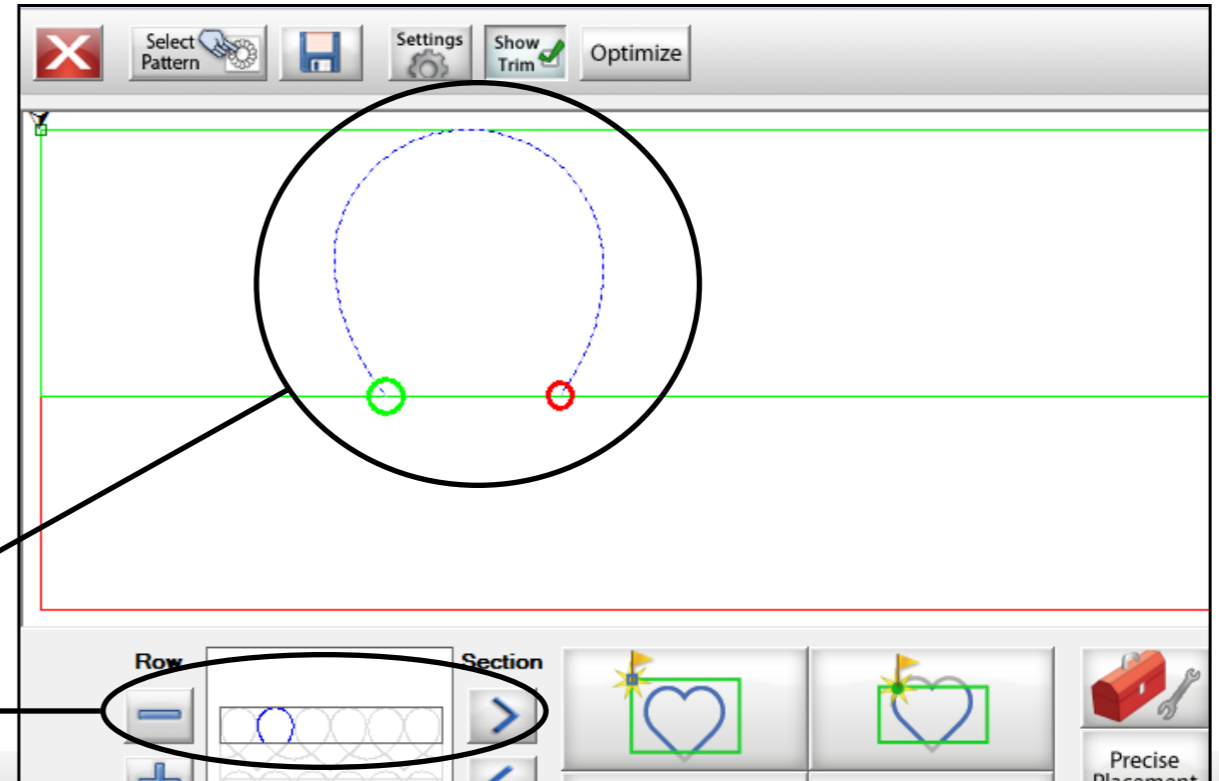
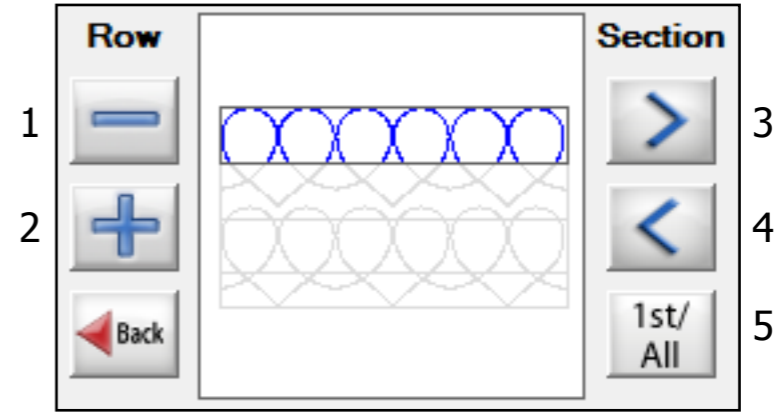
VL Placement Menu

For each section that was created during the split process, the portion of the pattern to be sewn is treated like a pantograph. It will have sections numbers, trim lines, start/stop points. To review the section that is about to be sewn you can check the [optimization](#) screen to ensure it is set for the most efficient path.

You can choose to sew the entire selection or just a single segment.

- 1. Section Selection Up** - Select a section or row up one, -1 to the current section number.
- 2. Section Select Down** - Select a section or row down one, +1 to the current section number.
- 3. Select Segment Right** - Moves to the next segment in the section or row.
- 4. Select Segment Left** - Moves to the previous segment in the section or row.
- 5. 1st / All** - If any other selection has been chosen this button will select all segments. If all segments are selected it will select the first one.

Here you can see that the second segment has been selected, and is the only part being displayed on the placement screen.



Virtual Long Arm Continued

Block Corner

This placement method uses the block corner of the section you are on. The corner will always be the Top Left of the block.

This is the ideal method when placing your first section, by making sure the pattern is sewn in the block or row that you have created.

Pattern Start Point

This placement method will use the starting point of the selection shown on your placement screen.

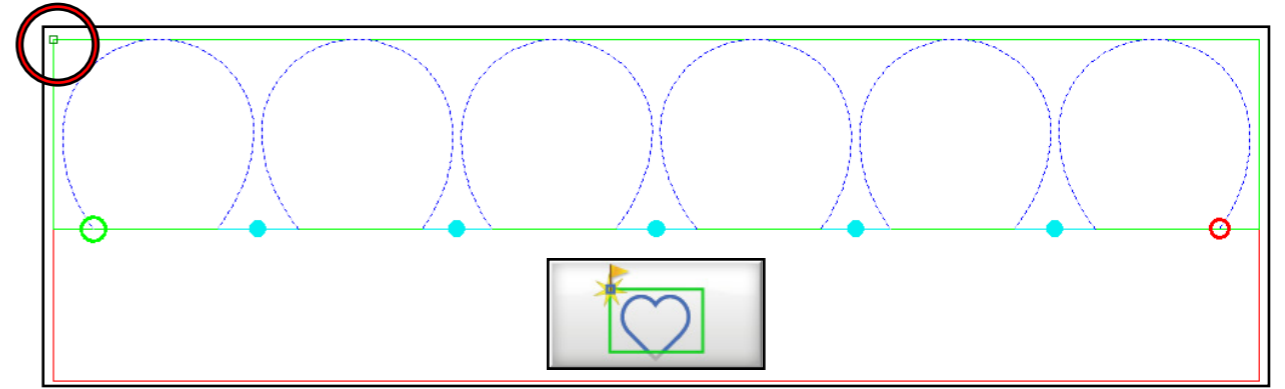
This is ideal when you want to align the current section to be sewn with a previous section that has already been sewn.

You can use it to place the first section, but you must take into account where that start point is.

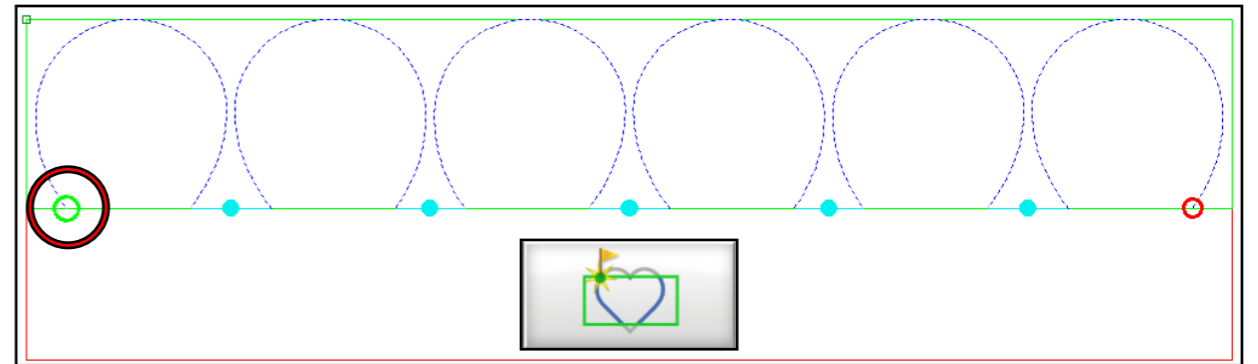
With some patterns this method will make the pattern outside the safety area, just check the placement screen to see any problems.

One last important note regarding this method. Each section has a start and end point, and within those sections each segment can have its own start and stop point.

Keep this in mind if you are placing one segment of your section at a time.



The Block for your selection is represented in green.
The Top Left Corner has been highlighted.



The Start Point has been highlighted.

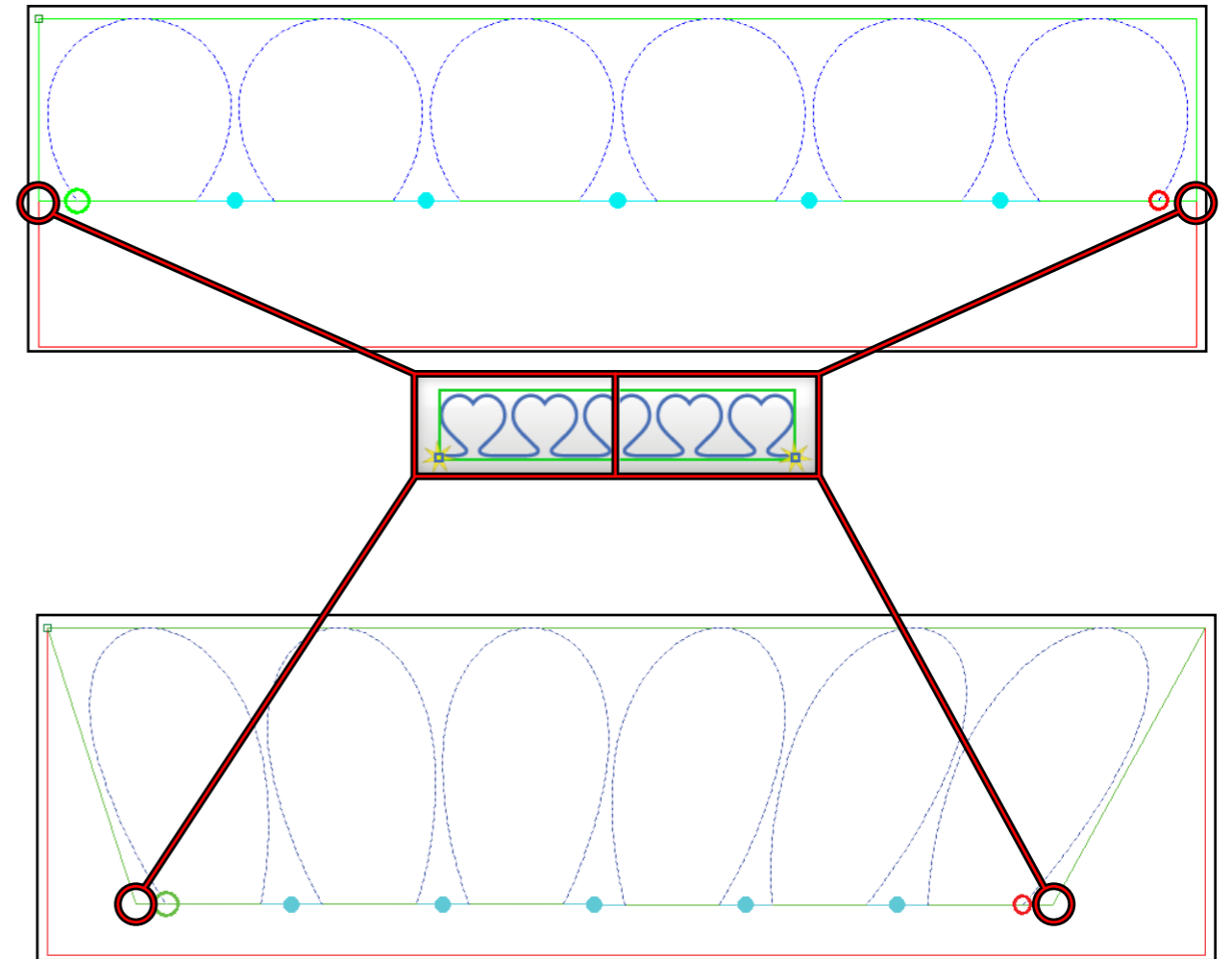
Virtual Long Arm Continued

Align Bottom

These buttons allow you align the bottom portion of the pattern. This is the only portion of the placement that you can skew or stretch the pattern. But be aware, the next segment will have the same size as the top portion of the block.

For example, if you pattern is 12 tall x 42 wide and you align the bottom to be 12 x 35, the next segment will be 12 x 42.

It is best to use this function to adjust the entire pattern slightly. If you are looking to adjust the start and end points of a section you will want to use the Precise Placement Method.



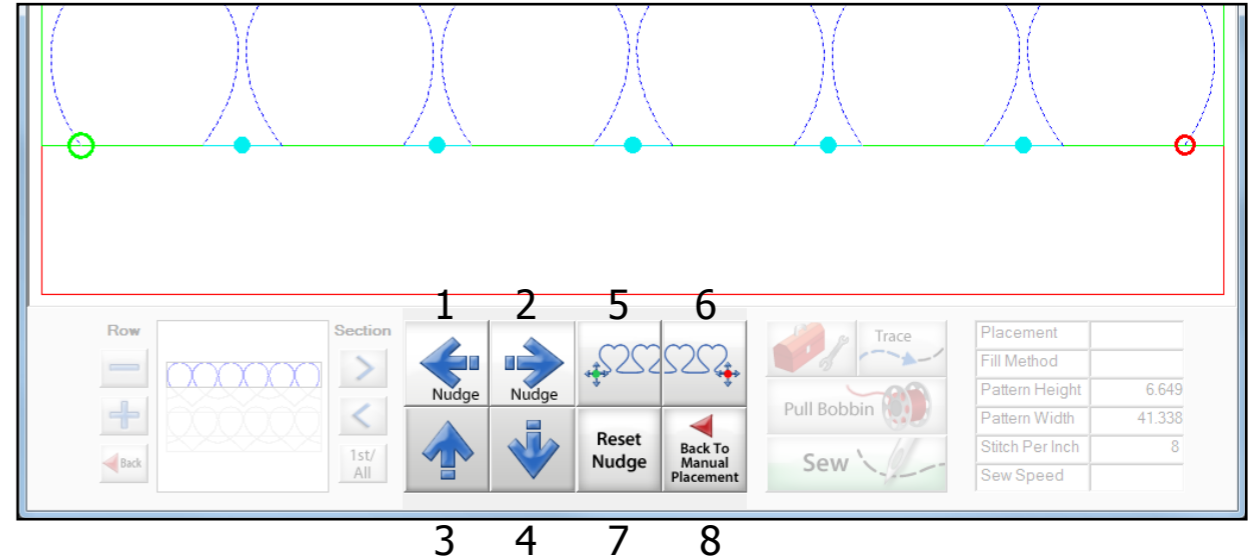
Virtual Long Arm Continued

Precise Placement

If you run into an issue with the section being aligned on your quilt, this the tool for you. With this menu you can nudge the starting point or end point of your selected item in four directions to allow for a more precise placement. The nudge will actually change the dimensions of you selection by compressing the pattern ever so slightly to make it fit. You can also nudge the pattern by using the needle on the sewing machine as a point of reference.

A Nudge is about $\frac{1}{32}$ " , it is a very small movement.

- 1. Nudge Left** — Moves the selected point to the left.
- 2. Nudge Right** — Moves the selected point to the right.
- 3. Nudge Up** — Moves the selected point up.
- 4. Nudge Down** — Moves the selected point down.
- 5. Move to Start** — Moves the Sewing machine to the start point of the pattern. Once you click this button, all nudges will be reflected on the start point of the pattern.
- 6. Move to End** — Moves the Sewing machine to the end point of the pattern. Once you click this button, all nudges will be reflected on the end point of the pattern.
- 7. Reset Nudge** — Removes all nudge actions made to the selection.
- 8. Back to Manual Placement** — Change the Placement screen back the Manual Placement mode.



You can also select each segment of the section and nudge each one. But the same rules apply, only the start or end point will move.

This is not a good placement method for your first section. It is best used to align all the following sections.

Virtual Long Arm Continued

Proceeding to next Section

Once you are happy with your first placement and you have sewn the selection you will see the screen shown here.

From here you have the option to continue sewing the row, if you are sewing one segment at a time. Or you can choose "Finished Row", and move onto the next section.

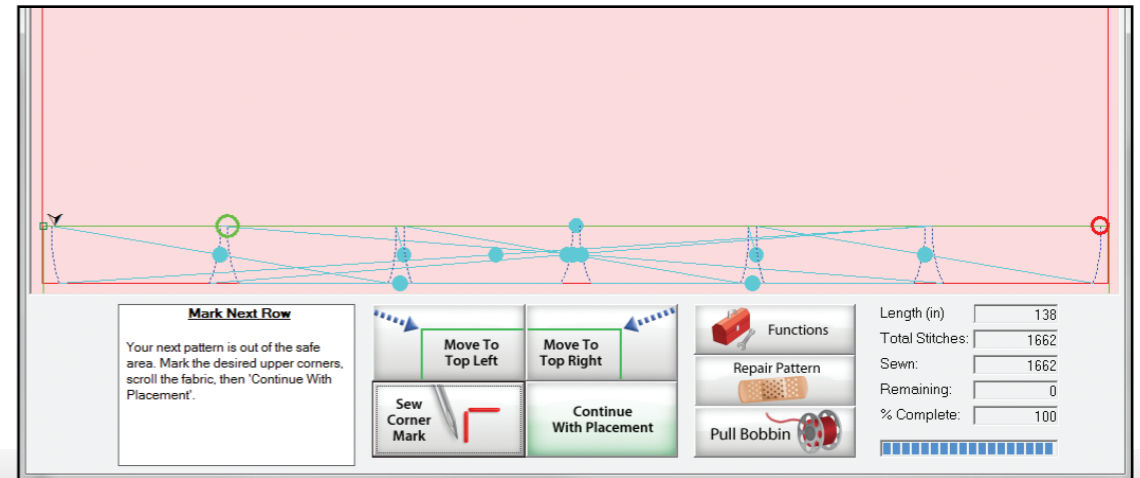
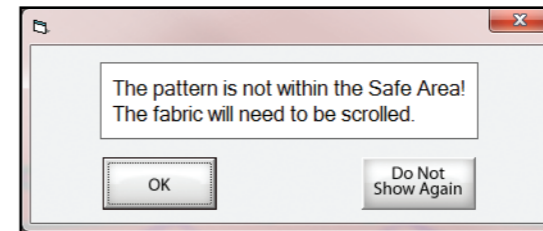
Once you click the Finished button you will see a prompt stating the next section you are placing is not within the safety area and that you will need to roll your fabric, click 'OK' here.

You can choose the 'Do Not Show Again' option, but this is something we suggest for users who are familiar with the VLA process.

Click OK you will see new options on the placement screen. These are used to place a marker in your quilt.

You place the marker first and then roll your quilt. This makes it so you can easily place the next section using the marker.

- **Move To Top Left** — Moves the sewing machine to the Top Left Corner of the selection.
- **Move To Top Right** — Moves the sewing machine to the Top Right Corner of the selection.
- **Sew Corner Mark** — Sews a Mark on the Top Left Corner of the selection
- **Continue with Placement** — Click this when you have finished placing your marker.



Virtual Long Arm Continued

In summation, to finish sewing the entire pattern you would:

1. Sew the first section.
2. Sew the marker.
3. Roll your Quilt.
4. Place the next section.
5. And repeat.

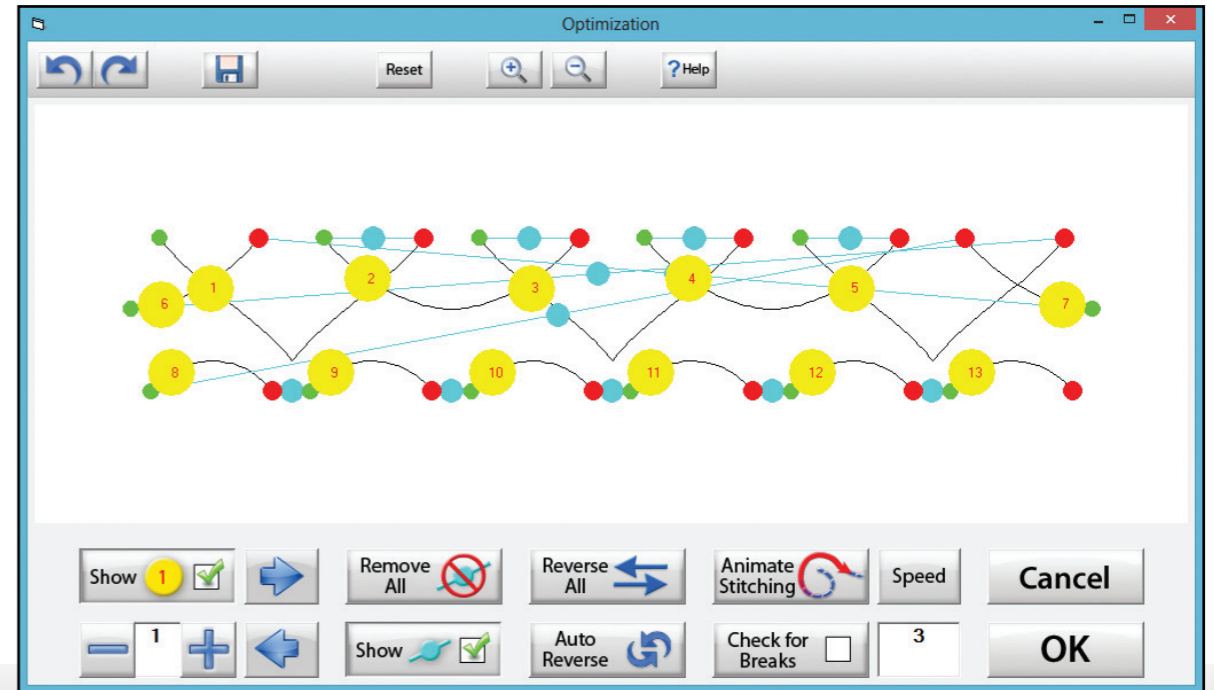
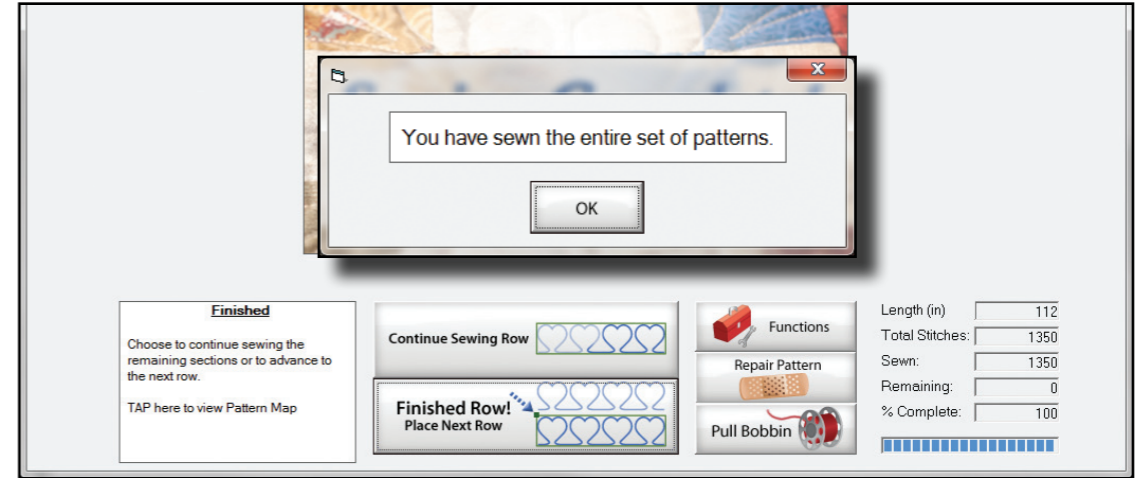
Once you are done you will see a message that the pattern has been completed. From here you could make a design a new quilt, or put some new fabric on your frame and make another quilt with the same settings.

Virtual Long Arm Optimization Screen

The optimization screen for the VLA is the same as the standard optimization screen.

For more information you can click [here](#).

From here you can see the different sections it will sew, the direction it will sew, and it shows the trim lines. All of these settings can be changed you can make the section sew more effectively.



Plug-ins: Fonts

One of the newest additions to the Quilt Path Software software is the Fonts module. This allows you to create pattern or pantographs using text. The text can be in the format of any font that you have installed on your computer.

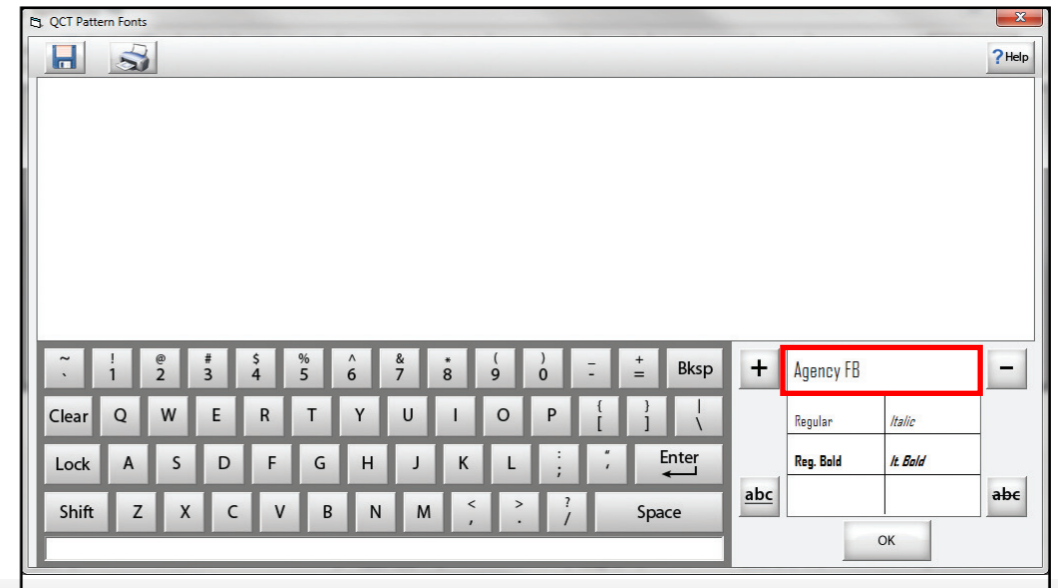
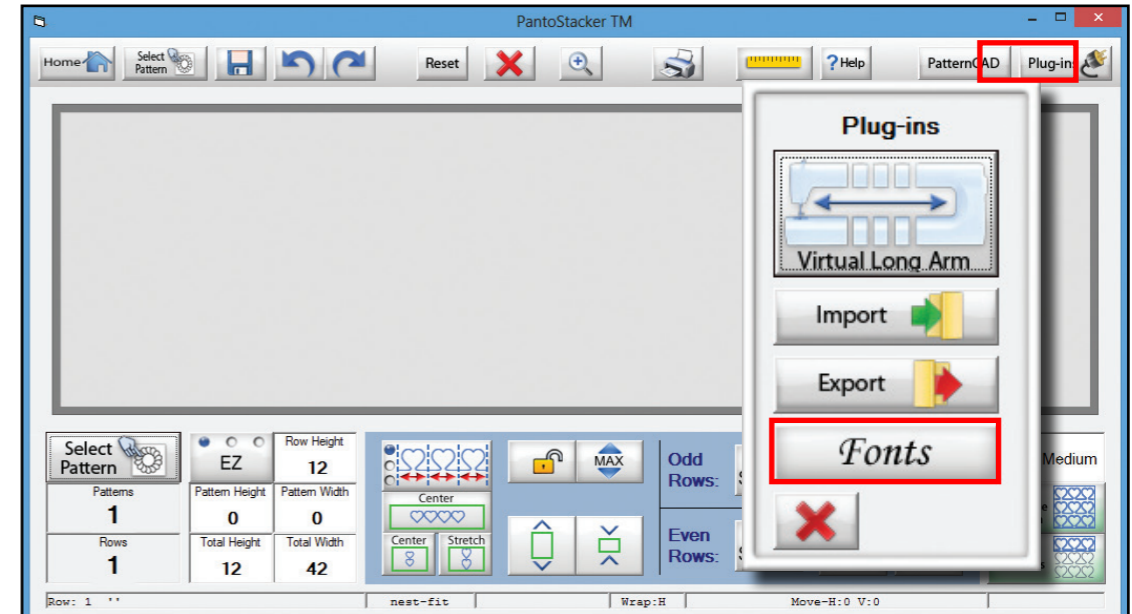
Lets walk through creating a Pantograph with the Fonts module.

1. Click New Pantograph under Design and Create.
2. Click Plug-ins on the top right.
3. Select Fonts.

The Fonts Screen has a blank preview area and a virtual keyboard. There is also the Fonts option menu.

To choose a different font you can use the - or + symbols to cycle through fonts one at a time, or you can tap on the box in between the - and + which displays the current font.

4. Click the Font display box. (Highlighted in Red)



Fonts Continued

Another box will open, and with it you can browse your font library, 32 fonts at a time, until you find the one you desire.

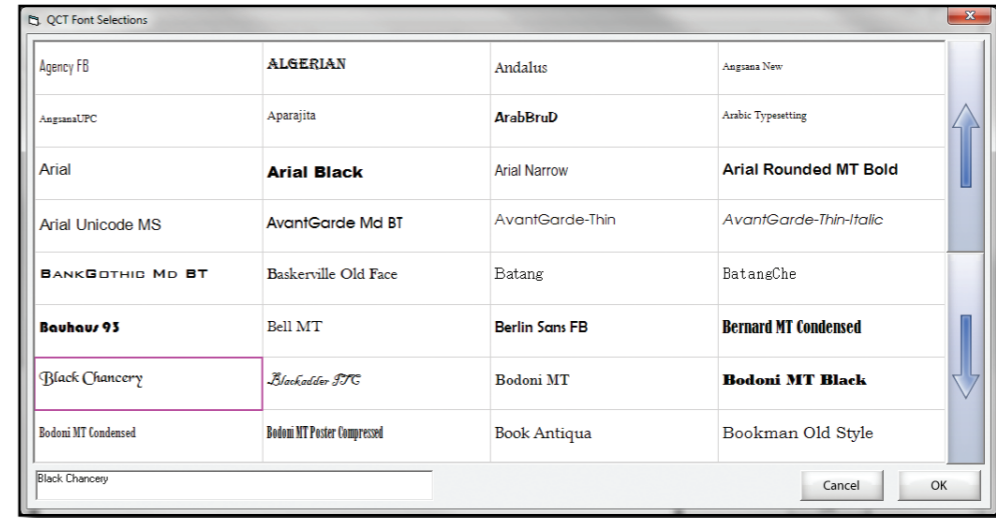
5. Select the font.
6. Type the letters or word you would like to sew.

You can also set the font to be Regular, **Bold**, *Italic*, or ***Bold Italic***. If the font allows.

As you type the preview window will show you the text in the font that you have chosen.

There is no limit to what you can type. But the more you type the smaller and smaller the preview will become.

7. Click OK

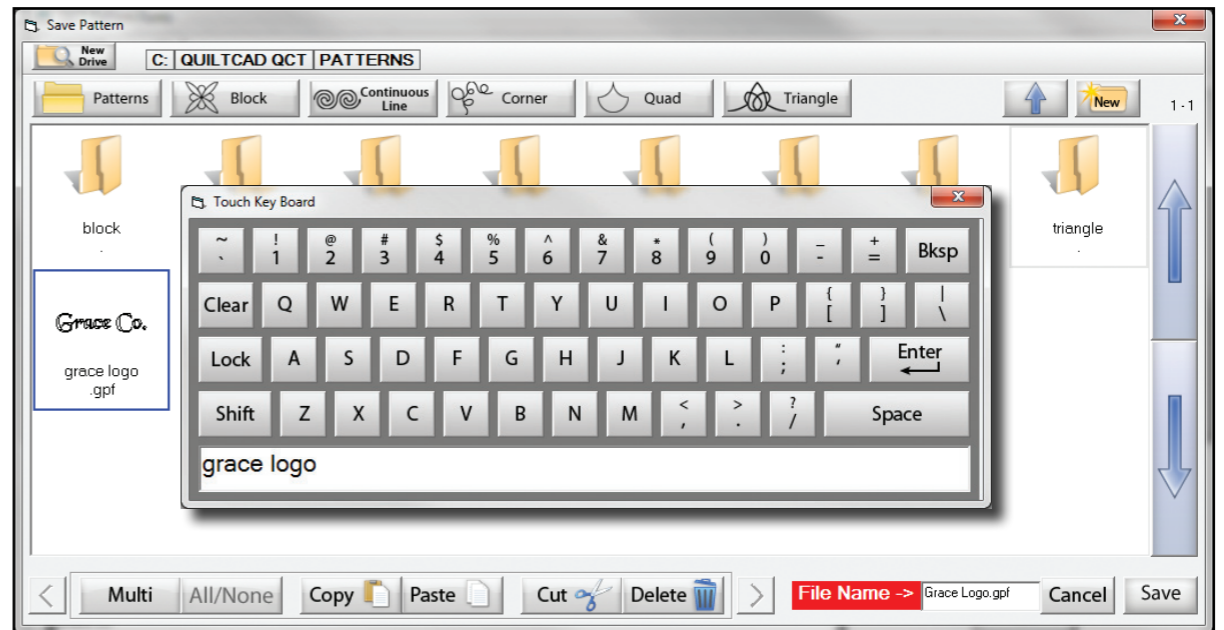
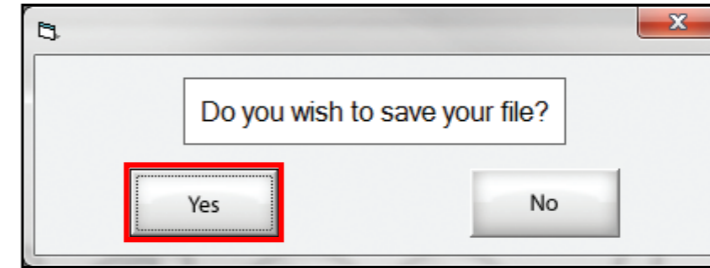


Fonts Continued

Once you click OK the software will prompt you to save the pattern. If you do not click 'Yes' the pattern data will be disregarded, and anything you created will be lost.

8. Click yes to save the pattern.
9. Give the pattern file a name.

The pattern file will be saved with the .GPF extension, if you want to use your new pattern in a different application you will need to [export it](#) into a supported file type.



Fonts Continued

10. Place the Pattern.
11. Sew the pattern.

You can now use the new font pattern in any placement method you want. Since the pattern was saved it can be added to any quilt or pantograph at anytime.

