

Air Sewing: Running the robotic quilter without turning on the sewing head. This is useful for tracing over areas that have already sewn, manually skipping areas you do not want to sew, or checking a tight fitting pattern. Some systems do not support this option.

Allow Distortion: Adjusting a pattern or pass in one direction only - either the length or width.

Align Feature: Pro-Q's align feature is available from the **Pass Popup Menu** and allows you line up motifs that are in the same pass along the horizontal axis.

Aspect Ratio (maintaining): The act of adjusting the size of a pattern or pass equally (or as close as possible) in both length % and width % so that there is no distortion.

Basting: see Crenellation Basting or Diamond Basting.

Bitmap Digitizing: Pro-Q allows you to digitize a pattern by using a bitmap and editing it using simple pixel editing tools then specifying sewing order of the lines. The resulting pattern is rough and should be smoothed and edited, but it is a simple way to create a pattern from a bitmap image. **Bitmap Digitizing Mode** is accessible by choosing a bitmap from the **Add Pattern Thumbnail Browser**.

Blue Pixel: see Pause Point

Boundaries (Compuquilter only): Boundaries are a way for Compuquilter users to create an outline of an area where they need to fit a single pattern. Boundaries can be saved and used in Pro-Q Designer to layout multiple patterns and/or edit patterns to fit perfectly in the area. Please note that you will need to change the file extension on the boundary file to CQP to open it in Pro-Q Designer.

Bounding Box: This feature is referred to by different names on different systems – and may not even exist on some. It is quite simply put, a rectangle that surrounds the pattern – and identical to the dotted yellow Selection Box in Pro-Q Designer. Some systems offer the ability to trace the outer extents (X and Y) of the pattern to confirm placement which is typically in the form of a **Bounding Box**. The feature is common on embroidery systems but quite new to computerized quilting.

Bridge: An “extra” small pattern or line that is stitched to connect two other patterns in an attractive manner.

Calling the Cursor: In the Pattern/Pass Editor, the act of putting your Mouse Pointer over a certain point and *tapping the Shift key* on your keyboard. The Cursor will jump to this new position.

Channel: An alternative to overstitching which consists of two lines sewn very close together to create interior detail in a pattern.

Channel Lock: An add on to long arm and mid arm systems that restrict the movement of the sewing head on the frame to the horizontal or vertical axis to allow the user to create straight lines either parallel or perpendicular to the poles on the frame.

Charm Tack: A tiny pattern that can be used, instead of quilting, to fasten the three layers of the quilt together. Any simple pattern can be used, and typically should be reduced in size to less than .5” high. The result of using this method to tack the 3 layers together will create a product more like a “comforter” than a quilt.

- Chunking:** A method of breaking a vertical pattern, such as a side border into manageable pieces so that it can be sewn at the same time as the rest of the quilt. Using chunking avoids the confusion of Orientation and having to turn your quilt.
- CLI (Command Line Interface) Mode (PC Quilter Only):** The original “DOS”-like PC Quilter software that still runs in the background even when using QT Menu.
- Clipping:** Removal of pattern points either outside or inside of a defined area.
- Closed Motif/Object:** A **Motif** that starts and ends on the exact same pattern point. ANY variation – even 1/1000th or an inch will cause the Motif to be classified as "Open".
- Cold Boot:** The practice of shutting down a computer completely – e.g. totally powering it off – before rebooting. A “warm boot” is simple telling Windows to restart!
- Connector:** In creating a pattern for digitizing, a short line or other small object, that joins two patterns or two parts of a single pattern together. Unlike a **Bridge**, it is not a decorative feature of the pattern, but a simple way of avoiding jumps. See **Lollypops** for the most common type of **Connector**.
- Continuous Pattern:** see **Closed Motif/Object** and **Repeatable**. This term has been replaced with others that are more definitive and leave less room for error.
- Corner (Compuquilter Only):** The most restrictive of the three pattern types. The **Start Point** of a corner must be at the intersection of the centerline of both borders. Consult the **Compuquilter Pattern Manual** for more details.
- Courtesy Jump:** In PC Quilter terms, a jump from an artificial first point in a pattern to make it easier to line up the pattern within a given area on your quilt top. Other systems refer to this as a Registration Jump or Start Point.
- Crenellation Basting:** A term describing a single line basting pattern to be used on a quilt that is “on point” or that has the majority of the fabric comprising the blocks with the grain lines on the diagonal. It literally means to “to make something with square indentations like the openings (crenels) of a battlement (top of a castle)”.
- Cross Grain:** In weaving, cross grain is properly called the weft. On quilting fabric, it is the stretchy side to side threads that run selvage to selvage. It has less give than the bias but more than **Straight of Grain**.
- Custom Start Point:** see **Start Point**.  See videos for individual pattern formats.
- Cursor:** The “plus-shaped” editing marker in **Edit Pass/Pattern Mode** and **Drawing Edit Mode**. See also **Mouse Pointer**.
- Cursor Keys:** The arrow keys on your keyboard that are arranged in an upside down “T” shape. They are typically located to the right of the Enter key and below a set of Navigation Keys.
- Curve Control Point:** The small X's in **Draw & Trace mode**. When editing your drawing, they can be dragged to control the shape of the curved line segment on either side of them.
- Decimal to Fraction Conversion Popup:** To assist you with converting the decimal numbers in **Pro-Q Designer** to “ruler measurements” just click the “F2” key on the main layout screen.

Default Workspace: The settings the **Pro-Q Designer** opens with and restores when you click **NEW** on the **File & Print Tab**. Many of these settings are user customizable. You can change or create a new **Default Workspace** at any time by clicking **SAVE** on the **File & Print Tab** and naming the file `default.pqd`. **Pro-Q** will ask you if you want to use it as your new **Default** file.

Density: See **Point Density**.

Diamond Basting: A term describing a single or alternating row diagonal basting pattern designed to be used on a quilt where the majority of the fabric comprising the blocks has grain lines that run horizontally or vertically. This provides stabilization of the quilt and helps control draw-in.

Distribute: Pro-Q's Distribute feature is accessible from the **Pass Popup Menu** and allows you to evenly space (along a horizontal axis) motifs that are in the same pass.

Dongle: An anti-pirating device that fits on a port (USB, serial or parallel) on your computer and permits the user to make use of software that accompanied it.

Draw-in: The natural "shrinkage" of a quilt that occurs when stitching it. Draw-in is caused primarily by two things – thread tension and the way the fabric "shrinks" when sewn and pulled into the thickness of the batting. It is sometimes called Pull-in – a common term in the embroidery industry for the same phenomena.

Draw Mode Pattern: When you create a drawing and insert it into the pass, Pro-Q automatically assigns the name **Draw Mode Pattern** to the segment.

Draw & Trace Mode: A special mode that allows you to create simple curves and lines to either join patterns or to trace an image for digitizing. **Draw & Trace Mode** has both drawing and editing features. It also allows you to **clip** an underlying pass with the drawing.

Drawing/Tracing Edit Mode: Choosing the editing features while in **Draw & Trace Mode** lets you add and delete points as well as move them.

Edge to Edge: A type of continuously sewn, repeatable pattern that is used as background filler for a whole quilt, or for a large area of a quilt.

Edit Box/Edit Fields: These are the boxes next to the buttons in **Pro-Q Designer** that let you enter values manually. They often have up/down arrows too. Depending on where your cursor is in the edit box, clicking on the arrows will increment or decrement that value – e.g. if your cursor is to the right of the decimal place indicating hundredths, each click will change the value by 1/100th of an inch OR if it is the right of the decimal place indicating tenths, each click will change the value by 1/10th of an inch.

Edit Pattern/Pass Mode: see **Pass/Pattern Editor Mode**.

End Points: The first and last point of a pattern segment. The first endpoint is always a "**Jump**" and the last endpoint is either the last point in a pattern, or the point immediately preceding the **Jump**.

Fence (PC Quilter Only): A pattern that defines the outline for **Fill Patterns**. The equivalent in **Pro-Q Designer** terms is "**mask**" which is simply defined as any pattern that is used for **Clipping** the inside or outside of an underlying Pass.

Fill Patterns (PC Quilter Only): A command language which allows users to automatically generate mathematical textures inside of a given area. **Pro-Q Designer** cannot process the command language, but it can read the resulting patterns and use them in a layout. In other words, you would need to "draw" the **Fill Pattern** first in QT Menu, then save the resulting temporary text file they generate as a new pattern file.

Fixed Index: see [Index](#).

Floating (your quilt top): This technique is used by many quilters as it allows for easier manipulation of the quilt top when stitching patterns. It involves attaching **ONLY** the backing to the take-up and pay-out rollers. The batting is then placed on the vertical sewing area, and the TOP EDGE (bottom edge on the PCQ) of the quilt top is squared up on top of it. Normally, the quilt top is basted into place by the sewing head, but some prefer to pin baste only. The top AND batting hang off of the belly bar on the needle end of the frame. This technique also offers the advantage of being able to monitor the remaining area to quilt when doing edge to edge quilting. Some quilters also prefer to use additional pins and basting as they quilt to help stabilize the quilt.

Floating Elements: Small, partial patterns that match the main pattern. They are typically used to fill in dead space in complex custom quilting. Floating elements may include Corners, Bridges and Terminators. The chief advantage to a Floating Element is that it can be resized independently of the main pattern and is therefore very adaptable.

Font Database: A list generated by **Pro-Q Designer** of all the True Type and Open Type fonts that are currently installed on your system that are available to quilt with. The database rebuilds the first time you open the **Font Options** dialog in a **Pro-Q** session and does not need to be rebuilt manually unless you install a new font while **Pro-Q** is open and want to use it immediately.

Font Options: A dialog that opens and lets you select which font and the relative size you wish to start with along with other options. You can also specify a font by Unicode. Unicode values for a given character are available by using Windows Character Map. Please note that the SIZE of the font is the TOTAL HEIGHT including any ascenders (letters like O and Q which are slightly taller to allow for them to appear the same size as flat-topped letters) and descenders (letters like g,q and p that are below the font baseline) and is therefore NOT the height of a capital letter.

Grain: See [Cross Grain](#) and [Straight of Grain](#).

Green Cursor/Green Man: This is the cursor in the **Pattern/Pass Editor**. Many students are still confused by the idea of the cursor vs. the mouse pointer. A whole group of students at one class (a very active users group) decided that we should call the PLUS-SHAPED cursor "man" because "he does things". The name has stuck and you will occasionally hear me use it in videos.

Grid: A background visual to aid in pattern placement. The frequency of the grid cannot currently be specified by the user.

Grid Snap: Allows a user to set the frequency of "snap points" across the layout area in order to assist with lining up patterns or drawing geometric designs. If activated, you can specify the snap settings. Grid Snap is especially handy when drawing crosshatching. NOTE: If the **Grid** is turned on, it DOES NOT bear any relationship to the settings in **Grid Snap**.

GUI: An acronym for **Graphical User Interface**. Many of the current non-industrial quilting robotics have some sort of GUI that runs under Windows. In general, they do not talk directly with the controller that runs the robot, but pass the information to another program that runs in the background. A few newer

systems with special touch-screens that do not run under windows talk directly to the controller on the robot itself.

Guidelines: There are two types of guidelines:

User specified lines that assist in lining up patterns or perform other tasks. They are not part of the final pattern and do not show up in saved files. There are 10 optional editing guidelines - 4 horizontal, 4 vertical and 2 diagonals that can be added by the user by clicking the **Configure Editing Guidelines** button on the **Layout & Design** tab.

The RED editing guideline is one of the main features of the workspace and denotes the ACTIVE area where actual stitching will be done on the quilt. An additional white guideline may appear if you have specified an offset for stitching from the edge of the quilt. The white guideline will then denote the actual size of the whole quilt/object.

Hotkeys Popup – The Popup box accessible by clicking “**F1**” on your keyboard. It is a simple help display that shows you all the key combinations you can use in the current mode of **Pro-Q**

How close do patterns need to be to eliminate jumps: This number tells Pro-Q when to display jumps AND when to eliminate them when creating a pattern file. Setting this to 0.00000 will tell Pro-Q NEVER to eliminate jumps. Note that this is why you do not see the jumps in between patterns in a continuously sewn pass on the layout screen, but jumps are reported when you go to the **Pattern Editor**. If set to 0.00000 the jumps will display on the main workspace as green dots.

How close to the edge can we quilt: Pro-Q indicates the ACTIVE part of the workspace by a solid, thin red line on the layout screen. However, if you DO NOT want to quilt right to the edge, you can specify a positive number in this edit box. This will force the red to be smaller than the full quilt. The full quilt will be illustrated by a white line. This is especially handy for doing interior edge to edge if you have an even border all around. You can easily change this setting at any time to adjust your layout. Patterns will not move in relation to the whole workspace.

Index (Compuquilter only): also known as **Fixed Index**. This number defines the relationship between rows of an **Interlocking (Nesting)** patterns. It automatically adjusts when the user resizes the pattern in the Compuquilter software. **Pro-Q Designer** does not use **Indexes** in its layout, but supports the calculation and writing of them to the Compuquilter pattern format.

Insert Pattern: The act of placing a pattern in a **Pass** on the **Layout Area**.

Interlocking: A pattern that does not necessarily follow a straight line, but “fits” like a puzzle piece into the previous and/or subsequent row or repeat. The word “nesting” is a synonymous term. Patterns can interlock both horizontally or vertically.

JUMP: A method for sewing non-continuous patterns. On some systems, the robot pauses before it jumps and requests input from the user. It will then move to the new position and begin sewing after another pause for user input so that the bobbin thread can be brought to the top. This is a VERY generalized description as the process is automated to a different degree on every system. A Jump is also sometimes referred to as a NO SEW line.

Layout Area: The large, black area that encompasses most of the main screens of the program. This is where you layout your patterns for your quilt top. See also: **Workspace**

Layout Screen (Main Screen): The main working area of **Pro-Q Designer** that appears when you open the program.

Legend (Button): A button near the lower left of the **Main Layout Screen** which toggles a box in the upper left corner of the layout window on and off. The box displays the meanings of different items and markings that may appear on the layout window. The Legend Box is illustrated below along with the location of the button.



Legend Box and Button. The button is located in the lower left corner of the Main Layout Screen.

Length (Pattern or Pass): The FRONT TO BACK distance of a pattern. **Pro-Q Designer** warns you by making the Pattern/Pass Size displayed at the top of the **Layout Screen** for the currently selected object flash red when it exceeds the length you are capable of sewing with your sewing machine. You can change the settings for this on the **Set-up & Options** tab.

Light Table Image: An image (.bmp, .jpg or .png) that is imported into **Pro-Q Designer** and is used as a background to trace over to create a pattern. In **Pro-Q Designer**, such an image can be a quilt top (or block) to assist with complex layouts for a visual representation of what the finished product will look like.

Light Table Template: see [Template](#)

Lollypops: A method of stringing patterns together by putting them on “sticks” emanating from a single object.

Main Layout Screen: The screen and tabs that are displayed when you first open Pro-Q Designer. This is the screen where you will do most of your layout of the designs for the quilting area.

Maintain Aspect Ratio: The act of adjusting the size of a pattern or **pass** equally (or as close as possible) in both length % and width % so that there is no distortion.

Mask: Any pattern used in **clipping** an underlying pass. **Closed Motifs** are the best types of patterns to use as a Mask as they produce the most predictable results.

Merged Pass: A pass that is one unit – in other words, the components that make up the pass cannot be edited separately. A **Merged Pass** is created when you use **Pass Editor** or **Move Pass to Patterns**.

Mirroring: A technique whereby you have two patterns that are identical in every respect with the exception that one is flipped in either the horizontal or vertical direction AND they are placed so that the matching sides are adjacent to each other.

Motif: A decorative object (quilting pattern) that is usually designed to be placed in a block or corner. A **Motif** can be either **Closed** or **Open**.

Mouse Pointer: The mouse pointer is often confused with the **Cursor**, but is not at all the same. The mouse pointer will change depending on what function of Pro-Q Designer you are using. If you are in one of the **Edit Modes (Edit Pass or Pattern or Drawing/Tracing Edit Mode)**, it will appear as a "closed" double white cross hair. When moved over the cursor, the white cross hair will "open" or expand. This indicates that you are in a position to affect the point the cursor is on. See also **Cursor**.

MOVE (PC Quilter Only): IMPORTANT – this command has been deprecated in Pro-Q Designer because of the unique ability of the PC Quilter user to be able to UNLOCK and move their carriage AND the fact that the PC Quilter now supports multiple jumps. To simulate the move command, insert two jumps, the first to the approximate location you would move to, and the second to the actual pattern segment. After the first jump, use the PAUSE switch on the PC Quilter and unlock the carriage. Correct the position then lock the carriage and complete the second jump to continue sewing.

Move Pass to Pattern (Layout & Design tab): Moves the currently selected pass to the **Pattern List** and deletes it from the workspace area. The location of the Pass before it was moved to patterns becomes its "natural" location. Inserting the new pattern as a **Pass** and setting the **X- Offset** and **Y- Offset** to 0 will return it to its original location.

Moving Passes or Patterns: You can move a Pass or Pattern on the main workspace in several ways in Pro-Q Designer including:

1. *holding* down the *shift* key, then *clicking*(*holding the mouse button down*) and *dragging* the pass or pattern.
2. changing the values in the **Offset Edit boxes** on the **Layout & Design** tab.
3. using the **Align** or **Distribute** features from the **Pass Popup Menu**.
4. using the **Align** or **Distribute** features from the **NEW Multi-Pass Popup Menu**
5. using the **Center** (or **Stretch/Shrink**) features from the **Pass Popup Menu** .

Navigation Box (Pattern/Pass Editor): The "black box" on the lower left of the **Pattern/Pass Editor Screen** that contains a dotted yellow square indicating the portion of the pattern that is displayed on the larger edit screen. The user can navigate around the edit screen by dragging the dotted yellow square to a new spot on the **Navigation Box**.

Navigation Box (Bitmap Digitizing): The "white box" on the lower left in the Assembling Your Pattern Branch-by-Branch area (bitmap digitizing). It contains a dotted black square indicating the portion of the image that is displayed on the larger bitmap editing screen. The user can navigate around the edit screen by dragging the dotted black square to a new spot on the Navigation Box.

Nesting: A term for a pattern that **interlocks** – e.g. does not necessarily follow a straight line, but "fits" like a puzzle piece into the previous and/or subsequent row or repeat. "Interlocking" is a synonymous term. (see **Interlocking**)

Node: A red pixel used in a bitmap to prepare it for digitizing. Nodes mark decision points (where there are more than two lines LEAVING the node), the ends of lines and the start or end of the pattern. (see videos in Quick Start Guide for more info).

No Sew: Some systems refer to a jump as a "no sew" line. For more info, see **Jump**.

Offset: Varying the side to side alignment of subsequent rows of an **Edge to Edge** pattern to create visual interest or to help it **interlock** more efficiently. The term is interchangeable with **Stagger**.

Open Motif/Object: A pattern that starts and ends on different points (either or BOTH numbers in the first and last point pairs are different). ANY variation – even 1/1000th or an inch will cause a motif to be open. The simplest **Open Object** is a straight line that is not perfectly horizontal!

Orientation: ProQ Designer allows you to design passes that could only be sewn if you turn your quilt. Orientation allows you to specify which way the quilt must be facing to sew that particular pass. Marking for a “turned” pattern is from the bottom left hand corner (0, 0) – just like every other pattern on the quilt, but the pattern is generated so that it will sew properly only if the quilt is turned in the way you have specified.

Origin: In **Pro-Q Designer** terms, the point in a pattern file where the X-coordinate and Y-coordinate are both 0 (zero - e.g. X0Y0). Another way to say it is the intersection of the X-axis and the Y-axis. You can reset the **Origin** manually to a new point in **Edit Pattern** (but not **Edit Pass**).

PC Quilter - **Origin** is very important in commands such as CREATE, MIRROR, FLIP and ROTATE because it defines the point where all these commands are applied.

Compuquilter - **Origin** is the equivalent of the Compuquilter **Start Point**.

HQProStitcher – The **Origin** is transparent and functions as a Start Point that can be used as a **Courtesy/Registration Jump** AS LONG AS THE PATTERN IS NOT RESIZED OR OTHERWISE MODIFIED.

Overlapping Pattern: A continuous pattern that has the start and/or end of the pattern located inside of the pattern’s outermost points. This type of pattern is difficult to calculate the number of repeats required for a given space. That is one reason why laying out a pattern in Pro-Q Designer first is so beneficial. Also see **Interlocking**.

Overstitching: A place in a pattern where in order to make it continuous and add more detail, the particular segment of line must be stitched more than one time. There is a danger when overstitching that the second line will be off slightly and not look attractive, or that the added “stress” of overstitching could cause a thread break.

Panning: A way of navigating a screen (the term is used in cinematography, etc.) by actually clicking on and moving the screen with your mouse. The **Panning Hotkey** for the **main layout screen** and the **edit screen** is **Ctrl**. The **Panning Hotkey** for the **Light Table** image is **P**.

Pantograph: Adopted from a tracing concept that used a series of levers and hinges to trace an object and resize it, this term has come to mean many different things in the quilting industry. In general, when it is referred to here, we mean a continuously sewn pattern. In PC Quilter terms, it normally defines pattern that can be used to give all-over (edge to edge) coverage to a quilt. Most other systems refer to this type of pattern as **Edge to Edge** or E2E.

Pass: A pass is the area containing a pattern or series of patterns that your sewing head can sew as one grouping before the quilt needs to be advanced to continue quilting. Depending on the type of patterns, you may wish to have several passes in a “row” of quilting. This is especially common when you have a series of motifs that must be centered perfectly in blocks. You might wish to make each motif a separate Pass.

Pass/Pattern Editor (Mode): The mode in Pro-Q Designer that lets you edit your passes or patterns point by point as well as applying other special functions to enhance them. There are two different flavors – Pattern Editor and Pass Editor. The only difference is a single button. In the **Pass** version it is “**Clip at Guidelines**” and in the **Pattern** version, it is “**RE-ORIGIN Point to 0, 0**”.

Pass Layout Style: This setting allows you to specify whether you want to design top to bottom or bottom to top and controls placement of passes when you click the **Repeat Pass** button the on the **Layout & Design** tab. Note that the PCQ is the only system that really promotes bottom to top layout.

Pass Mode: Allows editing of individual passes as a whole but not the individual patterns that they are composed of. **Pass Mode** activates special regular tab and popup menu options such as **Stretch/Shrink, Center, Align, Distribute, Repeat Pass**, etc.

Pass Popup Menu: When in **Pass Mode**, the special context sensitive menu that displays when you have a pass selected and *right click* on the **layout screen**.

Pattern Mode: Allows editing of the individual patterns that comprise a pass (note - this will not allow you to edit a **Merged Pass** as it is essentially one pattern). It also de-activates several regular tab options and activates special popup menu options such as the ability to **Clip** a pass with the selected pattern.

Pattern Popup Menu: When in **Pattern Mode**, the special context sensitive menu that displays when you have a pattern selected with the yellow dotted **Selection Box** and *right click* on the **layout screen**.

Pattern Segment: see **Segment**.

Pattern Selection List: A drop down list that contains the list of patterns that is currently available in the workspace. There are two, one on the **Add Patterns** tab, and one on the **Layout & Design** tab.

Pause Point: A blue dot indicating a manual pause point in a pattern or pass.

PC Quilter - A pause point forces the PC Quilter to take a short pause at that location and therefore promotes the formation of a stitch at that point. This is especially effective when doing patterns such as leaves where you want to make sure that there is a sharp point at the tip. A pause point is identifiable in a final pattern by a “p” following a pattern point. This should not be confused with the pause switch on the PC Quilter, which serves another function entirely.

Machine Quilting Robot - A pause point is a "soft pause" which forces the Machine Quilting Robot to take a short pause at that location and therefore promotes the formation of a stitch at that point. This is especially effective when doing patterns such as leaves where you want to make sure that there is a sharp point at the tip.

Statler Stitcher - A pause point causes the sewing head to stop and requests user input. It is typically used by pattern designers to give users the option of changing thread colors.

Point (Set or Pair): The two numbers that define a single pattern point in a pattern file.

Point Density: The concept of point density is a hard one. While having too few points produces basically the same results across the board, every system has a different way of dealing with a pattern with TOO many points. Too few points can create a pattern that is “faceted” where gentle curves get interpreted as large straight line segments – for example, a circle with too few points can look like a many-sided polygon.

Commercial patterns typically contain MORE points than you actually need. This is because frequently users will blow them up 2 times as large as they are supplied, so the designer really needs to allow for that by putting in twice as many points as are necessary. Conversely if the user sews the pattern out at 50% or smaller, it typically has way too many points and depending on the system, it may mean any number of undesirable results.

In considering Point Density, it is important to remember that stitches are after all straight lines, and that if you are sewing 10 or 12 stitches per inch, the smoothness of your curves and overall detail will be much better than if you were sewing at 6 stitches per inch. In embroidery, every pattern point equals a STITCH. This is not so in computerized quilting. The points simply create a PATH for the sewing head to follow – sort of connect the dots. That is why it is possible to have just two points to define a long, straight segment of pattern.

What are the kinds of problems that can be caused by having too many points in your pattern file? On every system, there are problems with load times and screen redraws when the system has a graphic display of the pattern up front. Other issues include:

Compuquilter – buffer overrun and/or program crash. This is VERY RARE, but it is important to know what COULD happen. The CQ likes the minimum of points to sew a pattern.

PC Quilter – Your choice: either you strip out the extra points or the program will – and you may not like how the program does it! This is because too many points can cause communication loss because the whole system is based on streaming the data at a certain rate.

Statler Stitcher AND ABM Autopilot – Point density does not apply as the pattern will be converted to 3-point arcs when creating the individual pattern files. However, a greater number of points, in many cases, will help define more accurate arcs.

HQ Pro-Stitcher – Patterns with too many points will sew VERY slowly as this system varies speed based on point density. Pro-Stitcher users can also use Statler files. The most consistent and fastest sewing speed (and even stitch length) occurs in patterns where the points are optimized for the pattern size, and evenly spaced.

Machine Quilting Robot – Unless the number of points are ridiculously high, this system doesn't care. It will move EXACTLY along the path the points tell it too. The only issue is the screen redraws. There is a limit to the number of points (which there is on every system), but it is more than reasonable.

Intelliquilter – Excessive points in corners can cause stitching in place and thread breakage at the corners.

Qbot – Prefers the minimum number of points. While it is possible to sew out very complex patterns, using an excessive number of points will cause HUGE delays in processing times.

So the final question becomes: What is the right point density and WHEN should I adjust it? In general, if you are using Pro-Q to layout your quilt or adjust patterns it is very important to adjust the point density if it is currently unacceptable. Point Density of 10 – 15 points per inch is a good, acceptable value for sewing out “size-as”. For commercial patterns, a density of 15 – 20 is more viable as it allows for enlarging a pattern considerably. The lower numbers are suitable for looser patterns, and the higher

for more detailed patterns. A pattern with a large number of straight lines is the exception as it will not have an accurate "points per inch" value.

PQD file: Pro-Q Designer has a proprietary format that stores all the information on the **workspace** including the layout, unfinished drawings, patterns that are loaded, etc. The only things that are not saved (at the moment) are the guidelines. This is a great way to retrieve and save work in progress or to ARCHIVE a customer layout. When you save a PQD file, it is unnecessary to also save all the patterns associated with it as they are easily recreated from the PQD file.

Preview Mode: A special display that shows you the pattern or pass as it would sew. You have the options of viewing jumps and pauses, adding a bounding box, and/or doing a slow redraw to simulate sewing.

Pull In: See **Draw-In**

RED Editing Guideline: see **Guideline**

Red Pixel: see **Node**

Registration Mark or Jump: Pro-Q Designer offers a way for users of many systems (CQ, PCQ, SSD, MQR, HQPS, SS – consult your documentation for limitations/details) to layout a quilt and enable perfect spacing between rows that interlock or to define relationships between patterns in a complex quilt. The Registration Jump inserts a "No Sew"/Jump line at the beginning of a pattern that is user configurable. Registration Jumps/Marks are typically a jump from an obvious point on the previous pattern sewn or from a feature on the quilt.

Repeatable Pattern: A pattern that has identical Y – values so that it will automatically connect and allow itself to be repeated without adjustment on most systems.

Resize Mode: Allows the user to select how they will resize passes - either by maintaining the Aspect Ratio (proportionately) or by Allowing Distortion (disproportionately).

Roll/Re-Roll (PC Quilter Only – MAY work on other systems that can temporarily unlock carriages): A technique to extend the sewing depth (height of a pattern) of the PC Quilter. The technique requires the user to pause the PC Quilter before it runs out of throat space on the sewing machine, leave the sewing machine needle down in the fabric, and choose MOVE to unlock the carriages. Carefully roll the entire quilt on the frame, dragging the sewing machine and PC Quilter along with the quilt. When there appears to be sufficient room to continue, retighten the quilt, lock the carriage, then continue sewing. While not perfectly accurate, this can allow you to sew patterns that are much larger than the throat depth of the machine.

Screen Background Color: Controls the color of the layout area of Pro-Q. We recommend black for better visibility, or the default dark grey, so it does not interfere with the grid or any pass colors.

Segment: Also known as **pattern segment** is a component of a pass that starts with a jump and ends either at the point before the next jump OR at the end of the pass. All passes contain at least one **Segment**. **There is one Segment for EACH JUMP in a pass.** A pattern will contain more than one segment if it contains jumps.

Select: In Pro-Q Designer, the method of selecting an object depends on what Screen Mode you are in:

Layout Screen Mode: The normal way of selecting an object or a point on the layout window or clean-up window is to hold down the SHIFT key for a moment and move your mouse over the object or point WITHOUT DEPRESSING the mouse button. You can also select an individual pattern that has been placed in the layout area by clicking on the "Sewing Order for Selected Pass" dropdown menu. In addition, you can select a Pass by simply changing the number in the Selected Pass indicator.

Pattern/Pass Editor Screen Mode: An individual point can be selected by simply clicking on the cursor and dragging the cursor to the point. Multiple points can be selected by *holding down the "S" key and dragging the cursor*. A single point can also be selected by *hovering* your mouse pointer over the point and touching the SHIFT key. The cursor will attempt to jump to the point nearest the mouse pointer. All the points in a segment can be selected by *tapping the "S" key twice rapidly* OR by *clicking Select* on the **Edit Jumps** tab.

Selected Points: In the Pattern/Pass Editor, selected points are illustrated by having a BLUE LINE running through them. If you try to move any one of them by clicking and dragging, they will all move. Likewise commands applied will tend to affect all (and ONLY all) the selected points.

Selection Box: The box comprised of a solid yellow line that appears around a **pass** or **pattern** (depending on the mode) when **you** *hover* your mouse over a **pass** or **pattern** (without pressing a key) and *hold the shift key down*.

Selected Pattern: The drop down list on the **Layout & Design** tab and the **Add Patterns** tab which contains the list of patterns that you have added to the **Pro-Q Designer workspace**. Choosing a pattern from this list and *clicking Insert Pattern* (then *clicking* on the workspace) will insert the pattern into the layout area of the current workspace.

Selected Pattern Display: The small black square area near the upper left of the **Layout & Design** tab and the **Add Patterns** tab that displays the currently Selected Pattern as per the drop down list.  **G-43**

Sewing order for selected pass: A drop down list on the Layout & Design tab containing the list of patterns in the currently selected pass. The currently selected pattern is the one that has the check mark by it. NOTE – If you are in **Pattern Mode**, the ONLY feature that will work if you click on a pattern in the list is the *Page Up/Page Down* to change sewing order AND that will not work if the list is open! All other functions from the **Pattern Popup Menu** required the yellow Selection Box to be around the pattern in question.

Show Tooltips: Pops up messages when you hover over the various part of Pro-Q such as edit boxes or other controls.

Size of Area to Quilt: This setting controls the size of the full workspace as defined by the bounding box on the layout area. It will appear RED if How close to the edge can we quilt is set to 0.00 (zero) and WHITE if it is any other number. Resizing this can cause any passes that are already placed to shift.

Stagger: Varying the side to side alignment of subsequent rows of an Edge to Edge pattern to create visual interest or to help it Interlock more efficiently. The term is interchangeable with Offset. Some systems only allow a pattern to be staggered 50% and do not trim off the edges of the patterns forcing users to sew patterns well off the edge of their quilt. Pro-Q Designer allows you create passes with custom stagers and Clip the edges flush with the quilt.

Start Point (System specific): *On a Computerquilter:* The point within the pattern file that is defined a X0Y0. On a Repeatable Pattern, this must be the first point. On a Motif, it can be any custom point, but is typically

the center if the **Motif** is to be placed in a block. *On a ProStitcher:* Literally the first pattern point – whether it be a registration jump or the first sewing point. While the Pro-Stitcher does not specifically support registration jumps, AS LONG AS THE PATTERN IS NOT RESIZED ON THE PROSTITCHER, Pro-Q Designer can create a pattern with an appropriate jump.

Straight of Grain: In weaving, **Straight of Grain** is often referred to as the weft, or the threads that are stretched from the front to back of the loom which have little or no give. In quilting fabric, this is the threads that run the length of the fabric parallel to the selvage. It is the most stable direction. See also, **Cross Grain**.

Username/Display Username...: Adds the phrase “Created by _____ with Pro-Q Designer Version _____” to every pattern file if selected.

Texture: A background fill that is designed to fill an area designed by the user. Pro-Q Designer’s Texture Wizard allows you to fill the WHOLE quilt or an object with any one of its special Textures. When filling objects, Pro-Q will create a continuously sewn pattern (unless the objects are not connected) that includes the outlines and the textured fill. When filling a whole quilt, Pro-Q will make each “row” of the texture a separate pass. Filling an object with a texture offers far more options including the ability to change the angle of the texture. **IMPORTANT – The name Textures was already in use by designers to describe a large pattern that was designed to be clipped and used as a background. ONLY PURCHASE PATTERNS SPECIFICALLY LABELLED PRO-Q TEXTURES IF YOU WISH TO USE THE FEATURE.**

Template: This has three meanings – depending on context:

1. a **“reusable” light table image that is a common layout for a block or quilt.** For example: a four patch layout, a nine patch layout, a quarter square triangle layout might all be considered a template image. It is not a special format nor does it have any special properties. It is just a way of referring to a specific simple kind of light table image. Some users also create Workspace Templates that are special Pro-Q Designer files that they customize to contain all the patterns and settings to accomplish common tasks.
2. **A pass or pattern that has been printed out full-size** to assist in accurate placement on a quilt.
3. **A Workspace Template** which is typically an oversized layout of an edge to edge quilt that can be reused and clipped to the size of your new quilt.

Terminator: An “extra” small pattern that is stitched at the beginning and/or end of a series of repeats to create a “finished” look to a pattern which may have an awkward appearance on one end because of its need to connect to the next repeat.

Throat Depth: The opening under the arm of the sewing machine. The height is from the bed of the machine to the underside of the arm, and the depth (length) is from the back of the presser foot to the arm. When quilting on a frame, you need to subtract the amount of space a “full” take-up roller will occupy in the throat when determining the actual usable throat depth. This defines the tallest (length) of pattern you can sew.

Thumbnail Browser: There are two thumbnail browsers in Pro-Q:

Light-table Thumbnail Browser: displays image files that can be used as a background for laying out your quilting or for digitizing.

Add Pattern Thumbnail Browser: displays pattern files available to you. There are many features including the ability to filter what type of pattern files you see. This browser also has a PRINT feature that lets you create simple catalogs of your designs. In addition, you can display Graphics Files. Adding a Graphics file will open the **Bitmap Digitizing Mode**.

Textures Thumbnail Browser: displays the special texture patterns available in Pro-Q

Tracing (Draw & Trace Mode): This feature allows you to digitize a pattern from a complex bitmap, or from one that is too low of resolution. Instead of trying to edit pixel by pixel, the user brings in the bitmap as a **Light Table Image** and uses the mouse to click and trace around the significant parts of an image in **Draw & Trace Mode**. The best way to describe it is creating your own “connect the dots” except that the lines can be smooth and rounded and not straight unless that is desired.

Tunneling: The effect created in the un-quilted space between rows on a quilt where the “ease” in the area causes the backing or top to puff out and gives the undesirable appearance of tunnels.

Unmerged Pass: A pass that allows you to still edit the individual patterns that make it up as separate units. This includes deleting patterns, changing sewing order, adding additional patterns in the “middle” of the pass, resizing or rotating individual patterns, inserting a bridge between patterns, etc. *RG-30*

Vertical Striping: A visible top to bottom repeat or gap typically caused by sewing out the same pattern (with a short top to bottom measurement) in the same position row after row, or having a visible gap between repeats that lines up row after row.

What is the throat depth of your sewing machine?: Pro-Q will warn you by flashing the measurement for a pass red at the top of the layout window if any pass on your quilt exceeds the **Throat Depth** of your sewing machine.

Width (Pattern or Pass): The SIDE TO SIDE distance of a pattern as it sews out on a frame.

Workspace: Refers to two related things:

- A PQD file that contains all the formatting, passes and pattern files that comprise whatever the user has defined as their work area. It can be the whole quilt or a small portion of it.
- The black layout/editing area to the right of the tabs. On the main layout screen, in particular, it usually refers to the area encompassed by the RED Editing Guideline.

Workspace Template: A “reusable” PQD file that contains the basic settings and all the patterns you would normally use for a certain type of quilt you tend to design for. It could also be for a certain PART of a quilt. For example, you may wish to create a Workspace called borders.pqd that has a wide, short layout that is the size of most borders you make and has all your border patterns already loaded.

X-axis: The place at which the “forward/backward” (vertical line) point is 0 (zero) – basically the horizontal line that divides positive and negative Y-Coordinates. Flip Length and Mirror Length use the location of the X-axis as the point where they execute. Other commands use the Y-Axis in conjunction with the X-Axis (see **Origin**).

X-Coordinate: The first number in a point set that defines the “left to right” (horizontal) position.

X Offset: In Pro-Q Designer terms, literally *where the pattern is placed in the layout area vs. the actual coordinates in the pattern file*. If the **X Offset** is a positive number it will move the pattern further to the right, if it is a negative number it will move it further to the left of its “natural position”. Offset for a Pass is RESET to X=0 Y=0 when using the **Pass Editor** or **Move Pass to Patterns**.

For example, many motif patterns will have the center of the pattern defined as X=0, Y=0 and:

- When the motif is placed in the layout area, UP and to the RIGHT of the lower left hand corner, its **X Offset** and **Y Offset** will be positive numbers describing how far away the center is from the ACTUAL X=0, Y=0 of the workspace.
- When it is placed in the layout area with the center of the motif immediately over the lower left corner of the layout area, both the **X Offset** and **Y Offset** will be 0.

Y-axis: The place at which the “left to right” (horizontal line) point is 0 (zero) – basically the vertical line that divides positive and negative **X-Coordinates**.

PC Quilter Only - Flip Width and Mirror Width use the location of the Y-Axis as the point where they execute. Other commands use the X-Axis in conjunction with the Y-axis (see **Origin**).

Y-Coordinate: The second number in a point set that defines the (vertical) “forward/backward” position of your quilting robotics system.

Y Offset: In **Pro-Q Designer** terms, literally *where the pattern is placed in the layout area vs. the actual coordinates in the pattern file*. If the **Y Offset** is a positive number it will move the pattern up, if it is a negative number it will move it down compared to its “natural position”. **Offset** for a **Pass** is RESET to X=0 Y=0 when using the **Pass Editor** or **Move Pass to Patterns**.

For example, many motif patterns will have the center of the pattern defined as X=0, Y=0 and:

- When the motif is placed in the layout area, UP and to the RIGHT of the lower left hand corner, its **X Offset** and **Y Offset** will be positive numbers describing how far away the center is from the ACTUAL X=0, Y=0 of the workspace.
- When it is placed in the layout area with the center of the motif immediately over the lower left corner of the layout area, both the **X Offset** and **Y Offset** will be 0.