Threads Embroidery Software

Software Operations Manual

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Threads **Embroidery** **Software**

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www.ThreadsES.com

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About this document

Welcome to Threads Embroidery Software (ThreadsES) Member's user manual. It is highly recommended that every Member using the Threads Embroidery Software read this document and study it on a regular basis. Updates are added and operations change naturally over time. Members are responsible for reading the entire document to better understand not only how to use this software but to use it to their advantage.

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Document contains navigation links. They can be anywhere inside the document:

Bookmark – link to the word / section / paragraph inside the document or ThreadsES website

- link to video demonstration on YouTube

Readers may notice random font styles and paragraphs:

Hotkey / Keyboard press – used to point out hotkeys, keyboard button press or function name inside ThreadsES

Step 1 – detailed step-by-step explanation of the example

General information

1. About ThreadsES

Threads Embroidery Software is digitizing software for embroidery machines. This software can be used on almost any machine that does embroidery. This includes home embroidery machines, commercial embroidery machines, and industrial embroidery machines

Threads Embroidery Software was designed for BOTH the home embroidery machine industry and large industrial embroidery shops. From the work-at-home mom to the world's largest embroidery shops, Threads Embroidery Software is an all-inclusive embroidery software solution.

Threads Embroidery Software is not a Tier or Level based limited software. ThreadsES is a complete software package. Unlike competing software, the Threads Software has everything. The standard version of Threads is the only version and includes the following:

- **LETTERING:** Threads ES comes with a set of pre-digitized automatic lettering. Lettering (fonts) can be created from the Windows TTF (True Type Fonts). Lettering is easy to create with Threads. Individual letters can be digitized and saved or, the entire font can be digitized.
- **DIGITZING:** Threads Embroidery Software was designed to be a very easy to use digitizing software. Threads includes all the tools needed to create the highest level of quality embroidery files. Threads will output the same high quality embroidery files as any of the competing software packages.
- **EDITING:** Threads Embroidery Software uses both wire frame polygons and embroidery stitches. The user can flip between the wire view and the embroidery stitch view.

  It contains all the necessary tools to edit both the wire frame view and the embroidery stitch view. Simple changes such as moving points is very easy. Advanced tools like copy, paste, skew, resize, block moving, etc is all available.

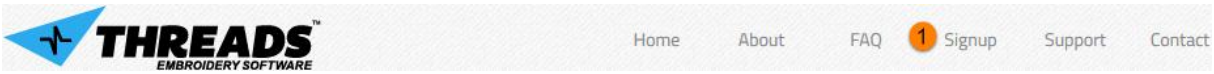
  Threads also offers advanced 3D views which allow the user to pan around and rotate the 3D view to view the image as if it were an embroidered logo on a shirts.

2. Membership

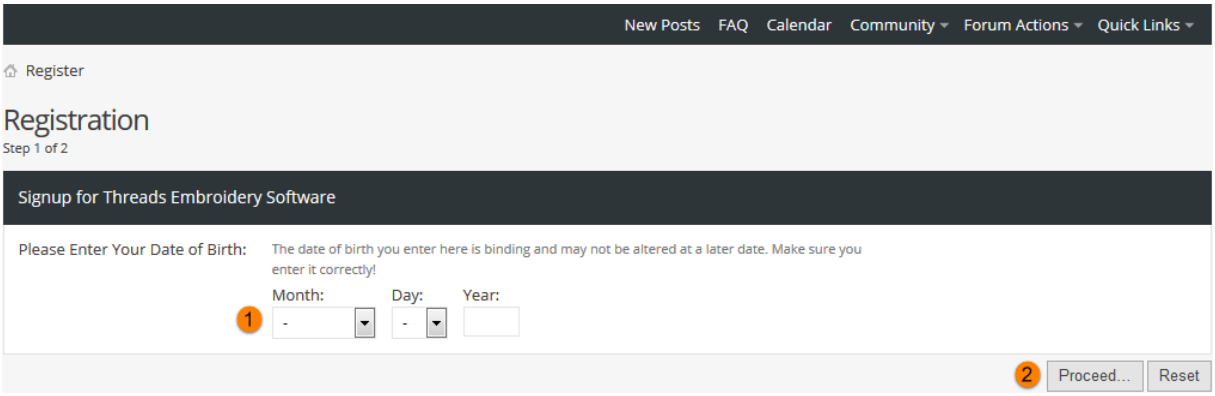
ThreadsES is a Membership based embroidery digitizing software, meaning one pays a membership fee to use the software. This way, the software is available to a wider range of users, offsetting the large overhead costs of having to buy brand new software.

How to sign up for the Threads Membership Program:

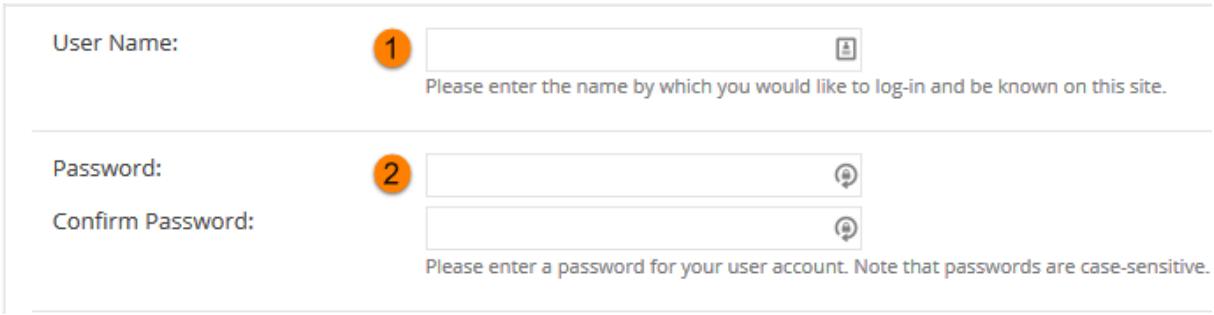
Step 1: Visit the ThreadsES website.
Step 2: On the top of the page, click the Signup link



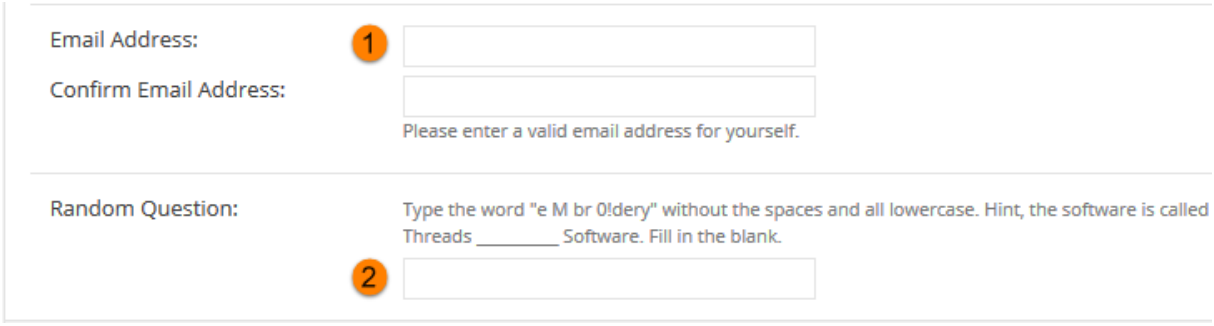
Step 3: Enter your birth date and click **Proceed**.



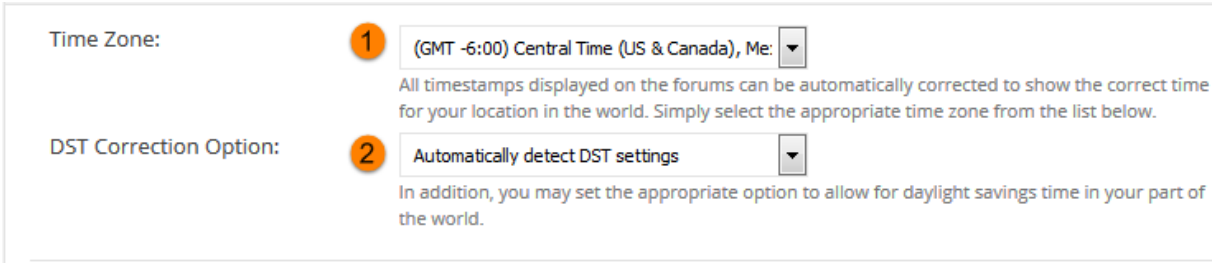
Step 4: Enter desired username and password. Make sure that password and confirm password fields match.



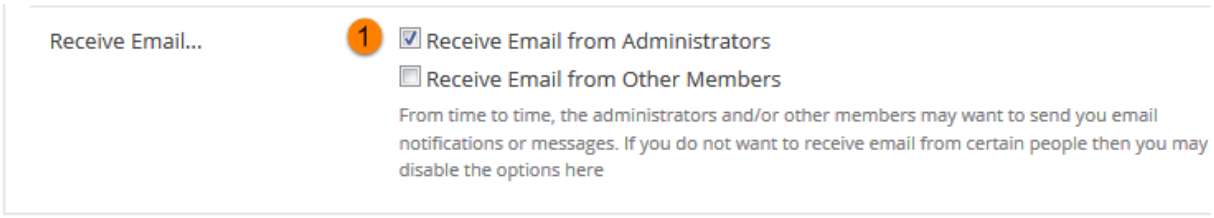
Step 5: Input valid email address and answer the random question.



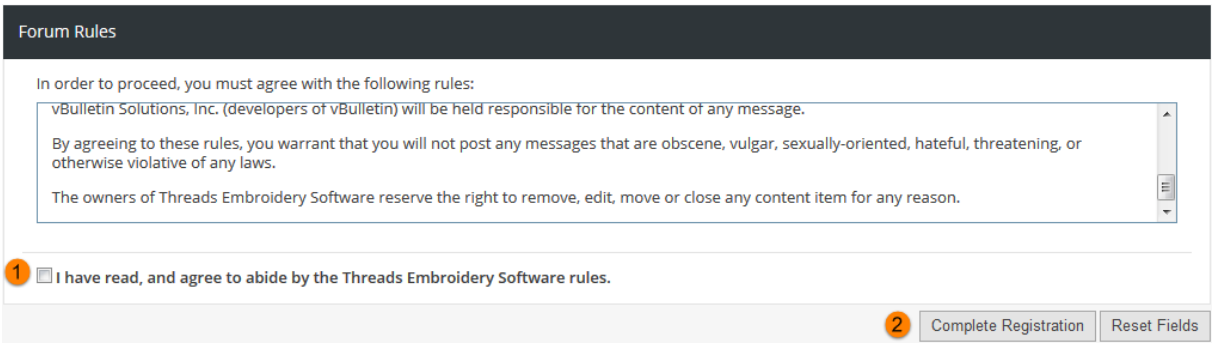
Step 6: Setup time zone settings



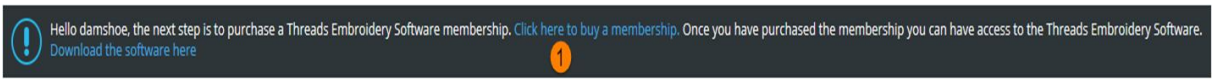
Step 7: Choose if you want to receive email from administrators or other members. We suggest leaving the option **Receive Email from Administrators ticked**.



Step 8: Agree to forum rules and click **Complete Registration**.

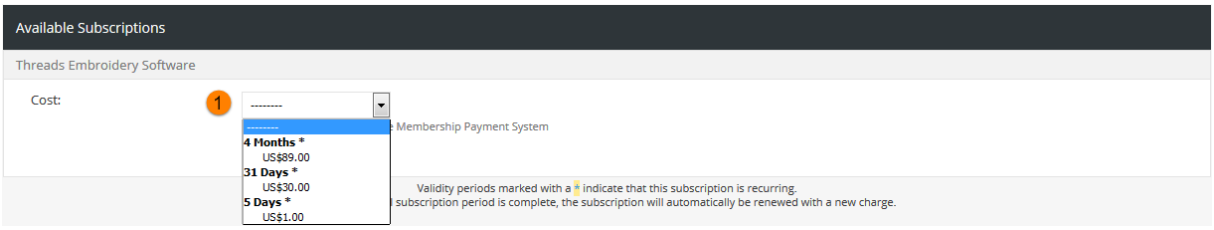


Step 9: Once logged in, it is time to purchase a subscription. You can do this following the link in the notification box above the forum. Click the **Buy a membership** link.

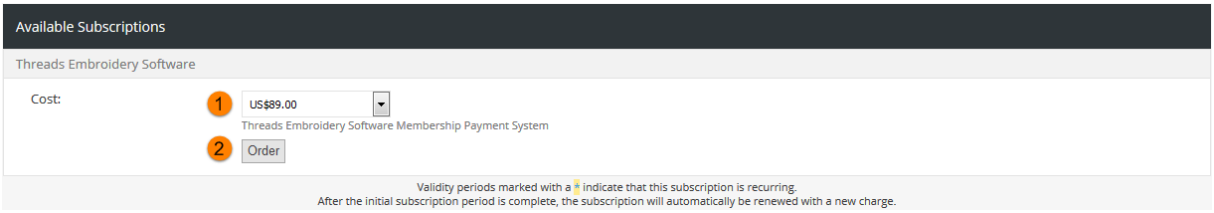


Step 10: Choose a subscription plan from the dropdown menu. There are 3 subscription plans to choose from:

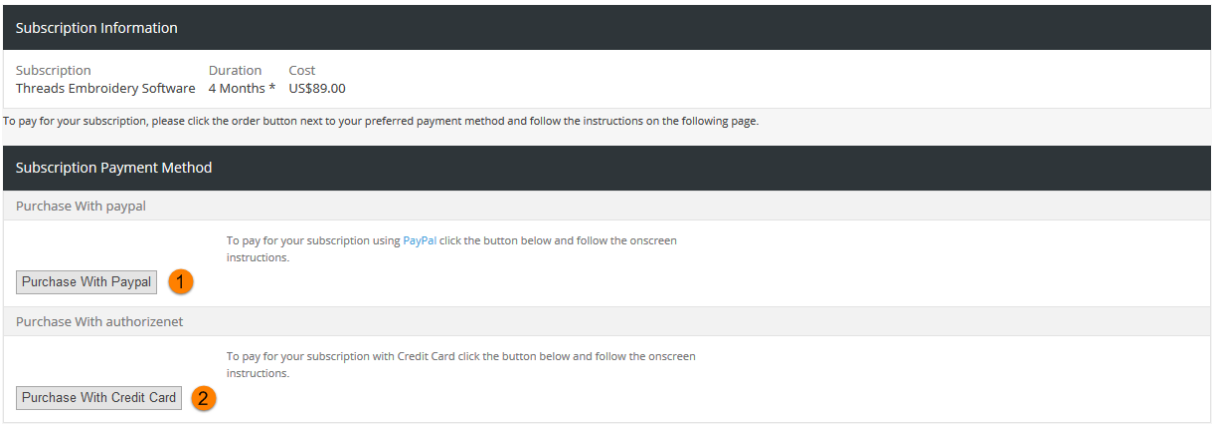
1) 5 days trial period – 1$
2) 31 days – 30$
3) 4 months – 89$



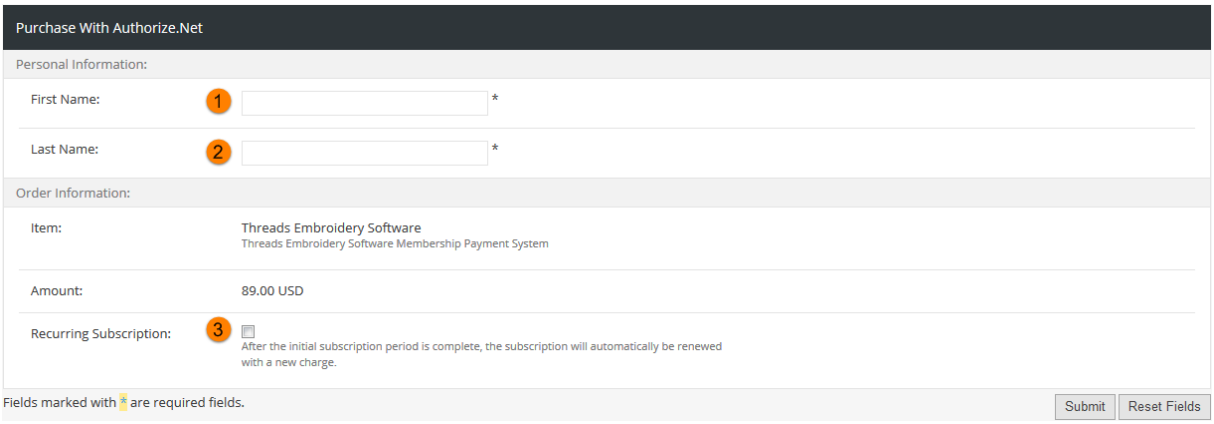
Step 11: Click the **Order** button.



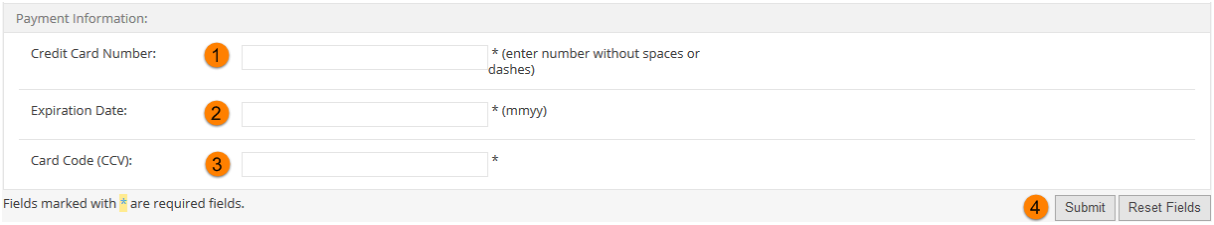
Step 12: Choose your payment option. If you want to pay using PayPal (preferred method) click the **Purchase With PayPal** button, otherwise click the **Purchase With Credit Card**.



Step 13: If you have selected **Purchase With PayPal,** login to PayPal and finish the payment. In case you are paying with Credit Card, additional information is required. Enter the same first and last name as it is on credit card. Tick the checkbox for recurring payment.



Step 14: New form fields will show up. Fill in your credit card details, click the **Submit** button and complete the payment



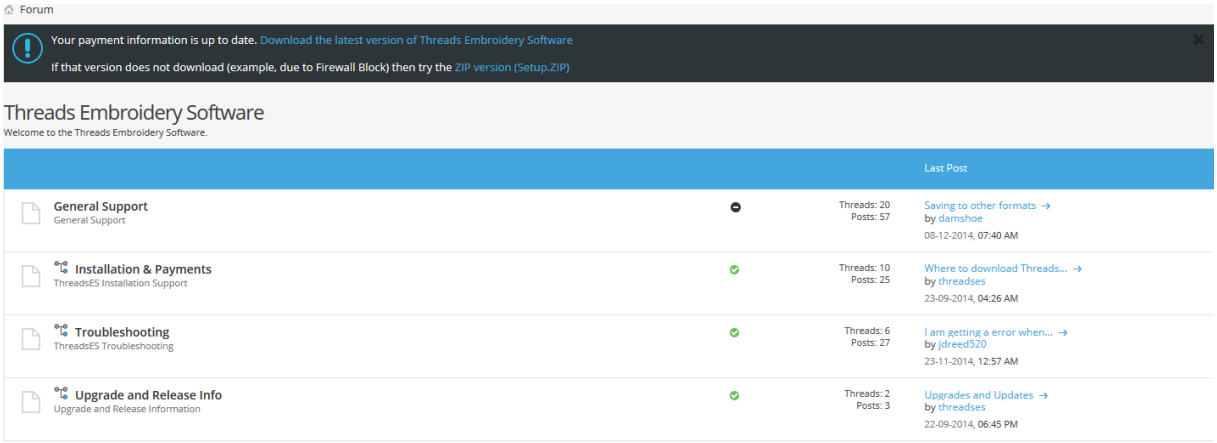
Only one trial membership is available per user. After the trial period is over, the subscription plan switches to a 31 day plan. If you do not want to continue your membership with a recurring 31 day plan, then do not forget to cancel your membership before the trial period ends.

Subscriptions with * mark indicate recurring payments, which means you will be automatically billed for the amount of subscription:

1) For Trial Period you will be billed 1$ for 5 days of ThreadsES usage
2) for the 31 day subscription you will be billed every 30 days (every month / 12 times a year) for 30$
3) for the 4 month subscription plan you will be billed 89$ every four months (3 times a year)

3. Support

The best support for ThreadsES users is aviailable at the [ThreadsES support forum](#).



Support forum is divided into several sections:

General Support – main software support. Here you can find manuals, different step-by-step guides, information about new software features and releases. In case of any questions regarding installation / payment issues, post your question here.

Editing – Support for questions or advice regarding editing mode

Lettering - Support for question or advice regarding lettering

Digitizing - Support for question or advice regarding digitizing

General – Support for question or advice that does not fit into any other category on the forum

Requests – post any ideas or suggestions on improving the software or any other special requests

ThreadsES basics

4. Installation

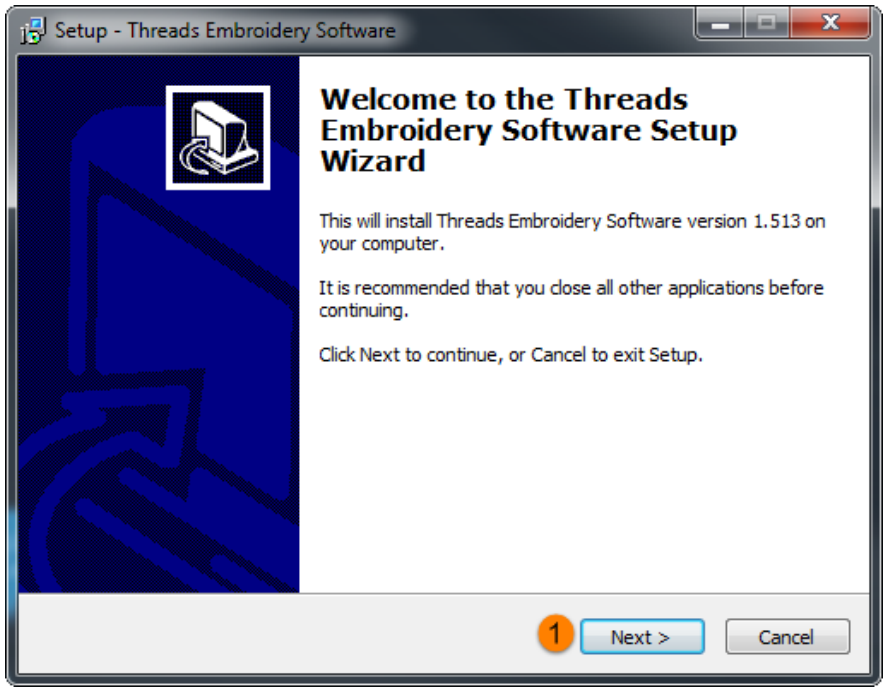
After you have subscribed to ThreadsES it's time to install the software on your computer.

Step 1: Download the file from ThreadsES website.

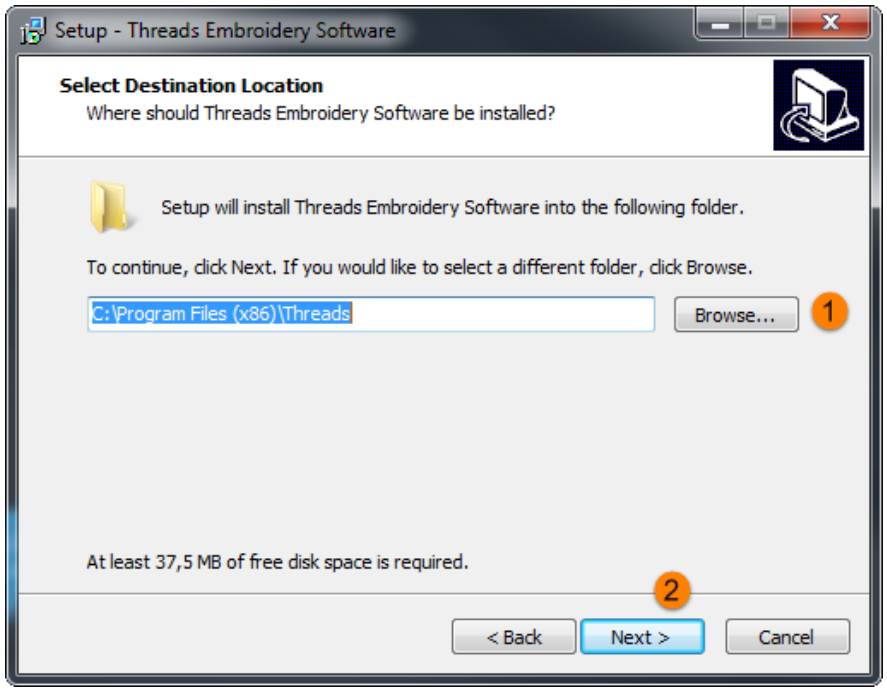
Step 2: Choose between downloading the EXE or ZIP file.

Step 3: When the file is downloaded start the .EXE file (if you have downloaded the .ZIP version, first extract it and then start the .EXE file)

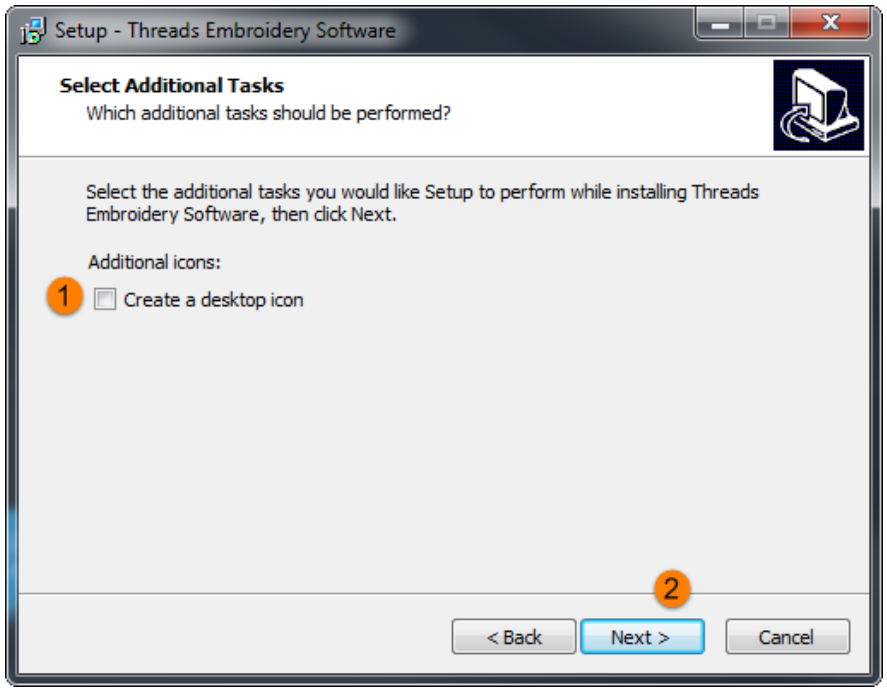
Step 4: Software installation will start. Click **Next** on the first screen.



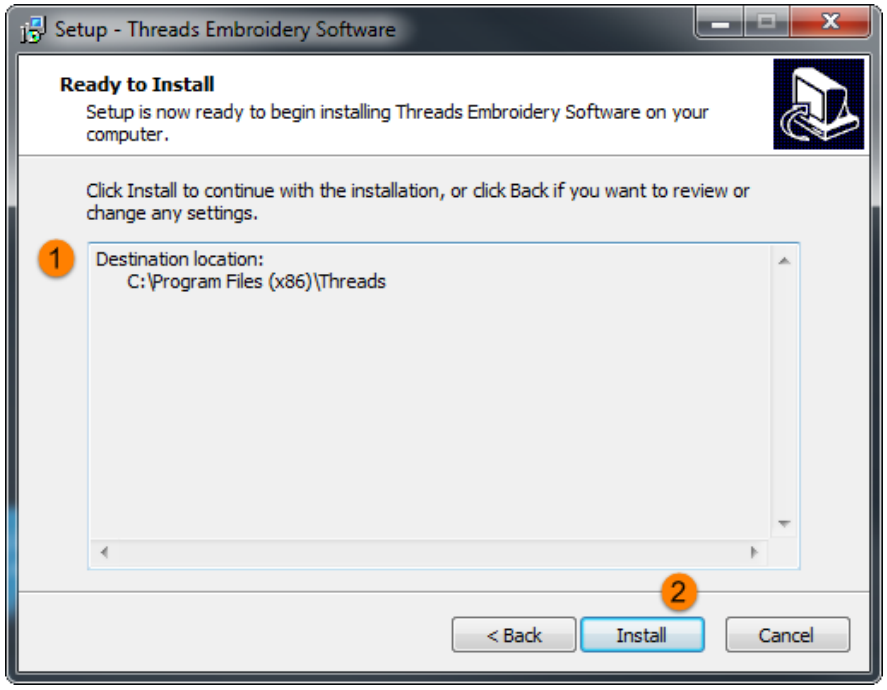
Step 5: Choose the installation folder and click **Next**. We recommend leaving the installation directory as the default that appears on your screen.



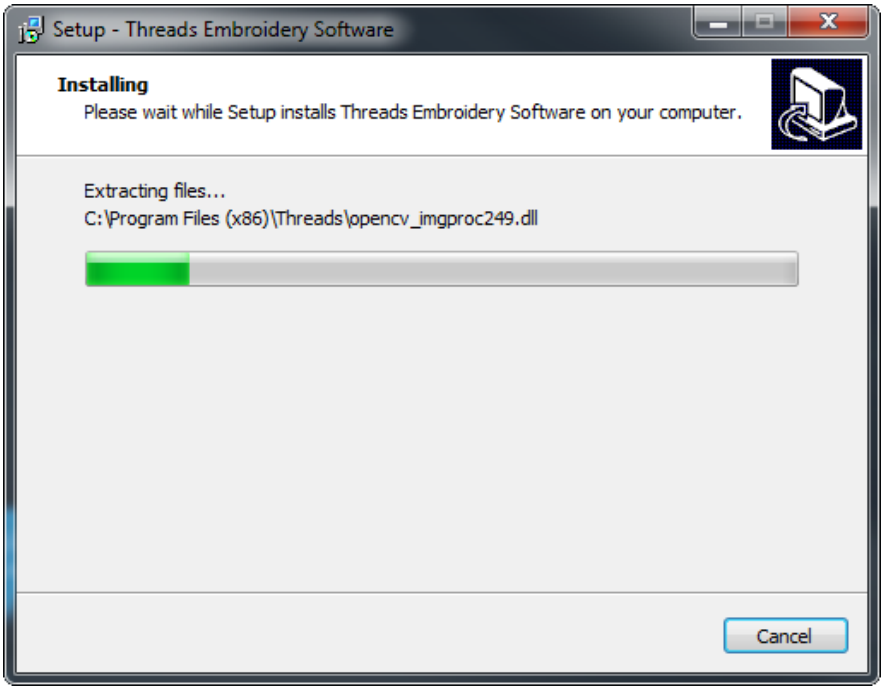
Step 6: If you create a ThreadsES icon on desktop, tick **Create a desktop icon**. Click **Next** to proceed with the installation.



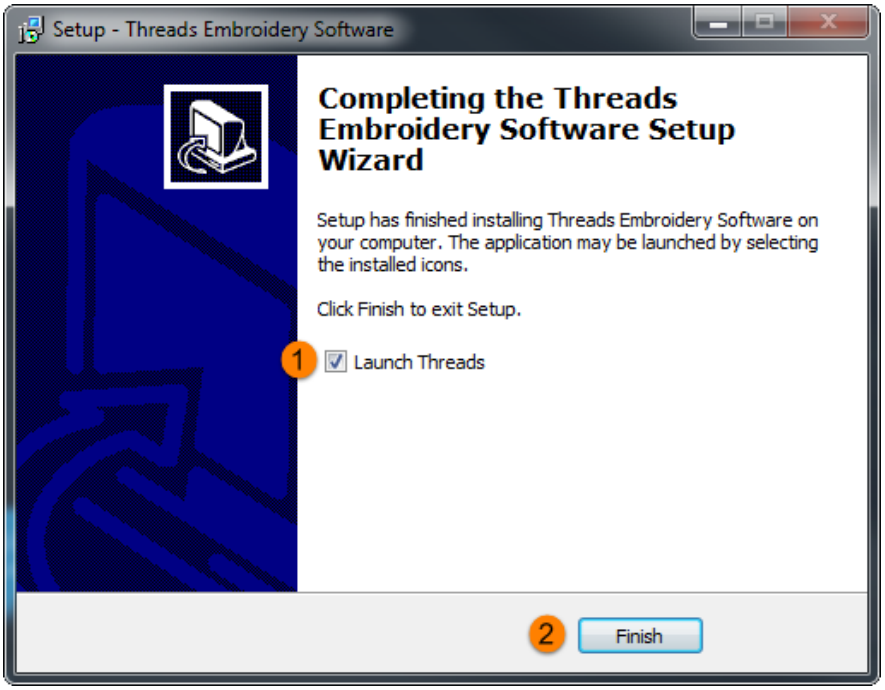
Step 7: Preview all of the installation options. If you want to change any of the options, click **Back**. Click **Install** to proceed (recommended).



Step 8: Installation should take a minute or two, depending on the speed of your computer.

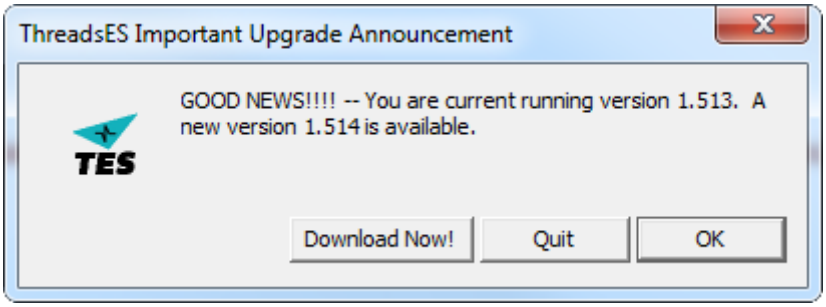


Step 9: If you want to start ThreadsES after installation, tick the **Launch Threads**. Click **Finish** to complete the installation process.



4.1. Updating ThreadsES

The ThreadsES team is working on a daily basis, adding new features or fixing possible bugs. Every time you start ThreadsES, it checks for new software versions. If there are no new versions found, ThreadsES will continue to start normally. If there is an update, the following update dialog will appear.



Download Now takes the user to the download page and starts the new version download. The **Quit** button will exit the ThreadsES and **OK** will start the program without updating.

User can also check for updates inside the ThreadsES using Main Menu.

Update installation procedure is the same as ThreadsES installation; there is no need to uninstall the previous version unless the installation specifically requests that the previous version be uninstalled.

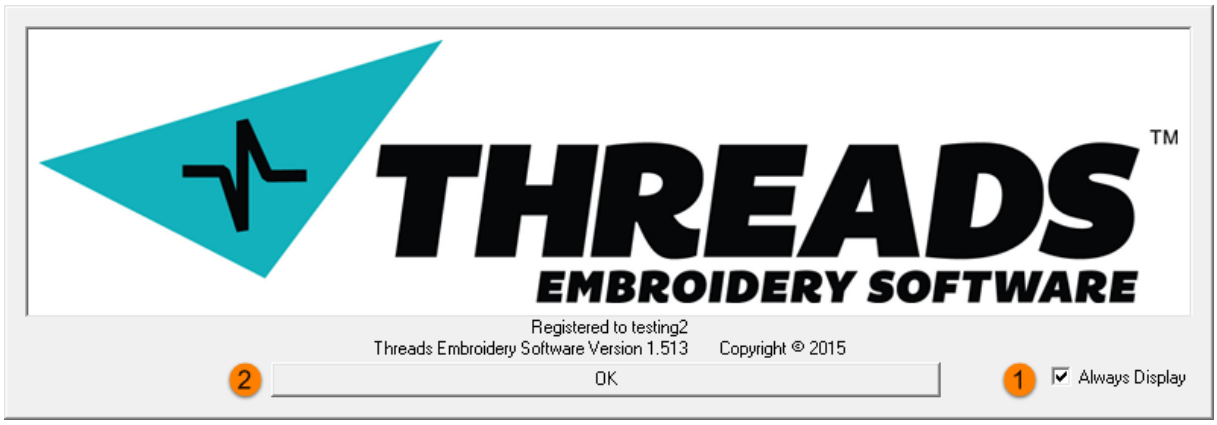
ThreadsES overview

5. Starting for the first time

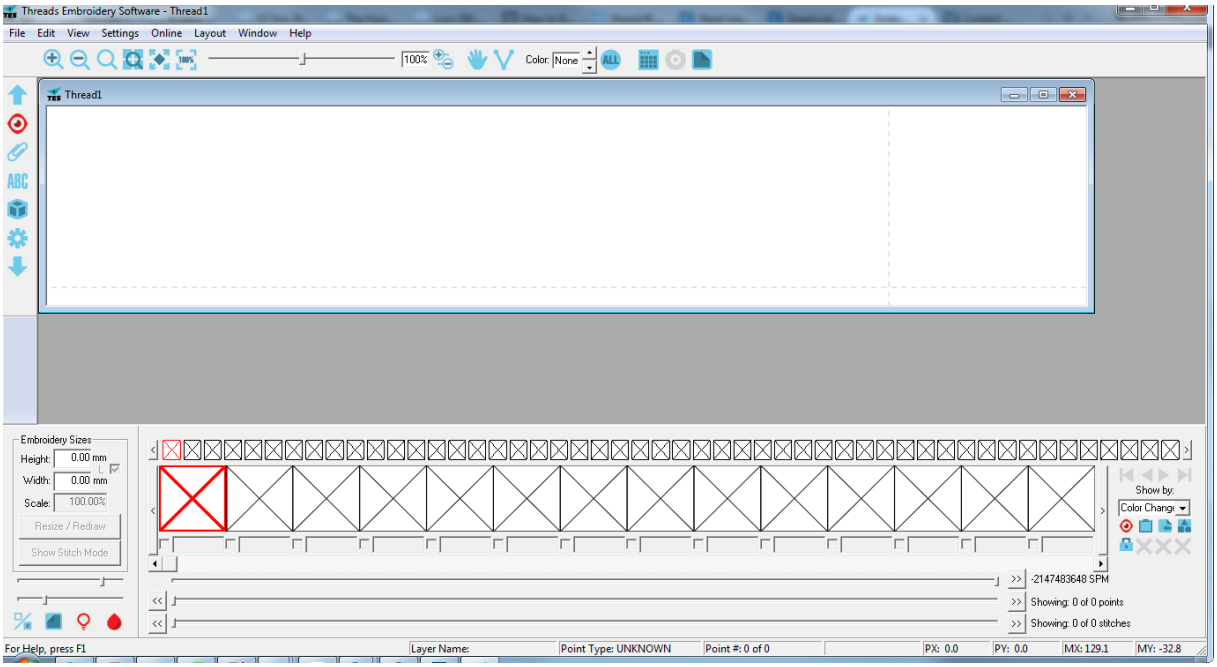
Once installation is completed, it's time to run the software for the first time and get to know the interface and basics. Double click the ThreadsES icon. As soon as the ThreadsES loads, the registration dialog appears.

If you haven't registered your software already, click **Register Online** and follow the registration steps. Enter your username and password to start the software. You can tick **Remember me** checkbox to avoid showing this dialog window in the future. In case you forget your username or password click **Forgot Username / Password**. Click **OK** to start ThreadsES.

ThreadsES welcome screen appears. Tick **Always Display** to toggle on or off showing the welcome screen every time ThreadsES starts. Click **OK** to start ThreadsES.



ThreadsES starts and the default layout appears.



6. Compatibility

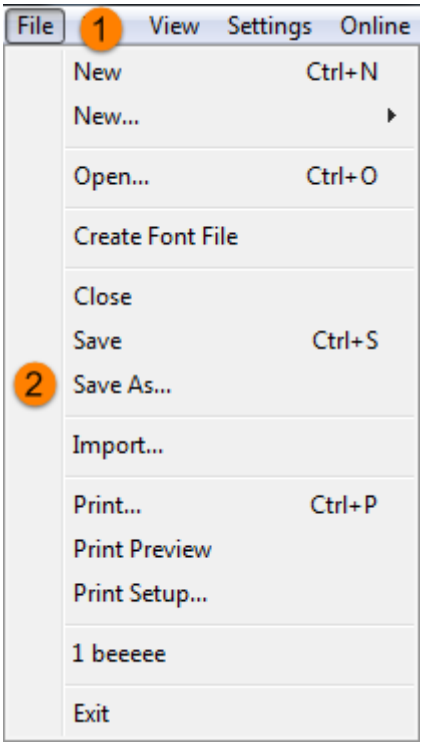
Threads Embroidery Software is designed to run on a Windows based PC system. Threads will work with ANY industrial, commercial, or home embroidery machine that can read the following formats:

FILE FORMAT	READ	WRITE
Tajima DST	X	X
Threads Embroidery Files TEF	X	X
Condensed Embroidery Files CND	X	
Expanded Embroidery Files EXP	X	X
Singer Embroidery File XXX	X	
Melco Expanded Embroidery File EXP	X	X
Janome Embroidery File SEW	X	
Bernina/Babylock Embroidery File PES	X	
Pfaff Embroidery FIle PCS	X	
Janome Embroidery File JEF	X	
Husqavarna Embroidery File HUS	X	
Poem Embroidery File CSD	X	
Barudan Embroidery File DSB	X	
Barudan Embroidery File DSZ	X	
Inbro Embroidery FIle INB	X	
Pfaff Embroidery FIle KSM	X	
SWF/Sunstar Embroidery File SST	X	
PCM Embroidery File PCM	X	
Babylock Embroidery File PEC	X	
Brother Embroidery File PHB	X	
PLT Embroidery File PLT	X	
Brother Embroidery File PES	X	

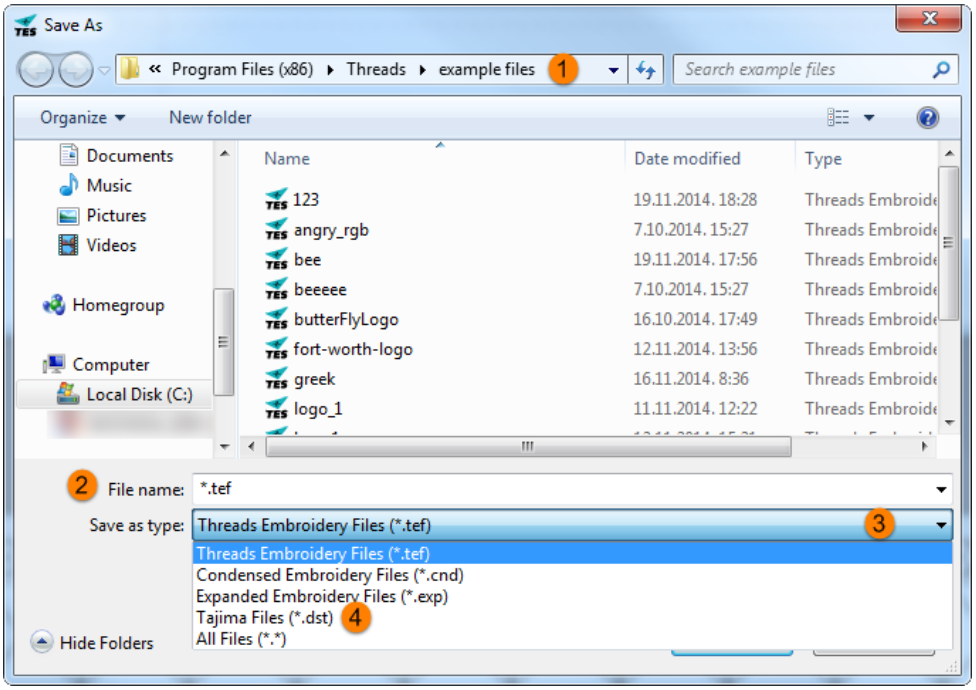
6.1. Exporting to other formats

ThreadsES uses its own file extension (.tef). As you can see in the table above, ThreadsES also supports saving to different file formats. Follow these steps below to save to various formats of your choice.

Step 1: From the File menu choose **Save as**.

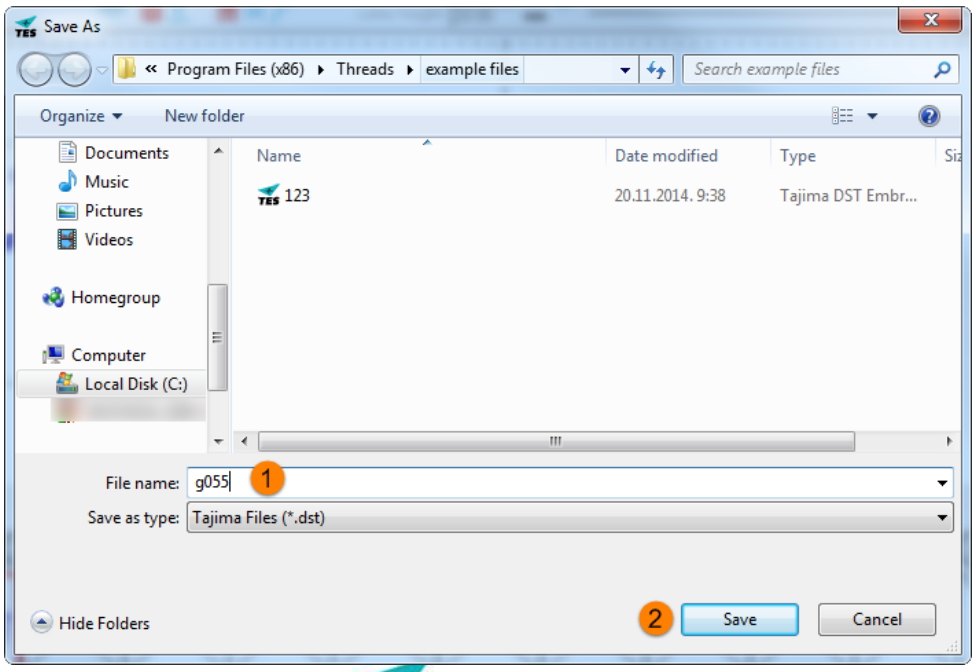


Step 2: The **Save As** dialog appears. Choose the file location ant the file type. For example, to save to DST (Tajima), select Tajima Files (*.dst) from the dropdown menu.



Step 3: When file type is changed, the window will only show files that have the same extension. Click **Save** to save the file.

Step 4: When saving to DST, many Tajima machines require file name format gØxx.dst where XX is any number from ØØ – 99. Therefore, the first Tajima DST file name on a disk/USB would be gØØ1.dst, the second Tajima DST file name would be gØØ2.dst, the third gØØ3.dst, etc.



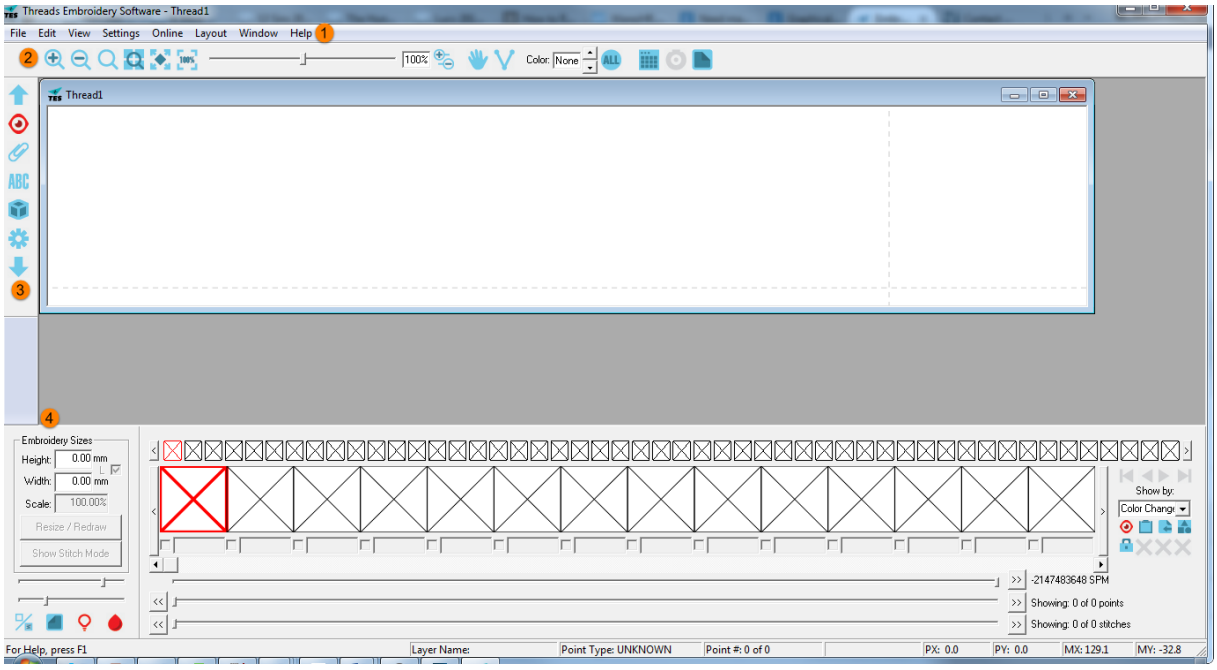
> The Tajima .dst file can not store the color palette. It does not have the ability to save RGB (red, green, blue) color values at the color changes. When working with this files, you need to configure the color of the thread in the machine you are using.

7. Interface

Like every other software, ThreadsES consists of different menus, tools and windows. Tools are combined into toolbars, windows are used for displaying your work and menus allow basic software operations.

The default ThreadsES layout contains:

1) Main Menu
2) Top Dialog Toolbar
3) Left Dialog Drawer
4) Bottom Dialog Workshop
5) Status bar

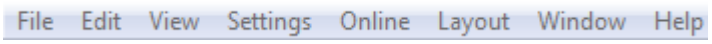


ThreadsES has some predefined **Layouts,** explained in the layouts section of Main Menu.

Each toolbar is explained to the last detail inside the toolbars section.

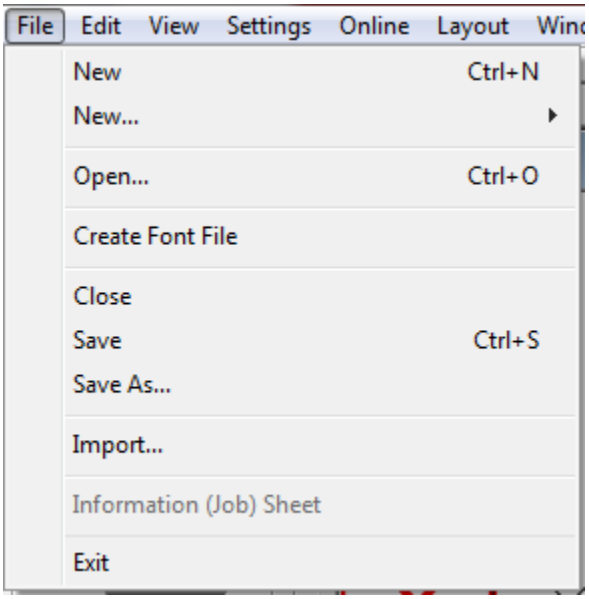
7.1. Main Menu

The name itself explains the purpose of the menu. Whether it is document setting, software setting or interface setting, all of these are managed through the Main Menu.

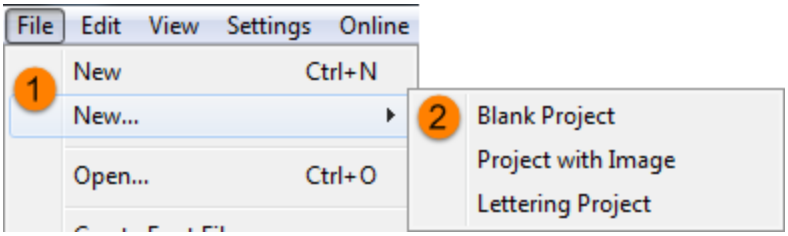


7.1.1. File

File option allows file management like creation of new documents, saving, exporting, importing and printing.

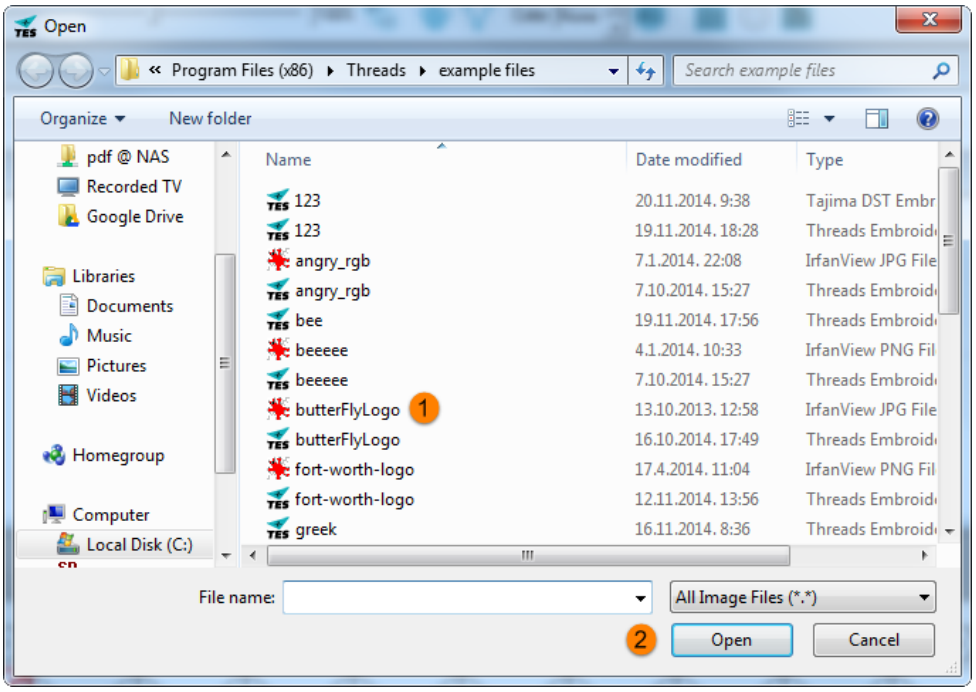


To create a new project, choose **New** (**Ctrl + N**) or use the advanced create options.

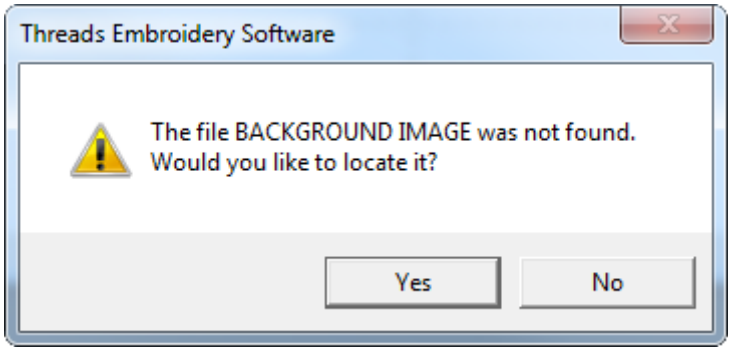


Blank Project option does the same thing as the selection **New** option from the File menu. Just a plain blank empty project will open.

Project with Image will create a new project window but with an image in the background. The background image is used as a reference when digitizing. When this option is selected, the image browse dialog appears. User chooses the image to import and clicks **Open**. ThreadsES supports various image types such as JPG, PNG, BMP.



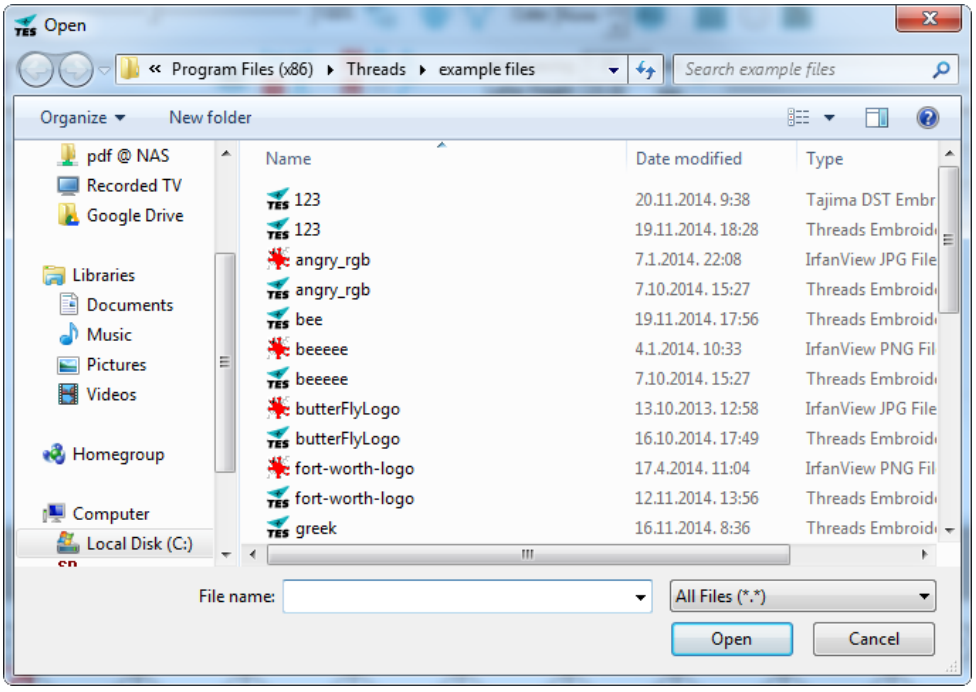
If the file type is not image, ThreadsES will give a warning about it. The warning dialog window shows up and asks user to select a different file.



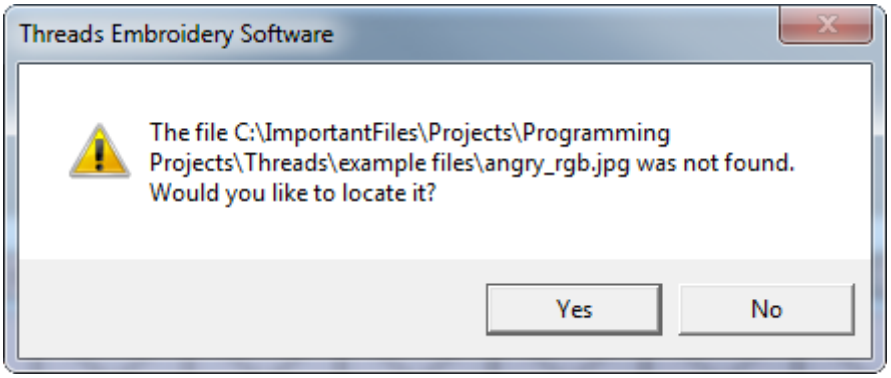
User clicks **Yes** to browse the file or **No** to cancel (and not display any image).

The **Lettering project** option creates a new project and immediately starts the lettering mode. Use this option if you only want to set lettering.

User can **Open** existing ThreadsES file, or image files or any of the supported files.

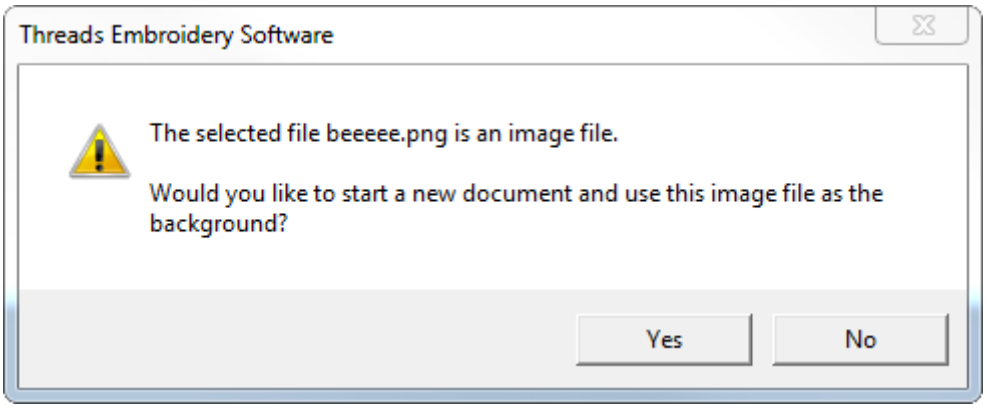


The ThreadsES file format does not store the background images. They must be manually reloaded with the document. When the user opens the file that references an image, ThreadsES will warn user about the image file.



User clicks **Yes** if they want to load the image file, otherwise will click **No**.

If the user selects an image file (instead of an embroidery file), a dialog will show. The dialog notifies the user that the selected file is an image file and offers to create a new project to start working with image file as the background.

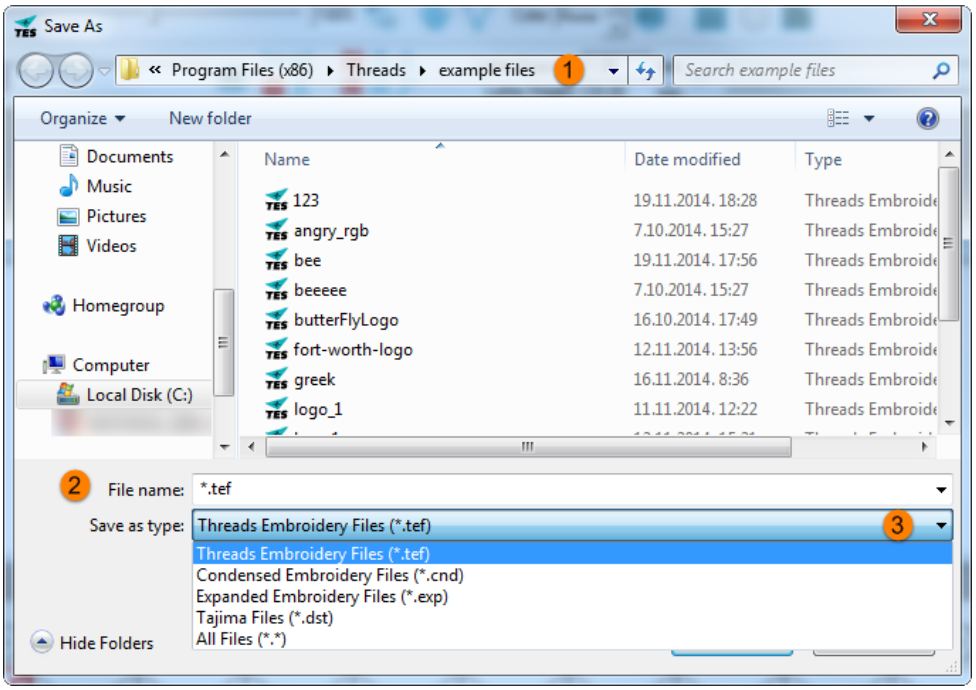


Click **Yes** to create a new project based on the selected image as the background. Selecting **No** will create a blank empty project.

The Close option exits only the current project, and not the whole application. If the last changes on the project are not saved, the user is prompted to save them.

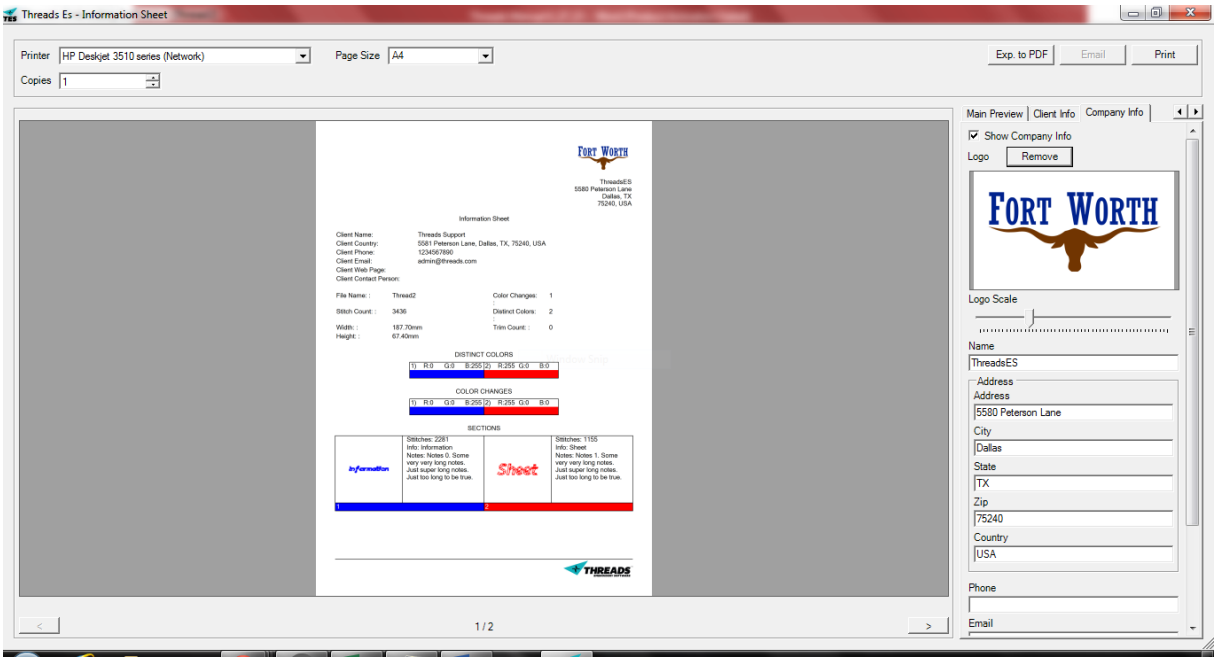
The **Save** command saves all the changes made after the last file save. If the files has not been saved before, the **Save** command behaves like **Save As** command. The dialog

window will appear which allows choosing the file location, the file name and the file format.

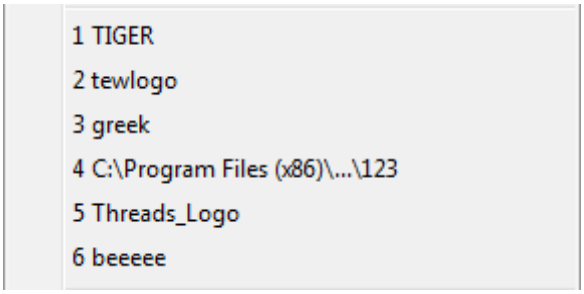


The **Import** option is used for only importing Embroidery formats (not image files). It does not behave like **Open,** since it only imports the files into the **Import Section Dialog Bar**. Users can then select part or all for the design to "paste" to the current project.

Information (Job) Sheet enables users to print and review the current project. Not only will this feature let user print the project, but it will show information concerning the current project. Users will be able to enter client and company information.



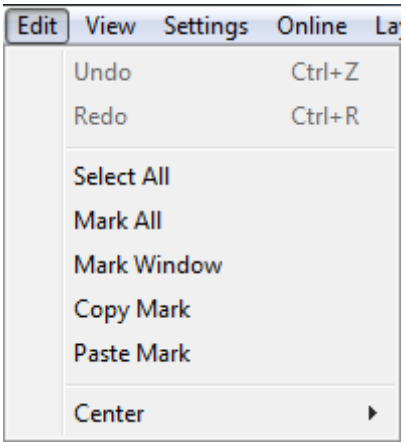
Recent files shows the most recent projects the user has worked on. The most recent project will show up as first in the list.



Exit will close all projects, prompt saving if any changes were made, and exit the application.

Close, Save, Save As and Import options are unavailable when there are not any active projects open.

7.1.2. Edit



Undo (**Ctrl + Z**) & **Redo** (**Ctrl + R**) functions are basic Windows commands familiar to any user. Undo will undo the last change or addition you have made to your project. Undo & Redo cannot be used when any command is active.

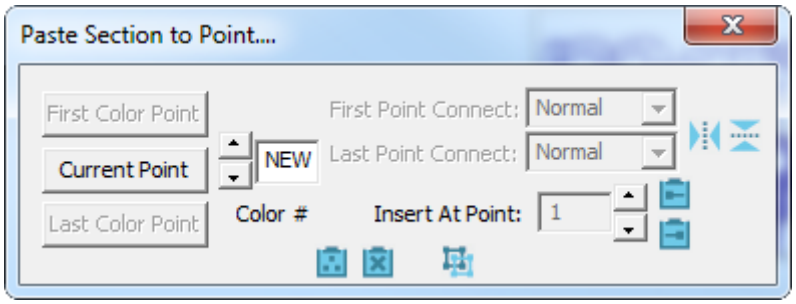
Select All selects all the points of all objects in the current project. Once a point/object is selected, its parameters can be modified/adjusted. The parameters can include stitch densities, stitch lengths, etc. These changes to the selected points/objects can all be modified in the Parameters Dialog.

Mark All marks all objects in the current project. Marked points can be rotated, moved, deleted, copied, pasted, duplicated, etc. Most all Mark operations are performed in the Mark Toolbar.

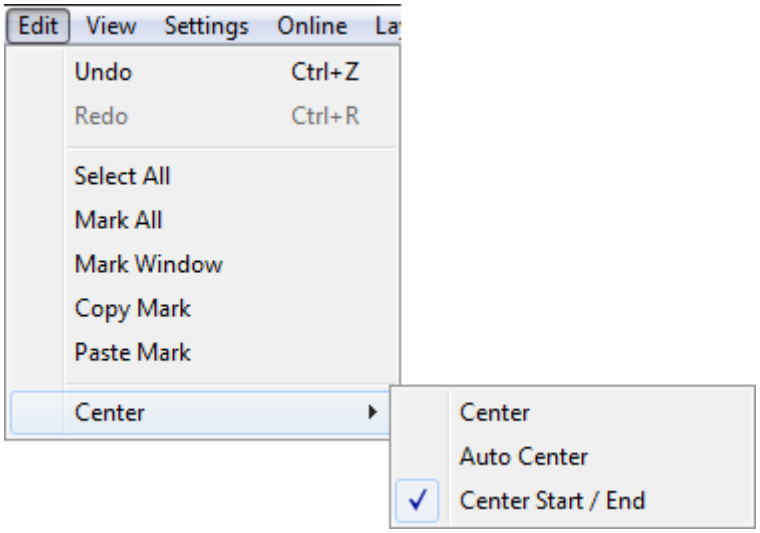
Mark Window enables the selection window and allows the user to mark only a certain area of points. To use the Mark Window tool, first select the icon. Then from within the project area, click and drag with the left mouse button to create a box. Any point that falls inside this box will be marked. The selection area of the mark will be highlighted in red. Release the left mouse button when all the points you want marked fall within the red area. Each point that is inside the red area will be marked.

Copy Mark copies marked object.

Paste mark pastes marked objects / points somewhere in the drawing. When **Paste Mark** option is selected, Paste dialog appears.



Center groups all objects in the drawing and sets the selection midpoint to the center of the screen. Center also resets current zoom level to 100%. Use the **Center** tool when you want the start and end point, and the center of the design to be at point (0, 0).

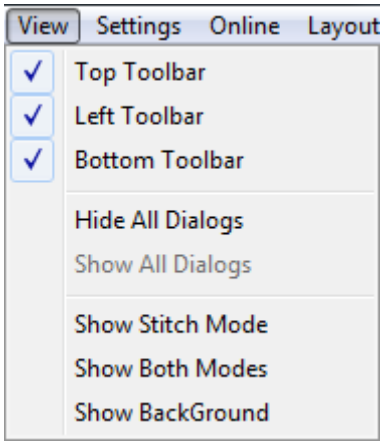


Auto Center centers the project each time the embroidery stitches are generated.

Center Start / End starts and returns the machine to its origin point before and after embroidery.

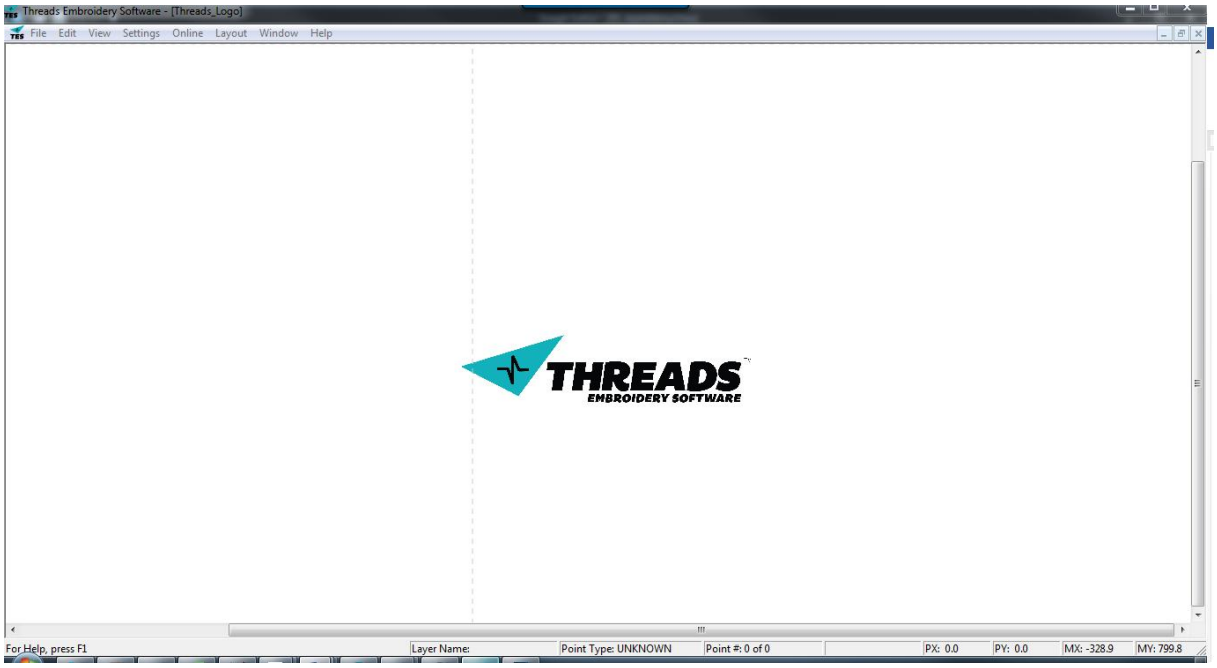
7.1.3. View

View controls the ThreadsES interface. Sometimes the user does not need all the functions that the basic layout offers or he just wants to modify it to suit his needs.

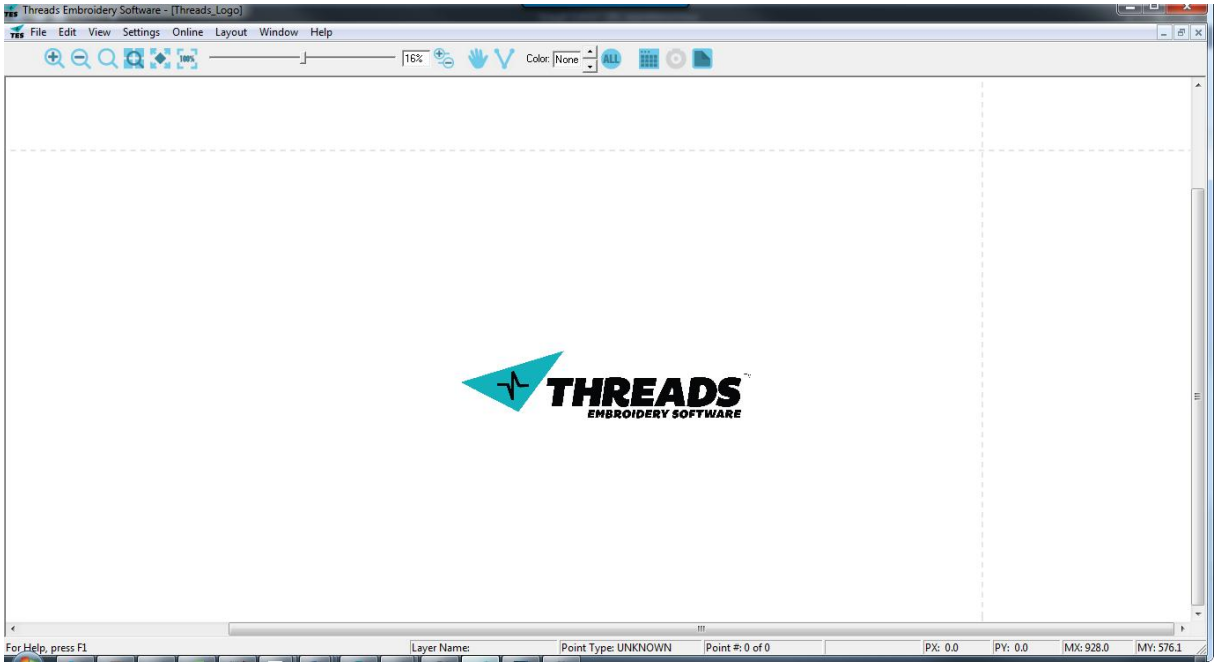


Top, left and bottom toolbar can be shown or hidden. The important thing to know is that when turning one of these off it turns all the toolbars off, no matter if they are active or inactive. This hides any toolbar at the top, left or bottom of the screen. So, if the user is in lettering mode and turns off top toolbar, lettering toolbar will also disappear (because it was on the Top Toolbar).

Hide All Dialog hides all the toolbars. Active project is maximized. Main Menu remains visible.

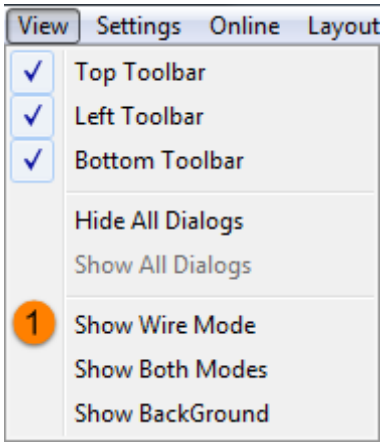


User can click **Show All Dialogs** to bring back the layout or activate toolbars one by one.



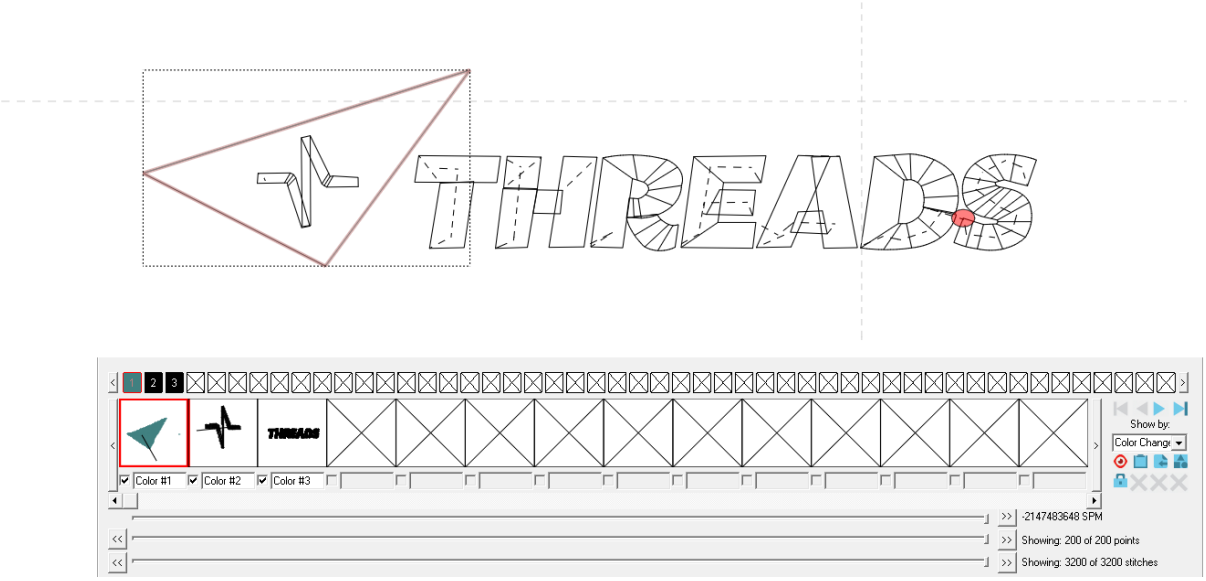
Show Stitch mode shows the whole project as stitches (in stitch mode).

To return to previous view, user must click **Show Wire mode**. The Wire mode will show only the wire frame version and will not show the stiches.



By default, ThreadsES shows the wire frame mode with fill mode turned on. The outline (wire frame) is visible on the bottom toolbar.

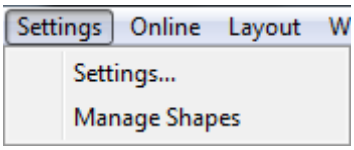
When **Show Both Modes** is turned on, the drawing window will show a combo of both wire frame mode and the stitch mode. The bottom toolbar will show the stitch mode.



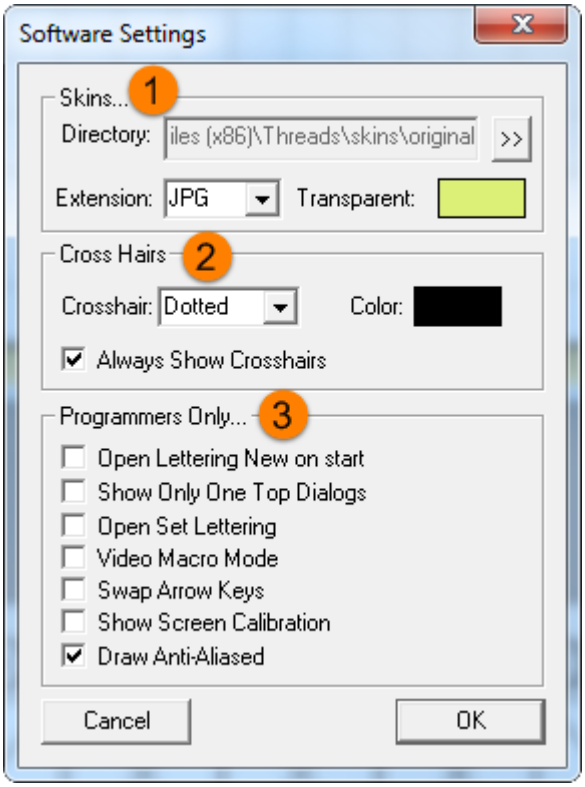
Show Background toggles visibility of image in the project.

7.1.4. Settings

In the settings tab user can manage general software behavior and some interface settings. Changing of any setting requires a ThreadsES restart.

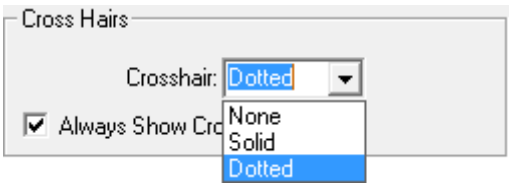


Clicking the **Settings** option opens the settings dialog.

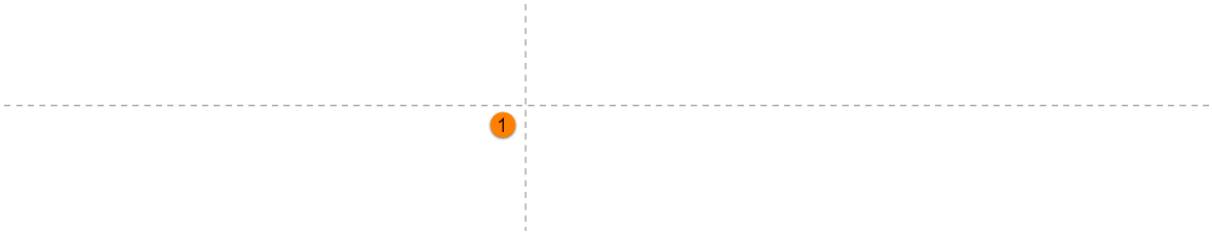


Under the **Skins** section the user can change the default skins directory and / or change the file type of the skins source images. Changing the skin directory will change the look of the ThreadsES software. However, the user must have a valid ThreadsES skin package directory installed or error may arise. Advanced users only.

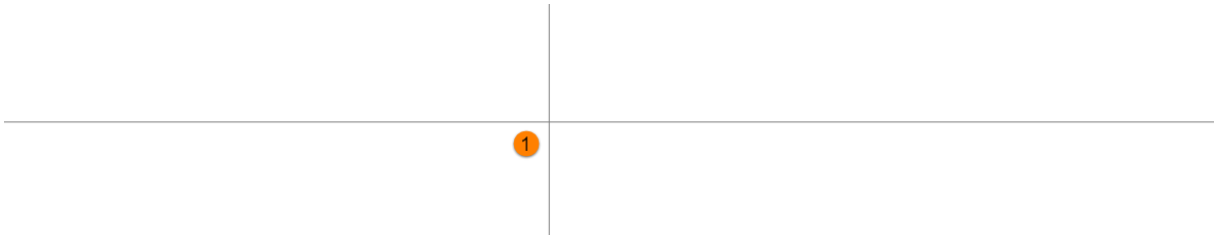
Cross Hairs section allows changing crosshair color and display settings of the crosshair.



Crosshair is **Dotted** by default and appears always.



Crosshair can also be displayed as a **Solid** line.



If the **Always Show Crosshairs** option is not ticked, crosshair will be displayed only in certain situations, for example, when moving letters or points.

Programmers Only section allows you to change ThreadsES behavior. **Open Lettering New on start** will allow user to choose to create a new font every time he starts ThreadsES. That way, two new windows will appear when ThreadsES start – new drawing window and a new font window. New fonts can only be created from existing (installed) TTF (true type) fonts.

Show only One Top Dialogs enables only one toolbar to appear in the interface at a time. By default, ThreadsES shows toolbars only when you activate a mode / action that has

toolbar (e. g. Lettering) and they stack horizontally. This way, if no action / mode is selected, then the default toolbar will appear and if Lettering is active, only Lettering toolbar will appear. User modifies this setting if they need more drawing space.

Open Set Lettering will enable lettering mode as soon the ThreadsES starts. Two drawing windows will open, one will be blank and the second will have lettering mode enabled.

Video Macro Mode always opens the application to a specific location and size. This way macros can be run on the software and the window will always be in the same location and same size so that the macro locations always line up. Used for making tutorial videos, etc.

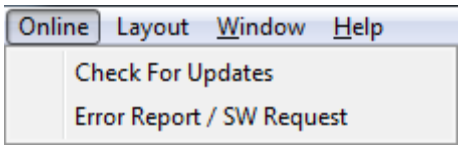
Swap Arrow Keys swaps the arrow key functions. When user presses **Right arrow** keyboard button, if **Swap Arrow Keys** is active, ThreadsES will recognize it as **Left arrow key** and vice versa. The same goes for **Up** and **Down** arrow keys. ThreadsES uses the up, down, left, right keys for zooming, point scrolling, etc. Some users feel more comfortable when these key / tools are swapped.

Show Screen Calibration is only used for Beta Testers. Do not use unless you are a Beta Tester and testing screen calibrations.

Draw Anti-Aliased enhances the look of your corners. If the object is anti-aliased its corner shows up as smooth and well round, otherwise it shows up pixelated and sharp. Anti – Aliased might slow down the system a small bit, but not much.

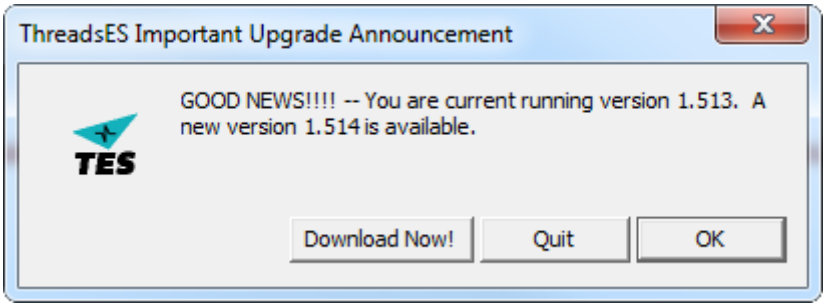
7.1.5. Online

Online menu option allows user to check for ThreadsES update, report a bug inside ThreadsES or to request new feature.

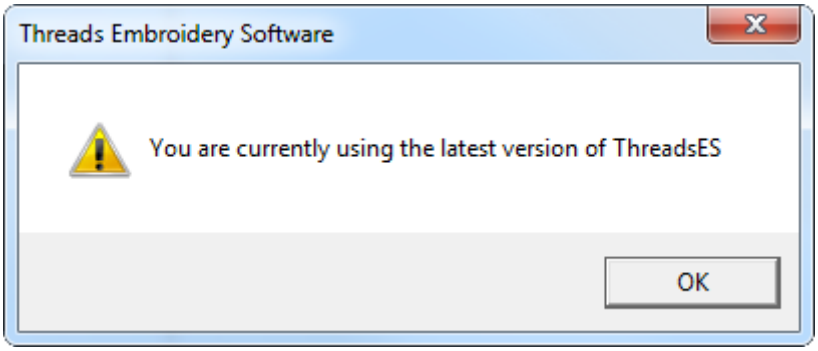


ThreadsES checks for updates every time it starts, but if the software update is released while the user is working **Check For Updates** will find the new update and install it. This feature can also be used if the user wished to not receive any update notification at startup.

If there is a new ThreadsES version available, an update dialog will show up.

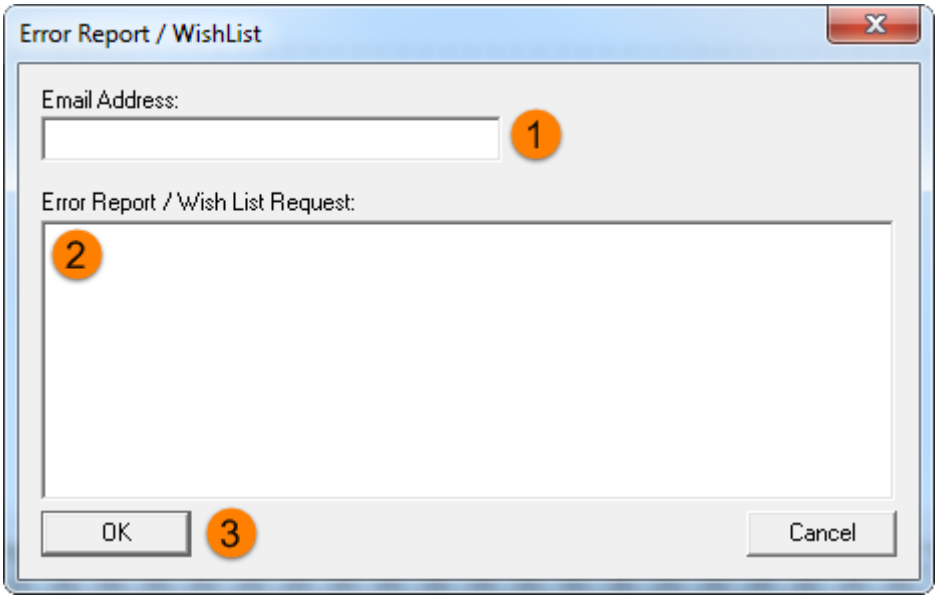


When there is no update available, a dialog will inform the user.

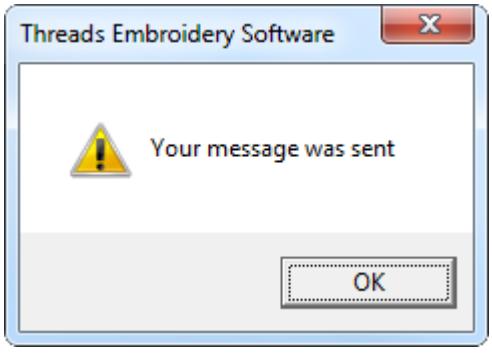


User may want to have some additional features in ThreadsES or he maybe have encountered a bug. To report an issue or request something, the **Error Report / SW Request** menu option is used. Once clicked, error report dialog shows up.

User must input his email address in order to receive an answer to his report. The **OK** button submits the report, and **Cancel** exits the dialog.

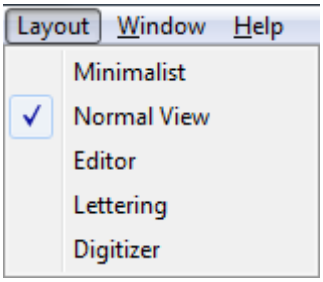


After the report is submitted, confirmation dialog shows up.

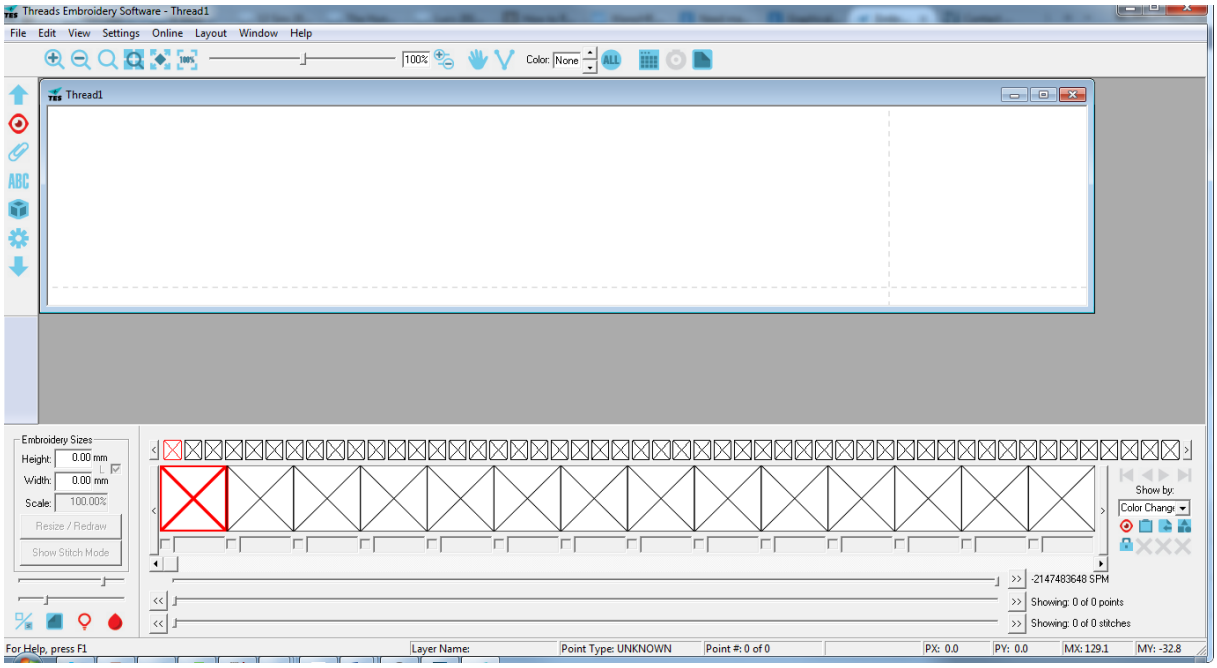


7.1.6. Layouts

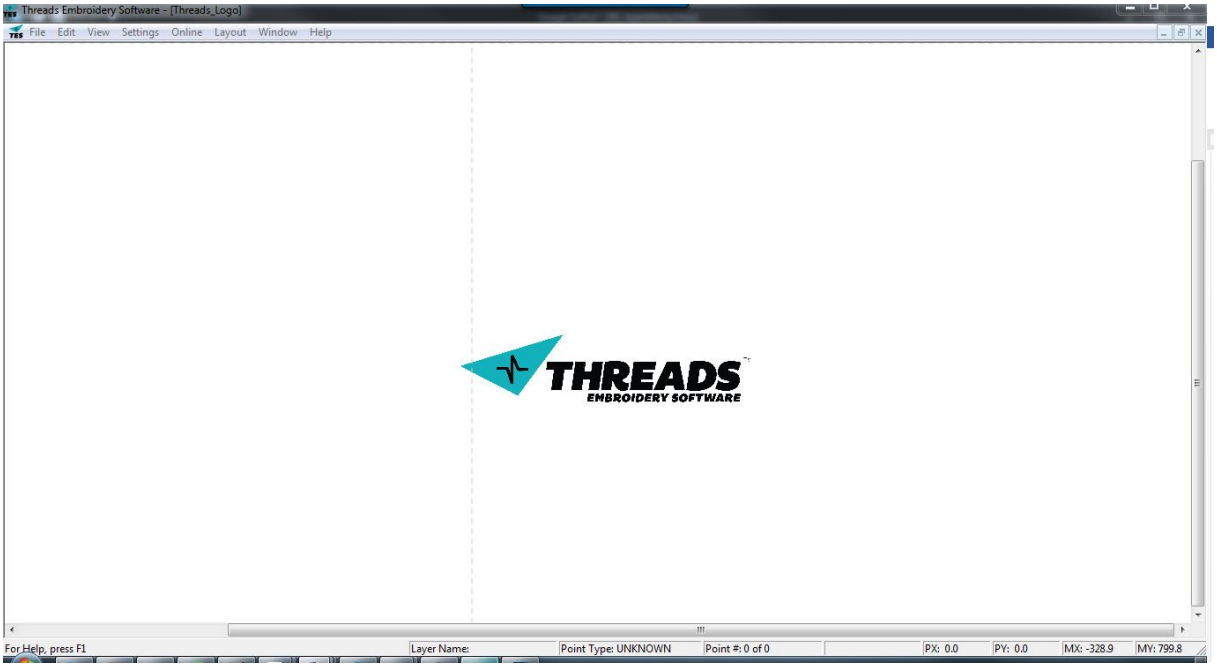
Layouts are software-defined settings that control the look of your interface. User can always modify the interface the way that suits him, but they can also use settings that are optimized for different drawing needs.



The default layout is **Normal View**, which contains Top toolbar, Side toolbar, bottom toolbar and the drawing windows.

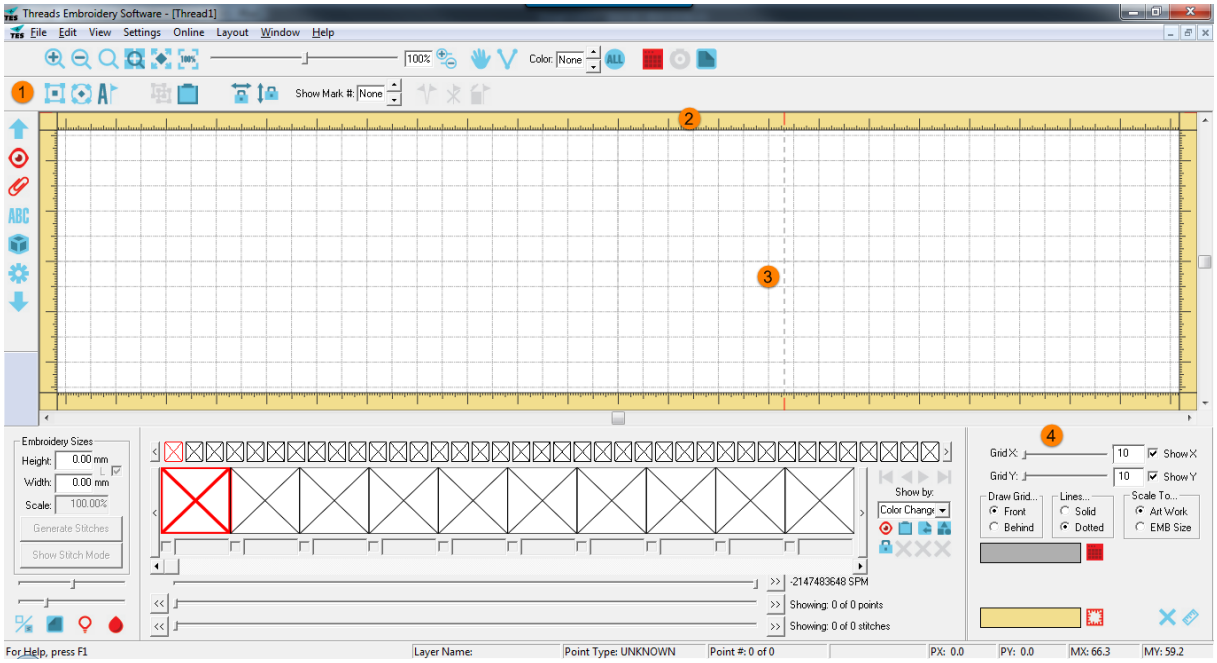


Minimalist view shows only the drawing window. Its behavior is the same as Hide All Dialogs.

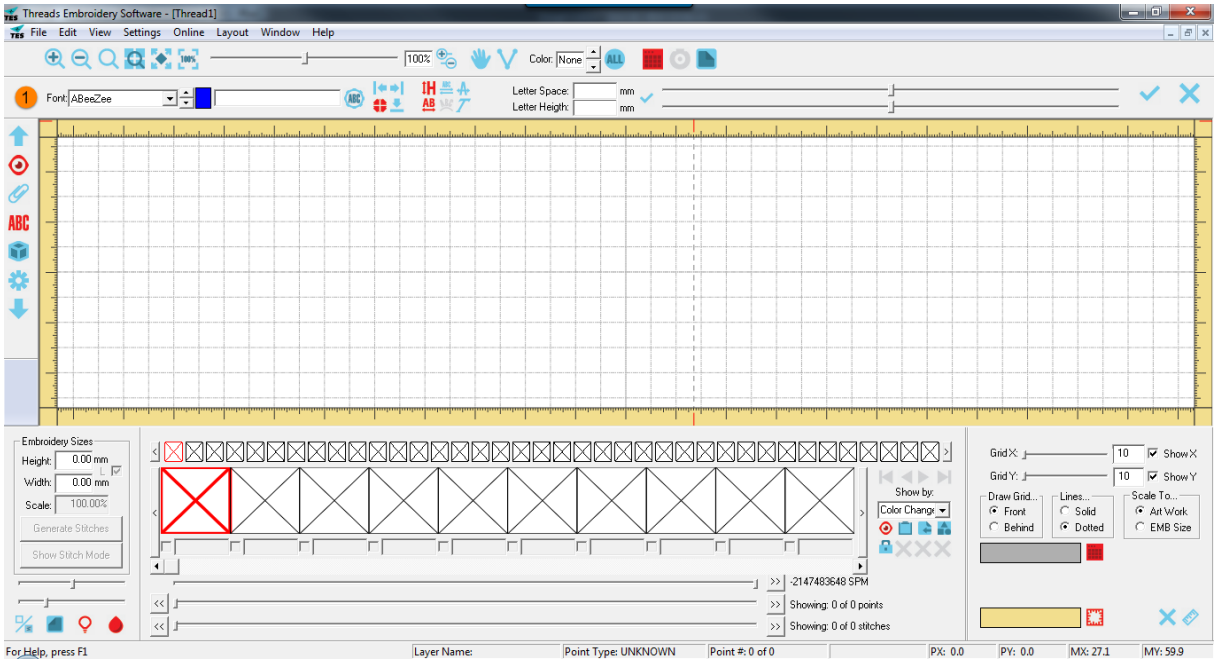


User can get back to the default layout by selecting **Normal view** in the **Layout** menu or can turn on the toolbars in the View section.

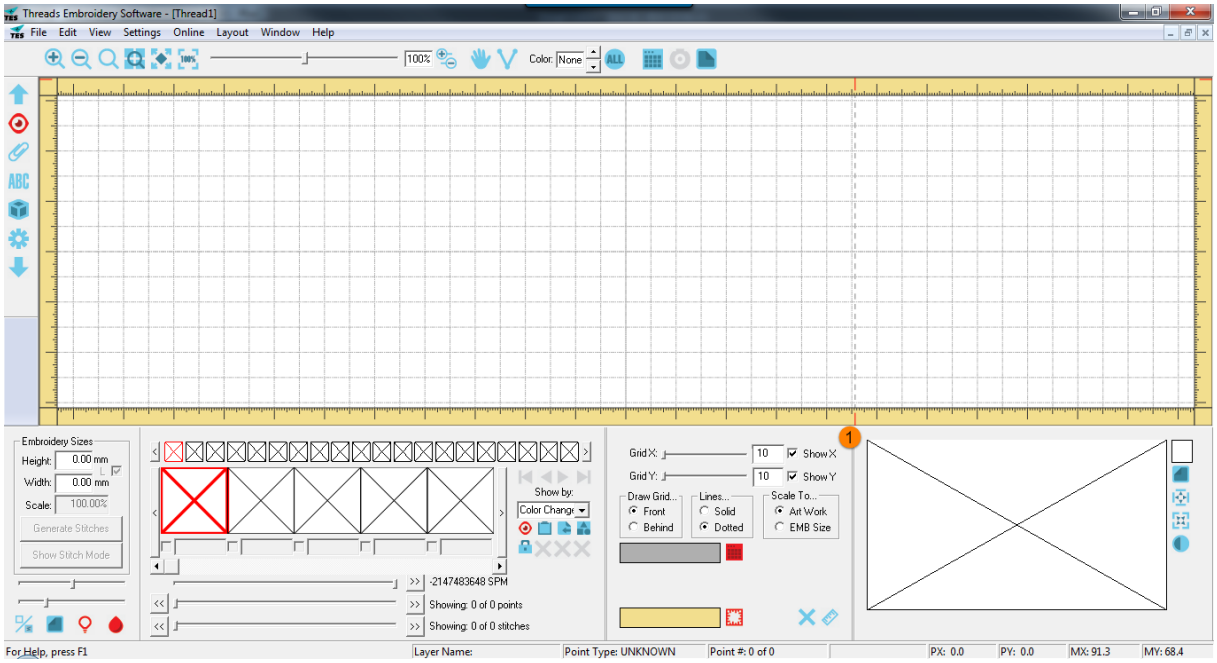
Editor layout adds one new top toolbar (editing) and one new addition to the bottom toolbar (grid dialog). The drawing windows is not an empty white space anymore, as it now shows rulers around the window and includes grid. Editor layout also activates point editing mode.



Lettering layout is the predefined setting for lettering mode. It acts the same as the **Editor** layout, but instead it also activates the lettering mode.

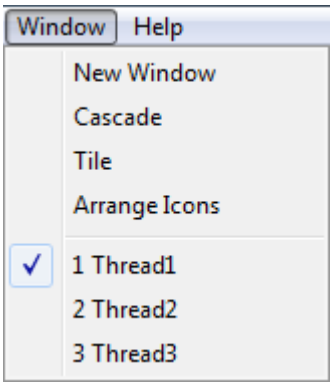


Digitizer layout equips your interface ready for the digitizing process. Here the top toolbar is the same as default, but the bottom toolbar receives one more section – **background dialog window**.



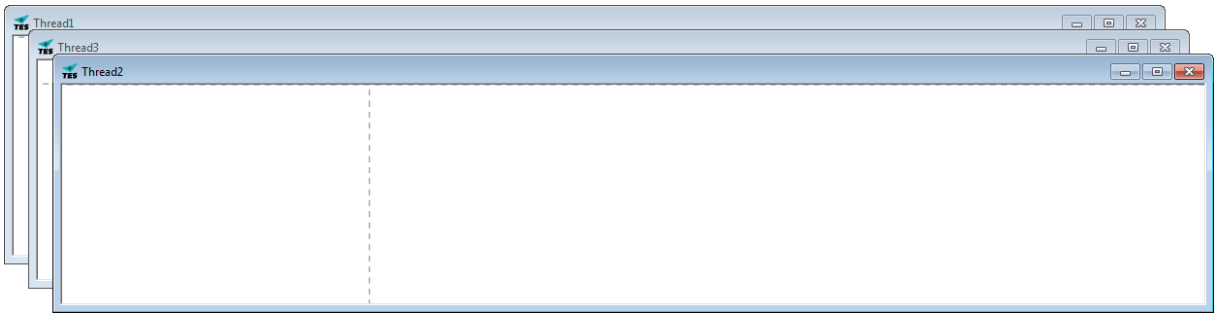
7.1.7. Window

Window menu allows drawing windows manipulation. User can create new windows or choose how the windows will show up in ThreadsES. User can also switch drawings using the menu.

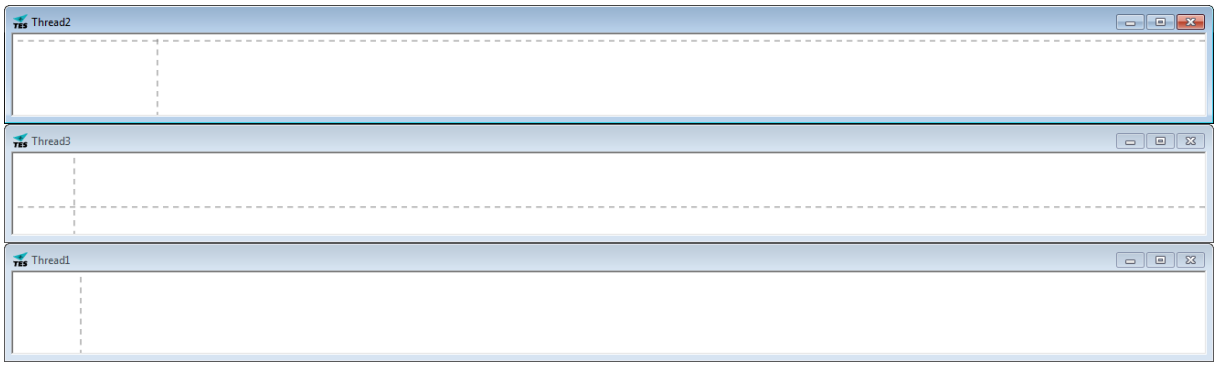


New window creates new drawing window. Window can be maximized through the interface or use can resize it manually. When one drawing windows is maximized, other windows cannot be seen.

Cascade resizes all windows to their default size when they are created and aligns them diagonally. User can manipulate each window (resize / reposition). When window is selected it's highlighted and shows up in front of other windows.



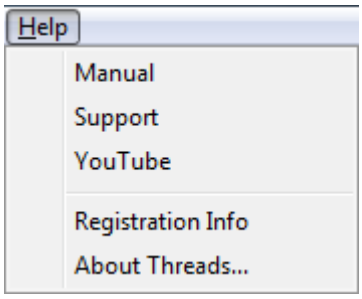
Tile windows will align all drawing windows, align them vertically and fit them inside the interface. User can change the position or size of the drawing windows. Reapplying **Tile** will reset its size again. Tiled windows size depends on the number of active drawing windows. When user selects window it gets highlighted.



After the **Arrange Icons** option, there is a list of all drawing windows. Clicking on any window name activates that window. if the previous window was maximized, selected window will also be maximized. In any other case, selected window will be highlighted and possible brought up in front of all other windows.

7.1.8. Help

Help menu contains links to the user manual, ThreadsES web page and YouTube channel. User can also modify his ThreadsES login from the help menu.



Registration info shows the ThreadsES Login dialog. This is the same dialog that is first shown at software startup (unless bypassed). If user wants to re-enable showing the dialog or change any other login option, they can do it via this menu option. The login screen is show below.

About Threads shows the ThreadsES splash screen This is the same splash screen that is also shown when user starts the program (unless disabled). User can change the behavior of splash screen when this menu option is selected.

THREADS
EMBROIDERY SOFTWARE
Registered to testing2
Threads Embroidery Software Version 1.514
Copyright © 2015
OK
Always Display

7.2. Toolbars

Toolbars are collections of tools, usually grouped by functionality, in one place. There are three main toolbars inside ThreadsES

1) Top toolbar (top dialog)
2) Left toolbar (left dialog drawer)
3) Bottom toolbar (bottom dialog workshop)

Each of these toolbars can be shown / hidden using the View menu.

Toolbar icons have four different styles:

Inactive – not pressed

Highlighted (when user hovers mouse over the icon)

Active - pressed

Disabled (available only when certain conditions are met)

As single mouse left click deactivates the toolbar icon with exception to lettering icon, which requires a double mouse click).

7.2.1. Top toolbar

The top dialog toolbar contains drawing tools and can display any of the following toolbars:

1) View toolbar
2) Marks toolbar
3) Lettering toolbar
4) 3D View toolbar

When ThreadsES starts, View toolbar is shown by default.

Depending on the ThreadsES settings, top dialog toolbar can show multiple toolbars (View toolbar and newly selected toolbar) or just one (View toolbar is replaced by the newly selected toolbar).

Marks and lettering toolbar are explained in the modes section of the manual, in the section the mode is related to.

7.2.2. View toolbar

View toolbar contains the basic tools needed for view controls on the drawing window. Most of these tools may be familiar to user from other software graphics and imaging software such as Zoom In, Zoom Out, Pan Zoom, etc.

Available view toolbar options:

Zoom In zooms into the image with left mouse click. Each left mouse click zooms in closer.

Zoom Out zooms out with each left mouse click. Each mouse click zooms out further away.

Magnify Zoom activates the magnify tool. Single left mouse clicks zooms into the drawing (left mouse click) or zooms out (right mouse click). Holding down the left / right mouse button keeps zooming in / out.

Zoom Window allows users to zoom into a user created window. Click and drag the left mouse button in the drawing area to create the zoom window.

Full Zoom zooms the whole drawing window so all of the content fits into it. User can also **double click mouse scroll** button for Full Zoom.

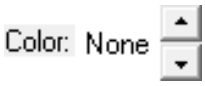
Zoom 100% zooms to 100% zoom level.

Zoom slider allows the zoom level to be changed by moving the slider to left (zoom out) or to the right (zoom in).

Zoom Change allows manual input of zoom level. After input user needs to press keyboard **Enter** key or click the **Change Zoom** icon in toolbar.

Pan Mode activation replaces the default cursor with hand icon. User can click the hand to scroll the drawing to the left, right, up or down.

Show needle penetrations



Color Show enables user to choose what color will be displayed. If the text says None, there are no colors in the drawing.

Show All Colors shows all of the colors in the drawing.

Grid Dialog enables the grid dialog in bottom toolbar and adds grid to drawing window

Hoop Dialog shows the hoop dialog

Background Dialog enables the background dialog in bottom toolbar. If the background image is not found, user is asked to load an image file.

7.2.3. 3D toolbar

3D toolbar enables 3D view of items in the drawing.

3D Mode enables 3D mode

Lighting turns on the lighting

Pan Mode allows the user to make 3D effects on objects. 3D mode must be active.

7.2.4. Left Toolbar

Unlike the top dialog toolbar, left dialog drawer does not change at all – no extra toolbars are added. Left dialog drawer activates modes and toolbars that show up in top or bottom toolbar. Left toolbar can "pop – out" and be moved even outside the ThreadsES window. To "pop-out" the toolbar, user needs to double click the toolbar and move it to desired location. "Pop-out" also works with single left mouse click & hold. User should move the mouse to desired toolbar location to "pop-out" and move it. The toolbar can stack to the left or right side of the ThreadsES window.

Top dialog toggles the show / hide top toolbar, just like in the View menu.

View shows or hides the View toolbar on the top dialog toolbar. When ThreadsES starts, View mode is active by default.

Marks activate mark mode toolbar and shows it up in top dialog.

Lettering activates lettering mode and shows up lettering toolbar in top dialog. Requires double mouse left click to deactivate.

3D View shows up 3D toolbar in top dialog

Parameters shows parameter dialog in bottom toolbar.

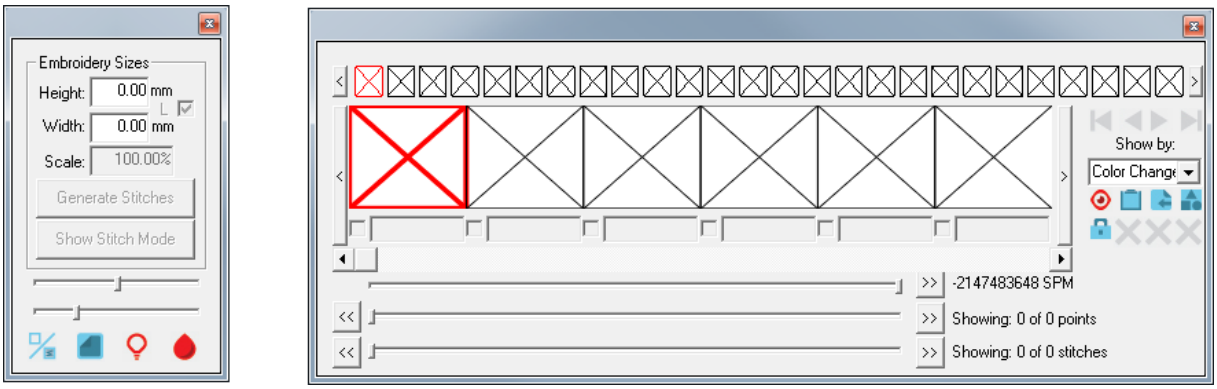
Bottom dialog toggles the show / hide bottom toolbar, just like in the View menu.

7.2.5. Bottom toolbar

Bottom dialog workshop toolbars mostly affect object properties. It can contain five different toolbars.

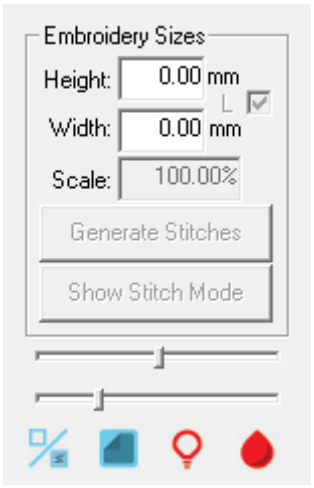
1) Embroidery Sizes box
2) Sections bar
3) Grid dialog
4) Background dialog
5) Parameters section

Bottom toolbars, just like left toolbar can "pop-out" with double left mouse click, or single left mouse click & hold. Toolbars can only stack to the bottom of ThreadsES window.

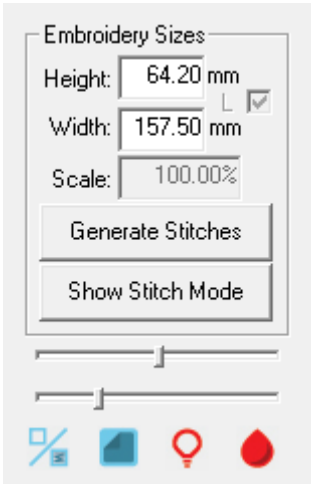


7.2.6. Embroidery Sizes box

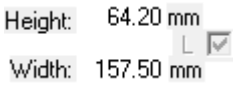
Embroidery Sizes box allows you to modify the size of complete embroidery and control of embroidery preview in ThreadsES.



If options are greyed out, this means their conditions have not been met (in this case, there is nothing in the drawing) and they cannot be applied. Creating some text or graphic, enables the selected option.



When there are any objects in the drawing (background images do not count) box shows their height and width. These can be changed any time, so user can fit them to his needs.



Height and Width of the embroidery. User can change the size any time and confirm the changes by clicking the **Generate Stitches** or pressing the **Enter** keyboard key.

Scale the embroidery by percentage.

Generate stitches confirms the size change and creates stitches from the entire embroidery. Clicking the button switches the drawing to Stitches mode.

ReStitch / Redraw button appears instead of **Generate Stitches** button when Stitch mode is active.

Show Stich Mode changes the drawing view to Stitch mode**.**

Show Wire Mode button appears instead **Show Stitch Mode** button when **Stitch Mode** is active.

Transparency sliders enable user to change the embroidery transparency. Upper slider changes transparency in Wire mode and lower

slider changes the transparency in Stitch Mode. Changes are visible only when you are in the right mode (the on you changed transparency for).

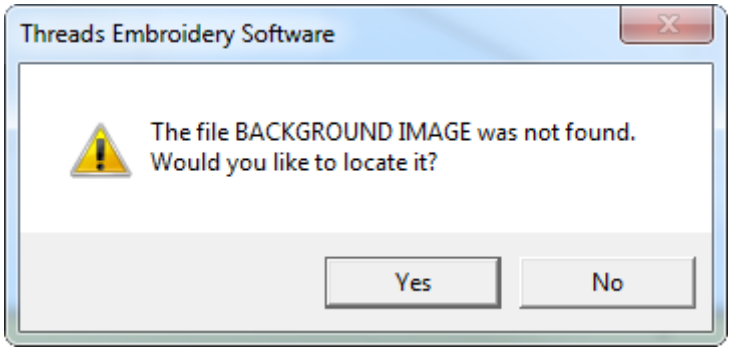
Show Both Modes shows both Stitch and Wire mode, just like in the View Menu.

Show Background toggles background image visibility.

Highlight Mode enables highlighting parts of objects.

Show Filled Mode toggles visibility of object fill in the drawing.

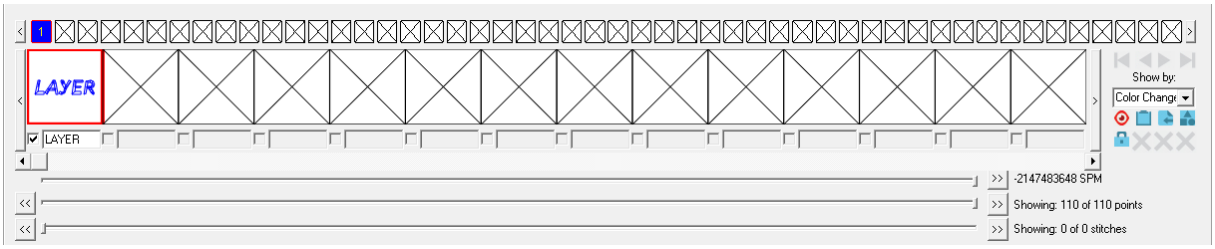
If the **Show Background** is selected and ThreadsES cannot locate any background image, user will be asked to browse for one.



When **Highlight Mode** is on, objects in the drawing will be highlighted red when you select them.

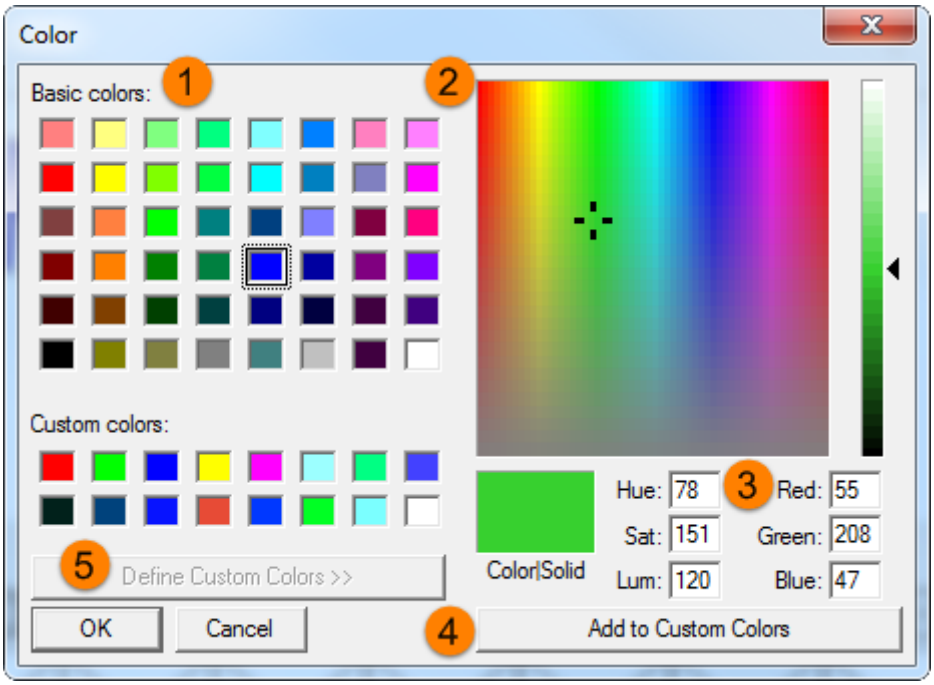
7.2.7. Sections bar

Sections bar is responsible for properties of all embroidery objects inside the drawing. Sections bar seems very confusing at first because of large amount of the boxes inside it, but it's pretty simple and user can adapt to it in no time.



Every single object shows in its own color box, preview box and layer name. Each object acts as a single layer. Little boxes in the Sections bar represent layer and object color. If user changes the color, object color will also change.

To change the layer / object color user can simply left click the color box. Color dialog box appears.



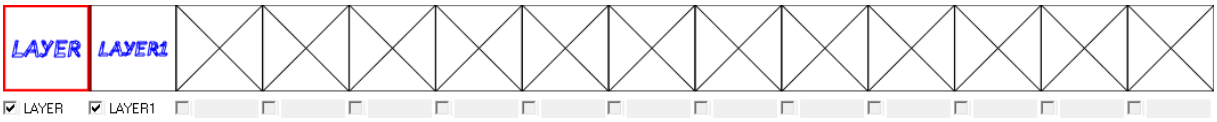
There is an option to choose between basic colors (1) or create custom color. To create custom color user can use the palette window (2) or add manual values (3). If the color created will be used often, user can add the color to custom colors by clicking **Add to Custom Colors** (5). The **OK** button confirms the color change.

Colors are important in process of sewing. When the sewing machine is working and faces color change, it cuts the current thread and moves to another needle.

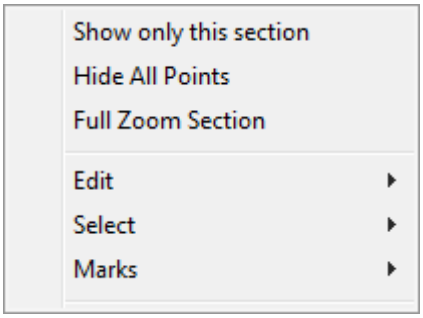
Another way of changing colors is by using the **Eye Dropper.** This feature enables user to use the color of the image they are trying to digitize. To enable to **eye dropper,** users can right click on the color box. This will automatically change the cursor.

Once activated users can hoover over the color of the image the wish to use. Once identified the color, user can left click on the color. The color of the layer will automatically change.

Layer preview box is actually a smaller version of the object. If there is a situation where you can't see the object you can change it using layers. Below the preview box there is a checkbox that toggles layer visibility. Right next to it there is a textbox where user can rename his layer. Selected layer is marked with red rectangle.



Layer preview boxes have context menu enabled. Context menu is activate with right mouse click.

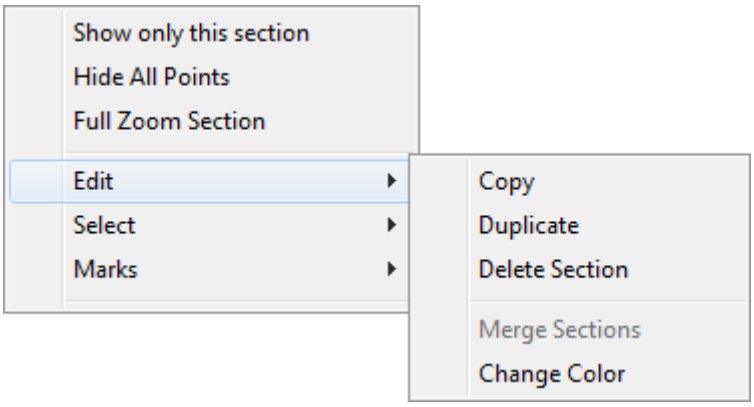


Show only this section hides all of the layers besides the selected one.

Hide All Points hides the selected layer.

Full Zoom Section zooms the layer across the whole drawing window.

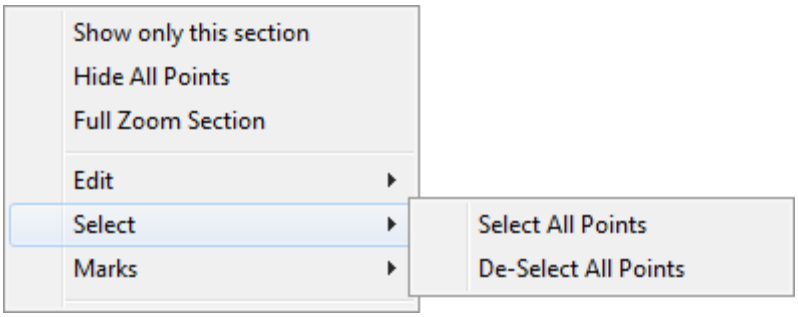
Edit command enables you to **Copy, Duplicate** or **Delete** current layer / selection. Main difference between copy and duplicate is that copy command places selection in the clipboards and allows it to be pasted anytime. Duplication pastes the object and user must place it where he would like it. It does not go to the clipboard.



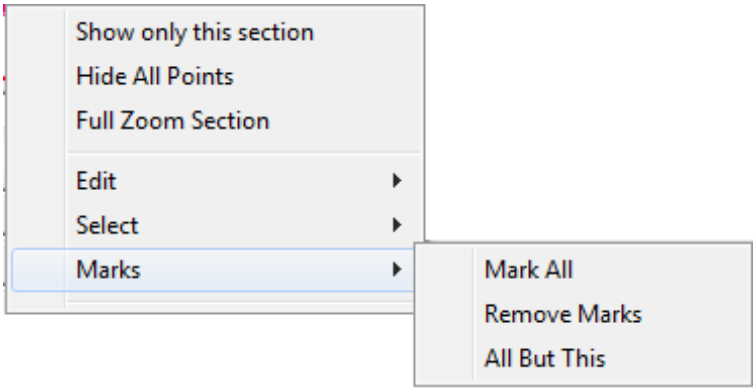
Merge sections is available only if you have selected more than one layer. All merged layers will become one after the merge. To select 2 or more sections, you need to press the sift key and right click each section you wish to select.

Change color changes layer / object color, just like the layer box.

Select menu enables selection / deselection of all the object points.

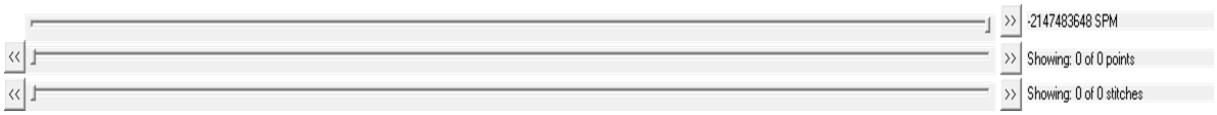


Marks menu requires mark mode to be visible. It allows marking / unmarking all of the object points.



Under the preview boxes there is a scroll bar with arrows, allowing user to scroll through preview boxes.

First Bottom slider changes the stitches draw speed. Second and third bottom slider show how many stitches or points there are in the drawing and how many of them will show up. The second slider reduces shown point number in Wire mode. Third slider reduces shown point number in Stitches mode.



In the right bottom of sections dialog, user can choose what the preview box will show.

Move Section First moves the selected object / layer to be the first in a row

Move Section Left moves the selected object / layer to the left

Move Section Right moves the selected object / layer to the right

Move Section Last moves the selected object / layer to be the last in a row

Show by gives preview of boxes based on type on connector between each object / layer

Show View Sections shows objects / layers visible on drawing.

Show Clipboard shows objects in the clipboard in preview boxes (copied objects in the drawing).

Show Imports shows imported objects in the preview boxes.

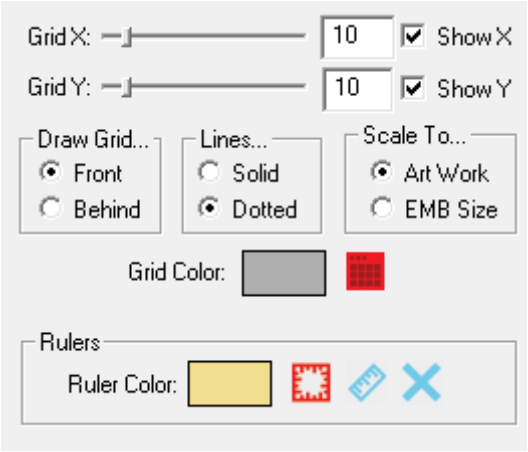
Show Shapes shows shapes in the drawing inside preview boxes.

Lock Section Toolbar locks the navigation bar scroll bar below preview boxes

Reserved for additional features.

7.2.8. Grid dialog

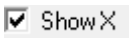
Grid dialog is shown when Grid is activated from the View toolbar or by activating **Editor or Digitizer** layout. Grid dialog contains tools that affect grid appearance.



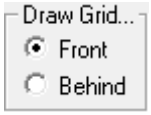
Grid is a "net" of equally distanced horizontal and vertical lines. They serve as help tool when drawing needs precise, but can also serve as orientation. **Grid X** changes affect vertical grid line while **Grid Y** affect horizontal grid line.

Grid slider increases / decreases distance between grid lines

Grid Textbox allows manual input of distance between gridlines.

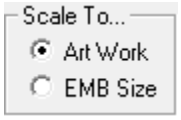


Grid Show toggles grid lines visibility



Draw Grid toggles whether the grid lines are shown behind objects or in front objects.

Grid Lines toggles the grid line style.



Scale To will scale grid lines compared to Art Work or Embroidery Size

Grid Color changes the grid lines color.

Grid Visibility toggles grid lines visibility. Turning the visibility off won't affect **Grid Dialog** visibility.

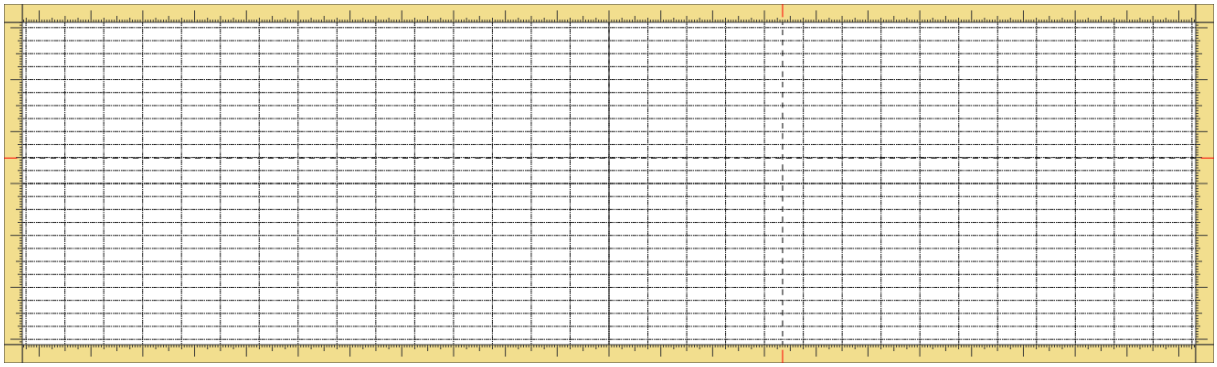
Ruler Color changes the ruler color.

Ruler Visibility toggles visibility of ALL rulers in the drawing.

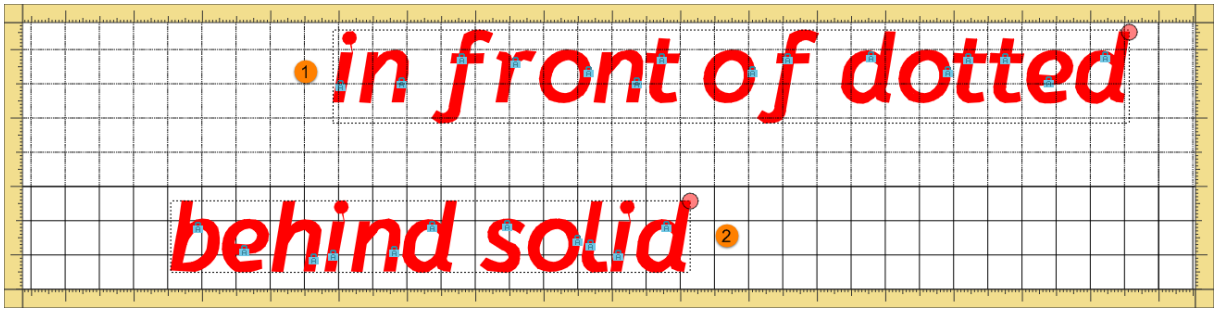
Draw Single Ruler draws custom size ruler in the drawing window.

Clear Rulers removes all custom rulers from the drawing.

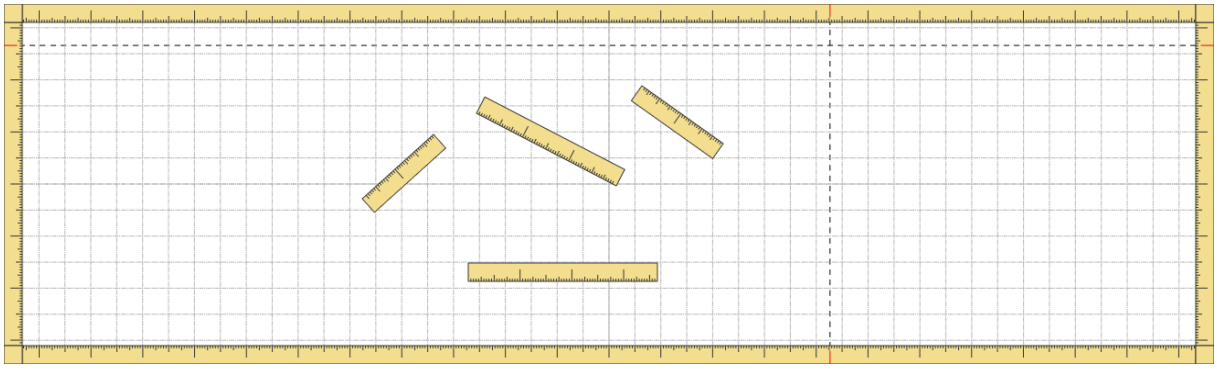
User can choose the distance between vertical grid line using the slider on **Grid X** or by entering the value manually. To change the distance between horizontal lines, **Grid Y** slider or text input is used. To hide grid horizontal / vertical lines user can tick the checkbox next to the **Show X** or **Show Y**.



When grid is displayed, it can be shown in front of the object or behind, depending on the setting in the Grid Dialog. Grid lines can be **Solid** or **Dotted**.



User can add custom rulers to the drawing.



7.2.9. Image dialog

Image dialog activates from the View toolbar or by activating Digitizer layout. It provides additional options to background image.

If the ThreadsES detects there is no background image in the drawing, activation of the dialog will offer user to load one.

Background changes the drawing window background color.

Show Background toggles background image visibility.

Image Edge Snap allows point snap to any image edge point while drawing objects.

Image Corner Snap allows point snap to image corner points while drawing objects.

Invert Colors inverts the colors in the drawing.

When the background picture is loaded**, Show background** icon turns red and background image is loaded into preview pane. After the background image is hidden**, Show Background** icon turns blue and image in the preview pane is crossed out.

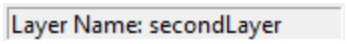
7.3. Status bar

Status bar displays useful information about the drawing.

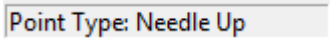
First section of status bar changes depending on the action. If no action or command is active, it will show "For Help, press F1". In case action is triggered, user gets notified

Next 5 sections are point related and only change status when user is in point editing mode.

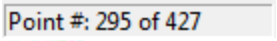
Layer name shows current layer name of current selected point. If user hovers mouse over the next layer (in point editing mode), layer name will change.



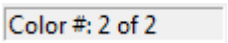
Point type makes it easier for user to see what kind of point is currently selected. This status also changes on mouse hover.



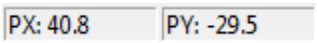
Point number (point #) displays total amount of points and currently selected / highlighted point.



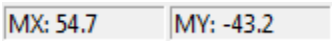
Color number display total amount of colors in the drawing and currently selected / highlighted color.



Point coordinates (PX and PY) display the current selected / highlighted point coordinates in the drawing.

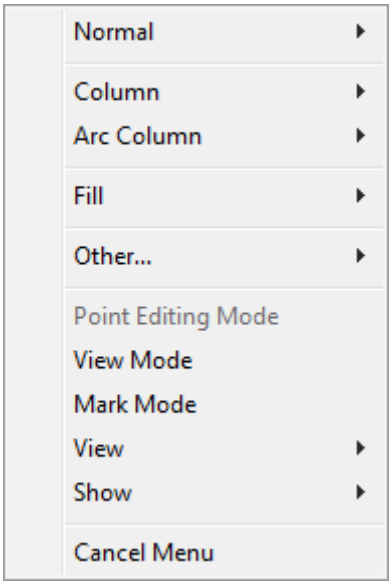


Mouse coordinates (MX and MY) display the drawing coordinates of the current mouse position.



7.4. Context menu

Context menu is activated by clicking the right mouse button anywhere in the drawing. Context menu is disabled only in lettering mode, while user is typing letters. As soon as user quits the command, context menu is enabled. Default context menu provides options for Digitizing mode, change modes or some options available through main menu or toolbars



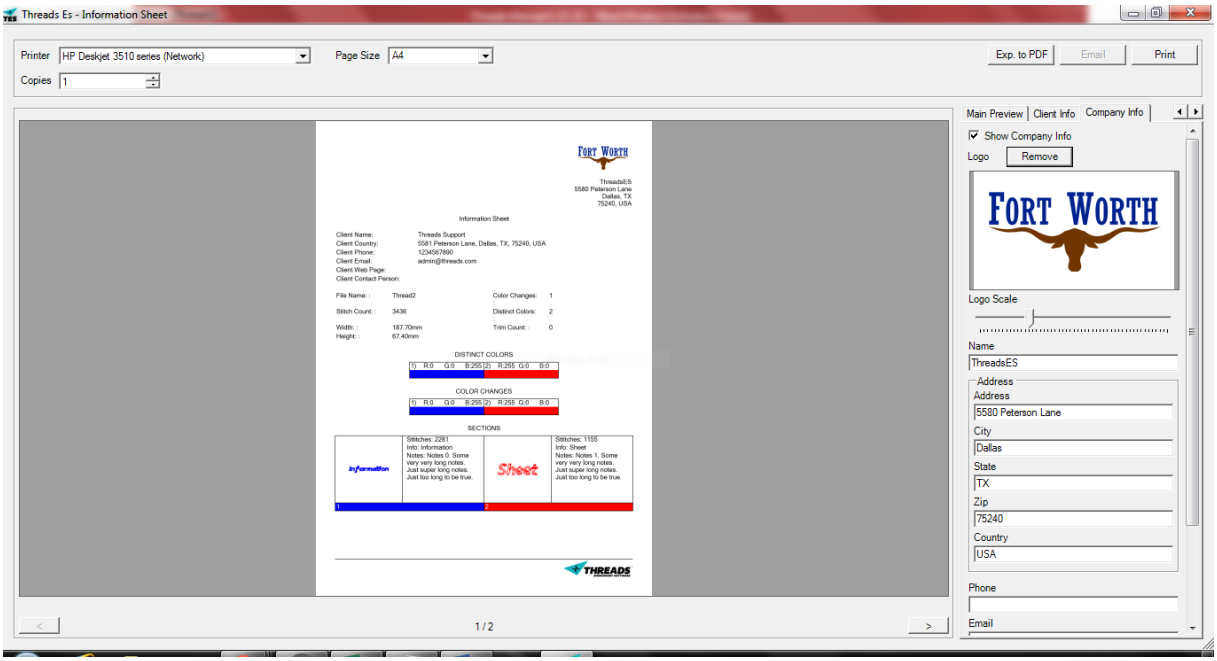
Context menu changes based on mode or command selected. Every context menu will be explained with the mode it belongs to.

7.5. Information (Job) Sheet

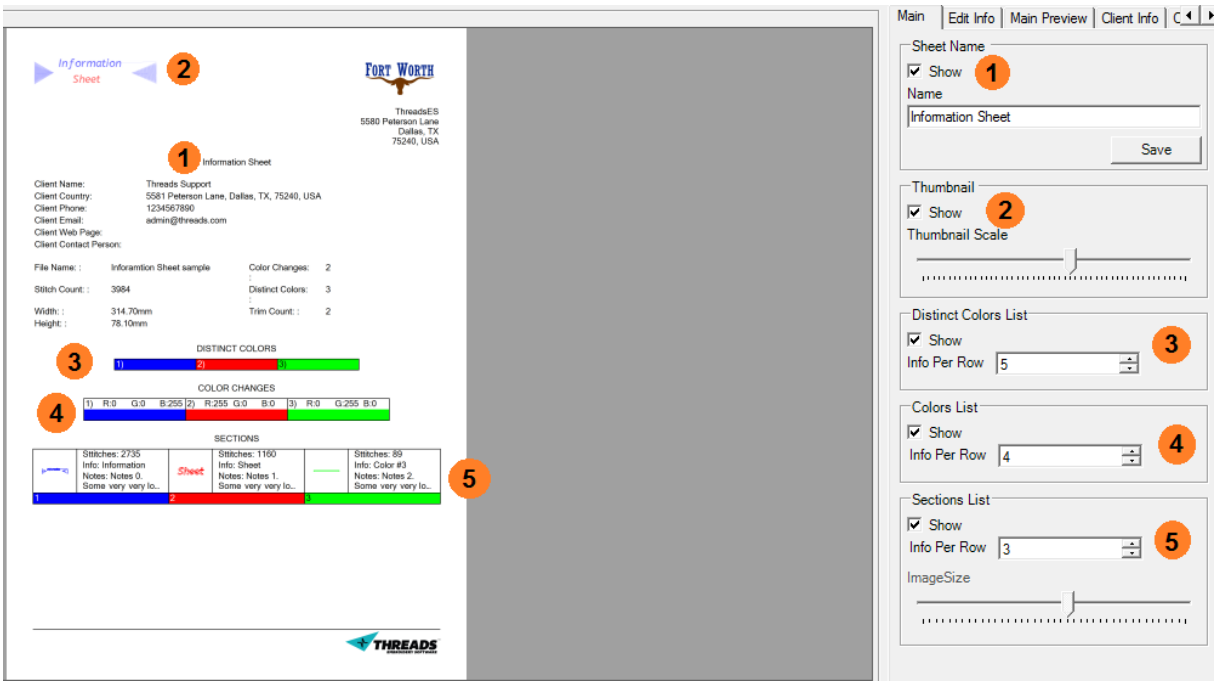
The information sheet will be found in the **FILE** menu. As indicated it allows users to print the project for clients. It will show all the information of the current project. On the right of the screen there are 5 tabs (**MAIN, EDIT INFO, MAIN PREVIEW, CLIENT INFO, and COMPANY INFO**).

The top of the screen is a section in which enables users to select the printer, number of copies and size of the page to print on. Users are also able to export it into a PDF, send it to an email or print it.

On the main window will be a preview of what will be printed.



7.5.1. Main Tab



This tab contains 5 sections. Users can show or hide all or just certain sections they wish.

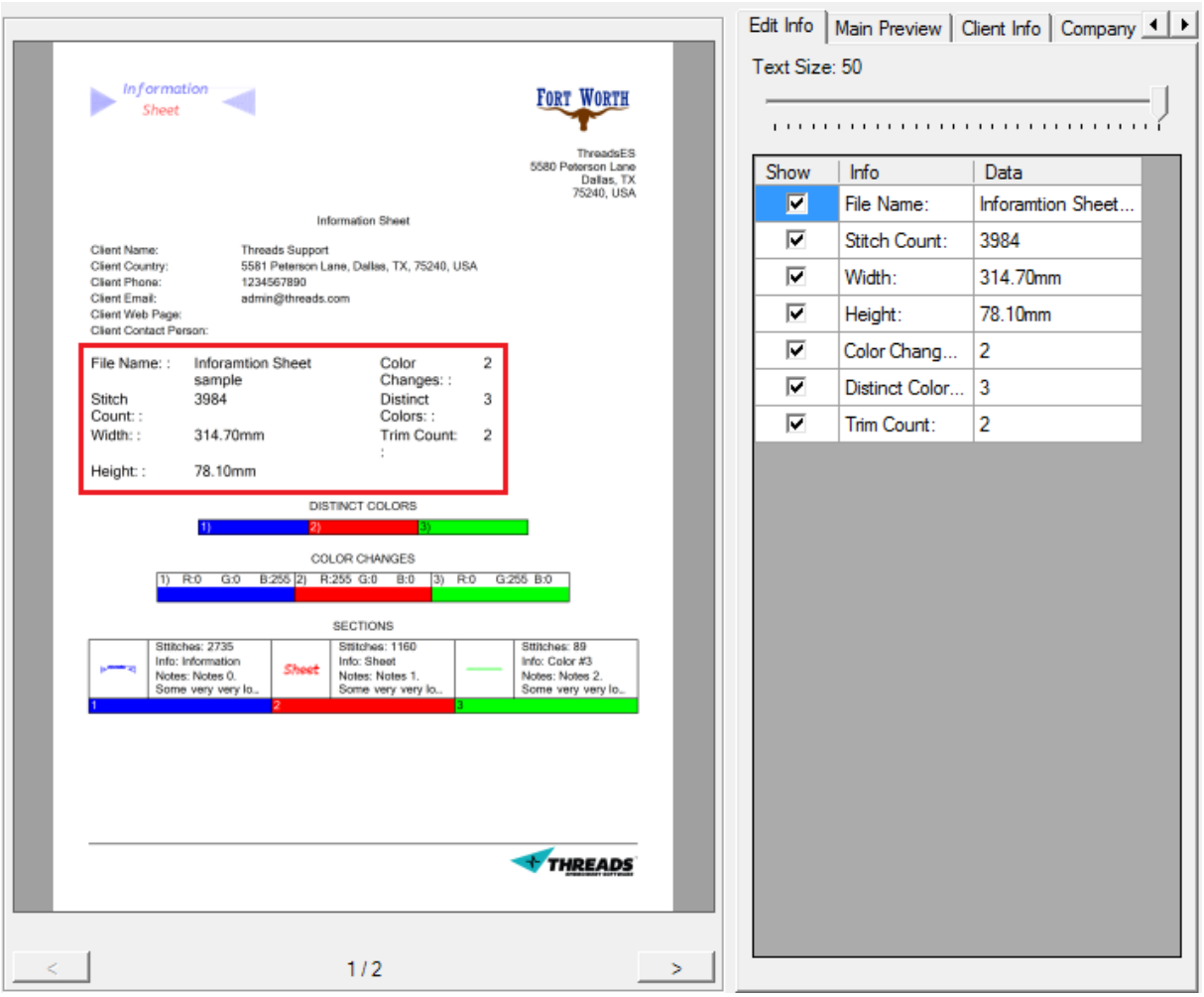
Sheet Name indicates the name of the project. Users are able to change the name if they require. Once the **SAVE** button has been clicked, the new name will appear in the preview section.

If the **Thumbnail** is enable, a small image of the project will appear on the top left of the sheet. User may increase or decrease the size of the image using the scroll bar, located right underneath.

The next two section refers to the colors used in the project, **Distinct colors list and Colors List.** If there are many colors used in the project, it may be necessary to adjust how many color may be shown per row. There is a dropdown box which enables users to select how many colors will be displayed by row.

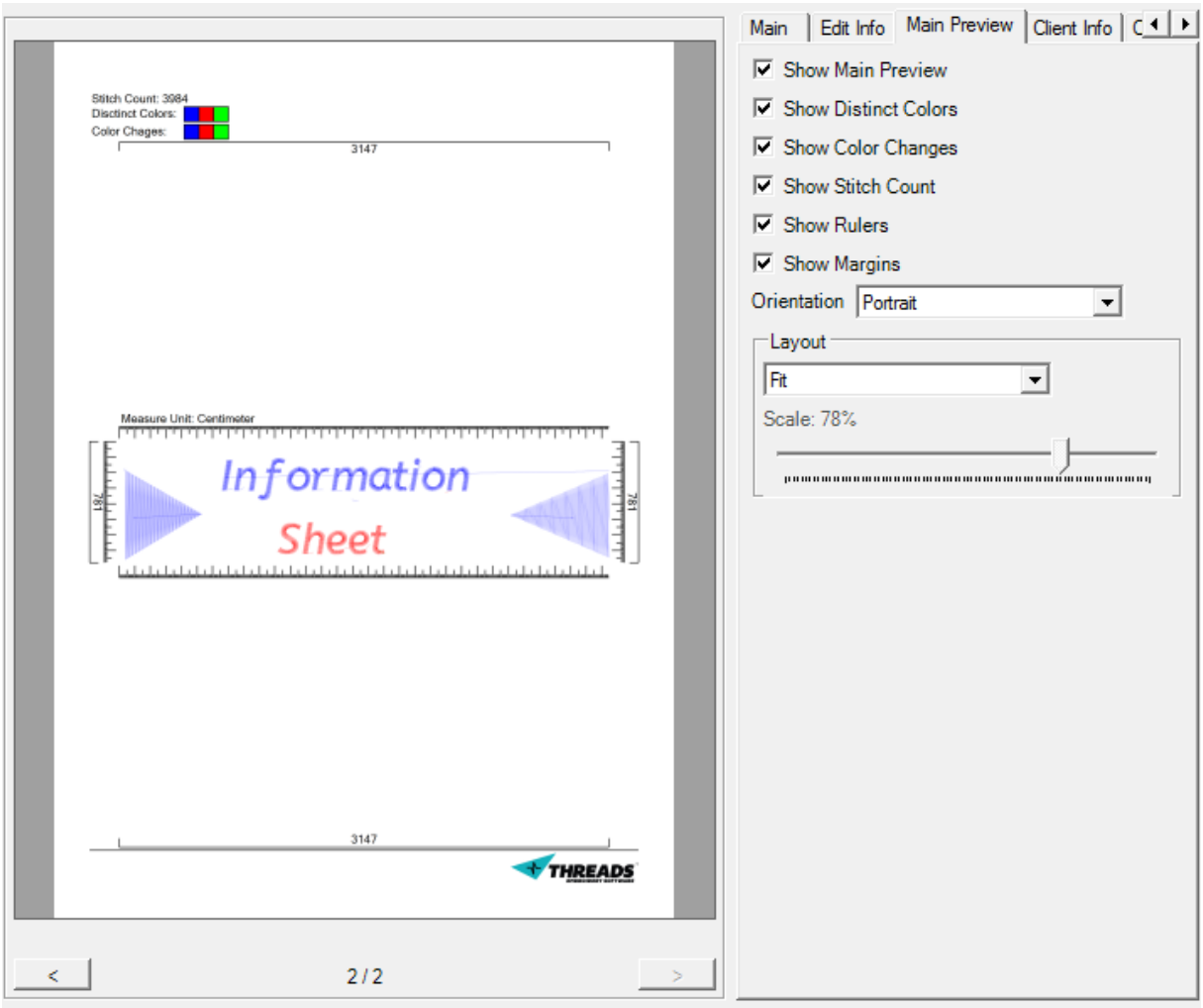
Finally there is a **Section lists,** this displays all the sections of the project. Like before user are able to select how many sections are displayed by row. This sections also include a scroll bar, which enables users to modify the size of the image in the sections. In the preview area will show number of stitches, name of the section and some note.

7.5.2. Edit Info Tab



This enables users to see the name of the project, stitch count width, height, colors used and number of trims. Users can select which once to show or hide. ON the top of the top, there is a scroll bar which enables users to resize the fonts of all the attributes mentioned.

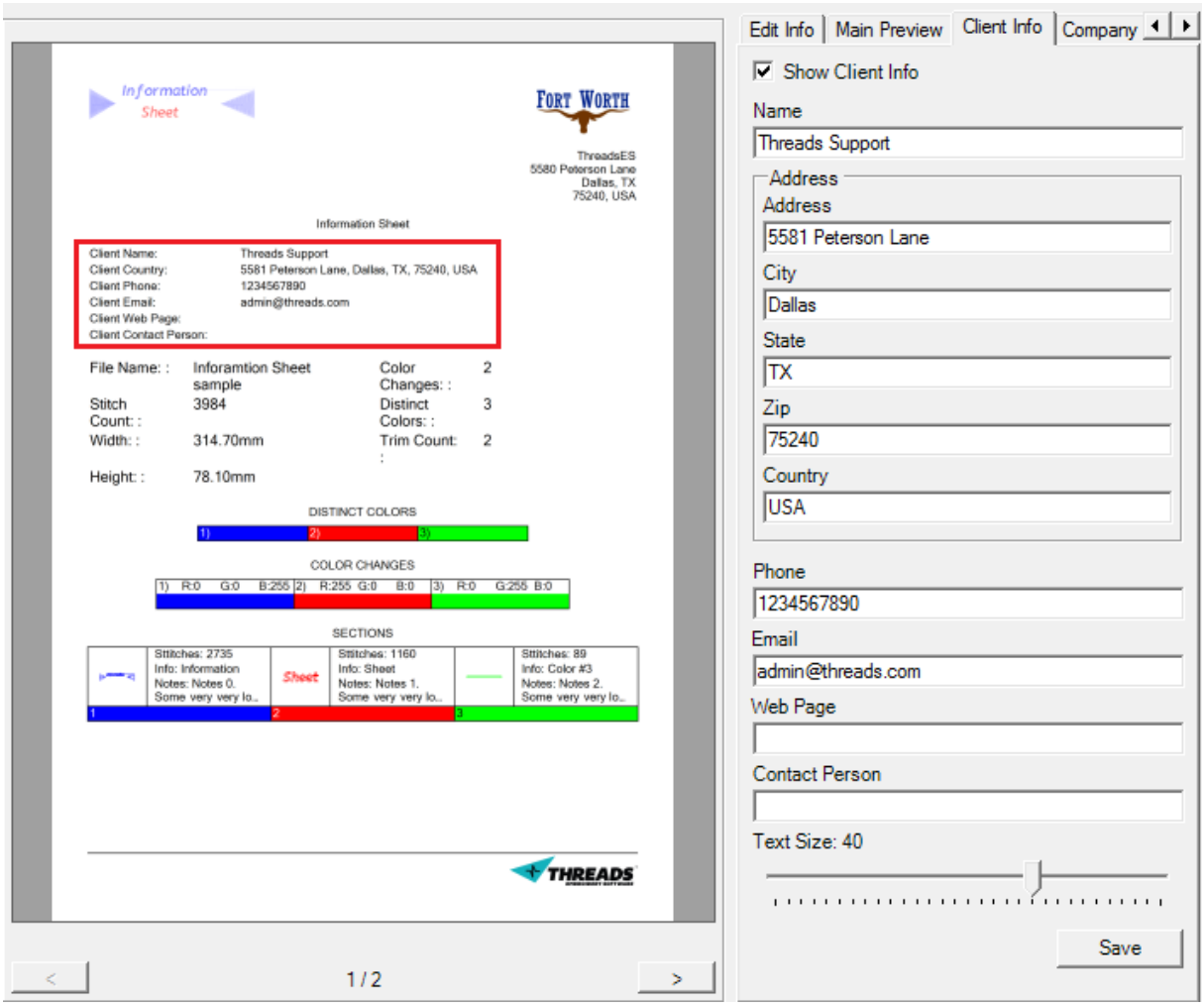
7.5.2. Main Preview



At the bottom of the page there is a page count of how many pages there is to print. The last page will be a preview of the project. The **MAIN PREVIEW** tab enables users to customize this page. Users can show/hide colors, number of stitches, rulers and margins of the page. If users do not wish to print this page, the first option **SHOW MAIN PREVIEW** will enable users to remove this page from being printed. After all the show/hide option, users can select orientation of the page.

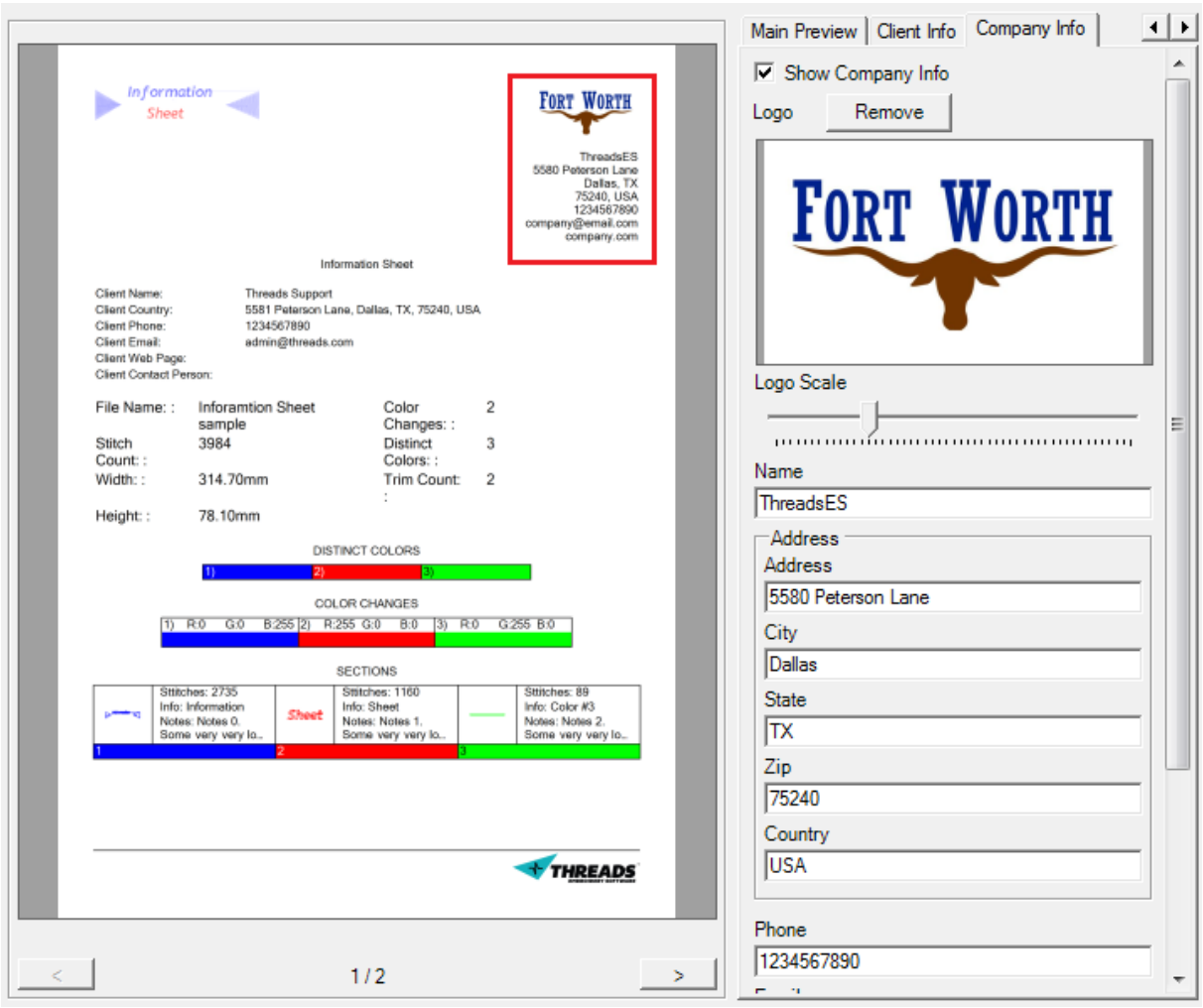
This tab also contains a **LAYOUT** section. This section enables users to customize this images size. User can select to **FIT** to page, have **1:1** ratio or customize it. If users select to customize the images, the scroll bar will be enabled. Moving the scrollbar, users can increase or decrease the size of the image.

7.5.3. Client Info



This tab enables users to enter client information. This can be client name, address, city, state, zip code country, phone number, email web page and contact person. At the bottom users can change the size of the text. This can be done by modifying the scroll bar. Once editing is done, we can save the information and it will automatically be shown in the preview window.

7.5.4. Company Info



This last tab enable user to show/hide information about their company. This can be name, address, city, zip code, state, country, phone number, email, and web page. Like previous tab users can edit the size of the text with a scroll bar located at the bottom of the page. Users will also see a save button. Once users click save, the information will be shown on the top right of the page.

One nice feature, is that users can introduce the company's logo. On top of the page, users will see a button. If no image has been selected, the button will have the word **PICK.** Otherwise it will say **REMOVE.** Once a logo has been selected, users can play with the logo size by increasing or decreasing the scroll bar that is right underneath the logo. The logo will be placed right above the company information.

Working with ThreadsES

8. Modes

ThreadsES has six different modes, four working modes (**Digitizing** mode, **Lettering** mode, **Point editing** mode, **Mark** mode) and two view modes (**Stitch** mode and **Wire** mode). When user starts ThreadsES, default working mode is **Digitizing** mode and default view mode is **Wire** mode. Second view mode is **Stitch** mode. Both **View** and **Stitch** mode properties can be changed in bottom toolbar.

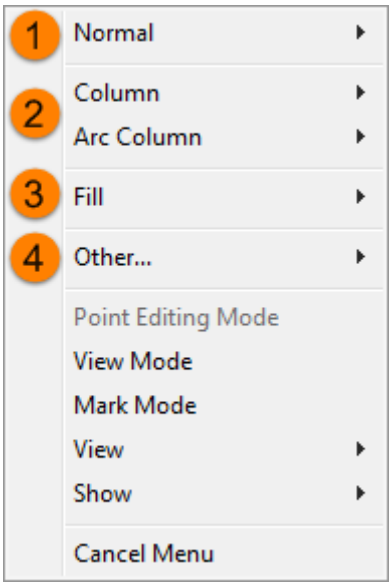
8.1. Digitizing mode

There is no button to activate digitizing mode. When user starts ThreadsES, he can start digitizing. If any other command is active, user must exit the command in order to be able to digitize again. User can choose whether he will digitize an existing image (that he can load into background) or create new drawing from scratch.

8.1.1. Basics

Digitizing mode does not have its own toolbar and completely relies on the context menu. However, when drawing user should pay notice to bottom toolbar as it shows preview of every digitized drawing and some other important information as well. User can also use digitizer layout to fit the interface for digitizing needs.

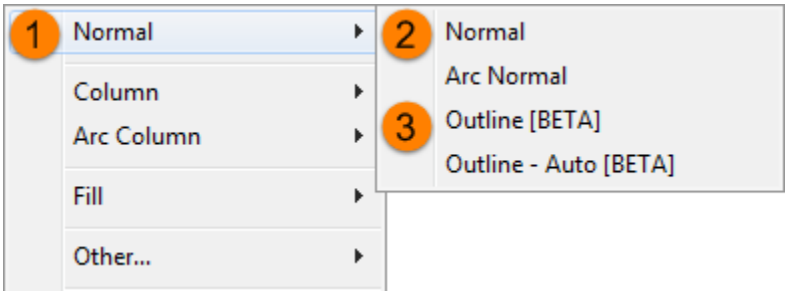
Right click on anywhere in the drawing brings up the basic context menu. Basic context menu contains all the digitizing commands.



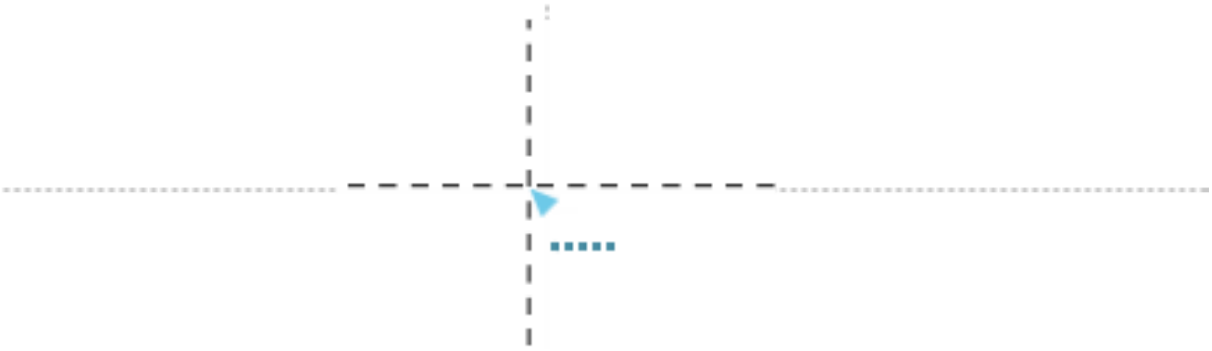
In order to keep digitizing menu simpler and less complicated, it has been divided into several sections, each having its own submenu of digitizing commands.

8.1.2. Normal stitches

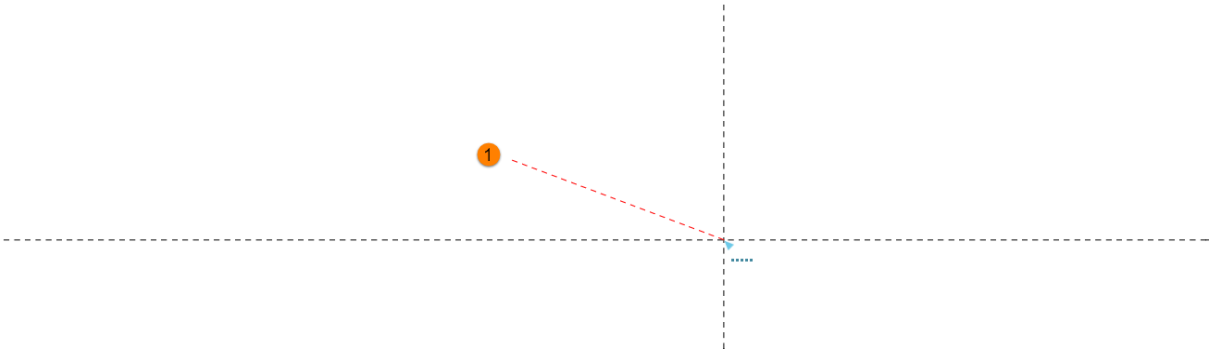
Normal menu allows creation of normal stitches, using lines or arcs.



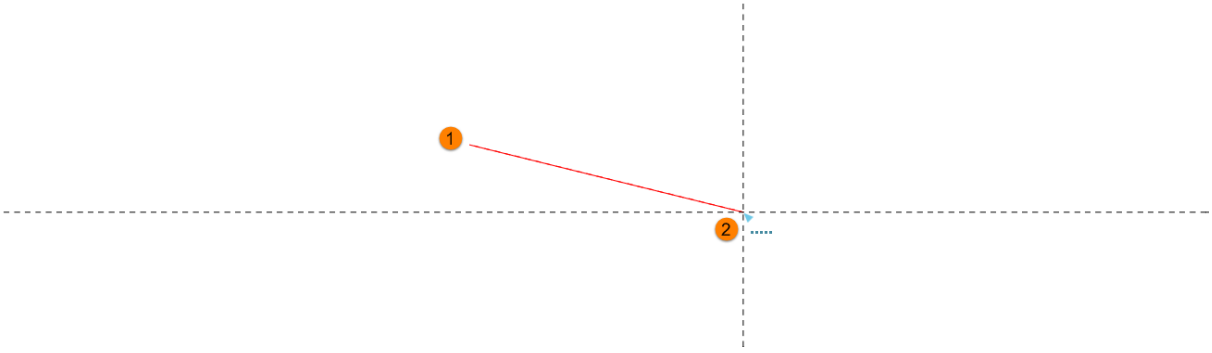
When user activates Normal stitch, mouse cursor icon changes to small arrow with line shaped dots.



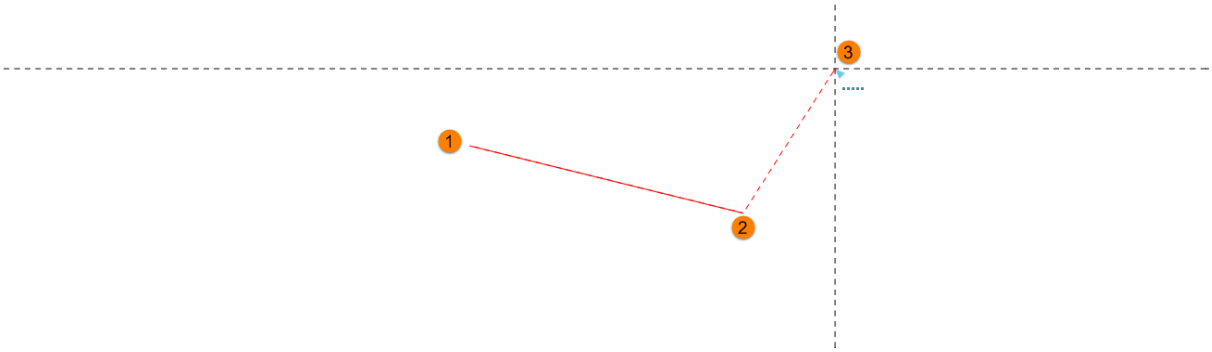
Left mouse click in the drawing sets the stich line first point.



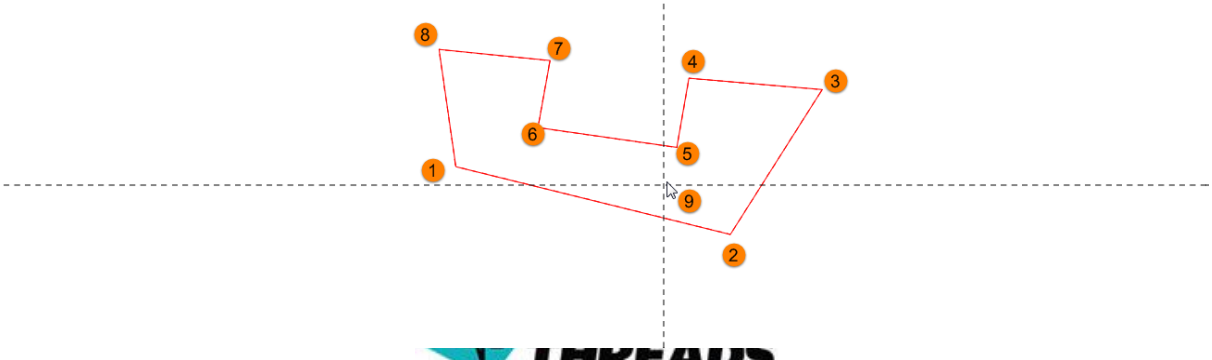
Mouse cursor arrow marks the second point. In this case the second point has not yet been selected. User can easily tell the difference between finished / unifinished stitch line. If the line is dashed, second point is not selected. When the user selects the second point, the line will turn to solid line.



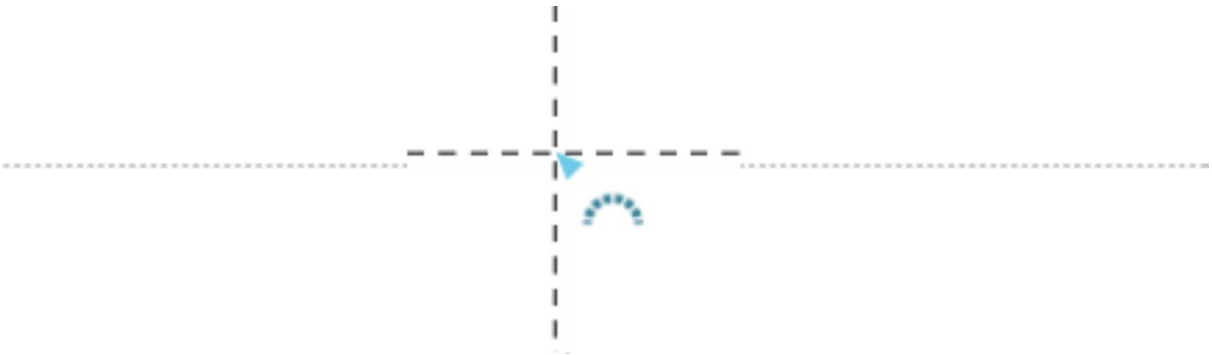
When the line is finished, user can continue using with the creation of line stitch without having to use Normal command again. Next line start point is arleady defined (it's the second point of previously drawn stitch line). The line again changes to dashed, meaning that this line is not finished. All the user has to do now is to select the second line point to create normal stitch.



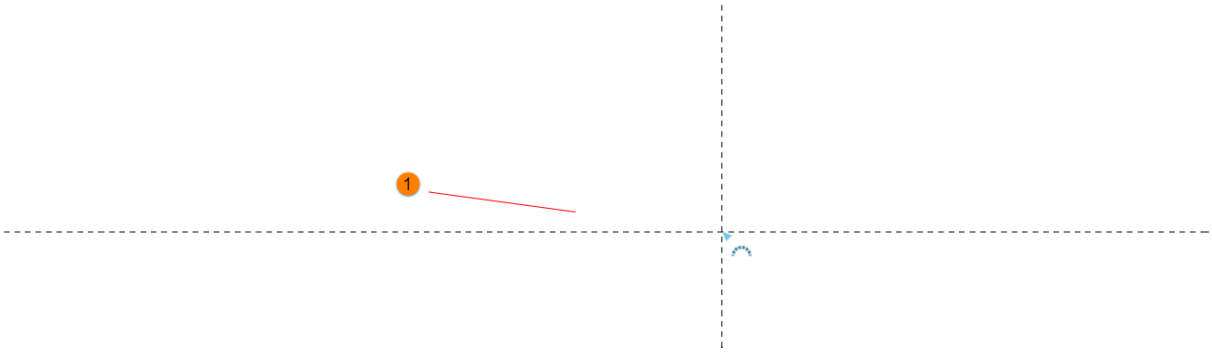
User can draw as many stitches as he likes. When done with normal stitches, user cancels the Normal command (shortcut key **– Escape).** Cursor will change back to normal icon.



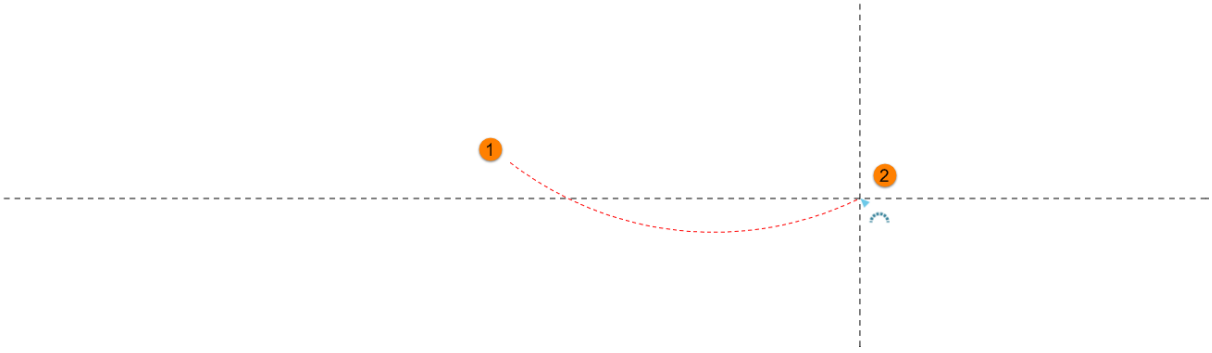
Arc Normal stitch option works on the same principle as **Normal** stitch, only in this case second point determines arc length and radius. When **Arc Normal** option is selected, mouse cursor icon changes to arrow with arc shaped dots.



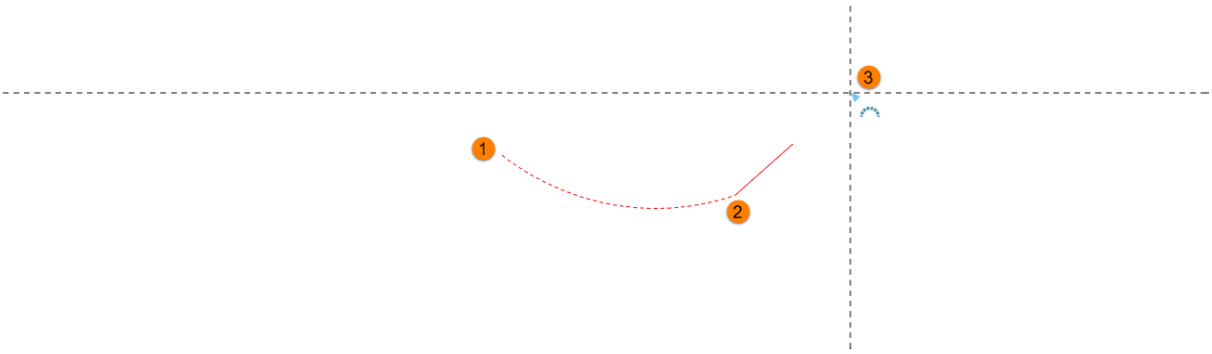
Just like in Normal line stitch, user needs to determine the first point of the stitch. Before the stitch converts to arc, second point must be selected. Until that, arc will look just like a normal stitch line. The difference between drawing Normal and Arc Normal line is noticeable by now. In the normal stitch, when second point is about to be set, stitch line is where the cursor is. In arc stich, stitch line is only half way to the cursor.



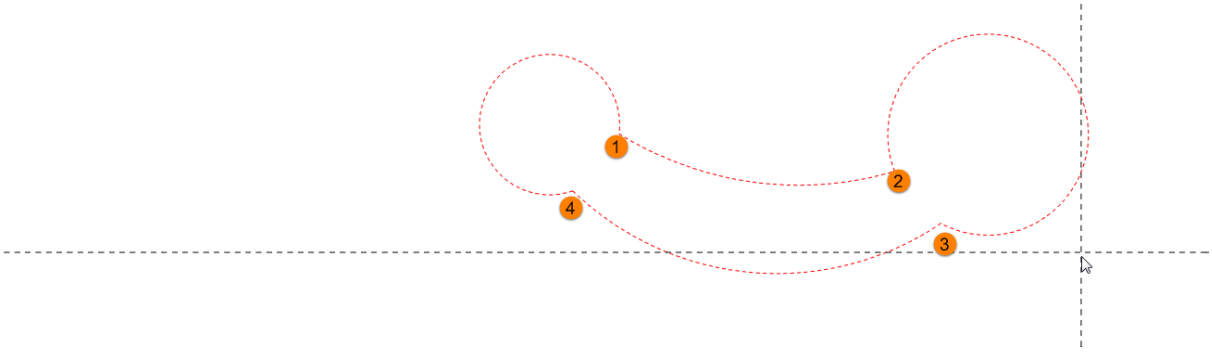
By selecting the second point, normal stich line becomes arc stitch line. Mouse cursors needs to move for arc to show.



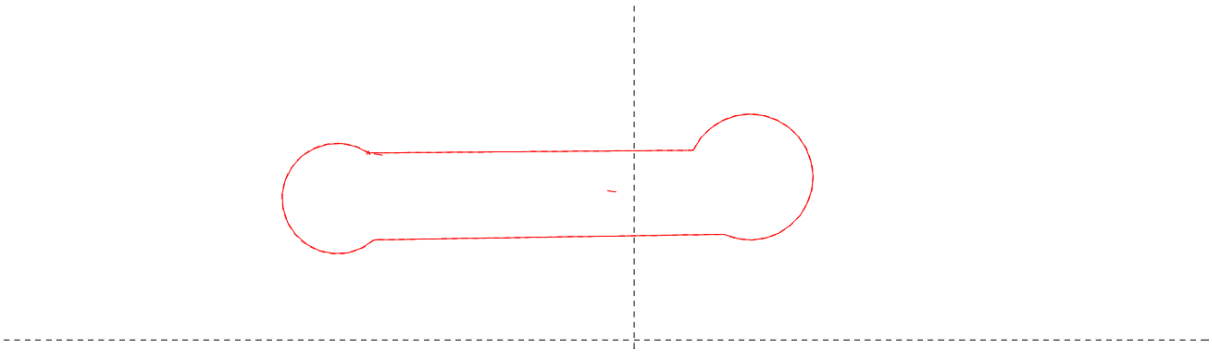
When user is satisfied with the shape, left mouse click confirms the shape. To draw the next arc, user needs to select the second point again (first one is already determined by second point of last arc).



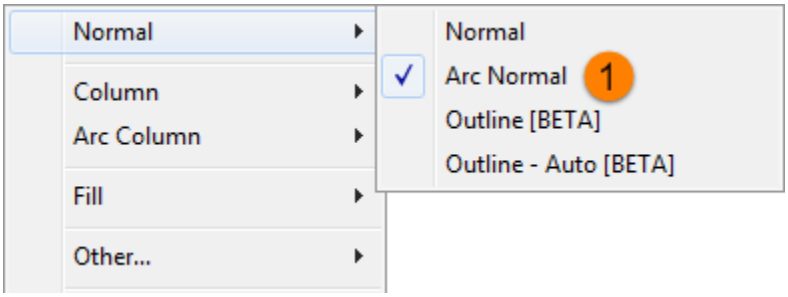
Just like in normal line, use can continue drawing as many arcs as needed. When done, user exits the command (hotkey – **Escape)**. Cursor icon changes back to normal.



User can also combine **Normal** and **Arc Normal** options to create stitches.



When unsure what stitch type is selected, user can see active command on the status bar or right click for the context menu.

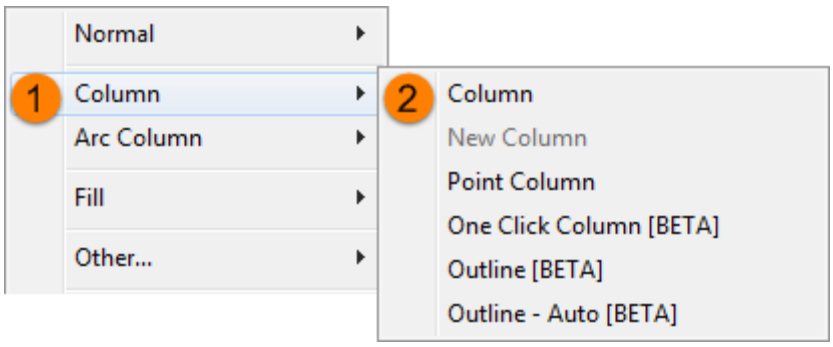


Outline and **Outline – Auto** are still work in progress and these topics will be covered when they become stable for use.

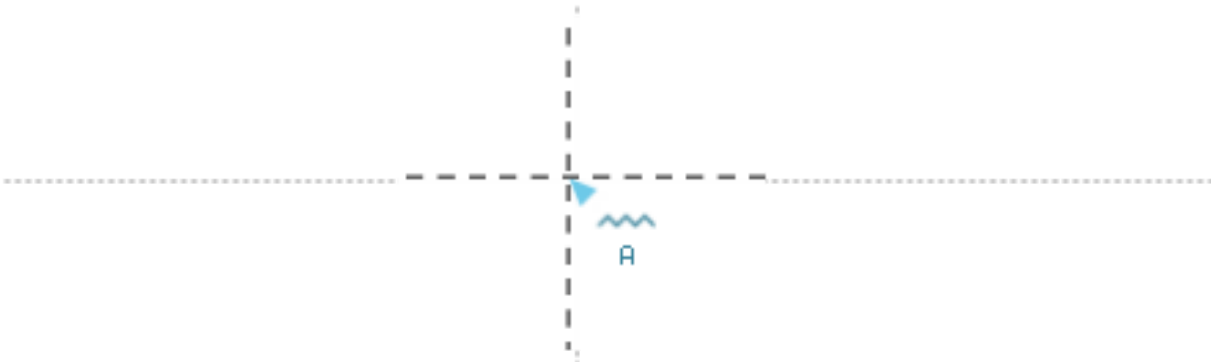
8.1.3. Column

While **Normal** and **Arc Normal** create regular line stitches, columns create closed filled shapes. Column can be **Normal** or **Arc Column**.

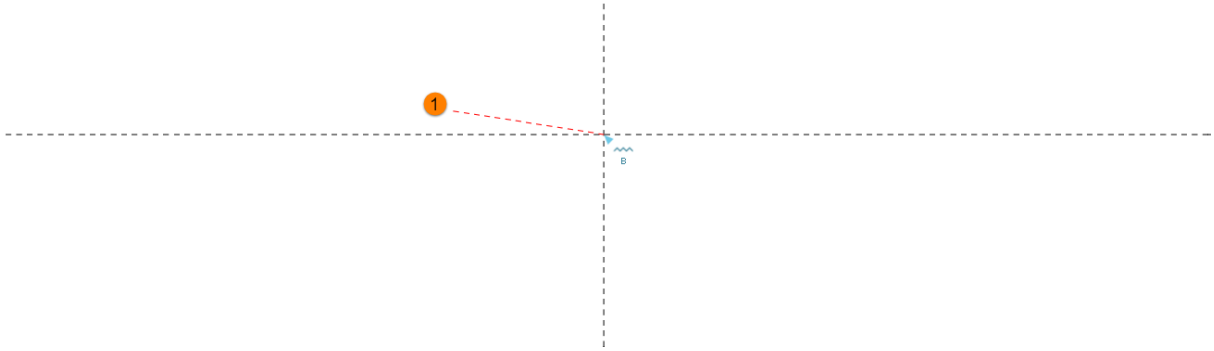
To start drawing column, user activates the column option by accessing the context menu.



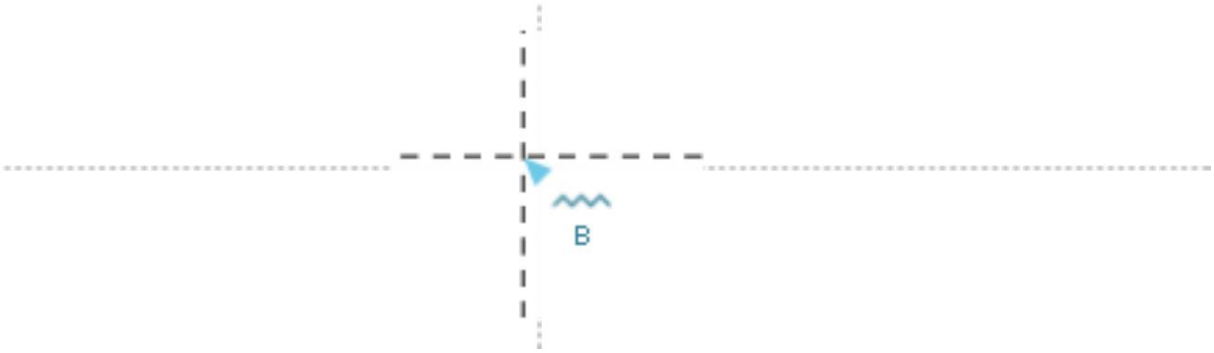
Mouse cursor changes its icon and now looks like a wave with letter A. A stands for the first opening point of the column.



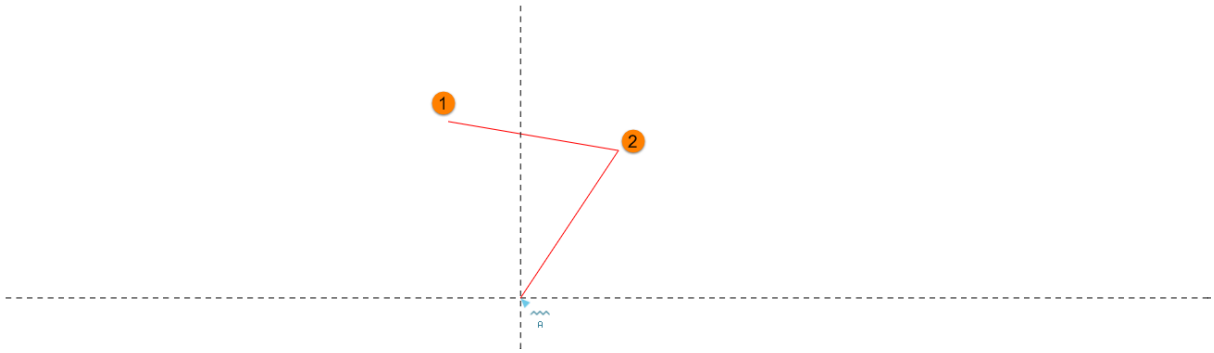
When the first point is defined, dashed line shows up and new point must be defined.



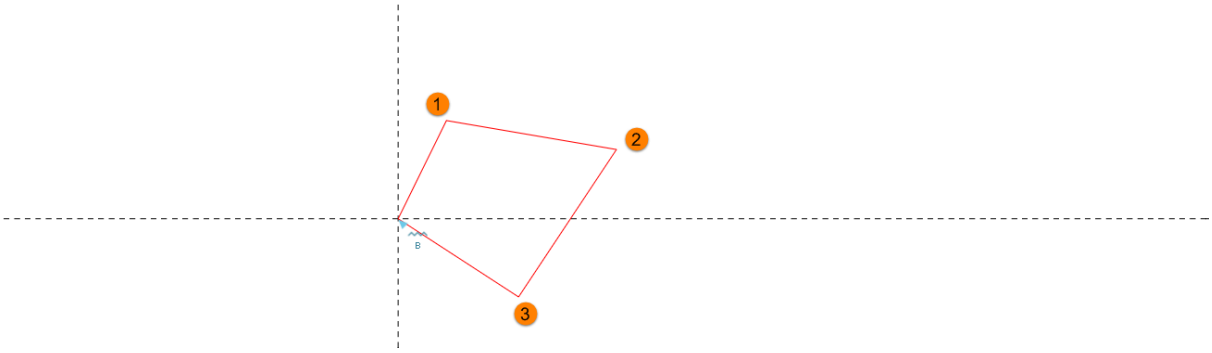
In addition, cursor icon changes letter to B. It is the second opening point.



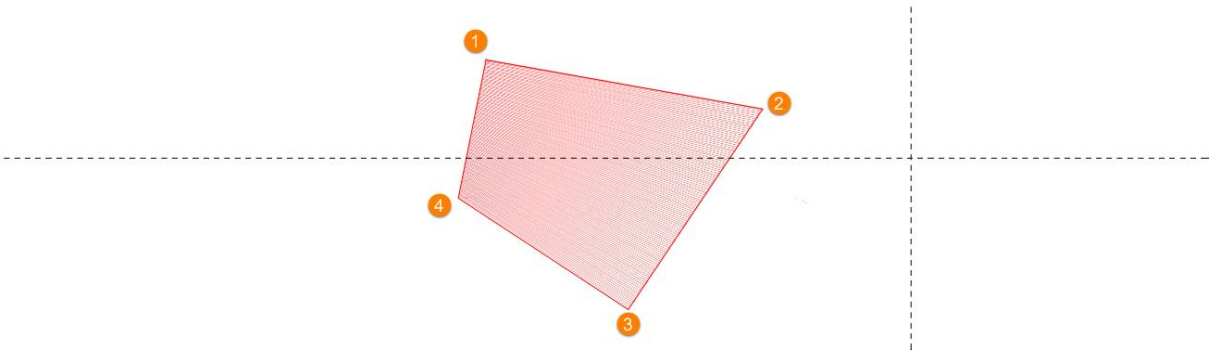
When the second point is defined, user now defines closing points for the column. Cursor icon will again change to letter A and line become solid.



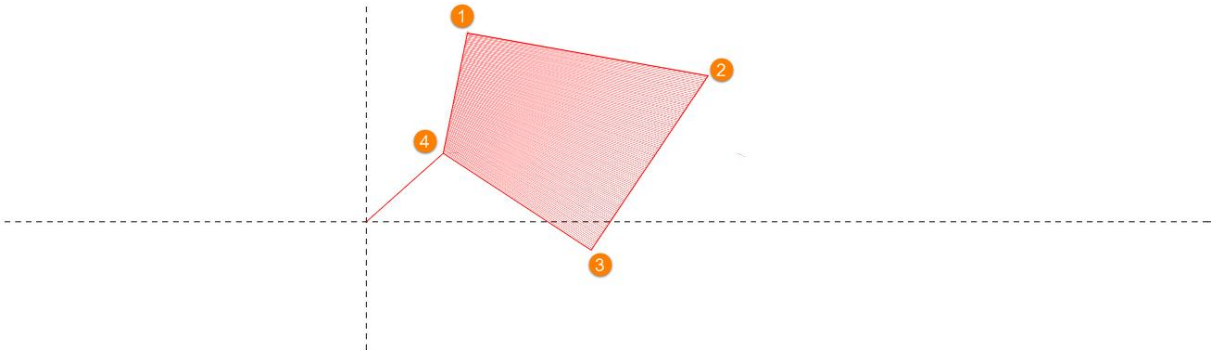
When the third point is set, only the second closing point remains. Cursor icon changes to letter B. ThreadsES will automatically draw the rest of the lines to give you better preview of the column.



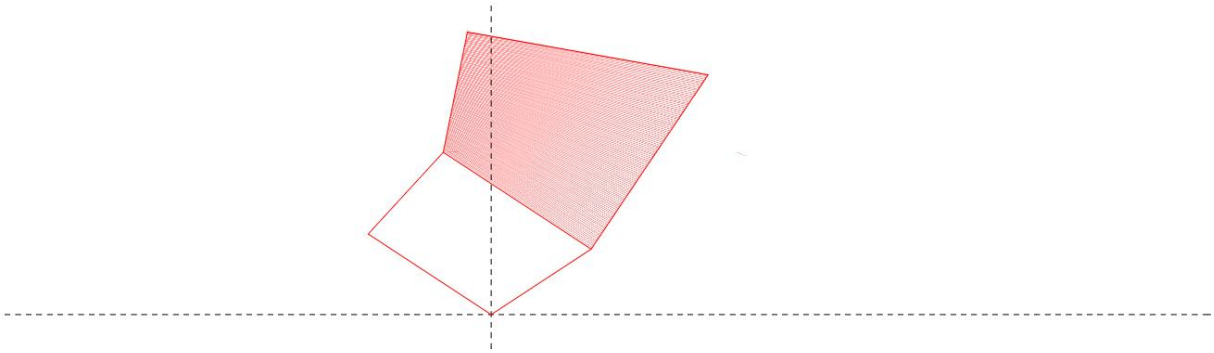
After the fourth point is set, column is created and filled.



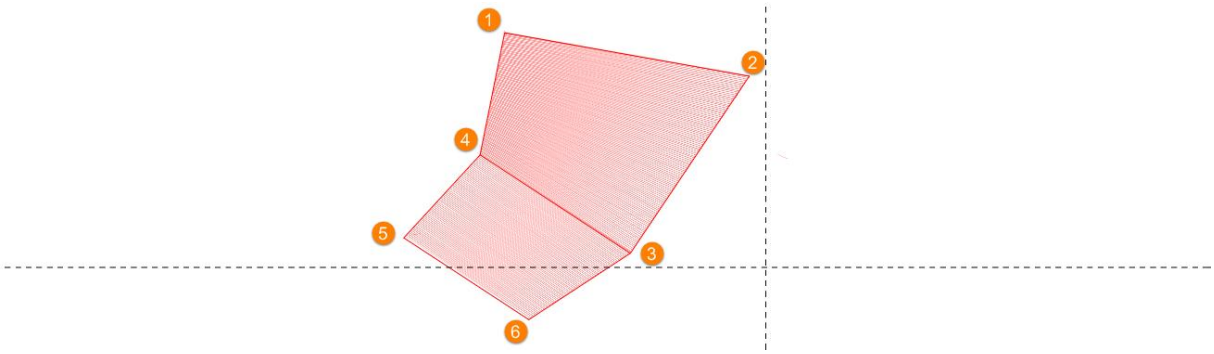
In normal and arc stitches, new stitch line starts where the previous one finished. Columns behave the exact same way. When one column is created and user wants to draw a second one, there is no need to draw all four points again. Opening points are already defined (by last column) so only closing points remain. Cursor again changes to letter A.



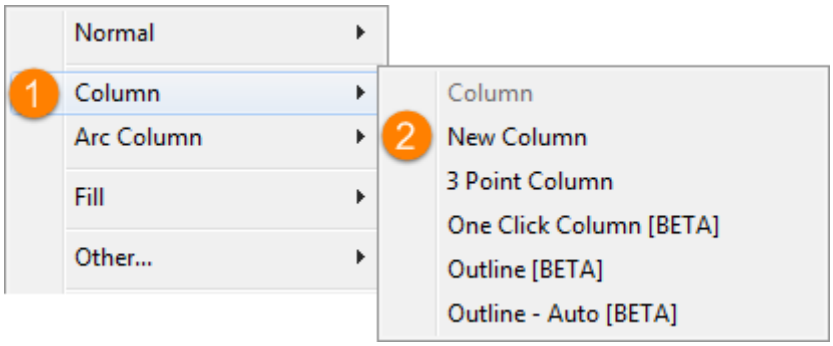
When the first closing point is set, just like in the previous column drawing, ThreadsES automatically create lines to give better preview of the column.



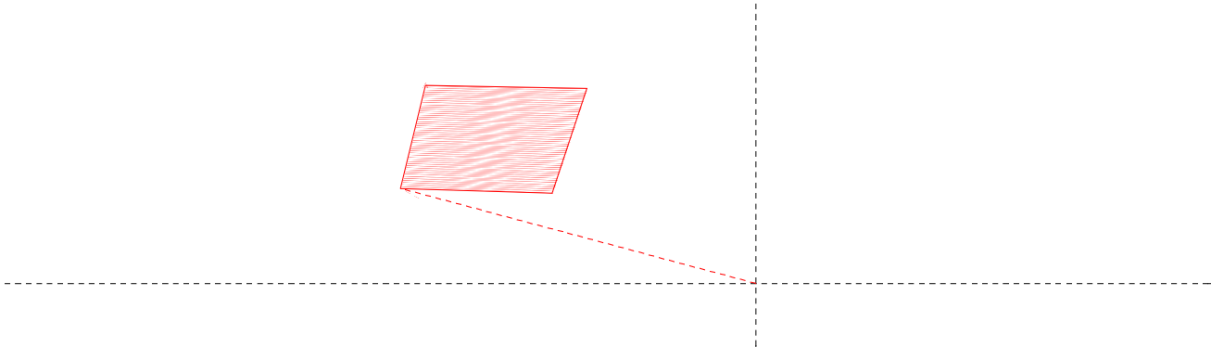
After the second closing point is defined, new column is created and filled. User can continue drawing columns or exit the command (hotkey – **Escape**). Cursor icon will change back to normal icon.



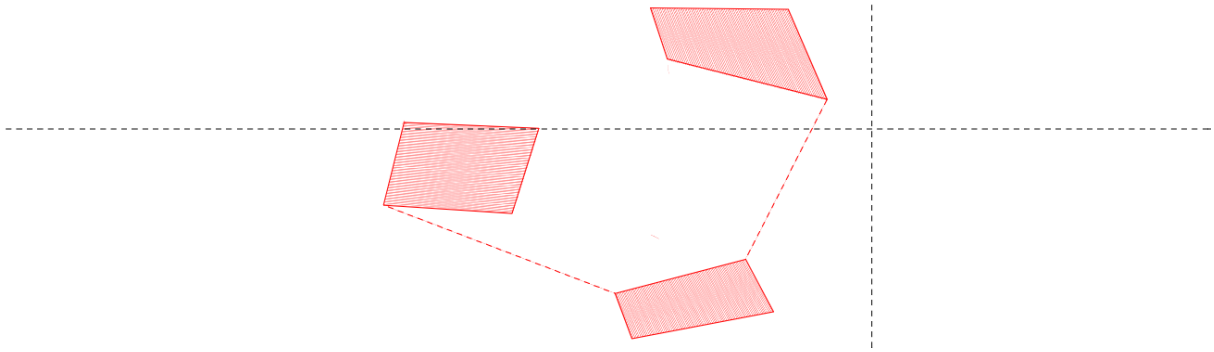
Sometimes user would like to create multiple columns on different locations on the drawing, rather than have columns next to each other. To do so, **New Column** command must be activated. Column command is now disabled (greyed out).



New dashed line appears. This line represents stitch that will connect two columns. Line will always start from the last drawn point.

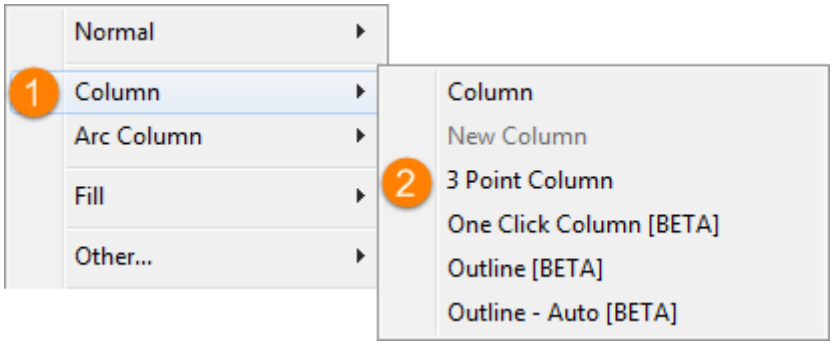


User needs to choose where the next column first point will be. After the first point is defined, procedure for the next point is same as for every column.

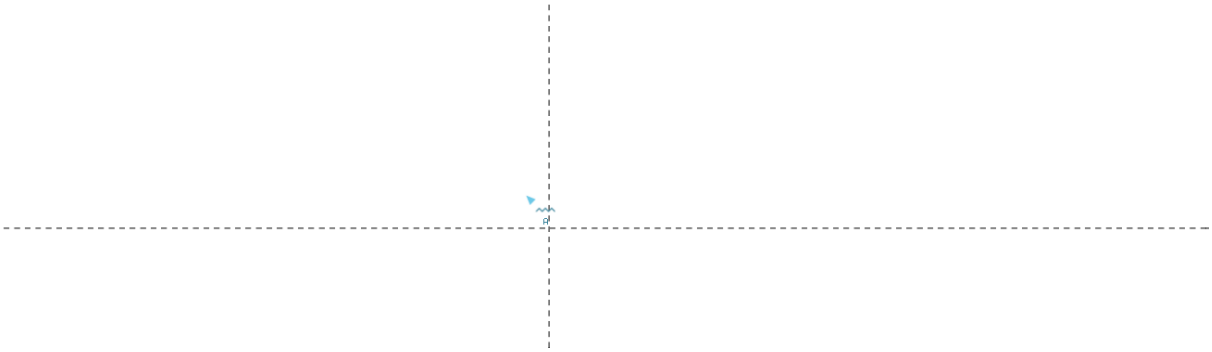


8.1.4. 3 Point Column

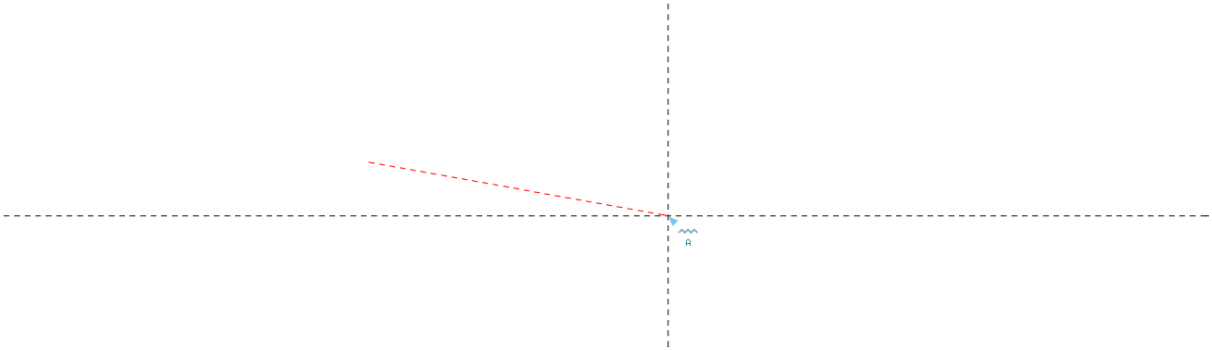
3 Point Columns require user to define 3 points to create columns, instead of four points like in regular column.



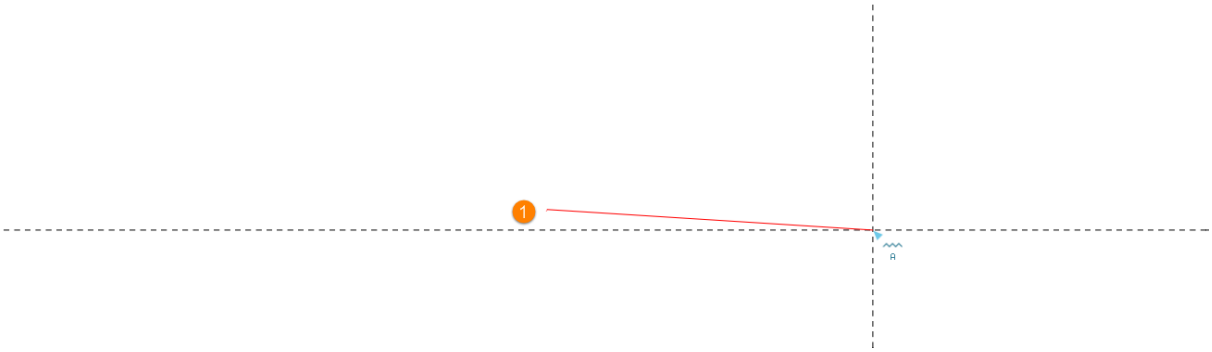
When option is active, mouse cursor icon is the same as in column mode. This time letter A in mouse cursor will show twice. First time it will appear when setting the first column point. User needs to double click to create first point on mouse cursor location.



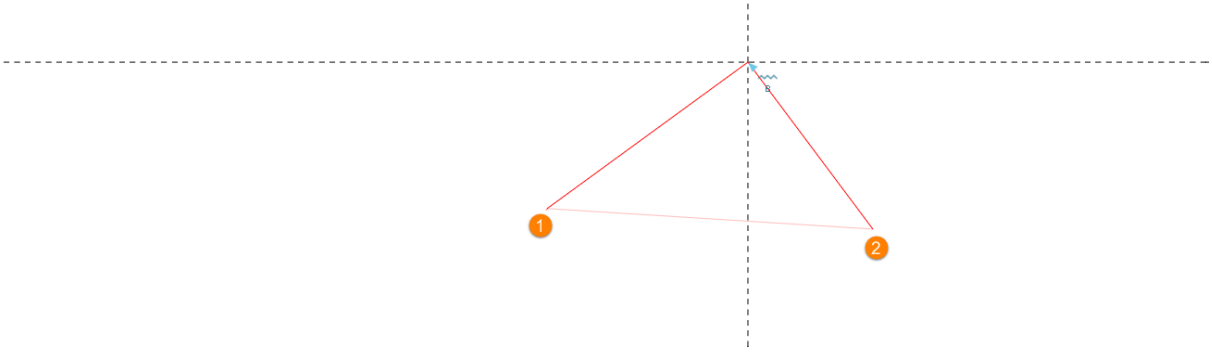
User can also create stitch before setting the first point.



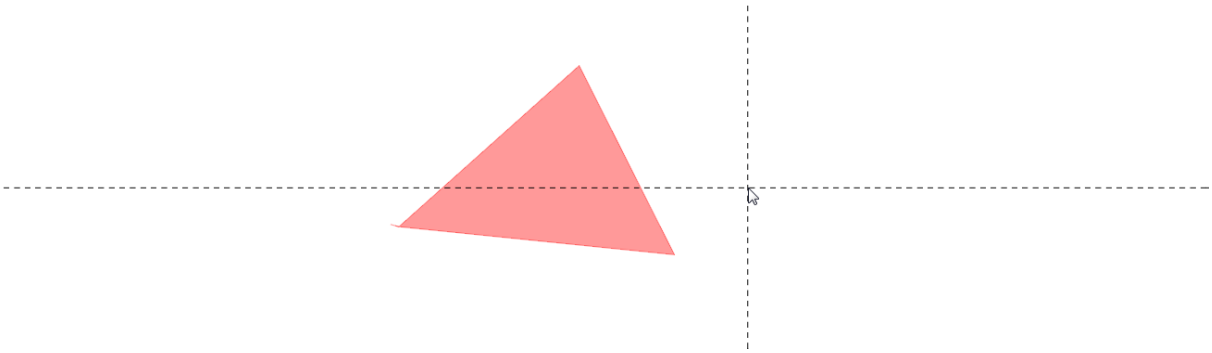
Second time letter A shows up is when user is about to define the second column point.



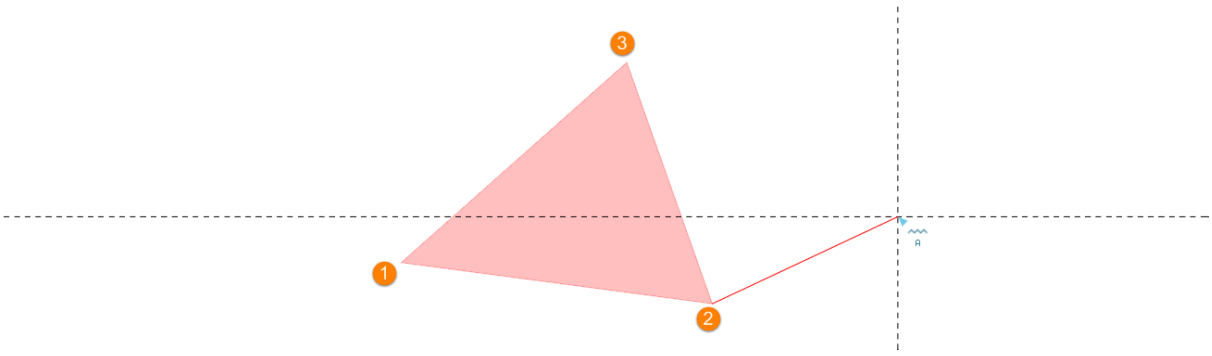
Before third point is set, mouse cursor changes icon to letter B.



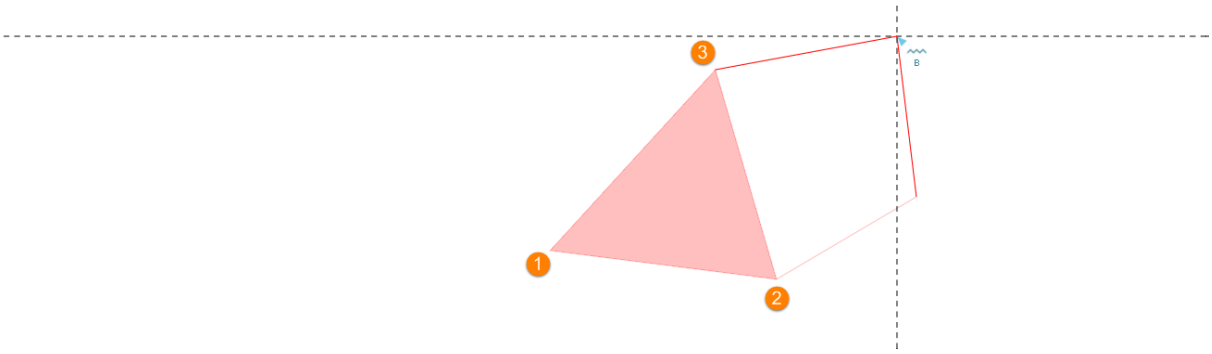
Created column is triangle shaped.



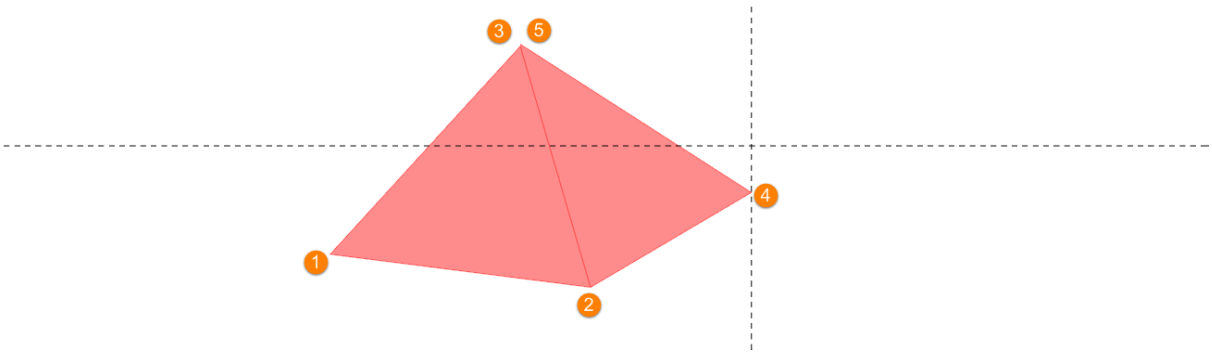
User can continue drawing 3 point columns using newly created 3 point column as first base point.



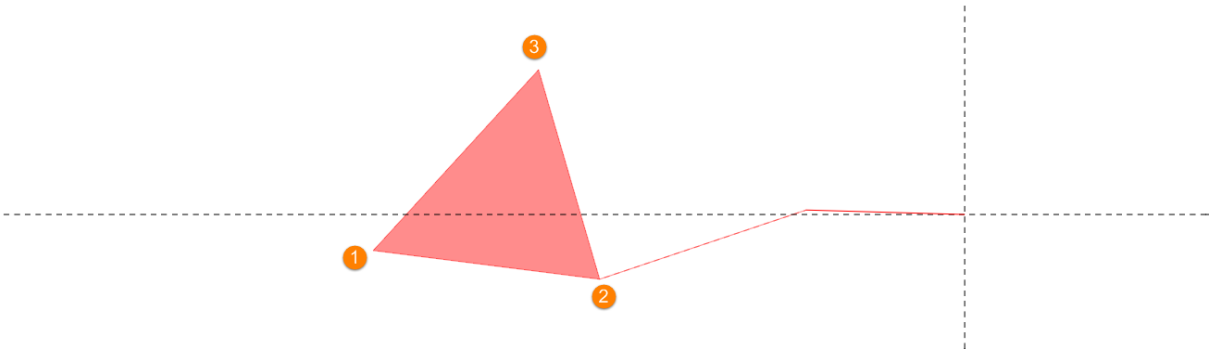
After the second point of the column is set, user can place the third point anywhere in the drawing. New column will be created. Second column shape does not necessarily have to be triangle.



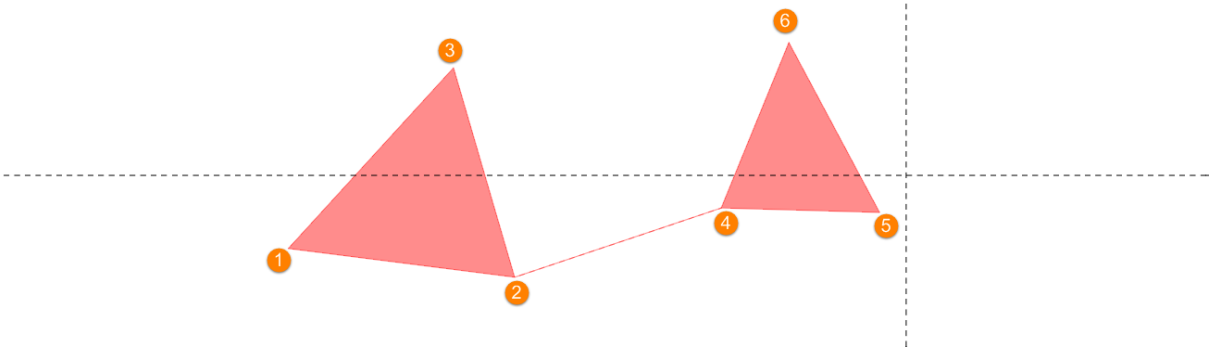
Final shape is defined when user sets the third point.



New 3 point column can also be separate from main column. After the first column is created, user has to repeat 3 point column command. Columns will now be connected with stitch. First point is defined by the end of the stitch.



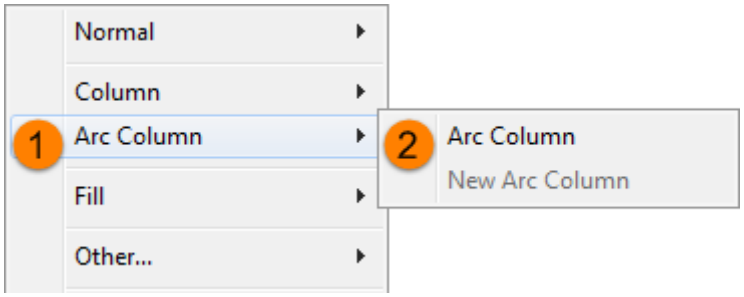
Second and third point are set the same way as in first column.



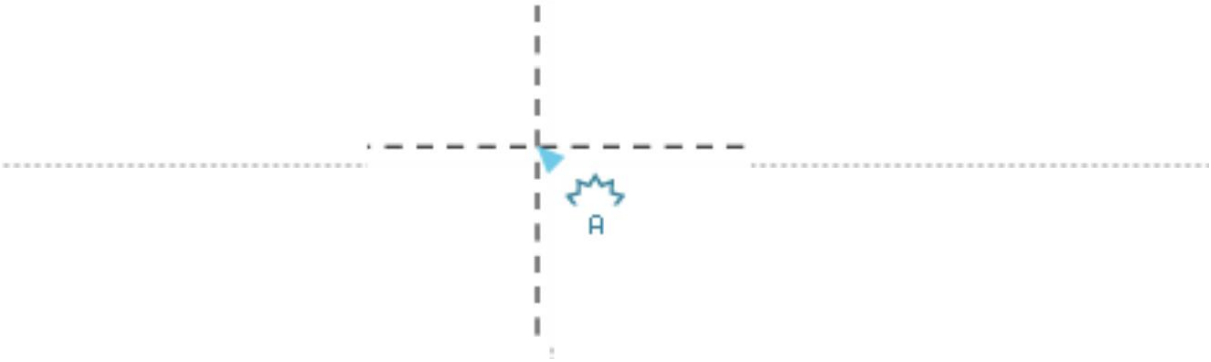
One Click Column, Outline and **Outline – Auto** are still work in progress and these topics will be covered when they become stable for use.

8.1.5. Arc Column

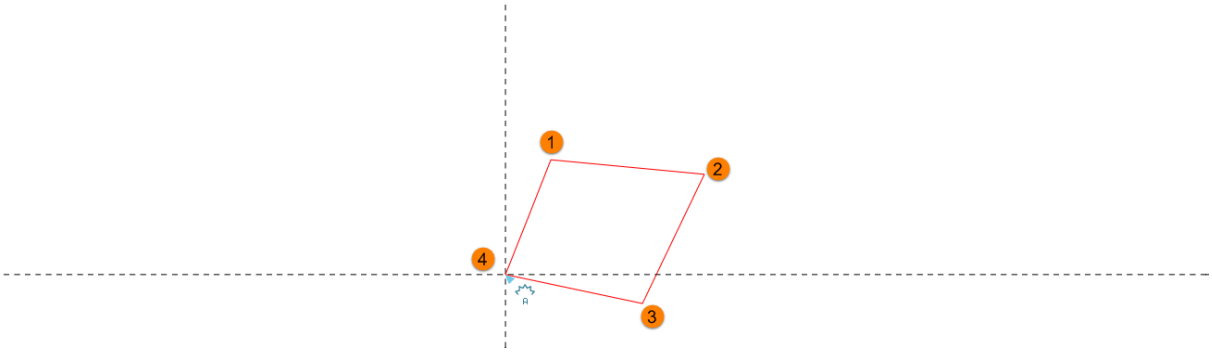
Arc Columns design the same way as normal ones, only now there are two arcs on each side of the column.



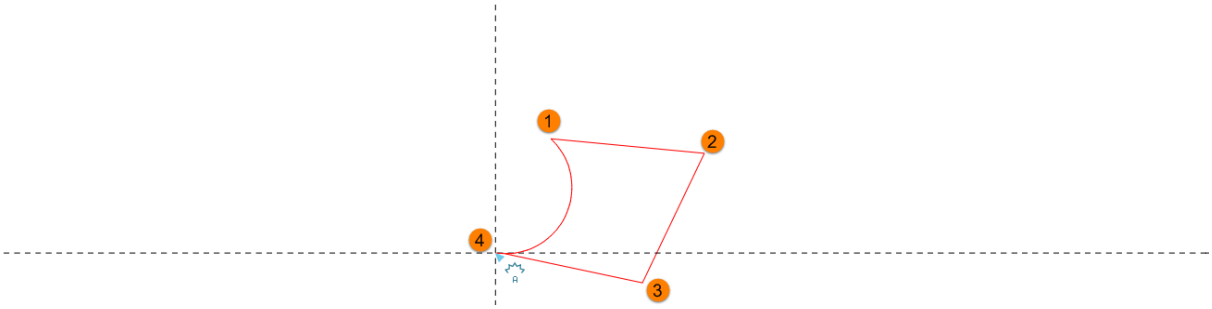
When the option is active, mouse cursor icon changes to wavy arc with letter A below.



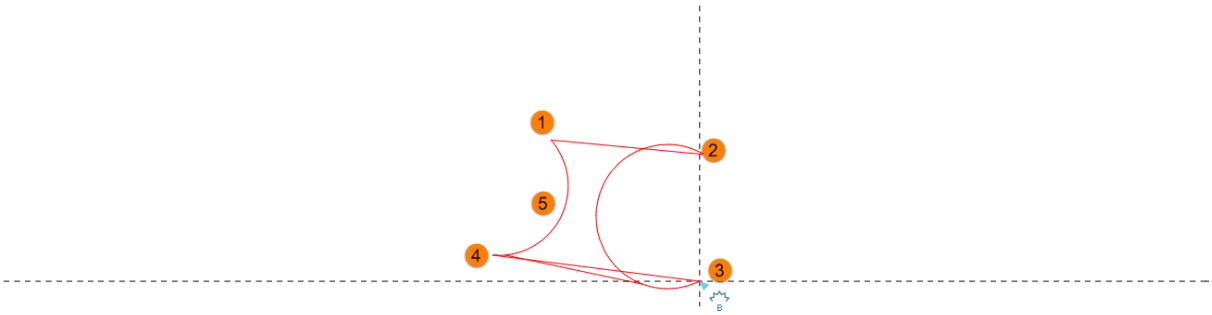
Drawing of the first four points is the same as in normal arc.



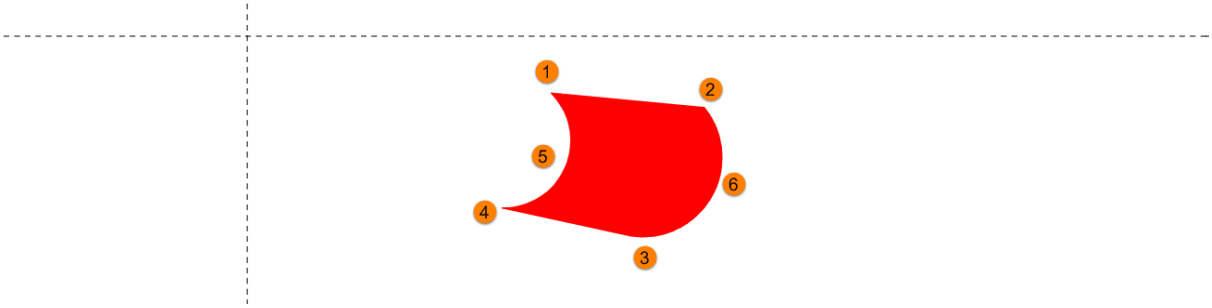
When the fourth point is set, arc becomes available. The line connecting the first and fourth point becomes transforms into arc.



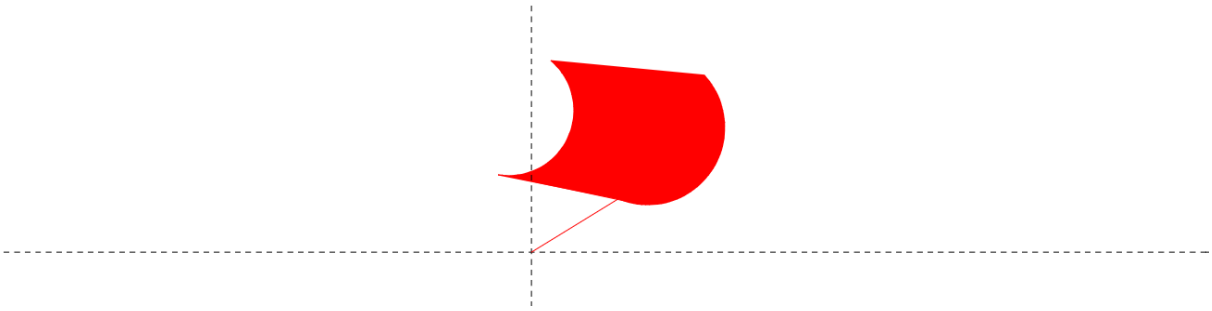
After the desired arc is set, user confirms the arc with left mouse click. Now the line connecting second and third point transforms into arc.



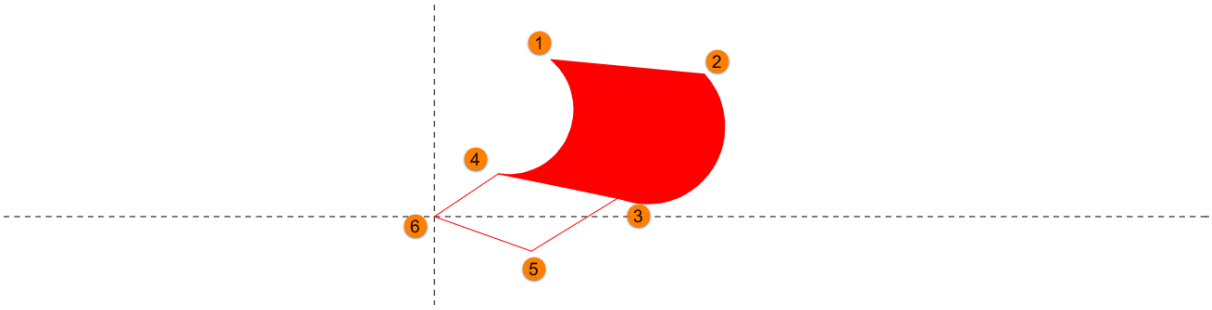
Using the mouse, user adjusts the arc. When done with adjusting user confirms the arc column with left button mouse click.



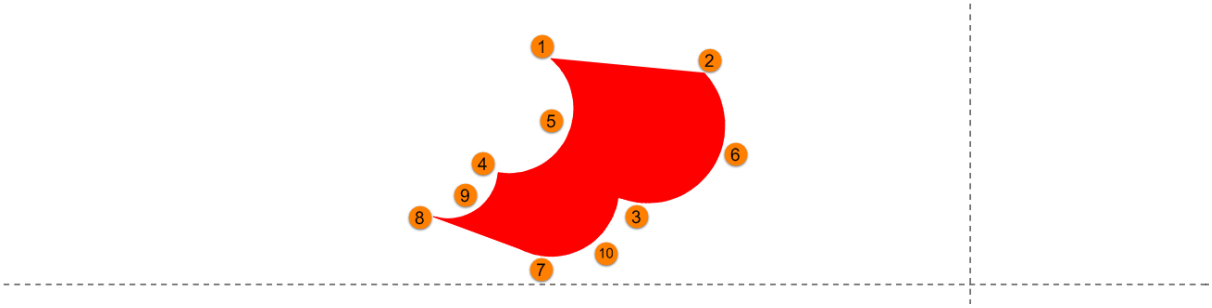
To continue drawing arc columns, just like in normal columns, only two points are needed. New column starting point is the last point from previous column.



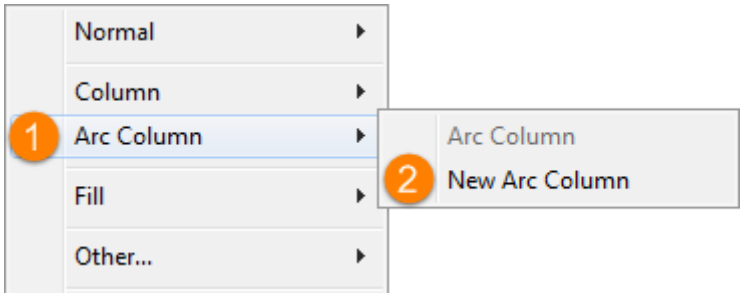
User selects the first closing point and second closing point. Before second closing point is set, ThreadsES creates lines for better preview. To start creating arcs, user must set the second closing point.



After the second closing point is set, line connecting sixth and fourth point will transform to arc. When the first arc is set, line connecting third and fifth point will transform to arc. Procedure is same as the first arc column. When user is happy with adjustments, he confirms the change.



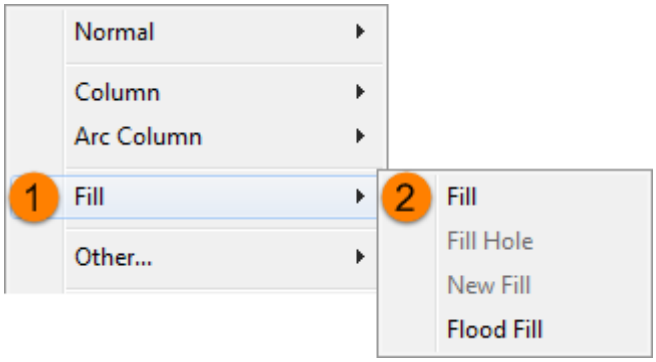
To start drawing new arc columns on random place (just like in normal column), **New Arc Column** command is used. Using the context menu, command becomes active.



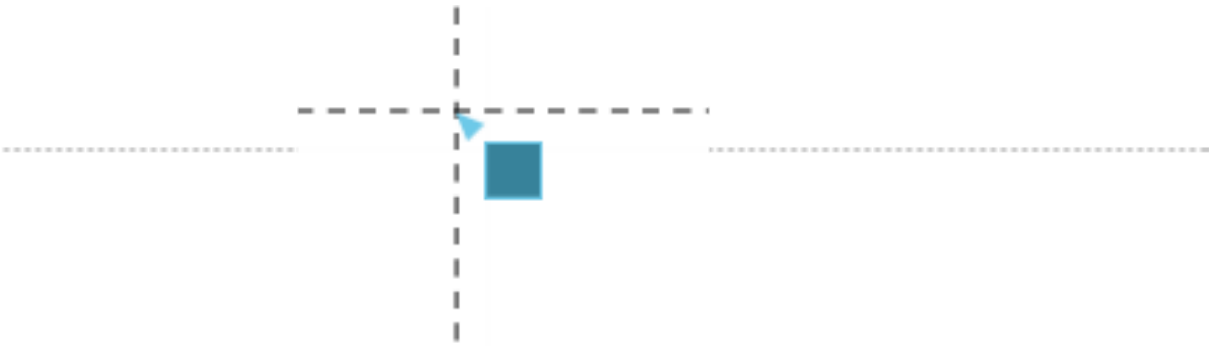
Dashed line that represents connector stitch between two arc columns appears. By clicking anywhere in the drawing user defines the first arc point. To draw an arc columns, user follows the same steps as for the first arc column.

8.1.6. Fill

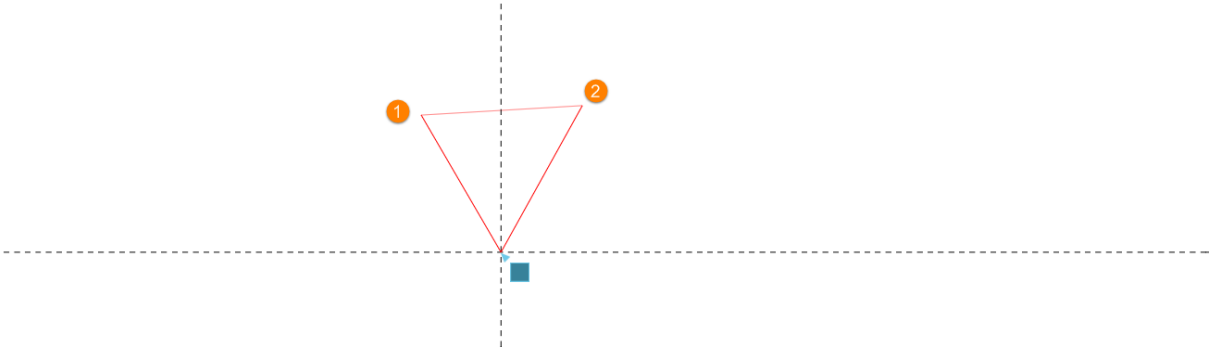
Fill command enables users to fill the certain area. Users can use columns to make fills on some areas, but there are plenty situations where fill does the job and column does not. Fill is, like every digitizing option, available through context menu.



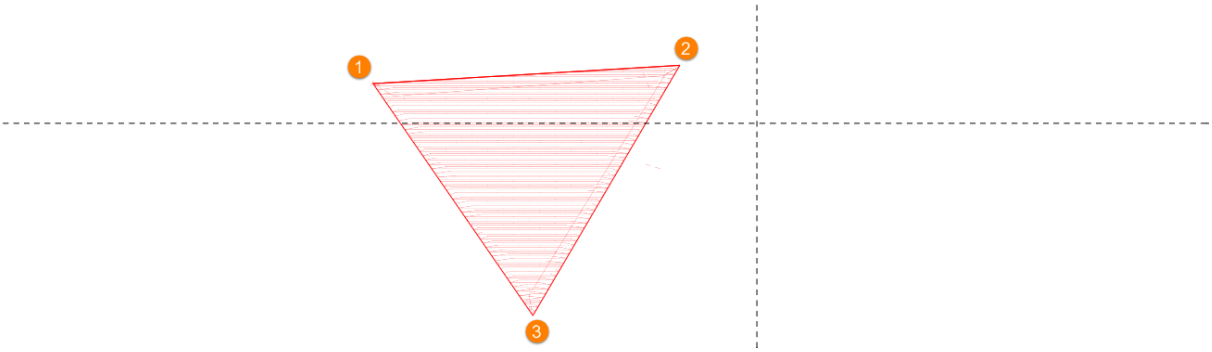
When Fill command is active, mouse cursor changes it's icon to blue filled square.



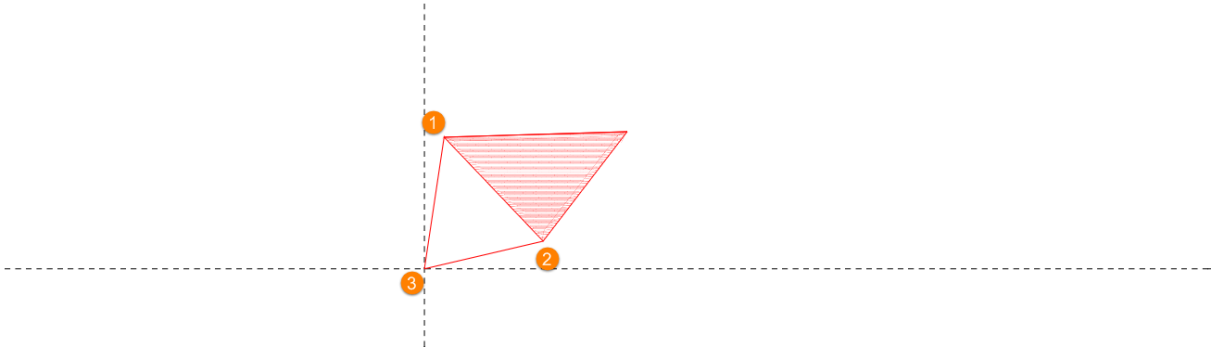
To fill the certain area, user must select three fill points. They define the area that will be filled. Clicking anywhere in the drawing, sets the first fill point. Moving cursor in desired direction and clicking the left mouse click, activates the second fill point.



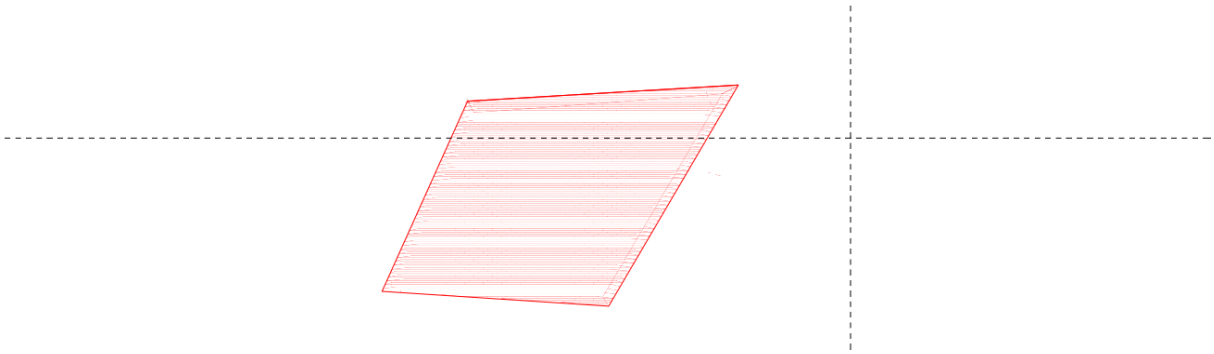
Software automatically creates preview lines to give better insight how the fill will look like. After the third point is set, area will be filled.



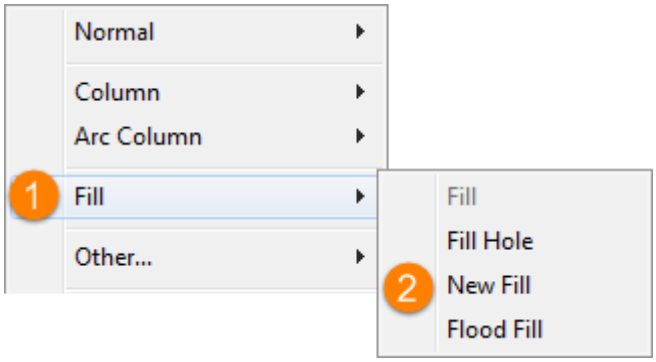
After the third fill point is set and area filled, command is still active and user can continue to fill other areas. This time only one point needs to be set, as the software uses two points from previous fill.



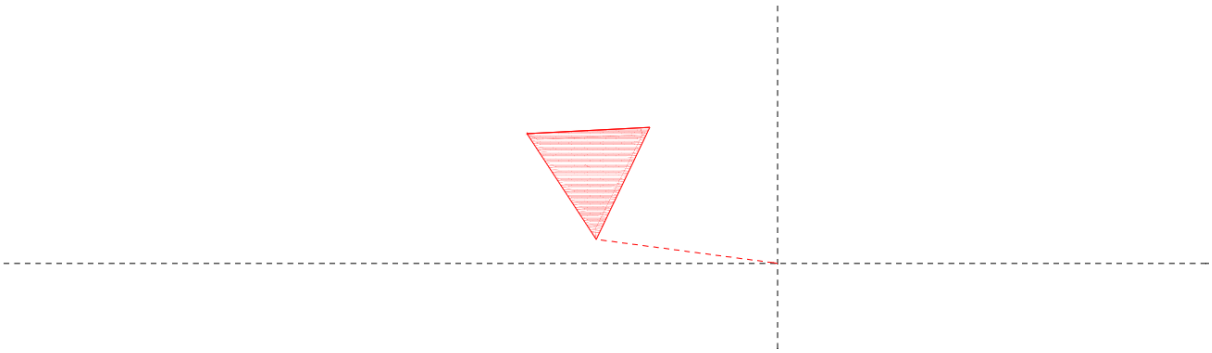
When the point is set, fill are expands to selected point.



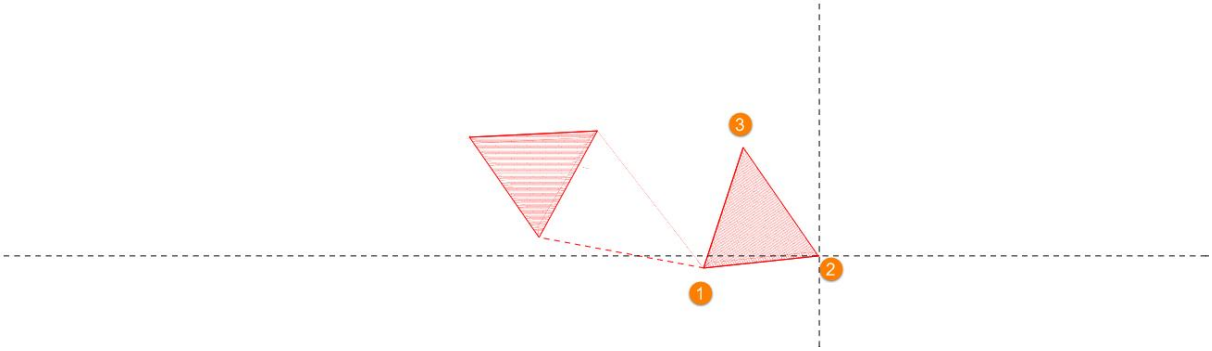
However, user might not want to continue fill from the previous fill, but from the some random point in the drawing. For this purpose, new fill must be drawn. Right clicking the mouse brings the context menu. Under the **Fill** category there is a **New Fill** command.



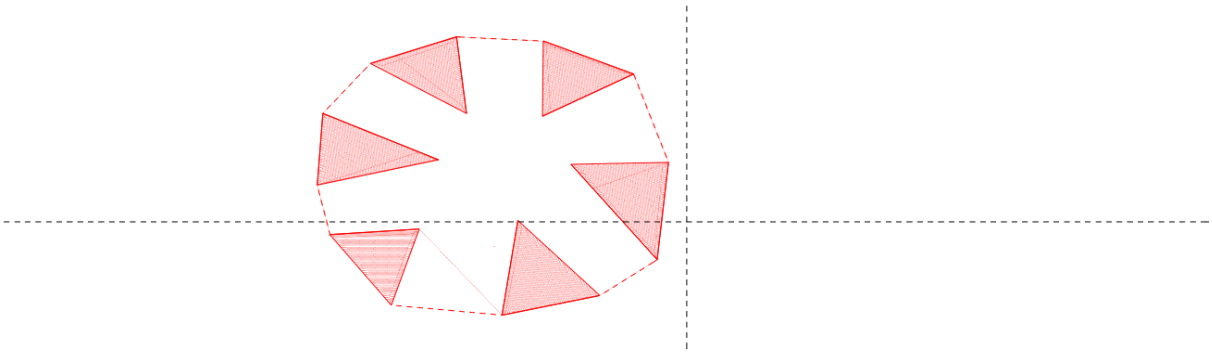
Right after the new fill command is active, new dashed line becomes available. It represents a connection stitch to next point. User decides where to put the next fill point.



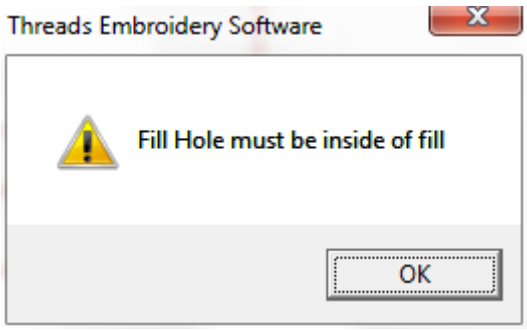
After the first fill point is set, procedure is same like in previous fill. Selecting the second and third point finishes the fill.



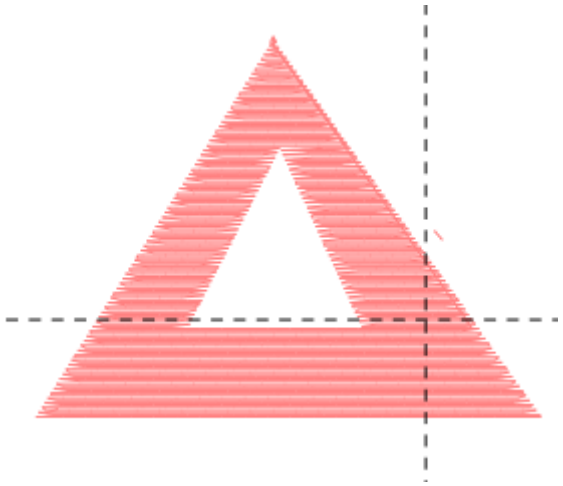
At this point, user can continue working from second fill or create new fill.



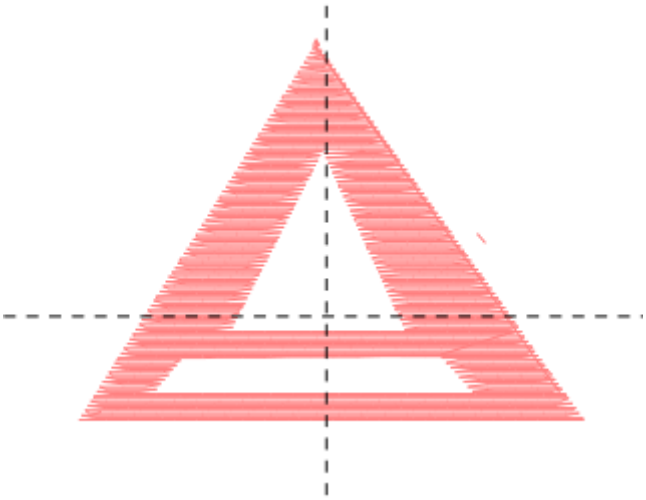
Once you have created a **FILL** area, you may want not want the entire shape fill and would like to have a small area not stitched. This can be accomplished with **FILL HOLE**. Like the previous, you need to select 3 or more points inside the **FILL** area. If you try to click outside the **FILL** area you will get the following error.



Once you have selected 3 or more points in the **FILL** area, you can go to the stitch mode and you will see that part of it was left out.



You will be able to create more than 1 hole in the **FILL** area if required.

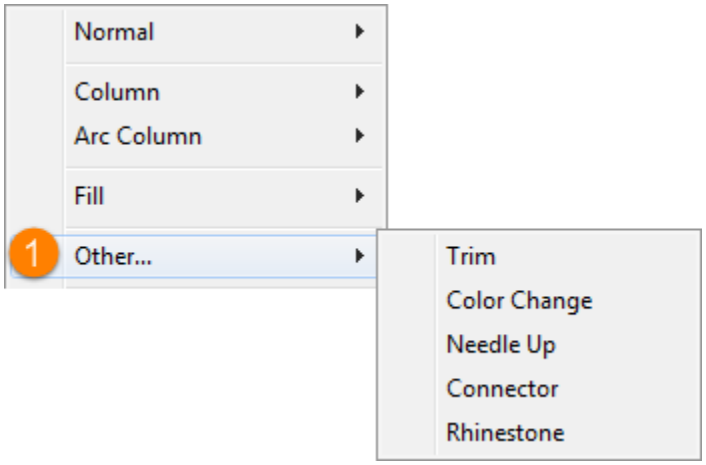


8.1.7. Other digitizing options

As seen, digitizing mode offers options to create stitches from existing images or from scratch. To ease up the drawing and add more options to manipulate the stitches, additional tools are provided.

These options are accessed from context menu:

- Trim
- Color Change
- Needle Up
- Connector
- Rhinestone

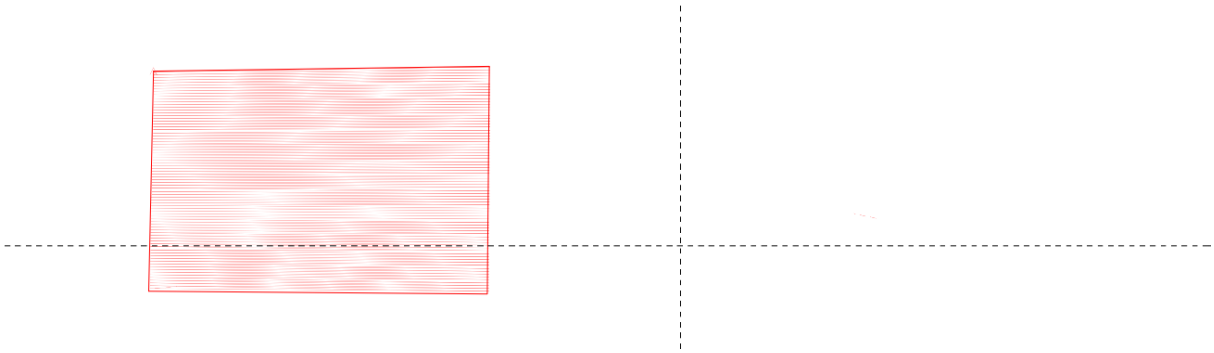


Some of these options affect not only the drawing, but the final embroidery process as well.

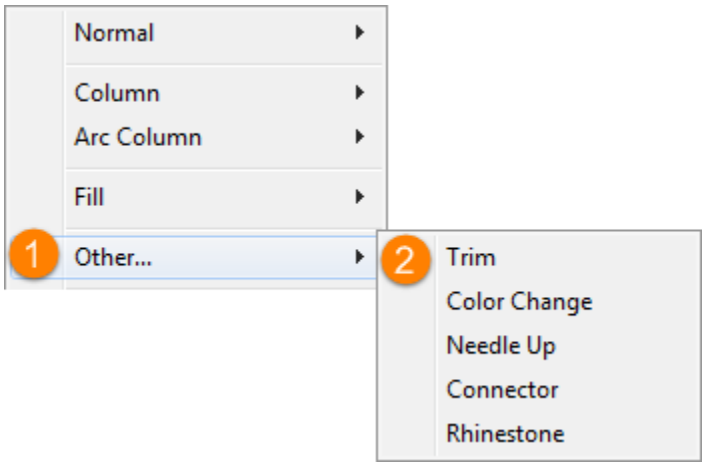
8.1.8. Trim

In the digitizing process, columns or fills where next to each other, unless the user selects creates new column / fill. Even then, there is connecting stitch between them. Trim command "cuts" the connection stitch.

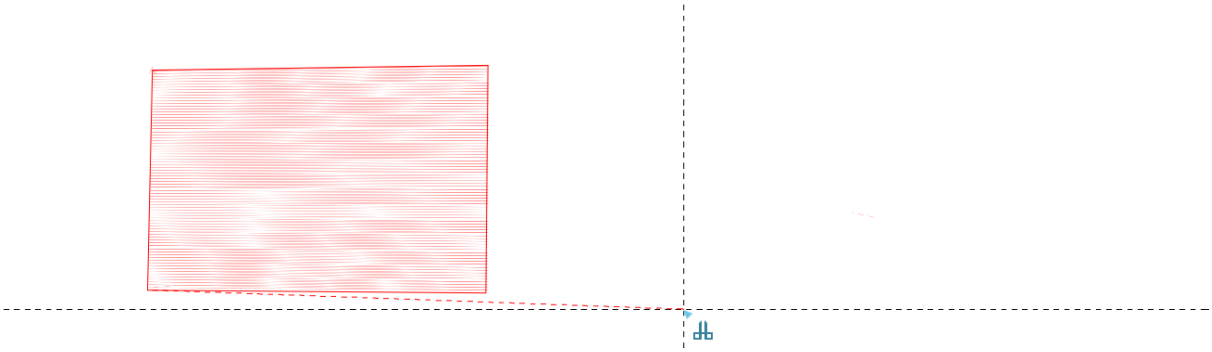
To trim the connection between two columns, first column must be drawn.



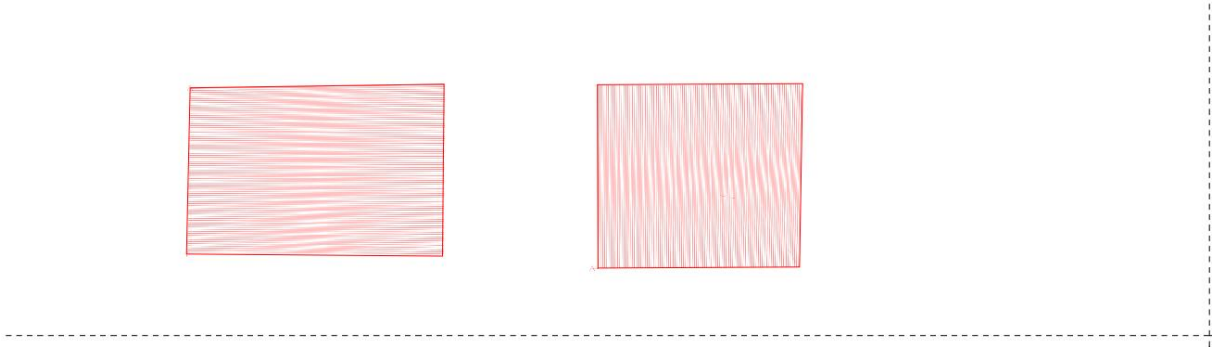
As said, trim option is accessed via context menu.



When **Trim** is active, connector stitch is shown and mouse cursor icon changes to scissors.



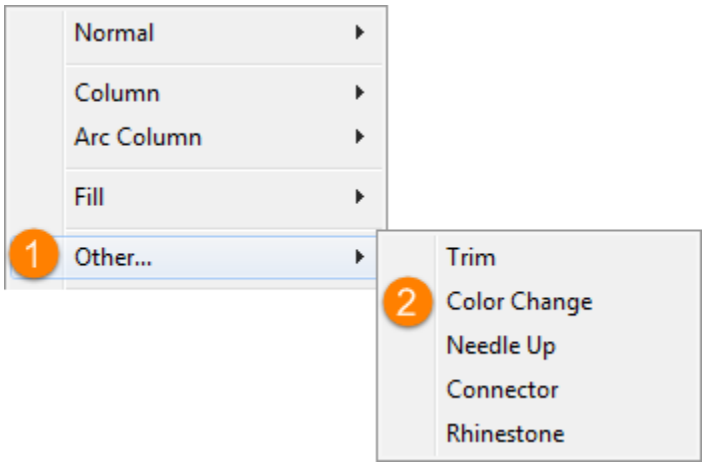
Left mouse click confirms the trim. Every digitizing option will now start from that point.



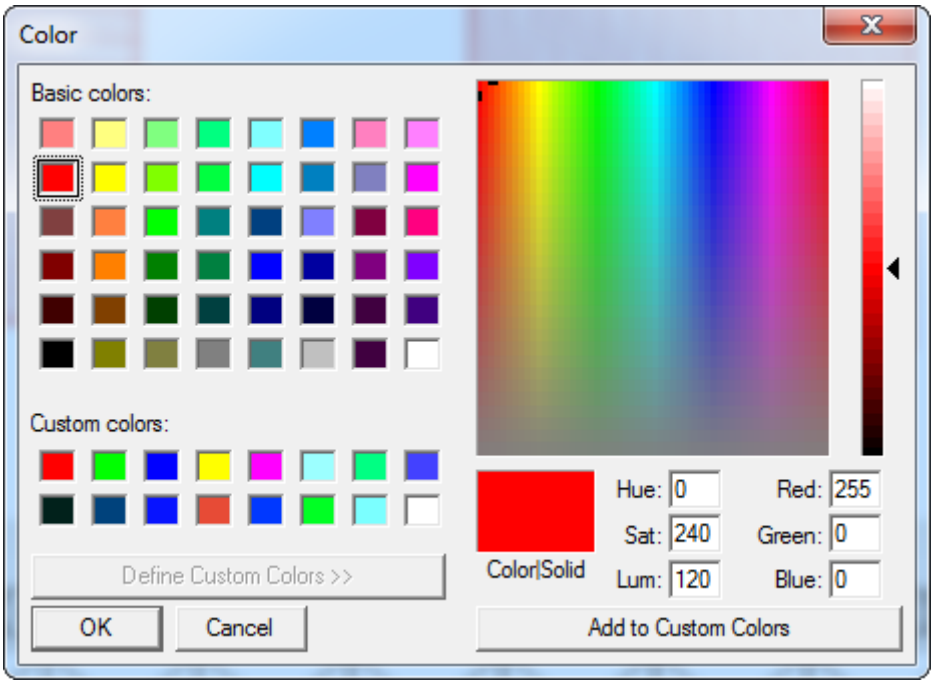
It was mentioned earlier that these options also have effect on embroidery process. When the **Trim** command is used, the embroidery machine will stop embroidery and then cut the thread. The embroidery process will continue from the next digitized point in the project.

8.1.9. Color change

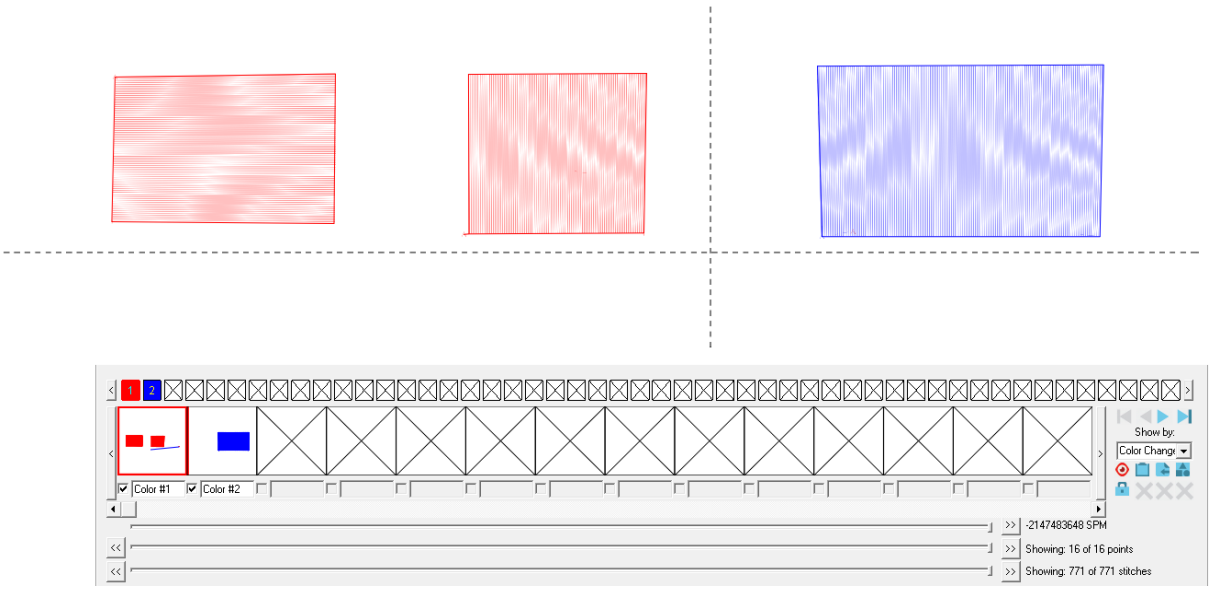
This is one of the most useful commands in digitizing process. Color change (besides changing the color of the stitches) allows user to create sections in the drawing. This way user can easily manipulate digitized content, changing only certain section rather than the whole drawing.



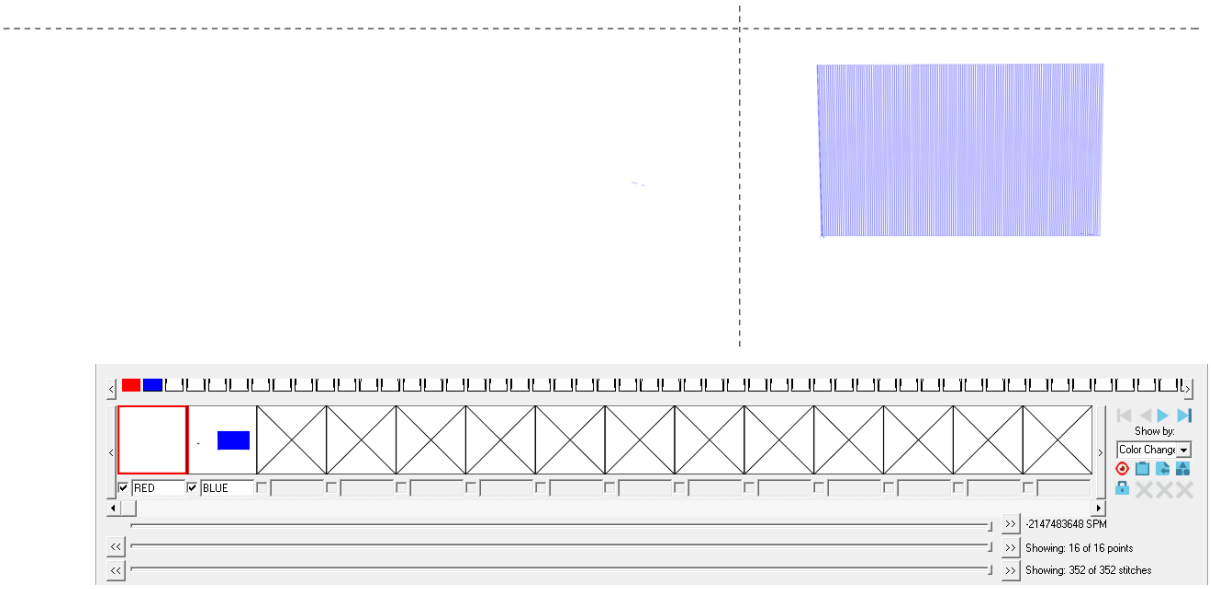
At any point in the drawing, user can change color. When option is selected, color change dialog appears.



User selects desired color and confirms the color change. Every stich now will be drawn in the selected color. Changes also happen in bottom section bar. As soon as the user starts to draw in different color, boxes update with every stitch drawn. This way, user has complete preview of the section.



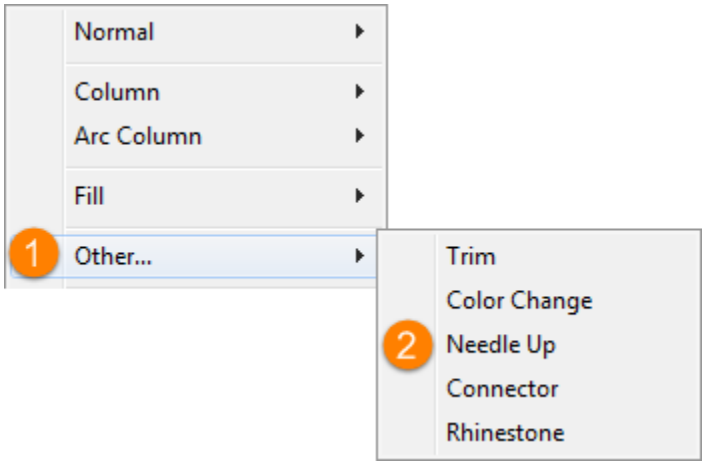
User can use checkboxes to hide one of the sections or rename sections for easier navigation.



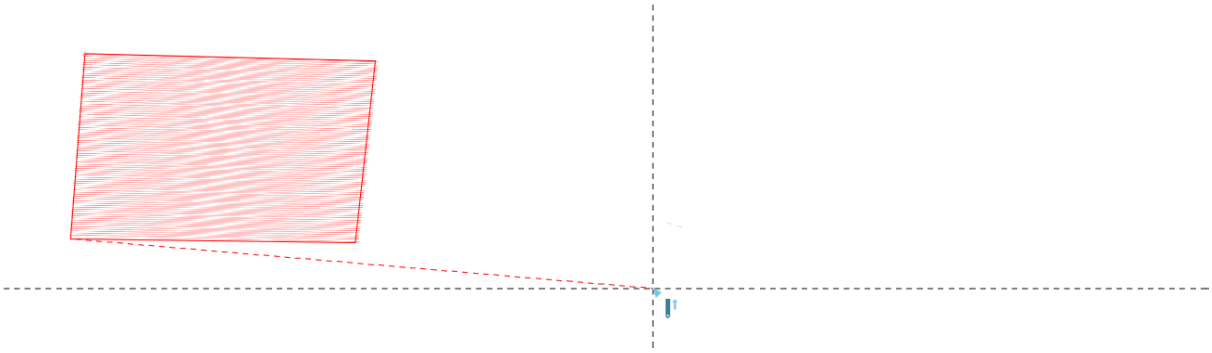
On every color change in the drawing, embroidery machine will cut the thread and move to another needle and use another thread. Colors in the drawing do not necessarily have to be the same as the stitch color. Stitch color is set by operator on the machine. This way user can have 3 colors change in the drawing and only one color in the sewing process.

8.1.10. Needle Up

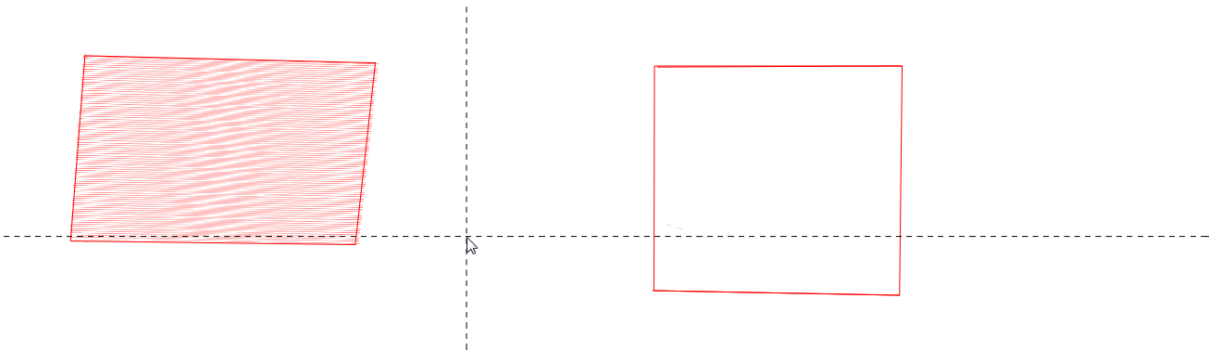
Needle up behaves similar to trim command. It allows user to draw objects and avoid their connection with stitch. While trim command cuts the thread and skips to next one, needle up does not cut the thread at all.



Selecting needle up immediately changes mouse cursor icon to needle.



Confirming the change, user can draw the second object. Its starting point is the place where needle up option was confirmed.

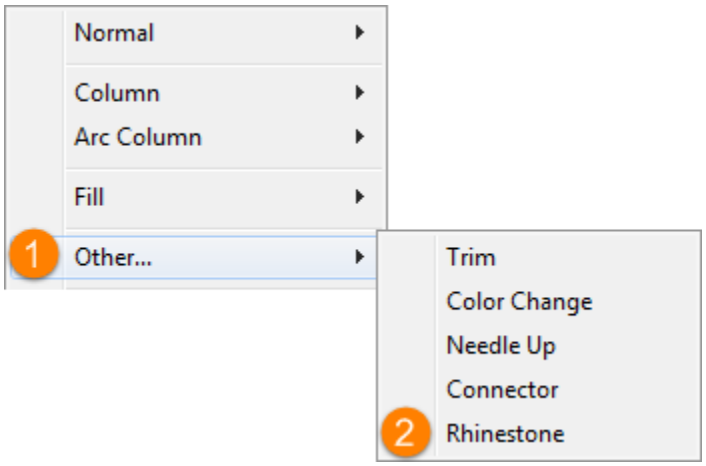


If needle up is used, during embroidery process, embroidery machine does not put stitches, just one long stitch.

8.1.11. Connector

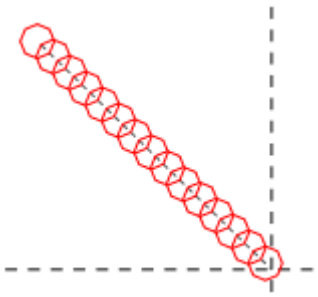
Connectors are the stitches which connect two different objects. If you have two columns, one a triangle and a rectangle. The connector would the stitch that would link each object. ThreadsES enables you to easily see how many connectors are used and separates each object. In the bottom bar, section area, there is a dropdown box "**SHOW BY**". If you select **CONNECTOR**, all the objects will be separated in the section area by its connector used.

8.1.12. Rhinestone



For users that have rhinestone machines, ThreadsES enables rhinestone creation. When this option is enabled the cursor will change to:

Creating rhinestones is like create a normal stitch. The user just need to select two points. Once selected the points you will circles which indicate the rhienstones.

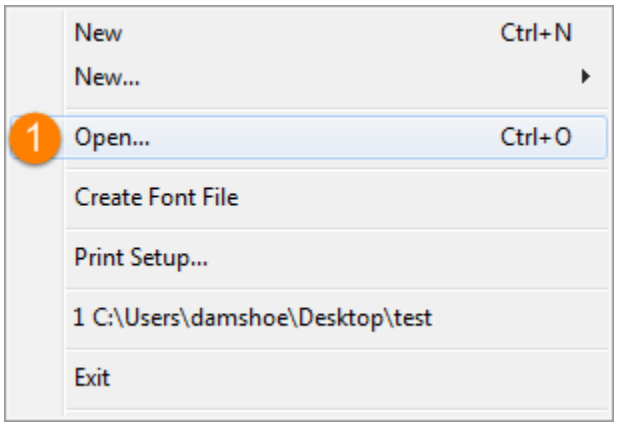


8.1.13. Example

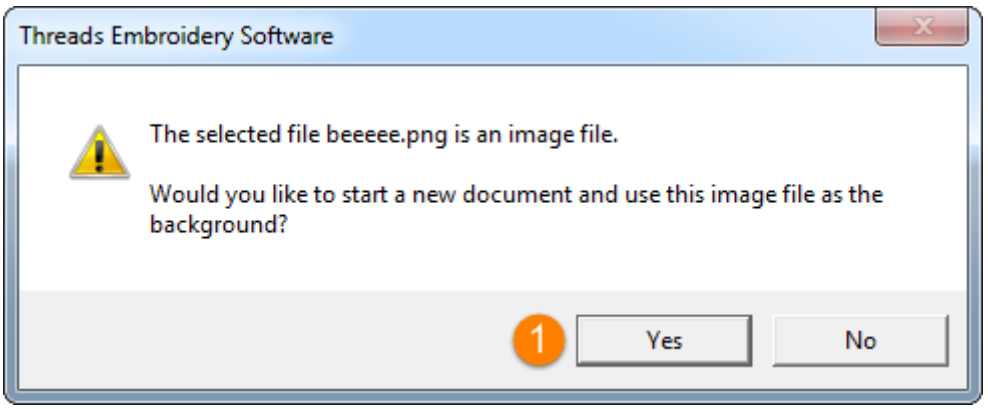
It's been mentioned before that digitizing can be done from scratch or loading an image. There are few ways to load an image to the drawing. In this example, we will start digitizing an existing image and by using Open command.

In this example we use different commands and options that were covered in the manual. In order to master digitizing, it is very important to know the digitizing process, but also to successfully manage bottom toolbar, especially the sections bar.

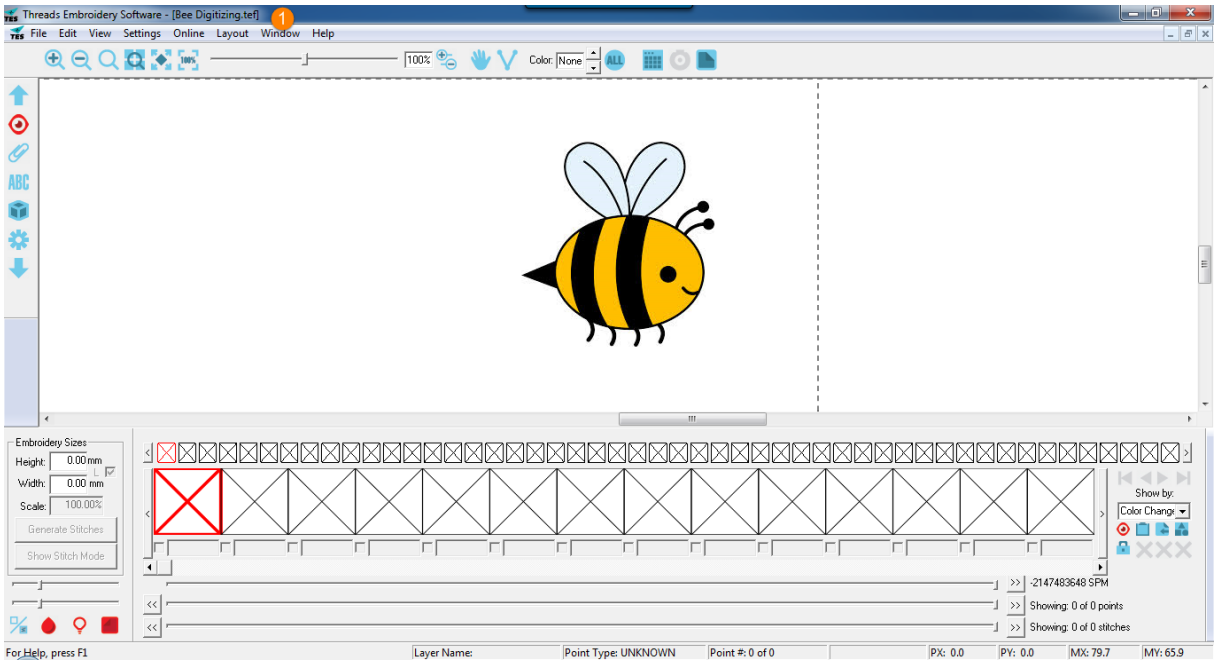
Step 1: Start ThreadsES and open the bee.jpg image found in your ThreadsES installation directory (example files) using Open (**Ctrl + O**) command.



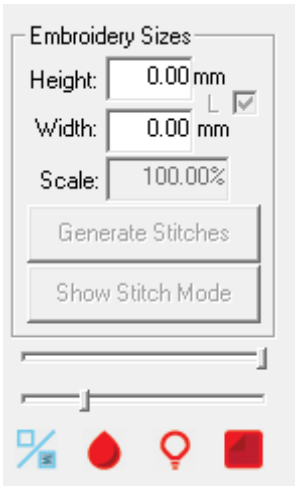
Step 2: Once the image is loaded dialog shows up. Click **Yes** to start a new document that will use bee.jpg file as background.



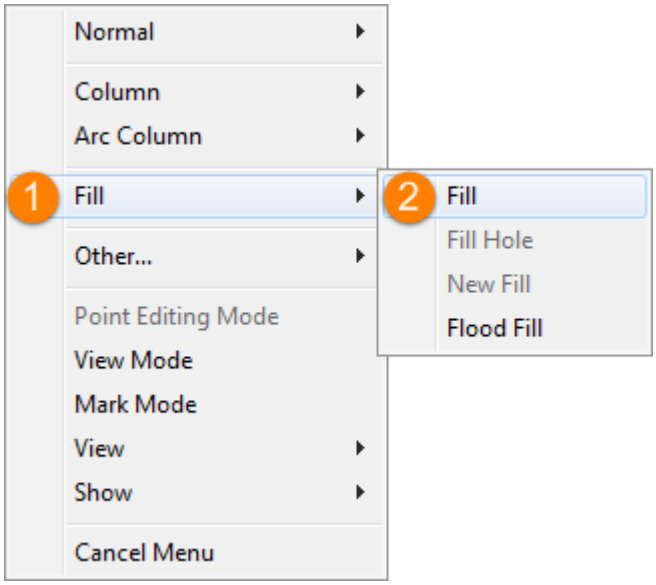
Step 3: Before starting any work, save the project for the first time anywhere on your computer. Name it "Bee Digizing". Later we will periodically save changes. It is important to do this often, to prevent possible data loss. ThreadsES offers backup file in case of crash, but it is better to be safe than sorry. Name you used to save the file will show up in the Title bar, next to software name.



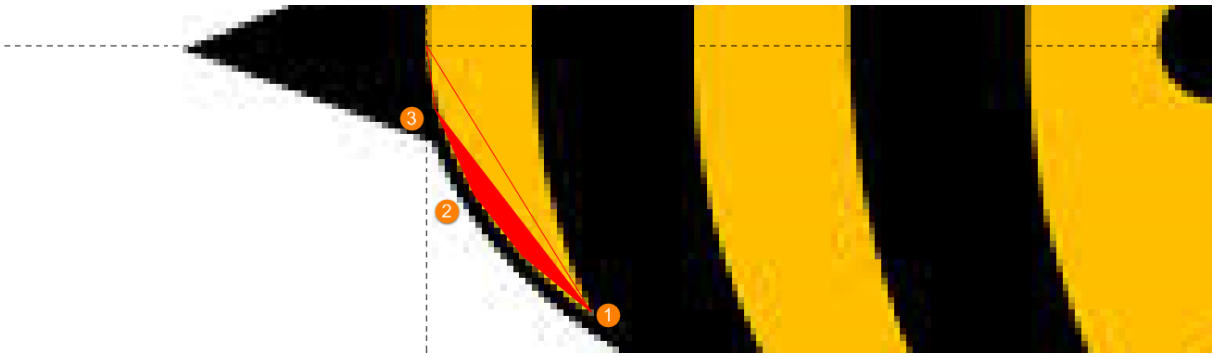
Step 4: Before filling, go to Embroidery Sizes box. Make sure Fill mode is active and Fill opacity set to lowest level.



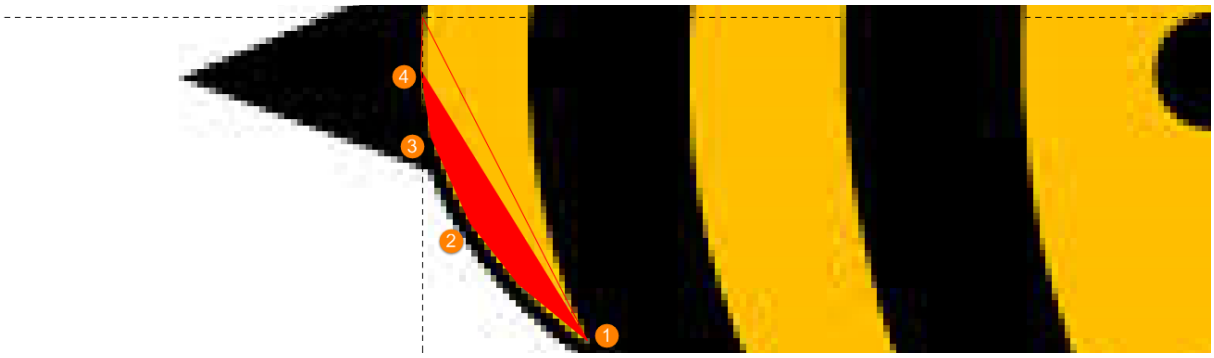
Step 5: Now we are ready to start digitizing. Right click mouse button to activate context menu and choose Fill.



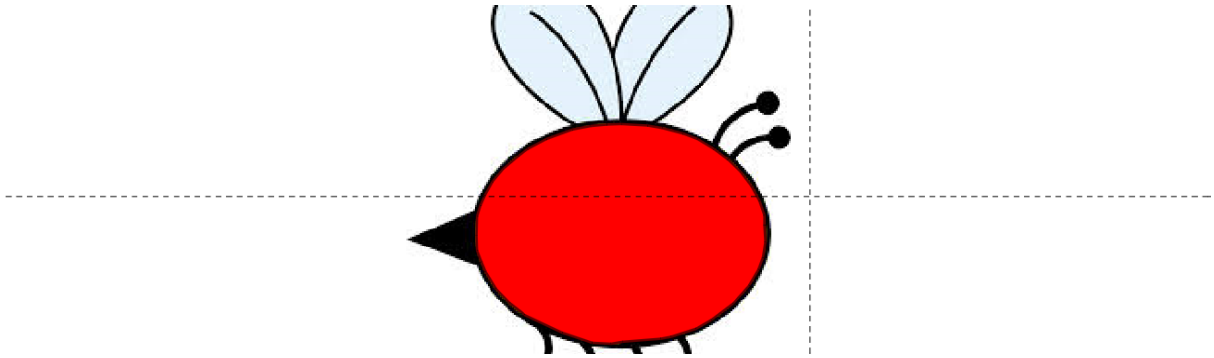
Step 6: To start filling click anywhere on the black border on bee's body. Use **Zoom** (**Ctrl + Scroll Up**) for better preview. To scroll the window while fill command is active, click the mouse scroll button and move up or down. Choose your fill starting point. Carefully place the fill points along bee's body edge.



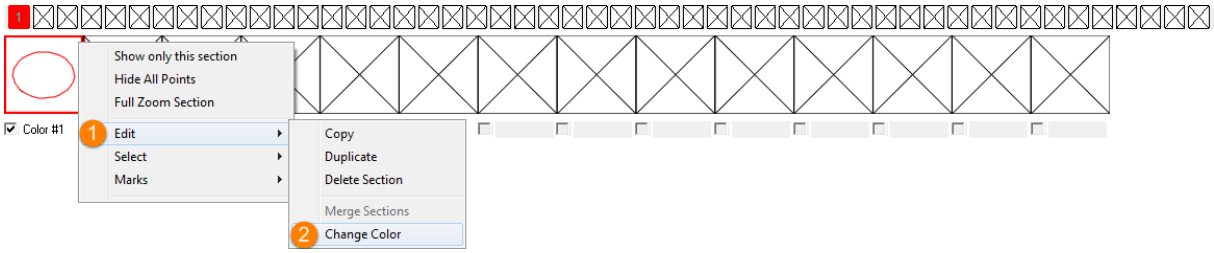
Step 7: When selecting points, you can see how ThreadsES creates preview line, which marks the area that will be filled. By selecting more fill points, the preview area will increase. When you define a point, area fills and preview is available for the next point.



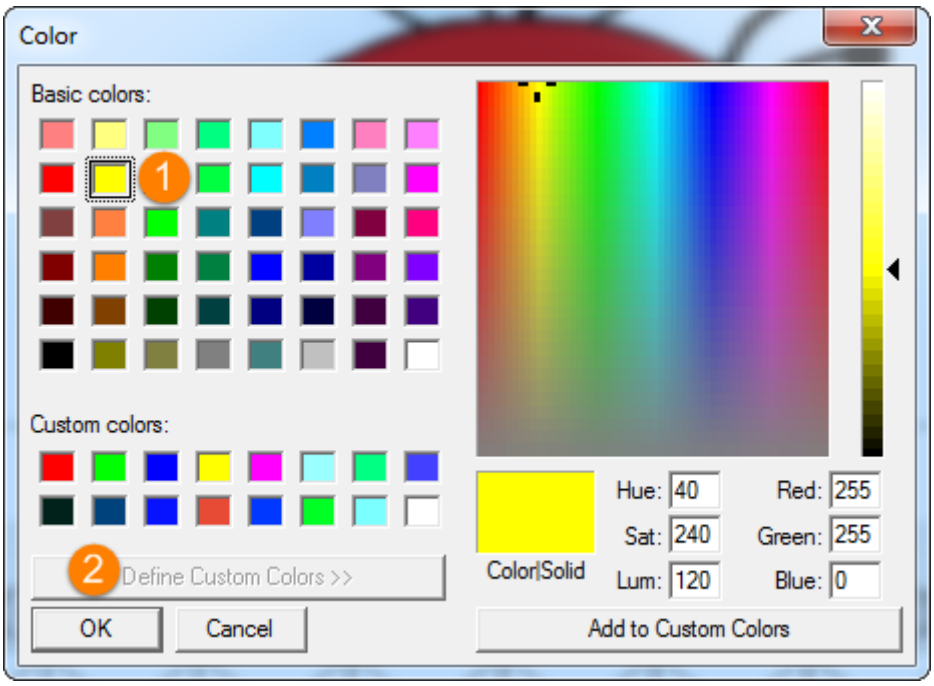
Step 8: Don't mind the red fill color, you will change it later. Save your documents using Save (**Ctrl + S**). Complete the bee fill. It is good to have many points, but don't create too many. Let the bee shape guide you. Your bee should look like this when filled.



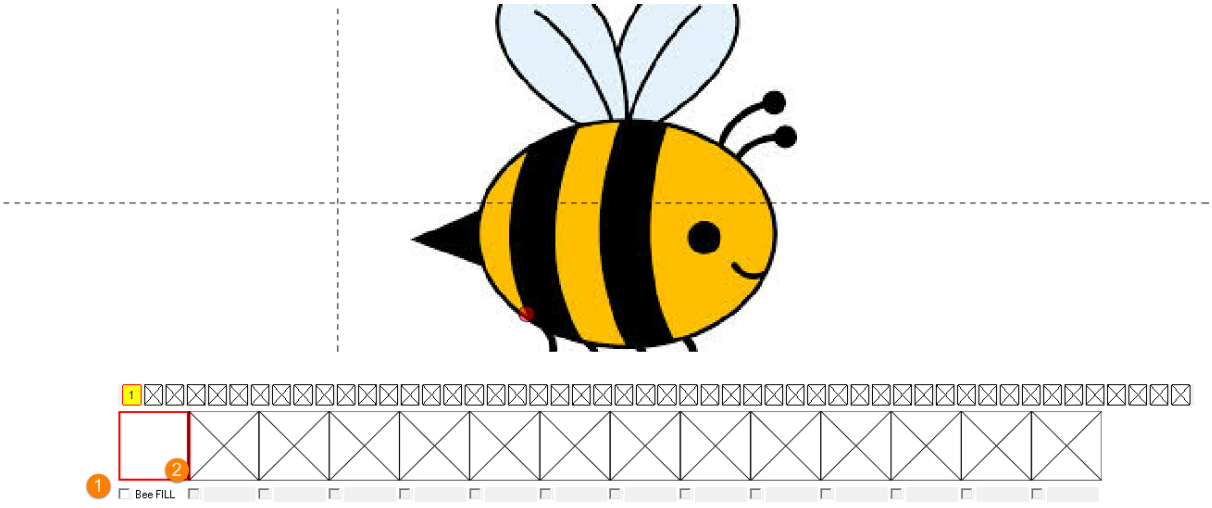
Step 9: Change the fill color to yellow. Right click the first section in section bar. On context menu choose **Edit** => **Change Color**.



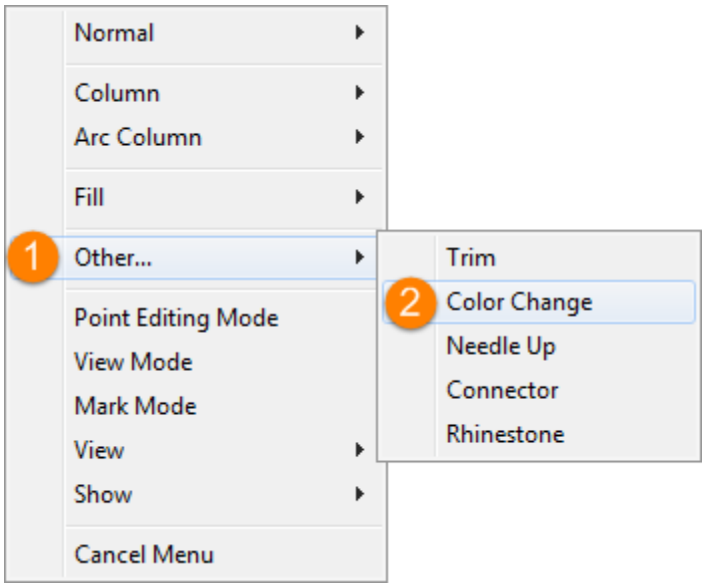
Step 10: Choose **Yellow color** and click **OK**



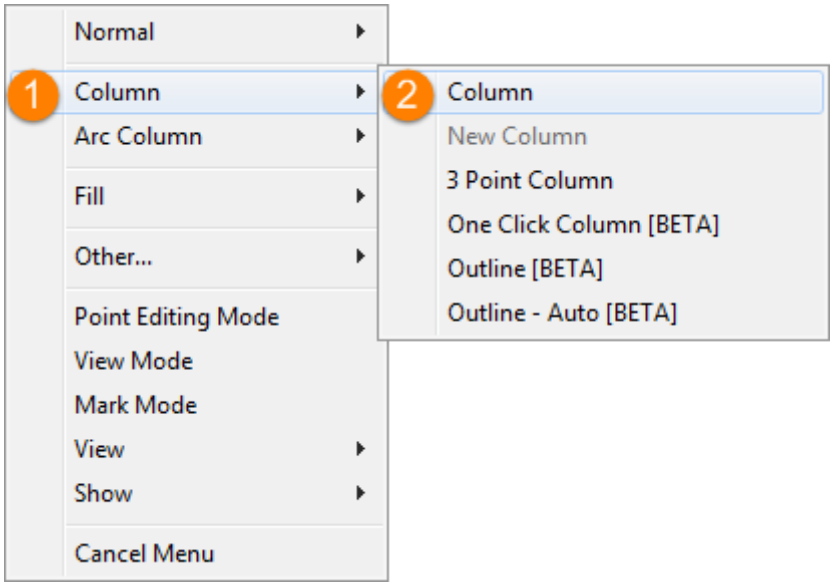
Step 11: Bee color is now yellow. Save your project (**Ctrl + S**). Hide the bee fill for now. You can even name your section for easier navigation



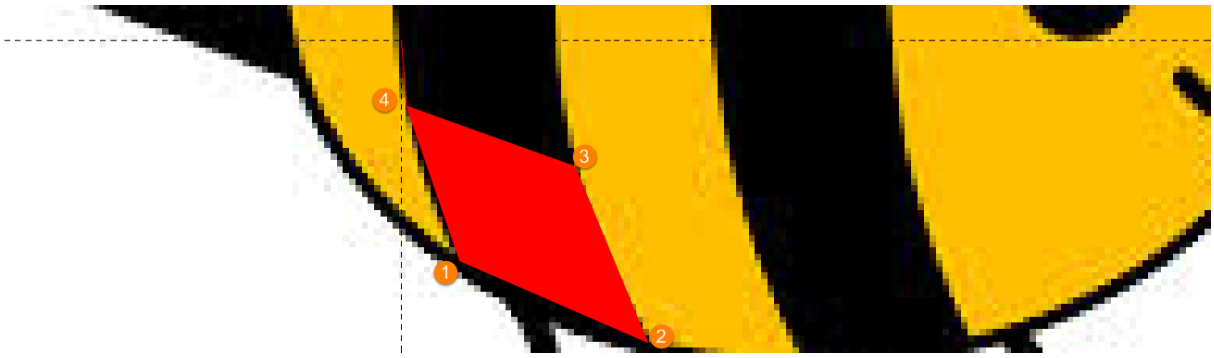
Step 12: Now we will digitize bee stripes. We will create the stripes in other section using Color Change, so we can easily edit them later if we want to. Right mouse click will activate context menu. Choose **Other** => **Color Change**.



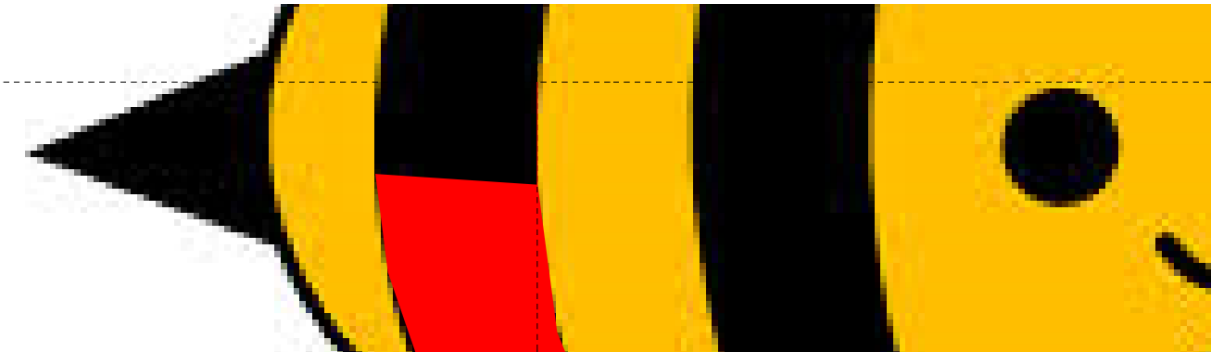
Step 13: When dialog appears, choose **Red Color** and click **OK.** Now it's time to create columns. Activate Column from context menu.



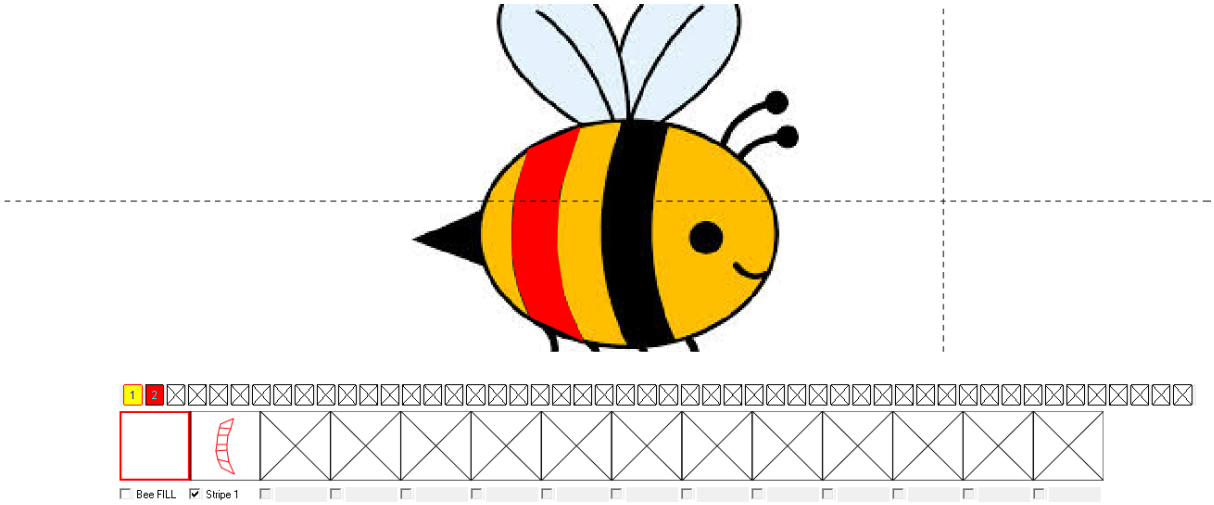
Step 14: We chose the red color, so we can spot the difference between colors our fill and our background picture. Create your column. You can create smaller columns or bigger columns, depending on the precision you want.



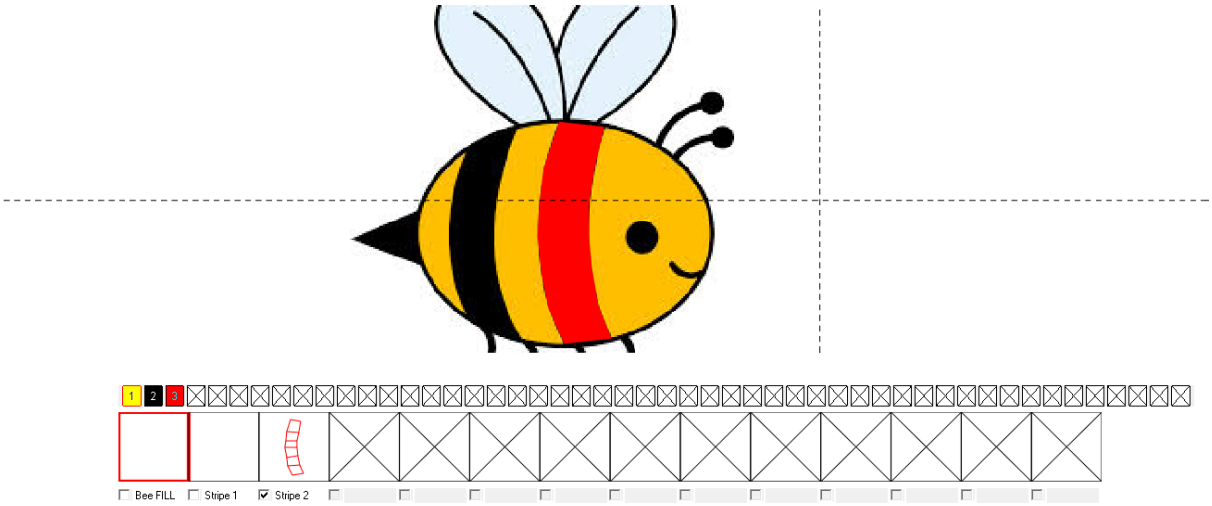
Step 15: Keep the column command active. Create new column by using the old one as baseline. Instead of four points, you only need two of them now, just like we learned in digitizing section.



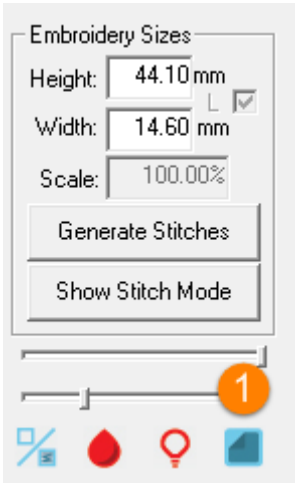
Step 16: Keep creating columns until you fill the entire stripe. Preview of your column is inside the sections box. Change the stripe color like in Step 10 and hide it.



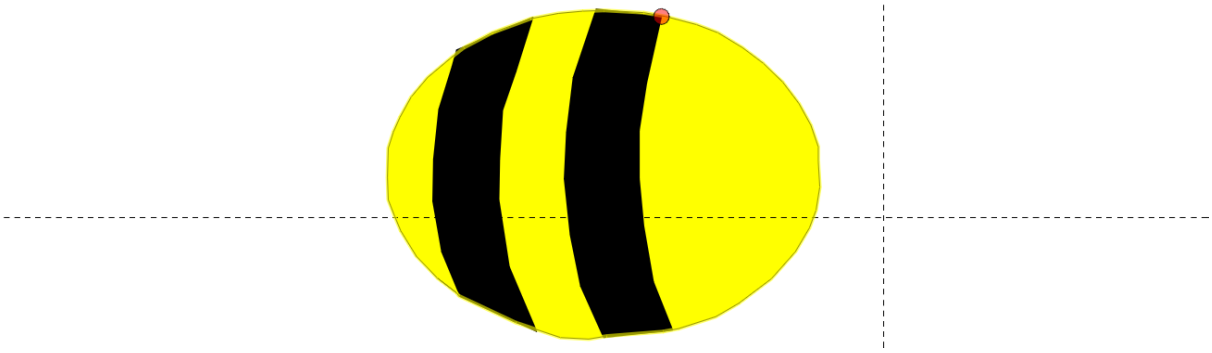
Step 17: We can create the new stripe in the same section, our we can create new section. For practice purposes, we will create new section just like in Step 12. Finish the stripe digitizing repeating Step 13 & Step 14.



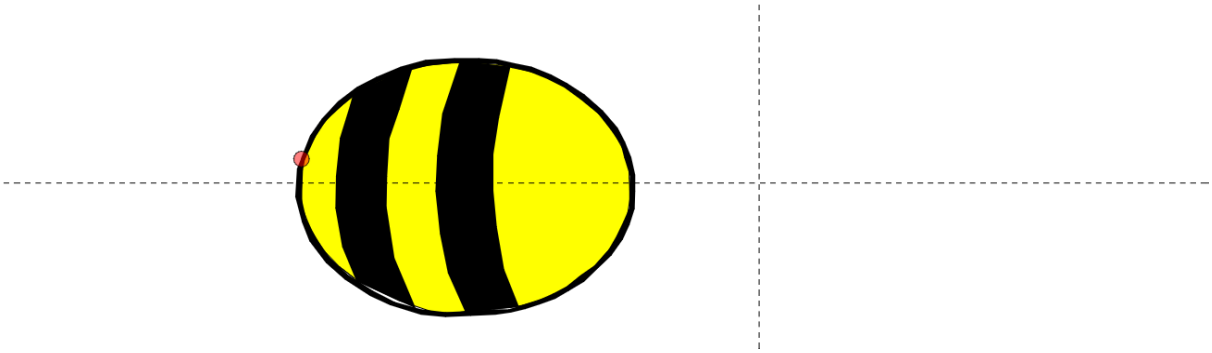
Step 18: When finished, save your file. Let's take a look how our bee looks like. Using Embroidery Sizes box hide the background image (icon color blue).



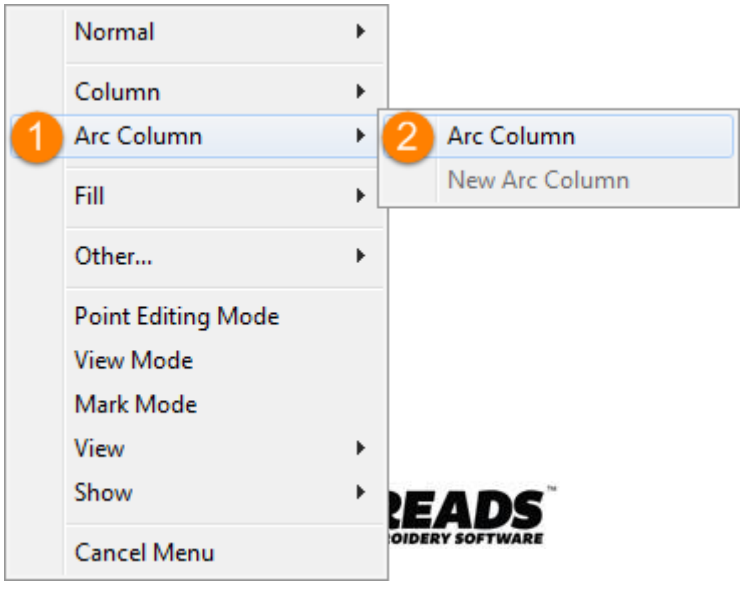
Step 19: Tick the checkboxes to show all the sections.



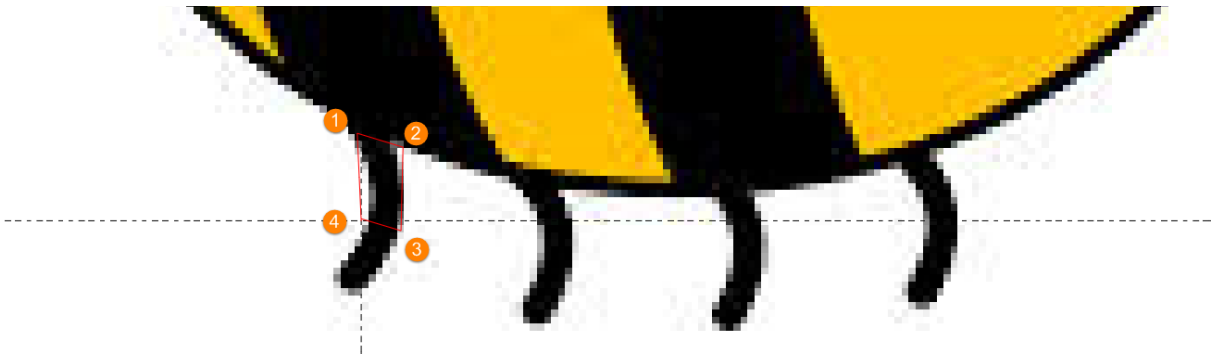
Step 20: Bring back the background, hide all the sections and create new section. By now you should have learned to change section quickly and manipulate the sections bar. Let's practice by adding columns to create body outline. Create new section or use the same one.



Step 21: Don't mind the blanks, you can always fix them later. We can see the legs are curved a little bit. You can create multiple normal columns or one arc column for each leg. To get some practice, try using Arc Column. Create new section before you start digitizing.

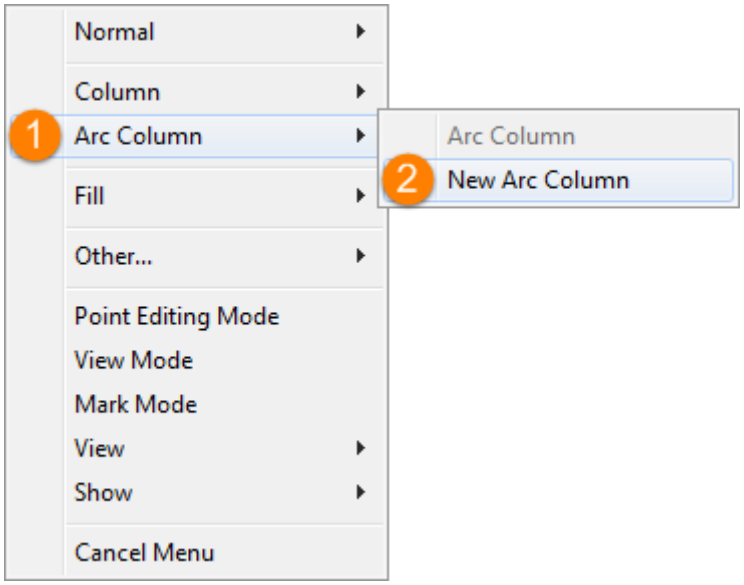


Step 22: Define the four base points for the arc.

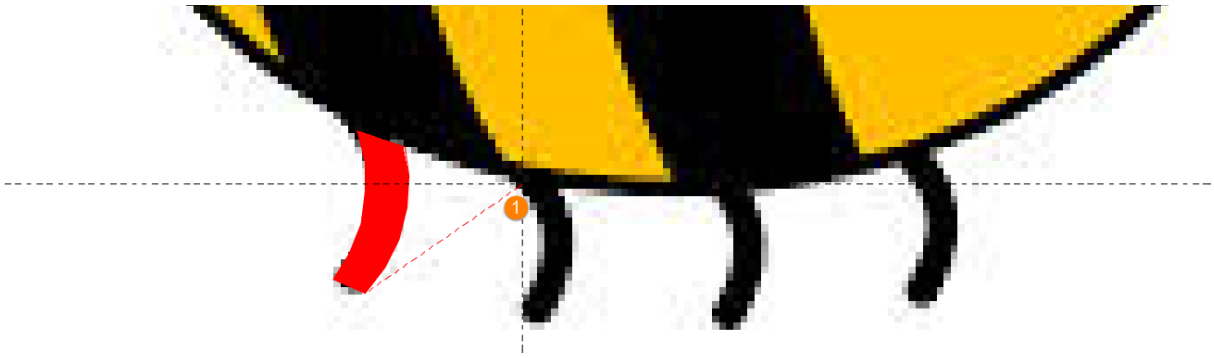


Step 23: Create the arcs by defining points five and six.

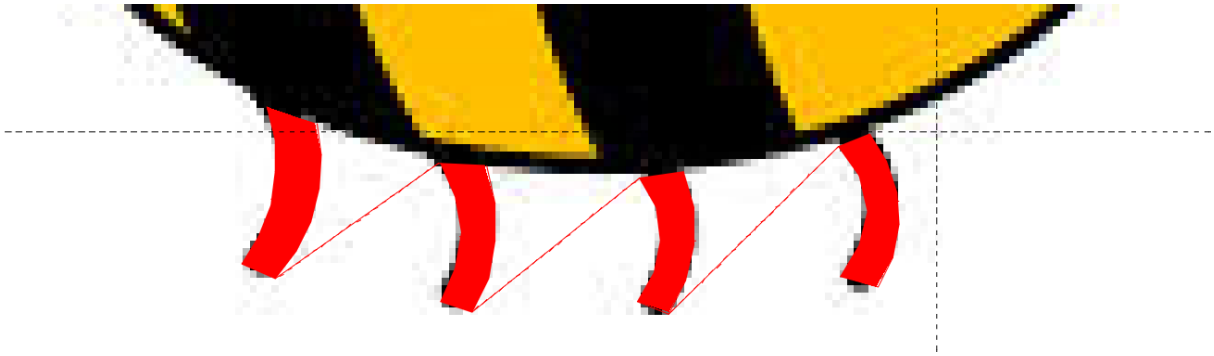
Step 24: We know that if we continue creating arc, it will use the previous as base point. We don't want that now, since it's not applicable in this situation. Instead we will create new arc column.



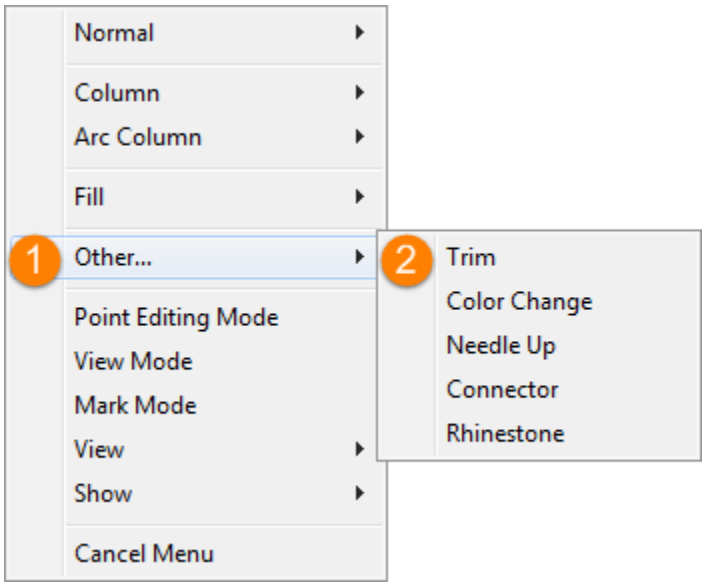
Step 25: Select the base point for the arc column



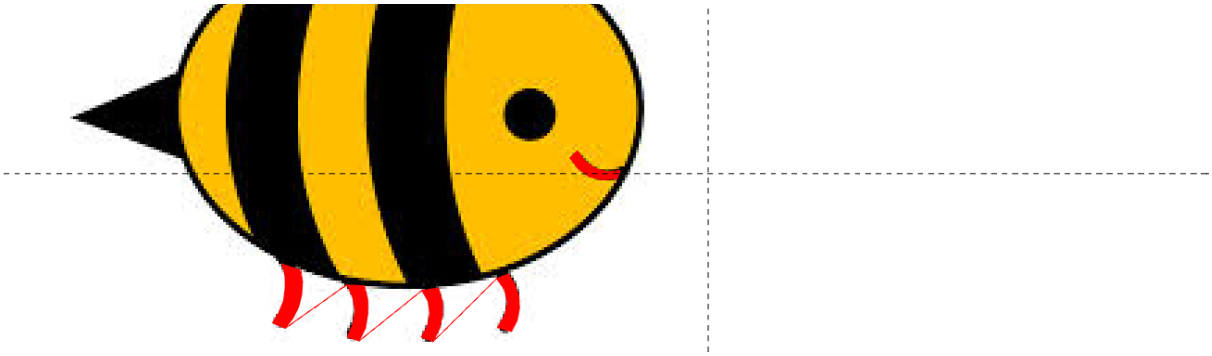
Step 26: Repeat the Step22 & Step23. Create the other two legs the same way.



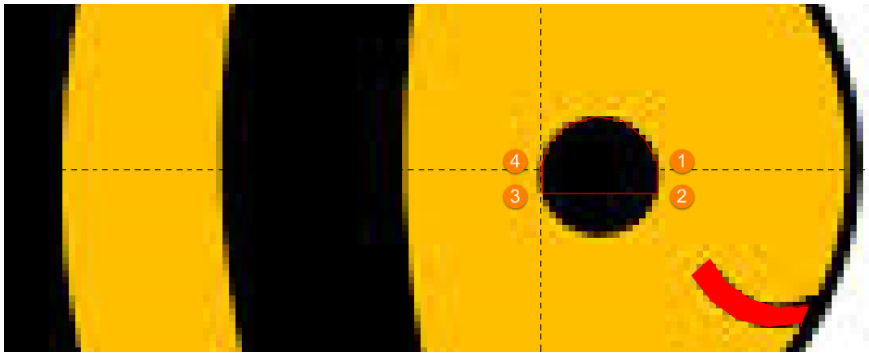
Step 27: Change the legs color to match the background image. We can see that the legs are connected with the stich. It's because we did not break into sections with color change. Now let's create bee's mouth in the same section as legs. We would like to avoid them being connected. Select the Trim command using context menu.



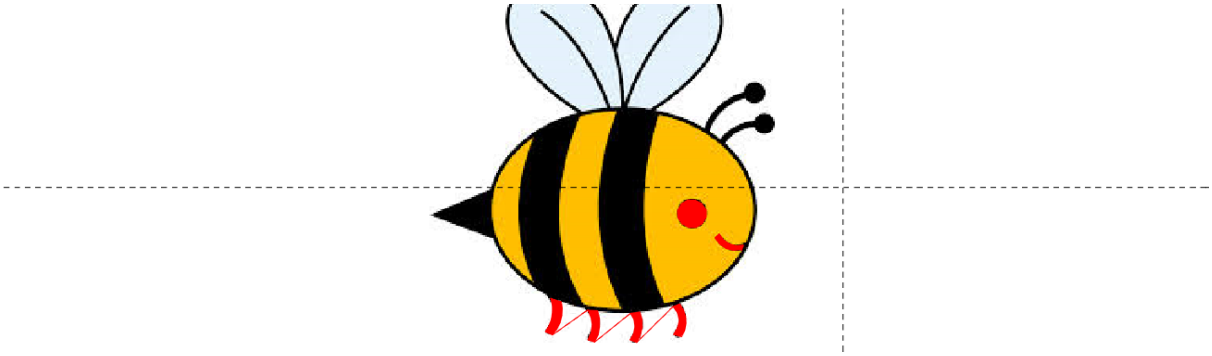
Step 28: Choose the base point where the mouth will start and trim the stich. Now create new arc column.



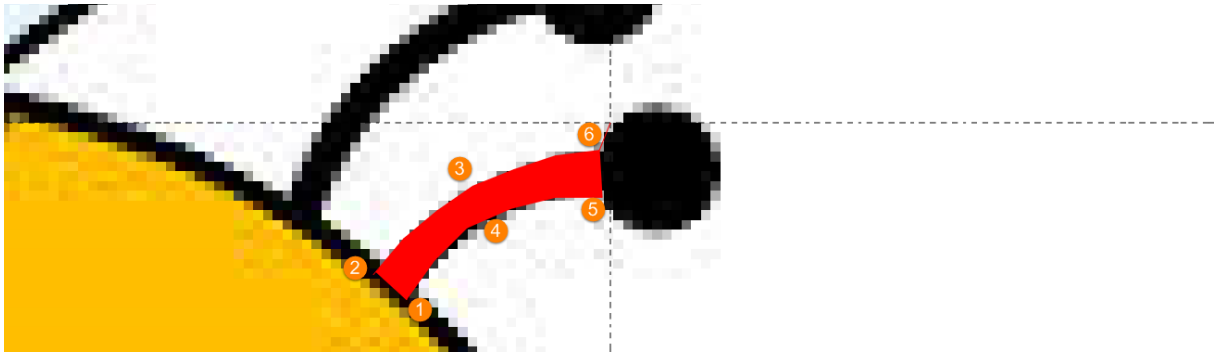
Step 29: Do the same thing with an eye. Trim and create new arc column. Arc columns are hard to master, this is the best way to practice them. Once you are into it, digitizing process runs smoothly later. Follow the point placement order if you need help with creating an Arc. When on fourth point, simply create Arc by slowly moving the mouse.



Step 30: With the help of preview lines, set points five and six. The eye should appear as a circle.



Step 31: Trim the stich and create new columns for the first tentacle. When creating legs, we used New Arc Colum. We can now use the previous column as base point, to create the tentacle circle. Define the first column.



Step 32: Place the two points of the second column in the middle of the circle.

Step 33: Using the mouse create the points three and four that will form the circle. You can notice that they share the same location.

Step 34: Now we can repeat steps 32 and 33 for the second antenna.

Step 35: Digitizing wings

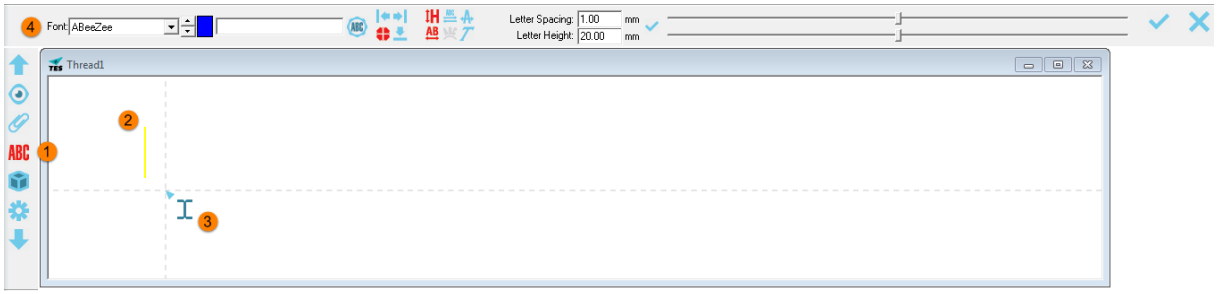
8.2. Lettering mode

To start typing letters, you must activate lettering mode. This tool is handy if you want to create letters from scratch or if you want to recreate text from existing image.

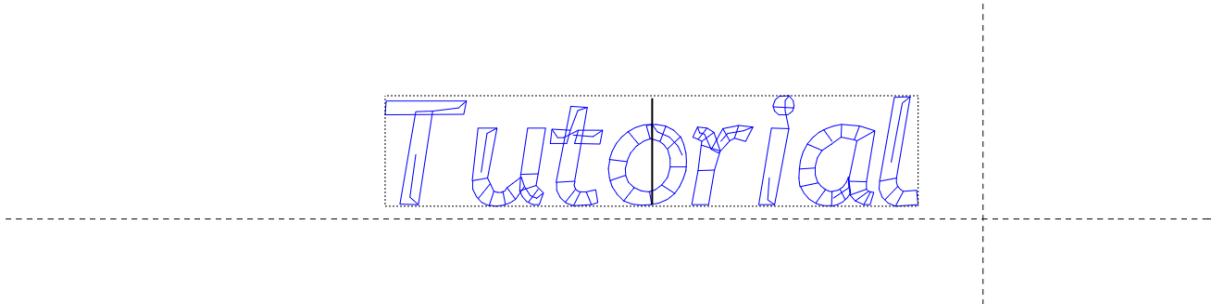
8.2.1. Basics

User enters lettering mode by clicking the ABC icon on the left toolbar (shortcut key **CTRL**–**T**). Using one of these commands in active window will trigger lettering mode. If you have active command running, shortcut key will not work until you exit your command. Exit any active command by pressing the **Escape** key.

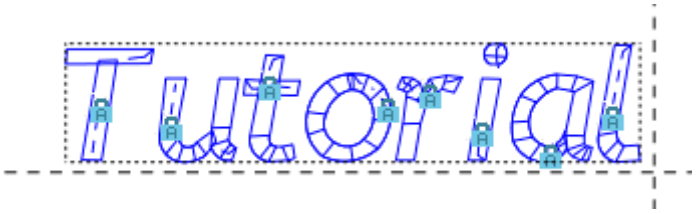
Once the mode is active, **ABC** icon turns red, cursor icon in the drawing changes color to yellow, mouse cursors icon changes and lettering toolbar appears below the Main menu.



Click on any location in the window to start writing. Notice the letters blink and change color (yellow to blue). This means you are still can make text changes.

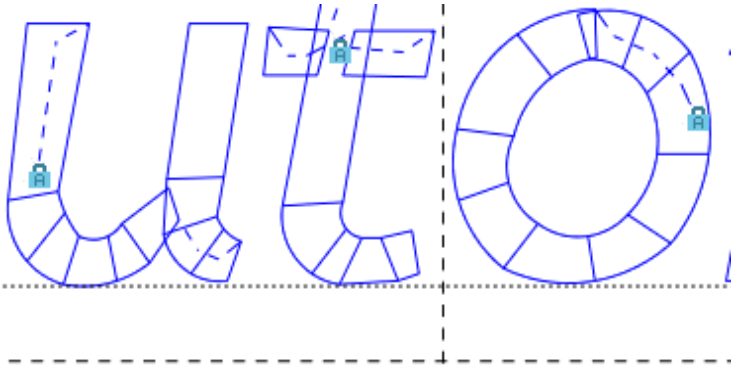


As long as the letters are blinking, you can write or delete any new letters. To finish your writing, click the left mouse button anywhere in the active window or press the Enter key. The letters will no longer blink. At this point you will also not be able to change the type of font. With the mark tool you will be able to modify the size of each letter individually or all together.



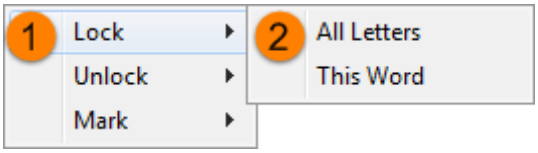
TIP: When you activate the lettering mode, you can start typing without selecting the input point. This way you can move letters while typing and select their location.

Over the letters, user might notice small locks on each letter.

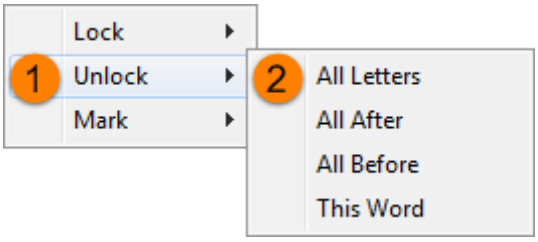


These locks enable / disable letters movement. Every letter has its own lock. By double clicking the left mouse button locks / unlocks the letter. The right button click of the mouse will bring of a context menu.

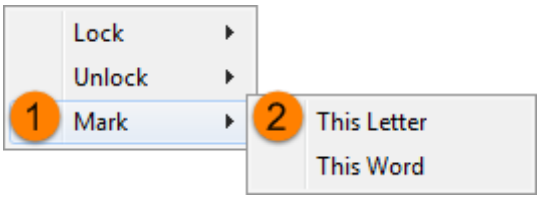
Lock option gives option to lock all letters in single lettering or only one word.



Unlock option allows a bit more options than the lock menu. User can unlock all letters in single lettering or only single word. Unlock is also available before or after selected letter.



Mark option marks the selected letter or whole word in a single lettering.



When you are done with editing, leave the lettering command by pressing the **Escape** key and double click the ABC icon to exit the mode.

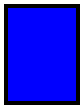
8.2.2. Toolbar

Lettering toolbar shows only when lettering mode is active and automatically hides when you exit the mode.

Toolbar can also be active and inactive. As soon as you confirm your text changes, all of the options on toolbar gray out.

Below listed are all of the toolbar options:

Change font using dropdown menu or use the arrows for step by step font change.



Change color opens color dialog window. Change text color using predefined colors or add custom.

Letter Box is used to avoid typing inside the drawing. Type the word inside the box or click the ABC icon for advanced options.

Text Settings allows advanced letter input.

Left Align text aligns multiline text to the left.

Right Align text aligns multiline text to the right.

Center Text centers multiline text.

Align Down enables vertical letter input.

Height defines letter height when selected.

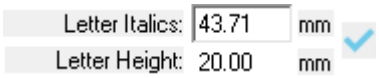
Word Spacing defines spacing between words in the sentence.

Letter Width changes the width of every letter.

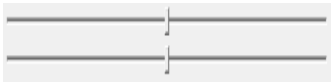
Letter Spacing changes the spacing between each letter in the word.

Letter Arc curves your words and makes an arc of them.

Italics angles every letter by the degree of your choice



Change letter properties by entering the values manually.



Sliders allows letter properties change.

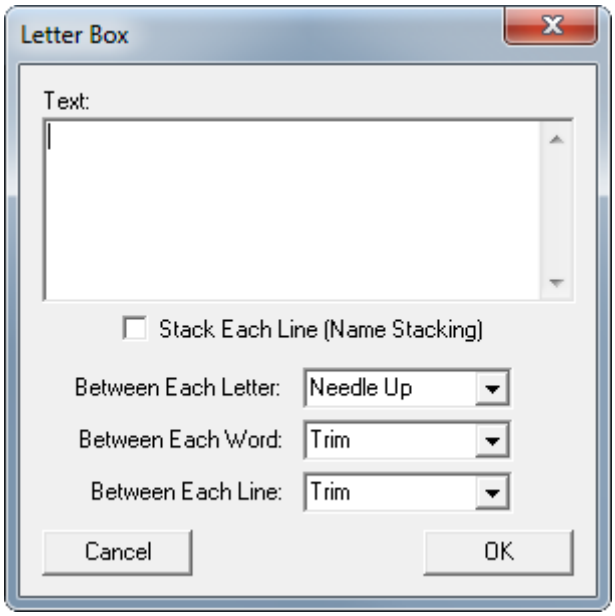
Set Letters confirms entered text and keeps the command active.

Cancel Letters discards all the text changes and exits the command.

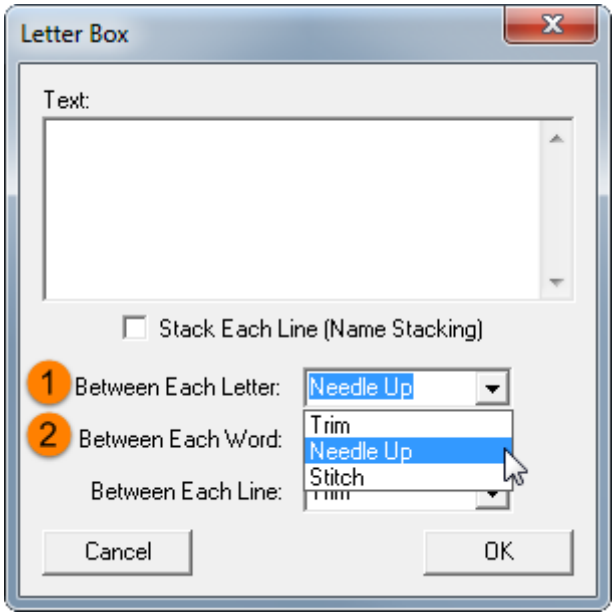
8.2.3. Advanced lettering toolbar functions

As mentioned in the chapter before, user can enter letter through toolbar or through drawing window. Both ways are simple and good enough for short, one-line words. What to do when user has multi-line input or whole sentence? This is where **Text settings** comes into play.

When you click on the **Text settings,** a dialog window appears. In the text dialog user inputs multi-line text. Three dropdown menus are also available. These apply even if the text is single-line.



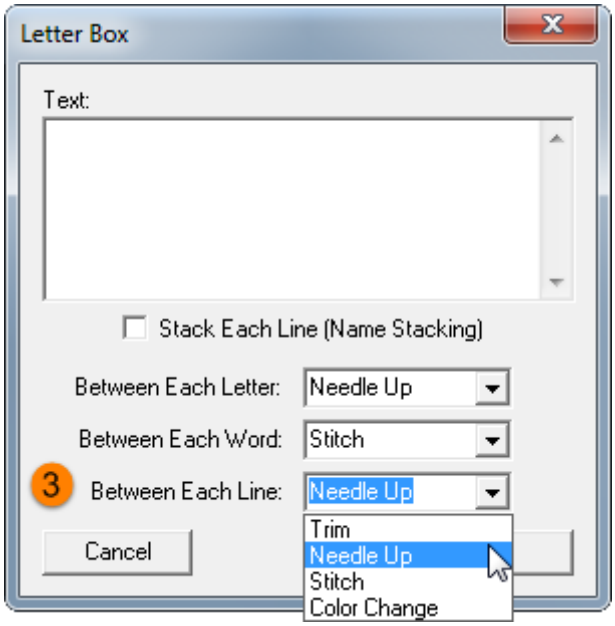
User can choose how the machine will behave in different situations when sewing. Options one and two offer the same settings: **Trim, Needle up** & **Stitch**.



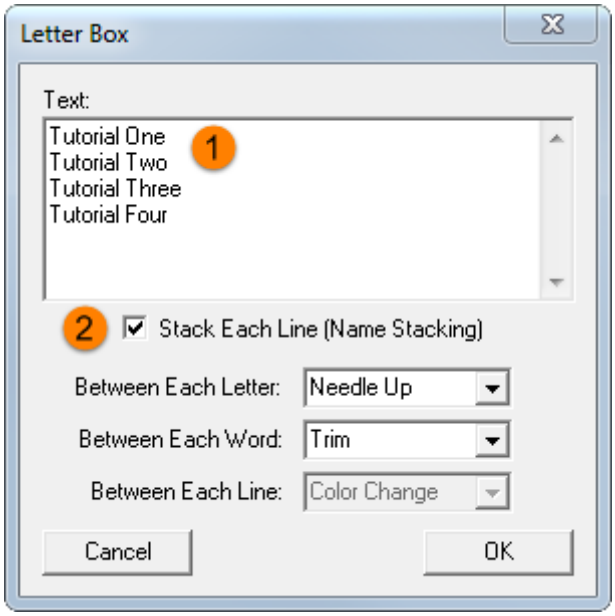
Trim option stops the machine, cuts the thread and moves to the next letter, cutting down the profit. Needle up does not put stitches between the letters and does not cut the

thread. Stitch option will place stitches between words or letters. Needle up is the most recommended option, but it all depends on the situation and design.

Between Each Line adds the fourth option – **Color Change**. It allows changing the thread color, thus moving to another needle with different thread color.



If **Stack Each Line (Name Stacking)** option is checked, all letters will stack in same point, one on top of another.



Selecting the **Stack Each Line** option**, Color change** option is selected and grayed out. The final output looks like this:

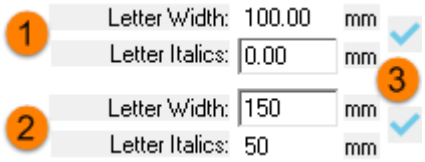
Stacking is used in situations where the embroidery is used on different garments. Imagine a situation where the machine prints names of football players. Machine loads the file with names and is programed to stop at color change. When color change occurs**,** machine stops and allows replace of garments. Once the garments are replaced**,** second name embroidery can begin. Procedure repeats for same amount of names in the file.

Text settings toolbar icons depend on each other and should be observed as one section.

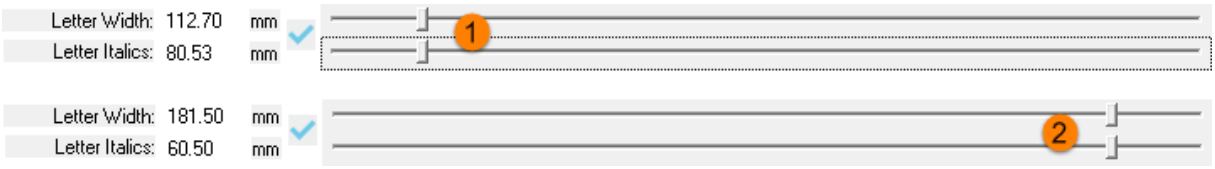
First part is choosing the text setting to change. When the tool is selected, its icon becomes red. **Text Height** and **Letter spacing** tools are selected by default when the user enters lettering mode.

Second part is text label. Text label changes depending on the change of the selected text setting. The upper label changes on left mouse click on any of options. Mouse right click changes lower text label. All of these settings can be selected anytime in lettering mode, but **Letter Arc** is only selectable when text is entered

Values on the right side of the label allow manual change of text setting by exact value input. User confirms values change by clicking the blue checkmark. Value change can also be confirmed by pressing the **Enter** key after value input.



These values can also change by using sliders. Sliding left reduces amount change of selected option while slide to the right increases the amount change.

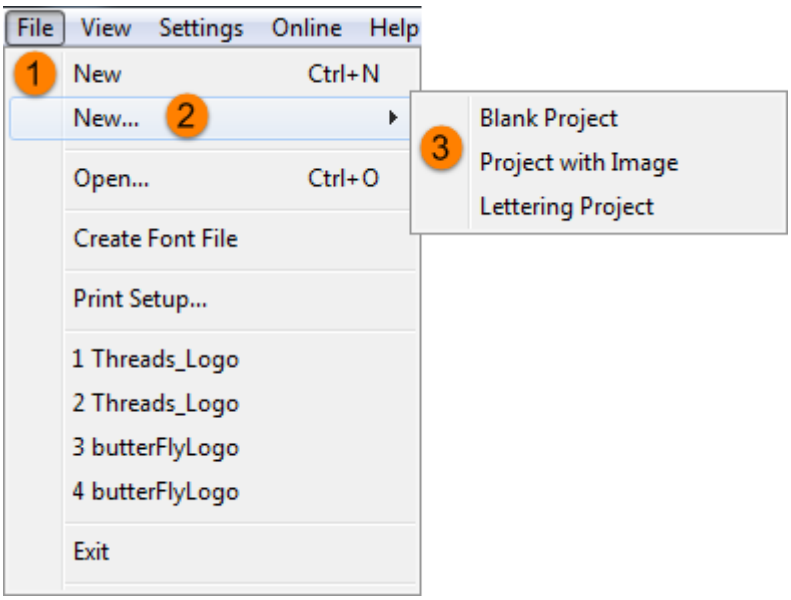


Set letters exits enter text command keeps lettering mode on. **Cancel letters** discards all text changes and exits the command.

8.2.4. Example

Depending on the type of project, there are few ways to start a new lettering project. User can start a blank project with no background (can add it later) or open the existing image that will be used as background for lettering.

Blank project is created by accessing **File** menu and choosing **New** (shortcut key **Ctrl + N**). Additional options are available through **New** submenu.



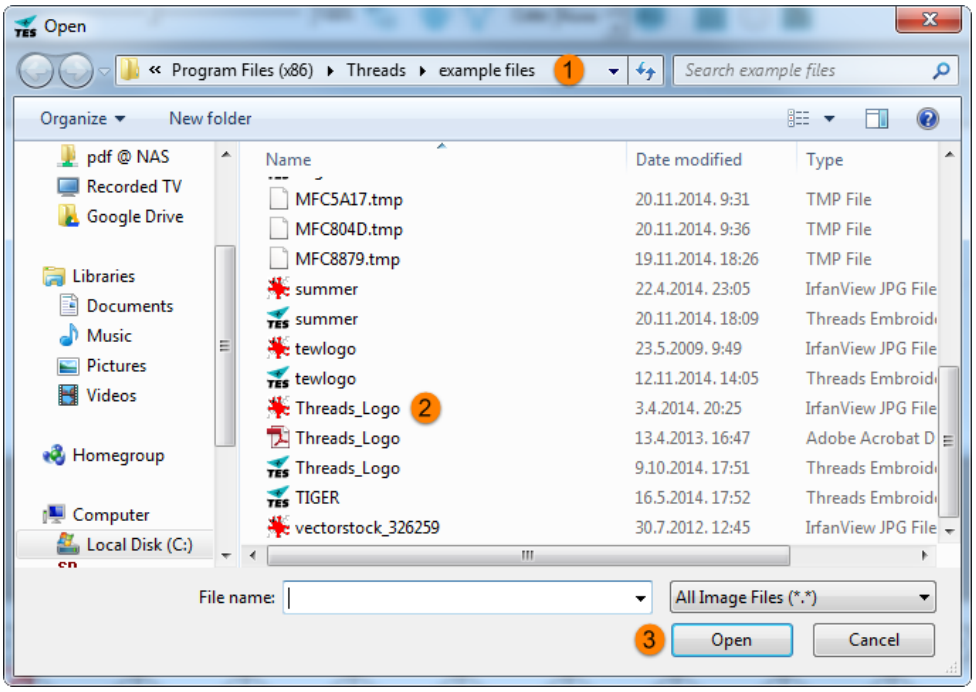
New submenu offers three additional options:

Blank project same function as New options from the File menu, creates blank drawing.

Project with image option will create new blank image, but will ask user to load the background image.

Lettering project option will create blank drawing and immediately activate lettering mode.

Step 1: Click **File** => **New** => **Project with Image**. Open image dialog will appear. Locate Threads installation folder (C:/Program Files/Threads/example files/). Scroll for the **Threads_Logo.jpg** and click Open.



Step 2: Activate lettering mode.

Step 3: Click the left mouse click where T letter starts to set base point for the text.

Step 4: Activate the **Left Align** option so all of your text changes happen from left to right.

Step 5: Type Threads inside the drawing window or in text box on the toolbar.

Step 6: Choose the font that is similar to the one in picture (or the one you like) and adjust its size. It might take a few tries to guess the exact size. (example: Bemio font, size 70).

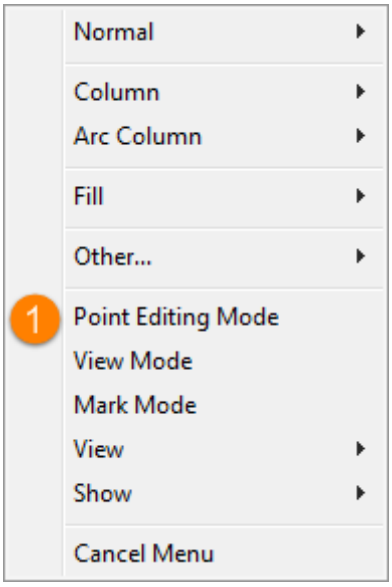
Step 7: You can see the font width needs shrinking. Activate the toolbar **Letter Width** setting adjust the value so it fits. (example: 70.00).

Step 8: Adjust spacing between letters (example: 3.50)
Step 9: Press **Enter** key or **Set letters** on the toolbar to accept the changes.

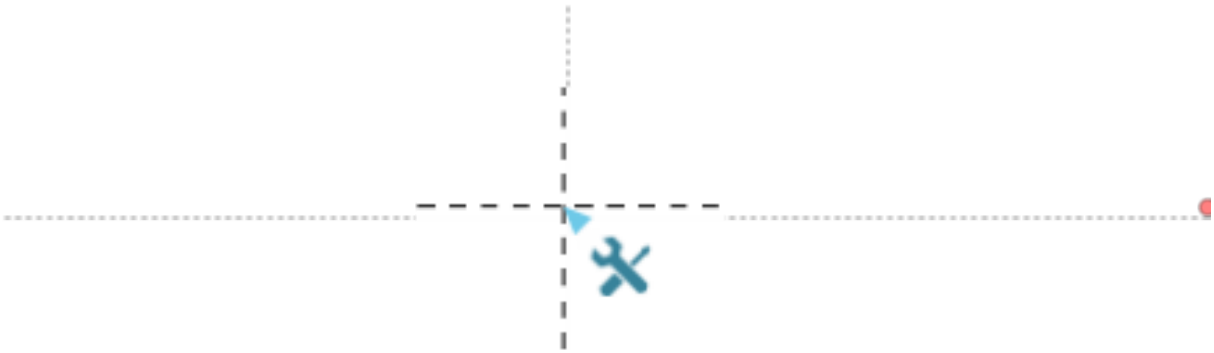
8.3. Point editing mode

When certain ThreadsES commands end (lettering, digitizing) user can no longer edit shapes of those objects. It is obvious that shapes may need adjusting and into play comes point editing mode.

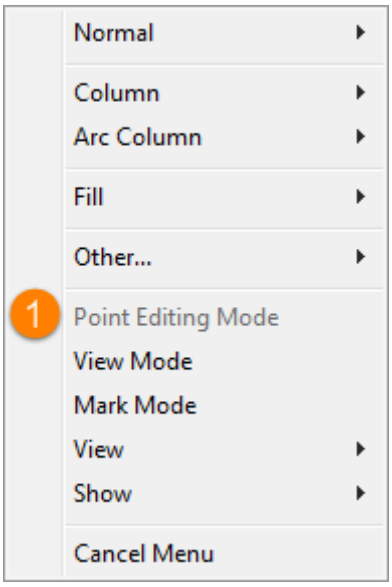
Point editing mode is accessed from context menu.



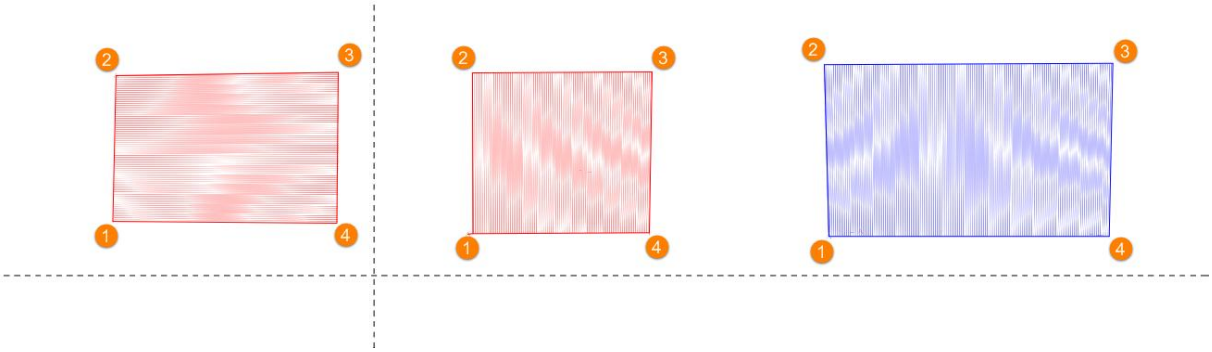
Upon activation, cursor icon changes to tools.



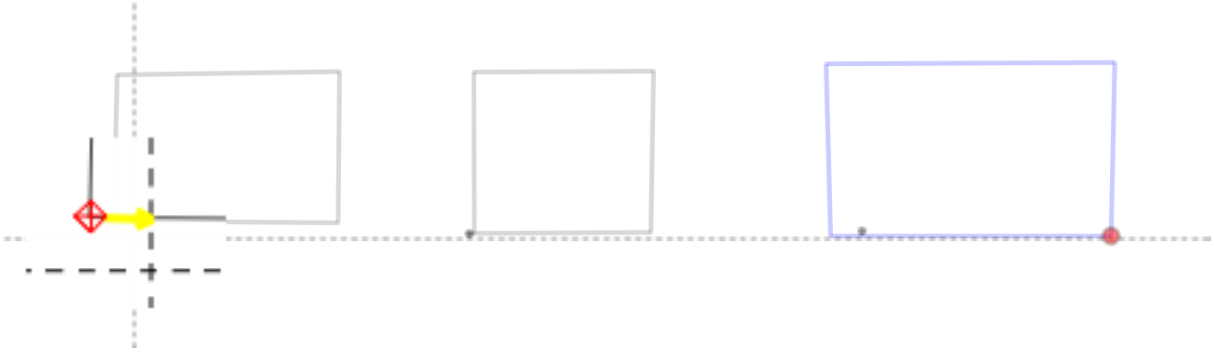
Point editing mode is disabled in case there are no objects in the drawing (there are no points to edit).



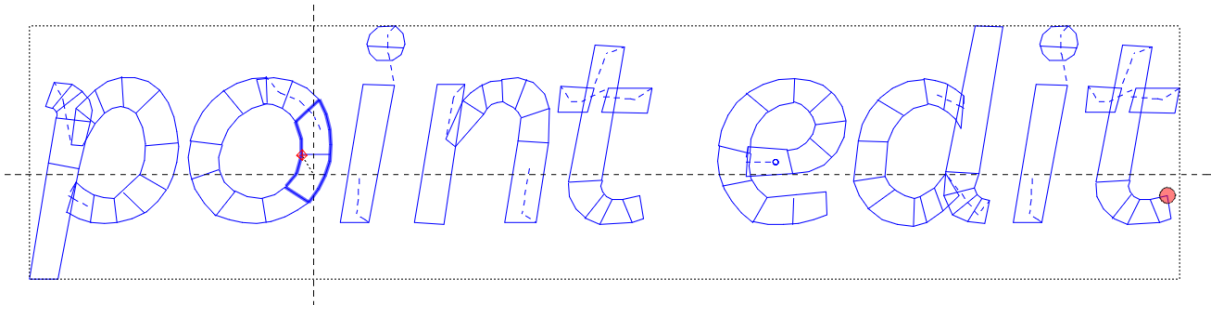
Every shape created in digitizing mode has four end points which can be modified.



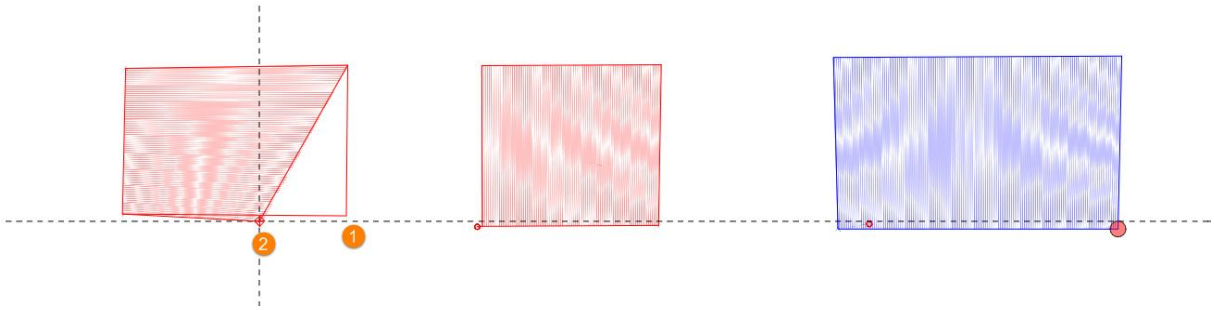
With point edit mode is active, end points become available for editing. They appear automatically as red diamond as user gets close to them with mouse cursor.



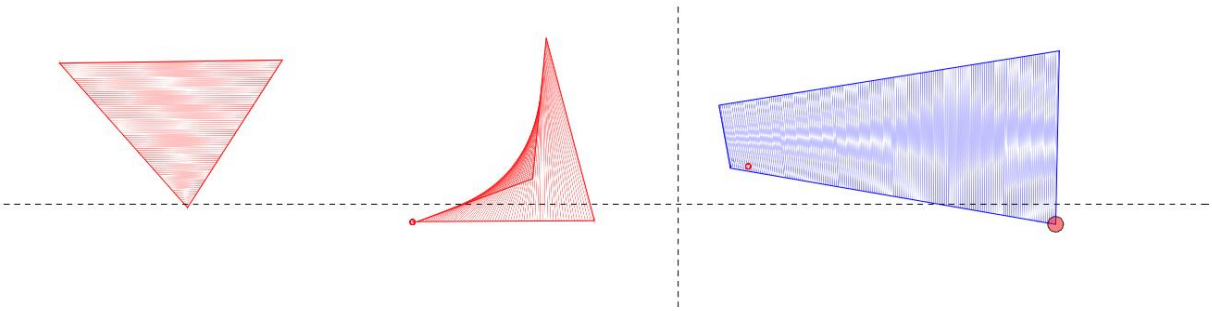
The letters are made from multiple shapes and each shape is also defined by four end points. The highlighted part represents a shape to modify.



To edit a point, user simply chooses one to edit and holds the left mouse click. To make the change, user releases the mouse.

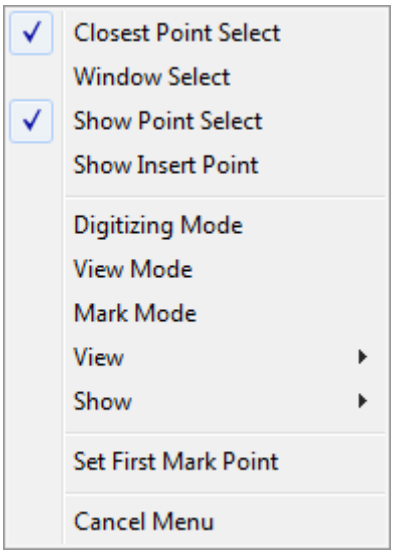


These steps are repeated until user is satisfied with result.



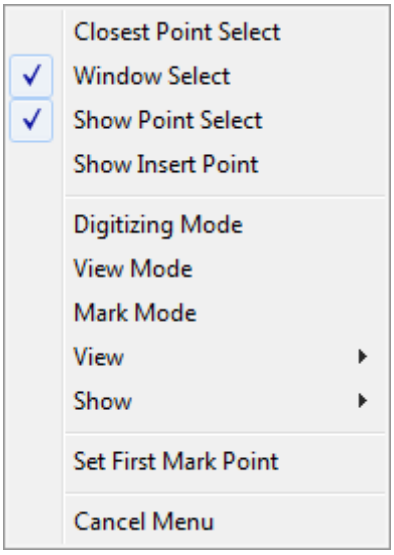
8.3.1. Context menu

When point mode is active, default context menu is no longer displayed. Instead, point editing mode context menu is shown.

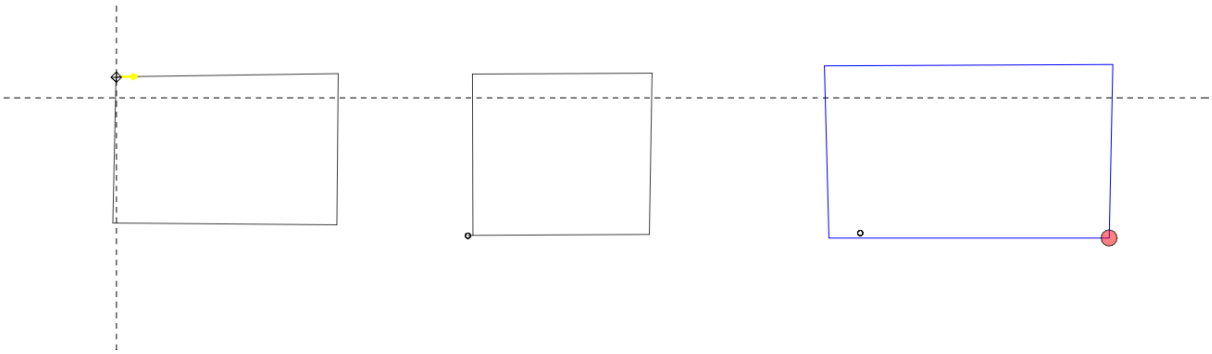


First four rows in the context menu affect the behavior of point editing mode. Options below enable quick navigation between modes and allow user to change view options.

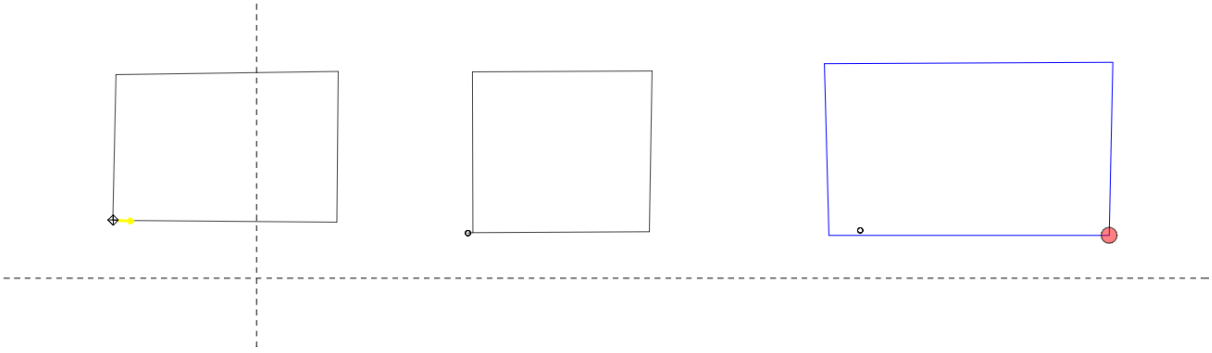
Closest Point Select changes the way points are edited. When it's deselected, **Window Select** becomes active. Both cannot be active at same time.



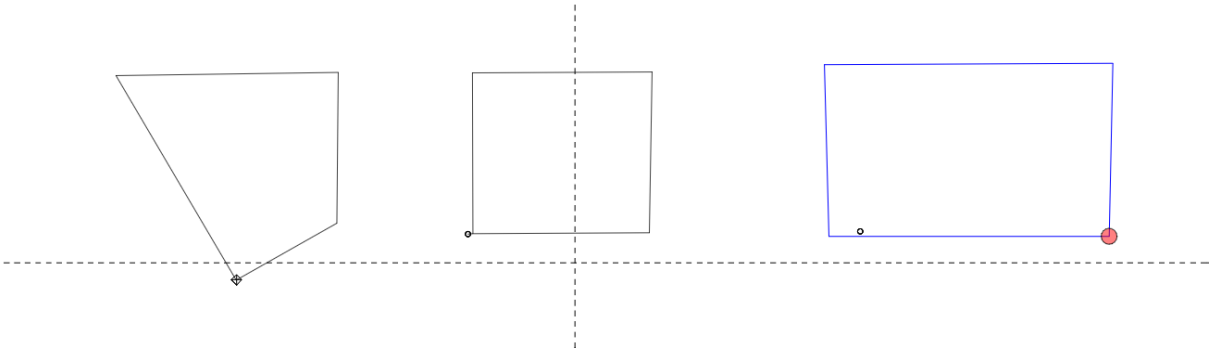
By default, editing point is shown as red diamond and shown automatically. However, when closest point select is off, points do not appear automatically anymore. Instead, only one point is chosen.



User can manually change the selected point by using the scroll mouse button.



The shape will change at the active point. Left mouse click anywhere in the drawing will change the shape.



Mouse drag is also an option here as it gives better preview how will the lines connect to the point look like.

8.4. Mark mode

The mark mode is a very powerful tool. It enables you to select certain points so you may be able to modify it.

8.4.1. Basic

On the left tool bar, you will see a clip icon. Left clicking this icon will enable the mark mode.

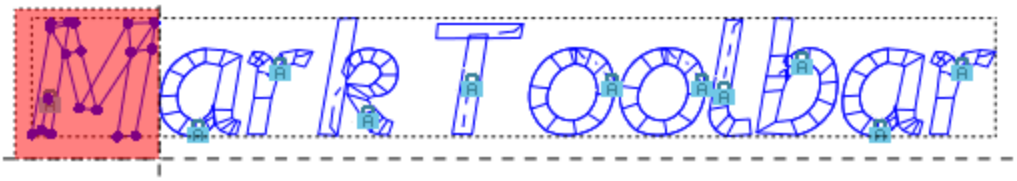
8.4.2. Toolbar

Once the mark mode is activated a tool bar will show on top.

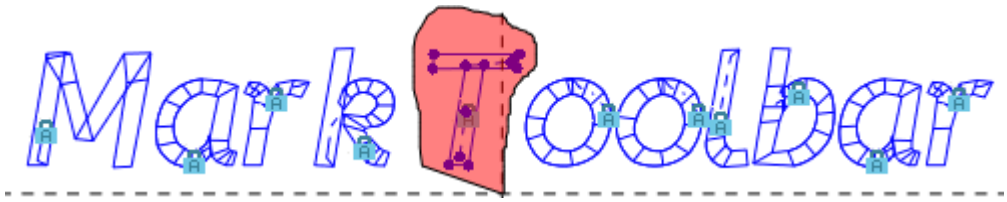
As before, the tool bar will hide when you de-active the mark mode. As you see some options are grayed out. This icons be active when there are points in the drawing area. When one of this features is enabled, it will change color to red.

Below listed are all of the toolbar options:

Square and lasso select. This feature enables you to any point in the drawing area.



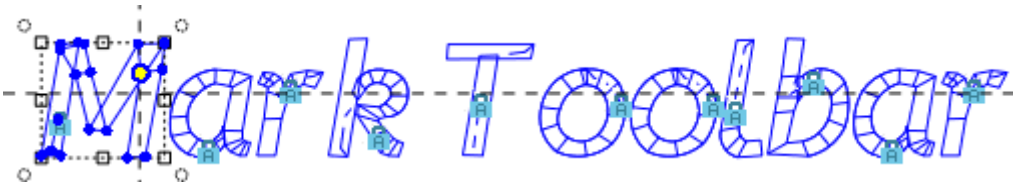
Square select option



Lasso select option

As you can see using the square select option enables you to select any point in a rectangular area. While the lasso enables you to select any points in any shape you require. Once selected points, this will be placed in a dotted square.

Modify Mark. When this option is enabled, you will be able to modify any points that are marked. When you hover the selected area, all the points that can be modified will be shown.



When you hover over the mar points, there will be 4 circular points in each angle. Clicking here enables you to rotate the image, this case the letter M. There is also 8 square marks at the edge of the image. Clicking this will enable to resize the image.

Show all mark points. This feature will place all mark points in a dotted square where the user will be enable to edit the points.

Hide all mark points. This feature will hide mark points and user will not be able to edit any points.

Clear marks. Will remove all points that where selected

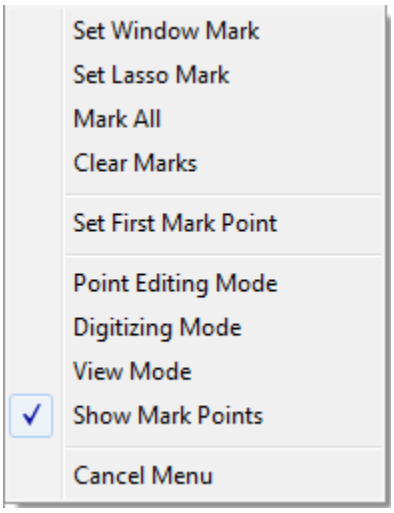
Show Marks. If there are many areas select, you may choose to see specific or all mark points.

Paste Marks. Will paste any selected points.

Vertical and horizontal locks. Will lock marks points vertically or horizontally.

8.4.3. Mark Mode Content Menu

You will notice that the content menu will change when you are in Mark Mode



This menu can be activated by left-clicking the mouse button. You will notice that this contains 4 sections.

The first section contains:

- **Set Window Mark:** This option enables user to select certain points using a square selection.
- **Set Lasso Mark:** Unlike the Window Mark, this option enables user to use the Lasso selection.
- **Mark All:** Users will be able to select all points using this option.
- **Clear Marks:** This will clear all mark points.

The next section has only one option, **Set first mark point**. Once enable users will be able to select the first mark point of the selected area. Once select mark point, the option will automatically change to **Select Last mark point**. Again users will be able to select last mark point of the selected area.

The third section will enable users to change between modes.

- **Point Editing Mode**
- **Digitizing Mode**
- **View Mode**
- **Show Mark Mode**

The last section will enable users to exit menu, **Cancel Menu.**

8.4.4. Modify Mark Content Menu

Release Notes

9. Release Notes

1.704

-Updated lettering controls

-Stitch generation bug fix and crash

-Updated Design Catalog with more designs.

Shortcuts

Like any other application, ThreadsES contains many shortcuts that enable users to navigate with ease.

KEYS	DESCRIPTION
CTRL+S	Will save the project
CTRL+N	Will create a new blank project
CTRL+Z	Will undo last action
CTRL+R	Will redo last action
CTRL+O	Will open a file
CTRL+SCROLL UP OR DOWN	User will be able to zoom in and out
T/L	Enables the lettering mode
M	Enables mark mode
E	Enables Point Editing Mode
W	Enables users to create a window zoom
Y/Z	Enables users to use the zoom function
F	Full Zoom
D	Enables user to create a normal stitch
G	Show stitch/wire mode
P	Will enable user to see NEEDLE PENETRATION
1	Create a normal stitch. If you press the button twice, users will be able to create a normal arc stitch
2	User will be able to create a normal column. If you press button twice, user will create a column arc
3	Pressing this button once, users will be able to create a FILL area. If pressed twice, user will be able to create a FILL area with an arc. When pressed 3 times, users will be able to create a hole in the Fill area.