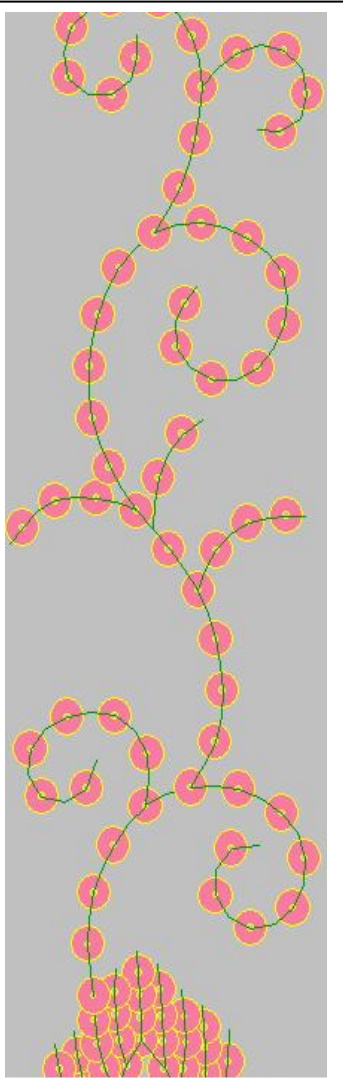



## **Evx Embroidery Software 2018 Online User Manual**

Gehlot IT Consultant	
	
	<b>Evx Embroidery Software</b>
	<b>2018</b>
	<b>Online User Manual</b>
	<b>Gehlot IT Consultants 382, Block III, Ganga Shopping Complex Sector- 29 Noida India - 201301 <a href="mailto:sales@gehlotitc.com">Email: sales@gehlotitc.com</a> <a href="http://www.gehlotitc.com">http://www.gehlotitc.com</a></b>

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Gehlot IT Consultants  
382, Block III,  
Ganga Shopping Complex  
Sector- 29 Noida, India - 201301  
Email: [sales@gehlotitc.com](mailto:sales@gehlotitc.com)  
Web: <http://www.gehlotitc.com>  
Phone: +(91) 98100 91955, +(91) 99998 01051

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Revision: 20<sup>th</sup> January 2017.

## ***Evx by Gehlot IT Consultants***

### **SCAN, PUNCH AND GO TECHNOLOGY**

#### **Support for**

High-resolution scanner: support for many file type: JPEG, BMP, TIFF, PNG, PIC etc.

Free zooming

All parameters on screen

One key operation on most of the commands

Auto underlay

Support for many type of fills

Satin, Tatami, Complex Fill, Pattern fill, Cavity fill, E fill, Jagged fill, Tree fill, Bead Fill.

And many non-standard fill, Multidirectional Tatami, Unparalleled Tatami.

Alphabets fill for many windows fonts

Auto corner, intelligent corners, in satin fill

Edit functions: cut, copy, past, multilevel undo

Clone, move, rotate, scale, mirror facility

Reduce/ increase stitches entire design

Increase/decrease design size.

Import, convert design to other formats

Print design with details

Multiple designs printing on same page

Auto play while punching

Film preview, selection from film, move anywhere

#### **Design Management**

Evx-Explorer displays design in Icons

Display icons of design before opening

Display backdrops in icon manner

#### **Technology from**

Gehlot IT Consultants

382, Block III,

Ganga Shopping Complex

Sector- 29 Noida, India - 201301

Cell: +(91) 9999801051, 9810091955 e-mail: [sales@gehlotitc.com](mailto:sales@gehlotitc.com)

## **Welcome to EVX**

Evx the new generation state of the art technology embroidery software designed and developed for India's need. Its user interface and features allow users to create, edit, and manage embroidery designs. It is designed to support the best embroidery quality, high productivity and efficiency requirements of professional digitizers. Beside all popular stitch types like Satin (Central Serial), Tatami (Intelligent), Running, Piping, Cross-stitch, Zigzag, Plasma, Goli, Jall and Motif etc it also provides water fill, ripple fill and peacock(Moore) fill features. Numerous tools like stitch processor, remove short stitches, show repeat, 3D actual View etc. take the Evx in the front line of embroidery software.

### **Related topics**

[Object based software](#)

[Toolbars](#)

[Miscellaneous commands](#)

[Digitizing/punching](#)

[Filling parameters](#)

[Stitch processing](#)

## ***Object based software***

Evx is object based software. Each object in the design is independent of other objects and has a different property set. Property set is composed of color of the object, its type, its shape, size, position and besides other properties; its stitch type is one of very important property for us. Embroidery blocks are generated, crafted, molded, and edited to suit the requirements of the user.

## **General Concepts**

This section describes the general concept of Evx. It also describes the directory structure and maintaining designs with reference to various companies.

## **Working with design files**

This section deals with how to start the Evx embroidery punching software and use basic commands. It also explains how to open existing designs, create new designs, load backdrops, save designs, and how to generate stitches. It also explains how to measure distances on-screen and to turn on and off the grid on the screen.

## **Working with design objects**

This section describes how to select objects using the selection tools and keyboard. It also shows how to hide and show the objects. It also shows how to freeze the objects. It also shows how to do selection using the film.

## **Viewing designs**

This section explains how you can view your designs. You will learn how to zoom in/out of your designs. Also you will learn how to view designs in actual view. It also describes how to view designs by 'traveling' through the stitching sequence. Design color management is also explained.

## **Toolbars**

This section explains various toolbars and their command buttons. This helps us to execute the commands directly on the screen.

## **Digitizing/Punching**

This section explains various techniques and various parameters required to do punching.

## **Stitch processing**

This section explains how to do various kind of stitch processing on stitch type files as well as on outline type files.

## **General Concepts**

Following are few general things to remember before going for Evx.  
It is having following directories.

C:\evx

Root directory of the software.

C:\evx\fonts

This is Fonts directory of the Evx.

C:\Evx\Design

This directory is parent directory for designs.

C:\Evx\Design\CUSTOMERCOMPANY

This directory is for designs of Customer Company (like Galaxy, Kohinoor, Radnik, Rainbow, Orient, etc).

C:\Evx\Design\Galaxy

C:\Evx\Design\Galaxy\Exports

This directory is for designs of your company of category Exports.

.  
. .  
.

You can create any number of companies as many as you want.

## **Punching with Evx**

Turning design in to reality was never as easy before. With the strength of Evx vector based objects, every complex design can be broken into a group of objects. Each object can be then filled with different type of stitch type based on the need of the hour. With general transformations and other tools we can arrive at an excellent design. By different colors in objects the look and feel of the entire design can be changed in minutes.

### **Preparation**

Before we go for punching we need to go in a planned manner. Main points in this area are:

Get a good artwork.
Scan the artwork with high resolution scanner.
Create a folder for your client.
Do some adjustments with scanned images.
Look for parameters to be used for the design change to template
Plan the blocks of the design.
Do punching.

Save your design
Generate output stitches.

## **Artwork**

Artwork can be a design created on tracing paper, or an image (bitmap, PNG, gif, jpeg etc.). Tracing paper can be put on a high resolution scanner and Evx can acquire a scanned image of the design. With the load backdrop we can put the images on to Evx screen, and then do punching on top of it. These images are usually called backdrops.

### **Scan the artwork with high resolution scanner.**

A design has its orientation and size (width and height). We need to scan the design based on these factors. Some designs may be very large and in that case we need to scan it in parts. After scanning we need to join the parts together on the screen to get the whole design punched.

### **Create a folder for your client.**

Create a folder for your client and save the scanned images in the directory. It is a good idea to have subdirectories to categorize the designs.

### **Do some adjustments with scanned images.**

After scanning is over, you can load backdrop images in to your design. We may need to do some adjustments with scanned images. After selecting a backdrop you can do transformation on them to do adjustments according to your needs.

### **Look for parameters to be used for the design change to template**

Evx has an advantage that it is based on templates. It means all the parameters are stored in the template file. We can change the parameters and save them as our new templates. Templates are the main source of parameters. Look for parameters to be used for the design and change to template.

### **Plan the blocks of the design**

By looking at the design we can easily divide and conquer the design. Break the entire design into various small blocks. We should also check if the design is duplicated in some areas and in that case we need to use 'copy and paste' command to do design creation. In some cases an array of some blocks can also be found in the design, and in this case we only need to punch one such block and the remaining can be duplicated using array command.

### **Do punching**

We are now ready for the show. Check the color and the type of stitch we need to punch and punch accordingly.

**Save your design**

Once finished and we want to take a break, we need to save the design by giving it a proper name.

**Generate output stitches**

Finally generate output stitches to floppy or to pen drive based on your needs.



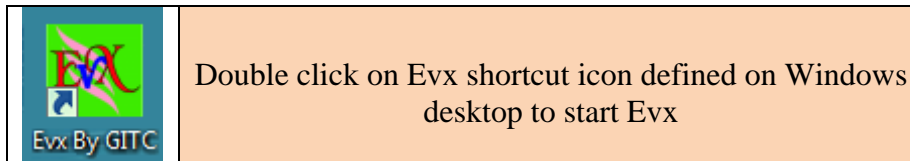
## Working with design files

Evx embroidery punching software is a graphical user interface (GUI) based software developed on MS Windows. It uses basic conventions of windows operating system to ease its operating. We will be explaining in this section; to open existing design, create new designs, load backdrops, save designs, and how to generate stitches. We will also explain how to measure distances on-screen and to turn on and off the grid on the screen.

### ***Application Startup***

You can start Evx by Gehlot IT Consultants from the desktop icon or the Windows Start menu.

To start Evx by Gehlot IT Consultants



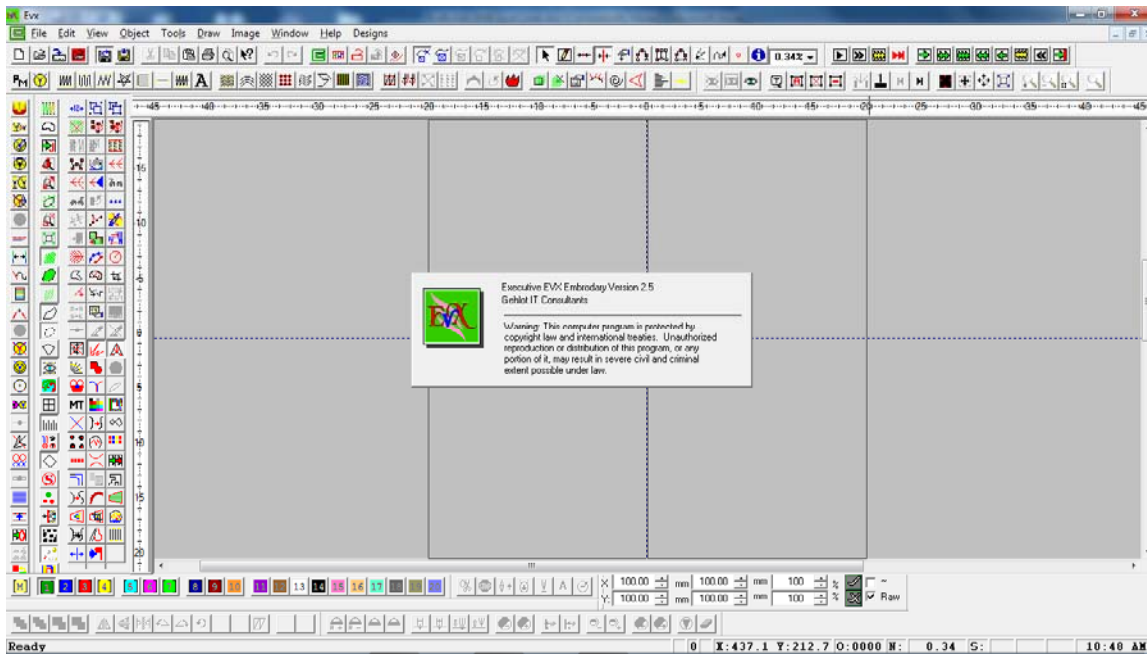
Double-click the Evx by Gehlot IT Consultants shortcut icon on the Windows desktop.

Alternatively, Start menu > Programs > Gehlotitc > Evx

Evx by Gehlot IT Consultants will start with new blank design document. You can now load a backdrop and be ready for punching a new design.

Before we start, please read the commands in the following sections.

## ***Evx by Gehlot IT Consultants look and feel***

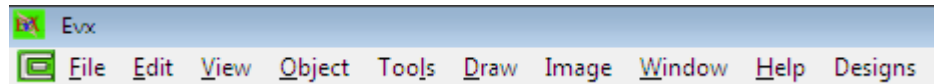


### ***Command bars***

Evx by Gehlot IT Consultants is designed to have many bars to let the user fire various commands.

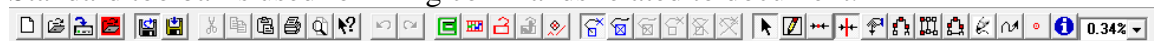
#### **Menu bar**

You can execute menu commands from the menu bar as shown below.



#### **Standard toolbar**

Standard toolbar is used for firing commands related to document.



#### **Stitch type toolbar**

Stitch Type toolbar is shown as follows:



#### **Play stitches toolbar**

Play Stitches toolbar is used for playing the stitches of the design.



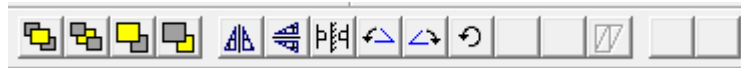
## Object manipulation toolbar

This toolbar is used for zooming, and various such manipulations on objects.



## Object position and mirror toolbar

This toolbar is used for placing objects one after another and mirroring and rotation of objects.



## Color pallet

This toolbar is used for assigning color to various objects as well as manipulating commands for colors.



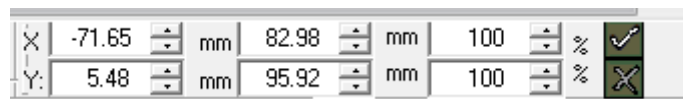
## Function toolbar

This toolbar is used for assigning various functions to objects for stitch generation.



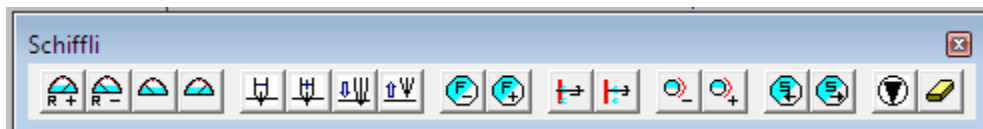
## Size Toolbar

This toolbar show the size of the design or selected objects.



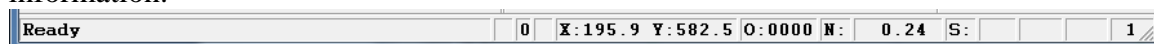
## Schiffli Toolbar

This toolbar is used for Schiffli machine functions.



## Status toolbar

This toolbar is used to show status of various commands as well as the objects information.



### Sequin command pallet




This toolbar is used for Sequin Operation.

### Screen operations command pallet

This toolbar is used for operations on screen.

### Command pallet

This toolbar is used for joining, grouping and related commands.

Sequin Command Pallet	Screen Command Pallet	Command Pallet
		

## Shortcut keys

The following table shows various keys combination to fire commands. These are called shortcuts keys.

<b>Shortcut Key</b>	<b>Description</b>
A	Open Transformation Property Of Selected Object.
Ctrl + A	Select All Objects.
Alt + A	Select Attached Objects Of The Selected Object.
Shift + A	Shift Selected Objects To Attached Points (If Attached). In Node Editing on canvas will resize canvas.
Ctrl + Shift + A	All The Attachments of Selected Objects Will Be Attached To Nearest Point From End Point.
Alt + Shift + A	All The Attachments of Selected Objects Will Be Attached To Nearest Point From Start Point.
B	Zoom Box
Ctrl + B	Break Apart The Branches.
Alt + B	Select Bunches.
Shift + B, Alt + Shift + B	Make a Bunch. With ALT: Make a Bunch With Touched Objects
Ctrl + Shift + B	Break Apart The Attachments.
C	In Punching Mode Toggle Cross Hair Cursor
Ctrl + C	Copy The Selection.
Alt + C	In Node Editing Mode Curve Break The Selected Node.
Shift + C	Hide/Show Connectors.
Ctrl + Shift + C	Align Controls Horizontal And Vertical (Center)
D	Hide/Show Backdrop (Image).
Ctrl + D	Duplicate The Selection To Array. In Node Editing will duplicate the object.
Alt + D	Select All Artwork (Drawing Objects)
Shift + D	Show /Hide Artwork (Drawing Objects).
E	In play mode Select up to cursor. In Single Bezier will add reverse nearest points to reach first point.
Ctrl + E	While Object Selected Set Starting At First Node & End Point At Last Node Of Selected Objects.
Ctrl + Alt + E	While Object Selected Set Starting and End Point At First Node Of Selected Objects.
Shift + E	In play mode Select up to cursor. Will be in this command till escape.
Ctrl + Shift + E	Extend The Last Node Of The Selected Objects To The First Node Of Its Next Object.
F	Edit Object Properties. In Dual Punching Mode, Auto Complete
Ctrl + F	Hide / Show Sequin.
Shift + F	In Node Editing: Make selected node as starting Node. In Dual Punching Mode, Auto Complete
G	Show / Hide Grid.
Ctrl + G	Combine The Selection To Group.
Alt + G	Alter Playing speed to be double
Ctrl + Shift + G	Combine The Selection To Group Keeping them separate in the film.
H	Hide The Selected Objects.
Ctrl + H	Will Unhide All Object At Cursor position.
Shift + H	Will Unhide Canvas At Cursor position.
Shift + Ctrl + H	Align Controls Horizontal
I	Show All (Including Hidden) Objects.
[Shift] + Ctrl + I	Select Identical Objects. With Shift Select approximate identical also
J	Join Selection At Node to Form A Single Line. In 3D Mode Toggle Jump Points. In Play Mode Find Next Function
Ctrl + J	Combine The Selection To Branches.
Shift + J	Join Single or Two Selected Objected by Line Stitch.
K	Lock The Selected Objects.
Ctrl + K	Toggle Rock (Un-Rock) The Selected Objects, While Joining.
Shift + K	Unlock All The Objects.
Ctrl + Shift + K	Toggle Rock The Selected Objects, While Joining.
L	In Play Mode, Add Sequin Lock At Current Node.
Ctrl + L	Attach Selected Objects One After Another At Last Stitch.
Ctrl + Shift + L	Attach Selected Objects One After Another.
M	Measurement Tool. While punching Dual, With Shift Will Set Satin Auto Complete Distance
Ctrl + Shift + M	Merge Objects (All Selected Objects) To Make A Single Object. With Shift Work Like Union
Alt + M	Mirror On Line Distance To Be Set To Last Two Nodes Punched
Shift + M	Mirror On Line While Punching with single, dual, and dual sides
N	Edit Nodes / Reshape.
Ctrl + N	Create A New Design Document.
O	Draw An Ellipse.
Ctrl + O	Open An Existing Design Document.
Shift + O	Draw A Round Rectangle (Square).
P	Full Screen Preview.

<b>Ctrl + P</b>	<b>Print The Current Design Document.</b>
<b>Ctrl + Shift + P</b>	<b>Mark Current Play Position</b>
<b>Q</b>	<b>Flip The Selected Object Vertically. (Mirror Y)</b>
<b>Ctrl + [Shift] + Q</b>	<b>Generate Twine Sequin Pattern from the stitches. Shift To Shift the Pattern</b>
<b>Alt + Q</b>	<b>Flip The Selected Object Horizontally. (Mirror X)</b>
<b>R</b>	<b>Repeat Previous Transformation</b>
<b>Ctrl + R</b>	<b>Route the Selected Objects.</b>
<b>Alt + R</b>	<b>Select Alternative</b>
<b>Shift + R</b>	<b>Set Rotation Angle.</b>
<b>Ctrl + Shift + R</b>	<b>Route the Selected Objects, Attach at the maximum index point.</b>
<b>S</b>	<b>Drop Sequin In Punching Mode. Toggle Sequin In Node/Stitch Editing Mode.</b>
<b>Ctrl + S</b>	<b>Save The Current Design Document.</b>
<b>Alt + S</b>	<b>Select Alternative In Line</b>
<b>Ctrl + Alt + S</b>	<b>Select Objects Within The Selected Object</b>
<b>Shift + S</b>	<b>Show Sequin in Flapped Mode</b>
<b>T</b>	<b>3D View Within the view</b>
<b>Ctrl + T</b>	<b>Attach Together All Selected Objects.</b>
<b>Shift + T</b>	<b>Shift Together All Selected Objects. With Control Shift With Position</b>
<b>U</b>	<b>Deselect All.</b>
<b>Ctrl + U [Shift]</b>	<b>Ungroup Selected Group Of Objects. With shift will ungroup within groups</b>
<b>V</b>	<b>Show / Hide Stitches During Node Editing (Reshape).</b>
<b>Ctrl + V</b>	<b>Paste The Contents Of The Clipboard.</b>
<b>Shift + Ctrl + V</b>	<b>Align Controls Vertical</b>
<b>Alt + Shift + V</b>	<b>Toggle Start Boundary For Satin Objects.</b>
<b>W</b>	<b>Attach Selection To The Current Playing Stitch. In Punching Mode Toggle Mouse Left, Right Mode</b>
<b>Ctrl + W</b>	<b>Fuse the Selection together.</b>
<b>Alt + W</b>	<b>Show Repeat.</b>
<b>Shift + W</b>	<b>While Playing Shift &amp; Attach Selected Object At Current Playing Stitch.</b>
<b>Ctrl + Shift + W</b>	<b>Remove Stitches and display objects like drawing objects.</b>
<b>X</b>	<b>The Selection Will Be Zooming To 90 % Of Screen Area. In OnTheFlyRotation Mode Toggle Objects to X mirror</b>
<b>Ctrl + X</b>	<b>Cut The Selection To The Clipboard.</b>
<b>Alt + X</b>	<b>In Punching Mode Next Node Will Be A circle.</b>
<b>Shift + [Alt ] X</b>	<b>Append Mirror of object In X with Alt Mirror Left Side. In node Editing or punching mode. Also Used For Auto Complete Satin.</b>
<b>Y</b>	<b>In Node editing Move First Node Of the Selection To Start Point. In On the fly Rotation Mode Toggle Objects to Y mirror</b>
<b>Ctrl + Y</b>	<b>Redo The Previous Command.</b>
<b>Alt + Y</b>	<b>Shift Object to Start Point.</b>
<b>Shift + Y</b>	<b>Node Editing/ Punching mode - Append Mirror of object In Y.</b>
<b>Shift + ALT + Y</b>	<b>Node Editing/ Punching mode - Append Mirror of object In Y On Top.</b>
<b>Z [Shift]</b>	<b>Zoom In, With Shift Zoom Out</b>
<b>Ctrl + Z</b>	<b>Undo The Previous Command.</b>
<b>Alt + Z</b>	<b>Half The Playing Speed</b>
<b>Ctrl + Shift + Z</b>	<b>Redo The Previous Command.</b>
<b>&lt;</b>	<b>Snap To Point</b>
<b>Shift + &lt;</b>	<b>Move Object Back</b>
<b>Ctrl + /</b>	<b>Add Lock at Jump Points in the design</b>
<b>. [Shift] [Ctrl]</b>	<b>Toggle Show/Hide Needle Points. With Shift Toggle Show/Hide Node Points. Toggle Show/Hide Sequin.</b>
<b>0, 1</b>	<b>View Whole Design. Zoom By Level 1.</b>
<b>Ctrl + 1, 2</b>	<b>Play to First, Last Stitch of the current Object</b>
<b>Shift + 1</b>	<b>Reverse Input Points</b>
<b>2</b>	<b>Select Just Previous Object Under the Selected Object.</b>
<b>3, 4</b>	<b>Change Sequin to Sequin Segment 2, Toggle Sequins</b>
<b>5, Ctrl + 5</b>	<b>Hide Unselected Objects. Create New design with copy of all objects.</b>
<b>Alt + 0</b>	<b>Rotate Selected Objects By Degree</b>
<b>Alt + 1/ Alt + 2</b>	<b>Set Rotation Point To First/Last Point.</b>
<b>Alt + 3/ Alt + 4</b>	<b>Set Rotation Point To Second side, Start/Last Point.</b>
<b>Alt + 5/ Alt + 6</b>	<b>Set Rotation Point To Bottom Middle/ Top Middle Point.</b>
<b>Alt + 7/ Alt + 8</b>	<b>Set Rotation Point To The Middle/ Top Of The Object.</b>
<b>Alt + Back Space</b>	<b>Undo.</b>
<b>Back Space</b>	<b>In Node Edition: Delete The Selected Node. In Stitch Editor (Or Dst Object): Delete The Current Stitch.</b>
<b>+</b>	<b>Move Selection To Front. (In Array Duplicate Increase Objects)</b>
<b>-</b>	<b>Move Selection To Back.</b>
<b>-</b>	<b>Exclude Selection. (In “On the Fly” Array Rotation, Duplicate Decrease Objects)</b>
<b>Ctrl + -</b>	<b>Move Selection To Backward.</b>
<b>=</b>	<b>Move Selection To Forward.</b>

<b>Alt + Shift + Click</b>	<b>Will start object Under Line Punched</b>
<b>,</b>	<b>Toggle snap to point</b>
<b>END</b>	<b>Move Selection To Front.</b>
<b>Ctrl + END</b>	<b>Start Playing From End.</b>
<b>HOME</b>	<b>Start Playing From Start.</b>
<b>Shift + HOME</b>	<b>Move Selection To Back.</b>
<b>Delete</b>	<b>Clear Selection.</b>
<b>UP,DOWN,LEFT, RIGHT</b>	<b>Move The Selection Toward Arrow Keys By 1 cm, With [Ctrl] By 0.1 mm, With [Shift] 1mm.</b>
<b>Shift + PGUP</b>	<b>Add Object Previous To The Selection To Selection List.</b>
<b>Shift + PGDN</b>	<b>Add Object Next To The Selection To Selection List.</b>
<b>Ctrl + Shift + UP, DOWN, LEFT,RIGHT,C,V,H</b>	<b>Align Selection Object respectively To Top, Bottom, Left, Right, Center, Center Vertical, Horizontal</b>
<b>Alt+Shift+DOWN, RIGHT</b>	<b>Space Control respectively Top To Bottom, Left To Right</b>
<b>Alt + UP, Alt + LEFT</b>	<b>Align Selection Object To Grid Horizontal, Grid Vertical</b>
<b>ESCAPE</b>	<b>Cancel The Current Command.</b>
<b>F2/F3/F4/F5/F6</b>	<b>Draw method Satin/Tatami/Zigzag/Eee/Line</b>
<b>F7/F8/F9/F10/F11/F12</b>	<b>Draw method Program/Central/Alpha/Piping/Cross Stitch/Motif.</b>
<b>Shift + Alt +F2</b>	<b>Place On Line Parameters</b>
<b>Shift + F6</b>	<b>Previous Pane.</b>
<b>Ctrl + Ins, Shift + Ins</b>	<b>Copy Selection To Clipboard. Paste Contents Of Clipboard.</b>
<b>Tab, Shift + Tab</b>	<b>Select Next Object, With Shift Select Previous Object.</b>
<b>Shift + &lt;, Shift + &gt;</b>	<b>Move Selection To Down. Move Selection To UP.</b>

1. While in node Editing and a canvas object selected, Shift and Click on cells will toggle type of fill(X to Y).
2. Select within polygon with Shift key pressed will select all objects touching the polygon.
3. Shift + Click on canvas button, Select cells of type of canvas button clicked on.
4. Dbl Click ->Object filling parameters. Dbl Click + Alt->Open PM Parameters. Dbl Click+Alt+Shift ->Open Sequin Parameters.

## Open existing design

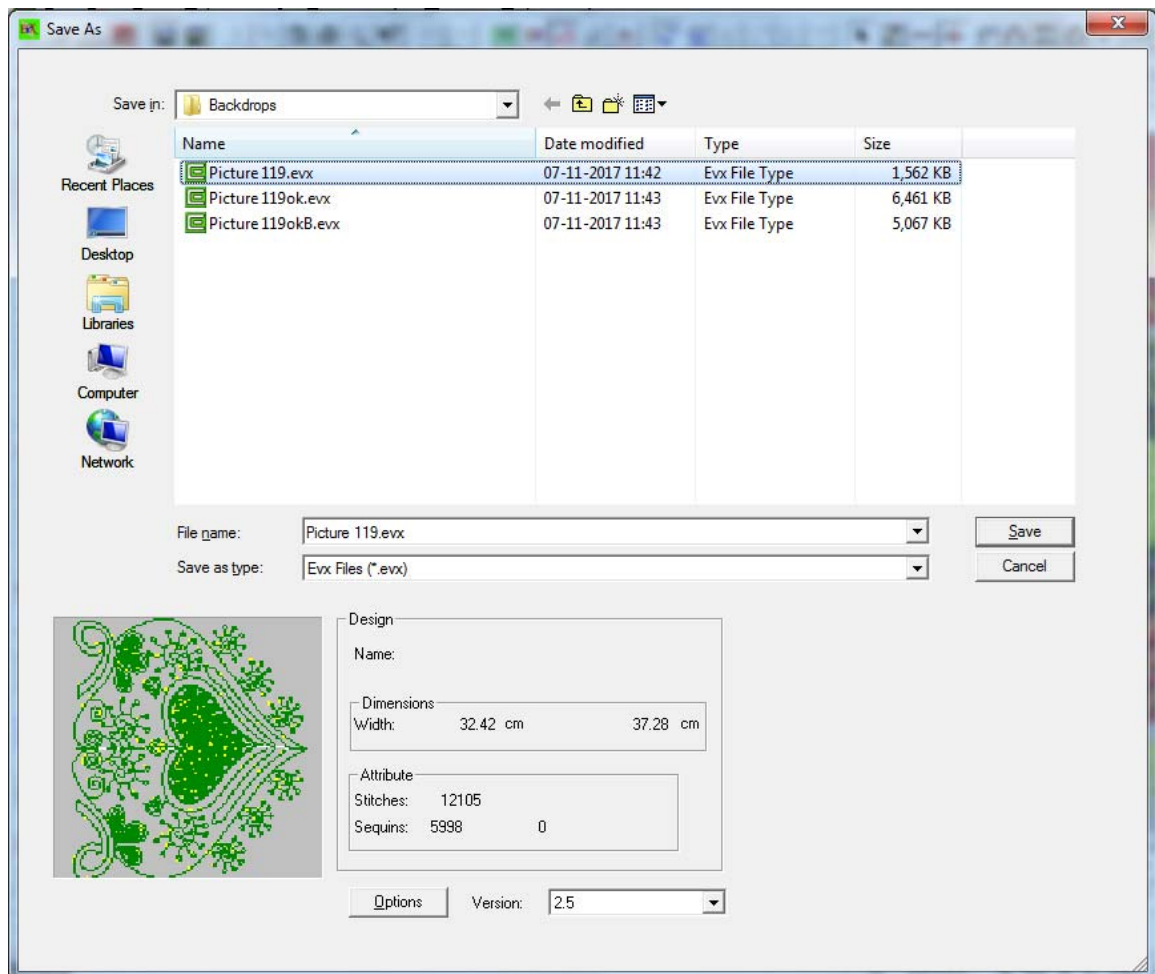


You can open an EVX in many ways: from within the Evx application, from your file system, or on a local area network. Evx opens a comprehensive range of both evx type and 'stitch' type files.

**Warning:** You cannot open an **Evx** file created with a later version of the software than the one you are currently running.


1. Click the **Open icon** .

**IMPORTANT** If you don't see the **Open icon** , click **Open** on the **File** menu. **Keyboard shortcut** to display the **Open** dialog box, press CTRL+O.



The following are the elements that are contained in the **Open** dialog box.

📁 **Look in:** In the list, click a location where the file that you want to open is stored. Use the **Look in** list to move up one or more levels in the folder structure.


🔍 **Previous folder**  As you move through the folder structure in the Files list, this button enables you to go back to the previous folder that you viewed.

🔍 **Up one level**  Click this button to look

Create a new folder 

Folders are a convenient way of storing and organizing files on your computer. For example, you'll probably want to create folders within the Documents and Pictures folders to help you manage your files. You can create any number of folders and even store folders inside other folders. Folders located inside other folders are often called subfolders.



1. After we press  a new sub-folder in the current folder is created. Type a name for the new folder, and then press ENTER.

The new folder you created appears in the location you specified.

#### Tip

- You can reduce the number of folders you need to create if you learn how to find and organize your files using saved searches instead.

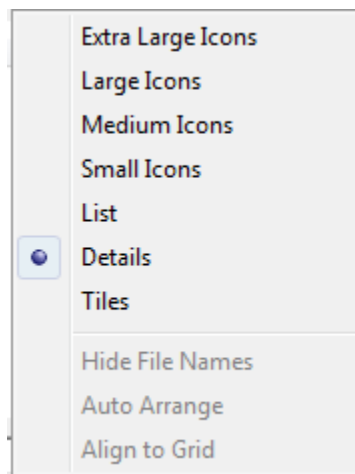
#### View menu to change thumbnail size and file details

You can change the size and appearance of your file and folder icons by using the Views menu, which is located on the toolbar within every folder.

1. Click the arrow next to views on the toolbar.
2. Move the slider up or down to change the appearance of the icons.

The slider has seven rest positions: Tiles, Details, List, Small Icons, Medium Icons, Large Icons, and Extra Large Icons. You can move the slider to any of these positions, or fine-tune the size of the icons by moving the slider to any point between these positions.

#### The Views menu



#### Tip

To quickly switch between views, click Views on the toolbar. Each time you click, the folder switches to one of these four views: List, Details, Tiles, and Large Icons.

You can perform an action (such as copying, moving, or deleting) on more than one file at a time, as long as all of the files are located in the same folder.

To select nonadjacent files in the Open dialog box, click one file, hold down CTRL, and then click each additional file.

To select adjacent files in the Open dialog box, click the first file in the sequence, hold down SHIFT, and then click the last file.

Tip: If you select a file that you don't want, hold down CTRL, and then click the file again.

All the selected files from the "File list" are written in the "File name" field. In case a single file is selected a preview in the bottom of the dialog box also appears. We can type in this field the name of the files that are of interest and press the "Open" button to open the files.

The "Files of types" field is used to filter out our selection for the type of embroidery files that will be visible in the "File list" area.

**Design Info:**

Evx provides additional information about the selected design on the bottom side of the dialog box. Additional Information about the design displayed are; Dimensions (width and height), "number of stitches" and "number of sequins". More information for the selected design can be found with the "File->Summary Info..." option.

Additionally you can call the "Evx-Explorer" of the designs to get the thumbnail view of the designs.

### **Create new designs**

When you start Evx, a new file—untitled1—is automatically created, ready for you to start digitizing. By default, Design1 is based on the Normal template. Templates are available in template directory in the root (installation directory) of Evx. These design documents contain default setting for various stitch types. These also contain pre designed styles and patterns. We can change the default template in File->Preference option.

We can also create a new design by clicking on the “New” icon available on standard toolbar or select the option "File->New" or press “Ctrl + N” shortcut key.

**Tip** Whenever you create a new design, save it with a new name.

### **Design size**

A rectangle appearing in the new design shows the dimensions of the design. You can select the rectangle and change its size to actual design size of your interest. This rectangle is just a guideline to show that your objects fall within the boundary of the design.

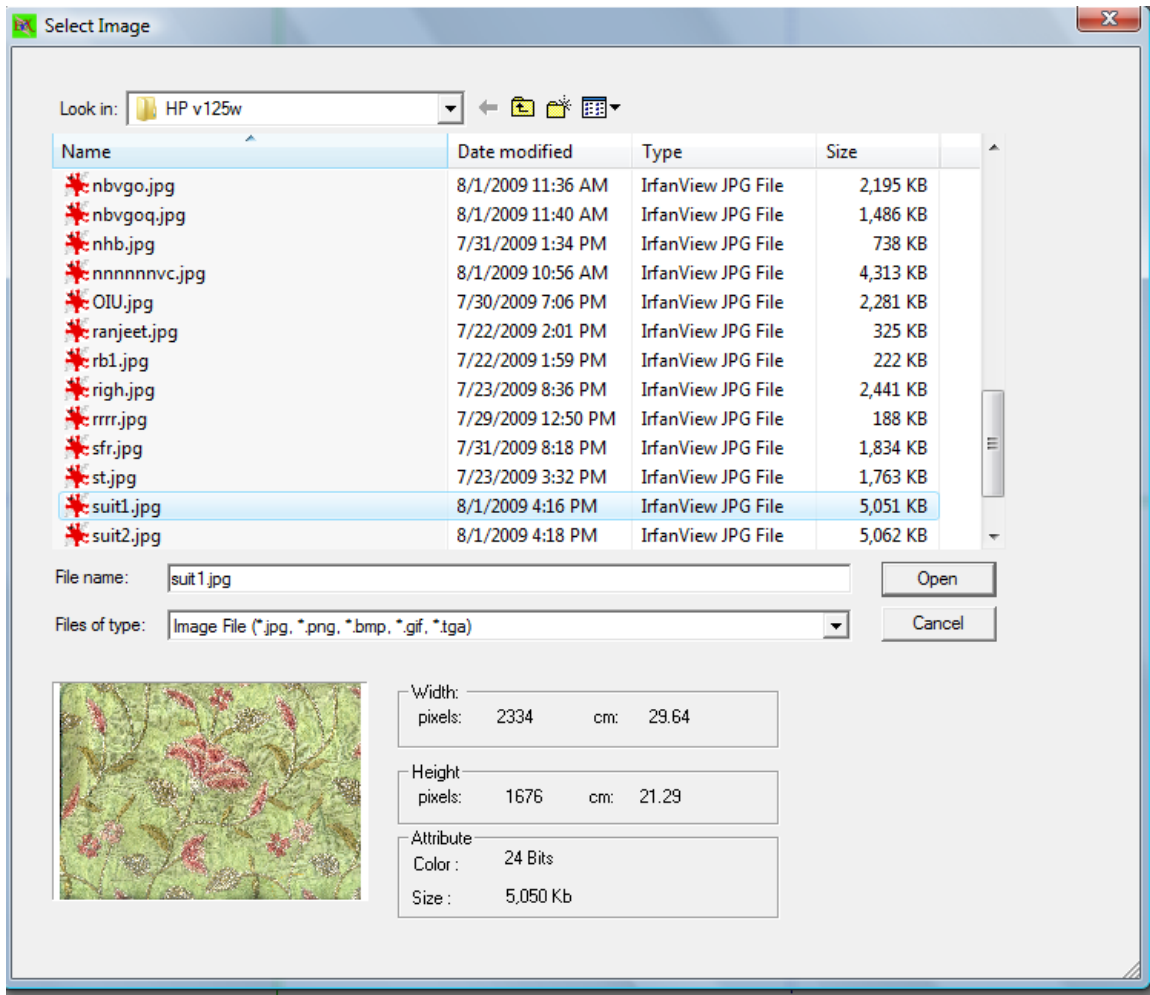
### **Backdrop**

Scan the design and save as JPEG format, in the working directory say (C:\ Evx\Design\ Anand\images). File->load backdrop will open dialog box for opening an image file. Select the image file and click open, this will open the image as backdrop.

### **Load backdrops**

We can load backdrops from Menu command “File->Load Backdrop”. File Dialog will appear in the same manner as we have seen in File->Open dialog. Basic functionality is same except for the type of files. Once finished with the backdrop selection, click “Open” to continue.

After Backdrops are loaded we can do transformation on them to adjust their dimensions (“width” and “height”).

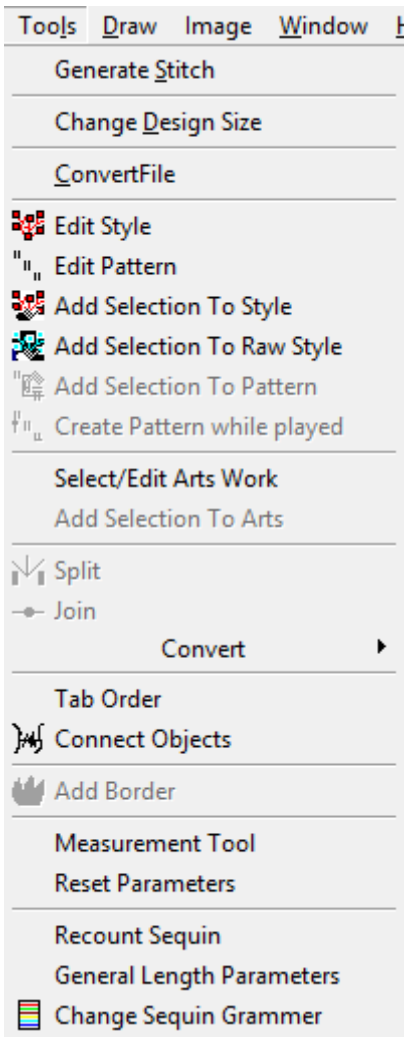


### Hide backdrop

Press B to toggle backdrop show/hide. You can also toggle it from File>Show/Hide Backdrop.

### Remove backdrop

First make sure that “Allow backdrop selection” is checked.

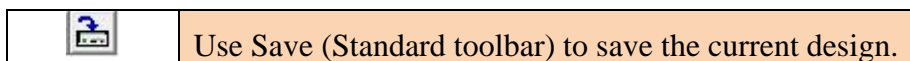


Now browse the film and select the desired backdrop in the film and press <del> key to delete the backdrop.

Selected backdrop will be removed from your design.

**Note:** There is no undo command for backdrops. You need to load backdrop again to insert backdrop into your design.

### ***Save designs***

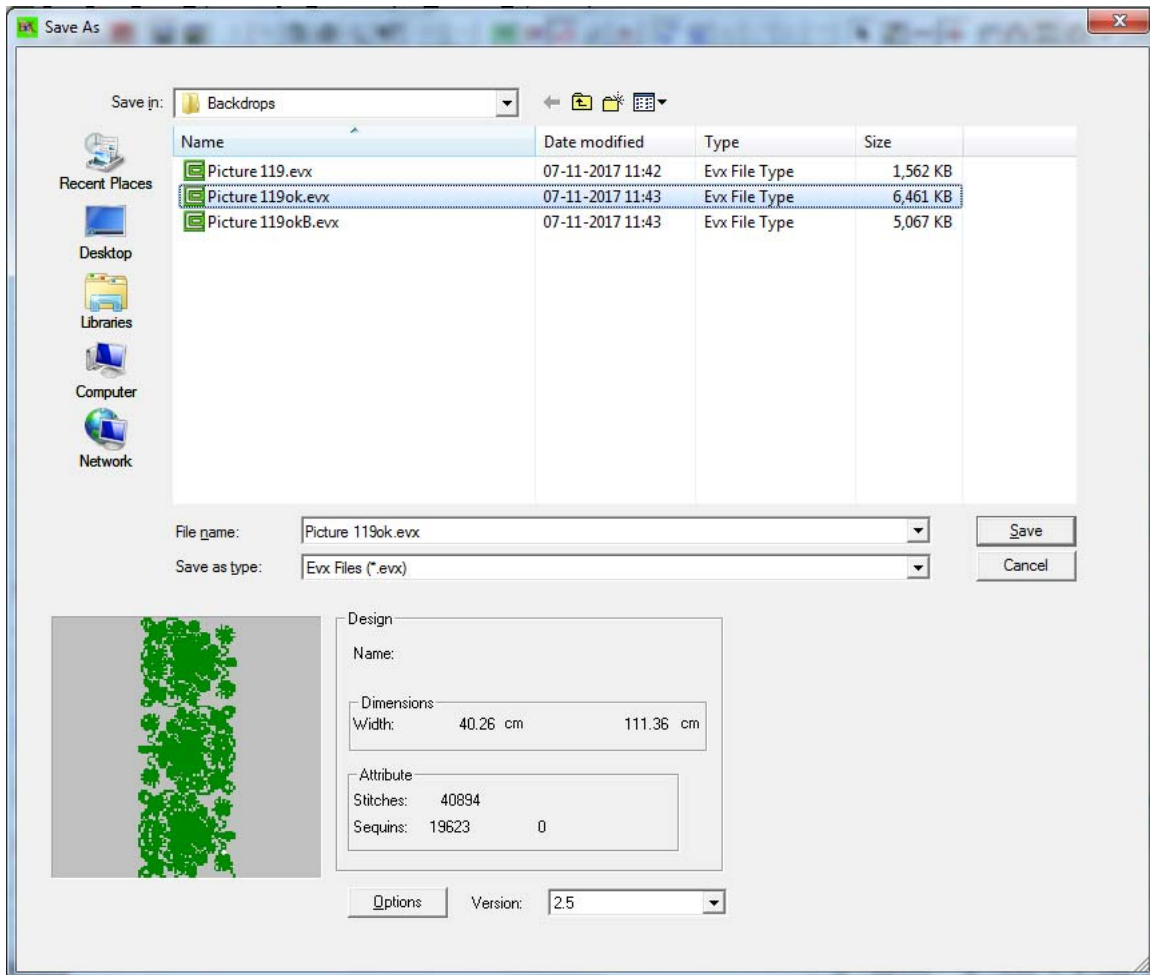


Evx saves designs in Evx and 'stitch' files format. A special interface is provided to generate stitches. Designs are saved in folders with a file name and its extension. Opened designs, when saved are overwritten. To save separately use "Save As" option from the "File>Save As". A copy of the design can be made by shortcut key "ctrl + 5".

To save a design

1. Click the Save icon .

If this is the first time you have saved the design, the Save As dialog opens.



2. Select the folder where you want to save the design from the Save In list.
3. Enter a name for the design in the File name field.
  - a. If you click on a file already there, its preview along with other design information will be displayed, and its name will be automatically copied to file name.
4. Select a file format from the Save as type list.
5. You can also select previous version to save the design. Previous versions from 2.4 onward are supported.

**Warning** If you are saving a file to “stitch” file format, it will loss all object properties.

6. Click Save.


**Tip** Once you have saved a design, and made changes to it, then every time you click Save on the toolbar the file will be updated.

## Evx - Explorer

Evx-Explorer works like Windows explorer and it helps us to manage designs in folders. Powerful features like displaying various designs, sorting design information, increased productivity etc. are available. On the fly selection, opening, deleting and moving various designs makes life as simple as never before. Thumbnail view of designs in small and big icon with instant display makes the designer able to choose designs from various folders in seconds. Thumbnails are zoomed to user defined size making another dent in the way. On the fly printing is another big hit by this technology in the market.

### To display Evx-Explorer

- 1 Click the **Evx Design Explorer icon**. 

**IMPORTANT** If you don't see the **Evx Design Explorer icon** , click **Design Explorer** on the **File** menu.

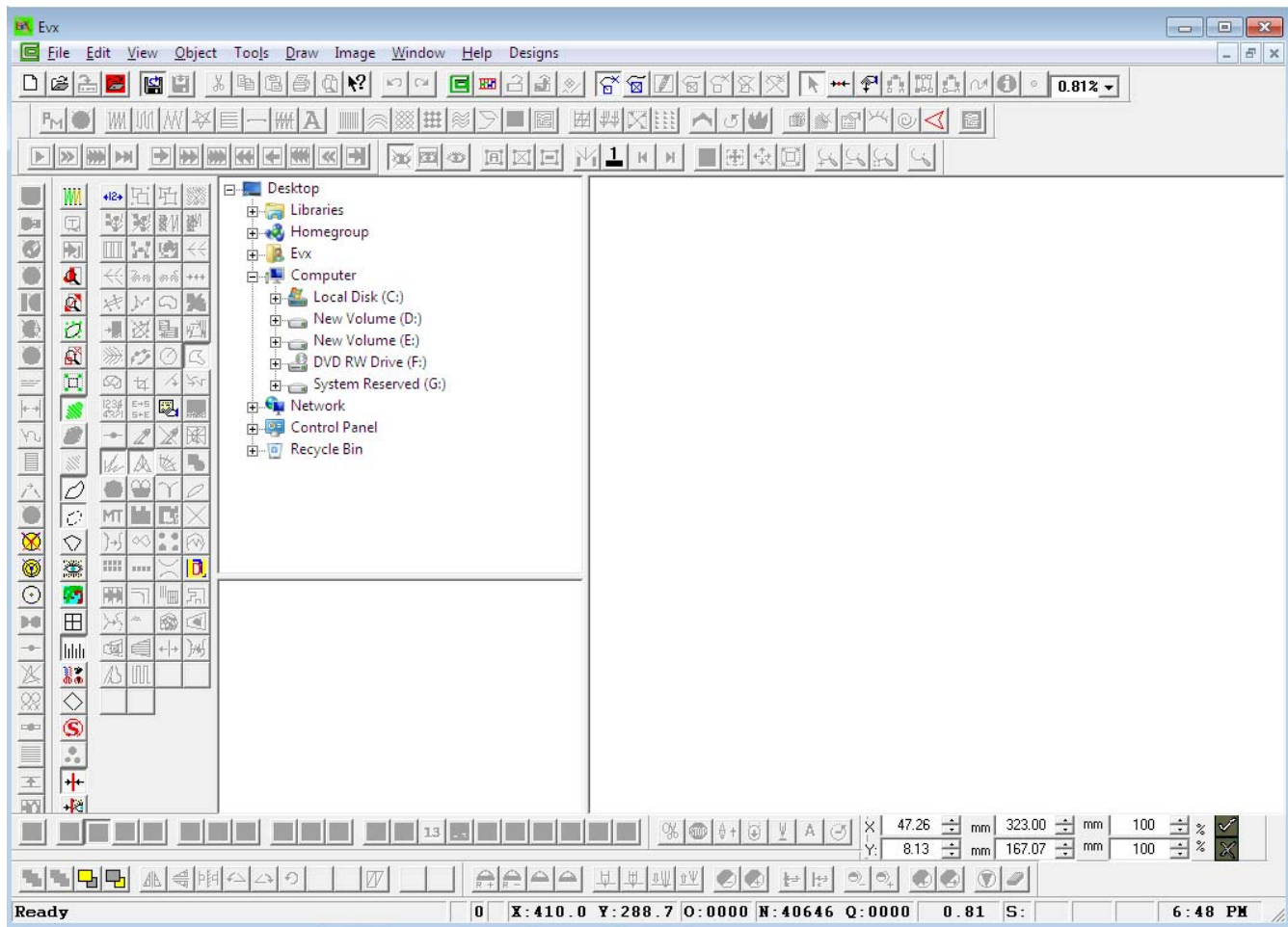
### Evx Design Explore elements

The following are the elements that are contained in the **Evx-Explorer**.

- 📁 **Folder list** pan Right hand side pan in exp-explorer shows structure of the folders and the subfolders of your hard disk. If you click on a location where the files that you want to display are stored, files will be displayed in the preview pan. If you click on “+” symbol in front of folder you can see the subfolders of the folder. Use the Folder list to move up one or more levels in the folder structure.

You can also use explorer to see any design contained in a network computer.

- 📁 **Preview pan** Right hand side pan is the preview pan which is the view area and files lists are displayed here.
- 📁 **Very large Icon** Left hand side bottom pan is the area for displaying icons in a large size.

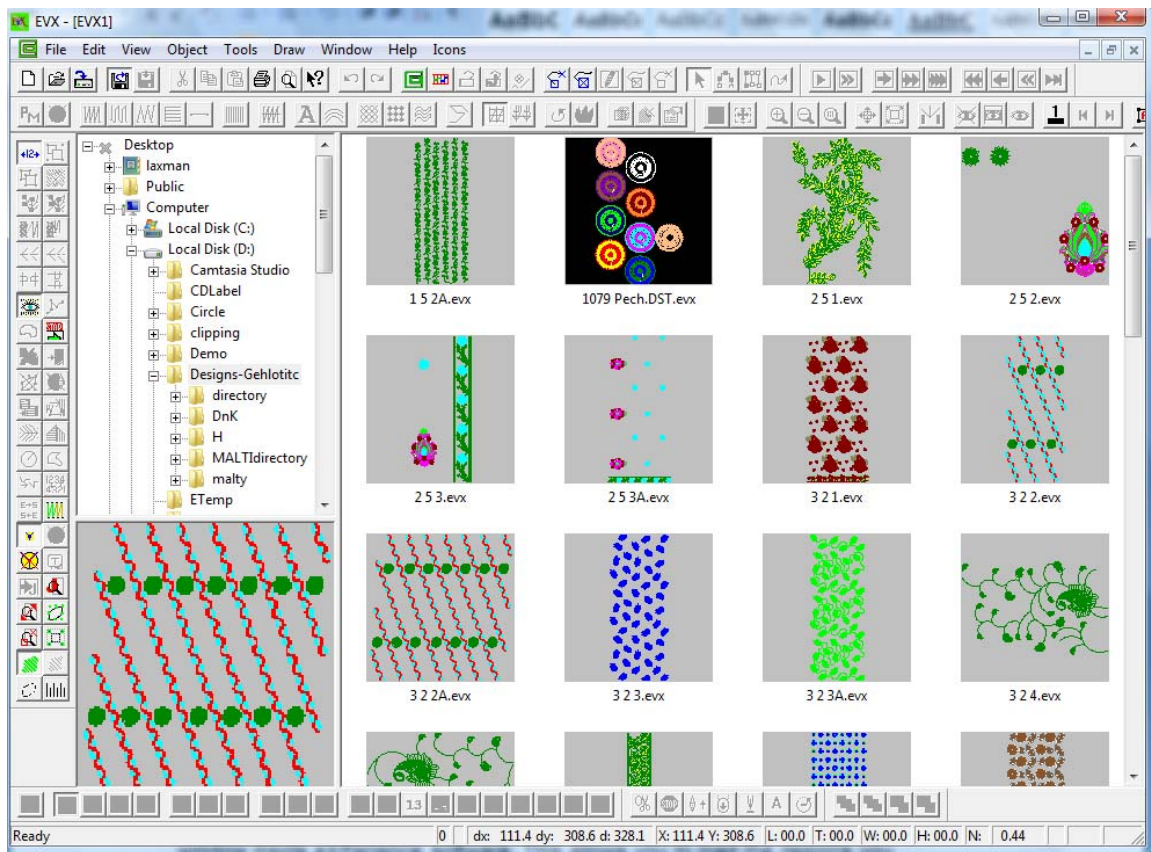


## Browse folders

A "+" symbol on the left hand side of a folder indicates it has subfolders and we can expand them by clicking on the "+" button. The "+" symbol will become "-" symbol, and a list of folders in the exploded folder will appear. In the same way we can collapse the folder by pressing the "-" on the left side of the subfolder, and a "+" symbol will appear in front of the collapsed folder.

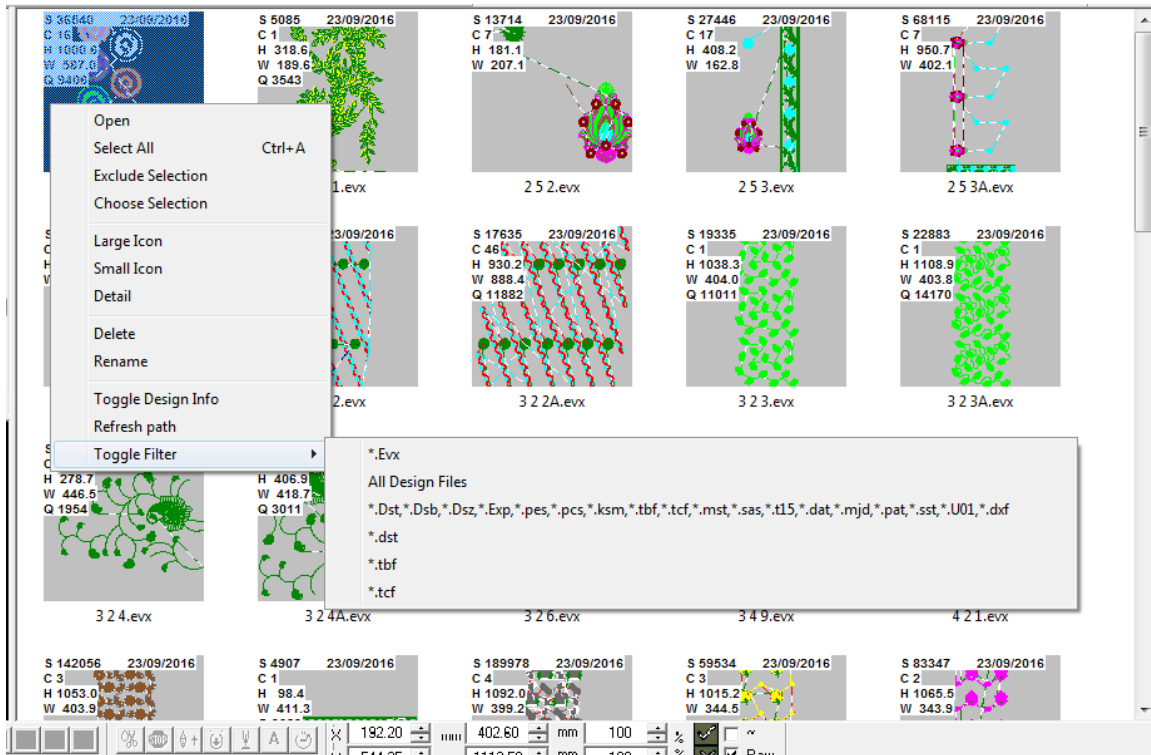
If you select a folder the file list will be displayed in the Preview pan.





### View menu to change thumbnail size and file details

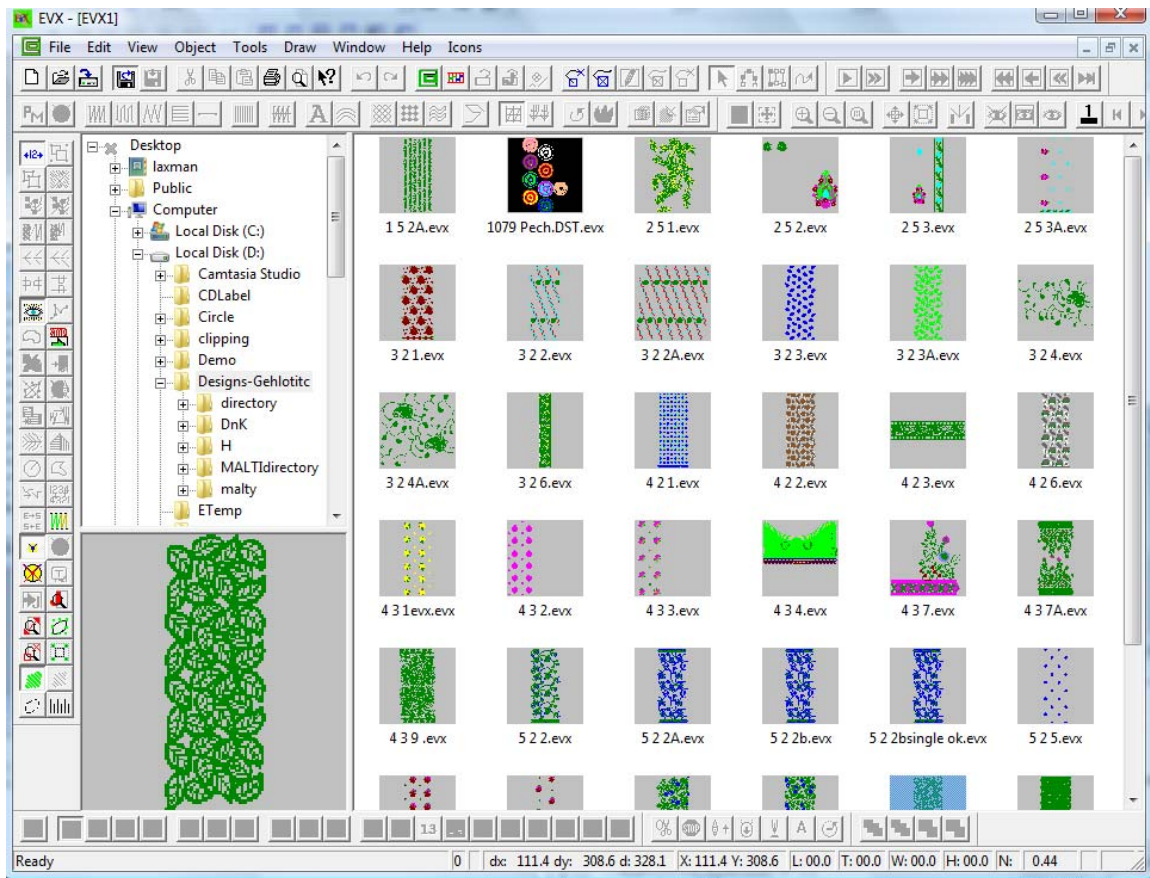
You can change the size and appearance of your **file** and folder **icons** by using the views context menu, which is invoked by pressing the right mouse button on the preview file list pan.



Click on the option in the context menu to change the appearance of the explorer file list view.

The menu items are: Open, Select all, Exclude Selection, Choose Selection, Large Icon, Small Icon, Detail, Delete, Rename, Toggle Design Info, Refresh path and Toggle filter; Evx files, All design files, and stitch files only.

### The Views small icons



## Selection in Evx-Explorer

To select any design in evx-explorer, click on the thumbnail in front of it. We can select more designs by holding "Ctrl" key and then clicking on the designs. We can also drag a click on the preview pan and all the designs inside the traced rectangle will be selected.

We can also do select by other commands:

## Design selection

Design Selection is made with the following Icons:

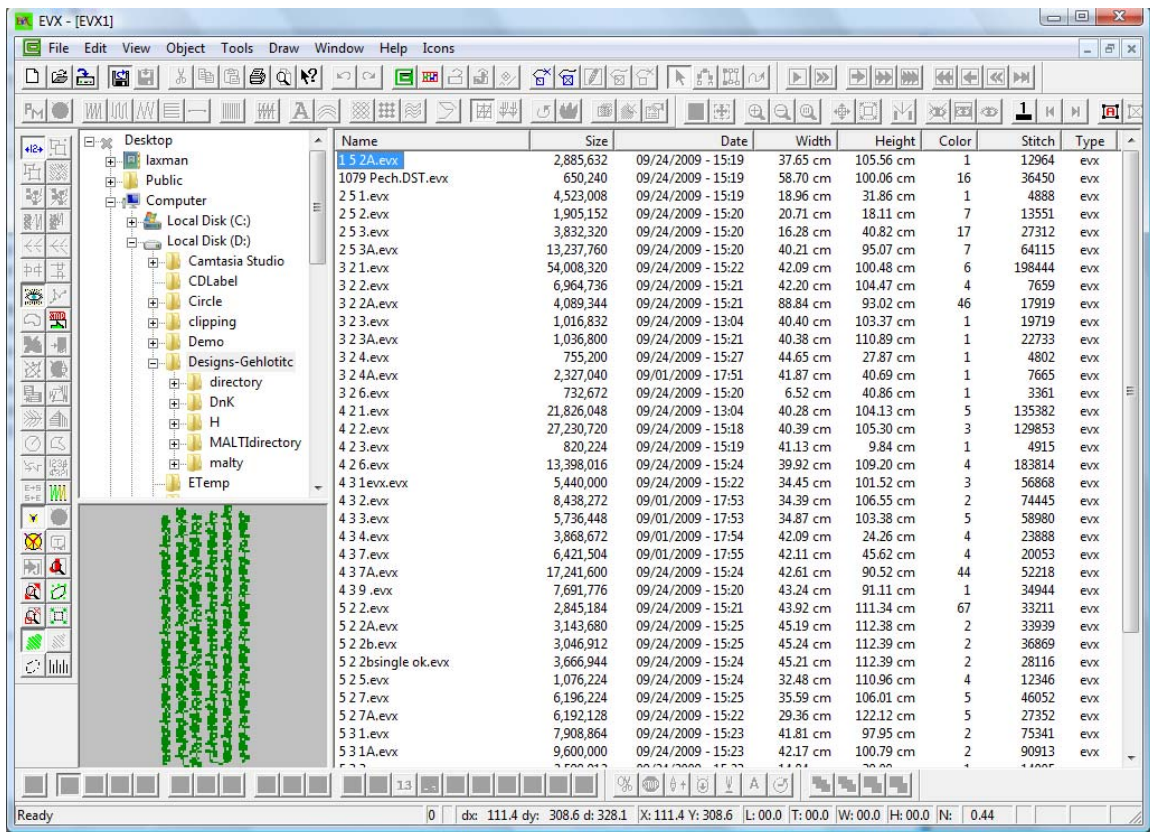
	All	Select All the designs on the screen.
	Unselect	Unselect all the designs.
	Negate Selection	Unselect the selection and select the unselected design on the screen.
	Choose Selection	Provide a temporary filter for selection and deselecting of designs.

## To open designs

In order to open the designs, first complete our selection and right click on your selected design, invoke the Open menu command. All designs will be opened and ready for operations.

## To view design information

Design information can be seen in the detail view of the Evx-Explorer. This can be invoked by context menu and clicking on “Detail” menu.



Name	Size	Date	Width	Height	Color	Stitch	Type
152A.evxx	2,885,632	09/24/2009 - 15:19	37.65 cm	105.56 cm	1	12964	evx
1079 Pech.DST.evxx	650,240	09/24/2009 - 15:19	58.70 cm	100.06 cm	16	36450	evx
251.evxx	4,523,008	09/24/2009 - 15:19	18.96 cm	31.86 cm	1	4888	evx
252.evxx	1,905,152	09/24/2009 - 15:20	20.71 cm	18.11 cm	7	13551	evx
253.evxx	3,832,320	09/24/2009 - 15:20	16.28 cm	40.82 cm	17	27312	evx
253A.evxx	13,237,760	09/24/2009 - 15:20	40.21 cm	95.07 cm	7	64115	evx
321.evxx	54,008,320	09/24/2009 - 15:22	42.09 cm	100.48 cm	6	198444	evx
322.evxx	6,964,736	09/24/2009 - 15:21	42.20 cm	104.47 cm	4	7659	evx
322A.evxx	4,089,344	09/24/2009 - 15:21	88.84 cm	93.02 cm	46	17919	evx
323.evxx	1,016,832	09/24/2009 - 13:04	40.40 cm	103.37 cm	1	19719	evx
323A.evxx	1,036,800	09/24/2009 - 15:21	40.38 cm	110.89 cm	1	22733	evx
324.evxx	755,200	09/24/2009 - 15:27	44.65 cm	27.87 cm	1	4802	evx
324A.evxx	2,327,040	09/01/2009 - 17:51	41.87 cm	40.69 cm	1	7665	evx
326.evxx	732,672	09/24/2009 - 15:20	6.52 cm	40.86 cm	1	3361	evx
421.evxx	21,826,048	09/24/2009 - 13:04	40.28 cm	104.13 cm	5	135382	evx
422.evxx	27,230,720	09/24/2009 - 15:18	40.39 cm	105.30 cm	3	129853	evx
423.evxx	820,224	09/24/2009 - 15:19	41.13 cm	9.84 cm	1	4915	evx
426.evxx	13,398,016	09/24/2009 - 15:24	39.92 cm	109.20 cm	4	183814	evx
431evxx.evxx	5,440,000	09/24/2009 - 15:22	34.45 cm	101.52 cm	3	56868	evx
432.evxx	8,438,272	09/01/2009 - 17:53	34.39 cm	106.55 cm	2	74445	evx
433.evxx	5,736,448	09/01/2009 - 17:53	34.87 cm	103.38 cm	5	58980	evx
434.evxx	3,868,672	09/01/2009 - 17:54	42.09 cm	24.26 cm	4	23888	evx
437.evxx	6,421,504	09/01/2009 - 17:55	42.11 cm	45.62 cm	4	20053	evx
437A.evxx	17,241,600	09/24/2009 - 15:24	42.61 cm	90.52 cm	44	52218	evx
439.evxx	7,691,776	09/24/2009 - 15:20	43.24 cm	91.11 cm	1	34944	evx
522.evxx	2,845,184	09/24/2009 - 15:21	43.92 cm	111.34 cm	67	33211	evx
522A.evxx	3,143,680	09/24/2009 - 15:25	45.19 cm	112.38 cm	2	33939	evx
522b.evxx	3,046,912	09/24/2009 - 15:25	45.24 cm	112.39 cm	2	36869	evx
522bsingle ok.evxx	3,666,944	09/24/2009 - 15:24	45.21 cm	112.39 cm	2	28116	evx
525.evxx	1,076,224	09/24/2009 - 15:24	32.48 cm	110.96 cm	4	12346	evx
527.evxx	6,196,224	09/24/2009 - 15:25	35.59 cm	106.01 cm	5	46052	evx
527A.evxx	6,192,128	09/24/2009 - 15:22	29.36 cm	122.12 cm	5	27352	evx
531.evxx	7,908,864	09/24/2009 - 15:23	41.81 cm	97.95 cm	2	75341	evx
531A.evxx	9,600,000	09/24/2009 - 15:23	42.17 cm	100.79 cm	2	90913	evx

Name	Name of the design file as provided by windows operations system.
Size	Size of the file in bytes as provided by windows operations system.
Date	Date of design file as provided by windows operations system.
Width	Width of the design as calculated by Evx.
Height	Height of the design as calculated by Evx.
Color	Colors in the design as per Evx.
Stitches	Number of stitches in the design as calculated by Evx.
Type	Type of file as evx, DST etc.



### To delete design

Lets us first select the design we want to delete and then press the “Delete” button from the keyboard.

We can also invoke “Delete” from context menu.

### To Toggle Design Info

You can suppress design info on the icon so that these are visible clearly.

### To filter file type

Evx-Explorer can show all type of supported files in the preview pan. We can invoke file type form context menu “Toggle Filter”. Possible types are “\*.evx”, stitch type files\*.dst, \*.DSB etc”, both “stitch types” and “evx type”.

### ***Auto-backup and recovery mechanism***

Evx has one of the most powerful features to avoid losing your data in the event of a system hang or system crash.

**Auto-backup:** This feature saves our designs after every change we make in the designs. If a design is saved it will be removed from the auto-backup, until you again make some changes to it. In most cases you will not lose your design.

**Auto-Recovery:** This feature recovers our design the next time we open Evx. These designs were saved by auto-backup feature of evx in an auto backup area. If the system hangs in auto-recovery mode, start evx again. It will filter the design on which it has hanged and continue recovery of rest of the designs.

**Note:** It is a good policy to save designs frequently.

### ***Format a floppy diskette***

File>Format Floppy	Use File>Format Floppy to format a diskette.
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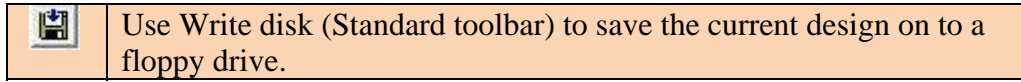
We can format a diskette by “File>Format floppy” command. All the design files will be deleted and full area of the diskette can be used after formatting a diskette.

### To format a Diskette

- 1 First of all insert a diskette in the floppy disk drive. Also make sure from “File>Preference” that floppy drive to choose for format matches with our drive “A” or “B”.
- 2 In the “format disk properties” field of the "Floppy disk format" function you can select the type of the machine disk that you are going to create.
- 3 Press "Format" button to format the floppy.
- 4 Evx will try to recognize the current floppy diskette format.


If the diskette that you have inserted is already formatted and have same type, Evx will ask to do a quick format to save time. We can select to do quick or full formatting at this time.

### ***Write disk***

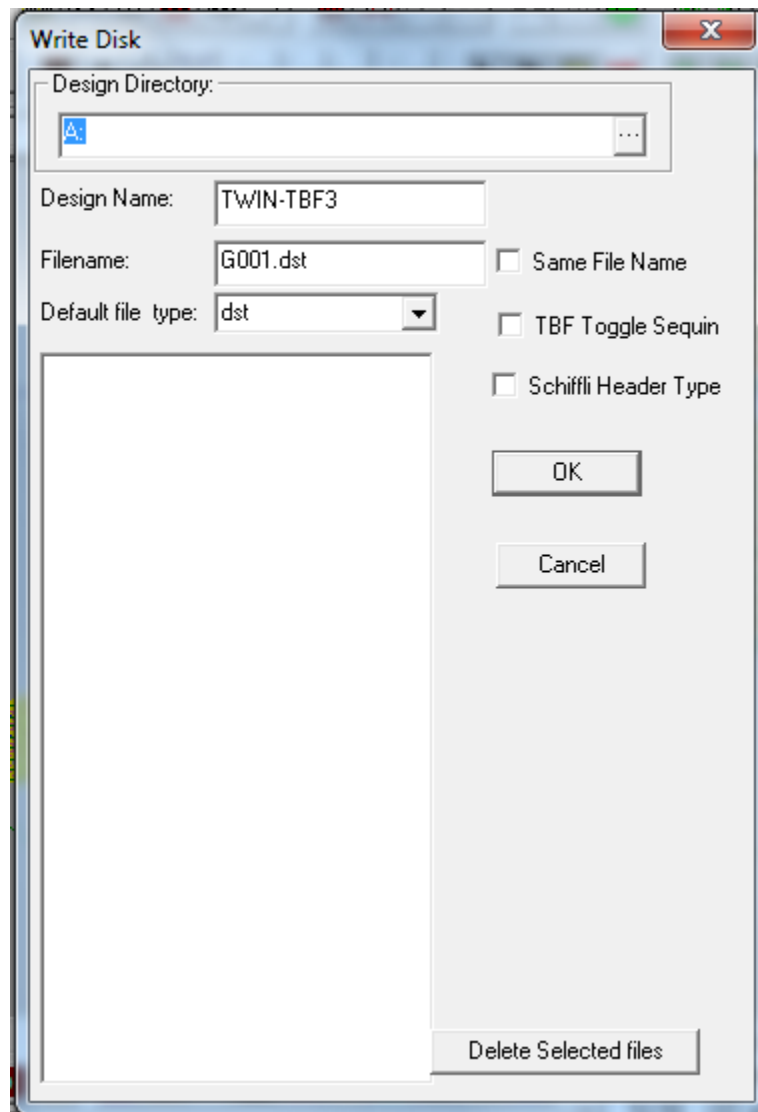


Embroidery m/c recognizes stitch type files. Once our designs are ready, we can write stitches on to diskette.

### **To write diskette**

Take a formatted diskette and place it inside the drive and then click on  button. Evx recognizes the format of the diskette and reads its directory structure. After reading the structure it will display all the files in the list box.

**Note:** If you have forgotten to put the diskette in the drive, Evx will prompt for retry or cancel.



**Design name:** This is the internal file name of the design which is sometimes used to display on embroidery m/c.

**Filename:** This is the file name of the design in the directory structure. File names are generated by default in the form of Gxxx.dst. Evx generates next file names by incrementing the number by one. If you check **same file name** checkbox, these numbers will not be generated, rather the design file name will be copied to this field.

**Same file name:** This checkbox is used to say that file name should be same as the design file name.

**File List:** Under this field you can see the designs that are already in the diskette.

Delete the designs

We can delete the designs from the diskette to empty the space on it.

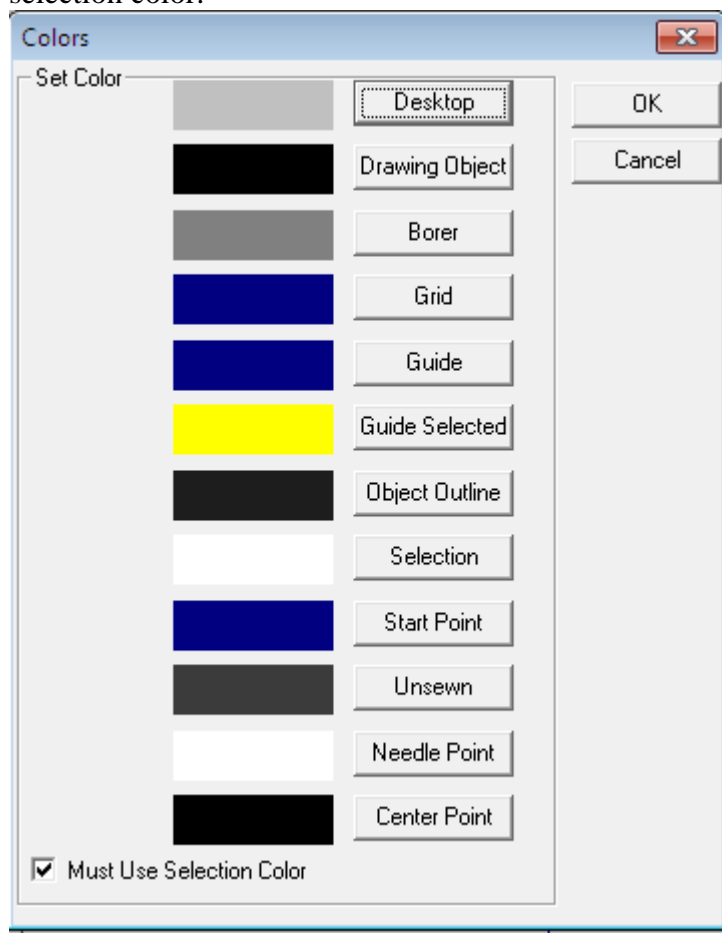
**Warning:** Designs once deleted cannot be recovered, so before deleting make sure you have backup of it.

To delete the design

Select the design files from the file list. You can select them by clicking on the filename. For multiple selections you click and drag the mouse. You can also use ctrl key to hold the selection and add/remove any single selection.

### **Colors**

Evx Colors are helpful in separating objects from each other. Evx help its users to define various colors for tools and objects as show the figure bellow. Objects selected by default shown in reverse color of desktop. Check “Must Use Selection Color” to use user defined selection color.



### **Measuring distance on-screen**

Evx understands our needs and hence cultivated features like this one never before. Measurement set consists of distance dX in x axes; distance dY in y axes, a point to point distance d, and angle of rotation A in degree. All distances are in millimeters mm and is the distance between two points on the screen. Measurements are not affected by the zooming factor.

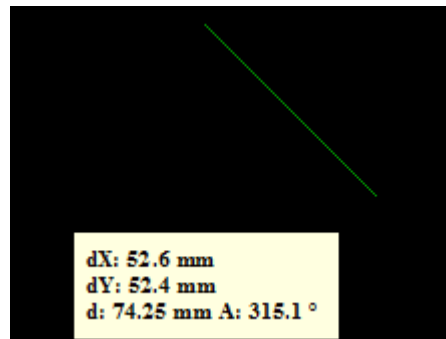


**Tip** For more accurate results, zoom in before you measure.

#### **To measure a distance on-screen**

- 1 Select *Tools > Measurement tool* or press **M**.
- 2 Click on the screen at the start point.
- 3 Move the mouse

The measurements are displayed in the measurements rectangle as shown below:



#### **4 Press right mouse button or Esc to finish.**

The measurements tool also used to perform “On the fly transformations”:

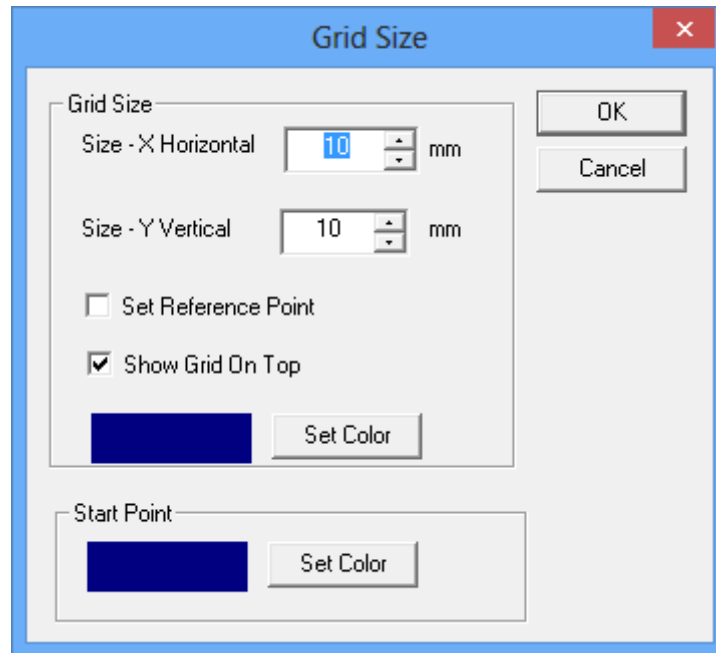
1. Select objects to be transformed.
2. Press M to start the measurement.
3. Move the mouse toward you want to move the selected objects.
4. While measurements are on press <Enter> Key to fix the transformation.
5. Move the mouse to a point where you want to create transformation objects.
6. Press “R” key. The selected objects will be duplicated to the number of time (defined in application properties).

#### ***Displaying grid, rulers and guides***

Evx provides grid lines on the screen to allow accurate positioning of the design objects. Evx also provides horizontal and vertical rulers on the screen to allow accurate positioning of the mouse position and hence the objects. It also helps us to see the design size. Evx also provides guide lines on the screen to allow accurate positioning of the node points as well as object’s position.

#### **Displaying Grid**

We can show or hide the grid at any time. Default grid spacing is 10 mm x 10 mm. We can change the size of the grid as well as the color of the grid lines View> Grid size:



#### Size –X Horizontal

In this area you can enter the distance between grid lines for the 'X' axis. The distance must be entered in millimeters.

#### Size –Y Horizontal

In this area you can enter the distance between grid lines for the 'Y' axis. The distance must be entered in millimeters.

#### Set Color

We can change the color of the grid lines by clicking on this button. A color dialog will appear and we can choose the color from it.

#### To display the grid

Grids are Toggle by shortcut key G or alternatively Select View > Grid.

#### Displaying rulers

Rulers are measured in mm and are located to the top (for horizontal ruler) and left (for vertical ruler) side of the design window. The ruler scale, illustrated with numbers and ticks, depends on the zoom setting. Rulers are displayed on the top of images but under embroidery objects.

#### To display the rulers

Show or hide rulers can be performed by View>Horizontal ruler and View>Vertical ruler.

## Displaying guides

Guides are dotted vertical and horizontal lines placed across the design window to help you align objects. Each guide has a rectangular shape on the window and can be dragged on the screen to move it around.

Guides are always displayed 'on top' of the grid and all images, and beneath embroidery objects.

## To create the Guides

Rulers must be displayed before a guide can be created.

Click on either ruler (horizontal or vertical) and drag on to design window. A guide will be attached to the mouse's current position. Move to the suitable position and release the mouse after reaching the point where you want to put a guide. You can select a guide by clicking on it and dragging it to the place at another position.

## Delete a guide

A guide can be removed by selecting it and by pressing delete (Del) key.

Note: Guides are stored along with the design file and they are preserved.

## ***Design Information***

File>Summary Info...	Use File>Summary info... command to invoke design information.
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Evx provides a mechanism to store information of designs according to the user requirements. It makes a big difference when it also provides information about thread calculation based on user parameters and a lot more.

## To display design Information

- 1 Click **Summary Info...** on the **File** menu.

The image shows a 'Document Properties' dialog box with a dark blue title bar and a close button (X) in the top right corner. The dialog has three tabs: 'Summary', 'Statistics', and 'Thread'. The 'Summary' tab is selected. Inside the dialog, there are several text input fields with labels to their left. The labels are: 'Application', 'Customer', 'Artist', 'Punch', 'Keywords', 'Comments', and 'Also See:'. The values entered in these fields are: 'Evx By Gehlot IT Consultants', 'Evx Gallery', 'Mahinder', 'Raju', 'School Uniform', 'Crafted special for Sun Rise', and an empty field respectively. At the bottom of the dialog, there are four buttons: 'OK', 'Cancel', 'Apply', and 'Help'.

Field	Value
Application	Evx By Gehlot IT Consultants
Customer	Evx Gallery
Artist	Mahinder
Punch	Raju
Keywords	School Uniform
Comments	Crafted special for Sun Rise
Also See:	

### Summary elements

The following are the elements that are contained in the **Summary information**.

**Customer:** Name of the customer of the design.

**Artist:** Name of the artist of the design.

**Punch:** Name of the digitizer of the design

**Keyword:** Keyword of the design.

**Comments:** Any comments about the design.

**Also See:** Also see filed of the design

Design Properties

Summary | Statistics | Thread

Yarn

Color	Code	Brand	Description	Thickness	Bobbin (m)	Yarn (m)	Stitches
01	1	Default	Dark Green	A	65.95	136.97	19057
02	2	Default	Blue	A	116.16	241.25	31822
03	3	Default	Red	A	71.33	148.15	21233
04	4	Default	Yellow	A	87.29	181.30	23467
05	5	Default	Cyan	A	32.71	67.94	9768
06	6	Default	Magenta	A	31.53	65.49	9066
07	7	Default	Green	A	15.07	31.30	5252
08	8	Default	Dark Blue	A	66.75	138.64	18492
09	9	Default	Dark Red	A	48.10	99.89	14118
10	10	Default	Orange	A	48.57	100.87	13133
11	11	Default	Purple	A	29.50	61.28	8540
12	12	Default	Brown	A	38.72	80.42	10334
13	13	Default	White	A	19.60	40.71	5707
14	14	Default	Black	A	70.22	145.84	19522
15	15	Default	Pink	A	41.82	86.85	12693

evx.csf

Export To File

Thread Wastage Factor: 0 Percentage(%)

Colors 20

Bobbin 976.013 m

Yarn 2027.1 m

Stitches 277089

Fabric thickness 0.50 mm

Sequins 0

Bobbin tension 35 %

Copy To Summary Comments

OK Cancel Apply Help

### Thread information elements

The following are the elements that are contained in the **Thread information**.

**Yarn:** Color wise thread used in the design.

**Export file name:** Name of the file for exporting yarn information of the design.

**Export to File:** Command button for exporting yarn information of the design.

**Colors:** Number of colors used in the design.

**Bobbin:** Bobbin thread used for the design.

**Yarn:** Yarn thread used for the design.

**Stitches:** Number of stitches in the design.

**Fabric thickness:** Input parameter for calculation of thread used for the design.


**Bobbin tension:** Input parameter for calculation of thread used for the design.

**Copy to summary comments:** This command will append Yarn information to "Comment" filed in the "Summary" Tab.

## Working with design objects


There are many ways to select and deselect various objects in the design.

### **Selection**

First of all select selection tool () for performing selection. Objects created are selected by either clicking on them or by dragging the mouse to form a rectangle. Selection is also possible by film icons (See film icons).

**Note: Shift + > will add next object to the selected list and Shift + < will add previous element to the selected list.**

### Point selection

Point selection Icon () is used to toggle points selection. During this mode you can select multiple nodes of the selected object. When we are moving, all nodes are moved together.

### Selecting input methods

Selection input methods are

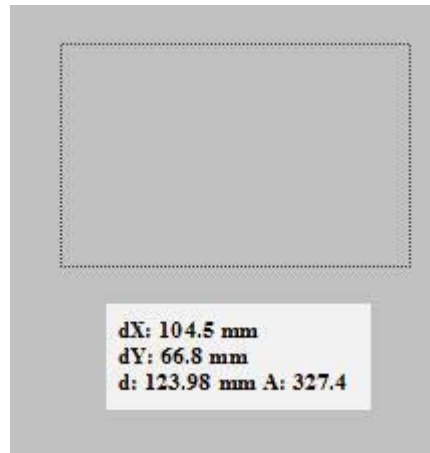
Mouse and keyword commands
Menu commands
Selection through film
Selection for color and stitch types
Selection in play mode

### Select using mouse and keyword

Mouse and keyword are most convenient methods to select various objects or the whole design. Let us first discuss some terms before we continue.

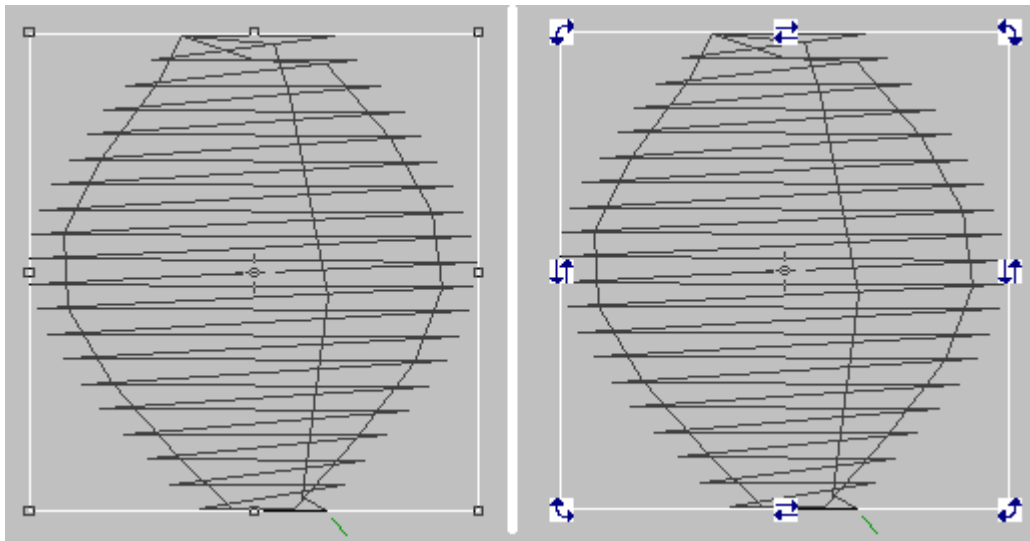
### Rubber band

Click the mouse and drag it on the screen to draw a rectangle. This rectangle is called the rubber band and if we release the mouse this rectangle disappears.



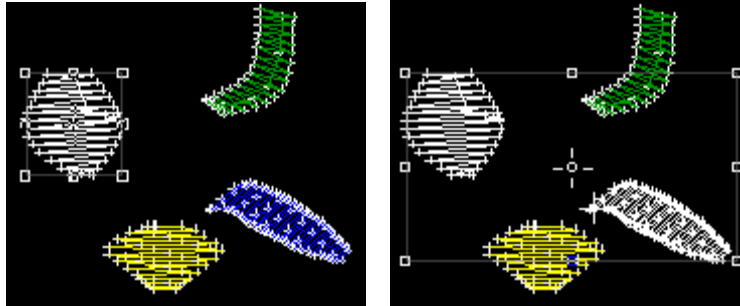
### Tracker and tracker points

Selected objects are bound by the rectangle which is called Tracker. There are eight small rectangles on the boundary of this rectangle and are called tracker points. These are also called handles and help us to do resizing and rotating objects. These handles become rotation points when we click on the selected objects. If we click again on the selected objects these handles come in resizing mode.



### To select objects by pointing & clicking

Click on the object you want to select. As shown above, trackers will appear around it. Moving to another object and clicking on it will deselect the previous object and will select the object clicked. To select both the objects click on the first object, hold down Ctrl and click on the other object.



### To rubber band selection

Click and drag the mouse on the objects we want to select. Make sure all the object falls within the rubber band. All of the objects that are completely within the rubber band will be selected. When selecting objects, if you hold the "Shift" key you can add or remove items from the selection. Similarly if you hold "Ctrl" key you can simply add or remove items from the selection by clicking on the objects.

### To select objects with Polygon Select

- 1 Click the Polygon Select icon.
- 2 Draw a polygon around the object/s you want to select.
- 3 Click right mouse button

All the objects completely within the polygon outline will be selected.


### To keyword selection

We can use keyword shortcut keys as well as Icons on the selection toolbar as well as from Edit menu to do selection.

	Select All	Ctrl + A	Select All the objects on the screen. Hidden objects, fixed objects, backdrops and user guide objects are not selected.
	Unselect	U	Unselect all the objects.
	Negate Selection		Unselect the selection and select the unselected objects on the screen. Hidden objects, fixed objects, backdrops and user guide objects are not selected.
	Select Next Object	<TAB>	Select next object after the current selection
	Select Previous Object	<Shift> +<TAB>	Select previous object before the current selection
			Used for single select



## Selection all


You can select all the objects on the canvas by pressing CTRL + A, alternatively you can also press selection all icon () to selection all objects.

## Exclude selection

With this option we exclude the selected objects and include the unselected objects.

Invoke exclude selection icon () to perform exclude.

## Clear selection




Press clear selection icon () to clear the selection list. This is required when you want to see the flow (see space) of the machine.

## TAB

Pressing <TAB> or clicking on the Tab Icon () will select the next object. Pressing Shift + <TAB> or clicking on the Shift Tab Icon () will select the previous object. Note: CTRL + TAB will go to next design.

## Keep on single select

This is a good feature for editing and polishing objects one by one. Press Keep on Single

Select Icon () to toggle this feature. Now pressing <TAB> or clicking on the Tab Icon () will hide the current object and select the next object and will enlarge it to the whole screen. Similarly the Shift Tab Icon () will show the previous object.

## Arrow keys

Arrow keys are used to move the selection on the canvas. Selected objects are moved by 1cm. By pressing the CTRL Key, selected objects are moved by 0.1mm. By pressing the SHIFT Key, selected objects are moved by 1 mm.

When Points Selection is on, only the nodes move, not the entire object.


When nothing is selected design is scrolled.

## + -

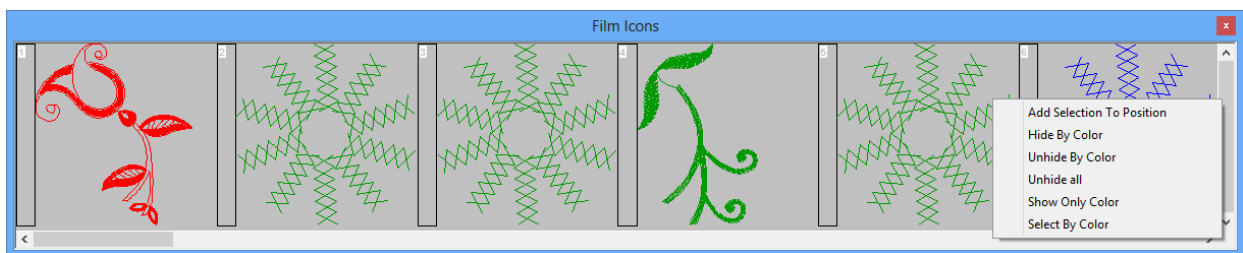
If any object is selected and + is pressed it will push the object towards the end of the document. If any object is selected and - is pressed it will push the object towards the beginning of the document.

CTRL + + will bring the object to the end of the design, and CTRL + - will bring the object to the beginning of the design.

### ***To do selection through film***

Film icon shows the objects created in a sequential way (one after another) in the filmstrip . Clicking on any object in the film will select the object. Shift +click will select all objects from the First or Last selection depending upon the clicked position. CTRL + click will toggle the object selection. Double clicking on any object will display the object in its view by focusing on it.

Film is actually one of the convenient methods to do selection. Scroll the film and click on the object icon to do selection. For range selection click on first object and then hold down Shift key and click on the second object. All objects between the two objects will be selected. We can use CTRL key to remove or add single objects by clicking on them in the film.



**Note:** When you click on the object in the view window, film will scroll to show the clicked object.

### **Shift objects through Film**

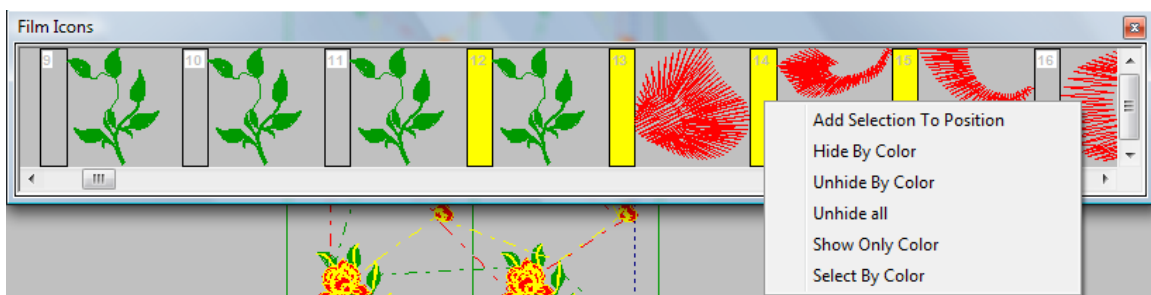
We can shift the object using film either through drag or by selecting a position as follows.

#### **Drag method**

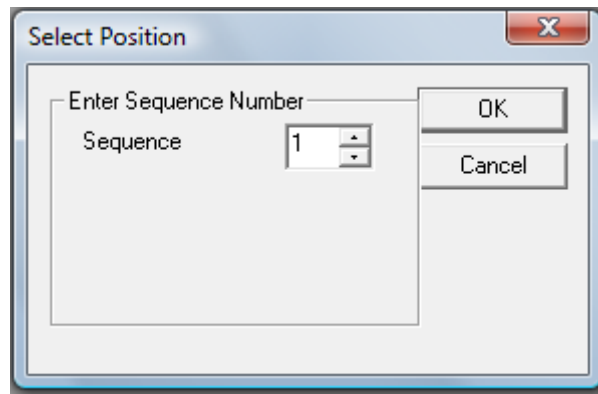
First of all select the objects you want and drag on the film to move to a specified location.

#### **Position method**

First of all select the objects you want to move to a specified location, right click on the film, a menu “Add selection to Position” is opened, click on it.



Enter the position where you want to move all the selected objects and press OK.

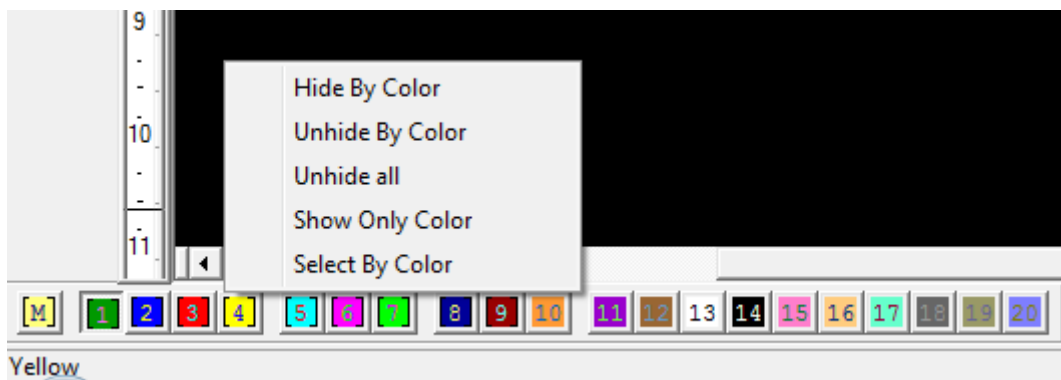


To do Selection for color and stitch types

**Color:** Selection is made easy for colors in Evx.

With <SHIFT> key pressed clicking on any color will select that color.

Right click on the color in the color pallet to do the selection operation for the color.



Selection by multiple colors is invoked from "View > Select by colors". We can drag on the colors to do selection for various colors.

**View By Color** [X]

Thread:	Code:	Brand:	Description:	Thickness:
01	00		Dark Green	
02	01		Blue	
03	02		Red	
04	03		Yellow	

OK  
Cancel

Selection Type

☐ Previous To Current Selection
 ☒ Select All
 ☐ From Current Selection

Maximum Selection Allowed/Color:  (0 zero means no limit)
 ☐ Donot Select
 ☒ Ignore Drawing Objects

**Stitch type:** Selection by stitch type is invoked from “View>Select by stitch type”. We can drag on the stitch types to do selection for various types.

**View By Stitch Type** [X]

Sr:	Code:	Description:
01	15	Cross Stitch
02	03	Satin

OK  
Cancel

To do selection in play mode

Play unto stitches and click on “Selection Current”. Evx will select the object being played.

### ***Deselecting objects***

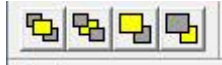
We can easily remove all objects or individual objects from the selection.

To deselect objects

- 1** We can deselect all objects just by pressing U.
- 2** We can also click on an empty area of the design to do this operation.
- 3** Select View > Deselect All to deselect all objects.
- 4** Individual objects can be removed from the selection by holding down Ctrl and clicking on the object to deselect.


## Reposition

Objects can be repositioned on the screen through keyboard commands according to the following Icons:




	Front	Move the object to the front of the document
	Back	Move the object to the back of the document
	Next	Move the object to next position in z-order of the document
	Previous	Move the object to previous position in z-order of the document

## Hide object

Hide Object Tool Icon () will hide the selected objects from the canvas.

### Hide remaining

Select the only objects you want to keep on the canvas and press hide remaining tool Icon .

### Unhide all object


To unhide press unhide all tool Icon () . All the objects will be shown on the canvas.

### Start end point of the object


Start end point for an individual object can be set as follows:

#### Object start point.

Each block is having a starting point. This is the point where the first stitch will start.

Press the start point icon  and click where you want the end point of the block.

#### Object end point.

Each block is having an ending point. This is the point where intelligent fill will end after filling the object. Press the end point icon  and click where you want to make the end point of the block.

### Set starting point/end point of the design

Each Design is auto center for the starting point. Change from Edit-> Set Stating point.

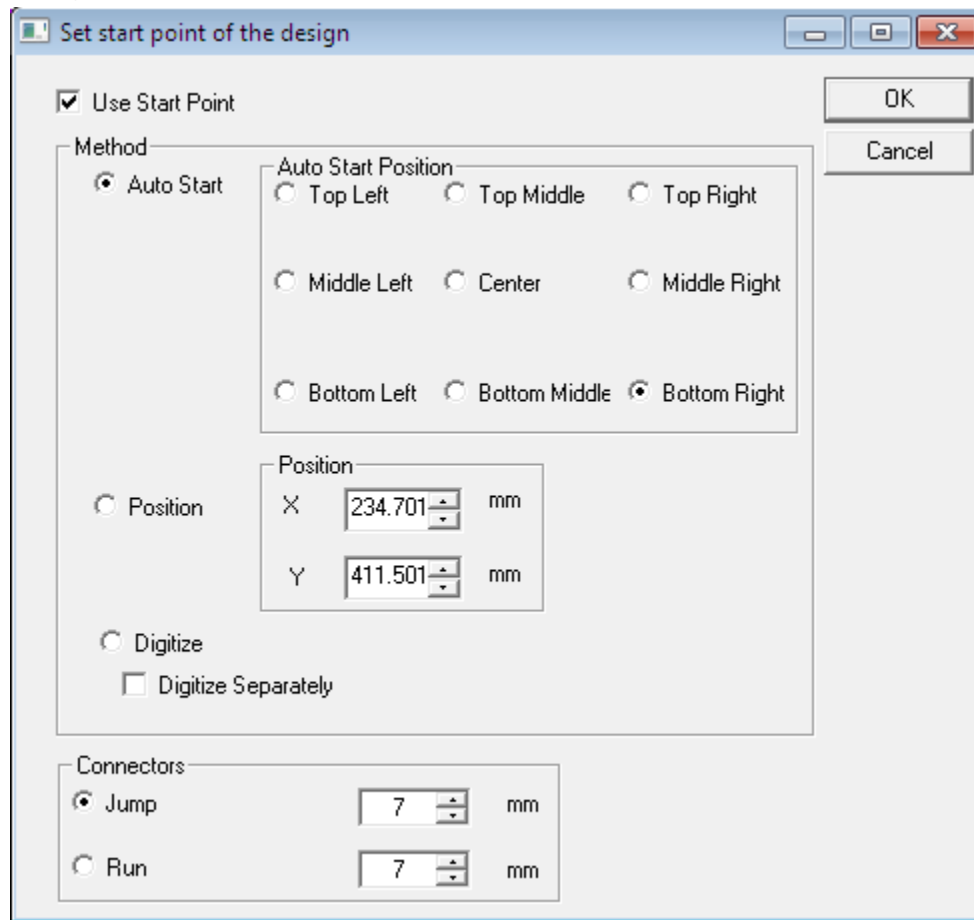


To Set starting point



You can click and then double click the point where you want the starting point. Press <ESC> to set the starting point as center of the design.

Set starting point to auto



Enter your choice and press OK to set the starting point options. Normally we set bottom right as starting point because of machine pantograph.  
We can also digitize the starting point of the design. Once design starting or ending point set it will fixed.

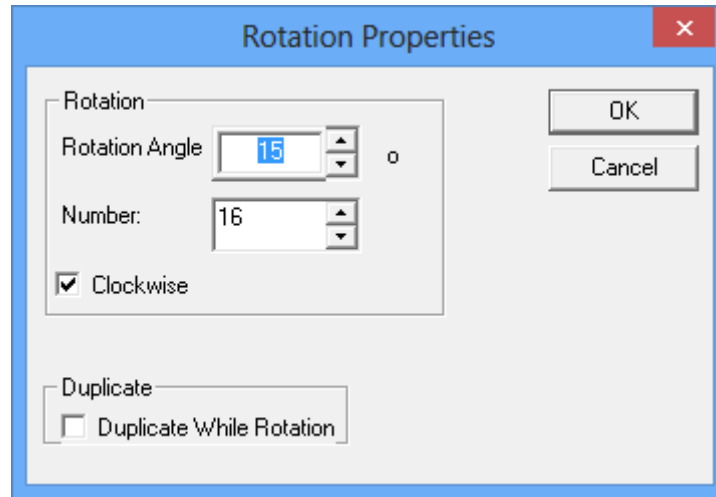
**Note:** You can, in the same manner, set the ending point of the design.


### ***Rotate the object***

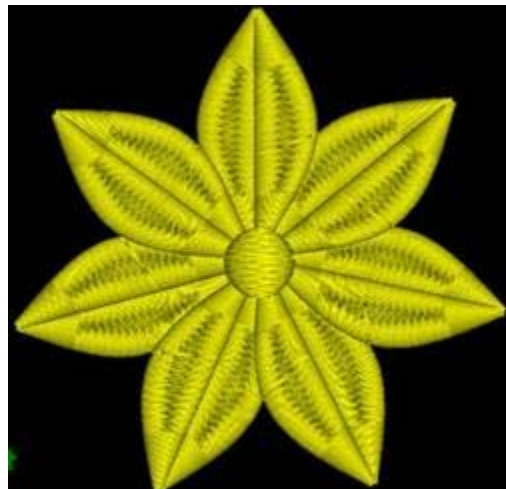


Right click on Icon ( ) to set the parameter for rotation.





Select a single object and move its center point for rotation position and press ().



### ***Transformations***

You can do a lot of transformations on the selected objects. Select an object and press A to do the transformations.

Object Size

Shift Position

Shift X:

-40.15

mm

Shift Y:

-370.5

mm

☒ Shift Relative To Start Point

OK

Cancel

Dimensions

Width

Original

79.7

Percentage:

100

%

79.70

mm

Height

Original

57.4

Percentage:

100

%

57.40

mm

☒ Percentage Proportion

Transformation

Mirror

☐ In X:
☐ ToLeft
☐ In Y:
☐ ToTop
☐ Mirror at same place

Rotation

Angle (degrees):

0

o

☐ Clockwise

Skew

Angle (degrees):

0

o

☐ Anti Clockwise

☐ Apply to Duplicate
☐ Use Bare Raw Transformation

## Viewing designs

We have completed explaining how to select various objects in the design; next step is to go deep into designing objects. Some objects are very large and some are very small. Evx understands the need of the punchers, and provides zooming feature. Beside that Evx also provides features like actual view and also has the mechanism to see how the design will travel stitch by stitch. Evx color management helps its users to see designs with the colors of their choice. Hiding objects helps Evx users to hide the finished objects and concentrate on new objects.

### Zoom

Zoom input methods are

Mouse and keyword commands
Menu commands
Toolbar Icon

## Zoom using mouse and keyword

Mouse and keyword are most convenient methods to do zooming in the design. Every time we perform a zoom operation its current zoom is preserved. It means that we can go back to previous zoom position after a zoom operation. Zooming does not change the object or design properties and hence zoom operations are not part of undo/redo operations. Let us first discuss some terms before we continue.

### Rubber band

Click the mouse and drag it on the screen to draw a rectangle. This rectangle is called a rubber band and if we release the mouse this rectangle disappears.

### To zoom to previous zoom

Zoom to previous zoom is provided in context menu. If we have performed a zoom operation, just double clicking the right mouse button will take us to the previous zooming position.

### Zooming in/out using mouse

1. Click the right mouse button in the area of your interest and release it to start zoom in operation.
2. Press the left button and drag the mouse to the zoom area and release the mouse to zoom in the dragged area.

**Note:** Double click right button will bring us to previous zoom position.

### Zooming in/out using keyboard





1. Shortcut key “Z” command will do zoom in operation in the design.
2. Shortcut keys “Shift + Z” command will do zoom out operation in the design.

### Zooming in/out using menu

Zoom in and zoom out operations can also be performed from View>Zoom in and View>Zoom out menu commands.

### To zoom using Icons

Zooming is available with the following Icons:

	Zoom in	This tool allows you to zoom into the design document.
	Zoom out	This tool allows you to zoom out of the design document.
	Zoom actual	This tool allows you to zoom to the actual size of the design document.
	Zoom selection to maximum	This tool allows you to zoom in the selection to screen size.




Zoom selection  
to 90%

This tool allows you to zoom in the selection to 90% size of the screen size.

### ***Full screen view***




Full screen view or stitch preview Icon (  ) is used to show the stitches in the whole screen. You can click the mouse or Key 'P' to go back to normal view.



### ***Whole design view***



Whole design view Icon (  ) is used to show the whole design on the screen. It will try to zoom in/out to fit the design on the whole screen.

### ***Show Repeat (Show head to head)***

This command display the entire design repeated for second and subsequent heads on the screen. Show Head to Head parameters are shown in the following dialog box:


**Show Repeats** ✕

☒ Show Repeats

<p>Horizontal Repeats</p> <p>Number X: <input type="text" value="3"/></p> <p>Distance X: <input type="text" value="300"/> mm</p>	<p>Vertical Repeats</p> <p>Number Y: <input type="text" value="1"/></p> <p>Distance Y: <input type="text" value="300"/> mm</p>
--	--

<p>Machine Type</p> <p>Size: <input type="text" value="Hiraoka 27.08"/></p> <p>Gage: <input type="text" value="-- None --"/></p>	<p>Thread color offset: <input type="text" value="10"/></p> <p>Sequin Color offset: <input type="text" value="0"/></p>
--	--

To Show repeat

1. Show repeat is a toggle command on how to show repeat icon (). Shortcut key is ALT + w.



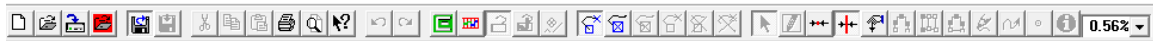
Middle portion of the above picture is the design with its original attributes. First and last portions are with the color changes and depict that these are made with other heads.

## Toolbars




In this section we will discuss the toolbar commands. The toolbars are displayed on the screen and there buttons are ready to accept commands. In this way, just by clicking on the toolbar button, we can execute commands immediately. In case a button is grey out, it means the command is disabled for selected objects or the entire design. The commands are enabled or disabled based on the selection criteria.

















### ***Standard toolbar command***

Standard toolbar is a tool for windows commands.



Standard Toolbar has the following buttons:

	New	By pressing New Icon you can create a new design document. When you create a new design, save it with a new name. See Saving designs for details.
	Open	By pressing this button you can load an existing design document.
	Save	By pressing this button you can save the current design document. In case the design document was never saved before, the program automatically calls the "Save as" dialog.  To save a document in a different location or format, use the save as procedure below.
	Recent files	By pressing this button you can open most recent files.
	Import File	By pressing this button you can import files of different formats.
	Write Disk	By pressing this button you can generate the stitches in the dst format on the selected floppy location.
	Cut	Removes selected data from the document and stores it on the clipboard.
	Copy	Copies the selection to the clipboard.
	Past	Inserts the contents of the clipboard at the insertion point.
	Print	Prints the active document.
	Print preview	Print previews the active document.
	Content Sensitive	Content Sensitive help
	Undo	By pressing this button, you rollback the previous action on the







		document.
	Redo	By pressing this button, you reapply the previous undo command.
	Evx-Explorer	Launch Evx-Explorer to view the thumbnail of designs.
	Film	Toggle the film
	Lock	Toggle the lock stitches.
	User Lock	User defined locks while Branching (Joining).
	Node Selection	Toggle the node selection. When this option is on, you can select multiple node points of the object and then drag to reshape them.
	Fix Start End Point	Fix Start point at first node position and End Point at last node position in the global setting.
	Fix Start End Point	Fix Start point and End Point at first node position in the global setting.
	Toggle Drawing	Toggle drawing object shape of the outlines.
	Fix Start End Point	Fix Start point and End Point at first node position of the selected objects.
	Fix Start End Point	Fix Start point at first node position and End Point at last node position of the selected objects.
	Remove Start Point	Remove Start Point of the selection.
	Remove End Point	Remove the end point of the selection.
	Selection	This is selection tool. When on, you can select various objects on the canvas to move them around.
	Snap To Point	While punching snap to the point on which you are moving the mouse.
	Manual Stitch	Punched line object will be filled with manual stitching.

### **Block tools**

There are many drawing block tools to construct a block. A block so made can be filled later on with any type of fill.











	Single	Single tool allows you to create a single Bezier outline. This outline is usually used for filling Tatami in the closed area.
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	Dual	This tool allows you to create two outlines side by side with direction of fill attached to each node point. This is used to fill satin.
	Dual Sides	Punch first side and then Other side of the object.
	Append	Append the selected object to add more nodes to it.
	Show Design Info	Show Design Information, design stitch, thread used etc.
	User defined Center point	Used in star fill to move the center point of the object.
	Zoom size	This is the zoom size of the design.




















### ***Fill types tool***





Following Fill type toolbar is used for creating various types of fills inside the outlines.



	General	This tool allows you to change general parameters of Objects.
	Sequin	This tool allows you to change sequin parameters of Objects.
	Satin	This tool allows you to create a Satin fill for the outline. If the outline is a single outline it will be filled with Satin with the fixed direction defined for direction of fill.
	Tatami	This tool allows you to create a Tatami fill for the outline. If the outline is a single outline it will be filled with Tatami with the fixed direction defined for direction of fill.
	Zigzag	This tool allows you to create a Zigzag fill for the outline. If the outline is a single outline it will be filled with Zigzag with the fixed direction defined for direction of fill. In case of outline ellipse, it will be filled with star-like stitches.
	Star Fill	This tool allows you to create a Star type fill for the circular objects. It will be filled with star-like stitches.
	E-fill	This tool allows you to create an E-Fill fill for the outline. If the outline is a single outline it will be filled with E-Fill with the fixed direction defined for direction of fill.
	Line	This tool allows you to create a Line fill for the outline. Line fill optionally













		has the parameter to fill as manual fill.
	Central	This tool will create two outlines of the single punched outline. These virtual outlines will be used to create the desired fill.
	Alpha	This tool is used to create alphabets fill on the outline punched.
	Program	This tool allows you to create a Program fill for the outline. If the outline is a single outline it will be filled with Program with the fixed direction defined for direction of fill.
	Piping	This tool is used to create piping fill on the outline punched.
	Cross Stitch	This tool is used to create Cross stitch fill on the outline punched.
	Motif	This tool allows you to create a Motif fill for the outline. If the outline is a single outline it will be filled with Motif with the fixed direction defined for direction of fill.
	Ripple	This tool is used to create Ripple fill on the outline punched.
	Water fill	This tool is used to create water fill impression on the outline punched.
	Jall Fill	This tool is used to create Jall fill on the outline punched.
	Stipple	This tool is used to create Stipple fill on the outline punched.
	Underlay	This tool is used to put additional pre fills to the design called underlay.
	Show Head to Head	This tool shows the design repeated for second and subsequent heads.
	On the Fly Rotation	This tool allows the objects to rotate about the mouse point. Press + - to increase no of copies to increase or decrease.
	On the Fly Array Fill	This tool allows the objects to Place in the array to the mouse point. Press + - to increase no of copies to increase or decrease toward X side. Shift +- will increase/decrease towards Y side.
	On The fly Satin	This tool allows the objects to create a satin object from a line object around a circle created on the fly about the mouse point.
	Rotation	This tool allows the objects to rotate about the rotation point.
	Add Border	This tool allows the user to add a border around the selected objects.
	Input Start Point	Input the start point of the selected object with mouse.
	Input End Point	Input the end point of the selected object with mouse.


	Properties	This tool allows the user to set selected objects as hole, stop line objects, Ripple edge, pattern etc.
	Place On line	Place On line tool allow the user to place the objects on a line. Rename the line object with –N N=1,2,3 etc. Select other objects to be placed, and click this object.
	Spiral parameters	Change the parameters of the spiral object.
	Show Arrai	Show Arrai, doorri, coiling for objects.

### ***Play mode***

Following play mode toolbar is used for traveling stitches of the design. Home key can be used to start the first stitch. Pg-up and pg-dn keys can be used to goto next color or previous color of the design.

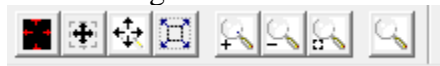










	Traveling/Pausing Stitch	This tool allows you to traveling/pausing the stitches on the screen
	Skip To previous Object	This tool allows you to travel to previous available object.
	Skip To Next Color	This tool allows you to travel to next available color.
	One Stitch forward	This tool allows you to travel one Stitch forward till you release the mouse and keep the mouse position on same icon used to travel stitches one by one
	Ten Stitch forward	This tool allows you to travel Ten Stitches forward till you release the mouse and keep the mouse position on same icon used to travel stitches Ten by Ten
	Thousand Stitch forward	This tool allows you to travel Thousand Stitches forward till you release the mouse and keep the mouse position on same icon used to travel stitches Thousand by Thousand
	Reverse Direction	Same as above but in reverse directions.
	Skip To previous Color	This tool allows you to travel to previous available color.
	Skip To previous Object	This tool allows you to travel to previous available object.
	Travel to last stitch	This tool allows you to travel to Travel to last stitch of the design.

	Exit Travelling	This tool allows you to Exit Travelling. You can press <ESC> to this operation.
---	-----------------	---

## Zoom

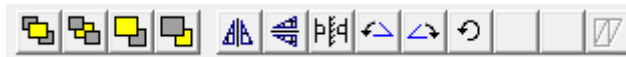
Zooming is available with the following Icons:













	Full screen view	Stitch preview Icon is used to show the stitches in the whole screen. You can click the mouse or Key 'P' to go back to normal view.
	View Whole Design	This tool allows you to view whole design on the screen.
	Zoom in Fill	This tool allows you to zoom in the selection on whole screen.
	Zoom Selection to 90%	This tool allows you to zoom in the selection to 90% size of the screen size.
	Zoom in	This tool allows you to zoom into the design document.
	Zoom out	This tool allows you to zoom out of the design document.
	Zoom actual	This tool allows you to zoom to the actual size of the design document.
	Zoom Mode	This tool allows you to start zoom the design document.

## Reposition

Objects can be repositioned on the screen through keyboard commands using the following Icons:






	Front	Move the object to the front of the document
	Back	Move the object to the back of the document
	Next	Move the object to the next position in z-order of the document
	Previous	Move the object to the previous position in z-order of the document
	Mirror Horizontal	Mirror the selected objects to Mirror Horizontally (Shortcut key being Q)

	Mirror Vertical	Mirror the selected objects to Mirror Vertically (Shortcut key being ALT + Q)
	Mirror At Line	Mirror the selected objects to a line. If clicked on two nodes drawing object, All selected objects will be mirrored on drawing object. This is very helpful in mirroring the design.
	Rotate 45 degree Anti Clockwise	This command will Rotate 45 degree Anti Clock, all the selected objects
	Rotate 45 degree Clockwise	This command will Rotate 45 degree clockwise, all the selected objects
	Rotate Object	This command will Rotate all the selected objects by degree set in the parameters of rotate.

### ***Object selection***






Objects Selection is made easy with the following Icons:

	All	Select All the objects on the screen. Hidden objects, fixed objects, backdrops and user guide objects are not selected.
	Unselect	Unselect all the objects.
	Negate Selection	Unselect the selection and select the unselected objects on the screen. Hidden objects, fixed objects, backdrops and user guide objects are not selected.

### ***Machine function***

Various machine functions are performed with the following commands:

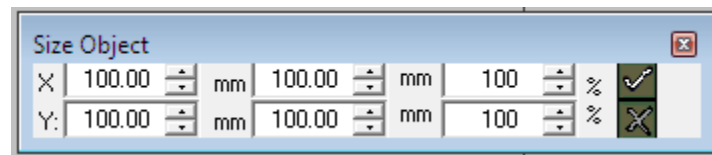




	Trim	Apply the trim function to the selection. This means Thread will be trimmed before stitching this object.
	Stop	Stop the m/c before stitching this object.
	Needle Up	Needle is up from previous object and to next object before stitching this object.
	Frame In/Out	Toggle the frame In/out before stitching this object.
	Borer	Start Borer before stitching this object.

	Appliqué	Apply Appliqué function before stitching this object.
	Low/High Speed	Toggle m/c to low speed.

### **Object Size**

Object size toolbar shows the size of the Design or size of the selected objects. Once objects are selected one can change the size of the selected objects by altering the values and pressing <ENTER> key.



X, Y	Shows the offset values of the objects from center of the design.
Size	Next are the values of the object size in width and height.
%	Percentage values to be entered for change
	Fix the values.
	Cancel the values.

### **Set color**

New objects created during digitization take the current color. A current color can be set by unselecting all objects and clicking on any color on the color toolbar.





























Select the object and press on color in color bar. Selection of any of these will change the color of the object for current selected fill type.

**Note: Doing single color design select all and then applying will make all the objects of the same color.**

## Sequin Pallet commands

In this section we will discuss the Sequin Pallet commands defined on the right hand side of Evx screen.



	Fuse Editing	This function will start Evx in Fuse editing mode. This will help users to toggle sequins on the fly. See Fuse Editing for detail.
	Toggle Sequin In Area	Any sequin under the selected Objects will be toggled (Sequin one will be sequin two and sequin two will be sequin one)
	Remove Sequin In Area	Any sequin under the selected Objects will be removed.
	Apply Sequin In Area	Any stitch in the area under the selected will be applied a sequin.
	Adjust Sequin Count	Adjust no of Sequins in the grammar with respect to length traversed.
	Remove Sequin Under Needle Point	This tool helps us to remove all sequins under needle point in the entire design. This is helpful when we have a large design which is full of sequins.
	Apply Sequin two	Apply Sequin two in the grammar for all selected objects.
	Shrink the Line	This command will make the line exact multiple of stitch length defined in line parameters. This will shrink the line if not fitted in multiples. This is used for sequin lines.
	Set to Left Right	This command will Set the starting point nearest to starting node of the object. If used with <CNTRL> key the operation will be reverse.
	Start Towards start Point	This command will Set the starting node nearest to starting point of the object.
	Change Sequin Grammar	See Change Sequin Grammar Command in detail.
	Tight Stitch	This command will see if any stitch is near to previous stitch of the same object, it will make this stitch exactly on the previous stitch. This helps us making all nearby stitch at the same point. Helps full for sequins designs where curves may deviate the stitches.
	Sequin	This tool helps us to put sequins in digitizing mode or in node editing mode on the node points. You can perform this command by pressing point sequin icon
	Hide Sequin	This tool helps us to hide/show sequins. You can perform this command





		by pressing point sequin icon.
	Show Stitch Position	This tool helps us to put manual stitches over sequins in digitizing mode or in node editing mode on the node points.
	Transparent Sequin	Toggle Transparent Sequin Mode.
	Convert Twine Sequin to Single Sequin	This command will Convert Twine Sequin to Single Sequin
	Join Neighborhood	This command will Join Neighborhood objects and make them a single object
	Remove Dst Style	This command will remove the hanging style from the DST objects and create a object in which one can change properties of object
	Create Sequin Object	This command will create a object in which one can change properties of object
	Join Objects Serially	In Node editing this command will join objects to form a single object
	Join Dst Objects Gracefully	This command will Join Dst Objects Gracefully.
	Update Dst Underlay	It will increase the length of the run segment in Dst object.
	Create Dst To Objects	This command will convert Dst Objects to punching objects.
	Attach Neighborhood	This command will attach Neighborhood objects if they are very near to each other.
	Nearest Last Stitch	Set start point to the nearest last point stitch.

## Fuse Editing

This tool helps us to change sequins on the fly by clicking and then dragging the mouse on the screen. By default the mode is toggle sequin. On the fly area are generated with SHIFT, ALT and CTRL keys. SHIFT key used for boundaries. ALT key generates Circles and CTRL key generates the line segments. If toggle key is pressed again fusing modes comes to default mode.

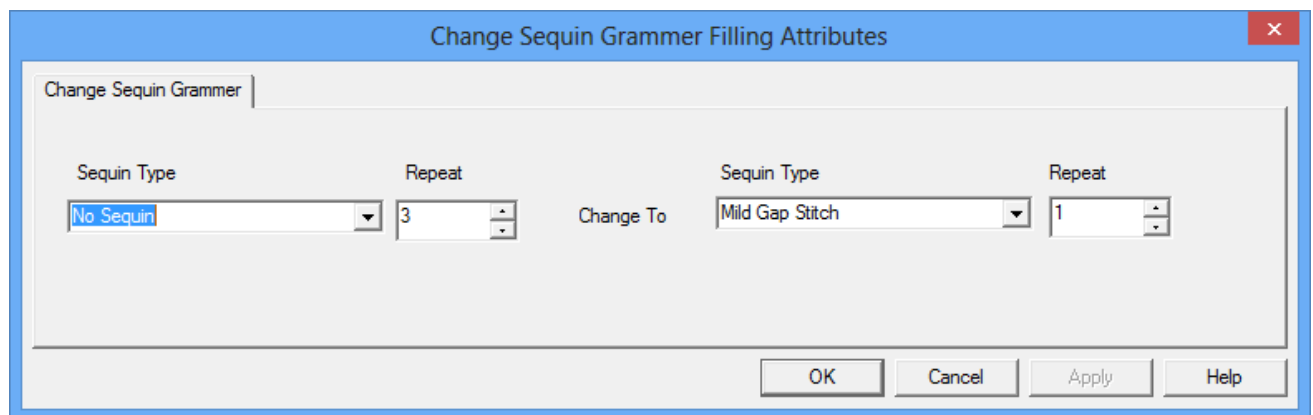
Other Modes are as follows:

	Toggle	While in this command dragging on the screen will toggle sequins
	Erase the sequin	While in this command dragging on the screen will remove sequins

	Insert Sequin	While in this command dragging on the screen will put sequins on stitches
	Sequin 1	Change sequins to sequins 1.
	Sequins 2	Change sequins to sequins 2.
	Space Sequin	This command will toggle the sequin 1 and space.






### Change Sequin Grammar

This tool helps us to change sequins grammar of selected objects in one short. Sequin type drop down shows the type of sequin commands one want to change. Repeat is the occurrence of the command. Change to sequin type and repeat as above.










### View features

These commands describe about showing/hiding various features of the design.

	Selection up to cursor	This tool helps us to display stitches in play mode to clicked point. If this tool is unchecked then only you can select the objects in play mode.
	Tabs Tool	This tool used to see sequences(tabs) of objects on the screen.
	Find Next Function	This tool helps us to find next function in design. This is in play mode.
	Hide Jump Points	This tool helps us to hide jump point in the design
	Show Hide Connectors	This tool helps us to show/hide connectors between various objects in the design.



	Hide Point Traces	This tool helps us to show/hide the node points of punching of the objects in the design.
	Hide Start End Point	This tool helps us to show/hide start/end points of the objects in the design.
	Hide Traces	This tool helps us to show/hide the traces of punching of the objects in the design.
	Actual View Stitches	This tool helps us to toggle the actual view in 3D or plan view on whole screen.
	3D View	This tool helps us to toggle 3D View of the stitches on the screen.
	Toggle Hide Filling	This tool helps us to toggle show/hide the stitches of the objects.
	Show Outline	This tool helps us to toggle show/hide the outline of the objects.
	Hide Needle Points	This tool helps us to toggle show/hide the needle points of the stitches of the objects.
	Show Hidden Outlines	This tool helps us to toggle show/hide Hidden Outlines of the objects.
	Show stitches	While in node editing use this tool to show or hide stitches.
	Show Last Stitch	This tool helps us to toggle show/hide Show Last Stitch of the design.
	Start End Point Image Toggle	This tool helps us to toggle Start End Point Image of the design.
	Measurement Tool	This tool helps us to toggle Measurement Tool while punching.
	Machine Codes	This tool helps us to toggle Machine Codes on the screen.
	Display Borer	This tool helps us to toggle Display Borer on the screen.
	Sound On/Off	This tool helps us to Sound On/Off while punching.
	Find Short Objects	This tool helps us to Find Short Objects in the design.
	Snap To Guides	This tool helps us to Snap To Guides while punching. While punching if cursor is near to guides, it will be on the guilds.
	Unhide without selection	This tool helps us to Unhide objects, without selection when using show by colors or unhide objects.
	Show/Hide	This tool helps us to toggle Show/Hide Drawing Objects on the screen.











	Drawing Objects	
	Show/Hide Image Objects	This tool helps us to toggle Show/Hide Image Objects on the screen.



















### ***Pallet commands***














In this section we will discuss the miscellaneous commands defined on pallet on the right hand side of Evx. Commands are basically defined in three zones. First zone is basic commands and operate basically on objects and they are, in a way, directly related to stitch generation. The commands in second zone are related to stitch processing. And the last zone deals advance commands of Evx.























#### **Basic commands**


















These commands are related to objects and are basic commands to perform on various objects. These operations basically help us to generate stitches.














	Pallet Size	Commands bar pallet is displayed on the right hand side. This can be displayed in one column or two columns.
	Group	Selected objects are formed as a group. They act like a single object. They are moved together. First of all, select all the objects you want to make as a Group. Now press (  ) or Ctrl G to make your selection a group.
	Ungroup	A group is ungrouped to individual objects. They act now as different objects. Select the grouped Object and press (  ). Grouped elements will be now individuals.
	Unstitch	You can use this tool to remove the stitches of the selected filled objects by pressing the unstitch Icon (  ). If you ungroup by pressing ungroup icon (  ) then outline will be available, and you can append right then. Alternatively you can also press <CTRL>+<SHIFT>+W to do this operation. This is required in case you want to append the selection or combine the selection (two or more lines can be joined just by pressing J). This can also be used in case you want to group different objects.
	Branches (Join)	This is a very powerful command to join unlike stitches and seamlessly combine the stitches of unlike objects. This tool combines multiple filled objects and then resets their start and end points to minimize the stitches of the combination. Select filled objects and press branch icon (  ) to perform this operation.

	Break Branches (Join)	This command is used to reverse branches (join) command. Select joined objects and press break branch icon (  ) to perform this operation. This will separate all the objects.
	Attach objects	Attach objects is a very powerful command to perform user defined routing of objects. This is activated when you are in play mode. During play mode you can divert the route of the stitches by selecting the object to be travelled next at stitching point and press attach object icon (  )
	Shift and attach objects	This command performs the same act as attach object and it also shifts the object to the current play location and leaves no gap.
	Attach Together	This command performs the attach together all selected objects.
	Shift and attach objects	This command performs shift and attach all selected objects.
	Adjust attachments to nearest point	This command performs Adjust attachments to nearest point all selected objects.
	Detach object	This command will detach the selected objects from the attachments. You can perform this command by pressing shift and detach object icon (  )
	Detach Object With List	This command will detach the selected objects from the attachments as well as all objects attached to this object will also be detached. You can perform this command by pressing shift and detach object icon (  )
	Attach objects	Attach objects is a very powerful command to perform routing of all selected objects. Braches will be attached at nearest first stitch.
	Attach objects end side	Attach objects is a very powerful command to perform routing of all selected objects. Braches will be attached at nearest last stitch.
	Replace Objects	This command will replace all the selected objects with the last one selected. If CNRTL key is pressed, then all the objects will also be rotated as well.
	Add Directions	This command will allow user to add directions in the selected object.
	Node Editing	After you have digitized your designs, you may need to do some editing to it. Node editing tool is a tool to do so and can be invoked by pressing edit node point icon (  ) or pressing <N> will display the outline node. Select any object by clicking on it or by pressing <TAB> and then move the node

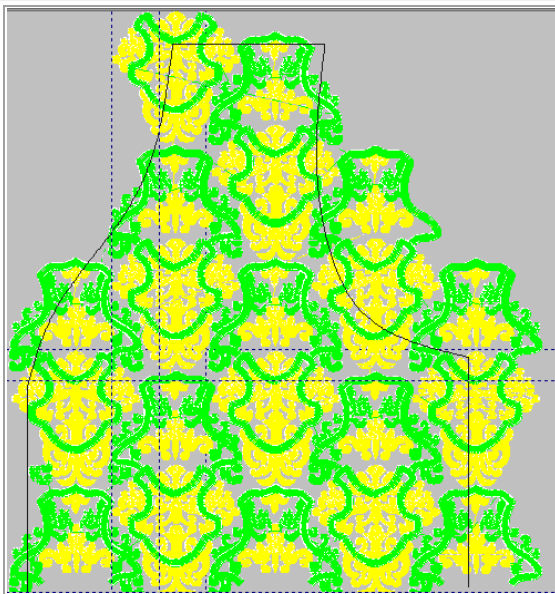
		<p>points by dragging.</p> <p>Move the mouse near to the node point, mouse pointer will change the shape to a cross anchor. Clicking the mouse and dragging it will move the node to the new location. Also shape of the object is also changed. Once finished, press the right mouse button to fill the objects.</p> <p>After finishing, you can press the same tool to come out of node editing.</p> <p><b>Note:</b> Node editing is a single process and commands in node editing are combined for undo and redo.</p>
	Select within polygon	This tool helps you to do selection of objects falling in the digitized polygon.
	Knife Tool	This tool helps us to cut stitches in the DST file. All the stitch lines will be broken by the digitized boundaries.
	Detach Fill	This tool helps us to separate the stitches and out line.
	Detach Outline	This tool helps us to separate the stitches and the outline is deleted.
	Process Stitches	This tool helps us to increase or decrease the stitches in the DST file. Please see stitch process chapter for details.
	Process DST Width	This tool helps us to increase or decrease the width of a DST design. Please see stitch process chapter for details.
	Remove Small Stitches	This tool helps us to remove small stitches in the DST file or the punched design. Please see stitch process chapter for details.
	Remove Small Nodes	This tool helps us to remove small nodes in the punched design. Please see stitch process chapter for details.
	Direction of Fill	Set the direction of fill of the selected block (⌚). Drag the mouse, the direction will be displayed on the screen. Right click to terminate the tool. Refilling the object, we will see the direction of fill is changed.
	Close/open Shape	After drawing Bezier or polygon press (⌚) to make it a close/open curve or polygon.
	Selection Within the Objects	This tool helps you to do selection of objects falling in the selected objects.
	Crop Tool	This tool helps one to do cropping of objects with selected objects.
	Straight Tool	This tool will rotate the selected objects Straight Horizontal or Vertical

		(With SHIFT Key).
	Stitch Editor	Select the filled object and press icon (  ). Now you can move the stitches. This is for a minor correction only. If you refill the object this info is lost.
	Reverse Input	Select an unfilled Bezier or polygon and select Reverse Input Icon (  ) to reverse input. This means starting point will be the end point of the Object.
	Reverse Selection	Select objects that you want to be positioned in the reverse order and press Reverse Selection Icon (  ) to reverse Selection. This means last object is now the first object in the punching sequence. If CNTRL Key pressed Objects will only be reversed in selection not in the design.
	Select By	This command helps us to do selection based on many inputs.
	Bitmap Fill	This command helps us to generate Tatami stitches of image in selected rectangle area over a backdrop image.
	Pick Color	This command helps us to change the color of the selected objects to match with the backdrop.
	Pick Color	This command helps us to change the color of the selected canvas objects to match with the backdrop. This will also create different canvas to match with
	Add Object to Canvas	This command helps us to add cross stitched in the underneath canvas with the area of the selected objects.
	Short Stitches	Toggle Short Stitches of the objects.
	Smart Corners	Toggle Smart Corners of the objects.
	Fractional Spacing	Toggle Fractional Spacing of the objects.
	Polygon Operations	
	Union	This will make union operation on selected polygon objects
	Intersect	This will make Intersect operation on selected polygon objects
	Exclude	This will make Exclude operation on selected polygon objects
	Front – Back	This will make Front – Back operation on selected polygon objects
	Back - Front	This will make Back - Front operation on selected polygon objects
	Divide	This will make Divide operation on selected polygon objects

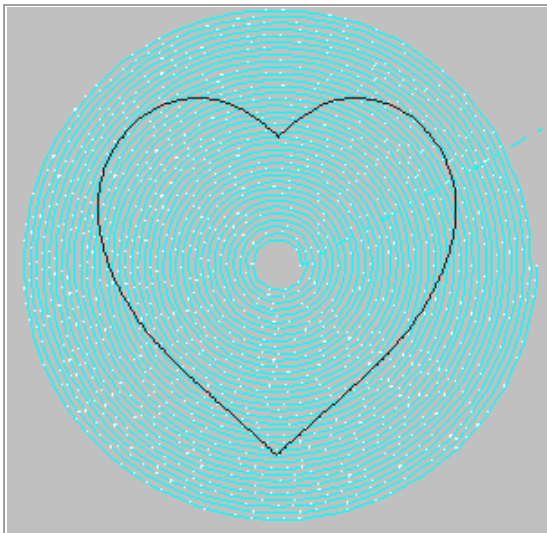
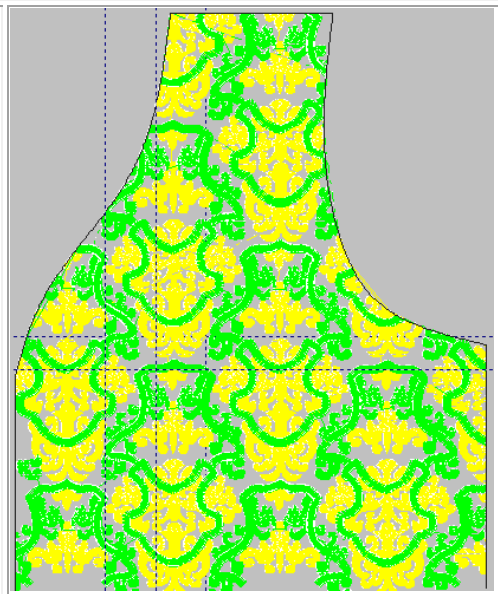
	Flatted	This will make Flatted operation on selected polygon objects
	Combine Objects	This will make Combine Objects operation on selected polygon objects. This means any overlapping in the object itself will be cleared.
	Merge Objects	Merge Objects (CNTRL + T) will make a single boundary of the objects. If second object is central satin object, its both sides boundaries will be merged.
	Remove Overlapping	This command helps user to remove overlapping boundaries of the objects. This is very useful when adding border and then remove overlapped areas.
	Track Object	This command helps user to track the object from dst objects.
	Machine time	This command helps user to now actual time taken by the machine to stitch the design. Various parameters required to get this time.
	Limit color	After reading a DST file if you limit the no of colors it will show the design as punched or it will be stitched.
	Collapse color	This command helps user to bring all the objects with the same color near to each other.
	Convert To Cross Stitch	This command helps user to Convert selected objects to Cross Stitch. If Selected object Area fill type is Patch, it will be added as a patch object in the cross stitch object.
	Shift To Boundaries	This command helps user to Shift the boundary of first select object to boundary of second selected object.
	Fit Eventually	This command helps user to Fit Eventually the selected object. This means a ratio between first object and second object is calculated. Then this ratio is applied to the all objects on itself.
	Add Anchor	This command helps user to add Sequin 9 objects at all the node points so that a user can punch on its boundaries as these will be equal distance.
	Bounds Sides	This command helps user to Bounds Sides of stitches. Area fill types objects as crop fill type used to bound stitches. Crop fill type with reverse will reverse the stitches on boundaries. See Examples Bellow.
	Head selection	This command helps user to do Head Selection of objects. See Examples Bellow.
	Laser Head selection	This command helps user to do Laser Head Selection of objects. See Examples Bellow.
	Envelope	This command helps user to do Envelope of Selection of objects. Envelope is formed around all the selected objects. In Node editing one can change the objects as well as the shape of the envelope. See Examples Bellow.
	Read DST as clubbed	This command helps user to Read DST as clubbed objects of the same color. This will not divide the objects in small sizes.

	Set Next color	This command helps user to Set Next color of the all selected objects.
	Add Bend	All the hard (Corner) nodes of the selected objects will be converted to three points to form a round band.
	Merge Canvas	All selected canvas (Cross stitch) objects will be merged to form a bigger canvas.
	Stretch Points	This command helps user to Stretch Node Points of all selected objects, to become Perpendicular lines.
	Proportional Stitch Length	This command helps user to make Proportional Stitch Length of all selected objects as reference to first object.
	Place me Gracefully	This command helps user to make Place me Gracefully of second selected object on first selected objects.
	Place me Gracefully	This command helps user to make Place me Gracefully of second selected object on first selected objects.
	Fit To Quadrant	This command helps user to make Fit To Quadrant First selected object rest of all selected Quadrant objects. If any of the rest of the objects is two nodes points first objects will be flattened on this object.
	Crop and fit	This command helps user to make Crop and fit selected object rest of all selected Quadrant objects.
	Add Spaced lines	This command helps user to make Add Spaced lines in all selected object. Line will be with alternative color, which will help us to fill different stitch types at a later stage.
	Expend the line	This command helps user to Expend all selected line object. Offset can be changed at Add Border Dialog box.
	Connect Objects	This command helps user to Connect two selected Objects with central satin line object.
	Close on Close Objects	This command helps user to close the object by adding boundary nodes of the closed object.

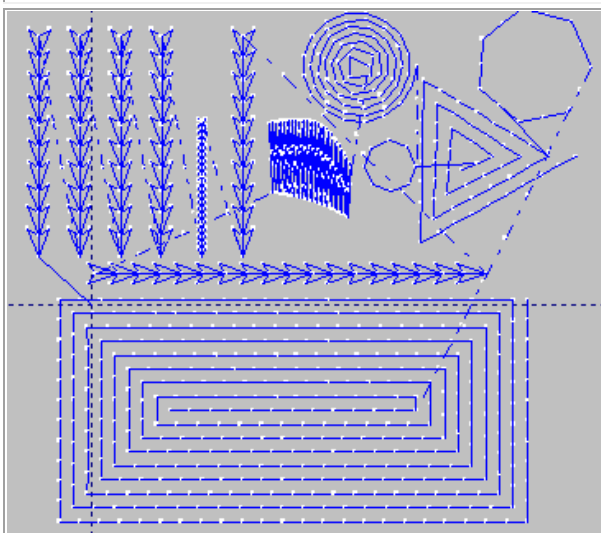
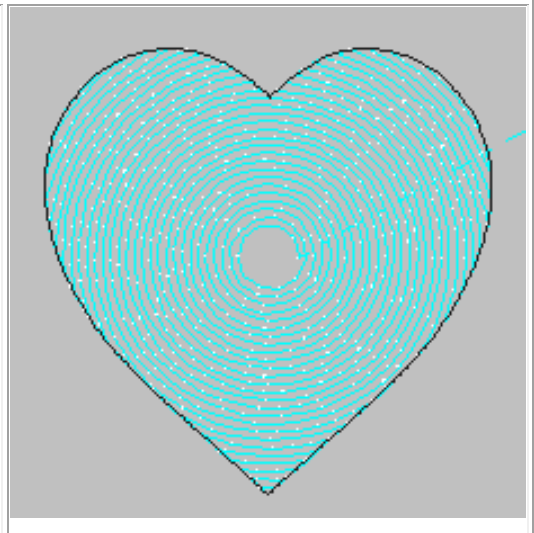




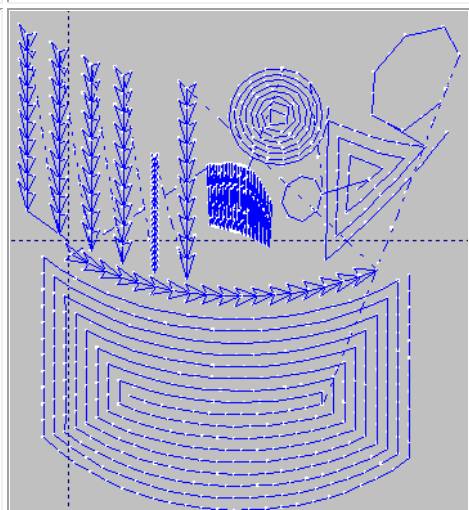
Bounds  
Sides



Bounds  
Sides

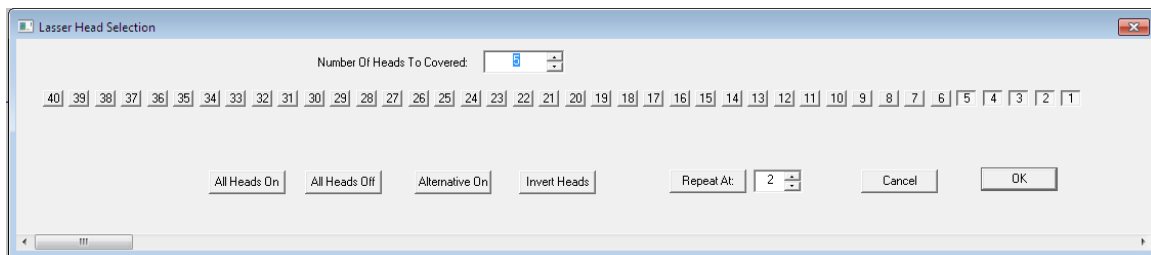
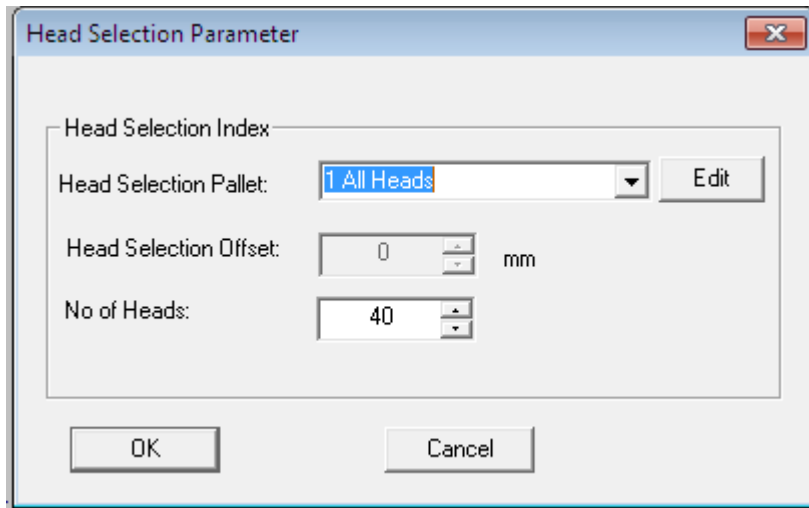


Envelope  
Objects



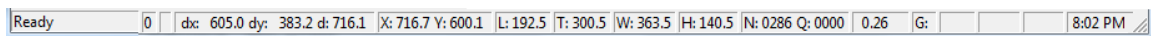


## Head Selection

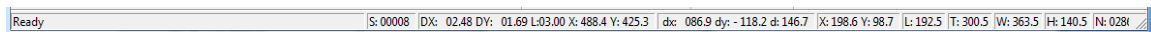


## Status bar

We can see the status of various actions on the status bar. This includes dimensions of the object, stitches of the object, current mouse position and many more.



Status bar shows stitches information in play mode as follows:



S:	Current stitch count
DX:	Distance in x of current stitch
DY:	Distance in y of current stitch
L:	Length of current stitch
X:	Current X position of the stitch
Y:	Current Y position of the stitch
dx:	Mouse distance in x from last clicked position
dy:	Mouse distance in y from last clicked position
d:	Mouse distance from last clicked position
X:	Current Mouse x position

y:	Current Mouse y position
L:	Left position of selected objects
T:	Top position of selected objects
W:	Width of selected objects
H:	Height of selected objects
N:	Number of stitches of selected objects
Q:	Number of sequins of selected objects
G/J:	Selection is group or Joined object.
NNN:	Current zoomed factor
Time	Current time of the system

### ***Miscellaneous commands***

These are the commands which help punchers to perform miscellaneous operations.

#### **Design size**

Design size appears on the status toolbar when no objects are selected. Press A to do any kind of transformation on the design.

#### **Shift Together**

Selected Objects can be brought together by pressing shortcut key CNTRL + T.

#### **Shift (Right to Left) or (Bottom to Top)**

Selected Objects can be brought together from right to left or bottom to top by pressing shortcut key CNTRL + SHIFT+ T. Right or top is based on height or width of the object.

## Digitizing/punching

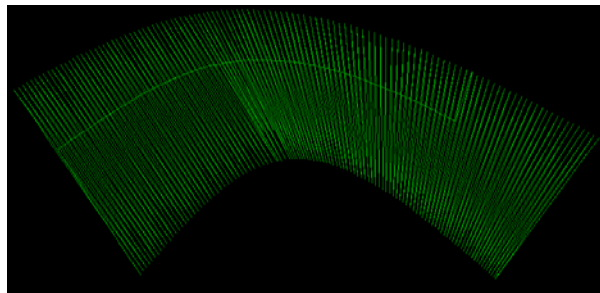
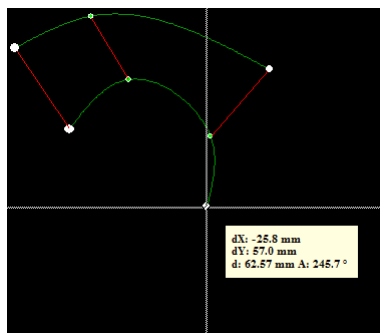
In this section we will discuss how to digitize (punching) a new design.

### Shortcut key for punching




Punching is made easy with shortcut keys. Following table show various shortcut keys.

<i><b>Key</b></i>	<i><b>Description</b></i>
<b>F2</b>	<b>SATIN</b>
<b>F3</b>	<b>TATAMI</b>
<b>F4</b>	<b>ZIGZAG</b>
<b>F5</b>	<b>E-FILL</b>
<b>F6</b>	<b>LINE</b>
<b>F7</b>	<b>PROGRAM FILL</b>
<b>F8</b>	<b>SATIN CENTRAL</b>
<b>F9</b>	<b>ALPHABET</b>
<b>F10</b>	<b>PIPING</b>
<b>F11</b>	<b>CROSS STITCH</b>
<b>F12</b>	<b>MOTIF</b>


Press shortcut key according to yours requirement, and click left mouse button on the screen to create outline. Release the mouse and move to another location and again click the next location and so on. You can stop punching for the current object by pressing right mouse button. Now if you again click left mouse button a second object will be started for punching. If you want to stop punching again press right mouse button, evx will ask for end point of the current objects. Click the point on the screen to specify the end point. If you don't want to specify any end point just right click again. All the objects will be joined together to form a joined group. You can break them apart by pressing <CTRL> + B. You can reshape the objects now by pressing N and when done, press N again to come out of it.



### Bezier/spline dual tool

Bezier/spline/Dual Sides (, , ) dual tool generates Bezier curves going together. At each node point there is a direction with the other line and there are two handles. A handle is used for shaping the curve. Dragging the handles will move the curve along the handle in a stretched way.

## Append tool

Append tool () is used for appending the previous punched outlines. You might have stopped digitizing or you may be inclined to append the already created outline.

## Curve and line

You can toggle the node between a curve and a line by pressing shift and clicking on the node point.

## Circle and line

You can toggle the node between a line or a curve to circle by pressing Alt + X and leave it and then pressing shift and click on the node point. As three points are required to draw a circle, we need to click on the center node.

## Delete node while digitizing/punching

When drawing Bezier or a polygon and at any point of time a node is wrongly punched, press backspace to delete the previous node. Another method is press the shift key and drags the wrong point punched to the desired location.

## Delete node

Select the object and then click on the node point of the object you want to delete and press backspace. The current node point will be deleted. If there are directions associated with this node point, they will also be deleted.

## Insert node, directions

Select the object and press Alt and click on the outline/boundary where you want to insert a node point. Press CTRL key and click on one of the outlines, a direction will be added at the outline with a node.

## Add/delete directions

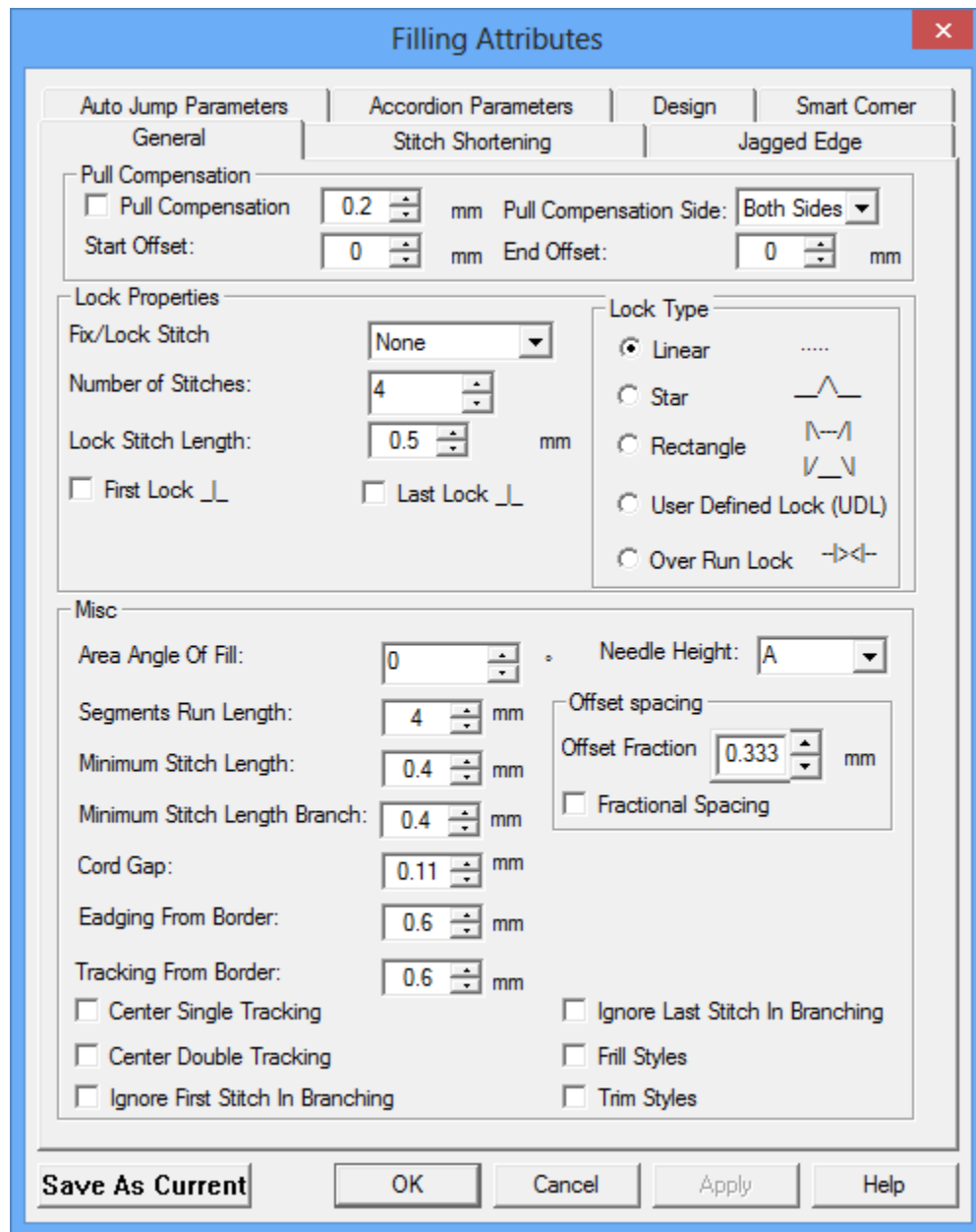
Please see Insert/Delete Node command.

### ***Filling parameters***

There are different parameters for each type of fill. The user can change any fill parameters at any time. All stitching parameters are taken from the current parameters. Current parameters are set when no object is selected and you are setting the parameters. Selecting an object and right clicking on the stitch type icon will open the dialog box for setting the parameters for that object.

### ***General parameters***

General parameters are shown in the following dialog box:



The image shows a software dialog box titled "Filling Attributes" with a blue title bar and a red close button. The dialog is organized into several tabs and sections. The "General" tab is active, showing various parameters for filling. The "Auto Jump Parameters" section includes "Pull Compensation" (checked), "Pull Compensation Side" (Both Sides), "Start Offset" (0 mm), and "End Offset" (0 mm). The "Lock Properties" section includes "Fix/Lock Stitch" (None), "Number of Stitches" (4), "Lock Stitch Length" (0.5 mm), and checkboxes for "First Lock" and "Last Lock". The "Lock Type" section includes radio buttons for "Linear", "Star", "Rectangle", "User Defined Lock (UDL)", and "Over Run Lock", each with a corresponding diagram. The "Misc" section includes "Area Angle Of Fill" (0), "Needle Height" (A), "Segments Run Length" (4 mm), "Minimum Stitch Length" (0.4 mm), "Minimum Stitch Length Branch" (0.4 mm), "Cord Gap" (0.11 mm), "Eadging From Border" (0.6 mm), "Tracking From Border" (0.6 mm), and checkboxes for "Center Single Tracking", "Center Double Tracking", "Ignore First Stitch In Branching", "Ignore Last Stitch In Branching", "Frill Styles", and "Trim Styles". The "Offset spacing" section includes "Offset Fraction" (0.333 mm) and a checkbox for "Fractional Spacing". At the bottom, there are buttons for "Save As Current", "OK", "Cancel", "Apply", and "Help".

**Filling Attributes**

Auto Jump Parameters | Accordion Parameters | Design | Smart Corner

General | Stitch Shortening | Jagged Edge

Pull Compensation

☒ Pull Compensation 0.2 mm Pull Compensation Side: Both Sides

Start Offset: 0 mm End Offset: 0 mm

Lock Properties

Fix/Lock Stitch: None

Number of Stitches: 4

Lock Stitch Length: 0.5 mm

☐ First Lock ☐ Last Lock

Lock Type

☒ Linear ☐ Star ☐ Rectangle ☐ User Defined Lock (UDL) ☐ Over Run Lock

Misc

Area Angle Of Fill: 0 Needle Height: A

Segments Run Length: 4 mm

Minimum Stitch Length: 0.4 mm

Minimum Stitch Length Branch: 0.4 mm

Cord Gap: 0.11 mm

Eadging From Border: 0.6 mm

Tracking From Border: 0.6 mm

☐ Center Single Tracking ☐ Ignore Last Stitch In Branching

☐ Center Double Tracking ☐ Frill Styles

☐ Ignore First Stitch In Branching ☐ Trim Styles

Offset spacing

Offset Fraction: 0.333 mm

☐ Fractional Spacing

Save As Current OK Cancel Apply Help

### Pull compensation value

This is the value (in mm) by which you want to overstretch the stitches.

### Pull compensation sides

This indicates the pull compensation to be applied to sides. (Side 1, Side 2, Or both).


### Start Offset

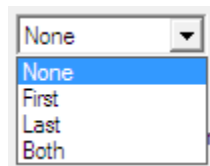
This is the value (in mm) by which you want to overstretch the stitches at start of the object.

### End Offset

This is the value (in mm) by which you want to overstretch the stitches at end of the object.

### Fix/lock stitch

Any object created or filled is automatically locked. Lock icon  is shown as pressed if objects selected are locked. By pressing Lock icon again locked objects are unlocked and unlocked are locked. Stitch locks are of two types: Lock the first stitch and lock the last stitch. These values can be set individually in object properties as shown in the following figure.



Choose the value from the dropdown menu for this parameter.

The choices that you have for this field are:

None	No locking
First	Apply stitch lock at the beginning of stitching this object
Last	Apply stitch lock at the ending of stitching this object
Both	Apply stitch lock at the beginning as well as the ending of stitching this object

### ***No of Stitches***

This is the no of stitches to be applied in locking. Default value is 4.

### ***Lock Stitch Length***

This is the value (in mm) by which one want to use for stitch length of the locked stitches.

### ***First Lock Perpendicular***

If this parameter is checked then First lock will be applied as Perpendicular to the first stitch.

### ***Last Lock Perpendicular***

If this parameter is checked then Last lock will be applied as Perpendicular to the last stitch.

### ***Last Types***

The choices that you have for this field are:

Linear	Linear stitch will go over to the stitching.
Star	Star stitch will go over to the stitching.
Rectangle	Rectangle stitch will go over to the stitching.
User defined Lock (UDL)	User defined Lock (UDL) Style in the styles list will go over to the stitching.
Over run lock	Over run lock used for laser machines and is applied to closed objects. This will stitch extra one stitch in the closed loop.

### **Area angle of fill**

This is the direction of fill for Tatami fill. Choose the value for this parameter.

### **Segment run length**

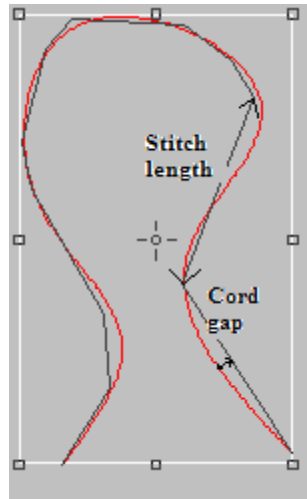
This parameter specifies the stitch length of the tracking segments.

### **Minimum Stitch length**

This parameter specifies the minimum stitch length of the tracking segments. Any segment with less than this length will be counted as a short stitch.

### **Cord Gap**

Cord gap is used to tighten the line segments to the digitized outlines. This is the maximum distance to be allowed between the outline and the stitches. When this value is exceeded the stitch length is reduced to follow the outline more closely.



### Centre Single Tracking

If this parameter is checked then single tracking will be in the center of the stitches.

### Centre Double Tracking

If this parameter is checked then double tracking will be in the center of the stitches.

### Ignore First stitch in branching

If this parameter is checked then first stitch of this object will be ignored in branches.

### Ignore Last stitch in branching

If this parameter is checked then last stitch of this object will be ignored in branches.

### Smart corner

If this parameter is checked then smart corner will be considered in satin for this object.

### ***Stitch shortening***

Stitch shortening parameters are shown in the following dialog box:



Filling Attributes ✕

Auto Jump Parameters

Accordion Parameters

Design

Smart Corner

General

Stitch Shortening

Jagged Edge

☒ **Stitch Shortening**

If Spacing < 50 %

Max No Of Short Stitches 5

Shorten Stitch Length To (%)
 

No Of Stitches	1st Stitch	2nd Stitch	3rd Stitch	4th Stitch	5th Stitch
1	<span style="border: 1px solid #ccc; padding: 2px 10px;">80</span>				
2	<span style="border: 1px solid #ccc; padding: 2px 10px;">85</span>	<span style="border: 1px solid #ccc; padding: 2px 10px;">72</span>			
3	<span style="border: 1px solid #ccc; padding: 2px 10px;">70</span>	<span style="border: 1px solid #ccc; padding: 2px 10px;">90</span>	<span style="border: 1px solid #ccc; padding: 2px 10px;">70</span>		
4	<span style="border: 1px solid #ccc; padding: 2px 10px;">70</span>	<span style="border: 1px solid #ccc; padding: 2px 10px;">90</span>	<span style="border: 1px solid #ccc; padding: 2px 10px;">80</span>	<span style="border: 1px solid #ccc; padding: 2px 10px;">70</span>	
5	<span style="border: 1px solid #ccc; padding: 2px 10px;">70</span>	<span style="border: 1px solid #ccc; padding: 2px 10px;">87</span>	<span style="border: 1px solid #ccc; padding: 2px 10px;">65</span>	<span style="border: 1px solid #ccc; padding: 2px 10px;">83</span>	<span style="border: 1px solid #ccc; padding: 2px 10px;">70</span>

☐ Randomize

Save As Current

OK

Cancel

Apply

Help

### Spacing threshold

Spacing Threshold specifies the maximum spacing allowed as a percentage of the normal stitch spacing. If the spacing between the alternative stitches is less than this value, stitches will be shortened.

### Max no of short stitches

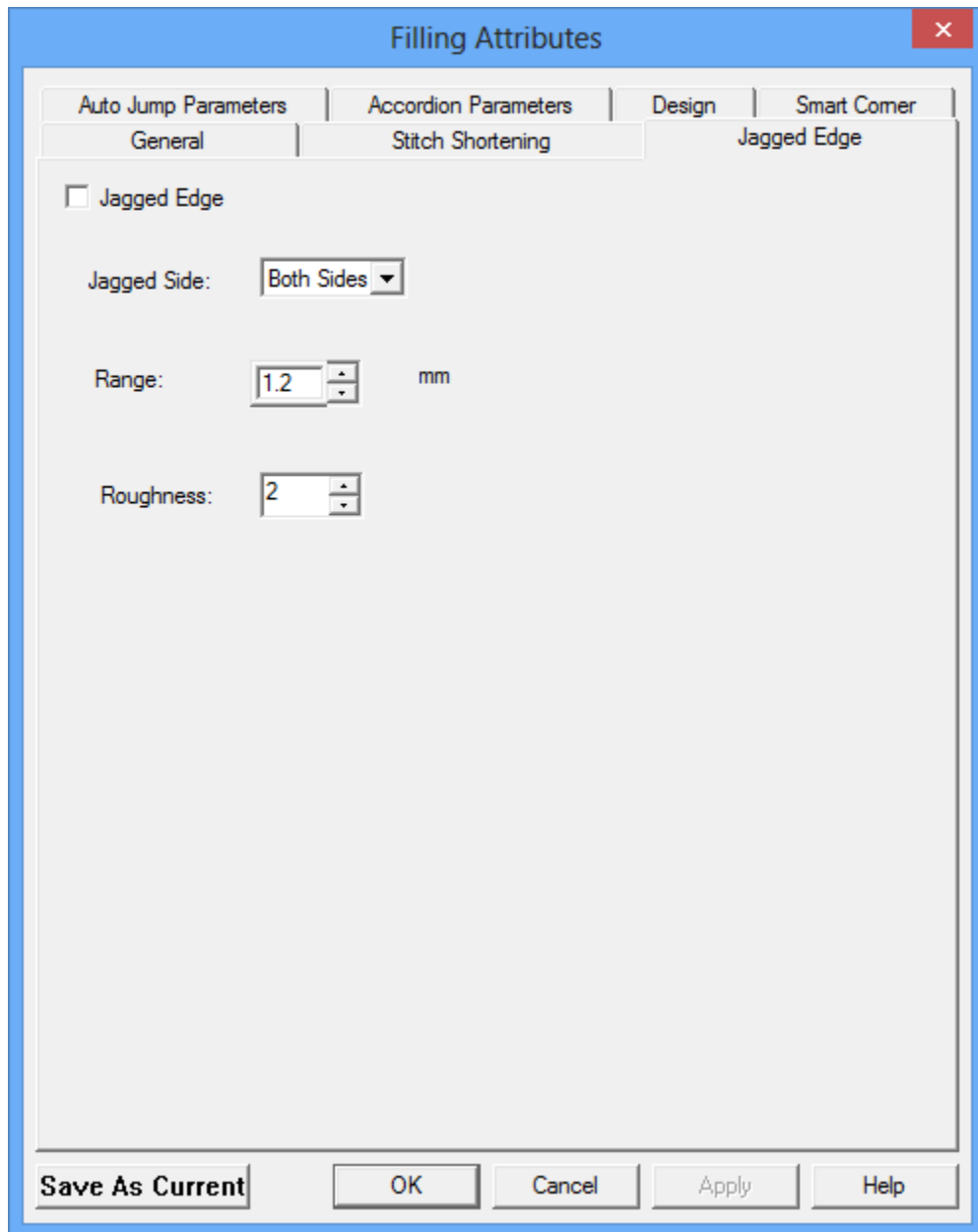
Max no of short stitches is the limit for consecutive shortened stitches. You can specify a maximum of five for this parameter.

## Randomize

Check this value to randomize the shortened stitches. This will reduce unwanted lines appearing on a regular curve.

## ***Jagged edge***

Jagged Edge parameters are shown in the following dialog box:



The image shows a software dialog box titled "Filling Attributes". It has a blue title bar with a close button (X) in the top right corner. The dialog contains several tabs: "Auto Jump Parameters", "Accordion Parameters", "Design", and "Smart Corner". The "Design" tab is selected, and within it, the "Jagged Edge" sub-tab is active. The "General" sub-tab is also visible. The "Jagged Edge" section is currently unchecked. Below this, there are three settings: "Jagged Side:" with a dropdown menu set to "Both Sides", "Range:" with a numeric input field set to "1.2" and a unit of "mm", and "Roughness:" with a numeric input field set to "2". At the bottom of the dialog, there are five buttons: "Save As Current", "OK", "Cancel", "Apply", and "Help".

## Jagged side

Choose the value from the dropdown for a jagged side i.e. both sides, side1 or side2. The choices that you have for jagged are:

Jagged on both sides.
Jagged only on the first side.
Jagged only on the second side.

### Range

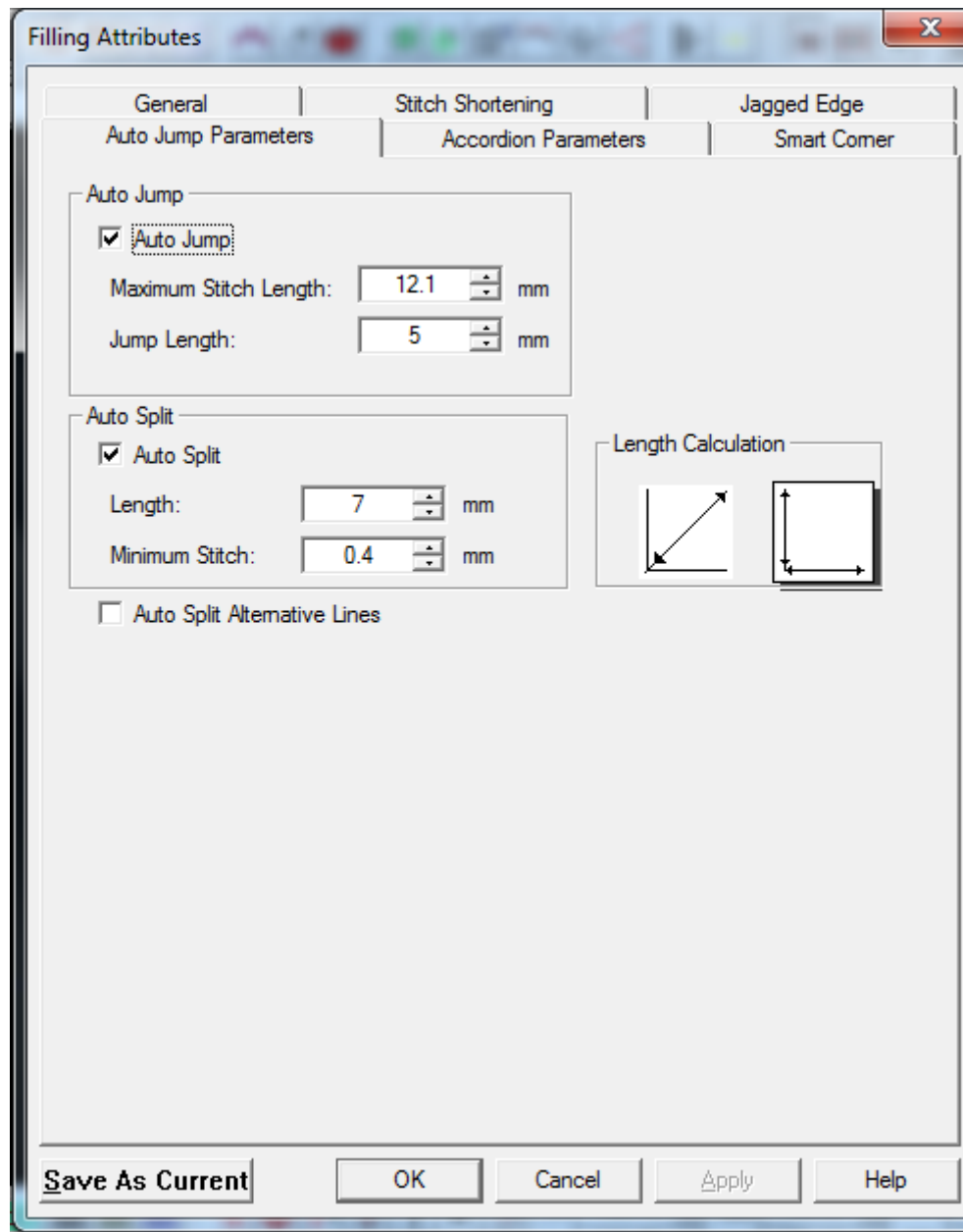
Choose the value from the dropdown for the jagged range. In the Range field, enter the margin in which you want the stitches to fall.

### Roughness

In the Roughness field, enter a value between 1 and 10 to indicate the required degree of jaggedness. Larger the value, the more variation in the stitch length.

### ***Auto jump parameters***

Auto Jump parameters are shown in the following dialog box:



### Auto jump check box

Check this box in case you want to go for auto jump for this object. Long stitches will be automatically broken in to small jump stitches as per parameters.

### Maximum stitch length

This is the length beyond which a stitch will be broken into small jumps stitches.

### Jump stitch length

This is the length to which jump stitches will be generated.

## Length Calculation

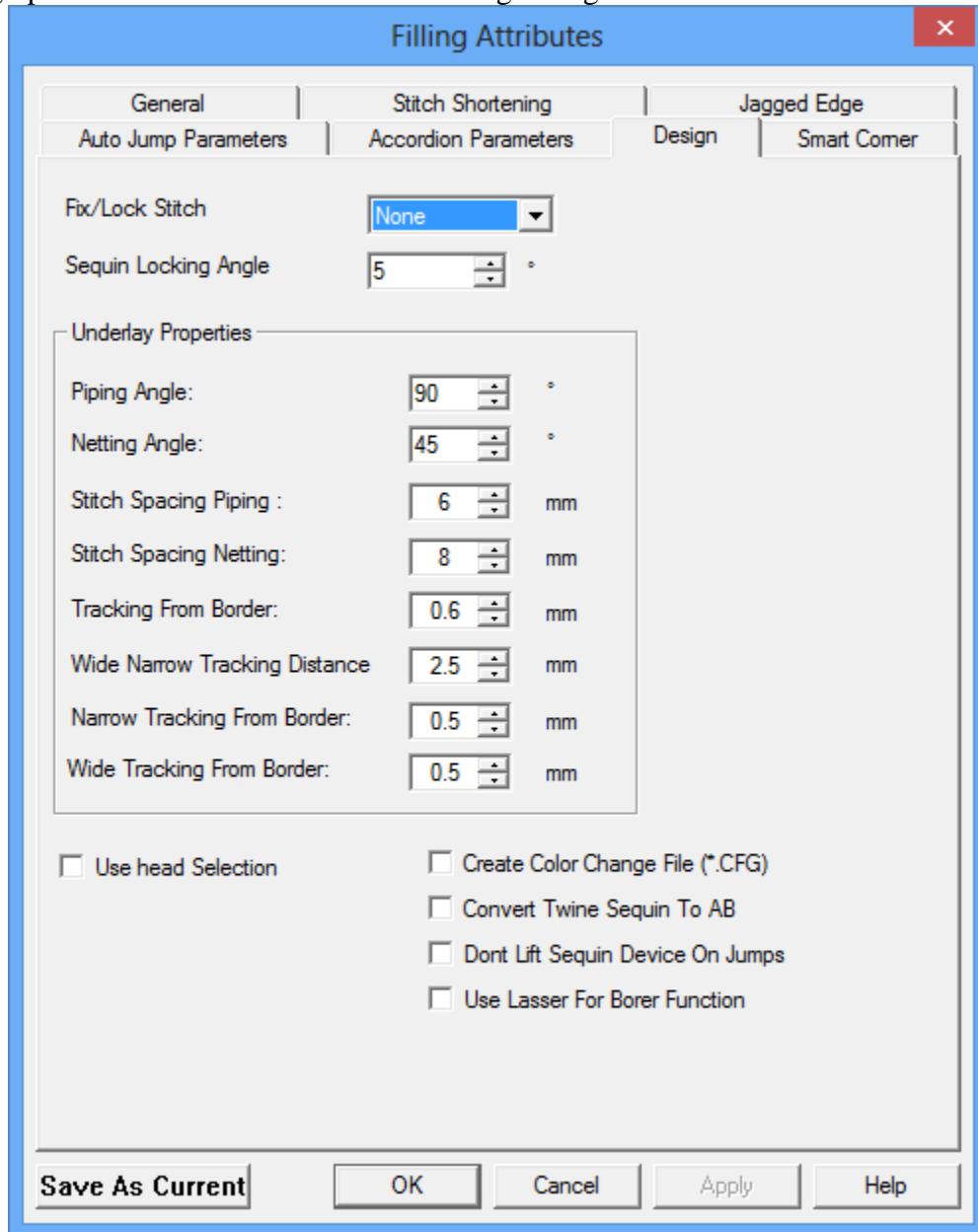
Length can be calculated as diagonally or maximum of horizontally and vertically.

## Auto split check box

Check this box in case you want to go for auto split for this object. Long stitches will be automatically broken in to small stitches as per parameters.

## ***Design parameters***

Design parameters are shown in the following dialog box:



The image shows a software dialog box titled "Filling Attributes". It has a blue title bar with a close button (X) in the top right corner. The dialog is divided into several tabs: "General", "Stitch Shortening", "Jagged Edge", "Auto Jump Parameters", "Accordion Parameters", "Design", and "Smart Corner". The "Design" tab is currently selected. Inside the "Design" tab, there are several settings:

- "Fix/Lock Stitch" is a dropdown menu set to "None".
- "Sequin Locking Angle" is a numeric input field set to "5" with a degree symbol.
- A group box titled "Underlay Properties" contains several settings:
  - "Piping Angle:" is a numeric input field set to "90" with a degree symbol.
  - "Netting Angle:" is a numeric input field set to "45" with a degree symbol.
  - "Stitch Spacing Piping :" is a numeric input field set to "6" with "mm" as the unit.
  - "Stitch Spacing Netting:" is a numeric input field set to "8" with "mm" as the unit.
  - "Tracking From Border:" is a numeric input field set to "0.6" with "mm" as the unit.
  - "Wide Narrow Tracking Distance" is a numeric input field set to "2.5" with "mm" as the unit.
  - "Narrow Tracking From Border:" is a numeric input field set to "0.5" with "mm" as the unit.
  - "Wide Tracking From Border:" is a numeric input field set to "0.5" with "mm" as the unit.
- Below the "Underlay Properties" group box, there are six checkboxes:
  - ☐ Use head Selection
  - ☐ Create Color Change File (\*.CFG)
  - ☐ Convert Twine Sequin To AB
  - ☐ Dont Lift Sequin Device On Jumps
  - ☐ Use Lasser For Borer Function

At the bottom of the dialog, there are five buttons: "Save As Current", "OK", "Cancel", "Apply", and "Help".

### Sequin locking angle

This is the angle at which a locking line will be inclined to the current stitch while in playing mode and applying L (lock) command.

### Underlay properties

This parameter is applied on underlay stitches only.

Piping angle	This is the angle at which piping underlay will be inclined to the current fill.
Netting Angle	This is the angle at which netting underlay will be inclined to the current fill.
Stitch space Piping	This is the stitch spacing in piping underlay.
Stitch space netting	This is the stitch spacing in netting underlay.
Tracking From Border	This is the distance from the boundary at which tracking will be generated
Wide /Narrow Distance	This is the distance between the boundary at which Wide or Narrow tracking will be distinguished.
Narrow Distance from border	This is the distance between the boundary at which Narrow tracking will be generated.
Wide Distance from border	This is the distance between the boundary at which Wide tracking will be generated.

### Use Head Selection

Check this value to use head selection in the m/c format files.

### Create color change file

If checked, an XML file will be created for color change. This file may be required by some embroidery machines.

### Convert Twine Sequin To AB

Check this value to Convert Twine sequin to AB format in dst file.

### Don't Lift Sequin Device On Jumps

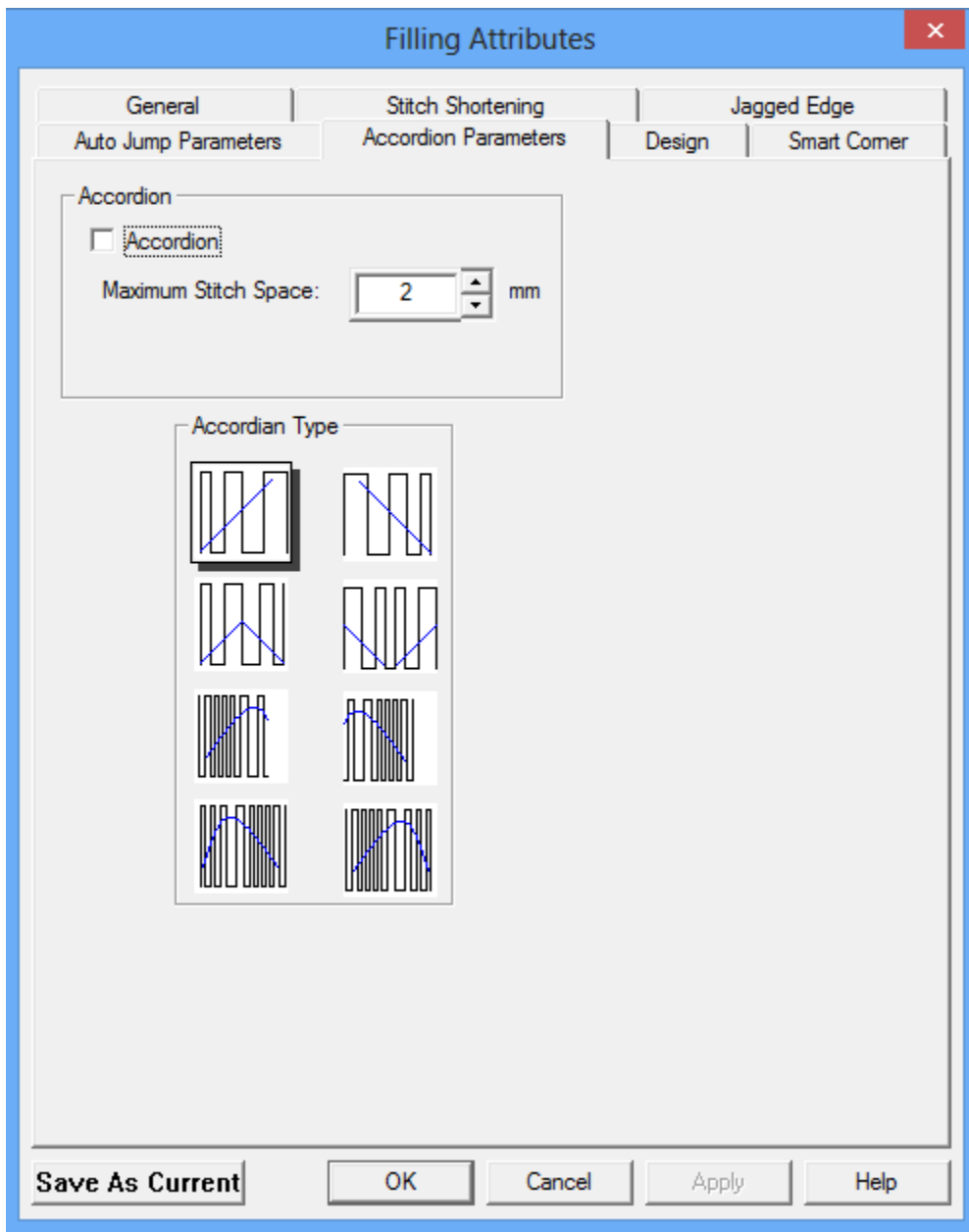
Check this value to Disallow m/c to list the sequin device at jump points. This feature is used for lesser m/c in DST file formats.

### Use Lesser for Borer function

Check this value to generated output file for lesser beams embroidery mc/ in DST file formats.

### ***Accordion parameters***

Accordion parameters are shown in the following dialog box:



### Accordion

Check this value to use Accordion on the object.

### Max Stitch space

Max Stitch space is the maximum space between the stitches of the object.

### Accordion Type

Accordion Type; show how you want the spacing to be created in the object.

### **Smart Corner parameters**

Smart corner parameters are shown in the following dialog box:

**Filling Attributes** [X]

General	Stitch Shortening	Jagged Edge
Auto Jump Parameters	Accordion Parameters	Design
Smart Comer		

☒ Smart Comer

Cap Comer

☒ Cap Comer

Cap Bellow Angle:  mm

Mitre Comer

☒ Mitre Comer

Mitre Bellow Angle:  mm

**Save As Current**   **OK**   **Cancel**   **Apply**   **Help**

### Smart Corner

Check this value to use smart corner on the object.

### Cap corner

Check this value to use smart corner on the object.

### Mitre corner

Check this value to use mitre corner on the object.

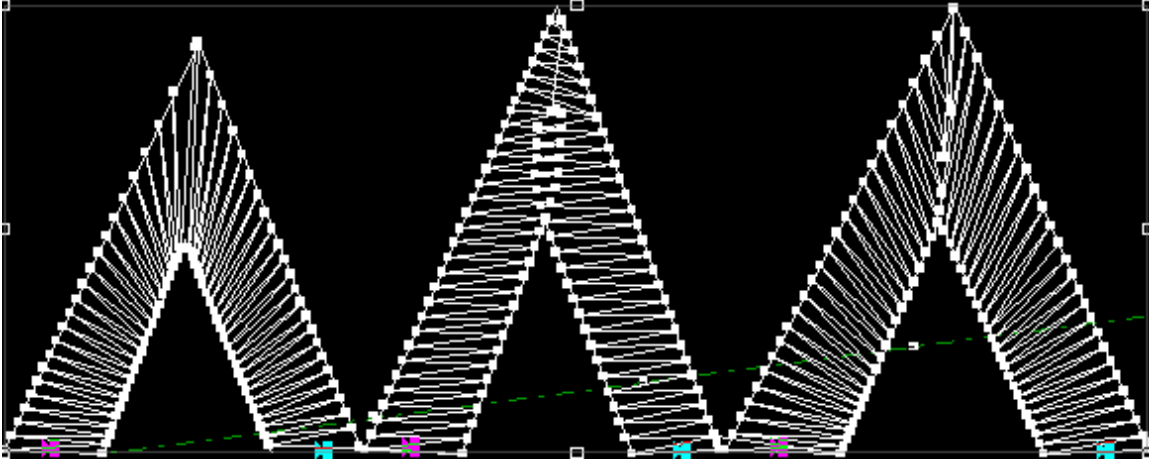


### Cap bellow angle

Cap bellow angle is angle bellow which cap corners will be applied on the object.

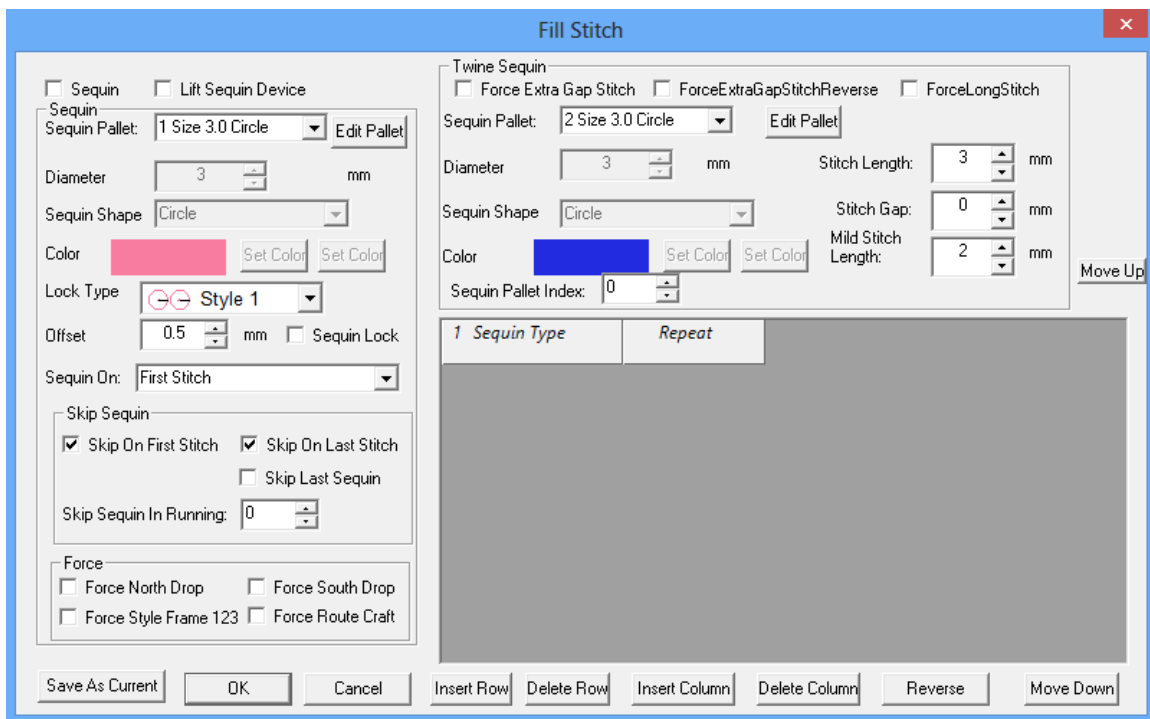
### Mitre bellow angle

Mitre bellow angle is angle bellow which mitre corners will be applied on the object.



### Sequin parameters

Sequin parameters are shown in the following dialog box:



### Sequin

Check this value to apply Sequin on the object.

## Lift Sequin Device

Check this value to lift Sequin device after completing the object.

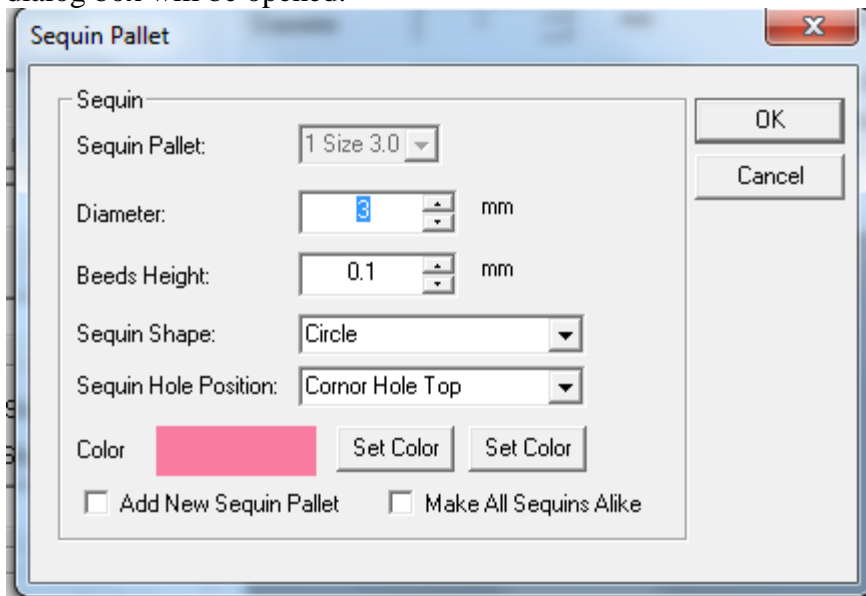
## Sequin Pallet

Sequin Pallets are used for type of sequin one wants to apply on the object.

One can change the pallets by clicking on the dropdown arrow, and selecting the one of your choice.

## Edit Pallet

Sequins properties can be changes by clicking on to “Edit Pallet” button. Following dialog box will be opened.



## Diameter

This is the diameter of the sequin in the current pallet.

## Beads Height

Bead can also be used instead of sequins. This is the Height of the bead, if are used in current pallet.

## Sequin Shape

Sequin comes with various shapes. You can select any shape here to show the sequin on the screen. If your sequin in not in the list you can define a shape of the sequin, by creating a style with the name as “udss1” User defined sequin shape 1, or “udss2” User defined sequin shape 2. And select here. You can also see the in examples.

## Sequin Hole Position

This is the position where hole is on the sequin.

### Sequin Color

This is the color of the sequin to be used for display. You can select the color by set color commands.

### Add New Sequin Pallet

This can be used to create a new pallet if we wish.

### Make All Sequin Alike

This is used to copy to colors of sequin pallets to make them for toggle effect.

### Lock Type

You can lock the sequins by additional stitches. These are the locks used for locking the sequins.

### Offset

Offset is the distance away from the sequin to apply locks.

### Sequin Lock

Sequin Lock if checked, locks will be applied, defined in the name parameter of the object.

### Sequin On

This option helps you to apply sequin on first stitch, last stitch or all stitches or in between stitches in satin.

### Skip Sequin

Skip on First Stitch, Skip On Last Stitch, Skip Last Sequin, or skip sequins in running with count.

### Force North Drop

This option applied will force the stitch generation for sequins in such a way that sequins will be dropped only from North (Top), in the same way Force South Drop. Force Style Frame 123 will apply frame 1 of the style for sequin 1 and frame 2 of the style for sequin 2 and frame 3 of the style for AB or 1+2 or 2+1 Sequins. Force Route crafting will add extra underlay and then apply sequins in smart way.

### Force Extra Gap Stitch

This option when on will generate extra Gap Stitch to bring the sequin appearance symmetrically.

### Force Extra Gap Stitch Reverse

This option when on will generate extra Gap Stitch when generating stitches from end node of the object, to bring the sequin appearance symmetrically.

### Force Long Stitch

This option when on will generate long stitch to bring the sequin appearance symmetrically.

### Stitch Length

This is the stitch length for sequin 2. You must add a style in line fill parameter to apply sequin 2.

### Stitch Gap

This is the stitch gap used for sequin 2.

### Mild Gap Stitch

This is the stitch length for mild Gap used for sequin.

### Sequin Pallet Index

This is starting index of the pallet to be used for applying sequin.

### Sequin Grammar

We define the way to apply sequins in the object. We can define multiple rows in the grammar. Sequins generations will be from left to right till end of row is reached. Then second row will be parsed and so on, till you reaches last row. After parsing last row first row will be parsed and continue.

### Move Up

This command will bring the selected row to upper side.

### Move Down

This command will bring the selected row to bottom side.

### Insert Row

This command will add a new row at current position.

### Delete Row

This command will delete row at current position.

### Insert Column

This command will add a new column at current position.

### Delete Column

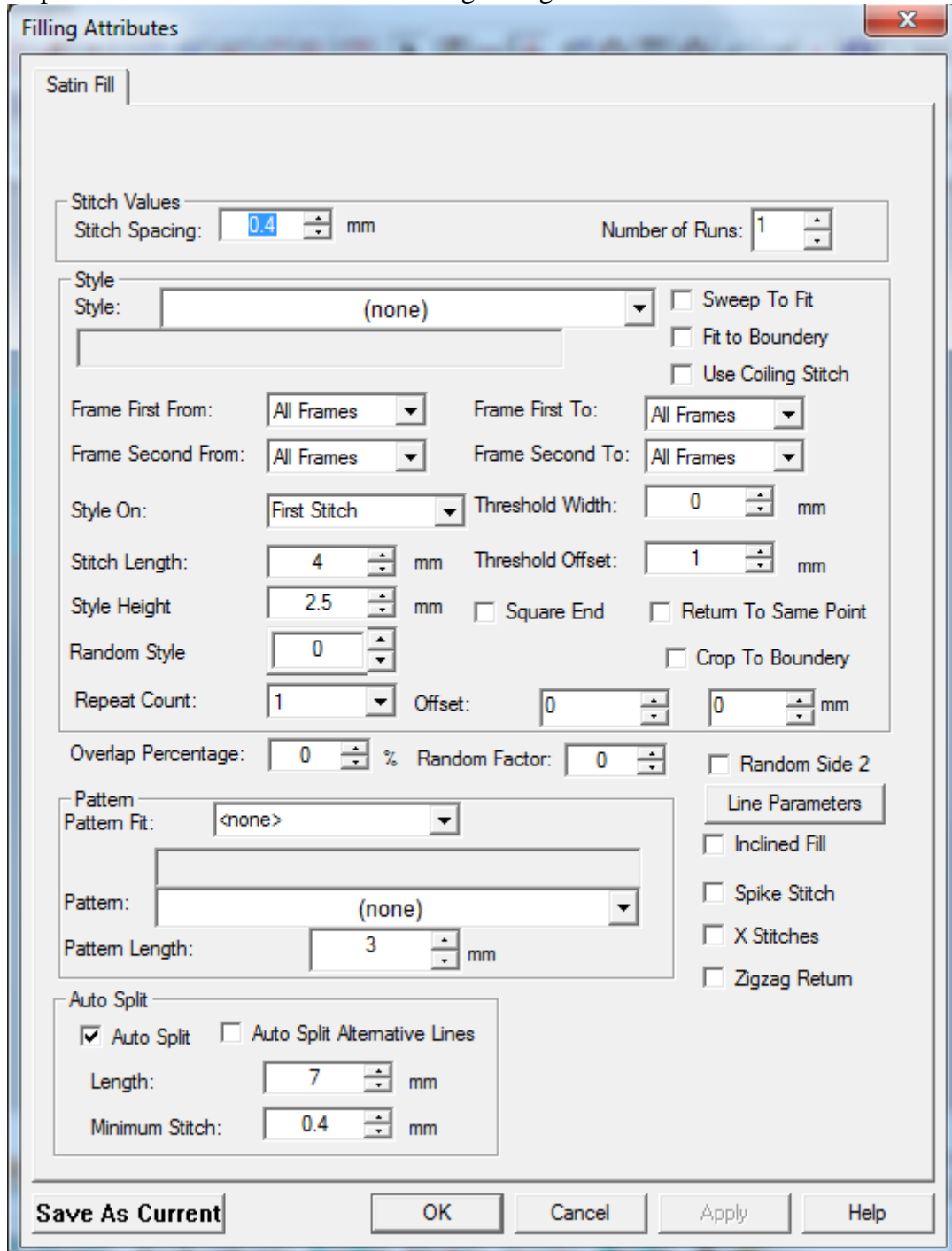
This command will delete current column.

### Reverse

This command will reverse the grammar.

## Satin

Satin parameters are shown in the following dialog box:



The dialog box is titled "Filling Attributes" and has a "Satin Fill" tab. It contains various settings for satin fill, including stitch values, style, frame ranges, threshold settings, pattern, and auto split options.

**Stitch Values**

Stitch Spacing:  mm      Number of Runs:

**Style**

Style:       ☐ Sweep To Fit  
☐ Fit to Boundary  
☐ Use Coiling Stitch

Frame First From:       Frame First To:   
Frame Second From:       Frame Second To:

Style On:       Threshold Width:  mm  
Stitch Length:  mm      Threshold Offset:  mm  
Style Height:  mm      ☐ Square End      ☐ Return To Same Point  
Random Style:       ☐ Crop To Boundary  
Repeat Count:       Offset:   mm

Overlap Percentage:  %      Random Factor:

**Pattern**

Pattern Fit:   
Pattern:   
Pattern Length:  mm

**Auto Split**

☒ Auto Split      ☐ Auto Split Alternative Lines  
Length:  mm  
Minimum Stitch:  mm

**Line Parameters**

☐ Inclined Fill  
☐ Spike Stitch  
☐ X Stitches  
☐ Zigzag Return

**Buttons:** Save As Current, OK, Cancel, Apply, Help

## Stitch spacing

This parameter specifies the distance between a pair of lines. This is also called stitch density.

### Number of run

This parameter specifies the number of times a line should be repeated in the satin stitch.

### Style

This parameter specifies the style from the drop down. You can add new styles to the system with style editor.

### Sweep to Fit

This parameter specifies the Stitches must be fit in the stitch space between a pair of lines. This is used to form coiling effect.

### Fit to Boundary

This parameter specifies the stitches must fit along the boundary.

### Use coiling Stitch

This parameter specifies that a coiling stitch must be formed.

### Frame First From

This parameter specifies the Frame no of the style to be used at starting.

### Frame First To

This parameter specifies the Last Frame no of the style to be used.

### Frame Second From

This parameter specifies the Frame no of the style to be used at returning line.

### Frame Second To

This parameter specifies the Last Frame no of the style to be used at returning line.

### Style on

This parameter specifies the style on from the drop down. Style on options are as follows:

<b>First stitch</b>	Style will start on alternative stitches starting from first stitch. This means second, fourth stitches will be normal.
<b>Both stitches</b>	Style will start on both stitches starting from first stitch.
<b>First Stitch With Stretch</b>	Style will start on alternative stitches starting from first stitch. This means second, forth stitches will be normal. But during scaling the style is not retained.
<b>Both Stitch With Stretch</b>	Style will start on both stitches starting from first stitch. But during scaling the style is not retained.

### Threshold Width

This parameter specifies that if boundaries gap increased more than this value then change the Style Frame No to next available Style frame.

### Threshold Offset

This parameter specifies that if boundaries gap increased more than this Threshold Offset values then for each offset value found change the Style Frame No to next available Style frame.

### Stitch length

This parameter specifies the Stitch length used while using style.

### Style Height

This parameter specifies the Style Height to be used while using style.

### Square end

This parameter specifies that while returning, a second stitch will be generated from opposite side.

### Return to Same Point

This parameter specifies that while returning, a second line stitch will be generated on the first line.

### Crop to Boundary

This parameter specifies that after stitch generation stitches must be cropped to boundary.

### Random Style

This parameter specifies that for each line stitches must be randomized.

### Repeat Count

This parameter specifies that if style is not there generate one using this repeat count.

### Repeat Offset

This parameter specifies that if style is not there generate one using this repeat offset.

### Repeat Offset 2

This parameter specifies that style generate should be reduced by this value for each line.

### Overlapping percentage

This parameter specifies that if style should use this value to overlap.

### Line Parameter

Some of the parameters of the line can be changed here for line fill.

### Pattern Fit

This parameter specifies the pattern fit type from the drop down to be applied for satin stitches.

<b>None:</b>	Actual length with which pattern was created will be used to repeat patterns on the Satin.
<b>Ceeding:</b>	Depending on the pattern length, number of patterns will be placed in the Satin stitch.
<b>Fit 1-10:</b>	This parameter specifies how many times a pattern will be repeated in Satin.

**Pattern length:** This is the length of the pattern to be used if you have selected the ceeding option for the pattern fit parameter.

### Pattern name

This parameter specifies the pattern name from the drop down to be applied for satin stitches. You can add a new pattern to the system with pattern editor. Patterns are needle penetration points to reflect the shapes.

### Inclined Fill

This parameter specifies that generate inclined stitches.

### Spikes Fill

This parameter specifies that generate spikes stitches.

### X Stitches

This parameter specifies that generate X(Crossed) stitches.

### Zigzag Stitches

This parameter specifies that generate Zizag stitches.

### Auto split check box

Check this box in case you want to go for auto split of the long stitches for this object. Long stitches will be automatically broken into small stitches as per the parameters.

### Auto split Alternative

Check this box in case you want to split alternative lines.

### Length

This is the length beyond which a stitch will be broken into small stitches.

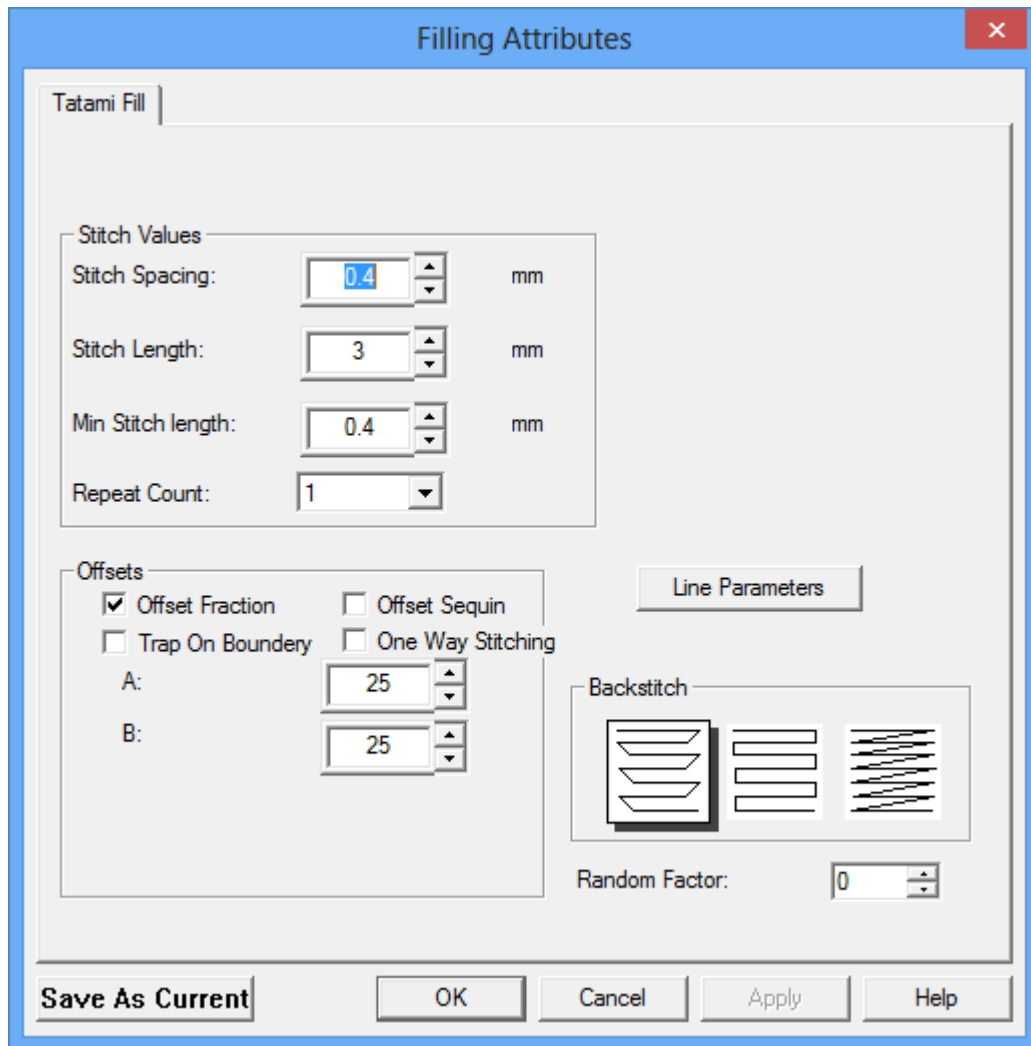
### Minimum length

This is the minimum length to which stitches will be generated.



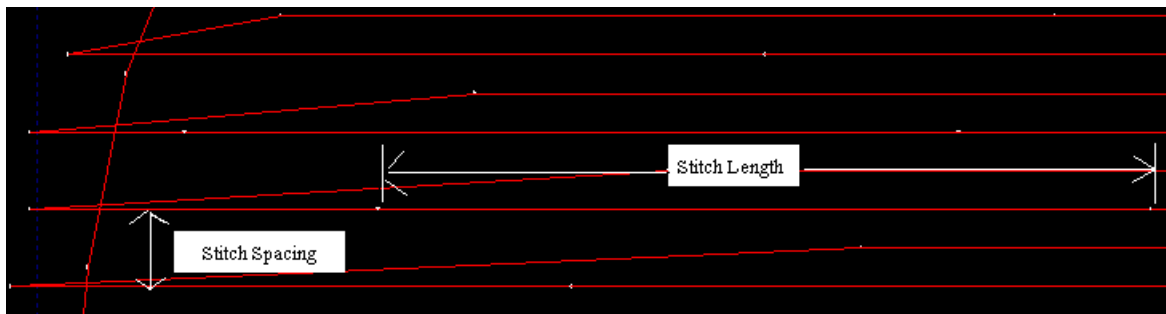
## Tatami

Tatami parameters are shown in the following dialog box:



### Stitch spacing

This parameter specifies the distance between a pair of lines. This is also called stitch density.



### Stitch length

This parameter specifies the distance between a pair of stitches. You can see in the above diagram.

### Minimum stitch length

This parameter specifies the minimum distance between a pair of stitches. Any stitch less than this value will be ignored.

### Offset fractions

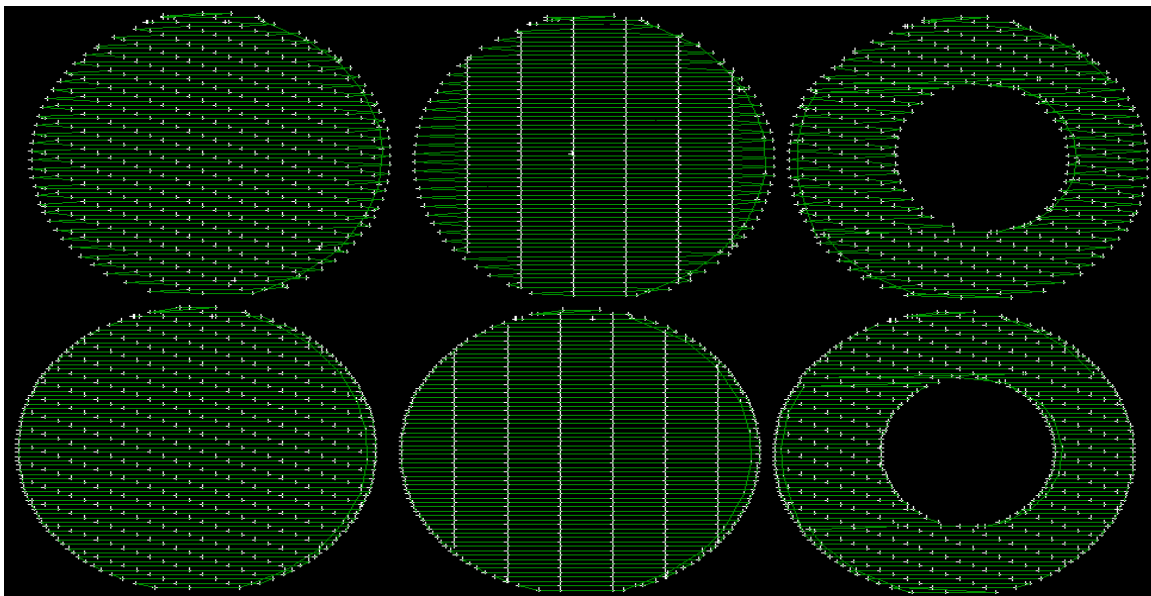
This parameter specifies the distance between a pair of stitches on different lines. By manipulating offset fractions, you can create fills where obvious split lines are not visible and the stitch penetrations are more clearly visible.

### Offset sequin

This parameter specifies that sequins should be placed at the offset position.

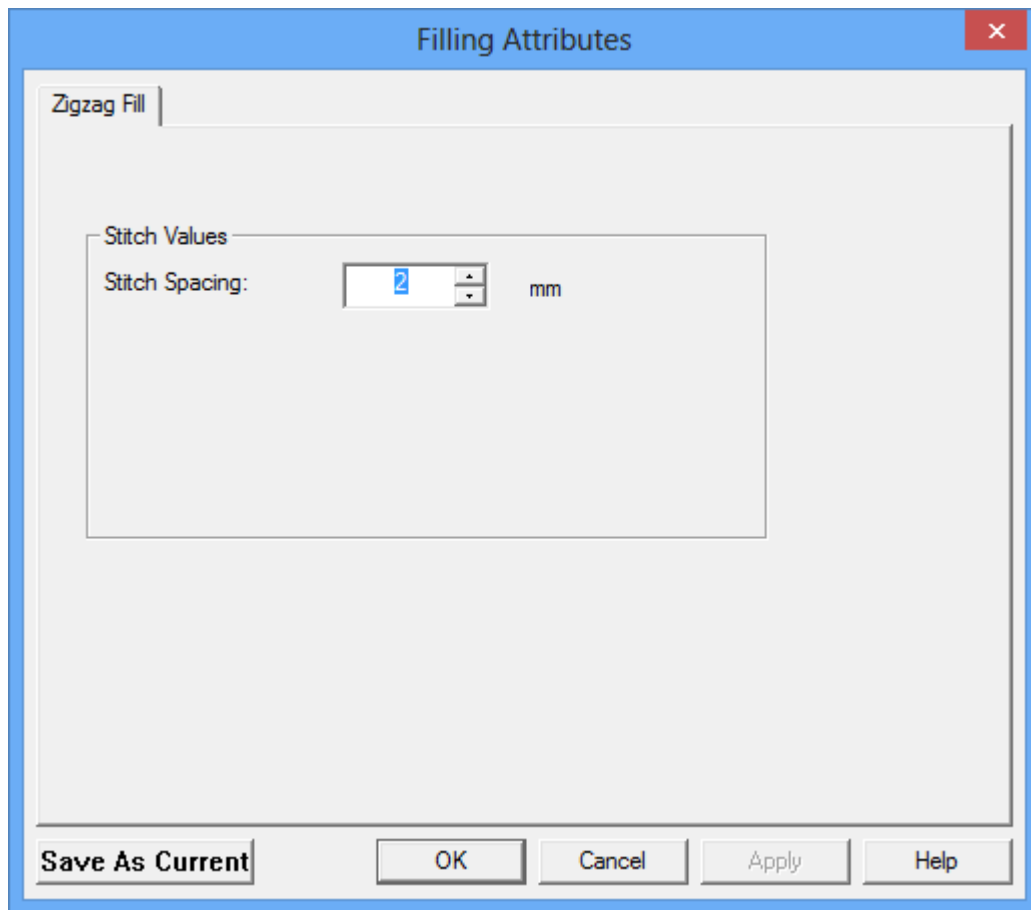
### Backstitch

There are two types in which a backstitch can take place. One is offset corners and the other one is square corners as specified in the dialog box.



## ***Zigzag***

Zigzag parameters are shown in the following dialog box:

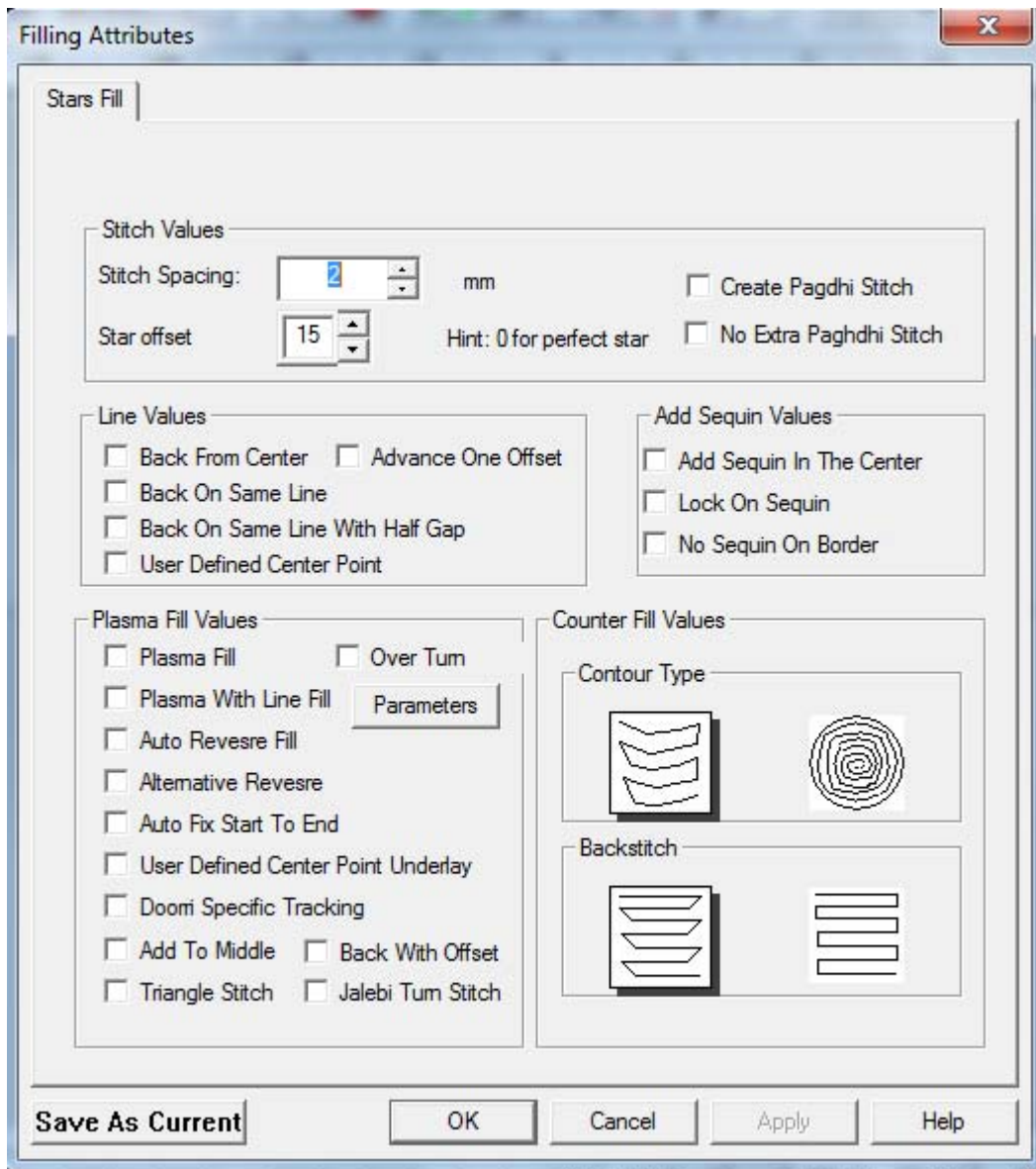


### **Stitch spacing**

This parameter specifies the distance between a pair of lines. This is also called stitch density.

## ***Stars Fill***

Stars fill parameters are shown in the following dialog box:

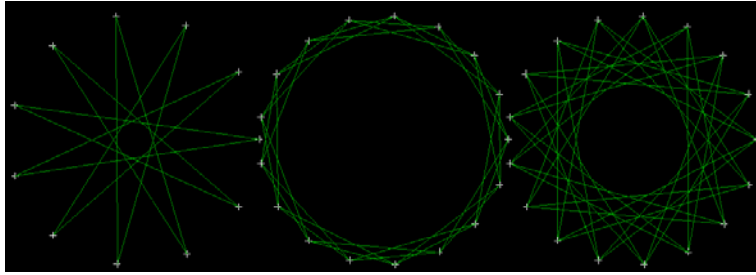


### Star Stitch spacing

This parameter specifies the distance between a pair of lines. This is also called stitch density.

### Star offset

This parameter specifies the number of edges to omit between two edges of the star to be formed on the outline boundary of the circle. If this parameter is zero than a perfect star will be created. Increase this parameter to create a big hole inside the circle so that we can use this to fix a mirror inside.



This parameter also defines the no of line to be generated for plasma fill. If zero then all the lines will be generated till object is completely filled.

#### Create pagdhi stitch

This parameter specifies that stitches created in plasma to be adjusted to have a pagdhi stitch look.

#### No extra pagdhi stitch

This parameter specifies that extra stitches created at start and at end should be removed.

#### Back from center

This parameter specifies that back from center while creating stitches using plasma fill.

#### Advance one offset

This parameter specifies that offset defined should be used and one to be added to it. This will create a cycle rim type stitch effects.

#### Back on same line

This parameter specifies that back on the same line from where it entered in to next line while creating stitches using plasma fill.

#### Back on same line with half gap

This parameter specifies that back on the same line from where it entered in to next line while creating stitches using plasma fill, using half the gap stitch.

#### User defined center point

This parameter specifies that center point of the object should be taken as defined by the user.

#### Add sequin in the center

This parameter specifies that apply a sequin in the center of the object before generating stitches.

#### Lock on sequin

This parameter specifies that apply a lock on sequin generated in the center of the object before generating stitches.

#### No sequin on border

This parameter specifies that no sequin should be generated on the border of the object.

#### Plasma Fill

This parameter specifies that use plasma fill on the object.

#### Plasma with line Fill

This parameter specifies that use plasma fill on the object, using line fill parameter.

#### Parameter

This parameter used to change parameters (line fill) used plasma fill on the object.

#### Auto reverse fill

This parameter specifies that use reverse the stitches generated on the object.

#### Alternative reverse

This parameter specifies that use reverse alternative lines of the stitches generated on the object.

#### Auto fix start to end

This parameter specifies that fix the start and end points of the stitches generated on the object.

#### User defined center point underlay

This parameter specifies that create underlay of stitches at each hard node starting from the center of the object.

#### Dorri specific tracking

This parameter specifies that tracking should be straight of stitches from lines to line.

#### Add to middle

This parameter specifies that add straight line stitches in the middle if the object.

#### Back with offset

This parameter specifies that back stitches should be with offset.

#### Triangle stitch

This parameter specifies that a triangle stitches should be created when stitches are less than 30 degrees apart.

#### Jalebi turn stitch

This parameter specifies that create stitches like a spiral.

## Contour type

There are two types in which a contour can take place. One is offset corners and the other one is spirals as specified in the dialog box.

## Backstitch

There are two types in which a backstitch can take place. One is offset corners and the other one is square corners as specified in the dialog box.

## ***E-fill***

E-fill parameters are shown in the following dialog box:

The screenshot shows the 'Filling Attributes' dialog box with the 'Eee Fill' tab selected. The dialog is titled 'Filling Attributes' and has a red close button in the top right corner. The 'Eee Fill' tab is active, showing various settings for E-fill stitching. The 'Stitch Values' section includes: 'Stitch Spacing' set to 1 mm, 'Stitch Length' set to 3 mm, 'Stitch Length Backward' set to 3 mm, and 'Number of Runs' set to 1. There are several checkboxes: 'One Way Stitching', 'First Gap Stitch', 'First Gap Stitch As Stitch', 'Start And End At First Stitch', 'Offset Sequin', 'Reverse Sequin', 'Omit Last Stitch', 'Same Back Track', 'User Offset Point', and 'Force Last Frame On Last Stitch'. The 'Style' section shows a text field with 'single', a 'Style' dropdown menu set to 'single', and 'Frame From' and 'Frame To' dropdown menus both set to 'All Frames'. A 'Line Parameters' button is located at the bottom right of the 'Style' section. At the bottom of the dialog are buttons for 'Save As Current', 'OK', 'Cancel', 'Apply', and 'Help'.

**Filling Attributes**

Eee Fill

Stitch Values

Stitch Spacing: 1 mm

Stitch Length: 3 mm

Stitch Length Backward: 3 mm

Number of Runs: 1

☐ One Way Stitching

☐ First Gap Stitch

☐ First Gap Stitch As Stitch

☐ Start And End At First Stitch

☐ Offset Sequin ☐ Reverse Sequin ☐ Omit Last Stitch ☐ Same Back Track

☐ User Offset Point ☐ Force Last Frame On Last Stitch

Style

single

Style: single

Frame From: All Frames Frame To: All Frames

Line Parameters

Save As Current OK Cancel Apply Help

## Stitch spacing

This parameter specifies the distance between a pair of lines. This is also called stitch density.

### Stitch length

This parameter specifies the Stitch length used to create stitches.

### Stitch length backward

This parameter specifies the Stitch length used to create stitches while returning.

### Number of runs

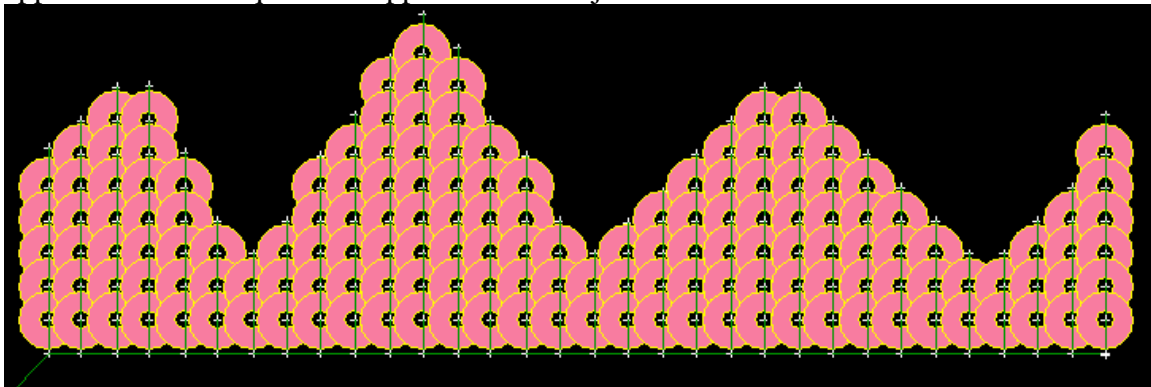
This parameter specifies the number of times stitches will be repeated.

### Offset sequin

This parameter specifies that first sequin should be offset.

### Reverse sequin

This parameter specifies that sequins should be placed on backward stitches. This is applicable when sequins are applied on the objects.



### Omit last stitch

Omit the last stitch of each line generated. This helps in sequins designs.

### Same back track

This parameter specifies that when creating a back track, it must go over the stitches only.

### User offset point

This parameter specifies that E stitch to be created emerging from the user defined point.

### Force last frame on last stitch

This parameter specifies that last stitch to have last frame of the style.

### One way stitching

This parameter specifies that in single object using E-fill to create stitches in one direction only.



### First gap stitch

This parameter is used to specify that first create a gap stitch with half the length of stitch length and then creating remaining stitches. This helps us to apply sequins with single motif.

### First gap stitch as stitch

This parameter is used to specify that first gap stitches created while stitches generated, must be converted to stitches of the object. This helps one to get adjust stitch lengths for sequin.

### Start and end at first stitch

This parameter is used to specify that first and last stitches created must be start and end at first stitch of the object. This helps one to apply locks in sequin designs .

### Style

This parameter specifies the style from the drop down. You can add new styles to the system with style editor.

### Frame From

This parameter specifies the Frame no of the style to be used at starting.

### Frame To

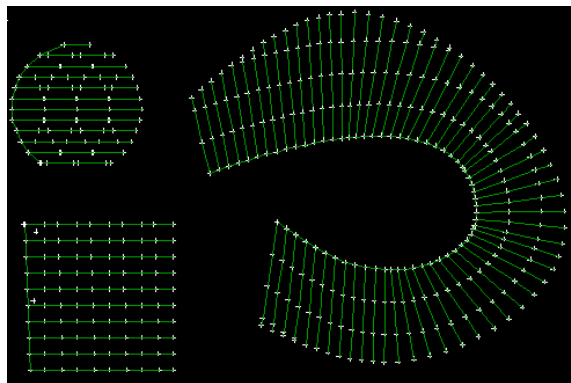
This parameter specifies the Last Frame no of the style to be used.

### Line parameter

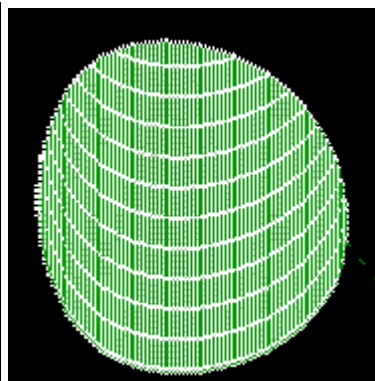
If one want to apply auto generated style using repeat count, one can set it using line parameter.

### Towel embroidery

E-Fill stitch is used for towel embroidery. Create an object with a single outline. Under PM parameters specify fill angle to be 90 degree. Use e-fill on the object with stitch length as 4mm and stitch length backward as 0.4 mm. A towel device must be installed on the embroidery m/c.



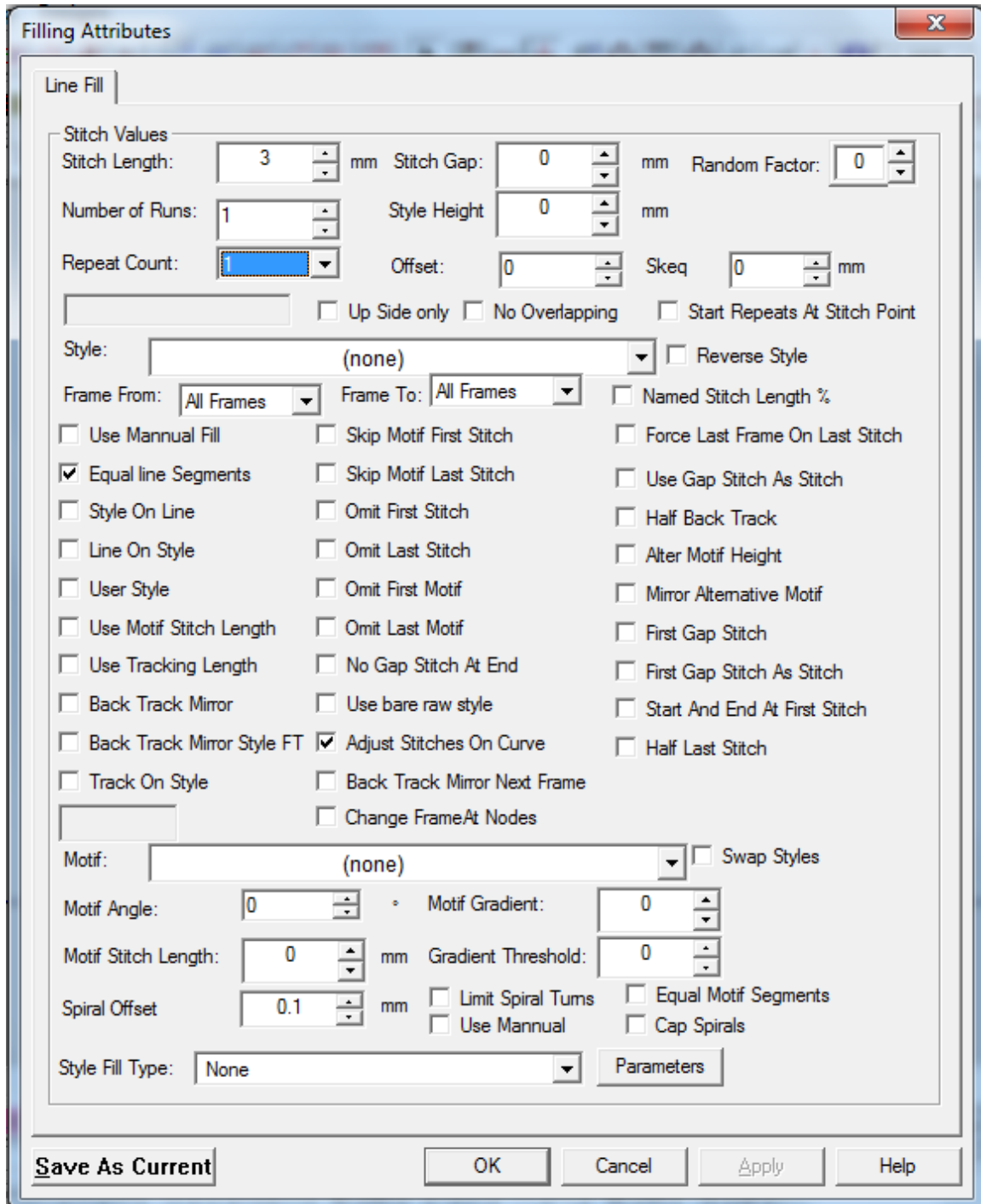
Normal E Stitch



Towel Embroidery stitch

## Line

Line parameters are shown in the following dialog box:



The image shows a software dialog box titled "Filling Attributes" with a close button (X) in the top right corner. The dialog has a tab labeled "Line Fill".

**Stitch Values**

Stitch Length: 3 mm    Stitch Gap: 0 mm    Random Factor: 0

Number of Runs: 1    Style Height: 0 mm

Repeat Count: 1    Offset: 0    Skeq: 0 mm

☐ Up Side only    ☐ No Overlapping    ☐ Start Repeats At Stitch Point

Style: (none)    ☐ Reverse Style

Frame From: All Frames    Frame To: All Frames    ☐ Named Stitch Length %

☐ Use Mannual Fill    ☐ Skip Motif First Stitch    ☐ Force Last Frame On Last Stitch

☒ Equal line Segments    ☐ Skip Motif Last Stitch    ☐ Use Gap Stitch As Stitch

☐ Style On Line    ☐ Omit First Stitch    ☐ Half Back Track

☐ Line On Style    ☐ Omit Last Stitch    ☐ Alter Motif Height

☐ User Style    ☐ Omit First Motif    ☐ Mirror Alternative Motif

☐ Use Motif Stitch Length    ☐ Omit Last Motif    ☐ First Gap Stitch

☐ Use Tracking Length    ☐ No Gap Stitch At End    ☐ First Gap Stitch As Stitch

☐ Back Track Mirror    ☐ Use bare raw style    ☐ Start And End At First Stitch

☐ Back Track Mirror Style FT    ☒ Adjust Stitches On Curve    ☐ Half Last Stitch

☐ Track On Style    ☐ Back Track Mirror Next Frame

☐ Change FrameAt Nodes

Motif: (none)    ☐ Swap Styles

Motif Angle: 0 °    Motif Gradient: 0

Motif Stitch Length: 0 mm    Gradient Threshold: 0

Spiral Offset: 0.1 mm    ☐ Limit Spiral Turns    ☐ Equal Motif Segments

☐ Use Mannual    ☐ Cap Spirals

Style Fill Type: None    Parameters

Buttons at the bottom: Save As Current, OK, Cancel, Apply, Help

## Stitch length

This parameter specifies the distance between a pair of stitches. You can see in the above diagram.

### Stitch gap

This parameter specifies the distance between a next pair of stitches after a stitch.

### Random factor

This parameter specifies the randomization between various stitches. This will force the stitches to be generated uneven.

### Number of runs

This parameter specifies the number of times stitches will be repeated.

### Style Height

This parameter specifies the height of the style to be applied. If this parameter is 0 then style height is proportional calculated from the stitch length.

### Repeat Count

This parameter is used to generate multiple run of the stitch.

### Repeat Offset

This parameter is used to specify the offset between stitches in the repeated style.

### Repeat Skeq

This parameter is used to specify the inward length of stitches in the repeated style.

### Upside only

This parameter specifies that stitches to be generated upside only.

### No Overlapping

This parameter specifies that stitches to be generated Without overlapping each other.

### Start repeats at first stitch

This parameter is used to specify that while creating a style from repeat count first stitch of the style must lay on the current stitch of the object.

### Style

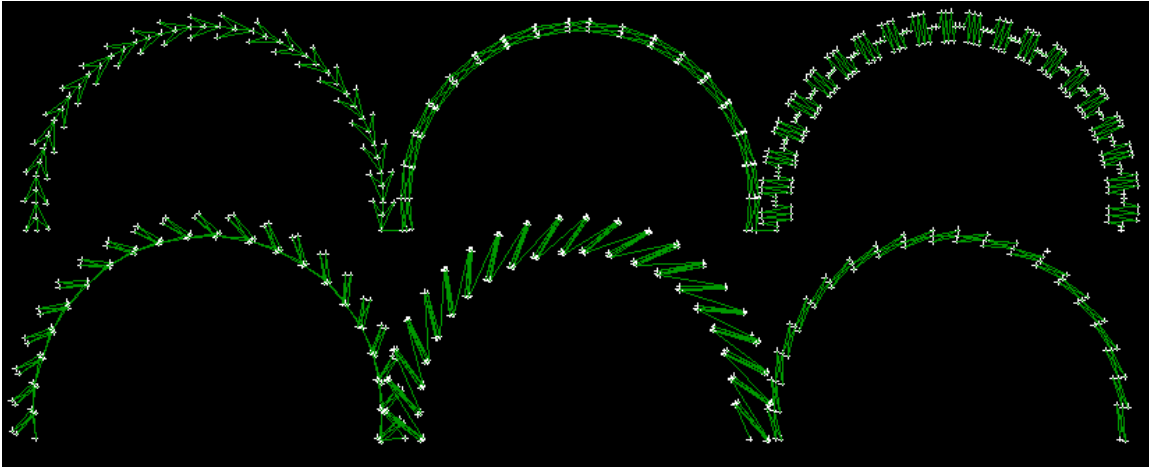
This parameter specifies the style from the drop down. You can add new styles to the system with style editor.

### Frame from

This parameter specifies the starting frame of the style. All the frames will be applied until frame end (if specified) is reached or there are no more frames left.

### Frame to

This parameter specifies the ending frame of the style. All the frames will be applied until frame end (if specified) is reached.



### Reverse Style

This parameter specifies that reverse the stitches of the style before applying.

### Use manual fill

This parameter specifies that stitches should be generated as if we have punched them out on the screen. This is used when users want to use stitch creation according to their own will.

### Equal line segment

This parameter specifies that stitches should be generated with equal line segments. If this parameter is unchecked then cord gap factor will be used to create stitches nearest to the outline.

### Style on line

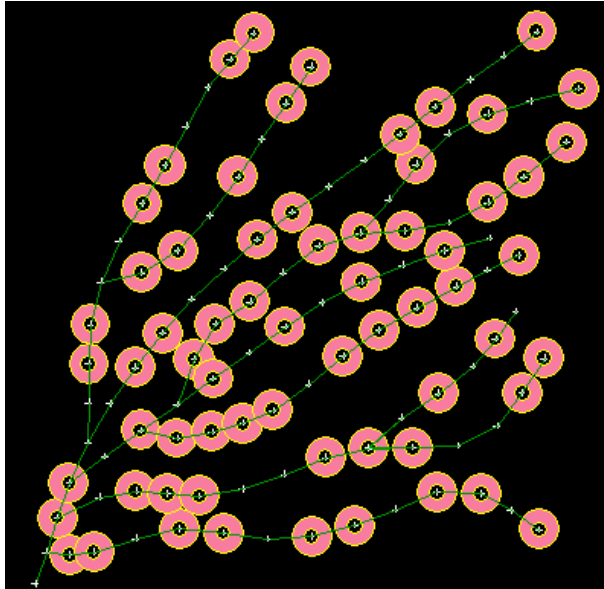
This parameter specifies that a line stitch should be created from the starting point till the other side and back track stitched should be created from the style used and it should follow till the end point.

### Line on style

This parameter specifies that stitches should be created from the starting point of the line and a back track should follow from the last stitch and all the stitches in backtrack should be reverse of all the stitches generated while going forward.

### User style

This parameter is used only when sequins are applied on the object. This parameter specifies that stitches should be created from the starting point of the line till all manual sequins are applied and then again apply this stitch pattern to the rest of the line.



### Use motif stitch length

This parameter is used to specify that use motif stitch length instead of stitch length.

### Motif stitch length

This is parameter specifying the motif stitch length.

### Use tracking length

This parameter is used to specify that use tracking stitch length instead of stitch length, as and when a tracking is added.

### Back track mirror

This parameter is used to specify that add a back tracking in the style from the style mirror.

### Back track mirror style fill style

This parameter is used to specify that add a back tracking in the style from the style mirror, and add fill the object defined in Style fill type dropdown.

### Track on style

This parameter is used to specify that tracking to e added on points defined in the style.

### Skip motif first stitch

This parameter is used to specify that if motif is used than skip first stitch of the motif.

### Skip motif last stitch

This parameter is used to specify that if motif is used than skip last stitch of the motif.

### Omit first stitch

This parameter is used to specify that omit first stitch of the object.

#### **Omit last stitch**

This parameter is used to specify that omit last stitch of the object.

#### **Omit first motif**

This parameter is used to specify that omit first motif of the object.

#### **Omit last motif**

This parameter is used to specify that omit last motif of the object.

#### **No gap stitch at end**

This parameter is used to specify that if gap stitch comes at end of the object, it must be omitted and must be adjusted with previous stitches.

#### **Use bare raw style**

This parameter is used to specify that style should not be rotated along the line of the object. It must be as it is as defined.

#### **Adjust stitches on curve**

This parameter is used to specify that if last stitch is not covered properly it must adjust stitches on curve of the object to fill properly.

#### **Back track mirror next frame**

This parameter is used to specify that if using back track mirror then next frame of the style should be used in back tracking.

#### **Change frame at nodes**

This parameter is used to specify that while generating the stitches, at every node of the object next frame of the style should be used.

#### **Named stitches length percentage**

This parameter specifies parameters defined in name of the objects in numbers to be used as length percentages. This helps you to get multiple stitch lengths in the same object.

#### **Force last frame of last stitch**

This parameter is used to specify that apply last frame of last stitch of the object.

#### **Use gap stitch as stitch**

This parameter is used to specify that all the gap stitches created while stitches generated, must be converted to stitches of the object. This helps you to get two stitch lengths in the same object.

#### **Half back track**

This parameter is used to specify that while creating a back tracking, back stitches must be half the going stitches. This helps one to bind the sequins with back tracking.

### **Alter motif height**

This parameter is used to specify that motif height must also be adjusted as stitch length varies.

### **Mirror alternative motif**

This parameter is used to specify that while applying motif mirror alternative motif.

### **First gap stitch**

This parameter is used to specify that first create a gap stitch with half the length of stitch length and then creating remaining stitches. This helps us to apply sequins with single motif.

### **First gap stitch as stitch**

This parameter is used to specify that first gap stitches created while stitches generated, must be converted to stitches of the object. This helps one to get adjust stitch lengths for sequin.

### **Start and end at first stitch**

This parameter is used to specify that first and last stitches created must be start and end at first stitch of the object. This helps one to apply locks in sequin designs .

### **Half last stitch**

This parameter is used to specify that last stitch should be halved.

### **Motif**

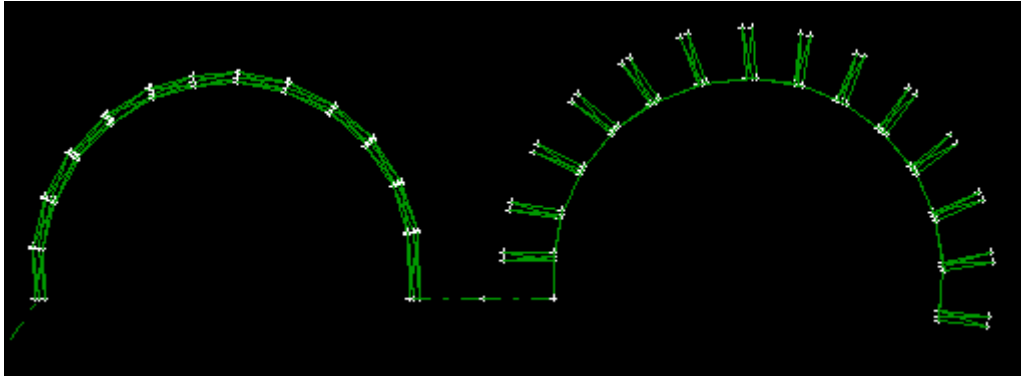
This parameter specifies the motif from the drop down. You can add new styles to the system with style editor. This is the motif which will be applied on the stitches generated. This helps one to apply additional style for creating beautiful designs.

### **Swap Style**

This parameter is used to specify that swap the style with motif.

### **Motif angle**

This parameter specifies that the motif (Style) should be rotated by this angle before it is applied to stitches. Following figures show style with 0 degree rotation and style with 90 degree rotation.



### Motif Stitch length

This parameter specifies the stitch length of motif to be applied.

### Motif gradient

This parameter specifies the stitch length of motif to be gradually percentage of this factor.

### Gradient threshold

This parameter specifies the stitch length of motif to be fixed after this value is reached.

### Spiral offset

This parameter specifies the offset from the center of the spiral to be generated. Spiral stitches will be generated after this distance from the center.

### Limit spiral turns

This parameter specifies that spiral created should limit the no of turn defined in spiral properties of the object.

### Equal motif segments

This parameter specifies that motif applied on the stitches must also be of equal stitch length.

### Use manual

This parameter specifies that motif applied on the stitches must use manual stitches created by style.

### Cap spiral

This parameter specifies that spirals must be bounded by line stitch length.

### Style fill type

This parameter specifies that style must be filled by style fill type.

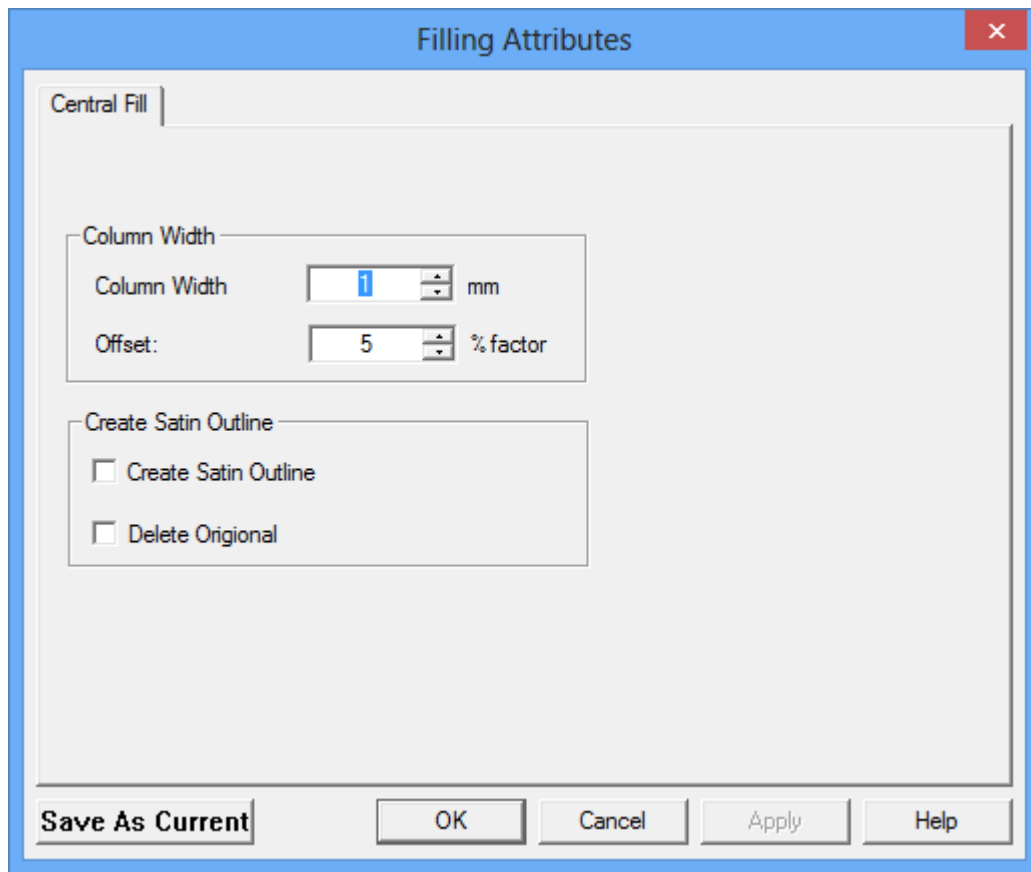
### Parameter

This parameter specifies that style fill type parameter.



### **Central satin**

Central satin parameters are shown in the following dialog box:



#### **Column width**

This parameter specifies the column width of the central satin.

#### **Offset**

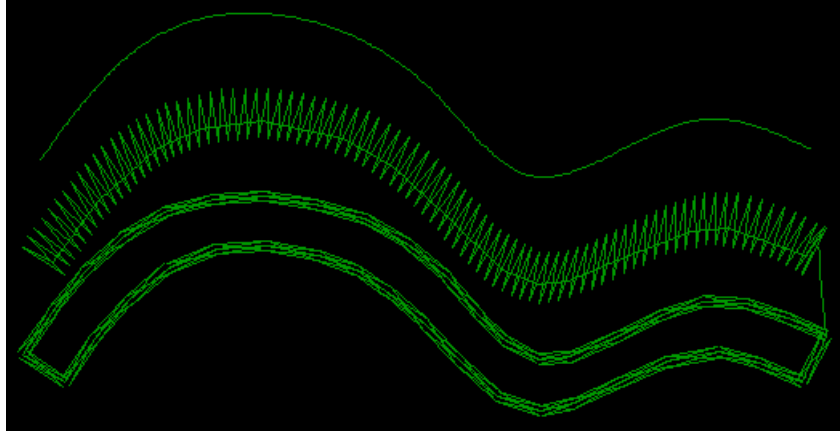
This parameter specifies the offset distance of central satin for symmetrical objects.

#### **Create satin outline**

This parameter specifies that create satin outline of the selected objects.

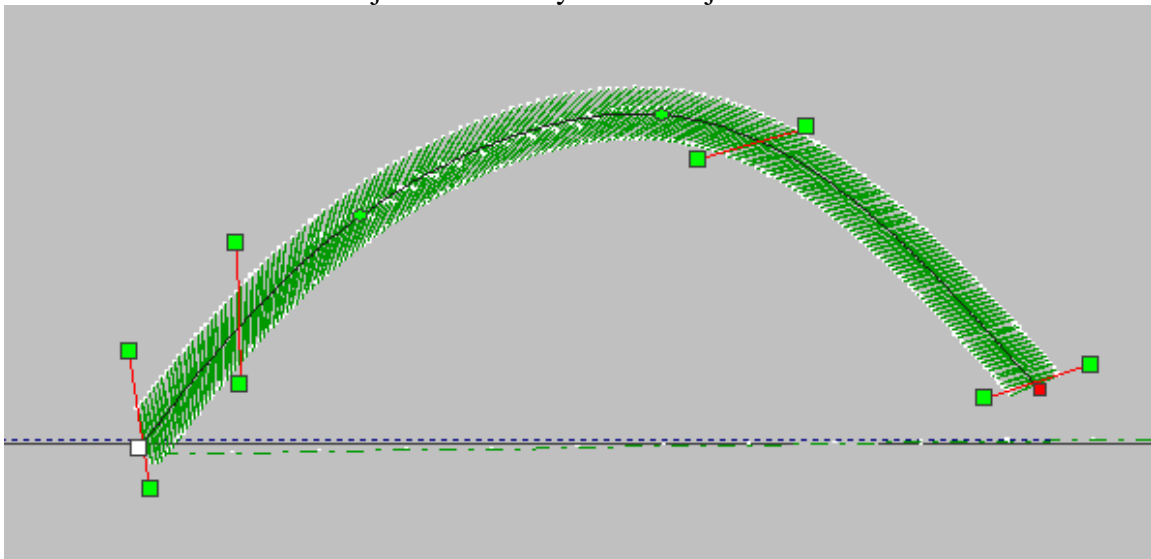
#### **Delete original**

If create satin outline is checked and this option is also checked then delete the original objects after creating their satin outline.



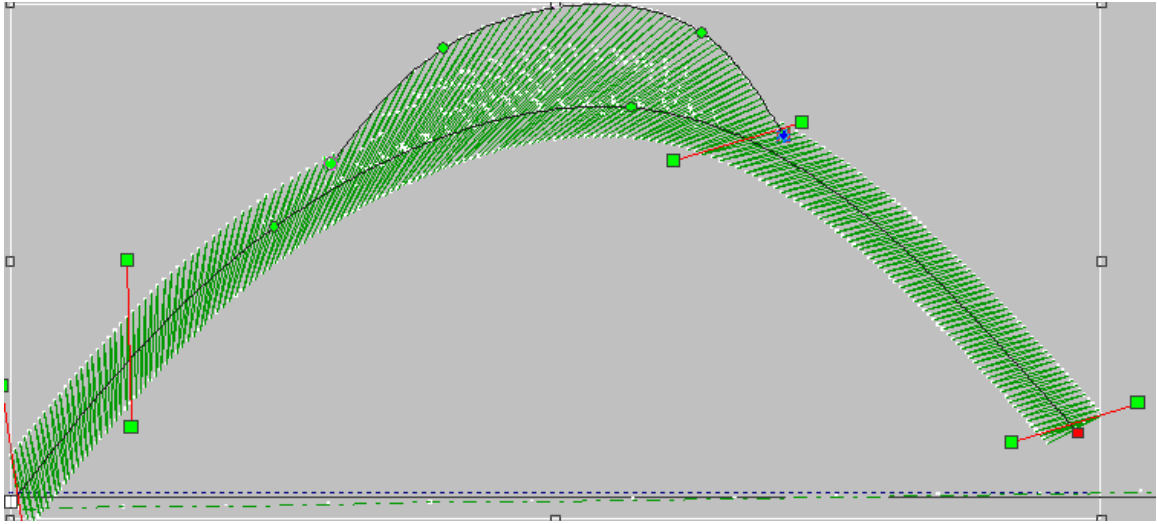
### Directions in central fill

You can add directions in objects created by central objects.



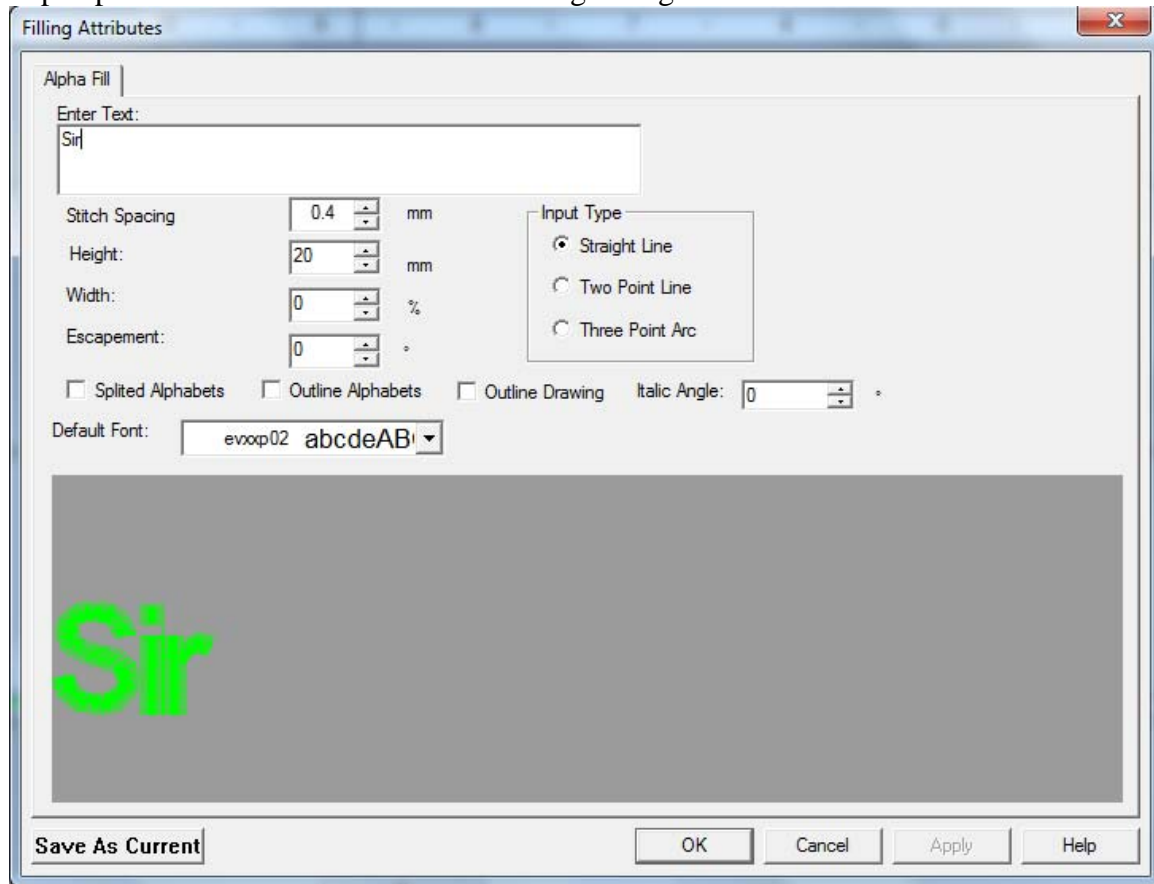
### Balloon in Central

We can create balloon in central satin. Create a object over the central and declare it as balloons in object properties. Select first central object and then balloon object, and press control W. flowing picture show the results.



## Alpha

Alpha parameters are shown in the following dialog box:



### Stitch spacing

This parameter specifies the distance between a pair of lines. This is also called stitch density.

### Height

This parameter specifies the height of the alphabets.

### Width

This parameter specifies the width of the alphabets. Zero or 100 means width is taken from the fonts itself.

### Escapement

This parameter specifies the Escapement of the alphabets. This value is measured in degrees of angle. Stitched alphabets will be tilted at their base by this angle.

### Split alphabets

This parameter specifies that alphabets are available for editing and are not internally joined.

## Outline alphabets

This parameter specifies that alphabets outline is created and filled with the line fill.

## Outline drawing



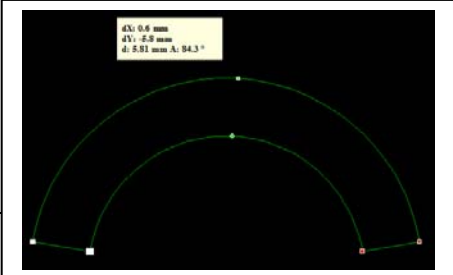
This parameter specifies that alphabets outline is created as drawing objects without fill.


## Italic angle

This parameter specifies that alphabets to use this angle as italic.

## Input type

This parameter specifies the way the user wants to create the outline.

Straight line	<p data-bbox="576 655 941 688">Two point on horizontal axis</p> 
Two point line	<p data-bbox="576 1020 876 1054">To points slanting angle</p> 
Three point arc	<p data-bbox="576 1608 917 1675">Three point forming an arc Input Method:</p> 

	<p>Output stitches:</p> 
--	--

### ***Program***

Patterns are needle penetration points to reflect the shapes. Program fill is the one of the methods to do so. Program parameters are shown in the following dialog box:

**Filling Attributes**

Program Fill

Pattern: (none)

Size X: 4.6 mm

Size Y: 1 mm

Column

Spacing: 0 mm

Offset: 0 mm

Row

Spacing: 0 mm

Offset: 0 mm

Combination Split

Edit

Layout

Delete

Stitch Values

Stitch Spacing: 0.4 mm

Stitch Length: 3 mm

Min Stitch Length: 0.4 mm

Offset A: 25 mm

Random factor: 0

Backstitch

☐ Trap On Boundary

☐ One Way Stitching

Save As Current OK Cancel Apply Help

### Pattern name

This parameter specifies the pattern name from the drop down to be applied for program stitches. You can add new patterns to the system with pattern editor.

### Size X

This parameter specifies the size X (width) of the pattern.

### Size Y

This parameter specifies the size Y (height) of the pattern.

### Column spacing

This parameter specifies the column spacing of the pattern. The number of times pattern appears horizontally is calculated from this value.

### Column offset

This parameter specifies the column offset of the pattern. This is the distance between two columns for patterns to appear.

### Row spacing

This parameter specifies the row spacing of the pattern. The number of times pattern appears vertically is calculated from this value.

### Row offset

This parameter specifies the row offset of the pattern. This is the distance between two rows for patterns to appear.

### Stitch spacing

This parameter specifies the distance between a pair of lines. This is also called stitch density.

### Stitch length

This parameter specifies the distance between a pair of stitches. You can see in the above diagram.

### Minimum stitch length

This parameter specifies the minimum distance between a pair of stitches. Any stitch less than this value will be ignored.

### Offset fractions

This parameter specifies the distance between a pair of stitches on different lines. By manipulating offset fractions, you can create fills where obvious split lines are not visible and the stitch penetrations are more clearly visible.

### Random factor

This parameter specifies the randomization between various stitches. This will force the stitches to be generated uneven.

### Trap on boundary

This parameter specifies the tracking must be on the boundary of the object.

### One way stitching

This parameter specifies that in single object to create stitches in one direction only.



## Backstitch

There are two ways in which a backstitch can take place. One is offset corners and the other one is square corners as specified in the dialog box.



## ***Piping***

Piping parameters are shown in the following dialog box:

Filling Attributes

×

Piping Fill

Stitch Values

Stitch Spacing: 0.4 mm

Stitch Gap: 0 mm

Stitch Length: 2.5 mm

Style Height: 0 mm

single

Style: single

Frame From: All Style Frame

Frame To: All Style Frame

☐ Style On Line
☐ Skip Motif First Stitch

☐ Line On Style
☐ Skip Motif Last Stitch

☐ Alter Motif Height
☐ Omit First Stitch

☐ Mirror Alternative Motif
☐ Omit Last Stitch

☐ Use Motif Stitch Length
☐ Omit First Motif

☐ Use Gap Stitch As Stitch
☐ Omit Last Motif

☐ First Gap Stitch AS Stitch
☐ Use bare raw style

☐ Snap To Start End
☒ Adjust Stitches On Curve

Motif Stitch Length: 0.1 mm

Motif Angle: 0 °

Limit No Of Turns: 0

Margins

1: 0 mm

2: 0 mm

3: 0 mm

Variable length



☒ Variable Length
☐ Fixed Divider

Min Stitch length: 2 mm



Cord Gap: 0.12 mm

Random Factor: 0

Contour Type

Backstitch

Save As Current

OK

Cancel

Apply

Help

## Stitch spacing

This parameter specifies the distance between a pair of lines. This is also called stitch density.

## Stitch gap

This parameter specifies the distance between a next pair of stitches after a stitch.

### Stitch length

This parameter specifies the distance between a pair of stitches. You can see in the above diagram.

### Style Height

This parameter specifies the height of the style to be applied. If this parameter is 0 then style height is proportional calculated from the stitch length.

### Style

This parameter specifies the style from the drop down. You can add new styles to the system with style editor.

### Frame from

This parameter specifies the starting frame of the style. All the frames will be applied until frame end (if specified) is reached or there are no more frames left.

### Frame to

This parameter specifies the ending frame of the style. All the frames will be applied until frame end (if specified) is reached.

### Style on line

This parameter specifies that a line stitch should be created from the starting point till the other side and back track stitch should be created from the style used and it should follow till the end point.

### Line on style

This parameter specifies that stitches should be created from the starting point of the line and a back track should follow from the last stitch and all the stitches in backtrack will be reverse of all the stitches generated while going forward.

### Alter motif height

This parameter is used to specify that motif height must also be adjusted as stitch length varies.

### Mirror alternative motif

This parameter is used to specify that while applying motif mirror alternative motif.

### Use motif stitch length

This parameter is used to specify that use motif stitch length instead of stitch length.

### Use gap stitch as stitch

This parameter is used to specify that all the gap stitches created while stitches generated, must be converted to stitches of the object. This helps you to get two stitch lengths in the same object.

### First gap stitch as stitch

This parameter is used to specify that first gap stitches created while stitches generated, must be converted to stitches of the object. This helps one to get adjust stitch lengths for sequin.

### Snap to start end

This parameter is used to specify that end point should at start of stitches point.

### Motif stitch length

This parameter is used to specify the motif stitch length.

### Motif angle

This parameter specifies that the motif (Style) should be rotated by this angle before it is applied to stitches. Following figure show style with 0 degree rotation and style with 90 degree rotation.

### Skip motif first stitch

This parameter is used to specify that if motif is used than skip first stitch of the motif.

### Skip motif last stitch

This parameter is used to specify that if motif is used than skip last stitch of the motif.

### Omit first stitch

This parameter is used to specify that omit first stitch of the object.

### Omit last stitch

This parameter is used to specify that omit last stitch of the object.

### Skip first motif

This parameter is used to specify that skip first motif of the object.

### Skip last motif

This parameter is used to specify that skip last motif of the object.

### Use bare raw style

This parameter is used to specify that style should not be rotated along the line of the object. It must be as it is as defined.

### Adjust stitches on curve

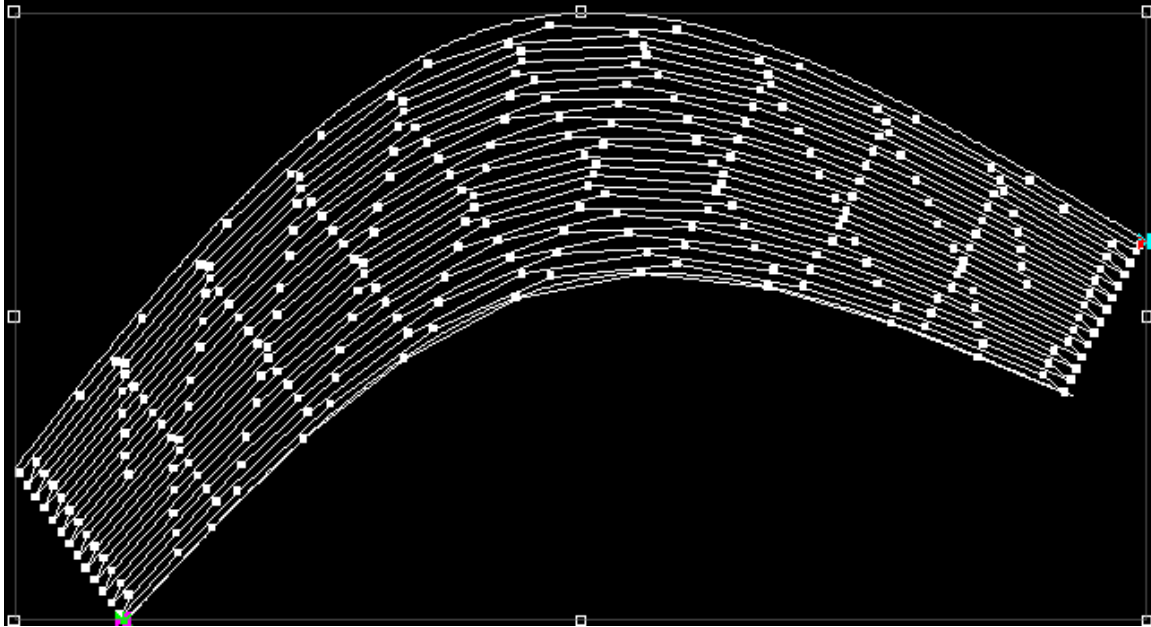
This parameter is used to specify that if last stitch is not covered properly is must adjust stitches on curve of the object to fill properly.

### First gap stitch

This parameter is used to specify that first create a gap stitch with half the length of stitch length and then creating remaining stitches. This helps us to apply sequins with single motif.

### Short/long stitch

This parameter is used to specify that stitches at narrow piping will be less and more stitches at thick parts to object. Stitches will take a u turn to fill the objects.



### Limit no of turns

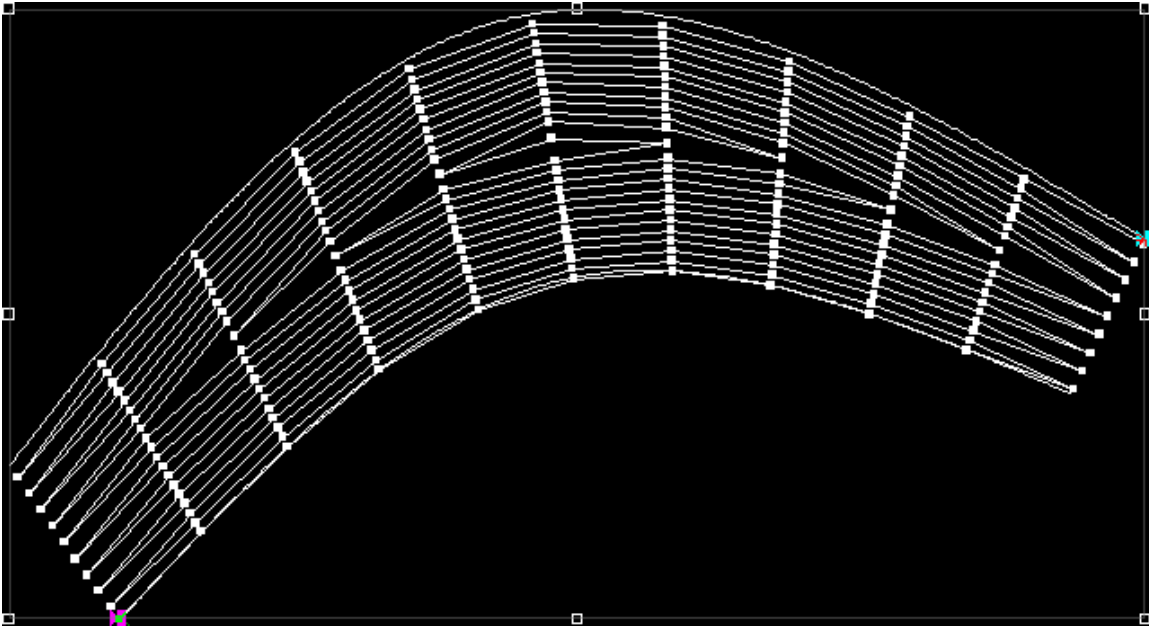
This parameter is used to specify that turns in the objects should be no of turns defined.

### Variable length

This parameter specifies that stitches should be generated with variable length line segments. If this parameter is unchecked then cord gap factor will be used to create stitches nearest to the outline.

### Fix divider

This parameter is used to specify that stitches are generated at fixed area as shown in the diagram.



### Minimum Stitch length

This parameter specifies the minimum stitch length to be used for creating stitches.

### Cord Gap

Cord gap is used to tighten the line segments to the digitized outlines. This is the maximum distance allowed between the outline and the stitches. When this value is exceeded the stitch length is reduced to follow the outline more closely.

### Random factor

This parameter specifies the randomization between various stitches. This will force the stitches to be generated uneven.

### Contour type

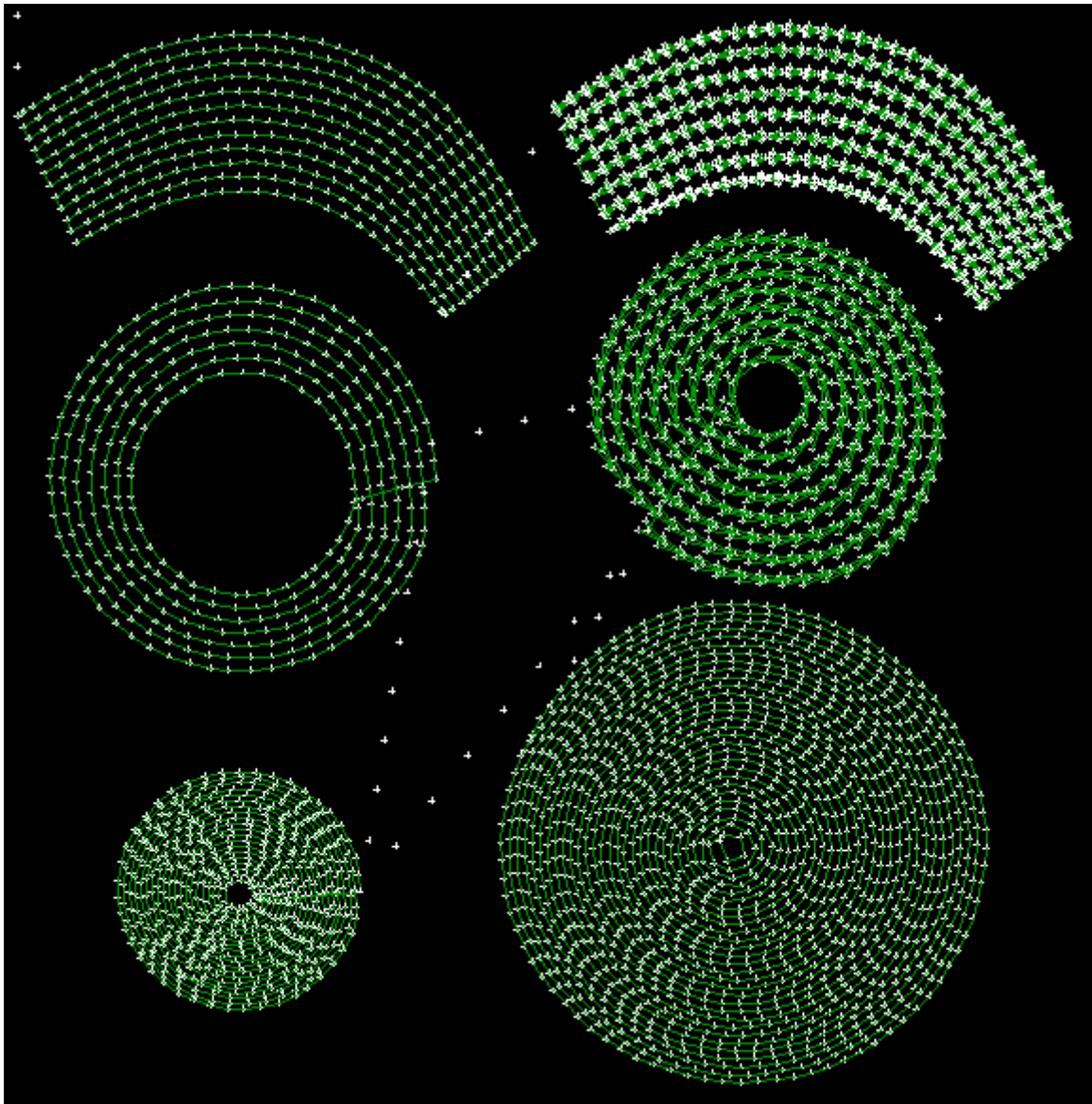
There are two ways in which a contour can take place. One is continuous and the other one is spiral as specified in the dialog box.

### Backstitch

There are two ways in which a backstitch can take place. One is offset corners and the other one is square corners as specified in the dialog box.

### Margins

This parameter specifies the margin to be considered. First one is at start of stitches. Second one is last point. And the third one is the middle margin.



### ***Cross stitch***

Motif parameters are shown in the following dialog box:

**Filling Attributes**

**Cross Stitch**

Spacing

Column Spacing: 2.5 mm

Row Spacing: 2.5 mm

Repeat Count: 1

☒ Fit to grid
 ☐ Add Extra to fill
 ☐ Fill Points Only
 ☐ Cross At Point
 ☐ Boundary Points
 ☒ Balanced Cross
 ☐ Linear Motif

**Motif 1**

Skip / Cross Stitch  
Skip /: 0

Motif: single

Size X: 5 mm

**Motif 2**

Skip \ Cross Stitch  
Skip \: 0

Motif: (none)

Size X: 5 mm

Save As Current OK Cancel Apply Help

### Column spacing

This parameter specifies the width of the cross stitches.

### Row spacing

This parameter specifies the height of the cross stitches.

### Repeat count

This parameter specifies the no of stitches in each arm of the cross stitch.

### Fit to grid

This parameter specifies that the cross stitches should be clipped to the boundary of the object.

### Add extra to fill

This parameter specifies that the cross stitches should add extra points to generate smoothness.

### Fill points only

This parameter specifies that the cross stitches should be generated on node points of the object.



### **Cross at points**

This parameter specifies that the cross stitches should be generated on node points of the object without deviation.

### **Boundary points**

This parameter specifies that the cross stitches should be generated on boundary points of the object.

### **Balance cross**

This parameter specifies that no of stitches in each arm of the cross stitch must be same.

### **Linear motif**

This parameter specifies the style should be applied horizontally and vertically rather than crossing.

### **Skip Stitches**

This parameter specifies that the cross stitches should be skipped alternatively.

### **Motif**

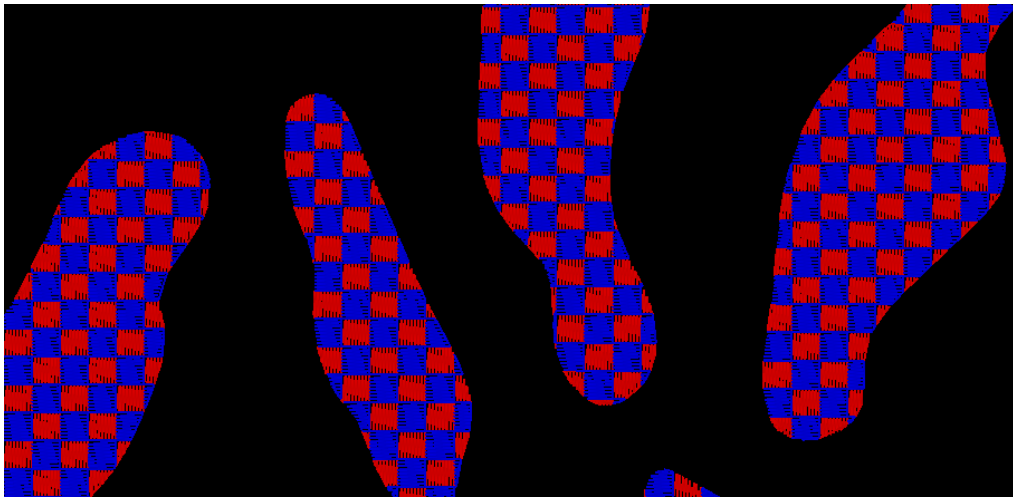
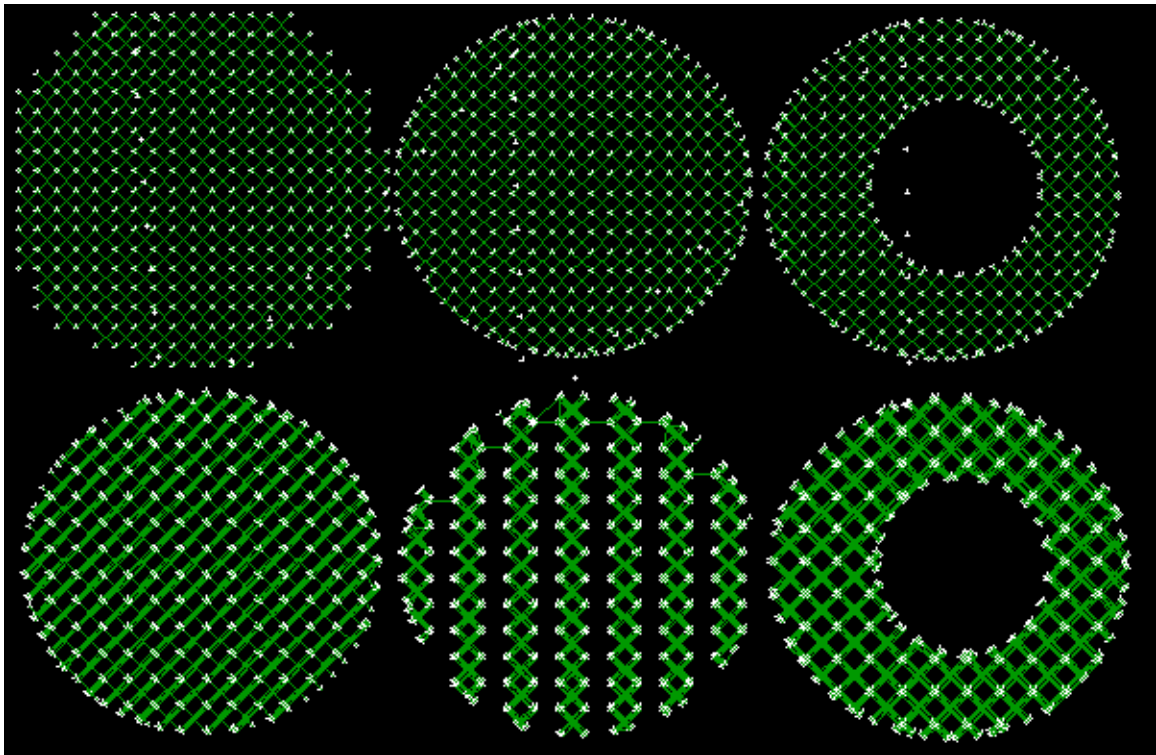
This parameter specifies the motif to be used in width or height.

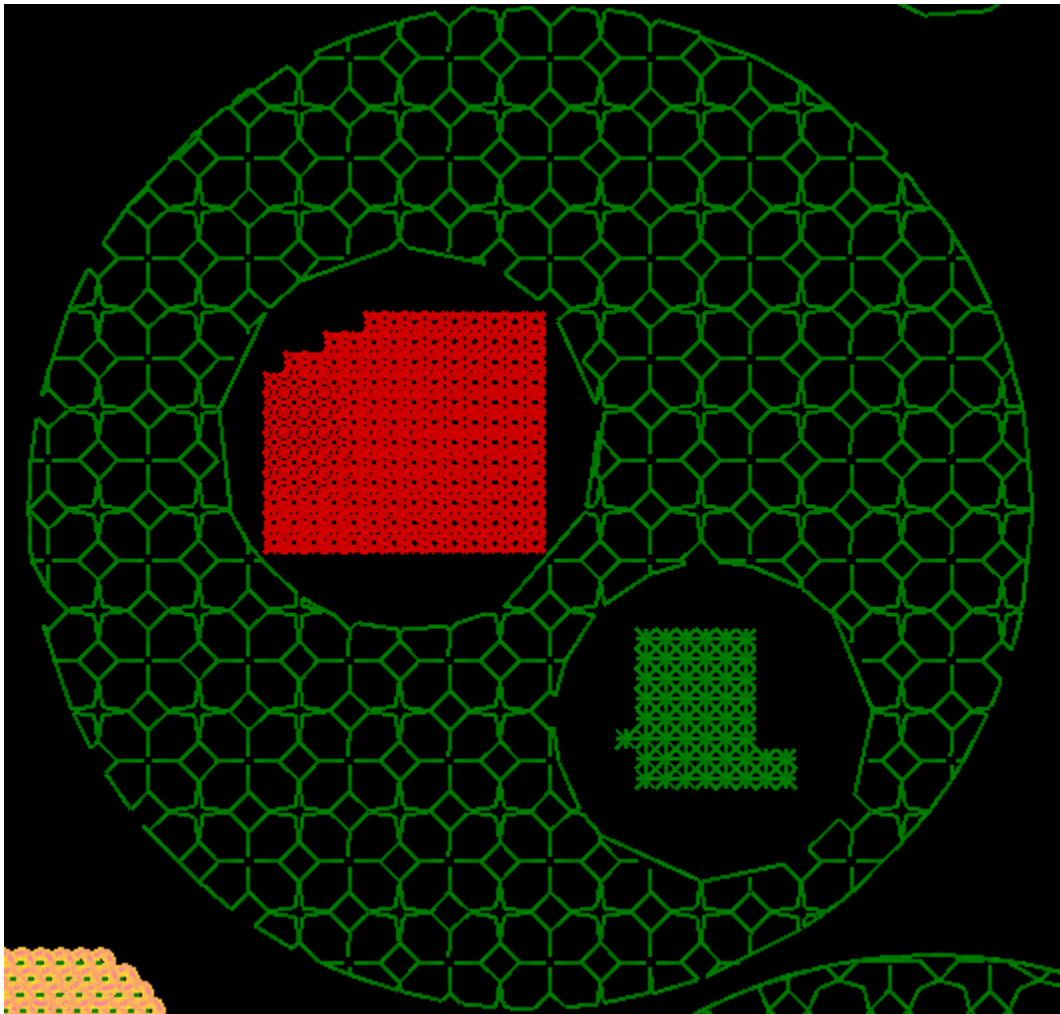
### **Size X**

This parameter specifies the size X (width) of the motif.

### **Size Y**

This parameter specifies the size Y (height) of the motif.





## Motif

Motif parameters are shown in the following dialog box:

The dialog box is titled "Filling Attributes" and contains a "Motif Fill" tab. It is divided into several sections for configuring motif parameters.

**Row Spacing Section:**

- Row Spacing: 2.5 mm
- Offset: 0 mm
- Top Spacing: 0 mm
- Left Spacing: 0 mm

**Stitching Options:**

- ☐ One Way Stitching
- ☐ Extend Stitch
- ☐ Overlap Last And First Stitch
- ☐ Omit Last And First Stitch
- ☐ Use Gap Stitch As Stitch
- ☐ First Gap Stitch AS Stitch

**Global Options:**

- ☒ Clip Motifs to fit Shape
- ☐ Trap On Boundary
- ☐ Smooth Go
- ☒ Adjust Stitches On Curve
- ☐ First Gap Stitch

**Motif 1 Section:**

- Motif: single (dropdown menu)
- Size X: 5 mm
- Size Y: 0 mm
- Column Size 1: 2.5 mm
- Stitch Gap 1: 0 mm
- Repeat Count 1: 1

**Motif 2 Section:**

- Motif: (none) (dropdown menu)
- Size X: 5 mm
- Size Y: 0 mm
- Column Size 2: 0 mm
- Stitch Gap 2: 0 mm
- Repeat Count 2: 1

**Buttons:**

- Layout (top right)
- Line Parameters (next to Stitch Gap 2)
- Save As Current (bottom left)
- OK, Cancel, Apply, Help (bottom right)

### Row spacing

This parameter specifies the row spacing of the motif. The number of times pattern appears vertically is calculated from this value.

### Row offset

This parameter specifies the row offset of the motif for next row.

### Top spacing

This parameter specifies the row space to be left at the top of the motif.

### Left spacing

This parameter specifies the left space to be left of the motif.

### One way stitching

This parameter specifies the one way stitching of the motif.

### Clip Motif to fit shape

This parameter specifies that the motif should be clipped to the boundary of the object after fill.

### Trap on boundary

This parameter specifies that the tracking must be on the boundary of the object.

### Smooth Go

This parameter specifies that the motif should start and end at boundary of the object.

### Adjust stitches on curve

This parameter specifies that the motif stitches should be adjusted to the boundary of the object.

### First gap stitch

This parameter is used to specify that first create a gap stitch with half the length of stitch length and then creating remaining stitches. This helps us to apply sequins with single motif.

### Extend stitch

This parameter is used to specify that if required extend the stitch to form a proper motif.

### Overlap last and first stitch

This parameter is used to specify that first and last of the two rows to become same.

### Omit last and first stitch

This parameter is used to specify that last and first of the two rows to be removed.

### Use last and first stitch

This parameter is used to specify that last and first of the two rows to be removed.

### Use gap stitch as stitch

This parameter is used to specify that all the gap stitches created while stitches generated, must be converted to stitches of the object. This helps you to get two stitch lengths in the same object.

### First gap stitch as stitch

This parameter is used to specify that first gap stitches created while stitches generated, must be converted to stitches of the object. This helps one to get adjust stitch lengths for sequin.

### First gap stitch

This parameter is used to specify that first create a gap stitch with half the length of stitch length and then creating remaining stitches. This helps us to apply sequins with single motif.

### Motif

This parameter specifies the motif to be used.

### Size X

This parameter specifies the size X (width) of the motif.

### Size Y

This parameter specifies the size Y (height) of the motif.

### Column size

This parameter specifies the distance between a pair of motifs.

### Stitch Gap

This parameter specifies the gap distance between a pair of motifs.

### Repeat count

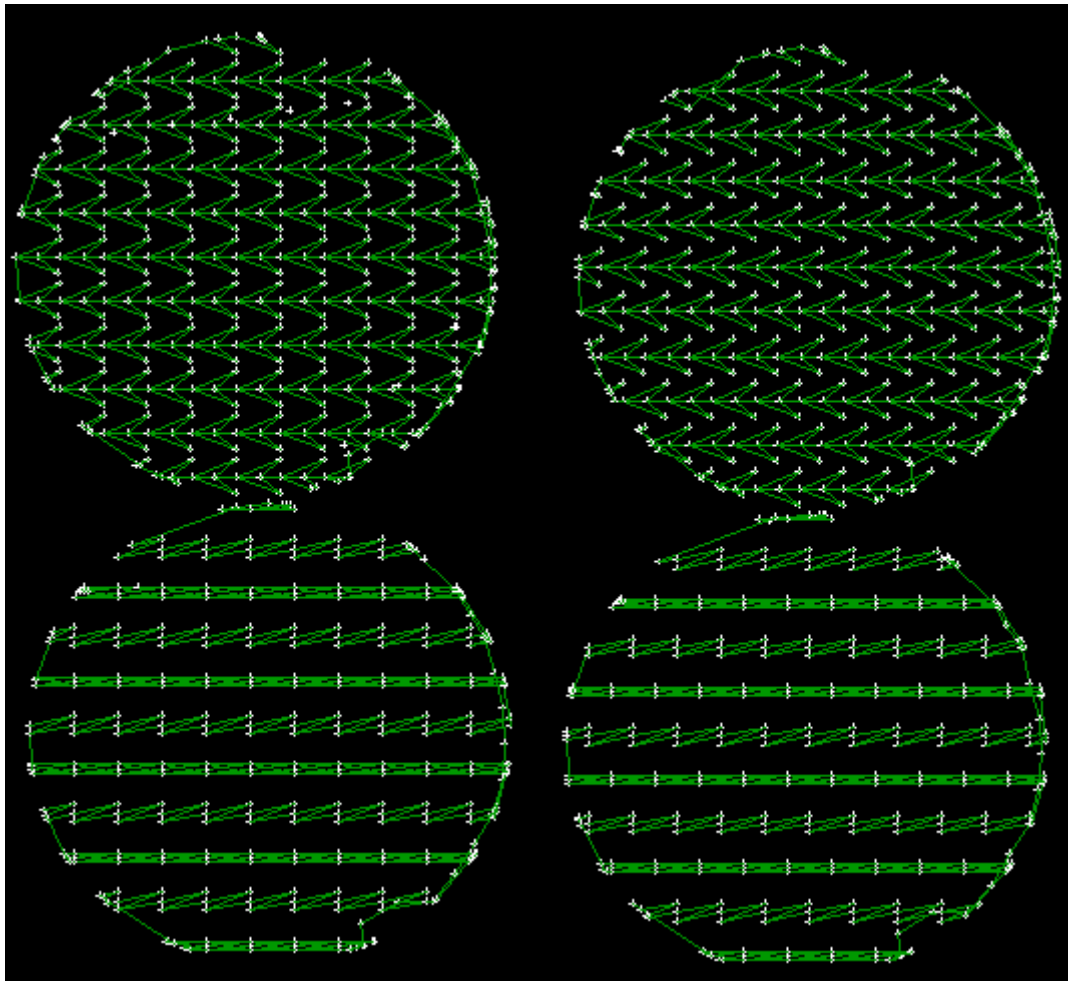
This parameter specifies the number of time a motif to run at the same place.

### Column size

This parameter specifies the distance between a pair of motifs.

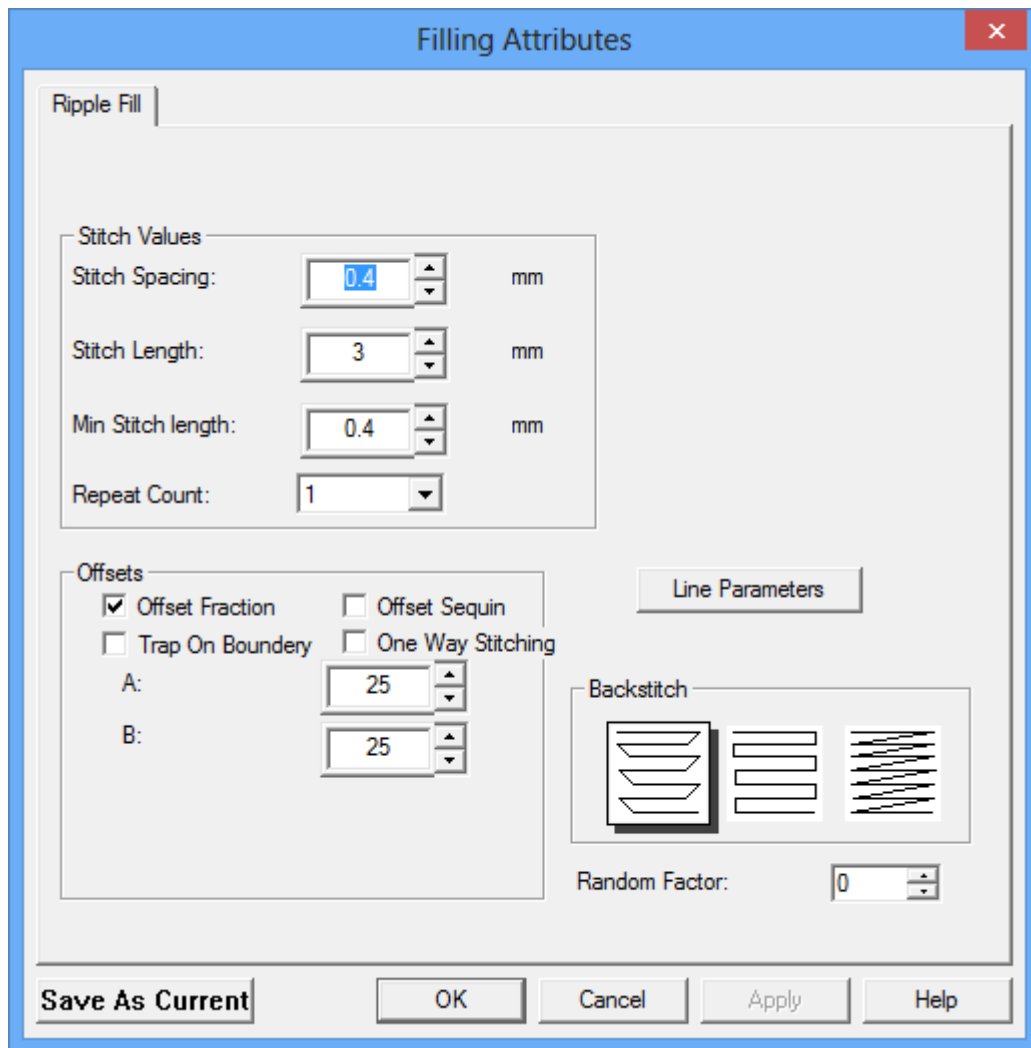
### Line Parameter

Some of the parameters of the line can be changed here for line fill. A repeat count may be used to create auto style.



### ***Ripple***

Ripple parameters are taken from Tatami fill parameters. These are shown in the following dialog box:



### Stitch spacing

This parameter specifies the distance between a pair of lines. This is also called stitch density.

### Stitch length

This parameter specifies the distance between a pair of stitches. You can see in the above diagram.

### Minimum stitch length

This parameter specifies the minimum distance between a pair of stitches. Any stitch less than this value will be ignored.

### Offset fractions

This parameter specifies the distance between a pair of stitches on different lines. By manipulating offset fractions, you can create fills where obvious split lines are not visible and the stitch penetrations are more clearly visible.



### Offset sequin

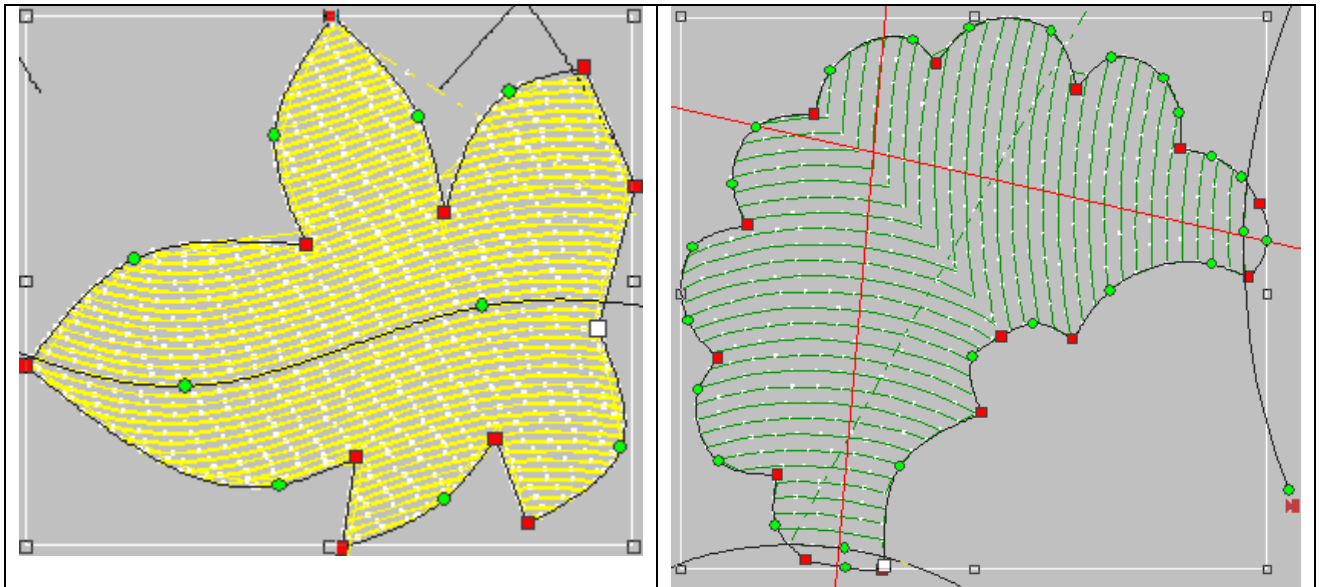
This parameter specifies that sequins should be placed at offset position.

### Backstitch

There are two ways in which a backstitch can take place. One is offset corners and the other one is square corners as specified in the dialog box.

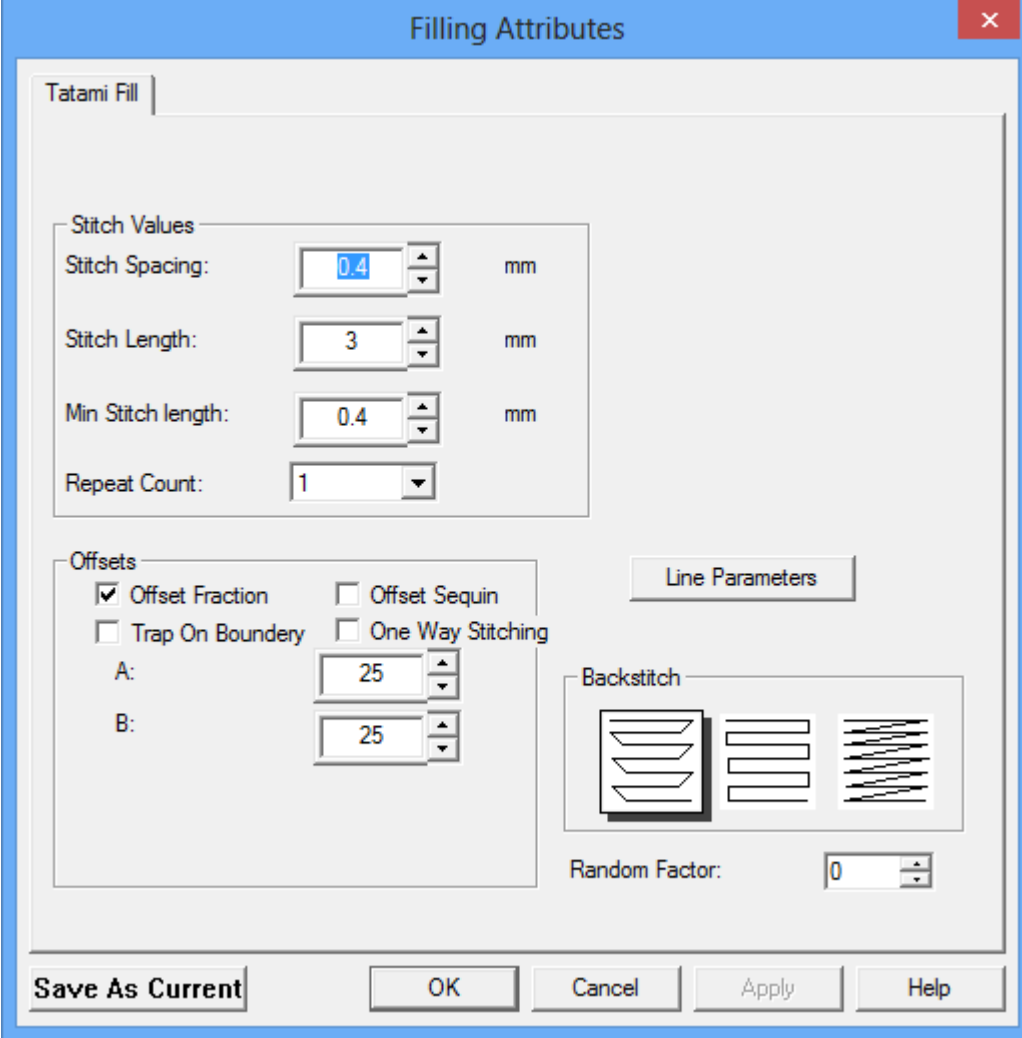
### How to use ripple fill

First create an object for Tatami fill. Now create a line object and add sufficient points to make it as a sin wave curve.



## Water fill

Water fill parameters are taken from Tatami fill parameters. These are shown in the following dialog box:

The image shows a software dialog box titled "Filling Attributes" with a blue title bar and a red close button. It contains a "Tatami Fill" tab. Under the "Stitch Values" section, there are four input fields: "Stitch Spacing" (0.4 mm), "Stitch Length" (3 mm), "Min Stitch length" (0.4 mm), and "Repeat Count" (1). The "Offsets" section has checkboxes for "Offset Fraction" (checked), "Offset Sequin", "Trap On Boundary", and "One Way Stitching", along with input fields for "A:" (25) and "B:" (25). A "Line Parameters" button is located to the right of the "Offsets" section. The "Backstitch" section includes a diagram showing three different stitching patterns: a zigzag, a series of parallel lines, and a series of overlapping lines. Below this diagram is a "Random Factor" input field set to 0. At the bottom of the dialog are buttons for "Save As Current", "OK", "Cancel", "Apply", and "Help".

**Filling Attributes**

Tatami Fill

Stitch Values

Stitch Spacing: 0.4 mm

Stitch Length: 3 mm

Min Stitch length: 0.4 mm

Repeat Count: 1

Offsets

☒ Offset Fraction ☐ Offset Sequin

☐ Trap On Boundary ☐ One Way Stitching

A: 25

B: 25

Line Parameters

Backstitch

Random Factor: 0

Save As Current OK Cancel Apply Help

### Stitch spacing

This parameter specifies the distance between a pair of lines. This is also called stitch density.

### Stitch length

This parameter specifies the distance between a pair of stitches. You can see in the above diagram.

### Minimum stitch length

This parameter specifies the minimum distance between a pair of stitches. Any stitch less than this value will be ignored.

### Offset fractions

This parameter specifies the distance between a pair of stitches on different lines. By manipulating offset fractions, you can create fills where obvious split lines are not visible and the stitch penetrations are more clearly visible.

### Offset sequin

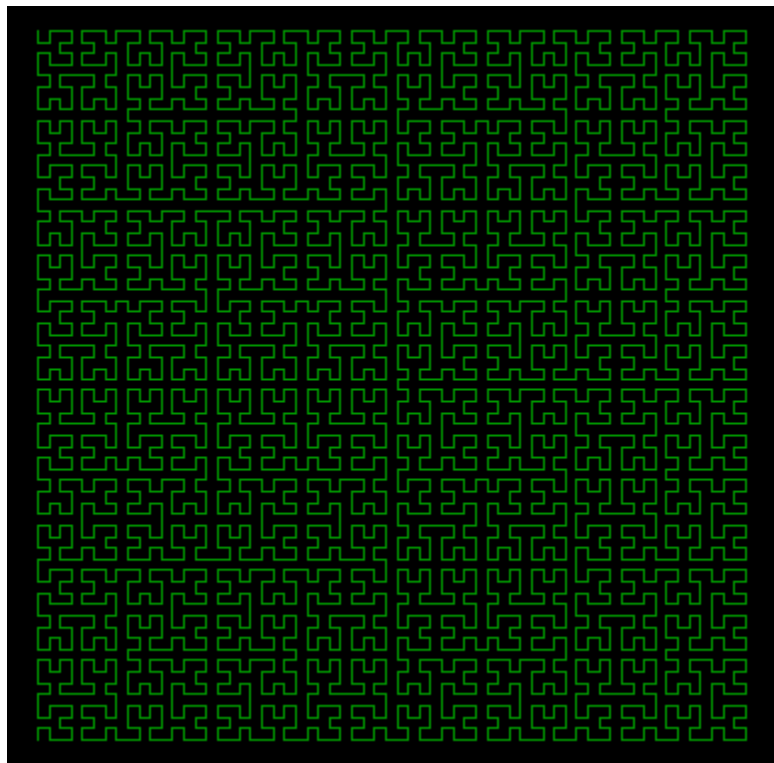
This parameter specifies that sequins should be placed at offset position.

### Backstitch

There are two ways in which a backstitch can take place. One is offset corners and the other one is square corners as specified in the dialog box.

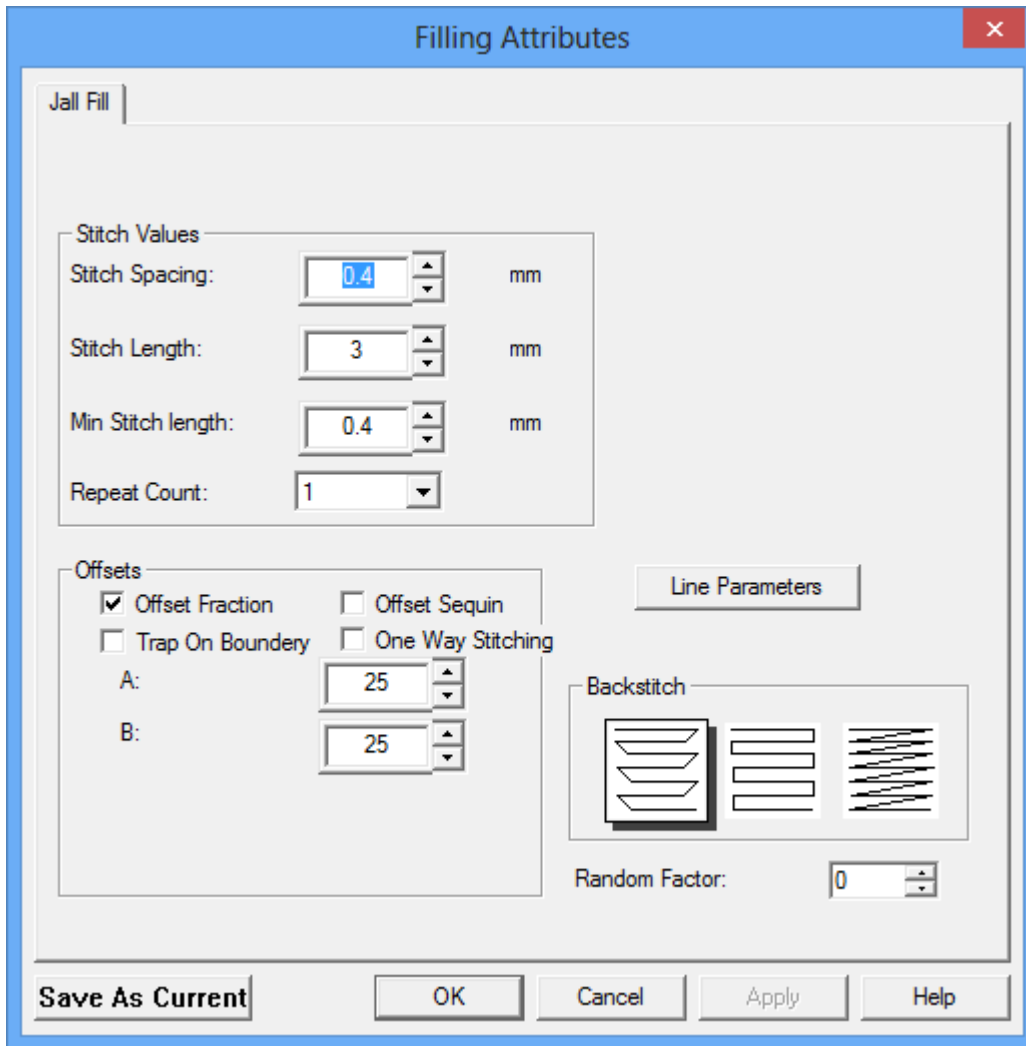
### How to use water fill

First create an object for Tatami fill and fill it with water fill.



### ***Jall fill***

Jall fill parameters are taken from Tatami fill parameters. These are shown in the following dialog box:



### Stitch spacing

This parameter specifies the distance between a pair of lines. This is also called stitch density.

### Stitch length

This parameter specifies the distance between a pair of stitches. You can see in the above diagram.

### Minimum stitch length

This parameter specifies the minimum distance between a pair of stitches. Any stitch less than this value will be ignored.

### Offset fractions

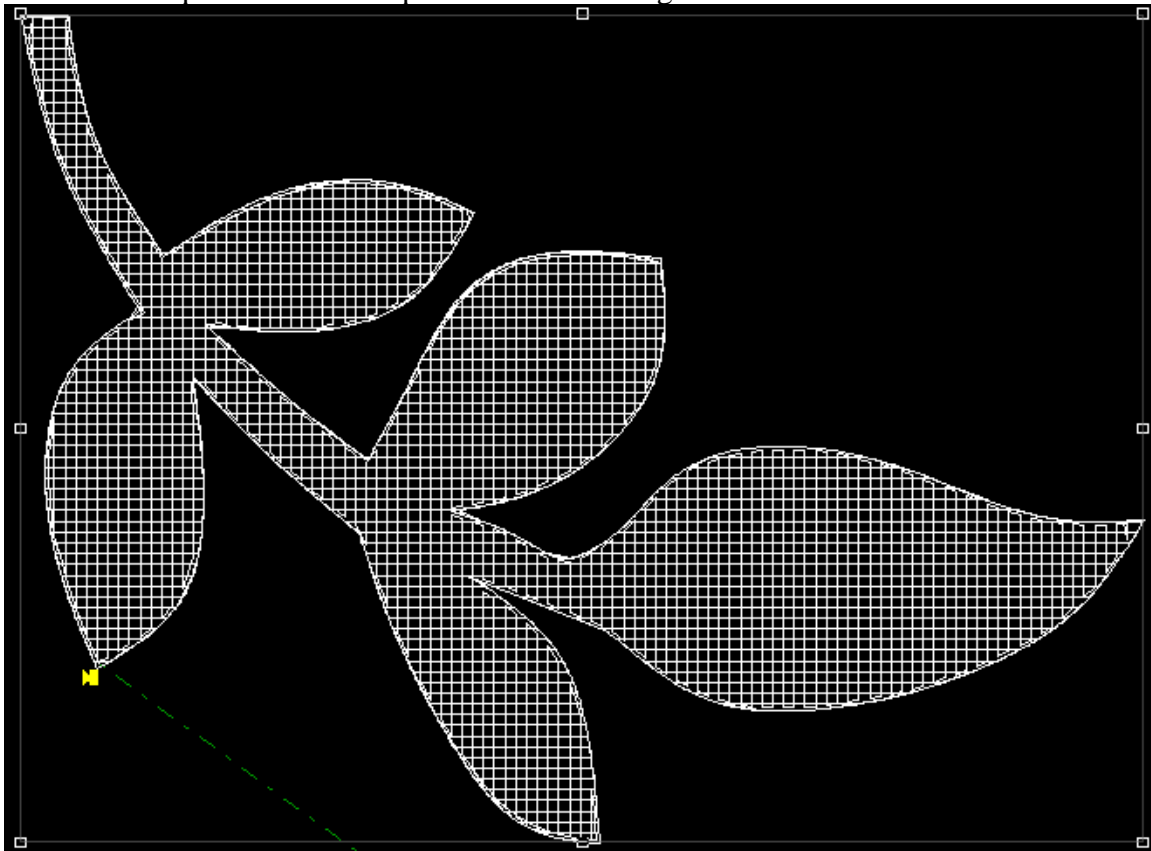
This parameter specifies the distance between a pair of stitches on different lines. By manipulating offset fractions, you can create fills where obvious split lines are not visible and the stitch penetrations are more clearly visible.

### Offset sequin

This parameter specifies that sequins should be placed at the offset position.

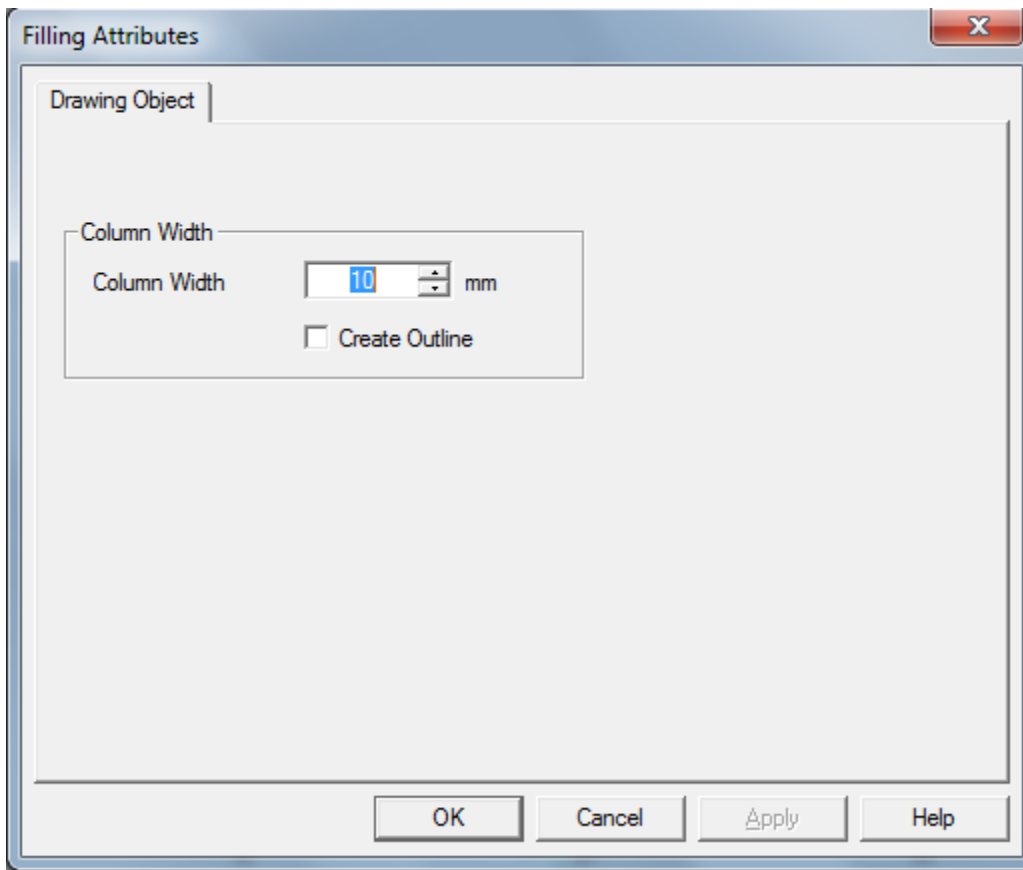
### Backstitch

There are two types in which a backstitch can take place. One is offset corners and the other one is square corners as specified in the dialog box.



### ***Stipple fill***

Stipple fill parameters are shown in the following dialog box:

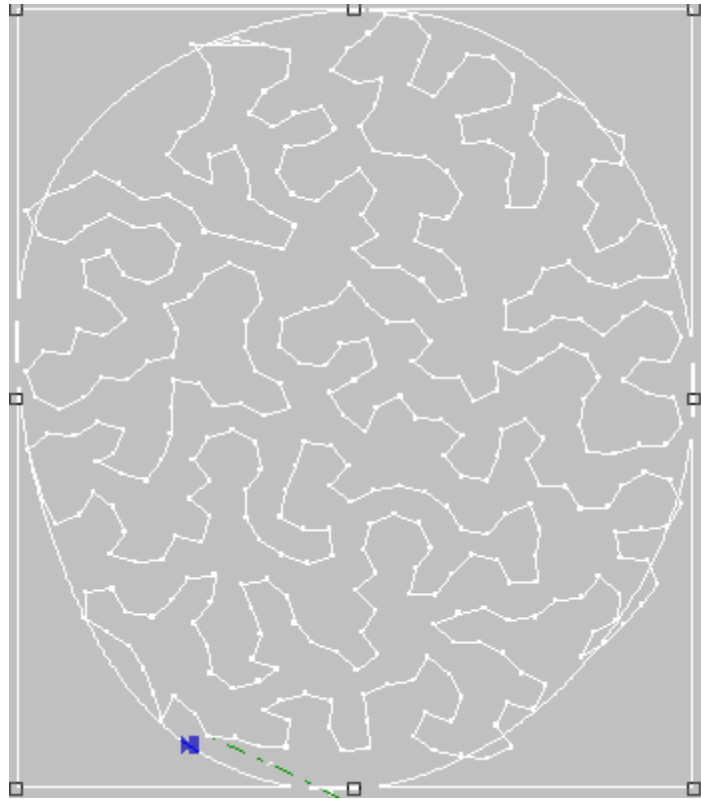


### Column Width

This parameter specifies the distance between the outlines generate.

### Create Outline

This parameter specifies that create a separate outlines which can be used for line fill.



## **Design setting**

Once a design is punched a lot of customization is required to make it run on the machine. We discuss it in detail about it:

### ***Underlay***

Underlay parameters are shown in the following dialog box:

Filling Attributes ✕

Underlay

☒ Underlay:
 

Piping

Parameters

Margins for Underlay

1:

0.2

mm

2:

0.2

mm

3:

0.2

mm

☐ Gap as Percentage

Underlay Spacing Level: 

Normal

Stitch Spacing First: 

0.4

 mm

Stitch Spacing Second: 

0.4

 mm

Stitch Length First: 

5

 mm

Stitch Length Second: 

5

 mm

Save As Current

OK

Cancel

Apply

Help

### Underlay types for Satin

Evx provides a selection of underlay types to choose from for Tatami like fill. You can choose an underlay from the dropdown window.

Choose the value from the dropdown for this parameter. The choices that you have for this field are:

Tracking	Tracking Only
Single	Single underlay for one side only
Double	Both sides underlay
Zigzag	Zigzag underlay
Zigzag Plus	Zigzag plus underlay
Cross	Cross underlay



Cross Plus	Cross plus underlay
Netting	Netting underlay
Netting Plus	Netting plus underlay
Piping	Piping underlay
Piping Plus	Piping plus underlay
Zigzag Midway	Zigzag Midway underlay
Netting Midway	Netting Midway underlay

### Underlay types for Tatami

Evx provides a selection of underlay types to choose from for Tatami like fill. You can choose an underlay from the dropdown window.

Choose the value from the dropdown for this parameter.  
The choices that you have for this field are:

Edging	Edging only
Piping	Piping underlay type
Piping +	This is Piping + edging underlay
Netting	Netting type underlay
Netting+	This is Netting + edging underlay
Star	Star type underlay
Star+	This is Star + edging underlay
Zigzag	Zigzag type underlay
Zigzag Double	This is Zigzag double underlay
Jall	Jall type underlay
Jall + Star	This is Jall + Star underlay
Netting + Star	Netting + Star underlay

### Margin for underlay

This parameter specifies the offset distance at which underlay should be created. This is used in case we created our objects with dual types (dual Bezier). First parameter is the offset at starting of object. Second parameter is the offset at the end of the object. And the third one is the offset on both sides of the object.

### Underlay spacing level

Choose the value from the dropdown for this parameter.

The choices that you have for this field are:

Normal	Normal spacing
Thin (Light)	Thin spacing
Thick(Dense)	Thick spacing

### Stitch spacing first

This parameter specifies stitch spacing for the first underlay.

### Stitch spacing second

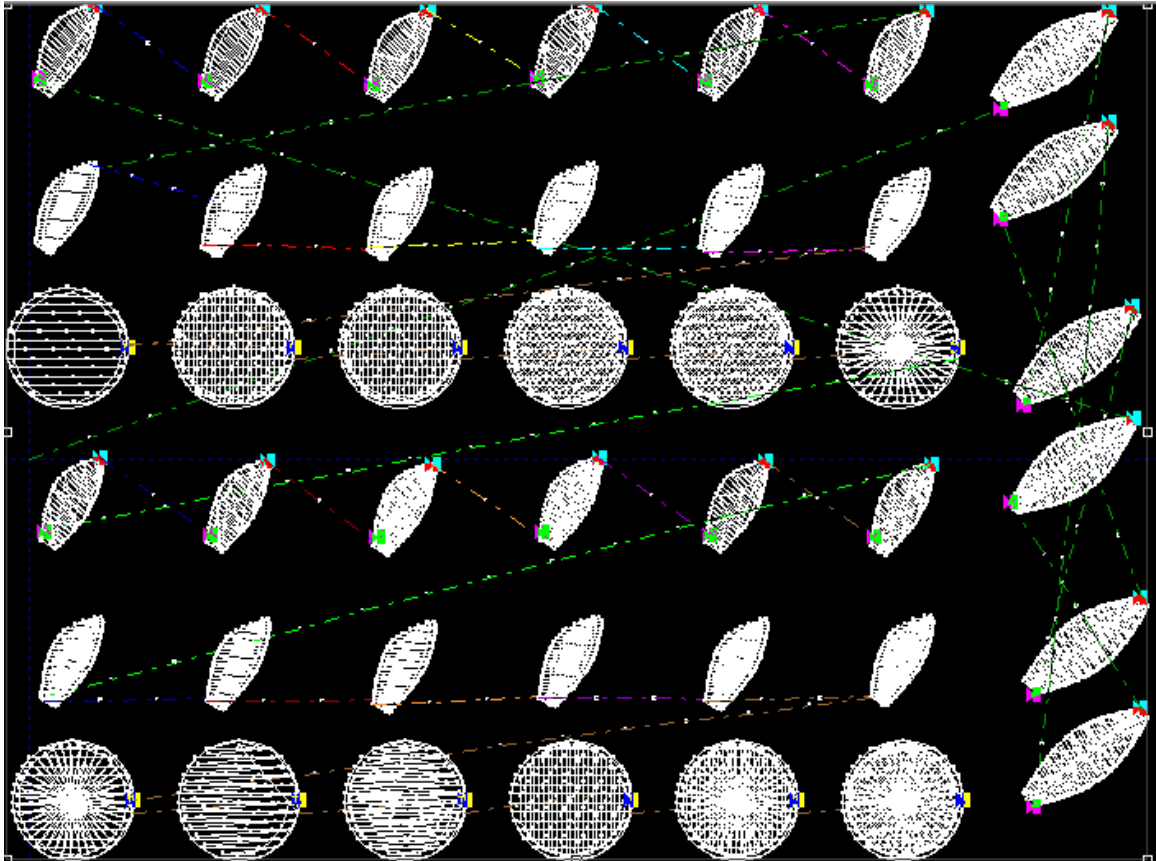
This parameter specifies stitch spacing for the second underlay.

### Stitch length first

This parameter specifies stitch length for the first underlay.

### Stitch length second

This parameter specifies stitch length for the second underlay.



### ***Add outline***

Add outline parameters are shown in the following dialog box:

×

Add Outline Filling Attributes

Add Outline

Border Values

Offset:

0

mm

☐ Add Inside

☐ Same Color

Number of Outline:

1

Stitch Type

☒ Central Satin

☐ Satin

☐ Line

Stitch Values

Column Width:

1

mm

Stitch Spacing:

0.4

mm

Stitch Values

Stitch Length:

4

mm

Number of Runs:

1

Style

single

OK

Cancel

Apply

Help

## Border values

These parameters are explained as follows:

Offset	This is the value of the offset by which outline will be added to the object
Add Inside	If checked, the outline will be added inside the object; otherwise it will be added outside the object.
Same color	If checked the outline will have the same color as of the selected object, otherwise it will pick up the next color in the order.
Number of outline	This is the value of the number of outline to be added.

## Stitch type

This parameter specifies the stitch type of the outlines to be added:

Central Satin	Outline will be central satin stitch.
Satin	Outline will be satin stitch.
Line	Out line will be line stitch.

## Column width

This parameter specifies the column width of the central satin.

## Stitch spacing

This parameter specifies the distance between a pair of lines. This is also called stitch density.

## Stitch length

This parameter specifies the distance between a pair of stitches. You can see in the above diagram.

## Number of run

This parameter specifies the number of runs for a line stitch.

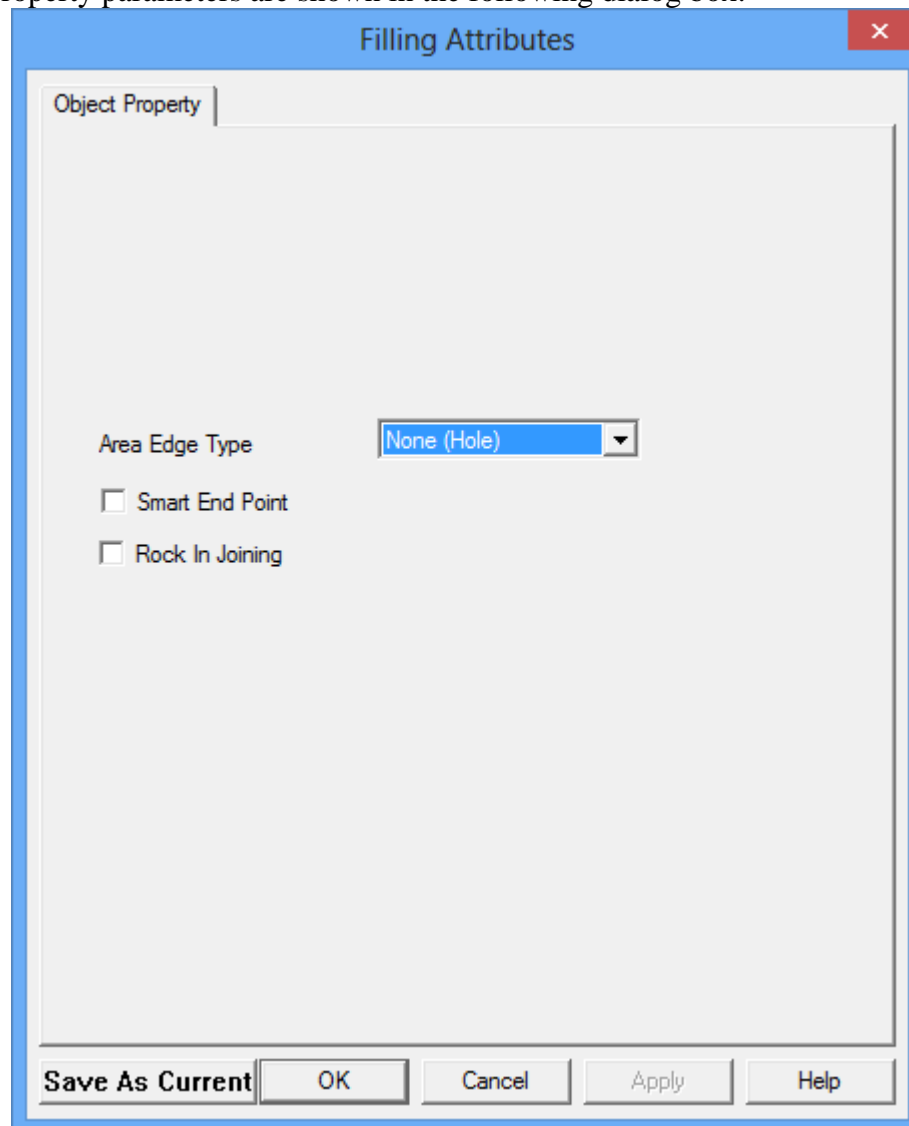
## Style

This parameter specifies the style from the drop down. You can add new styles to the system with style editor.



## Object Property

Object property parameters are shown in the following dialog box:



### Area fill edge type

Choose the value from the dropdown for this parameter.

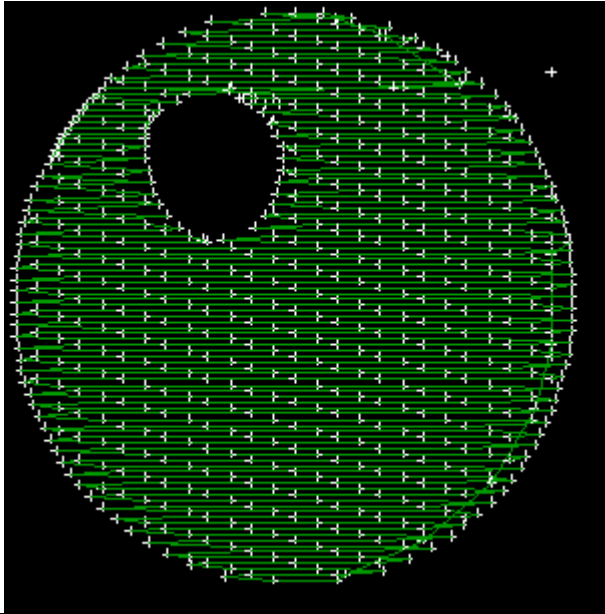
The choices that you have for this field are:

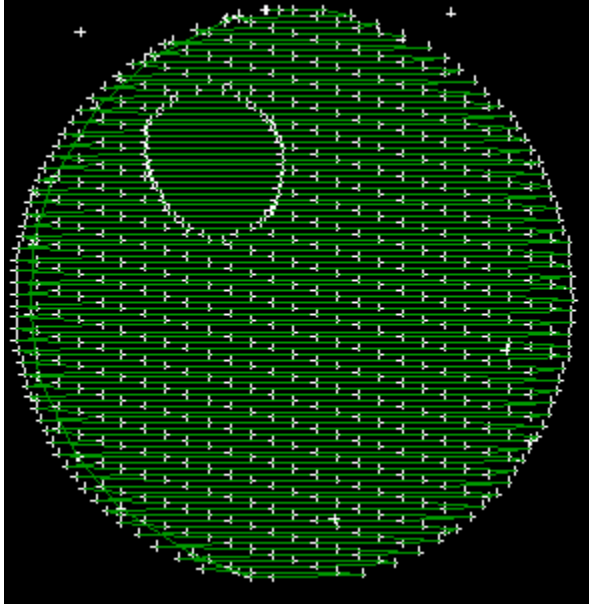
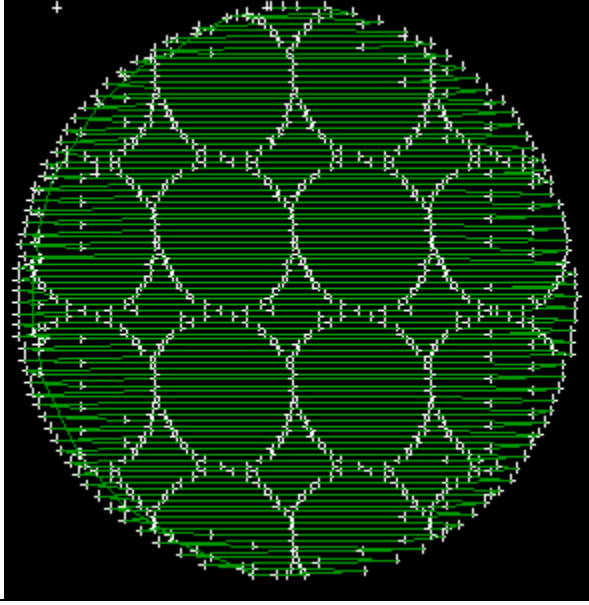
None (Hole)	The boundary of this object will act like a hole in the area fill.
Patch	The boundary of this object will act like a patch in the area fill.
Pattern	The boundary of this object will act like a pattern in the area fill.
Line stop over	The boundary of this object will act like a Line stop over in the area fill.
Ripple fill type	The boundary of this object will act like a ripple in another ripple filled object.

Crop fill type	Crop the stitch with this object
Crop fill type Before	Crop the stitch with this object before splitting the stitches using auto jump or auto splitting.
Balloons	Balloons used in central fill to make curves in the central object. Central outline will start with balloons and end with balloons to give a curve shape in regular central stitches.
Crop fill type Reverse	Crop the stitch with this object and at cropin position reverse the stitching.
Splitters	These will split the stitches at this object and fill these segments separately.

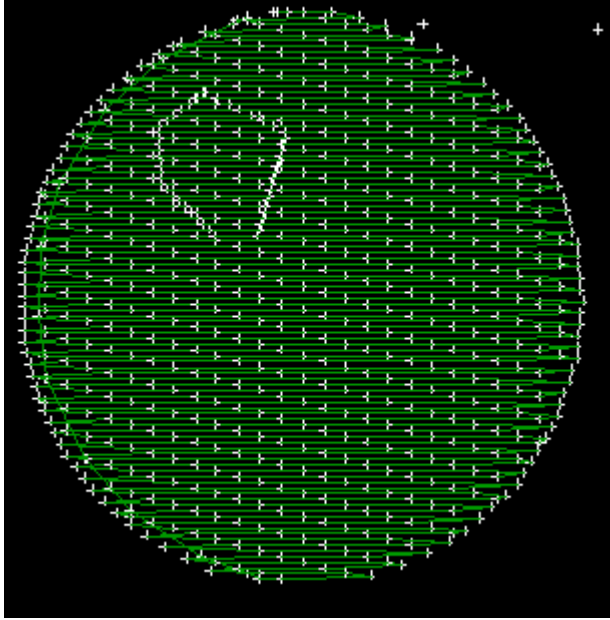
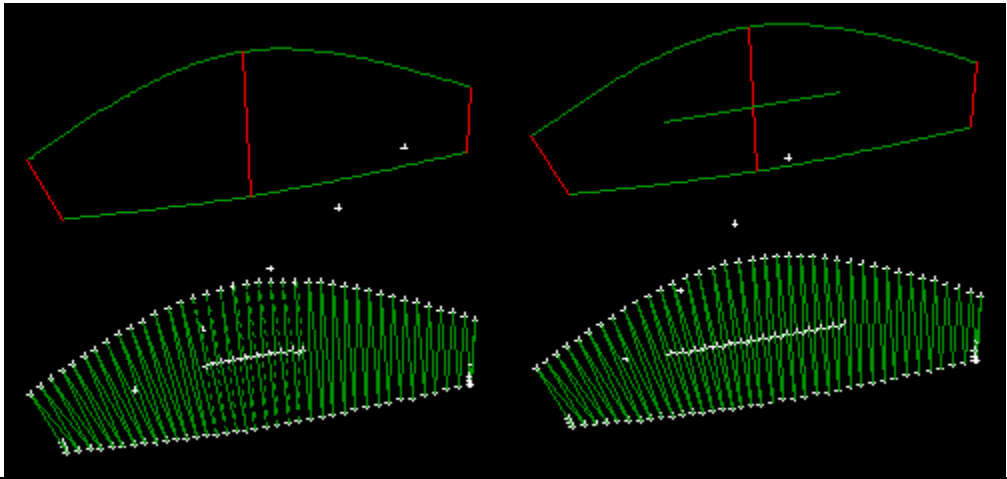
### Area edge type

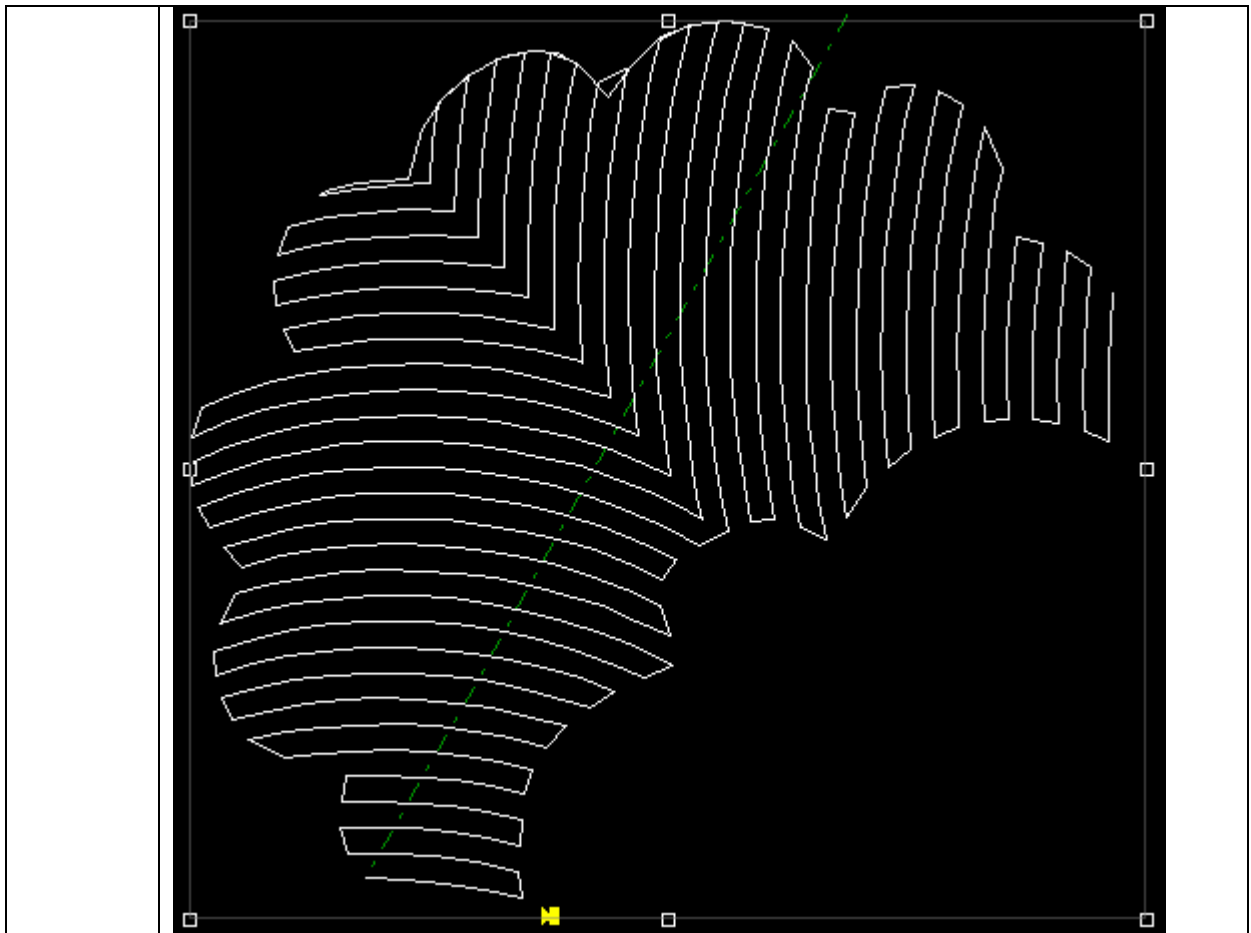
This parameter specifies the type of edge type for this object.

None (Hole)	<p>This object is of type hole. If this object is grouped in Tatami, program fill, motif fill etc. then a hole will be created by its boundary points.</p> 
Patch	<p>This object is of type patch. If this object is grouped in Tatami, program fill, motif fill etc. then a patch will be created by its boundary points. It means whenever any stitch is crossing these kinds of objects, they will be starting and ending at the boundary of this object.</p>

		
Pattern	<p>This object is of type pattern. If this object is grouped in Tatami, program fill, motif fill etc. then a pattern will be created by its boundary points. It means whenever any stitch is crossing these kinds of objects, they will be starting and ending at the boundary of this object. More over, these will be filled in the entire fill area.</p> 	
Line stop over	<p>This object is of type line stop over. This means that as and when any stitch is crossing this object, a stitch will be marked at its boundary.</p>	

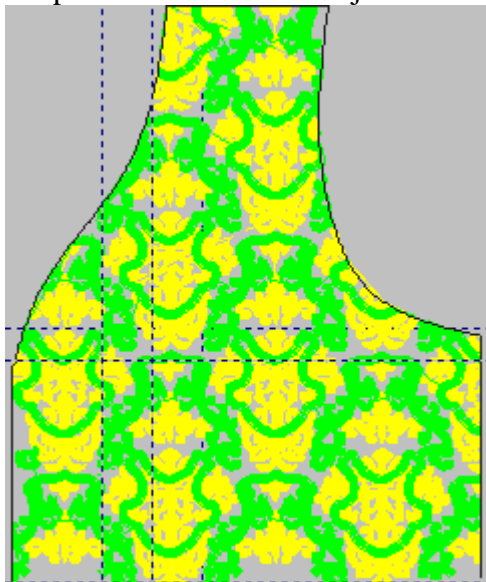


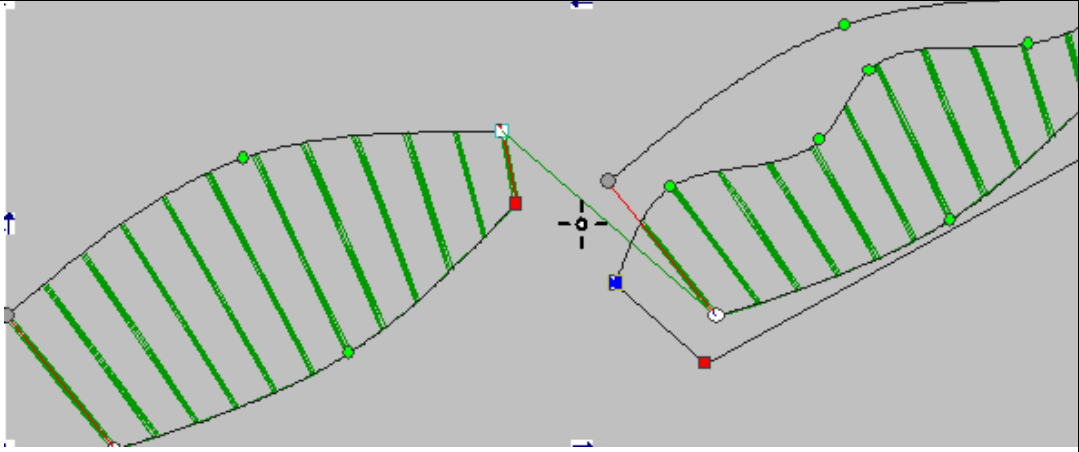
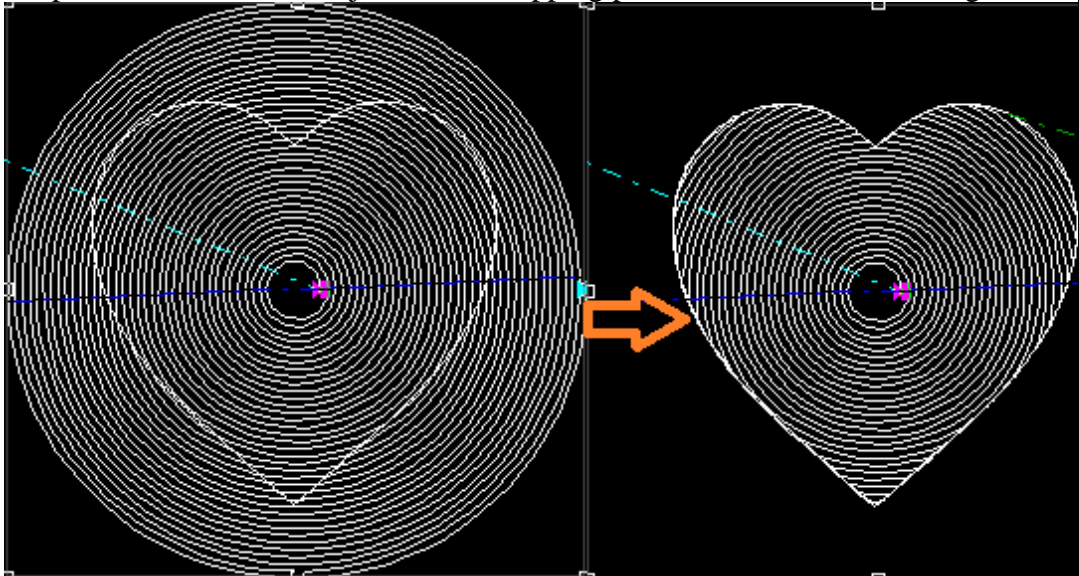
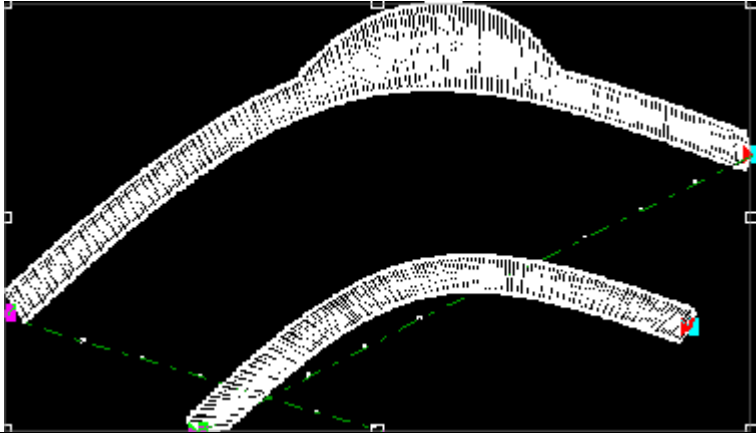
	 
Ripple type	This object is of type ripple. If this object is grouped in Tatami and a ripple fill is applied then a ripple stitch will be created by its boundary points.



Crop fill  
type

Crop the stitch with this object.



	
Crop fill type Reverse	<p>Crop the stitch with this object and at cropping position reverse the stitching.</p> 
Balloons	<p>Balloons used in central fill to make curves in the central object. Central outline will start with balloons and end with balloons to give a curve shape in regular central stitches.</p> 
Splitters	<p>These will split the stitches at this object and fill these segments separately.</p>



### Smart end point

This parameter specifies that this object should consider smart end point in line filling type of objects. This is very much useful to avoid backtrack in joining an object.

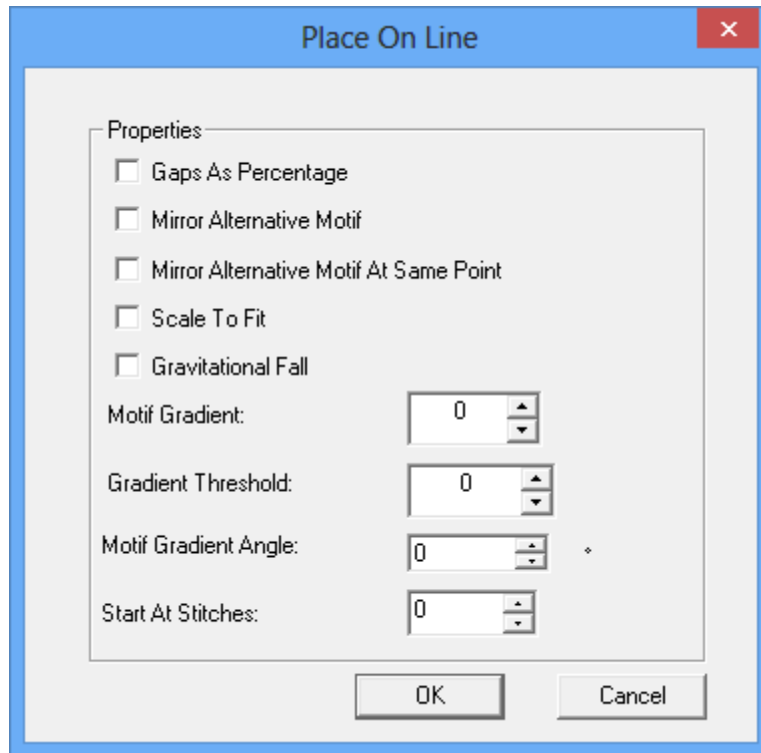
### Rock in join

This parameter specifies that this object should not alter its stitches in branches (joining). This is very much useful in sequin designs where we don't want that the pattern of the sequin should not change and route of the design is made.

### ***Place On line parameters***

Place On line tool allow the user to place the objects on a curve. Rename the curve object with -N where N can be 1, 2 , 3 etc. Select objects to be placed, and click this place on line tool.

Place On line parameters are shown in the following dialog box:



### Gaps as percentage

This parameter specifies that gaps to be calculated as percentage define in name property of the object.

### Mirror Alternative motif

This parameter specifies that mirror alternative motif.

### Mirror Alternative motif at same point

This parameter specifies that mirror alternative motif at the same point.

### Scale to fit

This parameter specifies that motif need to be scaled according the current stitch length. So smaller the stitch smaller will be the object.

### Gravitational fall

This parameter specifies that motif should be placed and should be vertically placed.

### Motif gradient

This parameter specifies that motif should be gradually increase or decrease proportionally with the previous motif.

### Gradient threshold

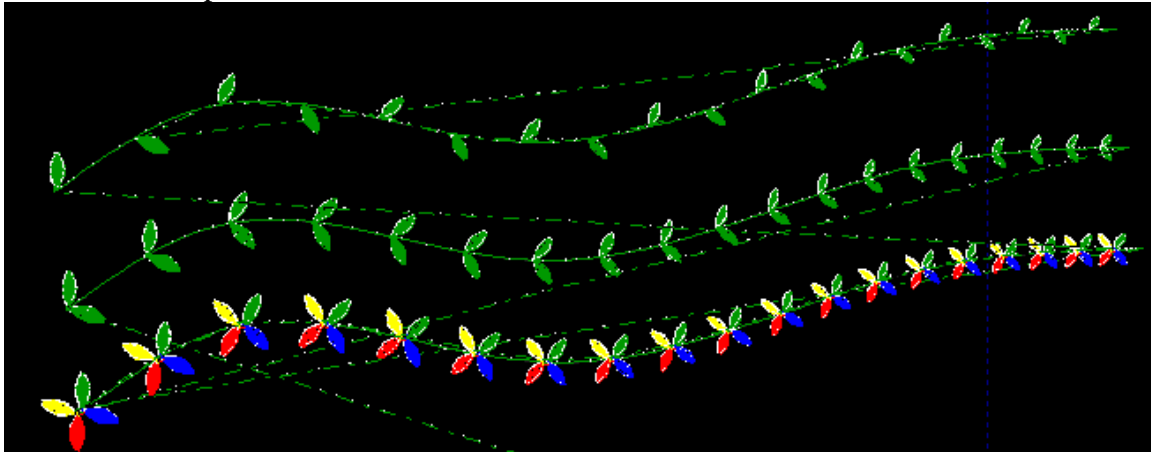
This parameter specifies that motif should be not cross gradient threshold value. Once reached this value size of the following motif will be unchanged.

### Motif gradient angle

This parameter specifies that motif should rotate each time with this value.

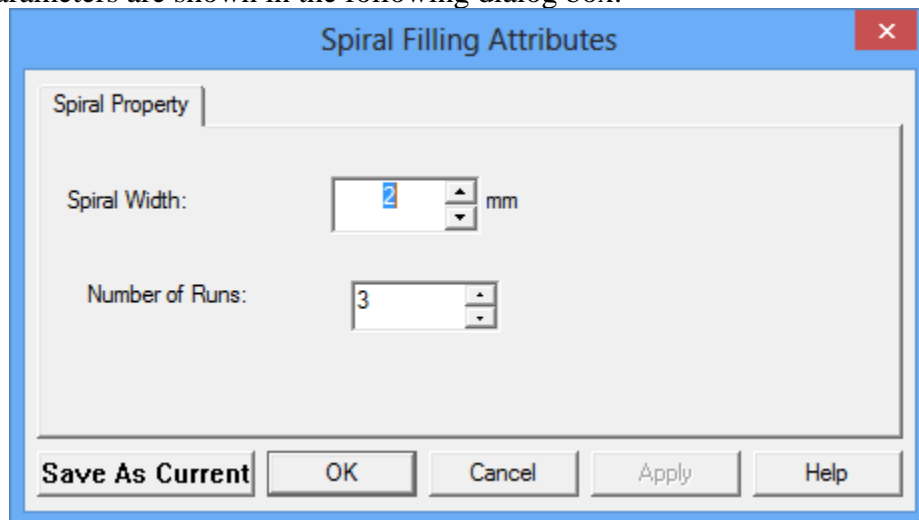
### Start at stitch

This parameter specifies that motif should be counted from Start at stitch position rather than first stitch position.



### ***Spiral parameters***

Spiral parameters are shown in the following dialog box:



### Spiral width

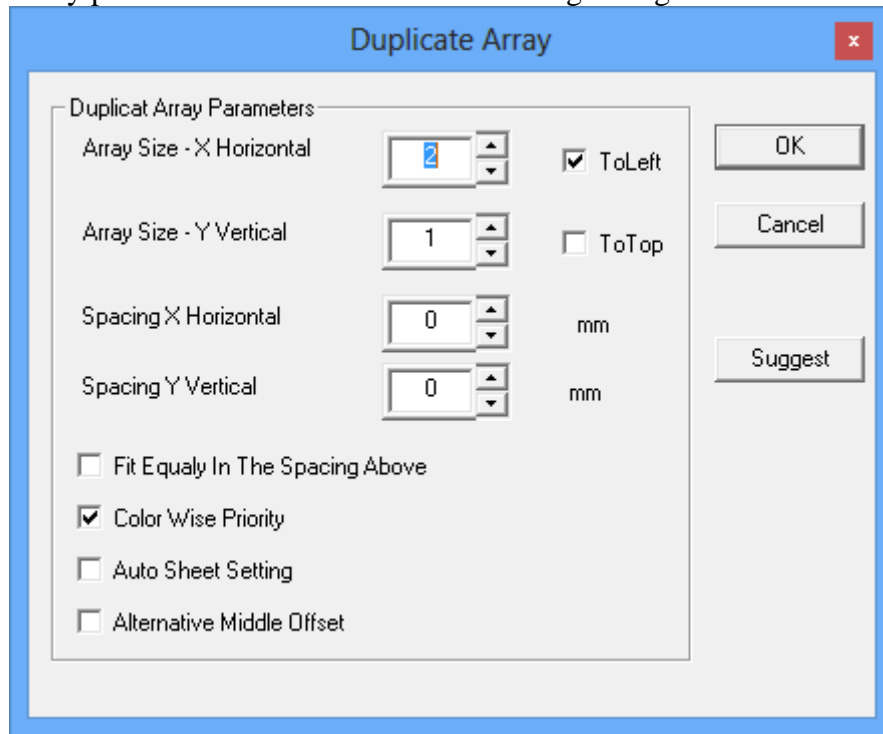
Spiral width is the distance between two pairs of spirals.

### Number of run

Number of run is the number of spirals in the object.

## ***Duplicate Array***

Duplicate Array parameters are shown in the following dialog box:



### **Array size –X Horizontal**

This parameter specifies the Array size –X Horizontal the number of objects you want to place horizontally.

### **To left**

This parameter specifies the Array size –X Horizontal to start placing objects to the left of the objects.

### **Array size –Y Vertical**

This parameter specifies the Array size –Y Vertical the number of rows you want to place.

### **To top**

This parameter specifies the Array size –Y Vertical to start placing objects from bottom to top.

### **Spacing –X Horizontal**

This parameter specifies the space between two objects from left to right.

### **Spacing –Y Vertical**

This parameter specifies the space between two rows you want to place.

Fit equally in the space above

This parameter specifies that all the objects should be fit in the space defined above.

Color wise priority

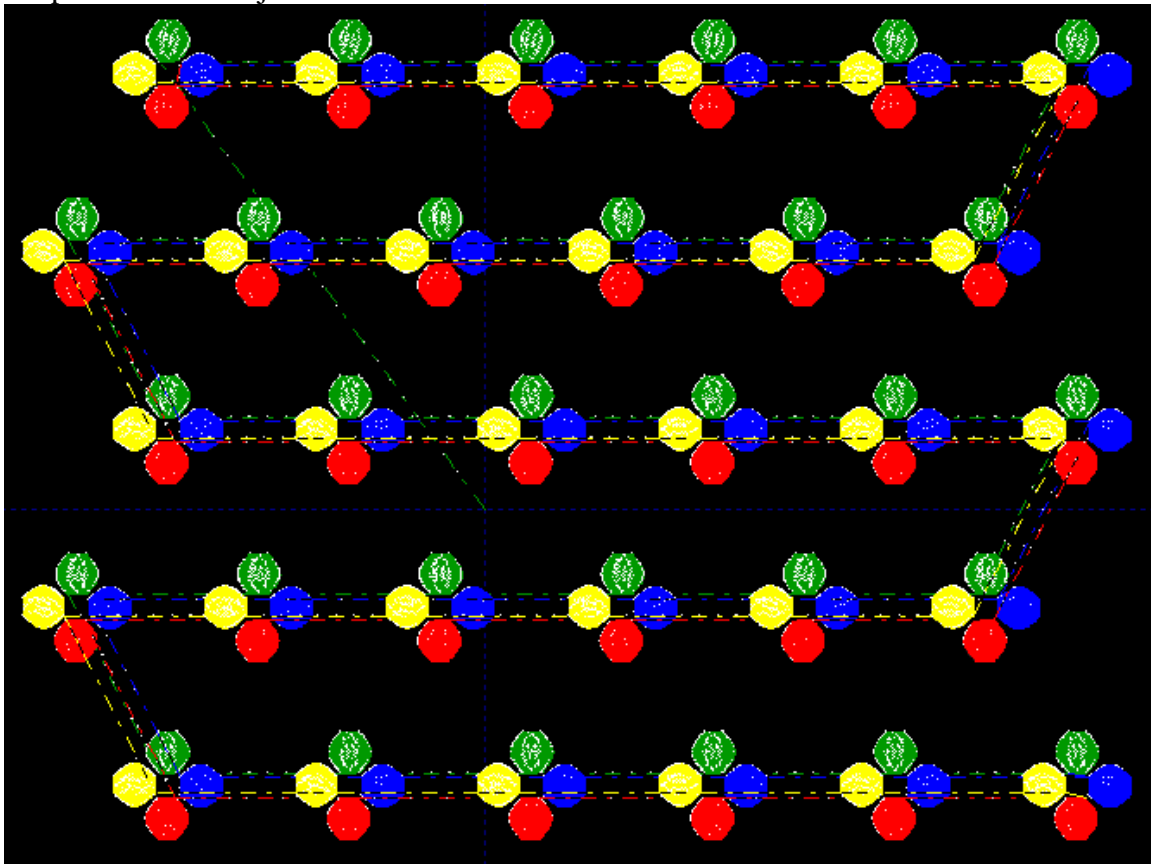
This parameter specifies that objects of the same color should be placed the way they are selected.

Auto sheet setting

This parameter specifies that objects must be placed in such a way they are matching with head to head distance uniformly.

Alternative middle offset

This parameter specifies that objects placed in the alternative rows should be in the middle of the previous row objects.

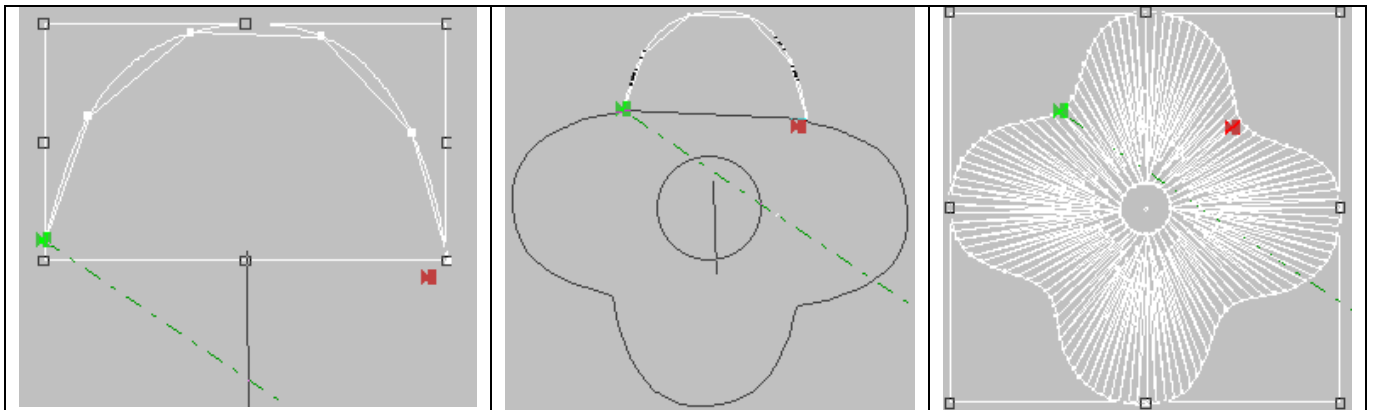
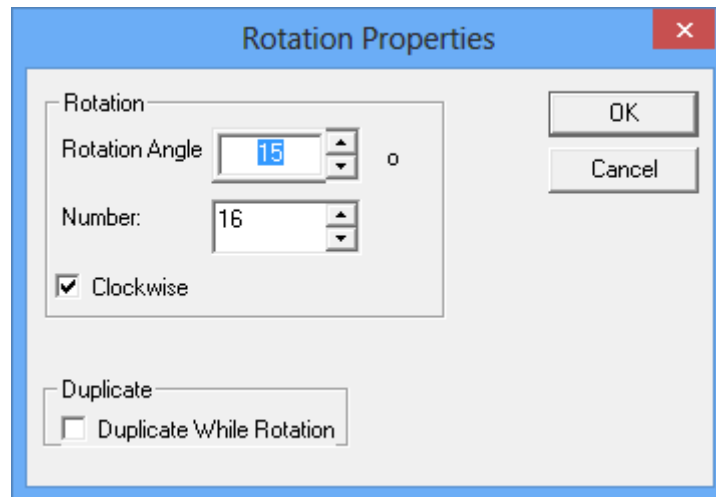


### ***On the fly satin***

On the fly satin objects can be created by specifying the no of objects to be part of it and an object to be duplicated. A circle will be created inside the crafted object and a satin is filled in between them.

Rotation properties are used which are shown in the following dialog box:





### Rotation Angle

These parameters specify that objects created to be rotated by this degree.

### Number

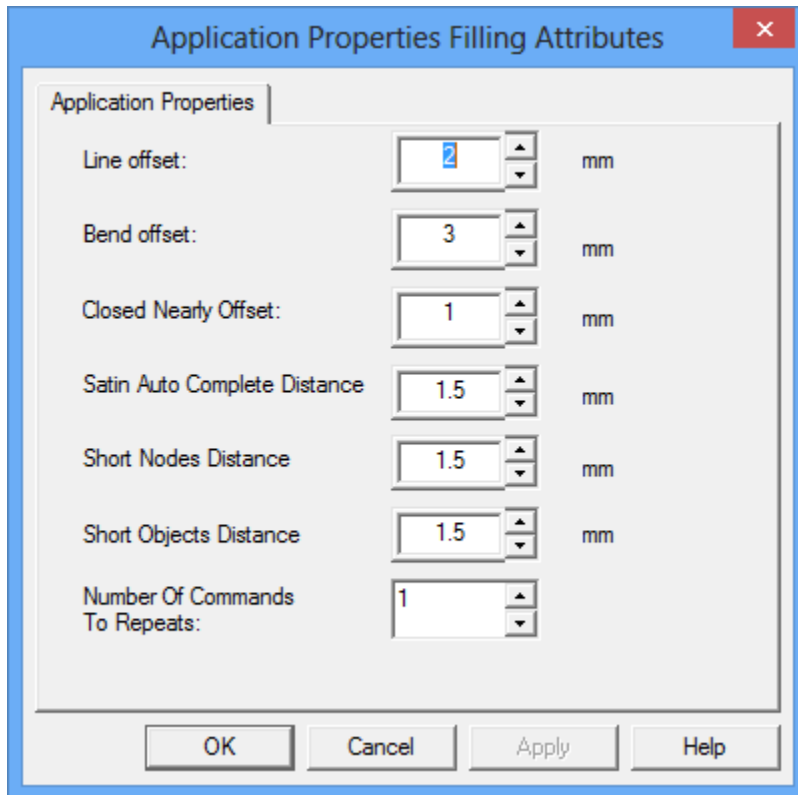
These parameters specify that number of objects to be created and rotated.

### Duplicate


These parameters specify that number of objects to be created should be duplicated.

### ***Global application parameter***


Global parameters which are used at various stages, shown in the following dialog box:




### Line Offset

This parameter specifies the offset with which lines to be increased/decreased when expand line  command is used.

### Bend offset

This parameter specifies the offset with which bend to be created when Add bend  command is used.


### Closed nearly offset

This parameter specifies the offset to be used to specify that object is almost closed, if last and the first node of the object is less than this offset. One can select almost closed objects by holding Control key and using Close shape  command.

### Satin auto complete distance

This parameter specifies the offset distance at which other side of the dual Bezier curve to be automatically generated by pressing shift X or Shift M in dual side punching tool.

### Short node distance

This parameter specifies the distance at which nodes must be removed if the distance between the nodes is less than this distance in remove short nodes  command.

### Short objects distance

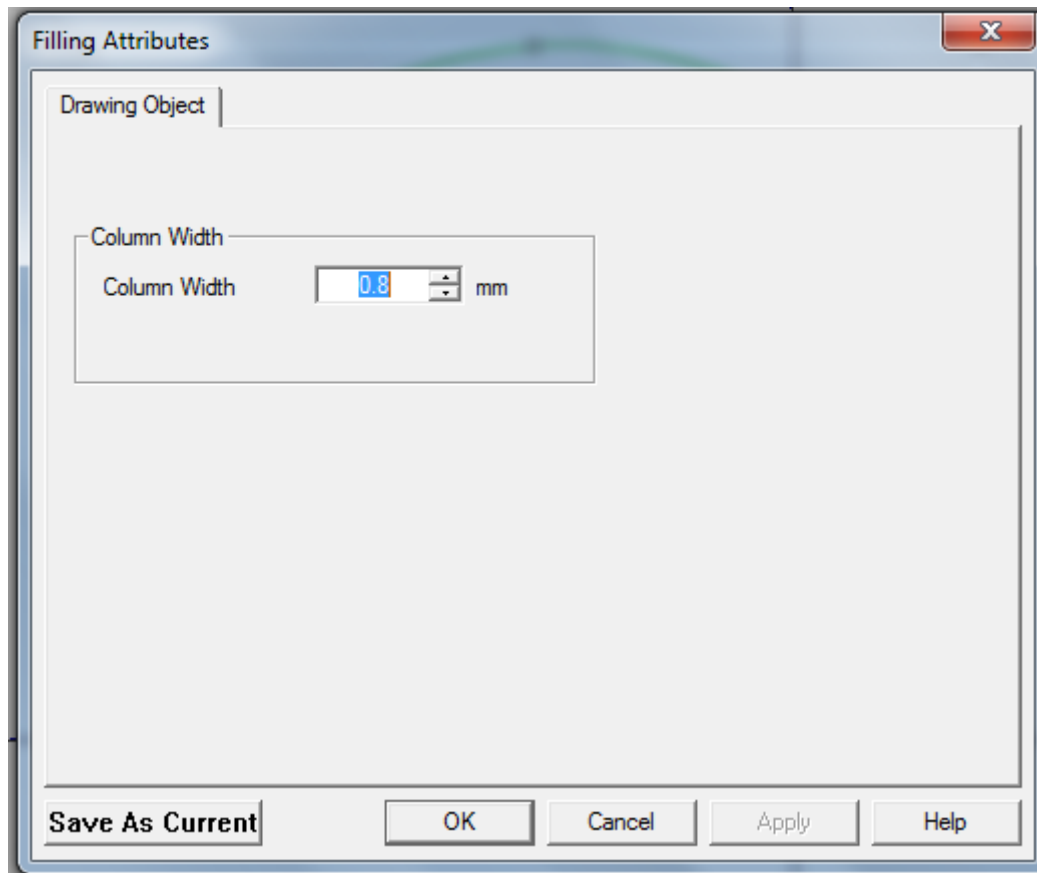
This parameter specifies to select objects whose length and with is less than this distance in select short objects command.

### Number of commands to repeat

This parameter specifies previous transformation commands to be repeated this number of times while pressing R the repeat command.

## Drawing Object

Drawing objects are the objects without stitches and are just for the purpose of making sketch on the screen. These can also be imported from DXF file format created by other software. Drawing object parameters are shown in the following dialog box:

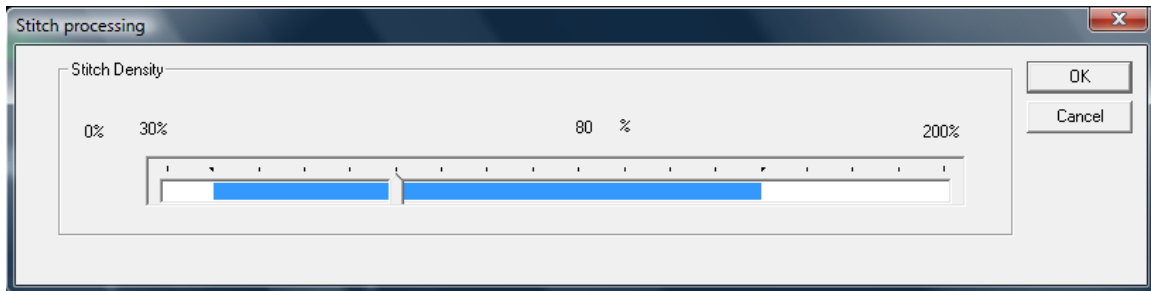


### Column width

This parameter specifies the column width of the drawing object.

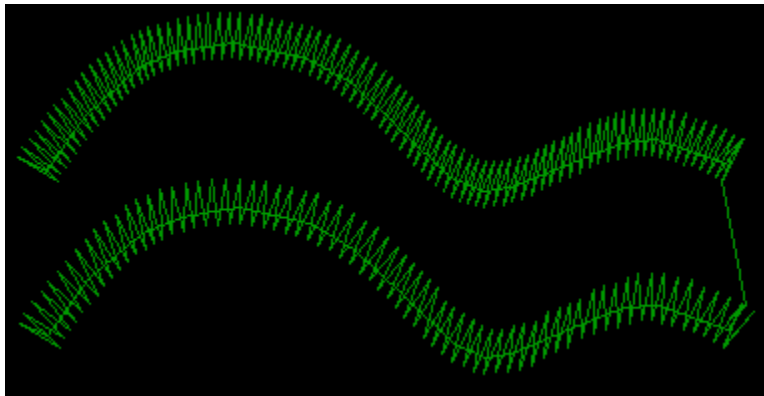
## Stitch processing

Stitch processor is a very powerful tool to increase or decrease stitches in a DST file. Stitch processor parameters are shown in the following dialog box:



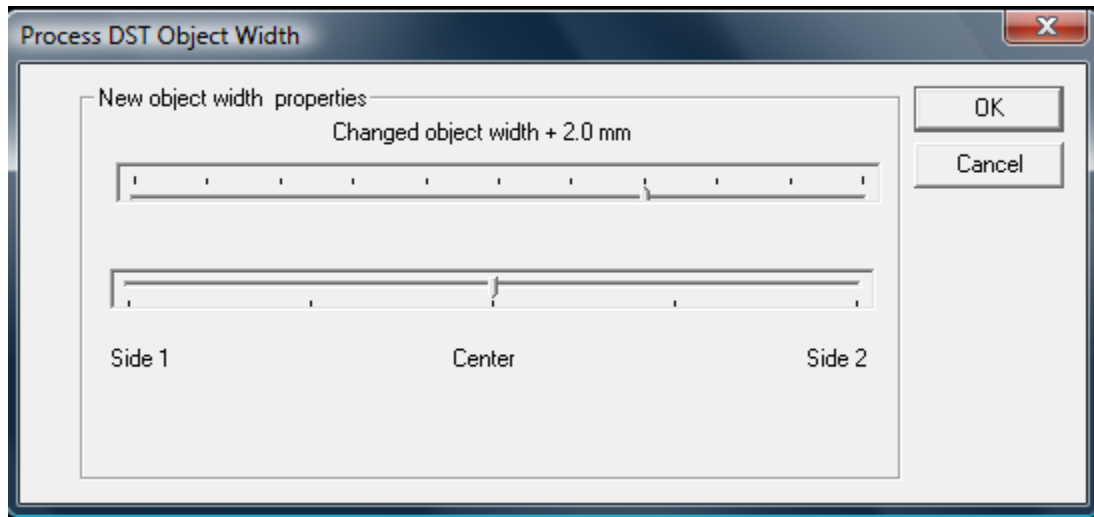
### Stitch density

This parameter specifies to decrease or increase satin density by a percentage. If this value is 80%, it means reduce the density by 20% and hence design or selection will have 20% less stitches. In the same way if this value is 125% (say), the design or selection will have 25% more stitches.



### ***Processing DST object width***

Stitch processor is a very powerful tool to increase or decrease stitch width in a DST file. Processor parameters are shown in the following dialog box:

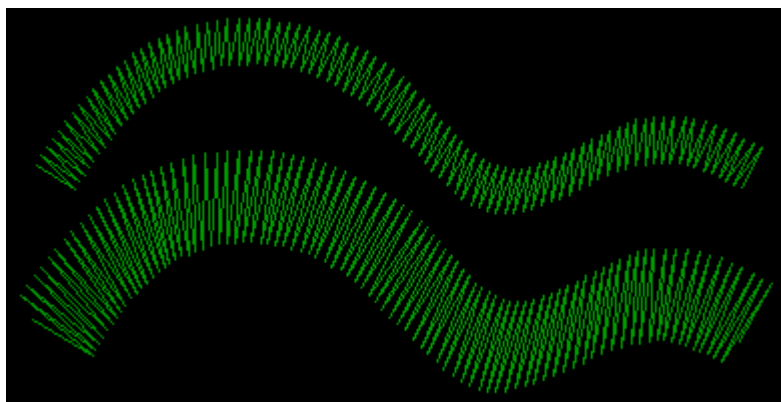


### **Change object width**

This parameter specifies to decrease or increase width in mm. If this value is 2 mm, it means increase the width by 2 mm. In the same way if this value is -2 mm, then design or selection width will be reduced by 2 mm.

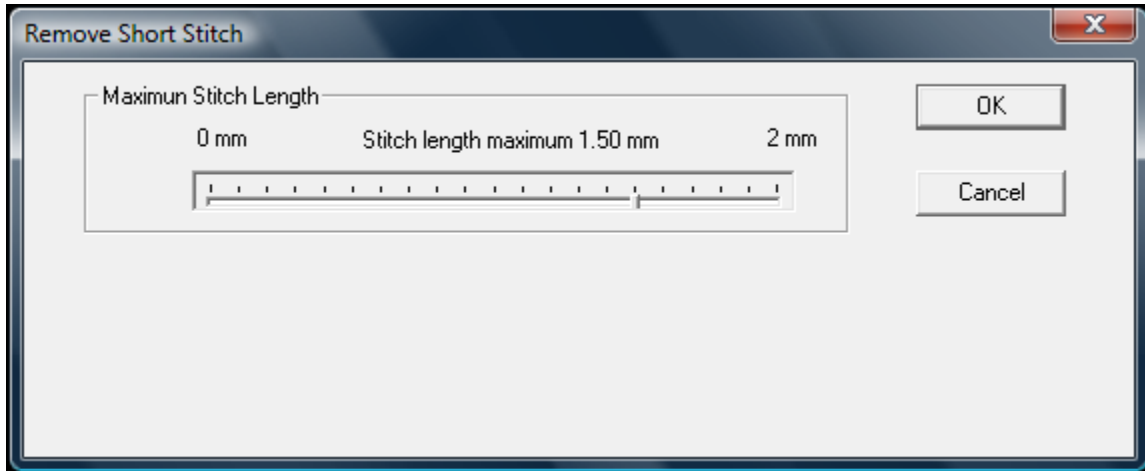
### **Side**

This parameter specifies the point of origin from where we should increase or decrease the width.



### ***Remove short stitches***

Remove short stitch is a very powerful tool to increase productivity. This tool helps us to remove all the stitches upto defined length.



### **Maximum Stitch length**

This parameter specifies the maximum length of the stitches to be removed. Any stitch having length less than or equal to this value will be removed.

