

In our eXPerience software, we did our best to create an easy to use and fast software which will help you create your embroidery designs with the best possible quality.

In this help file we will explain in the easiest way the options, functions and possibilities of the eXPerience software. Through this help file and the support of our distribution network we are sure that you can start using eXPerience in your production very soon.

Visit our web page: www.wingsxp.com

eXPerience software manual

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1

Welcome to eXPerience®

Introduction

eXPerience is what we call the ultimate software for creating embroidery designs. It includes all the features that any embroiderer needs, to create the best embroidery designs quickly and with the best embroidery quality. You can start from scratch and end up with the embroidery design you have imagined. It includes all popular stitch types like Satin, Running, Step, Piping, Satin serial, Cross-stitch, Zig-zag, etc and numerous tools that can enrich your embroidery designs. Enjoy your ride with a next generation embroidery software.

Features overview

eXPerience has many features that can help you create the designs you want with the quickest and easiest way. An overview of the features that eXPerience has is listed below:

General features:

- Browsers as a separate window helps the user find, load, print and view the information of the designs from the current folder. 2-size icons are also available in Browser Options.
- Printing Catalogs are also available in Browser Options.
- Full Design Information is available for every design with:
 - General information about the design.
 - Number of stitches per length (Histogram).
 - Calculation of needed production time.
 - Calculation of exact number of stitches per machine type.
 - Printable notes are also available.
 - Precise calculation of the needed yarn and bobbin length. Bobbin detention and fabric thickness can also change the above-mentioned calculations.
- Search function even with Customer-Designer-Keyboard.
- Customer Designer and Keyboard fields are also available in the "Save As" dialogue and can be filled in accordingly.
- Read machine disk parameters are also available in File/Open dialogue.
- MS-Agent gives you information and instructions if and when needed.
- Dockable toolbars.
- Capability to use 20 needles per design.
- Ability to change colors, or create your own, and even edit existing colors.
- Manual or automatic conversion by proximity of existing color palettes.
- Roll-ups can be made semi-transparent so the user can "see" behind them, without closing them. It's even possible to digitize behind the semi-transparent roll-ups.
- Active (Loaded) Designs Controller
 - Visible 2 size icons for every loaded design or detailed information.
 - Full control of all loaded designs or on the selected ones.
 - Printable designs (one or more designs per page) with full printing layout control.
 - Save in a hard disk as .ngs or machine type format.
 - Write in a machine floppy disk.
 - Intelligent selection of loaded designs for use with more than 1 machine disks. Format command is also available.
- Convenient "Rubber-Banding" information which appears next to the mouse cursor (in a semi-transparent yellow box), instead of the status line.
- Ability to read most common images (vector or bitmap) as backdrops.
- Ability to scan an image and save it as "JPEG" file.
- eXperience creates a link between the design and the backdrop to avoid creating large files. Full access and control on these links.

- In the software, we included an advanced printout engine, able to make customizable printouts of the design. It is possible to generate catalogs, in portrait and landscape form, with user-selectable number of icons.
- The program has hot keys for fast access of the most used functions.

Editing features:

- Clean up expert. An easy and fast way to correct small stitches, functions and exit/entry points of the current design. (Removes unnecessary stitches which can cause problems).
- Auto branching.
- Tacking as part of the underlay. (This way, you can create the same design with fewer stitches and no delays in production).
- Erase/Trace outline. You can convert the stitch data objects to punching and vice-versa. The result of this function has the least possible objects/sections.
- Clipart. A powerful tool which allows you to use pre-punched parts of designs or even create and save your own.
- Filter function corrects density and shape errors of stitch data designs.
- Sequence Manager in two levels, makes it easy to re-order and change the sequence of the objects.
- Cut-Copy-Paste. A classic way to move parts of one design to another design or application.
- Roll ups. Semi-transparent, easy to hide/show or resize.
- Object properties. This roll up helps you see and change the parameters of the selected object. Multiple inputs even with mouse wheel.
- Ability to call or create specific effect settings or assign an object to a specific effect.
- Node editor. Easy to edit the outlines of the design by using Bezier curves.
- Transform. You can edit the sections of the designs without recalculating.
- Easy access and change of special functions of objects with a single mouse click.
- “Complex Pattern Editor” is a powerful tool where you can create or edit your own or existing patterns. This can be done by:
 - Predefined Shapes
 - User defined polylines.
 - User defined areas with simple patterns.
 - All of the above mentioned functions can be edited as vector lines before they can transformed into stitches.
 - Manually insert or delete stitches of the patterns.
 - Three dimensional realistic previews of the created/edited patterns.
 - The program allows the user to view the repeats of the created/edited patterns in normal or 3-D realistic preview.

- Undo/Redo options in pattern editor.
- The program shows the minimum length of the stitches in order to avoid thread trims.
- The length of the pattern can automatically be changed by the program.
- Horizontal, Vertical, Diagonal or Circled guidelines. Snapping function is also available on the guidelines.
- Advanced Style Editor with move-insert-delete functions for every node or move and mirror the whole style. It can calculate the smallest possible size that the given style can be generated. The length of the style can automatically be changed by the program.
- Text Input with multi-language support. You can also use IME (Input Methods Editor) or “Text” dialog for East Asian languages.
- Full control of the shape, size, position and path of the inserted text.
- Full control of the kerning and the space between the lines and the words of the input text.
- Full access in any parameter of the stitches of punched objects.

Viewing features:

- Show filled outlines. A powerful tool that shows the area with stitches. This way you can re-order the object of the design or pass the tacking stitches.
- Image map, helps you change the view port or Zoom in/out quickly and easily.
- Full zoom in / zoom out or pan capabilities.
 - Fixed zoom scales
 - Zoom function with right mouse click
 - Scroll bars also available
 - Manual panning for all modes
 - Auto panning during punching
- Auto zoom of a specific area for a more detailed stitch quality control.
- Hide/Show functions are available for easier processing of specific objects.

New features

- **Automatic Sequins insertion on Running stitches:**

With eXperience 2 you can convert your Running designs to Sequins designs easily by activating the sequins option. You can create impressive embroidery designs easily by decorating them with sequins, using any of the available sequins holding techniques. Those sequins

techniques cover a variety of different everyday embroidering cases that will make your life easier.

In addition you can create sequins Text art designs easily by inserting the Text you want and simply activating the sequins option.

- **Zig Zag serial added:**

The new Zig-Zag serial stitch type, allows you to create Zig-Zag outlines that will decorate your designs or will create a stand alone embroidery design. It is also useful for holding Appliqué with Zig-Zag serial stitches.

- **Totally new stitch editor:**

The new stitch editor allows you to edit stitches of the design even easier. You have the ability to select and move multiple stitches of the embroidery design allowing you to make precise and quick transformations in your design. In addition you can view the direction of stitches and make the adjustments you want according the flow of the stitches.

- **Improved Zig Zag stitch type:**

Improvements were made on Zig-Zag stitch type and its underlays for even better embroidery quality.

- **Automatic conversion of stitch type to stitch type in all possible combinations:**

All conversions between stitch types are now possible. You can now convert any stitch type to any other and create the embroidery design you want easily without having to re-digitize the shape with a different stitch type. You can increase digitizing speed dramatically and decrease the time needed for embroidery design production.

When you convert from a stitch type to Satin, Zig-Zag or Piping you can add also "directions" and "divide" the object.

- **Digitize Satin, Zig-Zag and Piping by defining only the outline of the object**

Gain time and effort when digitizing Satin, Zig-Zag and Piping because you have only to specify the outline of the area and let eXperience automatically digitize the area for you.

- **Automatic recognition and fill of vector design areas**

With the automatic fill you can digitize over a vector design quicker than ever. Different areas of a graphic are recognized with a single click and filled automatically with selected stitch type.

- **Auto digitize Satin, Zig-Zag and Piping and add directions and divides at the end:**

A new way of adding directions on objects and dividing them in to smaller, while digitizing, have been added to increase your design tools and allow you to create more complex and unique designs.

- **Compensation is now converted from percentage into an absolute value**

Specify exactly the distance of compensation by entering accurate values in the compensation field.

- **Create styles with sequins.**

Now you have the ability to create styles with sequins without any limitation on the way the sequins will be applied on the design.

- **Create Frill designs by using the Needle up special function inside style editor**

You can create styles for frill designs by using the Needle up special function that has been added inside style editor. There are no limitations on the style you can create for frill designs.

- **Fill area with sequins**

Fill an area with stitches by using any stitch type that supports styles, and then apply a style with sequins. You can fill an area with sequins exactly with the style you want.

- **Preview all stitch files inside icon browser.**

You can now view all your stitch files as thumbnails

- **Convert a simple design to style.**

A new way to create styles is to create a simple design and then convert it to a style with the To style option. The design automatically becomes a style.

Online resources

More information about eXPerience you can find in the official site of eXPerience: www.wingsxp.com

eXPerience help

eXPerience help provides comprehensive information about all the features of the software. eXPerience help is displayed in the help viewer provided by your operating system: Microsoft HTML Help. You can access help from “Help” menu by clicking on the “contents” option. You can find the information you need in any of four ways:

The table of contents enables you to see all of the information organized by subject. Click top-level entries to view subtopics.

The index, like a traditional printed index, allows you to look up specific terms or concepts.

Search allows you to find any character string, anywhere in the text of the help system.

Show help on is another way to access help for a specific tool, area, or function in eXPerience and can be activated from the “Help” menu. When you activate show help on the mouse pointer turns to a pointer with a question mark. Click on any function you want to see help on and the respective subject will be displayed.

Getting started with eXPerience manual

In eXPerience manual you can found information for eXPeriecne embroidery software. If you are not familiar with the terminology that is used in the manual you can refer to the Glossary in Appendix A. The software’s manual explains how each tool can be used separately or in combination with other. In addition describes techniques that can help you increase your productivity with eXPerience and create designs from scratch.

By reading carefully the manual and using your creativity you can create the embroidery designs you want easily and quickly.

2

Working with files

Introduction

In this chapter we will analyze the ways that you can load or save the designs in the hard drive or a floppy disk in your system. Also we will present all the abilities that you have while working with the already opened embroidery designs.

Create a New design

In order to create a new design, you can click on the "New" icon  that is located on the standard toolbar or select the option "New" of "File" menu or press "Ctrl + N" shortcut key.

On the following dialog you can specify:

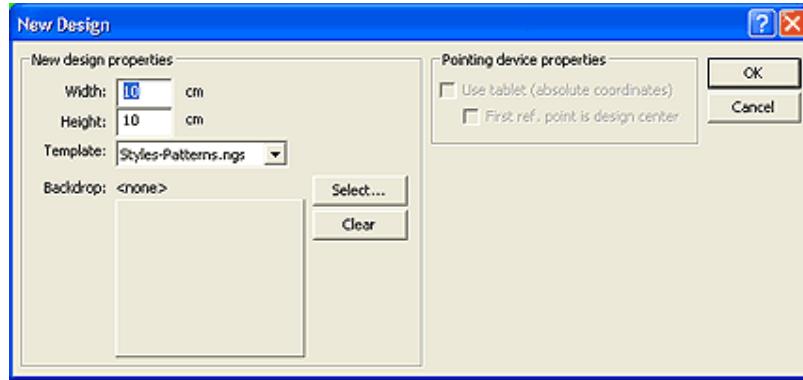


Figure 2.1: "New Design" dialog

- **Limits of the design**

You can specify the "Width" and "Height" of the design area by entering the exact values in centimeters. The program will create a rectangle with the specified dimensions, where you can place your design. The rectangle does not restrict you to expand the design outside of its boundaries, but it works like a guideline.

If you select a backdrop to set behind of the design the "width" and "Height" fields will change to backdrop's dimensions.

- **Template**

In this field you can select the template that the new design will be based on. Templates are "NGS" embroidery designs that are saved in the "Templates" subdirectory of the software.

In case that you have selected a template, all settings including styles, patterns, effects and stitch data are available in the new design.

If you have created a new design with a template selected, the next time that you will create a new design, the program will have pre-selected the last used template.

In order to create your own template you have to create a new design make all the adjustments you want and save it as an ".NGS" file in the "Templates" subdirectory of the program with a name you prefer. The next time that you will create a "New" design you will find your template in the "Template" dropdown menu.

- **Templates and styles / patterns**

Templates have an important role in eXperience. The styles and patterns that exist in your eXperience are contained in a single

template. This template is the “Styles-Patterns.ngs” that can be loaded when you create a new design.

Whenever you create a “New” design and you want to use styles in it, you have to create the new design by loading the “Styles-Patterns.ngs” template that is located under the “Template” jump menu of the “File>New” dialog box. Otherwise only four styles will be available to you.

You can create your own template that will contain styles but will have your preferred settings (background, color palette, etc.) easily. In order to create your own template you have to create a new design based on the “Styles-Patterns.ngs” template, make all the adjustments you want without creating any design in it and save it as an “.NGS” file in the “Templates” subdirectory of the program with a name you prefer. The next time that you will create a “New” design you will find your template in the “Template” dropdown menu.

The styles and patterns are located in the “Object Properties > Options” tab in the “Styles” and “Patterns” jump menus. The “Styles” and “Patterns” jump menus exist only in stitch types that support styles and patterns. All the other stitch types do not have this option.

You can apply different styles and patterns on objects only in .NGS file format. The embroidery machine file formats (dst, ksm, exp, etc.) carry only punching data therefore changes on styles and patterns cannot be applied.

- **Backdrop**

In this part of the “New design” dialog box you can specify the image file you wish to be placed as a backdrop. When you click on the “Select” button a normal “File > Open” window dialog appears. There you can browse in your computer and find the image you want to place as backdrop to the design (eXPerience can read all the known image formats). The image file will be set to the background behind the embroidery design that you will create. You can not edit the image inside the program but you can move and preview it in 3D mode behind your design (read more in the Backdrops section).

When you finish with the backdrop selection, click “Open” to continue. The selected backdrop is previewed in the “New Design” dialog in a specific rectangle. In case that you do not want to use the already selected backdrop image, you can use the “Clear” button to remove it or the “Select” button to select a new one.

When a backdrop is selected, the limits of the design change, following the dimension of the selected backdrop.

- **Pointing device properties**

This part of "New Design" dialog is enabled only in case that there is a tablet, correctly connected on your computer. You can specify if you are going to use tablet for this design and the way of input of the reference points.

Open a design

With the "Open" dialog you can load an embroidery design which is in a local disk or in a network disk. This dialog is a normal Windows file "Open" dialog.

In order to find the design you are looking for you have to specify its position. This can be done with the "Look in" field. This field shows the folder and the disk that you are looking. The designs of the current folder can be viewed in the File list under the "Look in" field.

By default every time you open the "Open" dialog, the program shows the "Designs" sub-folder of "Wings XP" folder.

In order to change the "Look in" folder click on the arrow showing down on the right side of this field.

Example:

If you want to load a design which is in "C:\Designs\Women" directory. Click on the "Look in" field and click on the C: Hard disk drive. The "Look in" field shows "C: <Name of the disk>" and the "File list" will show the contents of the hard disk C:\.

In the file list double click on the folder "Designs". The "Look in" field shows "Designs" and the file list will show the contents of the "C:\Designs" folder.

In the file list double click on the folder "Women". The "Look in" field shows "Women" and the file list will show the contents of the "C:\Designs\Women" folder.

Double click on the design you want to load. On the right side of the "Look in" field are two more buttons that helps you to change the folder that you are searching.

If you click on any file design in the “file list” the image of the file immediately will be displayed on the “Preview Icon” area which is located at the bottom left corner of the dialog box.

This area is activated whenever you click on any file design. The area automatically previews the design that it is stored in the selected file design. This helps you to select the design you want without remembering the file name of the design.

Go to last folder visited

This button brings you to the previous folder that you saw. In the given example, when you are in the "C:\Designs\Women" and you press the back button, in the "File list" you will view the contents of the "C:\Designs" folder. The second time you will press the back button you will view the contents of the hard disk C: and the third time the contents of your designs directory.

Up one level

This button brings you to the folder that contains the current sub-folder.

Example:

The file open dialog shows the "C:\Wings XP\designs" directory and you want to find a design which is in "C:\WingsXP\men".

Press the “Up one level” button and the “Look in” field will show the "C:\Wings XP" directory.

In the file list double click on the men directory.

The "File list" area shows the designs or the sub-folders that the current folder contains. The selections of the designs depend on the way you have set the parameters of your Windows Explorer. From the same settings depends the way that the selected design will be loaded.

Create new folder

With this button you can create a new sub-folder in the current folder. After this button pressed a new folder named as "New Folder" can be seen in the "File list" area and you can type its name.

View menu

With this button you can specify the way that the sub-folders and the designs will be vied in the "File list". The possible options are:

Large Icons, Small Icons, List, Details and Thumbnails.

Every design you are selecting from the "File list" its name is written in the "File name" field and it is previewed in the bottom of the dialog box. Also you can type in this field the name of the design that you want to load and after that press the "Open" button.

In the "Files of types" field you can select the type of embroidery files that will be visible in the "File list" area. In case that you want to see all the files, no matter the file type, you can select the "All Files" option.

On the left bottom side of the "File>Open" dialog you can see the information of the selected design like the "Design dimensions", "number of stitches", "Color changes" and "File size on disk". In case that you would like to see more information for the selected design you can load it and select the "Design Info..." option from the file menu.

Additionally you can call the "Icon browser" of the designs and the "Favorites" folders.

• Favorites

In this dialog you can "Add" or "Open" the most common directories with designs that you are using, in order to access them easily. In the "Current path" area you can view the path of the hard disk that will be "Added" in favorites list or "Opened" in the "Open" dialog box. In case that this folder is not added in your favorites list, you can add it by writing a description of the favorite in the "Name" field and then press the "Add" button. All the Favorite folders are added in the list next to the "Open" button with the name you gave to them. In order to call a favorite, just click on it and then press the "Open" button.

Favorites can save you time of searching inside your hard disk to find your designs.

On the right bottom corner of the "Open" dialog box you can see and change the parameters of machine type files. These parameters are the same like the Import design from a machine disk. Depending on the machine file type design you want to open you have to make changes on the special functions that are applied

Icon Browser

With the “Browse” option from the “Open” dialog box or "File" menu, you can display pictures of designs and visually choose the designs that you want to load.

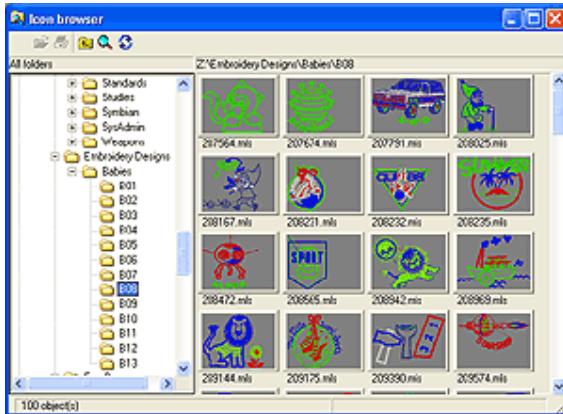


Figure 2.2 : “Icon browser” dialog

The “Icon browser” works like the Windows Explorer and it is a separate window inside eXperience software. This allows you to load the designs you need whilst the browser stays open and you can manage it as a normal window.

On the left side of the browser, you can see the structure of the folders and the subfolders of your hard disk. If you click on a folder you can see all the subfolders and embroidery designs in these folders on the right hand side of the field. You can also use browser to see any designs contained in a network computer.

If a folder has the symbol "+" on the left, this indicates that this folder has subfolders and you can view them by clicking on the "+" button. By pressing the "-" on the left side of the subfolder, you can compress the contents of the folder again.

Using the browser you can:

- **Select the designs.**
- **Load the selected designs.**
- **Print the selected designs.**
- **Change the size of the icons.**
- **See the information of a design.**
- **Delete one or more designs.**

- **Move one or more designs in another folder**
- **Search the embroidery designs of your hard disk.**

The same option can be called from the "File > Open" dialog by pressing the "Browser" button.

Selection in Browser

If you want to select a design, simply click on the icon of it. If you want to select more than one design, just select the designs while keeping the "Ctrl" key from the keyboard pressed. In order to open them you can select the "Open" function from the right click menu or by pressing "Enter" button from keyboard.

If you want to open a number of designs that are contained sequentially in the same list you can do so by selecting the first design of the list, then press the "shift" key and select the last design on the list. All the designs between the two selection points will be highlighted; you can open then all by pressing the "enter" key. This selection is possible only in "Details" mode which can be activated from the right click menu.

To select all the designs, which are in the current folder, you have to right click on any design and select the option "Select all" from the menu. The same functionality is activated when you press the "Num +" key from the keyboard or the "Select all"  icon from the standard toolbar.

To de-select all the selected designs, you have to right click on any design and click on the option "Select none" of the menu. The same functionality is activated when you press the "Select none"  icon from the standard toolbar or if you click on an area without icons.

To invert the selection you have made, you have to right click on any design(s) and click on the option "Invert selection" of the menu. The same functionality is activated when you press the "Num -" key from the keyboard or the "Invert selection"  icon from the vertical toolbar.

Load design in Browser

You can use the "Browser" to load the selected design(s).

By double-clicking on a selected design, you can load it. Also you can load the selected designs by right-clicking on the selected design and from the menu that appears select the "Open" option.



Alternatively you can load the selected design, by clicking on the  icon of the horizontal toolbar.

Print selected designs

On the top-left corner of the "Active designs" dialog you can see which printer has been installed and you can specify which one you would like to print on. In case that you want to change the printer, you have to click on "Setup" button. In the following dialog you can change also the parameters of the printer.

Size of Icons

In "Browser" mode you can change the size of the icons by right-clicking on the icon and from the menu that appears selecting the size option you prefer.

The options are:

- **Large icons**

the sizes of these icons are 160 X 120 pixels and it is the default, when you are loading the Browser for the first time.

- **Small icons**

the sizes of these icons are 80 X 60 pixels. With this size you can preview more icons per page and make quicker selection.

- **Details**

With this option you can not view the icons of the designs, but you can view the information about them. The information listed contains the Name, Type, Width, Height, Stitches and Colors. If you click on the header of a field, the designs will be sorted by this field starting from the lowest value to the highest. If you click again on the same header, the designs will be sorted by the opposite way.

eXPerience software always keeps the latest configuration of the icon view.

Properties

This option can be accessed from the right-click menu of "Browser" and shows the information of the last selected design. In the window that will appear you can view the Icon of the design, the Name, the Width, the Height, the Stitches count, the Colors, the Notes, the Customer, the Designer and the Keywords.

You cannot change the design information in this window but you can do it by opening the "Design info..." option from the "File" menu that we will analyze later on.

Delete

In the "Browser" you have the option to delete the designs that you do not want.

In order to delete the unnecessary file designs, first you have to select them and after that press the "Delete" button from the keyboard.

Another way to delete the design you wish is to select these designs and on the right click menu select the option "Delete".

Move

In the "Browser" you have the option to move designs from one folder to another.

In order to move one or more design from the current folder to another, first you have to select the designs you want and then drag them on the folder you wish on the left part of the Browser.

Search function

With this dialog you can search for one or more designs in your hard disk or in a network disk.

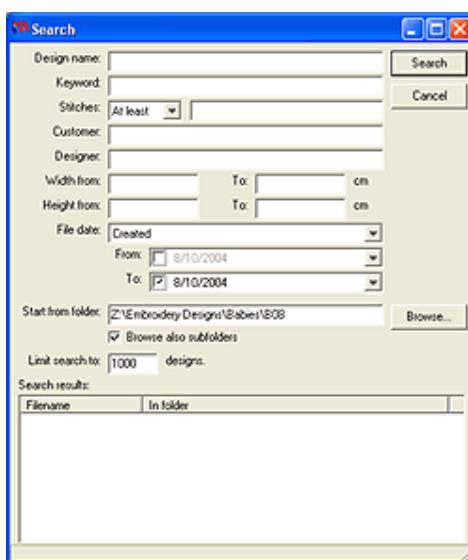


Figure 2.3: "Search" dialog

The filters you can use are:

- **Design name:**

In this filter you can write a part of the name or exactly the name of the design you are searching for.

- **Keyword:**

In this filter you can write one or more keywords that you have added in the “Design info...” or “Save as” dialog.

- **Stitches:**

In this filter you can specify the number of stitches of the shown designs.

- **Customer:**

In this filter you can write a part of the name or exactly the name of the customer that you have added in the “Design info...” or “Save as” dialog.

- **Designer**

In this filter you can write a part of the name or exactly the name of the designer that you have added in the Design info... or Save as dialog.

- **Size:**

In this filter you can specify the limits of size of the shown designs.

- **File date:**

In this filter you can specify the type of the date that you are going to use for searching and the time period that you would like this time to be.

- **Start from folder:**

In this filter you can specify in which directory the program will start searching for designs. In order to change the searching folder you can use the “Browser” button. Also you can enable the following filter “Browse also subfolder” in order to search and the subfolders of the selected folder.

- **Limit search to:**

In this field you can specify the maximum number of the shown designs after the search.

- **Search:**

Pressing this button, the software starts searching the selected drives accordingly to the filters you have specified.

- **Search results:**

In this area can be seen the designs that are fulfill the conditions of the searching dialog.



Read diskette

You can read a diskette or floppy disk using this option from the "File - Import - Read" menu. Place the diskette inside the drive and then click on this option. The program automatically recognizes the format of the diskette and the designs that it contains. At this point you can see a dialog box asking about parameters for designs that the diskette has. If you change the diskette, the program will recognize the new one. In case you have forgotten to put a diskette in the drive the program the software will prompt you to do so and asks if you want to retry or cancel.

In the following dialog you have to specify:

- the **Designs** that you want to load
- the distance which above **two objects will be split**.
- the way that the **stops** will be read.
- if the commands **Slow/Fast** will be detected.
- the number of **jump-stitches** which will be interpreted as a cut.
- if the **double stops** command will be detected.
- if the Slow/Fast or the Sequin command for **ZSK** will be detected.

Designs

In this area you can see the names of the designs that are contained on the diskette.

To load a design you can click on it and then click the OK button. If you want to load more than one design, you can click and drag from one design to another. By holding the shift button, you can click on one design then another and all the designs in-between will be selected. If you want to load multiple designs that aren't listed sequentially, hold the control key and click on each of the designs that you want to load.

Split objects above distance

Using the following scroll bar you can set the distance above which the objects will be split. For information, two parts of a design are treated as separate objects if they have a special function between them. This option is useful when you have a design without thread trims. Specifying a distance just

higher than the longest stitch that exists inside the design automatically converts all the long stitches (movements between objects) to split objects.

Convert all Stop functions to color changes

If you enable this option, the program will translate the Stop special function into a color change.

Delete all Slow/Fast commands from design

If you enable this option, the program will delete any slow or fast commands the design may have.

Cut is ... jumpstitches

This option relates only to the Tajima machine format. With the following scroll bar, you have to specify how many jumpstitches will be translated as a cut.

Read double stops

This option is related only to the Tajima machine format in which there is no color change function. This type of machine uses the stop function as a color change. If you have two or more stops in sequence (for example when embroidering appliques) the program will read them as a "Stop" function, not as two color changes.

ZSK code Version

The following two commands work as radio buttons. They allow you to select one of the two commands depending on which type of ZSK machine version you are working with:

- OLD: Slow speed command

the old version of ZSK code uses Function 20 as a slow speed command; therefore you must specify if your design was made with old or new ZSK code using this option

- NEW: Sequin command

new versions of ZSK code use Function 20 as a Sequin command; therefore you must specify if your design is made with old or new ZSK code using this option

Delete Design

With this button you can delete the select designs on the Designs list. On the following window you have to confirm if you want to delete the selected design(s) or not. If you press the "Yes" button, the designs will be deleted. If you press the "No" button the function will be cancelled.

Recent Files

At the end of the "File" menu there is a list with the 5 last used designs. In order to load one of these designs, just click on the design you want. The design will immediately open in a new internal window without affecting the already open designs.

Save as your design

When you create a design in "eXperience" you can save it in many different file formats. The standard saving format is ".ngs" which is the default Wings Systems file format. The other file formats are:

- Tajima (".dst", ".dsz", ".dsb")
- SWF (".sst")
- SWF xp (".swf")
- Pfaff (".ksm")
- Happy (".tap")
- Melco expanded (".exp")
- Brother/Baby Lock/Bernina (".pec", ".pes")
- Husqvarna (".Hus")
- Husqvarna Viking (".Vip")
- Janome (".jef", ".sew")
- Juki (".M3")
- Toyota (".10O")

- Mitsubishi HD (".1* ")

With the "Save as" option, from the "File" menu, you can save the current design on your hard disk for the first time or save the current design in a different position or with a different name.

In the "Save as" dialog you can specify the position in which you want the design to be saved by changing the "Save in" field which is the same with the "Look in" field that we analyzed in the "File>Open" dialog. Also are available the "Go to last folder visited" "Up one level" "Create new folder" and "View menu" .

The "File list" area shows the designs that the current folder contains. If you click on a design, its name will be added in the "File name" field and the information about that design will be listed on the left bottom side of the "Save as" dialog. If you press the "Save" button the selected design will be deleted and in its position will be written the current design. If you type a different name on the "File name" field the design will be saved with this file name.

On the right bottom side of the "Save as" dialog you can view the "Customer", "Design" and "Keyword" fields. These fields are useful in order to search a design. The same fields exist also in the "Design info..." dialog.

Finally, from the "Save as Type" you can select the file format you want to save the design.

It is good practice always to save your designs in ".NGS" file format because it is a reach embroidery file format that allows you to make any modifications you want easily by editing punching data. In addition ".NGS" file format keeps information like Keywords, the Designer's name, the Customer's name, an image of the design and many more that can help you create your own embroidery design library.

With those saving capabilities you can easily make your designs, save them in a floppy disk, load them from your embroidery machine and embroidered them.

Save your design

In order to save an existing design you must follow the steps listed below.

1. Choose "File > Save" or "Save As". The "Save As" dialog box appears.
If your design has been saved once already, by clicking on the "Save"

option, the “Save As” dialog box will not appear but will save any changes to your previous saved file.

2. In the dialog box define the “File name” and the file type.
3. Select the location you want to store your designs and click “Save”.

Following these simple steps you can save your designs in any embroidery machine file format you prefer loaded to your embroidery machine and start the embroidering process.

Auto-backup mechanism

eXPerience software has two security features that will help you avoid loosing important work from systems crashes that might occur. The first is the “Failure Recovery” feature and the second is the “Auto-backup” feature of the embroidery designs.

- **Failure Recovery:** This feature is activated automatically when an illegal operation is made in the software. Immediately the “Failure Recovery” tool is activated in order to baffle the termination of the program.



Figure 2.4: Failure Recovery dialog

The “Failure Recovery” dialog box it looks like the one above. If you click the “Yes” button the software will continue functioning from the position you were before your last action. On the other hand if you click on the “No” button the Software will be terminated immediately without asking you to save your design. If the “Failure Recovery” appear in a design is better to save your design, after clicking the “Yes” button, and restart “eXPerience”. This mechanism secures your work.

- **Auto-backup:** Another feature that eXPerience has to protect your valuable work is the “Auto-backup” feature. eXPerience automatically saves your designs after every change you make on them. The “Auto-

backup" works even if you have not saved your design at all. If the software hung-up for a reason, your work will not be lost in most of the cases. The next time that you will open the software the designs that were open before the hung-up of the software will be there at the point of your last embroidery transformation. This mechanism will protect you from loosing your work.

Note: Always keep in mind to save your designs frequently.

Format Floppy

Using the "Format floppy" option from the "File" menu, you can format a new diskette. Before you call this option you must have a new diskette inserted in the floppy disk drive.

In the "format properties" field of the "Floppy disk format" function you can select the type of the machine disk that you are going to create.

To start the formatting processing, press the "Start format" button. The program recognizes the current floppy disk format.

If the diskette that you have inserted is already formatted, eXPerience software will show a warning message showing the type of the diskette that you are willing to format and the number of the designs that this diskette has.

Attention: If you will press the "Yes" button on the warning dialog, all the designs of the diskette will be deleted. In case that you are not sure if you want these files or not, press the cancel button and use another empty diskette.

In case the current floppy disk format is the same as your choice, the eXPerience software gives you the opportunity for a fast format.



Write Floppy

Using this option from the "File > Write floppy" menu, you can write the current design to a diskette. First place the diskette inside the drive and then click on this option. The program automatically recognizes the format of the diskette and asks for the parameters. If you have forgotten to put the diskette

in the drive, the program will prompt you and will ask if you want to retry or cancel.

In the following dialog you have to specify:

- the internal file name of the design.
- the templates that you use on your machine.
- the maximum stitch length.
- the number of the jumpstitches which will be interpreted as a cut.

File name

In this area you have to write the internal name of the design. This name will appear on the file when you want to load the designs from the diskette. For some embroidery file formats (eg. Tajima) these names are different than the ones saved to disk. ZSK accepts only numbers as filenames.

Under this field you can see the designs that are already in the diskette.

Templates

In this area you have to select the accepted template that you use in your machine.

Maximum stitch length in design / between objects

In this area you have to select the maximum stitch length that the design will have.

Cut is ... jumpstitches

This option has to do with the Tajima format. With the following scroll bar you have to specify how many jumpstitches will be interpreted as a cut.

Additional information is also given in this dialog:

Machine-Code format

In this area the program recognizes the existing format of the diskette and shows which code the design will be written in on the diskette.

Design stitches

In this area you can see the estimated number of stitches that the design has.

Free stitches.

In this position you can see the free space of the current diskette counted in stitches.

Supported file formats

a. Embroidery formats (MS-DOS compatible)

eXPerience software supports the following DOS file formats:

Format	Extension	File Open	File Save	Read Disk	Write Disk
Tajima DSB	.DSB	✓	✓	✓	✓
Tajima DSZ	.DSZ	✓	✓	✓	✓
Tajima DST	.DST	✓	✓	✓	✓
APS DOS	.STC	✓			
APS DOS	.PCH	✓			
Happy	.TAP	✓	✓	✓	✓
KSM/PFAFF	.KSM	✓	✓	✓	✓
PFAFF	.PCS	✓	✓		
PFAFF	.PSM	✓	✓		
Melco Expanded	.EXP	✓	✓	✓	✓
Melco Condensed	.CND	✓			
Compucon	.XXX	✓			
Milestone	.MLS	✓	✓		
Experience	.NGS	✓	✓		
CadCam APS	.STC	✓			
CadCam APS	.PCH	✓			
SWF	.SST	✓	✓	✓	✓
Mitsubishi	.1	✓	✓	✓	✓
Toyota	.10O	✓	✓	✓	✓
Barudan FDR	.U	✓	✓		
Artista	.art	✓			
Juki	.M3	✓	✓	✓	✓
Brother/ Baby Lock/ Bernina	.pes	✓	✓		
Brother/ Baby Lock/ Bernina	.pec	✓	✓		
Jenome	.Jef	✓	✓		
Jenome	.sew	✓	✓		
Viking Designer1	.shv	✓	✓		
Husqvarna Viking	.Vip	✓	✓		
Husqvarna	.Hus	✓	✓		

b. Non MS-DOS compatible floppy disk formats

eXPerience software, in addition to the above-listed MS-DOS compatible formats, supports the following special disk formats:

Disk type	Size	Embroidery formats
Barudan FMC	640K	Barudan

Barudan FDR	640K	Barudan, Tajima
Marco	640K	ZSK
ZSK	640K	ZSK
Melco SD	320K	Melco Expanded

Import 8-chanel tape

With this option you can read a tape from a reader. On the following dialog you have to specify if the reader is ready or not.

Check if the reader is switched on and if the reader mode is on. If the reader is ready, click on the "Yes" button.

The program reads the tape and recognizes automatically its format. On the following dialog you can specify:

- the correct **format** of the tape
- the distance which above **two objects will be split**.
- the way that the **stops** will be read.
- if the commands **Slow/Fast** will be detected.
- the number of **jumpstitches** which will be interpreted as a cut.
- if the **double stops** command will be detected.
- if the Slow/Fast or the Sequin command for **ZSK** will be detected.

Format

On this area can be seen the available tape formats. The software has marked the format that was recognized during reading the 8-chanel tape. In case that you want to change the tape format click on the format you wish.

Split objects above distance

Using the following scroll bar you can set the distance above which the objects will be split. For information, two parts of a design are treated as separate objects if they have a special function between them. This option is useful when you have a design without thread trims. Specifying a distance just higher than the longest stitch that exists inside the design automatically converts all the long stitches (movements between objects) to split objects.

Convert all Stop functions to color changes

If you enable this option, the program will translate the Stop special function into a color change.

Delete all Slow/Fast commands from design

If you enable this option, the program will delete any slow or fast commands the design may have.

Cut is ... jumpstitches

This option relates only to the Tajima machine format. With the following scroll bar, you have to specify how many jumpstitches will be translated as a cut.

Read double stops

This option, also, is related only to the Tajima machine format in which there is no **color change function**. This type of machine uses the stop function as a color change. If you have two or more stops in sequence (for example when embroidering appliques) the program will read them as a "Stop" function, not as two color changes.

ZSK code Version

The following two commands work as radio buttons. They allow you to select one of the two commands depending on which type of ZSK machine version you are working with:

- OLD: Slow speed command

the old version of ZSK code uses Function 20 as a slow speed command; therefore you must specify if your design was made with old or new ZSK code using this option

- NEW: Sequin command

new versions of ZSK code use Function 20 as a Sequin command; therefore you must specify if your design is made with old or new ZSK code using this option

Note: The Reader can be specified during the installation. For more information see the Getting started, in modify section.

Last tape imported

With this option you can read again the last tape (without needed to be put on the reader) in order to change the import parameters.

The parameters you can change are:

- the correct **format** of the tape
- the distance which above **two objects will be split**.
- the way that the **stops** will be read.
- if the commands **Slow/Fast** will be detected.
- the number of **jumpstitches** which will be interpreted as a cut.
- if the **double stops** command will be detected.
- if the Slow/Fast or the Sequin command for **ZSK** will be detected.

Format

On this area you can view the available tape formats. The software has marked the format that was recognized during reading the 8-chanel tape. In case that you want to change the tape format click on the format you wish.

Split objects above distance

Using the following scroll bar you can set the distance above that the objects will be split. For information, two parts of a design are treated as separate objects if they have a special function between them. This option is useful when you have a design without thread trims. Specifying a distance just higher than the longest stitch that exists inside the design automatically converts all the long stitches (movements between objects) to split objects.

Convert all Stop functions to color changes

If you enable this option, the program will translate the "Stop" special function into a color change.

Delete all Slow/Fast commands from design

If you enable this option, the program will delete any slow or fast commands the design may have.

Cut is ... jumpstitches

This option is related only to the Tajima embroidery machine file format. With the following scroll bar, you have to specify how many jumpstitches will be translated as a cut.

Read double stops

This option is, also, related only to the Tajima embroidery machine file format in which there is no **color change function**. This type of machines uses the "stop" function as a color change. If you have two or more stops in sequence (for example when embroidering appliques) the program will read them as a "Stop" function, not as two color changes.

ZSK code Version

The following two commands work as radio buttons. They allow you to select one of the two commands depending on which type of ZSK machine version you are working with:

- *OLD: Slow speed command*
the old version of ZSK code uses Function 20 as a slow speed command; therefore you must specify if your design was made with old or new ZSK code using this option
- *NEW: Sequin command*
new versions of ZSK code use Function 20 as a Sequin command; therefore you must specify if your design is made with old or new ZSK code using this option

Export to 8-channel tape

With this option you can punch (write) an 8-channel tape.

On the following dialog you have to specify the code and the Macro of the tape that you are going to punch.

Moreover you can specify:

- the **maximum stitch length**.
- the number of the **jumpstitches** which will be interpreted as a cut.

Maximum stitch length in design / between objects

In this area you have to select the maximum stitch length that the design will have.

Cut is ... jumpstitches

This option has to do with the Tajima format. With the following scroll bar you have to specify how many jumpstitches will be interpreted as a cut.

Export to DXF format

With this tool you can export your design to DXF (AutoCAD) format. This is a vector format that can be used for presentations or used in Laser cutters.

To export a design to (DXF) file format you have to follow the steps listed below:

1. Select the object(s) that will be exported to “DXF” file format.
2. From “File” menu select the “Export>Output to DXF”.
3. A standard “File > Save” dialog box appears.
4. Select the location where the file will be saved, enter a name in the “File name” field and click the “Save” button to finish saving in “DXF” format.

Serial connection with Embroidery machines

With this tool you can connect your embroidery machine directly with the computer. There are several plug-ins that can be used to connect your eXperience with your embroidery machine or a Memory-Box storage device. You import or export designs from the connected devise.

In order to export a design directly to your embroidery machine you have to activate the “Plug-ins” function from the “File>Export” menu. The “Export designs” dialog box appears (Figure 2.5).



Figure 2.5: “Export design” dialog

Export design

In the “Export design” dialog box you can make the following adjustments:

- **Select Driver:** In this list box you can select the device in which you will export the design. You can select to export between a storage device or directly to an embroidery machine.
- **Add driver:** By clicking on this button you can add a driver to the “Export design” dialog box and use it to connect eXPerience directly with a storage device or an embroidery machine.

In the dialog box that appears you have to specify the location where the driver of the device is located.

- **Remove driver:** With this button you can remove the selected driver from the “Select Driver” list.
- **Configure:** with this button you can configure each plug-in that exists in the “Select Driver” list.
- **About:** with this button you can view information about the selected driver of the “Select Driver” list.

When you finish with the adjustments, click the “Ok” button to continue. In the dialog box that will appear you can make extra machine type adjustments that will be the final before you embroider the design. Click the “Ok” button to send the design to the design you have selected.

Send to SWF machine

This tool is very useful for those who have SWF embroidery machine. When you activate this function a dialog box appears. In the dialog box you can select the machine code format and the maximum stitch length between objects.

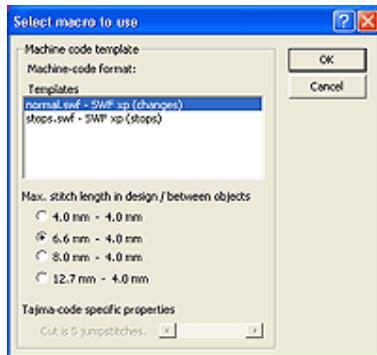


Figure 2.6: "Select macro" dialog

When you finish with the adjustments click ok and the design will be send immediately to the SWF machine through the serial cable you have already connected with your computer.

Send through e-mail

With this option you can send the current design by e-mail. When the "Send" option is selected from the "File" menu, eXperience finds the default program that you use for e-mails and opens a **new** e-mail window. It saves the current design in the current format in your temporary directory and inserts this file as attached.

Type in the e-mail address of the person you want to send the design, add any text you wish in the e-mail and send it through internet.

Closing – Exit

In this section you can learn the possible ways to close the loaded designs or to exit from the program.

Close

By clicking on this option in the "File" menu, you can close the current design. If the design has changes that are not saved, you will see a message box asking if you want to save the current changes.

Important: If you click the "Yes" button the new design will be saved over the old one without any further warning. If you want to keep the old design as it is,

you must click the "Cancel" button and then use the "Save as" command of the "File" menu. In case that the current design has not saved, the program automatically call the "Save as" option.

If you choose the "No" button, the changes of the design will not be saved. If you choose the "Cancel" button, the design will not be closed and you can continue working on it.

The same option can be called with "Ctrl+F4" from the keyboard.

Close all

By clicking on this option from the "Window" menu, you can close all the designs which have been loaded. If one or more designs have changed but not saved then you will see a message box asking if you want to save the current changes.

Attention: If you click the "Yes" button the new design will be saved over the old one without any further warning. If you want to keep the old design as it is, you must click the "Cancel" button and use the "Save as" command from the "File" menu. In case the current design has not been saved, the program automatically bring up the "Save as" option.

If you choose the "No" button, the changes of the design will not be saved. If you choose the "Cancel" button, the design will not be closed and you can continue working on it.

The same option can be called by pressing the "Ctrl + F4" keys.

Quit

You can exit the program using this option from the "File" menu. If any of the designs you have been working on have changed but are not yet saved then the software will prompt you with a dialog box asking if you want to save the current changes.

Attention: If you click the Yes button, the new design will overwrite the old one without any further warnings. If you want to keep the old design as it is, you have to click the Cancel button and then use the Save as command of the file menu. If you click the No button, the changes to the design will not be saved.

Window

Experience loads all the embroidery file designs in multiple internal windows. For this reason eXperience includes functions for Windows managing. These functions can help you to manage the active designs better, helping you reduce the production time of the design. All the "windows" managing functions are the following:

- **Tile horizontal**

Using this option from the "Windows" menu you can display multiple designs underneath one another. This allows you to see all the designs on the screen simultaneously - please note that the screen may become crowded if you open many designs at the same time.

- **Tile vertical**

Using this option from the "Windows" menu, you can display multiple designs next to one another. This allows you to see all the designs on the screen simultaneously. Please note that the screen may become crowded if you opened many designs at the same time.

- **Cascade**

Using this option in the "Windows" menu allows you to see the designs displayed as cards. The design that you select will move to the front.

- **All iconic**

By choosing this option from the "Windows" menu you can minimize (shrink) the designs to the bottom left corner of the screen.

- **Arrange icons**

By selecting this option from the "Windows" menu, you can arrange the minimized designs in the bottom left corner of the screen.

Printing

Printing the designs that will be embroidered it is important procedure in the embroidering process. eXperience in the printouts includes all the information that you would possible need for the embroidery design.

Print

This option can be activated by pressing the icon above or from the option "File > Print" menu - it enables you to print the current design.

On the following dialog you can see a preview of the printout of the current design.

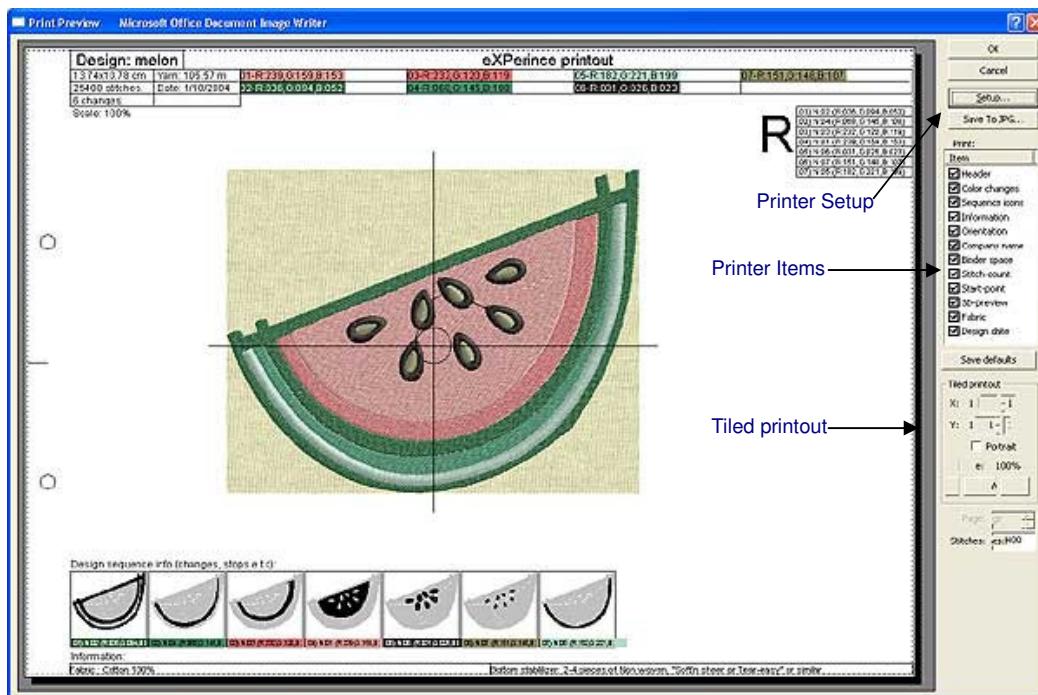


Figure 2.7: "Print Preview" dialog

To the right side of this dialog you can specify:

- **Printer setup**
- **Print items**
- **Tiled printout**

The design will be printed when you click on the "Print" button. In case that you do not want to print the current design, press the "Close" button but any changes you have made in the "Print preview" structure will be saved.

In case the printout dialog was brought up from the "Browse" option, the last field "page" will be enabled. With this field you can specify which page of the printout you would like to see.

Printer Setup

With the Setup button of the printing dialog you can see the properties of the printer. The dialog of the printer setup depends on the printer driver that you are using.

Print items

In this part of the printing dialog you can specify which information will be visible on the printout.

The option that you have are:

- **Header**
- **Color changes**
- **Sequence icons**
- **Information**
- **Orientation**
- **Company name**
- **Binder space**
- **Stitch count**
- **Start point**
- **3D-Preview**
- **Fabric**
- **Design date**

Every item of the printout can be enabled or disabled with a click on the square on the left of its description. If the item is enabled the changes can be viewed on the preview area.

Header

The header of the printout is at the top of the page and shows the size, color changes, number of stitches of the design, the needed yarn for the current design, the colors that the current design is using and in which position they should be.



13.74x10.79 cm	Yarn: 105.67 m	11-R030,G:150,B:163	19-R030,G:120,B:110	05-R192,G:024,B:100	07-R161,G:149,B:107
25400 stitches	Date: 1/10/2004	02-R030,G:094,B:052	04-R030,G:125,B:108	06-R031,G:026,B:023	

Color changes Creation date
Number of stitches

Figure 2.8: Print preview header

Color changes

The color changes are at the top right side of the printout and show the sequence of the color changes. This information is really useful in case the current design will be saved in machine file format which uses Stop instead of color change command.

01) N:02 (R:036,G:094,B:052)
02) N:04 (R:068,G:146,B:108)
03) N:03 (R:232,G:120,B:119)
04) N:01 (R:239,G:159,B:153)
05) N:06 (R:031,G:026,B:023)
06) N:07 (R:151,G:148,B:107)
07) N:05 (R:182,G:221,B:199)

Figure 2.9: Color changes

Sequence icons

The sequence icons are located at the bottom of the page. They show parts of the design split with a special function like color change, appliqué or stop. Also in the bottom of its icon can be viewed the name of the color that should be used, the needle carrier and the position of each object in the embroidering sequence.



Figure 2.10: Sequins icons

Information

The information is the notes that were written on the "Design info..." dialog. This information is placed at the bottom of the page.

Information:

Fabric: Cotton 100% Bottom stabilizer: 2-4 pieces of Non woven, "Soft'n sheer or Tear-easy" or similar.

Figure 2.11: Information

Orientation

The orientation is the icon shown with the "R" character on the top right corner of the printout and it shows how the printed page should be put on the embroidery machine in order to define the starting point of the design.



Figure 2.12: Orientation

Company name

The company name can be viewed on the top of the printout. What is written on the company name field can be changed from the “Printing” tab of the “Tools > Options” dialog.

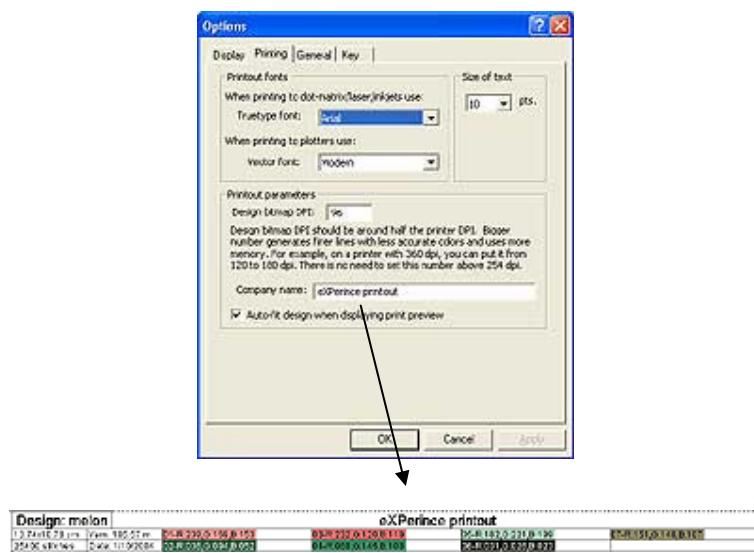


Figure 2.13: Company name

Binder space

This option makes the necessary margin (on the left side of the page) in case you want to put the printout in a folder.

Stitch count

With this option you can arrange if the number of stitches of the current design will be printed or not. The number of stitches of the design can be viewed on the header of the printout.

Design: melon	
13.74x10.78 cm	Yarn 105.57 m
25400 stitches.	Date 1/10/2004
6 changes	

Stitch count

Figure 2.14: Stitch count location



This option shows or hides the starting point of the design, marked with the above icon.

3D-Preview

This option shows the embroidery design in 3D preview.

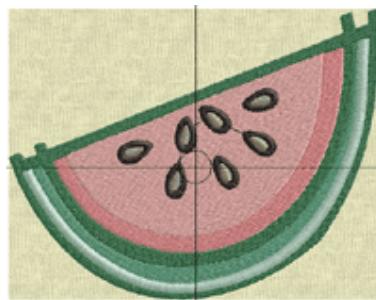


Figure 2.15: 3D preview

Fabric

If this option is disabled, the preview will not preview the fabric behind the design. Therefore if you want to have the fabric as a background you have to check the checkbox next to "Fabric" option.

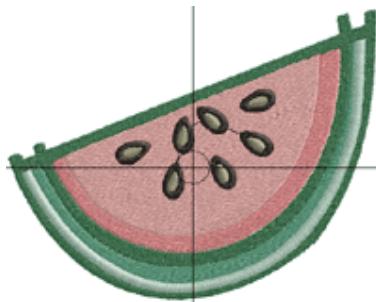


Figure 2.16: Without fabric

Design date

This option shows the creation date of the design. The Date is located at the header.

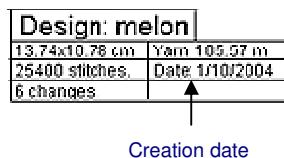


Figure 2.17: Design date location

Tiled printout

This section manages the way that the current design will be printed. When the printout dialog is called up the first two fields indicate the number of pages needed for printing: 'X' for horizontal and 'Y' for vertical; the number of designs printed on each page can be changed by using the arrows on the right hand side or the mouse wheel. The changes you make can be viewed on the print preview as you make them.

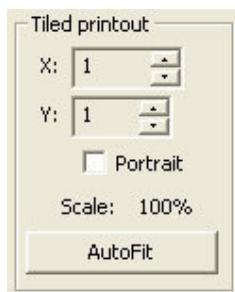


Figure 2.18: Tiled printout

The "Portrait" option specifies how the design is positioned on the page. If it is enabled then the design is printed vertically; if disabled (Landscape) then the design is printed horizontally.

The scale field shows if the design will be depicted smaller than its actual size and the percentage of the shrink. The first time that the printing dialog will be called, the program finds the best way to show the design in actual size with the least number of pages required.

To automatically restore the parameters indicated at the beginning of this process you could use the "AutoFit" button. If your design is previewed in more than one page, you can print them, cut the border of the page, which is already marked, and bind them to have your design complete.

Active designs modifications

This is a supportive tool where you can view all the designs that are currently open in the program and some extra functionality:

- **Print** the selected designs one by one or like catalogue.
- **Save** the selected design in the hard disk by changing their location or their format.
- **Write** the selected designs in machine disk. **Format** command is available in case it is needed.
- **Close all** the selected designs at once.
- **Right click menu**



Figure 2.19: “Active designs” dialog

Print the selected designs one by one or like catalogue.

In the “Active designs” dialog box you can print the designs one by one or like a catalogue. Therefore you can select the designs you want to print using also the Ctrl or Shift Key for your selections and click the “Print” button to make a print list of designs.

The “Print” dialog box is like the standard dialog box that eXPerience has. Instead of viewing the whole design you can view thumbnails of all the selected designs (Figure 2.20).

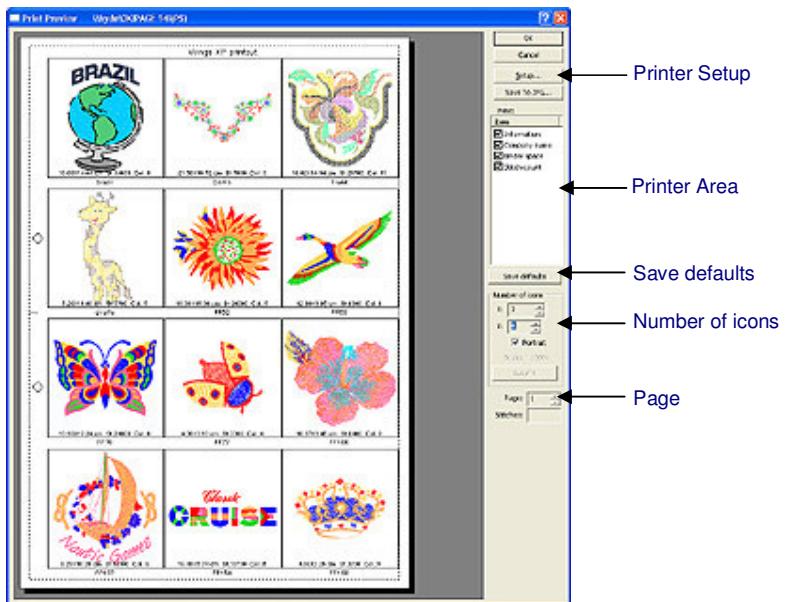


Figure 2.20: Print Preview multi designs dialog

The way that the designs will be printed can change by adjusting the printing parameters. The parameters that you can adjust are the following.

- **Setup:** with the “Setup” button you can change the parameters of the installed printer. The dialog box that will appear changes from printer to printer. For adjusting the printer setup please refer to printer’s manual.
- **Save to JPG:** with this button you can save the print preview in jpg file format (image file format).
- **Print area:** in the “print area” you can select which information will be added in the print preview. You can add or remove general “Information” about the design, your “Company’s name”, the “Binder space” and the “Stitch-count”.
- **Save defaults:** If you made some adjustments and you want to be set it as the default settings, you can click on the “Save defaults” button to do so.
- **Number of icons:** In the “Number of icons” area you can specify the way that the designs will be placed on the print preview area. In the “X” and “Y” fields you can specify the number of columns and rows of the table where the designs will be placed in the print preview area. Also you can specify if want the designs to be printed in Portrait or Landscape paper.
- **Page:** by increasing or decreasing the “Page” field you can view the other pages that will be print. Only the pages that contain designs are printed when the “Ok” button is been clicked.

When you finish with the adjustments you can click the “Ok” button to print the designs. If you click the “Cancel” button the printing process will be canceled and you will return to the “Active designs” dialog box.

Save the selected design in the hard disk by changing their location or their format.

In the “Active designs” dialog box with the “Save as” button you can save as the selected designs in a new location in the file format that you prefer. With this function we have the ability of multi design saving.

In order to apply this function you have to select one or more designs and click on the “Save as” button. The standard “Save as” dialog box will appear where you have to specify the location and the file type you want the designs to be saved. If you click the “Save” button all the selected files will be saved instantly in the location you have specified.

Format floppy

With the “Format floppy” button you can format a floppy disk and make it readable from the respective embroidery machine.

In the dialog box that appears you can choose one of the following embroidery machine’s floppy formats: TAJIMA, TAJIMA HD, HAPPY, PFAFF, ZSK, MARCO, BARUDAN FDR, BARUDAN FMC, MELCO DOS, MELCO HD, MELCO SD, SAURER HD, MITSUBISHI HD, TOYOTA, JUKI, SWF, SWF HD.

Place a floppy disk in the floppy drive and click on the “Start format” button. The progress of the format can be viewed in the “Format progress” area.

Write to floppy

Using this option you can write the current design to a diskette. First place the diskette inside the drive and then click on this option. The program automatically recognizes the format of the diskette and asks for the parameters. If you have forgotten to put the diskette in the drive, the program will prompt you if you want to “Retry” or “Cancel”.

In the following dialog you have to specify:

- **File name:** In this area you have to write the internal name of the design. This name will be seen when you want to load the designs from the diskette. For some formats (eg. Tajima) these names are different than the ones saved to disk. ZSK accepts only numbers as filenames.

Under this field you can see the designs that are already in the diskette.

- **Templates:** In this area you have to select the accepted template that you use in your machine.
- **Maximum stitch length in design / between objects:** In this area you have to select the maximum stitch length that the design will have.
- **Cut is ... jumpstitches:** This option has to do with the Tajima format. With the following scroll bar you have to specify how many jumpstitches will be interpreted as a cut.
- Additional information is also given in this dialog:

Machine-Code format: In this area the program recognizes the existing format of the diskette and shows which code the design will be written in on the diskette.

Design stitches: In this area you can see the estimated number of stitches that the design has.

Free stitches: In this position you can see the free space of the current diskette counted in stitches.

Close designs

By clicking this button at the bottom right of the “Active designs” dialog you can close all the active designs at once.

Right click menu

From the right click menu you have the ability to “Print” your design, change the icon view of the designs, make selections and view the “Properties” of the selected design.

In the “properties” of each design you can view the file name of the design, the path where is located, the dimension, the number of colors used, the number of stitches, and the notes that the designer have added.

3

Make selections

Introduction

In this chapter we will analyze how we can make object selections from our designs. There are many ways you can select an object from a design or the whole design. You can use the tools from the standard toolbar, the mouse (click) and the functions in the edit menu.

Selection with mouse

If you want to select an object of a design, you have to click on it while you are in object editing mode.

You can also select by clicking and dragging the mouse on the screen to draw a rectangle. All of the objects that are completely within this rectangle will be

selected. When selecting items, if you hold the "Shift" or "Ctrl" key you can add or remove items from the selection.

Selection can be made also, from the "Sequence manager" or the options "Select all", "Select none" and "Invert selection" of the horizontal toolbar or the "Edit" menu.

If you are editing a complex design, you can use the "Hide" tools or the sequence manager to select the object you want.

The selected object(s) of the design can easily be viewed in a rectangle similar to one in the following figure 3.1:



Figure 3.1: Selection rectangle



Select all

Using this option from the "Edit" menu, you can select all the objects in the design.

The same can be done with the "Num +" key from the keyboard or the  button of the horizontal toolbar.



Select none

Using this option in the "Edit" menu, you can de-select all selected objects.

The same can be done with the  button of the vertical toolbar or with click on an empty area of the current design.



Invert selection

Using this option from the "Edit" menu, you can reverse the objects selected - ie; select all 'unselected objects' and vice versa. This option is useful when you want to select all objects except a small group. You select the small group and then choose invert selection.

The same can be done with the "Num -" key from the keyboard or from the  button of the horizontal toolbar.

Select by color

eXperience gives you the ability to select the objects of the design by color. This function is very easy to use and is applied as follows. Right click with the mouse on the color, you want the objects to be selected, of the “Special functions” toolbar and in the pop-up menu that will appear select the “Select by color” function.

After the activation of the function, all the objects that have the same color will be selected. Having all the objects of the same color selected you can easily change colors to multiple objects without having to apply the color changes in each object.

Select by special function

eXperience gives you the ability to select the objects of the design by special function. This function is very easy to use and is applied as follows. Right click with the mouse on any color of the “Special functions” toolbar and at the pop-up menu that will appear select the special function you want from the “Select by special function” submenu.

After the activation of the function, all the objects that have the same special function will be selected. Having all the objects of the same color selected you can easily change special functions to multiple objects without having to apply them separately in each object.

Select by stitch type

Inside eXperience you have the ability to select objects of the design by stitch type. This is very useful if you want to convert objects of the same stitch type to a different one or if you want to apply a specific option to all objects of the same stitch type.

To select all objects with the same stitch type you have to define the stitch type you want from “Object properties” toolbar. For example define “Object properties” to have “Satin” stitch type. Then the only thing you have to do is to

right click on Object properties in the area where the options of the stitch type are listed and from the right click menu choose “Select by Type” option.

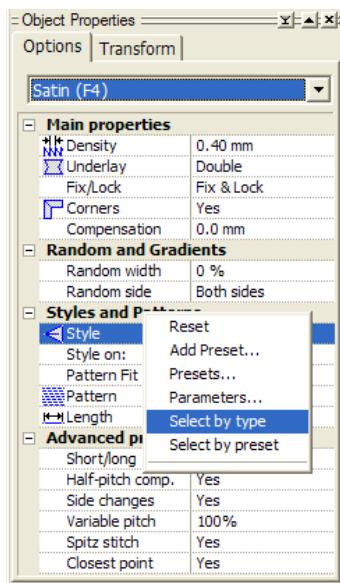


Figure 3.2: Select by type

All satin objects of the design will be automatically selected. By selecting the objects with the same stitch type you can make modifications that will affect all of them.

Select by Preset

Object properties toolbar allows you to save “Presets” that you can use them whenever you want.

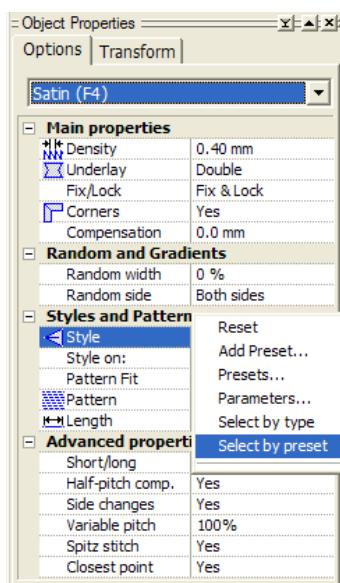


Figure 3.3: Select by preset

You can also use different presets to different objects than sometimes is confusing to distinguish. To be easier to find which preset has been applied to which object eXPerience gives you the ability to select all objects that a specific preset has been applied on them.

To do that you have to select the “Stitch type” of the objects from “Object properties” toolbar and right click on the area where the options of the stitch type are listed. From the right click menu choose “Select by preset” option and the “Current Preset” dialog will appear. From there select the preset you want and click “OK”. All objects that this preset was applied will be selected. By having those objects selected you can make any change you want that will be applied to all objects.

4

View your designs

Introduction

In this chapter we will analyze the ways that you can view your file designs. You will learn how to Zoom in/out your designs, measure them or move them around the design area. Also you will learn how to change view modes in your designs. The default view mode is digitizing mode. You can change this mode and view the embroidery design in 3D preview. All the functions in this section can be accessed from “View” menu and standard toolbar. In addition will be analyzed the way that you can insert guidelines, activate grid on the working area, how to use color manager and how to add information to your designs. Finally, OLE II technology will be described, together with the other backdrop management tools.

Change view port

This section covers the zooming features of eXPerience and what you will view on the screen.

Image map

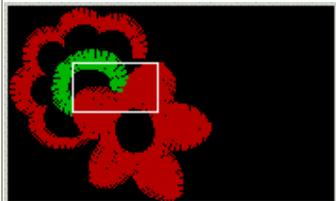
The Image map roll up gives you the opportunity to see and change the view port of the main window of the programs. This roll up has three parts:

The first is the horizontal toolbar, which is on top of the roll up. This toolbar has the following icons:

	<p>Using this tool you can zoom-in your view to a portion of a design. First you have to click on this tool and the mouse cursor becomes a magnifying glass. Then, you have to click on a point and drag the mouse holding the left button. The area that you mark will be the new view port.</p> <p>Clicking the right mouse button on the design area also activates the zoom-in function.</p>
	<p>Using this option you can zoom-out your view of the current design. The new view port will be the same as it was before the last zoom-in.</p> <p>Double clicking the right mouse button on the design area also activates the zoom-out function.</p>
	<p>Using this option you can see the whole design.</p> <p>Double clicking the right mouse button on the design area the same number of times you have zoomed-in, also activates the zoom all function. Also the same function can be called with the "A" from the keyboard.</p>
	<p>Using this tool you can zoom-out the current design, by 25%.</p>
	<p>Using this tool you can change the view port of the design, keeping the same zoom scale. First you have to click on this tool and the mouse cursor becomes a cross with four arrows. Also you can activate this tool by clicking on the Ctrl + right mouse click. Then, when you are moving the mouse at the edge of the view port, the view port moves to the direction of the movement of the mouse. In the next position the mouse will be in the</p>

middle of the view port and you can change it following the same process. To stop the function, just click one of the mouse buttons. Pressing the "Ctrl" key (from the keyboard) and right mouse button simultaneously on the design area also activates this operation.

The second part displays the design and a rectangle on it, as we can see in the following picture. The rectangle shows which part of the design is currently viewable in the main window.



The view port can be changed by clicking on another point of the map area. This point will become the center of the rectangle, which will keep the same size.

Also the zoom of the view port can be changed from the track bar on the bottom of the Image map roll up. The scale of the zoom can be viewed on the right side of the track bar.

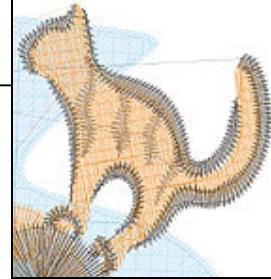
In case you have closed the Image map roll up you can re-call it from the "Image map palette" option of "View" menu.

Zoom in

Using this tool you can zoom-in your view to a portion of a design. First you have to click on this tool or click on the 'Z' shortcut key and the mouse cursor becomes a magnifying glass. Then you can click on a point and drag the mouse holding the left button. The area that you mark will be the new view port (Figure 4.1).



Figure 4.1: Rectangle Zoom area



New view port

Clicking the right mouse button on the design area also invokes the zoom-in operation.

Zoom out

Using this option you can zoom-out your view of the current design.

The new view port will be the same as it was before the last zoom-in.

Double clicking the right mouse button on the design area also invokes the "zoom-out" function.

Zoom all

Using this option you can see the whole design fitted onto the visible screen.

By double clicking the right mouse button on the design area the same number of times you have zoomed-in also invokes the "zoom all" operation. Another way to see the whole design is to press the "A" button from the keyboard.

Zoom preset

With click on this button of the horizontal toolbar, you can see the current design in actual size.

Moreover by clicking on the arrow on the right of this icon, you can select one of the zoom presets.

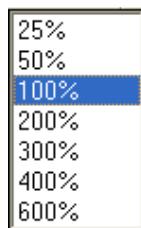


Figure 4.2: Zoom presets

Magnifying glass

This tool appears if you press the “Alt+Z” key on the keyboard. It is a “magnifying glass” that can be used to magnify anything on the design area.

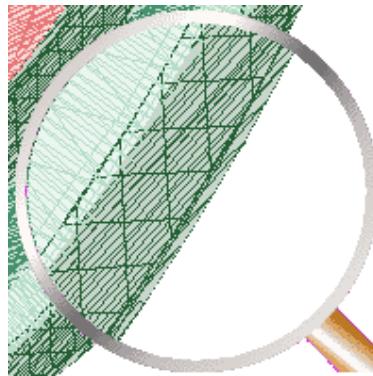


Figure 4.3: Magnifying glass

With this tool you can take a quick look of the way that the stitches are placed on the design area by passing over them the magnifying glass. Therefore you can take a better look of the stitches while keeping the whole design visible.

Measure tool

With this tool you can measure anything in the design area. It is a very useful tool whenever you need to know the exact dimensions of a specific object or design. You can activate this tool by holding down the Shift key and right

clicking once with the mouse. The cursor will change to measure  tool. In order to measure a distance between two points, you have to move the cursor to the first point left click to that point and drag it till the next point. Next to the

measure tool, while dragging, appears the measure text dialog  where you can view the distance "d" at the current point in millimeters, the angle of the line from the X-axis in degrees (45°) and the distance of the second point from the Y-axis "dY" and X-axis "dX" in mm.

When you finish measuring just release the left mouse click and the measure tool will stop functioning. With some practice you will get used to it.

Moving through Objects/Stitches

The tape button of the horizontal toolbar helps you to select the object or the stitch you want from the current design.

Click one by one the following icons in order to see its functionality.



 **First Object/Stitch**

Using this tool you can see and select the first object of the design when you are in “object editing mode”. If you are in stitch editing mode”, the cursor goes to the first stitch of the design.

 **Previous Object**

Using this tool moves you to the start of the current object when you are in “stitch editing mode” or to the previous object when you are in “object editing mode”.

 **Previous Stitch**

Using this tool you can move the cursor to the previous stitch. If you keep pressing this button the cursor will start to move faster. This tool works only in “stitch editing mode”.

 **Next Stitch**

Using this tool you can move the cursor to the next stitch. If you keep pressing this button the cursor will start to move faster. This tool works only in “stitch editing mode”.

 **Next Object**

Using this tool allows you to move to the start of the next object when you are in “stitch editing mode” or to the next object when you are in “object editing mode”.

 **Last Object/Stitch**

By using this tool you can see and select the last object of the design when you are in “object editing mode”.

If you are in “stitch editing mode”, the cursor goes to the last stitch of the design.

Preview 3D

With this option from the "View" menu, you can view the design as it will be embroidered against a fabric background. You can also activate this function at any time by simply pressing the 'P' key - to revert to previous view press "Esc" key. Please note that the thread is viewed much thicker than in the normal view.

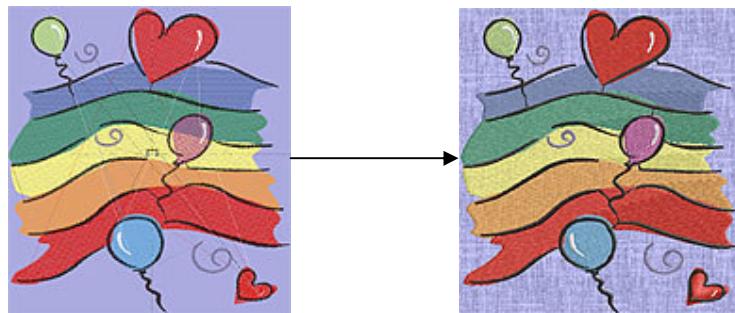


Figure 4.4: Normal View 3D preview

The option displays the design at the same zoom level you were using prior to activation - by doing so you can check that the density of the stitches and overall appearance of the design is correct. Please remember that if you are working at very high levels of zoom then the stitches and gaps between them are shown may seem large on the screen but in reality the gaps are too fine to see.

The fabric of the preview can be changed from the "Option" dialog from the "Tools" menu. The color of the fabric depends on the background color that you are using; if you would like to change it you can change it using the "Color manager" function.

Preview 3D selection

With this option from the "View" menu, you can see in 3D preview only the selected objects.

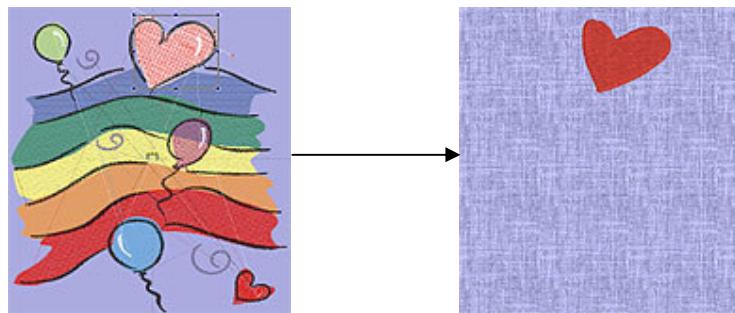


Figure 4.5:

Normal View

3D preview selection

Also, you can activate the same function by selecting the objects you want to preview and by clicking the “Ctrl + P” shortcuts keys from the keyboard. This tool gives you the power to have better perspective about how its object will be embroidered.

Hide

This tool hides the selected object(s).



Figure 4.6: Normal view

Selected object

Hidden object

Important: when one or more objects are hidden they are not displayed and cannot be edited but is still included as part of the design.

The hidden objects can become visible with the “Show hidden objects” button of the horizontal toolbar.

This tool is very helpful when you are digitizing an imported backdrop image and you have overlapping areas.



Show hidden objects

This button on the horizontal toolbar shows all the hidden objects of the current design. This option alters the “Hide” option.

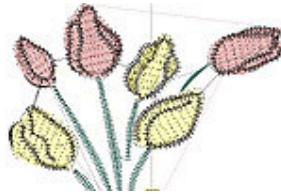


Show Stitch Marks

Using this tool you can see the stitch marks (needle penetrations) applied to the design. This is useful when you want to see the pattern of an area of step or tatami stitching.



Figure 4.7: Stitch Marks off



Stitch Marks on



Show Up to Cursor

Using this tool you can see the stitches of the design up to the stitch that the cursor has reached. This option can only be used if you are in "stitch mode".

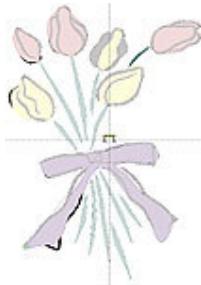


Figure 4.8:

Show up to cursor



Move objects by object

When you are in "object mode", the program automatically turns to "stitch mode". To move through the stitches you can see the tape buttons:



Show Filled Outlines

Using this option you can view the areas that will be covered with stitches in a light color. This helps to view better the stitches that are placed on the outline of the design.

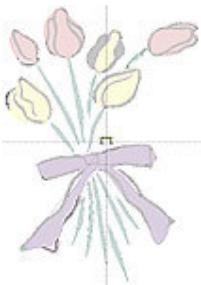


Figure 4.9:

Show filled outline



Show normal outline

Redraw

You can activate this option from the "View" menu or the shortcut key "Ctrl + W" and allows you to redraw the current design. This option is most useful when you are working in "stitch editing" mode and moving stitch-by-stitch through the design. This tool redraws the current design in order to be viewed in the best possible way. It does not make a 3D preview, just redraws the 2D version of the embroidery design.

Guidelines

With this option of "View" menu you can create or edit the guidelines of the current design.

There are three different types of guidelines:

- The **Horizontal** or **Vertical** guidelines
- The **Diagonal** guidelines
- The **Circle** guidelines

All the guidelines appearing with a blue dotted line and in any function the cursor snaps on them.

All the type of guidelines can be moved with click and drag to the position you want. In addition you can move a guideline by changing its properties from the "Guidelines" dialog of "View" menu.

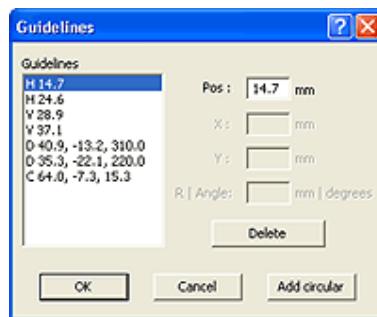


Figure 4.10: "Guidelines" dialog

To delete a guideline, you can click and drag it out of the border of the current design. Also a guideline can be deleted if you select it from the list, in the guide line option of "View" menu and press the delete button.

Horizontal/Vertical Guidelines

In order to create a Horizontal/Vertical Guideline just click on the Horizontal/Vertical ruler of the current design and drag it to the position you wish. The horizontal Guidelines can be viewed in the Guidelines list with the character "H" in front and the vertical has the character "V" (Figure 4.10). In both cases the only parameter can be changed is the Position counted from the center of the design.

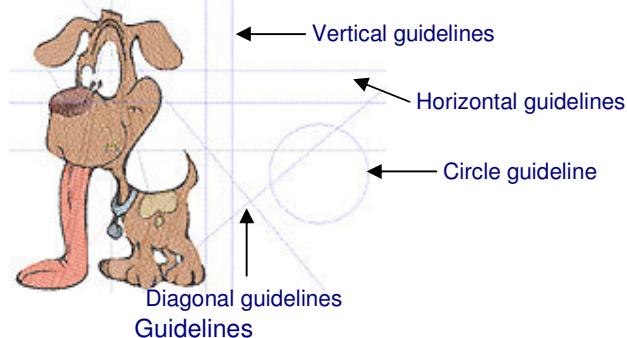


Figure 4.11:

Diagonal Guidelines

In order to create a diagonal Guideline keep pressed the "Shift" Key of the keyboard and right click with the mouse. The cursor will become as a ruler with a cross on the top. Click and drag and on the position you want (during dragging) right click. The program will create two diagonal guidelines. The first follows the line you drew when you dragged the mouse and the second will be vertical. The diagonal Guidelines can be viewed in the Guidelines list with the character "D" in front (Figure 4.10). The parameters that you can change is the Horizontal and vertical position and the Angle of the guideline.

Circle guidelines

In order to create a circle guideline, you have to call the "Guidelines" option of "View" menu and press the "Add circular" button. The cursor becomes as a pencil and with click and drag you can draw the circle guide line. If you keep pressed the "Shift" key from the keyboard during dragging, the first point will be the center of the circle and the second will be its radius.

Grid

With this option from the "View" menu or the "G" key from the keyboard, you can display grid lines on the screen to allow accurate positioning of the design.

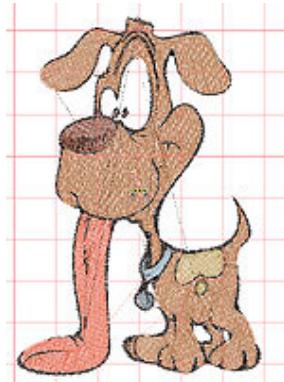


Figure 4.12: Grid

If you activate the grid from the "View" menu a dialog box (Figure 4.13) appears that asks you to specify the distance between grid lines for the 'X' and 'Y' axis and if you want the grid lines to be displayed.

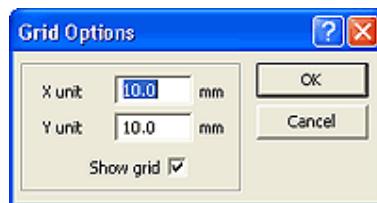


Figure 4.13: Grid Options

The origin of the grid is always the "Start-point" of the design. Please note that if you alter the design start point later on, then the position relative to the grid will also be changed:

- **X unit**

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

- **Y unit**

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

- **Show grid**

The grid lines will be displayed while you are working on the design if this option is enabled

Crosshair

Using this option in "View" menu, a cross follows the mouse when it is on the design and helps you align and position design items. You can also initiate the crosshair display by pressing the letter "C" from the keyboard while you are working with the design.

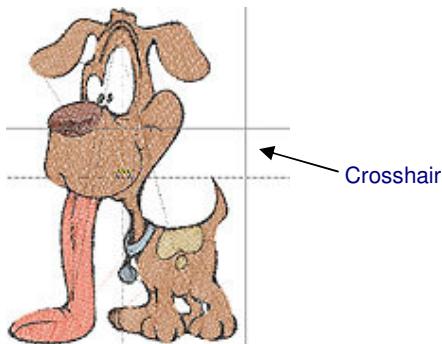


Figure 4.14: Crosshair

Note: During punching there is no need to use the crosshair option since it is automatically switched on.



Design info

With this option from the "File" menu you can view and add information relating to the current design. The same option can be called for the horizontal toolbar.

The "design information" dialog has four sections:

- **General**
- **Summary**
- **Yarn**
- **Stitches**

To add the information in the data of the design you have to press the "OK" button. If you want to discard the changes you have made, press the "Cancel" button.

General

On the top of the "general" section of the Design Information dialog you can see the path and the file name of the current design. For example C:\Program files\XPerience\Designs\WingsXp.ngs. This field can not be changed from the design information dialog but only from the "Save as" option of "File" menu.



Figure 4.15: Design info - General

The following fields listed are:

- size
- number of stitches
- number of color changes
- number of thread trims

You have the option to add information on: Date, Fabric, Yarn and Density if you wish.

Also you can see if the current design has "Borer" or "Sequences" but this information cannot be changed because it depends on the design itself.

Summary

You can enter information in the "Customer" and "Designer" fields to allow you to make notes on the design which can help your record keeping. These fields can be used also as filters in search option of "Browser".



Figure 4.16: Design info - Summary

In the "Keywords" field you can add words that describe the current design. These keywords can be used as a filter in search option of Browser: if you are dealing with hundreds of designs it can be a vital function for quickly searching your database. Many people find it easiest to write down a fixed list of options or keywords to allow multiple users to enter data in the same style into a common design database.

In the "Note" field you can add any other information relating to the design: for example instructions relating to production. This field in one of the "Print items" of the "Print" option.

Yarn

The "Yarn" section of the "Design Info..." dialog contains all the information regarding the yarns you need to complete your current design.

Yarn Length per color in meters. The table shows:

- the needle number for each color you have chosen
- the length of yarn and the number of stitches for that needle.

Under this table are listed the total number of colors, length of the yarn and length of the bobbin that you need in order to produce the current design.

The length of the top yarn and bobbin thread depends on two factors:

- the Bobbin tension
- the Fabric thickness

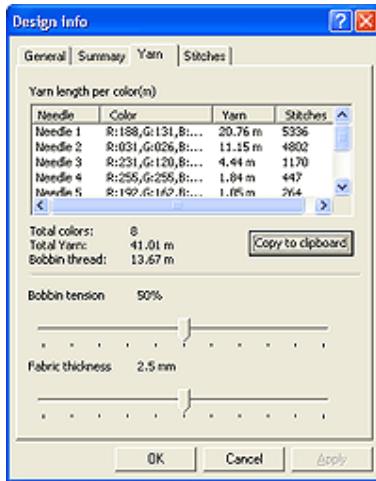


Figure 4.17: Design info - Yarn

Both factors can be changed using the track bars located at the bottom of the dialog box which will alter the yarn required automatically. This information can be copied to the clipboard and pasted into any standard spreadsheet or word processing package

Stitches

This function shows an analysis of the stitch make-up in your design:

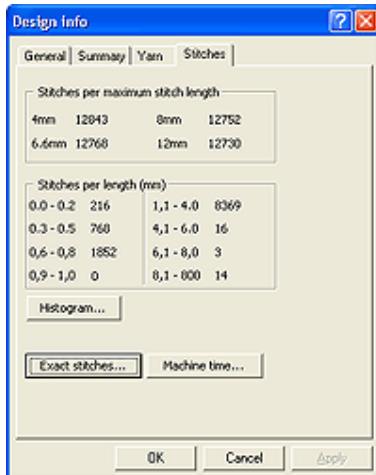


Figure 4.18: Design info - Stitches

- **Stitches per maximum stitch length:**

This shows the number of stitches in your design up to a fixed length of stitches

- **Stitches per length (in mm):**

This shows the number of stitches in your design by category of stitch-length.

- **Histogram:**

Pressing this function displays a graph of the numbers of stitches by stitch length; this gives you a visual impression of the information above

- **Exact stitches:**

Pressing this function opens another dialog box; this allows you to **calculate the exact number of stitches** depending on the type of machine you intend to use; you can use the default data contained or enter the specific settings of the particular machine you intend to use; the settings of any machine can be recorded separately in the "Machine time" dialog box (see below)

- **Machine time:**

This function opens another dialog box to allow you to record the settings of particular machines individually to keep for future reference; by pressing the "machine time" button you can then calculate the exact time your design will take to run on the selected machine

Please note: all stitches less than 0.4mm can be safely eliminated without affecting the design quality in any way and will increase productivity by reducing production time. Stitch lengths more than 4mm may invoke the "Slow-speed" function on your embroidery machine [depending on the setting of your machine] - you may wish to alter the machine settings or re-digitize the design to ensure that all stitches are under this maximum stitch length

Count exact number of stitches

Using this option in the "Design info" dialog "Stitches" tab, you can calculate the exact stitches that will be embroidered.

The number of stitches depends on the type of the machine that you are using. These parameters are:

- **Code**

In this field with a single click you can specify the code of the machine that you are going to use.

- **Macro**

In this field with a single click you can specify the Macro of the current Code.

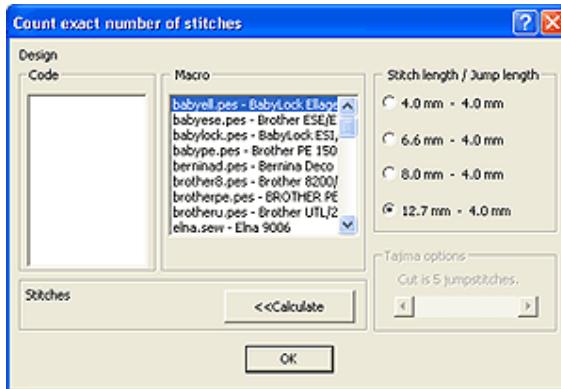


Figure 4.19: Design info – Stitches – Count stitches

- **Maximum stitch length in design / between objects**

In this area you have to select the maximum stitch length that the design will have.

- **Cut is ... jumpstitches**

This option relates only to the Tajima machine format. With the following scroll bar, you have to specify how many jump-stitches will be translated as a cut.

By pressing the "Calculate" button you can see the exact number of stitches.

Count time needed to embroider

Using this option in the "Design info" dialog "Stitches" tab, you can calculate the needed time in order to embroider the current design. This calculation will be made without counting thread breaks or time to change frames.



Figure 4.20: Design info – Stitches – Count time needed

The needed embroidery time depends on the type of the machine that you are using. These parameters in order to specify the type of the machine are:

- **Machine type**

In this area with a single click you can select the type of the machine that you are going to embroider the current design. Also you can create your own type of machine by pressing the "New machine type" button.

- **Maximum stitch length**

In this area you have to select the maximum stitch length that the design will have.

By pressing the "Calculate" button you can view the time that the current design needs to be embroidered.

Machine type

In order to create a new machine type you have to specify the following parameters:

- **Type**

In this area you can name the new machine type that you have created.

- **High speed**

In this area you enter the highest speed of your embroidery machine.

- **Low speed**

In this area you enter the lowest speed of your embroidery machine.

- **Length Hi -> Lo**

In this area you can enter the longest stitch the machine can embroider without slowing down.

- **Stitches Lo -> Hi**

In this area you can enter the number of stitches that your embroidery machine needs to accelerate.

- **Color change**

In this area you can enter the number of seconds that your embroidery machine needs to change color.

- **Thread trim**

In this area you can enter the number of seconds that your embroidery machine needs to perform a trim.

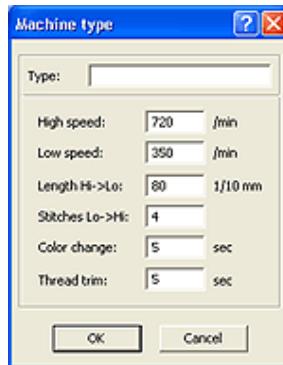


Figure 4.21: Design info – Stitches – Count time needed – Machine type

By pressing the OK button the new machine type will be added in the machine type list of the "Count time needed to embroider" dialog. With the Cancel button you can discard the settings you have input.

Histogram

This function displays a graph of the numbers of stitches by stitch length. While moving the mouse on the graphic area, you can view the stitch length, the number of stitches and their percentage according to the total number of stitches of the current position of the cursor.

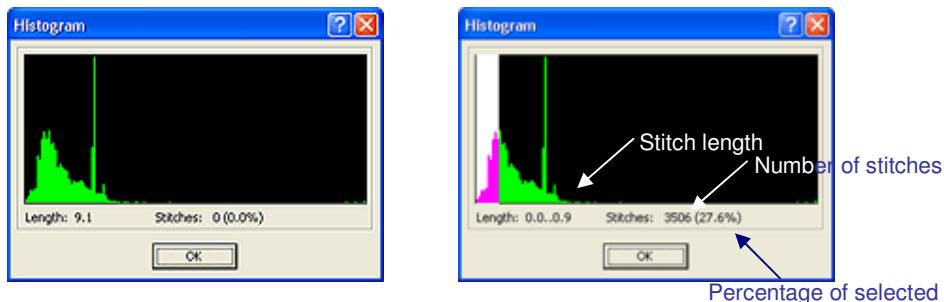


Figure 4.22: Design info – Stitches –Histogram

With click and drag you can view the same information regarding the selected area.

Color Management

This dialog gives you the opportunity to change the colors of the current design or **create**, **edit** and **delete** your own selection of colors or choose from one of the available color references.

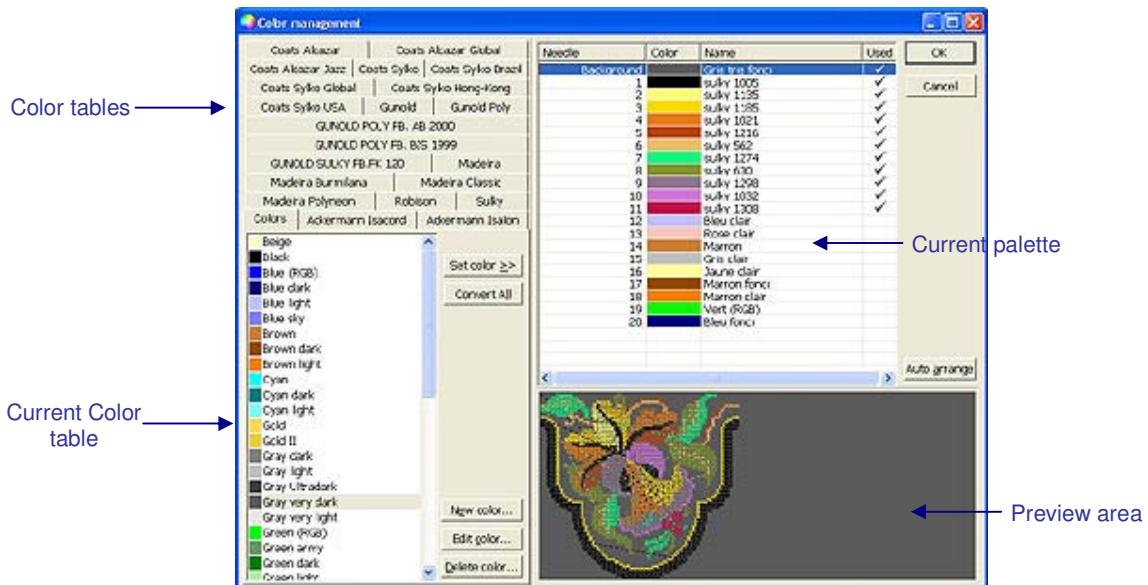


Figure 4.23: Color Management

On the left side of this dialog you can see the default “color table” of the program.

On the right top side, you can see the colors that have been chosen for the “current” design.

On the right bottom side you can see how the “design” will look after the color changes have been made.

By pressing the “Ok” button, the changes you have made will be applied on the current design. With “Cancel” button the changes will be discarded.

Color tables

On the left side of the "Color Management" dialog you can see the thread manufacturer's color tables as well as the default color table that you are using.

The tables can be viewed as Tabs on the top left corner of the Color Management dialog.

The color table labeled "Colors" is the default color table of the eXperience software. In this color table you can “create” your own colors, “delete” the colors that you do not need or “edit” a particular color.

To select a color you should click on the header of the color table you wish and click on the color that you want. In case that the color is not visible, you can use the scroll bar on the right or the mouse wheel.

To specify a color from the current palette to a particular needle position, just select it and click and drag it to the needle position desired. Another way of doing this is to highlight the needle number you wish to change, choose the color you want from the desired palette and press the "Set Color >>" button.

If you would like to "convert all" the colors in the current design to the closest colors of any selected thread manufacturer color palette, you can press the "Convert All" button and each needle position will be allocated the closest colors in that range automatically.

Current palette

Palette in general is a set of 20 colors plus one for the background. The current palette is the palette that eXPerience is using to show the colors of the current design.

In case that the loaded embroidery file (design) has no color information, the design will use the default palette, otherwise eXPerience will show the colors of the design.

The colors of the current palette can be "changed" as we described in "Color tables".

On the current palette you can see the colors and their names that the design is currently using, the sequins of the colors and whether they are used or not.

In case that you want to change the sequins of the colors of the current palette, you should click on the color you want and drag it in the position you wish.

If you want the used colors to be the first colors that can be viewed in the current palette, you can use the "Auto arrange" button.

The first color of the current palette is always the background color and its position cannot be changed.

With right click on the current palette you can:

- **Load a palette**

With this option you can load an existing palette. The following dialog is a normal file open dialog and shows the files with .PAL extension.

- **Save a palette**

With this option you can save the current palette so to be possible to load it again if you wish. The following dialog is a normal "File>Save as" dialog. We suggest that the palette file which has .PAL extension, to be saved in Palettes sub-folder of Wings XP folder.

- **Set as default**

With this option you can set the current palette as the default palette. The default palette is the set of colors that the eXperience will use in case that the design will be loaded has no color information. With this way you can select 20 colors coming from the Sulky color tables and one for the background and make your own default palette.

- **Reset to default**

In case that you are not satisfied with the changes you have made in the current palette or you do not like the colors of the current design, with this option you can switch the current palette to the default.

Preview in Color management

In this area you can see how the design will look against a fabric background when you apply the changes you have made.

New Color...

With this option you can create your own color. This color can be added only in the Default color table and you can view it with the name "Color".

There are three methods to create a color.

Red - Green - Blue method

A combination of red, green, and blue levels can be used to define any color.

- **Red** - this specifies the amount of red in the selected color.
- **Green** - this specifies the amount of green in the selected color.
- **Blue** - this specifies the amount of blue in the selected color.

You can see the effect of changing the values above in the color matrix. If you change any R-G-B value, the values for the H-L-S method outlined below will be changed automatically to match. The easiest way to experiment with different colors is to click and hold the left mouse button and move the cursor around the color matrix to the left.

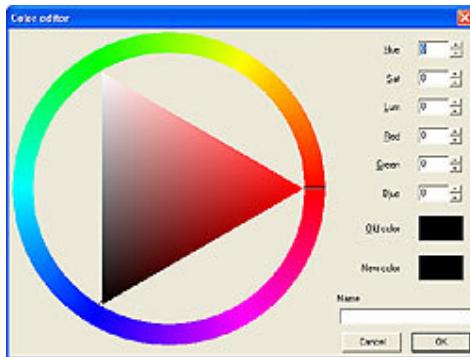


Figure 4.24: Color editor

Hue- Luminance - Saturation method

A combination of hue, saturation, and luminosity can be used to define any color.

- **Hue** - this specifies colour in the spectrum for the selected color. Hue is a numerical value where 0 is red, 60 is yellow, 120 is green, 180 is cyan, 300 is magenta, and 240 is blue.
- **Luminance** - this specifies the luminance or amount of light or dark for the selected color. Luminance is a numerical value where 0 is white and 60 is black
- **Saturation** - this specifies the saturation for the selected color.

If you change any of the H-L-S values on by this method then the values for the R-G-B method will be changed automatically. The easiest way to experiment with different colors is to click and hold the left mouse button and move the cursor around the color matrix to the left.

Color map method

This method displays a color matrix. To define a custom color, click anywhere in the circle matrix and then use the triangle at the middle to arrange the saturation and the luminance, as you can see in the illustration below.

If you define a color using the Hue-Sat-Lum or Red-Green-Blue scales, you can look at this matrix to make sure the color is correct. The color you created is also displayed in the "New Color" area.

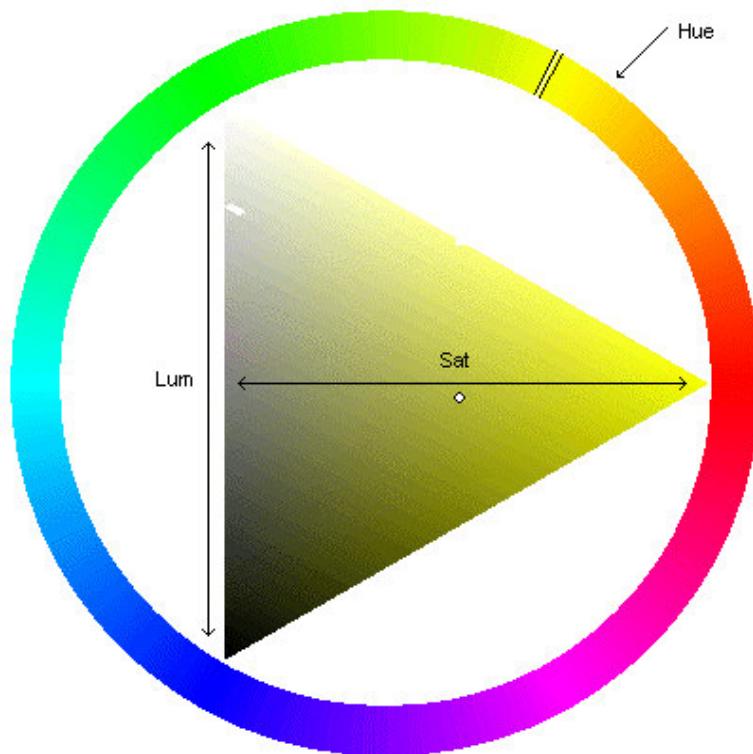


Figure 4.25: Color map

To complete the creation of the new color, you have to name it. This should be typed in the "Name" field.

The new color will be created by pressing the "OK" button. If you want to discard the changes you have made, just click on the "Cancel" button.

Warning: please note that computer screens - whether the Cathode ray Tubes used in PC's or Lithium displays used in laptops - have physical limitations on the number of colors they can display; some colors you create cannot be displayed accurately. Also note that there is a difference between colors displayed electronically using artificially emitted light and colors as seen by the naked eye using the reflected light from available light sources such as sunlight; the same color values will appear to be different; the methods outlined above are only meant as a guide; please ensure you obtain the assistance of professionally qualified personnel to advise on your final choice of color before transmitting this information or making important decisions on color choice.

Edit Color

With this option you can edit the selected color of the default color table. This can be done by changing the Red - Green - Blue, Hue- Luminance - Saturation parameters and the points of the color map as you can see in the "New color" dialog. You can also change the name of the current color.

Please note that the colors of thread manufacturers color tables can not be changed.

Delete color

With this button you can delete the selected color of the "default color table".

In order to delete a color, you must first select it and then press the "Delete Color..." button - then you have to confirm the deletion of the color in a dialog box, by pressing the "Yes" button. In case you want to cancel this function, you should press the "No" button.

Please note that the colors of thread manufacturers color tables can not be deleted.

Backdrops

In this section you can learn how you can add, delete or change the properties of a backdrop.

Backdrop properties

With this option of "View" menu, you can change the parameters of the backdrop that you are using.

The backdrop can be any of the known bitmap or vector images and can be added on the design when you are creating it or later with the "Bitmap/Vector backdrop" option of "File import menu".

In case that the current design has more than one backdrops you can see them in the "Backdrops in the current design" list. The backdrop with the name limits (e.g. limits 6.00 x 6.00 cm) is the default backdrop that the program adds in case that you have not used any backdrop during the creation of the design.

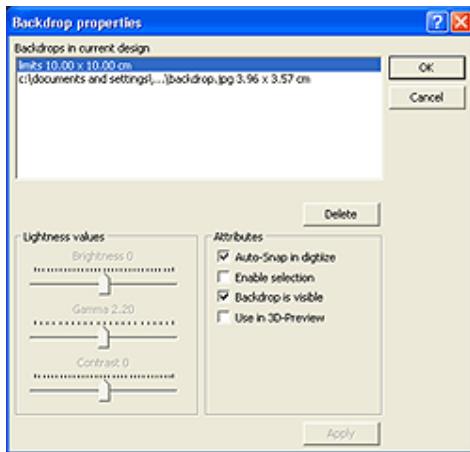


Figure 4.26: Backdrop properties

The parameters you can change on this dialog are:

- **Lightness values**

In this section you can change the Brightness, the Gamma and the Contrast of the selected backdrop. These parameters can be changed with the following track bars and are available in case of a bitmap backdrop.

- **Auto-snap in digitize**

When this option is enabled the cursor snaps on the vectors or the colors changes of the backdrop. In order to temporary disable this function, press the Alt key from the keyboard when punching the outlines.

- **Enable selection**

When this option is enabled, the backdrop can be selected as a normal object of the design and you can resize or move or as you wish.

- **Backdrop is visible**

When this option is enabled, the backdrop is visible in the current design. In order to temporary disable this function, press the Alt+1. Also with,

Alt+2 - increases the contrast of colors in the backdrop, making it darker.

Alt+3 - decreases the brightness of the image, fading it out.

Alt+4 - returns the backdrop image to its normal brightness and contrast.

- **Use in 3D-Preview**

When this option is enabled, the backdrop is visible in **3D-Preview** option of the design. This option is useful in case that the selected backdrop is the fabric that you willing to embroider the current design.

Also in this dialog with:

- **Delete**

You can delete the selected backdrop. In this case the backdrop will not be deleted from your hard disk but there will be no link between the current design and the backdrop.

- **Apply**

You can activate the changes you have made in the selected backdrop(s) without closing the "Backdrop properties" dialog.

Import Bitmap/Vector backdrop

With this option of "File > Import" menu you can add a backdrop in an existing design or in a design that you have created.

The following dialog is a normal "File > Open" dialog. In this case the file that will be loaded is not a design but a bitmap or vector image, just like the select dialog in "File > New" option.

The loaded backdrop will be added on the centre of the current design. The parameters of the loaded backdrop(s) can be changed from the "**Backdrop properties**" option of "View" menu.

Straighten Bitmap

With this function you can straighten your backdrop bitmap. First you have to load a backdrop bitmap and activate the function. The cursor of your mouse will become a cross. In order to straighten (rotate) your backdrop bitmap you have to click twice on your bitmap creating a straight line with gradient at the direction you want your bitmap to be rotated. This is very useful in cases you want to make slight rotations to scanned images that was placed as backdrops.

Acquire

With this option of "File> Twain" you can scan an image from the connected scanner on your computer.

The program will be used in order to scan the image depends on the software you have selected on "**Select source**" option of the same menu.

Select source

In this dialog of "File>Twain" menu, you can select the program that you will use in order to scan an image.

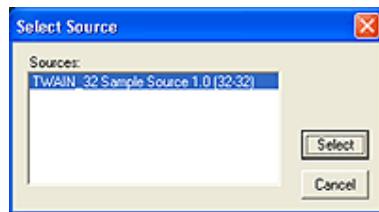


Figure 4.27: Select Source

The choices on this dialog depend on the scanning programs you have already installed on your computer.

This program will be used when you select the "Acquire" option of the same menu.

Change fabric

You can change easily the fabric you are using while previewing your designs by activating the "Change fabric" option from the "View" menu. In the next dialog (figure 4.28) you can view the current fabric that appears when you 3D preview the design and some tools to change them.

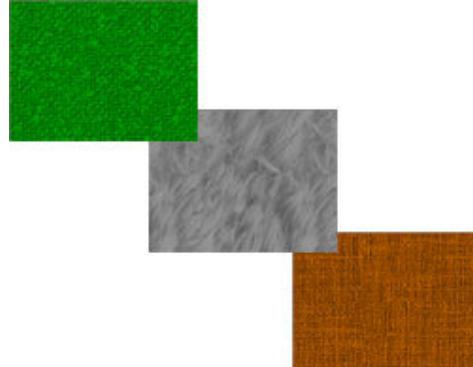


Figure 4.28: Select fabric options

As you can see in the figure 4.28 at the top is the location from where we loaded the fabric bitmap. Under it there is a track bar with which we can adjust the “Relative brightness” of the fabric. If we click and drag the track bar to the left, the brightness of the bitmap will be increased and if we drag it to the right the brightness will be decreased. While moving the track bar, the brightness of the fabric is automatically previewed in the preview area below.

Finally, you can change the fabric by clicking on the “Change fabric” button and from the dialog box that appears select the fabric you want from the list (calico, denim, fleece...etc.). You can choose the fabric you want from 22 available fabrics or load your own fabrics that must be in “.bmp” image file format.

When you finish with your fabric selection and click the “Open” button you will see your fabric in the preview area with the same color with your current background.

OLE-II (Object Linking and Embedding technology)

This technology, firstly introduced in digitizing - embroidery software with eXPerience embroidery software. It allows you to use your favorite vector design package virtually inside eXPerience. You can easily design an object in CorelDraw® for example, copy it to the clipboard and then paste it in eXPerience. Therefore, designing a backdrop image is much more sophisticated and more common to every designer. Having in mind that eXPerience can use the most common formats of backdrop designs in the market; OLE-2 technology comes in hand for heavy multiple-object backdrops.

All you have to do is open a vector format drawing in Corel Draw® or Adobe Illustrator™ or in any vector design you use and supports OLE II technology, and after you have created the design, copy it to the clipboard and then paste it in eXPerience for punching.

When you activate the OLE II  function from eXPerience, located in the vertical toolbar, immediately you will be transferred to the program, from which the backdrop was copied and there you can edit it. Click on "File>Exit" option, in order to update the backdrop in eXPerience as well.

This way, designing a backdrop image is much more sophisticated and more common to every designer.

This tool gives a superior advantage in eXperience because it lets you change the artwork instantly by communicating directly with the program that was created or edited. Combining this ability with the “auto snap” tool that recognizes the outlines of the shape, and snaps on the edges of each object that is helpful while digitizing, becomes a powerful tool that can reduce embroidery designing process and increase embroidery quality.

Note: Keep in mind that in case you have changed the original dimensions of the backdrop -by inserting or removing parts of it- you have to adjust its position in eXperience. eXperience includes additional “Backdrop properties” which can be activated from the “View” menu that are the following:

- **Lightness values:** In this section you can change the Brightness, the Gamma and the Contrast of the selected backdrop.
- **Auto-snap in digitize:** When this option is enabled the cursor snaps on the vectors or the colors changes of the backdrop. This is very useful because while digitizing the mouse pointer glows at the backdrops edges, helping on accurate line digitizing.
- **Enable selection:** When this option is enabled, the backdrop can be selected as a normal object of the design and you can resize or move it.
- **Backdrop is visible:** When this option is enabled, the backdrop is visible in the current design.
- **Use in 3D-Preview:** When this option is enabled, the backdrop can be viewed while you are in 3D-Preview.
- **Delete:** You can delete the selected backdrop.
- **Apply:** You can preview the changed properties immediately without having to apply them actually.

If you have the “Enable selection” active you can select the backdrop, click and drag to the position you want, according to the objects that have been already punched and punch only the new parts of the backdrop design.

Adjust the already punched objects

Select the objects you want and move them to the appropriate position, according to the changes made in the backdrop. This can be done with the mouse or the “Move” option of “Transform Tab” of the “Object properties” roll up.

Using OLE-II in designs

OLE II technology is very powerful but very easy to use. It allows you to create and edit the source of the embroidery design (vector design) using your favorite vector design software (CorelDRAW, Microsoft Visio). The Vector designing software that you will use must support OLE-II technology. A good artwork can help you to create faster and easier high quality embroidery designs with the ability to change whenever you want the actual vector design and adjust it to your customer's needs. For this reason, together with eXPerience we have included CorelDRAW 9, a powerful embroidery software, where you can make your artwork that you will embroider.

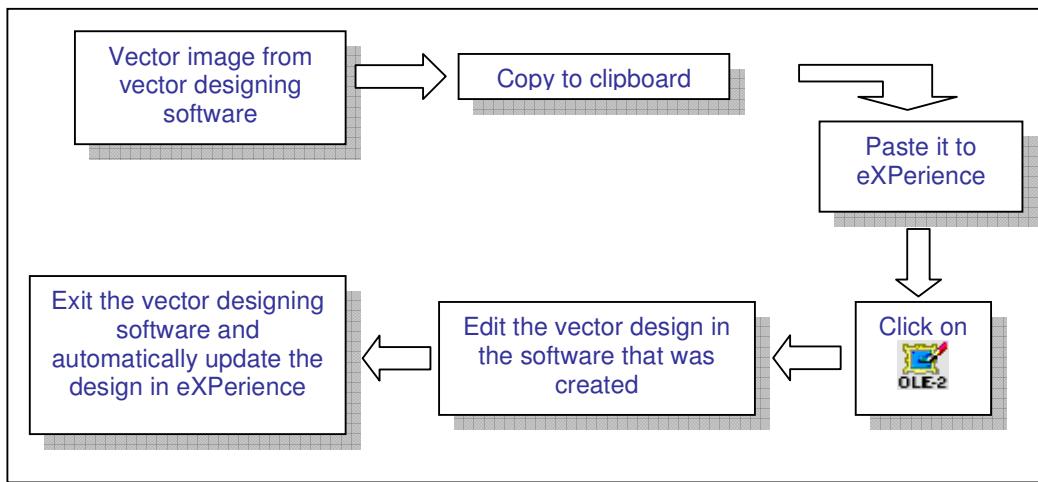


Figure 4.29: Using OLE-II in designs

In order to use OLE-II technology in eXPerience you have to follow the steps below:

1. Open your vector design software (CorelDRAW 9) and create or open an already made design.
2. Make any adjustments you want, select the whole design and copy it to clipboard.
3. Open eXPerience, create a new design or open an existing one and paste the copied design inside eXPerience.
4. The design is ready to be digitized.
5. Now if you want to make any change to the vector artwork you can simply click on the "OLE II" button  of the modes toolbar that will open the vector design in the software you have created it.

6. There you can make any changes you want and apply them to eXPerience by simply exiting the vector design software.
7. After exiting you will see the vector design already changed in eXPerience without affecting the already digitized parts of the design. You can edit the artwork as many times as you want.

5

Operations

Introduction

In this section you can learn most of the tools that eXPerience has to edit the embroidery designs. We will analyze how you can transform the designs, re-order them and merge or split them. In addition many of the stitch editing tools are explained thoroughly and the way that you can use them. We will start with two useful tools undo and redo.



Undo

Using this option in the "Edit" menu, you can cancel the latest changes that you have made. With this option you can cancel the last seven changes in your design. You can also undo a change by pressing the Alt + Backspace keys from the keyboard or by pressing the icon on the horizontal toolbar.

You can recall the cancelled functions by using the redo option. Also you can adjust how many undo you want eXperience to keep by adjusting the "Undo levels" value from the "General" tab of the "Tools>Options" dialog.



Redo

Using this option from the "Edit" menu, you can cancel the latest undo that you have performed. With this option you can restore the last seven "undo" you have done. You can also redo a change by pressing the Alt + Enter keys from the keyboard or by pressing the icon on the horizontal toolbar.

Object Properties – Transform

On the Options tab of Object properties roll – up, you can transform the selected objects. If the Object Properties toolbar is not visible you can activate it from "View - Object Properties".

The type of changes that you can do can be easily seen from the four icons on the top of them. These are:

- **Move**
- **Rotate**
- **Scale**
- **Alignment**

To call any transform, you have to click on the additional icon and change the parameters, which are relative to the transform that you have called.

At the end of every transform type there are two buttons:

With the "Apply" button, the changes will be done on the selected object(s).

With the "Apply to duplicate" button, the changes will be done on a copy of the selected object(s).

Move

The tool "Move" of "Object Properties", Transform tab, changes the position of the selected object(s).

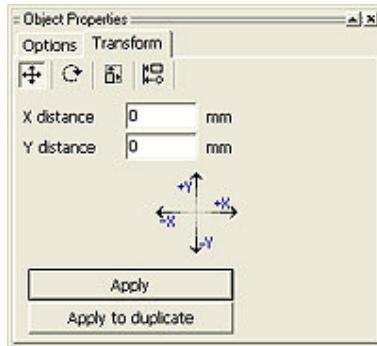


Figure 5.1: Move tools

The following two fields specify the distance between the new and the old position of the selected object(s). This distance should be input in millimeters.

Also, the sign of the input number arranges the direction of the movement. In case the number entered in the X distance field is negative, the selected object(s) will be moved to the left, otherwise they will be moved to the right. The same way for the Y distance. In case the number entered in the Y distance field is negative, the selected object(s) will be moved down, otherwise will be moved up.

The drawing, following these fields, shows clearly the direction of the movement in any case.

Rotate

The tool “Rotate” of “Modes toolbar”, which is located at the left side of eXPerience’s window, has been replaced with the “Rotate” function of “Object Properties”, Transform tab.

The tool “Rotate” of “Object Properties”, Transform tab, rotates the selected object(s). In the field “Angle (deg)” specifies the rotation.

The direction of rotation by default is non-clockwise, as the Figure 5.2 shows.

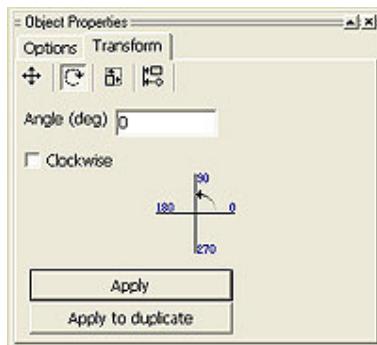


Figure 5.2: Rotate tools

This can be changed by enabling the “Clockwise” option. Also the “Angle (deg)” field accepts negative numbers. In this case the direction of the rotation will be clockwise.

Scale

The tool “Scale design” of “Modes toolbar”, which is located at the left side of eXperience’s window, has been replaced with the “Scale” function of “Object Properties”, “Transform” tab.

The tool “Scale” of “Object Properties”, Transform tab, changes the size of the selected object(s) or all the current design, in case that nothing is been selected.

In the first part of this dialog (“Horizontal scale” and “Vertical scale”) you can scale the selected object(s) as a percentage of the current size. During changing the percentage of the scale, the “Width” and “Height” fields are also changing.

In case that the percentage is more than 100% the selected object(s) will be enlarged, otherwise they will be shrunk.

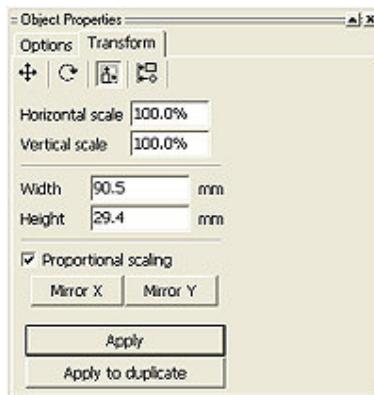


Figure 5.3: Scale tools

On the second part of this dialog you can see the size of the selected object(s). Also you can change these fields. During changing the size of the selected object(s) the fields of “Horizontal scale” and “Vertical scale” are also changing.

The “Proportional scaling” option gives you the opportunity to change the size of the selected object(s) by keeping the same analogy between the horizontal and the vertical size of them. That is why, when the “Proportional scaling” parameter is on, and one of the dimensions of the selected objects is changed, automatically the other dimension will be changed with the same

percentage. In case that this parameter is switched off, the width and the height of the selected object(s) can be changed separately.

The following buttons, "Mirror X" and "Mirror Y", are mirroring the selected object(s) horizontal and vertical.

Alignment

The tool "Alignment" of "Object Properties", Transform tab, specifies the position between the selected object(s).



Figure 5.4: Alignment tools

The alignment can be made horizontal or vertical. The buttons shows the way of the alignment.

- Their left side will align the selected object(s).
- Their horizontal center will align the selected object(s).
- Their right side will align the selected object(s).
- Their topside will align the selected object(s).
- Their vertical center will align the selected object(s).
- Their bottom side will align the selected object(s).

The described buttons (for each alignment) are radio buttons. That means, only one of them can be pressed for each alignment. The selected alignment can be cancelled by clicking on the pressed button.

In order to apply the changes you have to click on the "Apply" button or on the "Apply to duplicate" that will create a copy of the selected object with the changes in alignment applied.

Finally you can align manually the objects of the current design by using the "Guidelines", "Grid" and "Crosshair" options of "View" menu.

Transform with mouse

In this section you can learn the way to edit the selected objects by using the mouse. You can make the same transformations and even easier.

Move objects:

To move an object, first you have to select it. After that you can click on an area with stitches of the selected objects and drag it to the position you want.

If you want to make a copy of a selected object, you have to click the right mouse button during dragging. The new object will be added after the original or to the end of the design. Which of these placements will take place is determined by the "Append new objects" option in "Layout" menu.

When you want to move to a position that you can't see on the screen, the program changes the view port automatically during dragging, following the movement of the mouse (Automatic panning). The Image map always shows where you are.

If you want to copy an object from one design to another (drag-drop), you have to hold the shift key during dragging, to temporarily de-activate the auto-panning so that you can drag the object out of the window. The Object(s) remains selected on the new design and you can move it on the position that you want. To use this feature, you must have both designs open and use the "Tile Horizontal" or "Tile Vertical" option of Window Menu.

If you keep the "Control" (Ctrl) key pressed during dragging, the objects move only horizontally or vertically.

For moving objects see also: "Object properties" Roll-up, in "Transform" Tab, "Move" section.

Scale objects

If you want to scale an object, first you have to select it. On the corners of the rectangle, which surrounds the object, you can see blue points (handles). By dragging these handles you can scale the object from both sides.

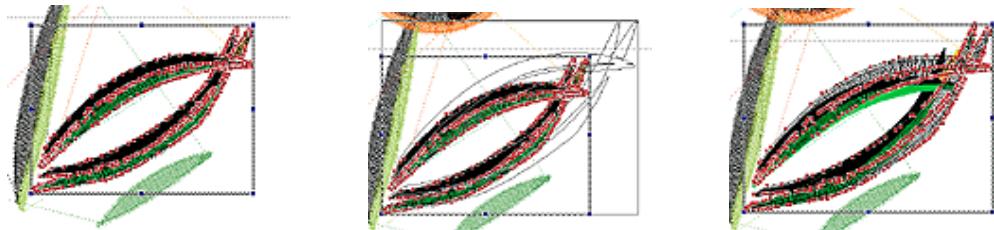


Figure 5.5: Symmetrical Scaling

If you hold the "Control" key from the keyboard while dragging the mouse, the scale will be made in increments of 25 percent. If you want to make a copy of this object, you have to click the right mouse button while dragging. Also with the "Shift" key during dragging, you can scale the selected object(s), by keeping the same center.

For scaling see also: "Object properties" Roll-up, in "Transform" Tab, "Scale" section.

Rotate objects

If you want to rotate an object, first you must select it and then click on it. On the corners of the rectangle, which surrounds the object, you will see the character ↗↖↖↗. You can click and drag this point. At the bottom of the screen you can see the rotation amount applied to the object in degrees.

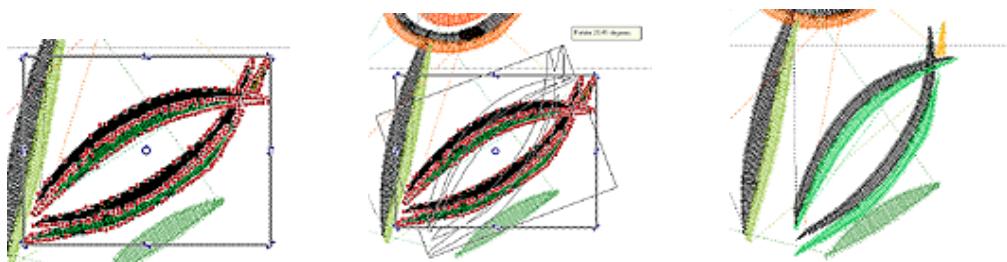


Figure 5.6: Rotate selected object

Another important thing is the center of the object around which rotation will take place. Somewhere inside the selected object you will see the symbol Ⓜ. It is usually in the center of the rectangle. You can click and drag this character to the point you desire and this will be the center of the rotation.

If you hold the "Control" (Ctrl) key while dragging the mouse, the center point can be moved only horizontally or vertically. If you hold the "Control" (Ctrl) key while you are rotating an object, the rotation will be performed in multiples of 15 degrees. If you want to make a copy of the selected object, you have to click the right mouse button while dragging.

For rotation see also: "Object properties" Roll-up, in "Transform" Tab, "Rotate" section.

Slant objects

If you want to slant an object, first you must select it and then click on it. On the sides of the rectangle which surrounds the object, you can see the characters ↪↓.

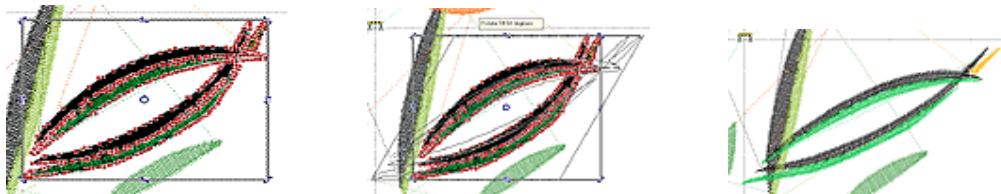


Figure 5.7: Slant selected objects

Another important thing is the center of the object around which slanting will take place. Somewhere inside the selected object you will see the symbol ⓧ. It is usually in the center of the rectangle. You can click and drag this character to the point you desire and this will be the center of the rotation.

If you hold the "Control" (Ctrl) key while dragging the mouse, the center point can be moved only horizontally or vertically.

By clicking and dragging these points you can slant the design around the center. If you want to make a copy of this object, you have to click the right mouse button while dragging.

Mirror objects

If you want to mirror an object first you have to select it. On the corners and sides of the rectangle, which surrounds the object, you can see blue points (handles).

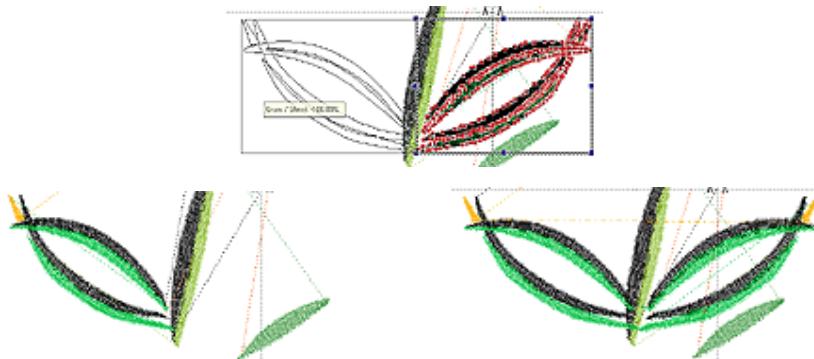


Figure 5.8: Mirror object

Mirror copy while right mouse clicking

You can click and drag one of these points, which shrinks the selected object, then continue dragging in the same direction until the design starts enlarging. While enlarging, next to cursor a text dialog appears that shows the Shrink / Enlarge percentage of the object. Also, if you hold the "Ctrl" key down while dragging, the Shrink / Enlarge movement, snaps on specific percentages, helping you to make accurate mirror changes.

If you want to make a mirror copy of this object, you have to click the right mouse button during dragging. This procedure will keep the object in the position that it was and creates a mirror copy of the same object in the position you have drag it.

For mirroring objects see also: "Object properties" Roll-up, in "Transform" Tab, "Scale" section.

Repeat last transform - R

With this option of "Edit" menu you can repeat the last change you have made in the current design.

This option works in object editor and in Transform mode.

For example if you have move an object 10 mm to the right and after this you select another object and click on the "Repeat last transform" option, the new selected object will be moved 10 mm to the right.

Re-order

In this section you can learn the way to change the sequence of the objects of the current design and how to arrange the objects on the working area.

Sequence manager

It can be called from the "Layout" menu, "Sequence manager" option and it is always in front unless you close it by pressing the button  on its top-right corner. Also you can temporally hide or show this window by double clicking the header of it.

The extra ability of this tool is that you can re-arrange the sewing order for the current design, and select one or more objects. You can do that by selecting the object(s) you want on the "Sequence manager" and dragging them lower

or upper in the sequence. Therefore you can organize the sequence of embroidery production in the way you prefer.

The Sequence manager shows the objects in two levels. On the first level you can see the parts of the current design separated by the special functions, like color changes, thread trims etc. (Figure 5.9). On the second level you can see the objects of every part of the first level. This can be done by clicking on the "+" which is on the left side of the icon of the sequence manager. If there is no "+" sign, means that this part is an object and it can not be split (Figure 5.10). If you want to go from the second level back to the first one, you have to click on the "-" sign on the left side of the icon of the sequence manager. With the scroll bar of the right side of the Sequence Manager (Figure 5.10), you can view (if it is needed) the objects which are hidden.

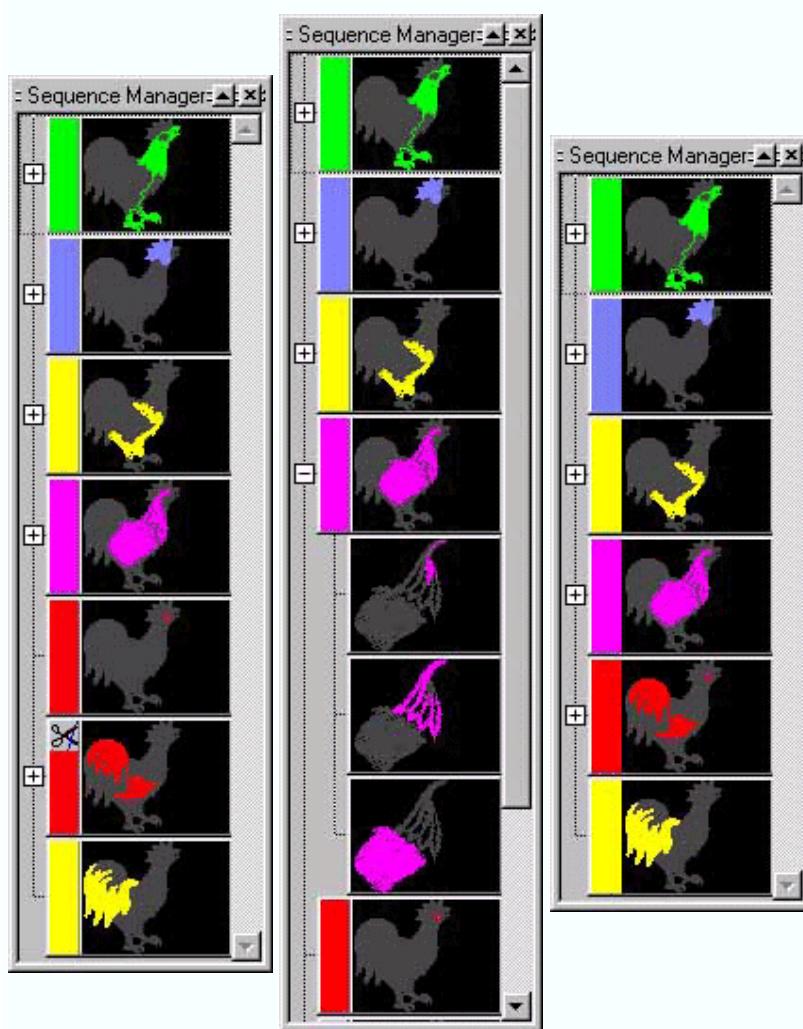


Figure 5.9

Figure 5.10

Figure 5.11

Also the Sequence Manager can be changed in two modes, "Split by function / Color" or "Split by Color". In "Split by function / Color" mode, the objects will be split by the special functions, like thread trim, Stop, Color change etc. as you can see in Figure 5.9. In "Split by Color" mode, the objects will be split only by color change special functions as you can see in Figure 5.11.

If you want to select a single object, you simply click on it. If you want to select all objects located between two objects, you can click on the first one and then hold the Shift key and click on the last object.

If you want to select specific objects, hold the Control (Ctrl) key on the keyboard and click on each object that you want to select.

If you want to add comments on a specific object, you have to right click on it and select the "Comment" option from the pop-up menu. The "Comment editor" dialog will appear where you can write the comments you want for the specific object. Type the comment you want in the "Comment" field and select 'OK' to insert it. A paper clip will appear on the object informing that the object contains a comment. You can, also, add comments to multiple objects by making a multiple-object selection and from the right click menu selecting "Comment". The "Comment editor" dialog will appear with the number of objects on a list. You can add comment to each object you have to select the its number and type the comment you want in the "Comment" field. When you are ready click 'OK' button to apply changes. To remove a comment you have to open "Comment editor", select the comment you want to remove from the list and delete the text that appear in "Comment" field. Comments are useful when you want to keep notes on specific objects.

In addition with the "Show shadows" option, of the right click menu, you can view the outlines on the other objects of the design in the Sequence manager and the current object painted in the thread color you have selected. This option helps you locate the object you are viewing on the sequence manager, inside the design. If you do not want to view the other objects of the design you can disable this option and view only the current object.

There are two more useful options in the sequence manager, "Reverse selection" and "Move here". The "Reverse selection" option from the right click menu can reverse the order of the selected objects in the sequence manager. In order to apply "Reverse selection" option you have to select the objects you want to reverse their order by using the Shift or Ctrl keys and then right click on them and apply the "Reverse selection" option. The selected objects will be reversed immediately without affecting the rest.

The “Move here” option from the right click menu allows you to move the selected objects before or after the objects you want. In order to apply it you have to select the objects you want to move from the sequence manager by using the Ctrl or Shift keys and then right click on the position you want to move them and apply the “Move here” option. The selected objects will be moved in the position you have defined, re-sequencing the entire design automatically. The same can be done by click and dragging the selected object to their new position.

Finally, in case you have closed the sequence manager roll up you can re-call it from the "Sequence manager" option of "Layout" menu.

To back - Home

This option of "Layout" menu is useful if you want to re-arrange the current design. First select an object and then click on this option. The selected object will be the last embroidered part of the design.

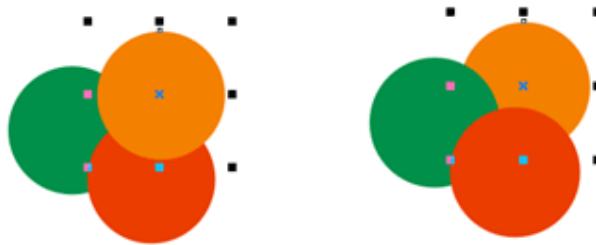


Figure 5.12: Initial position To back

You can also use the "Sequence manager" to re-arrange the design.

See also: To front, One forward, One backward options of "Layout" menu.

To Front - End

This option of "Layout" menu is useful if you want to re-arrange the current design. First select an object and then click on this option. The selected object will be the first embroidered part of the design.

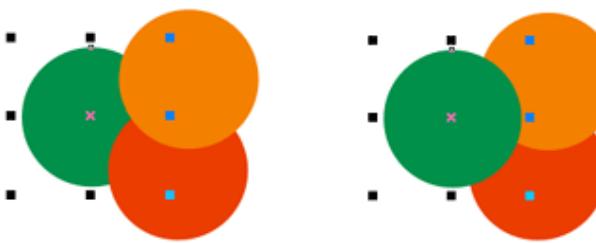


Figure 5.13: Initial position To Front

You can also use the "Sequence manager" to re-arrange the design.

See also: To back, One forward, One backward options of "Layout" menu.

One step backward - PgDn

This option of "Layout" menu is useful if you want to re-arrange the current design. First select an object and then click on this option. The selected object will be embroidered before its previous object.

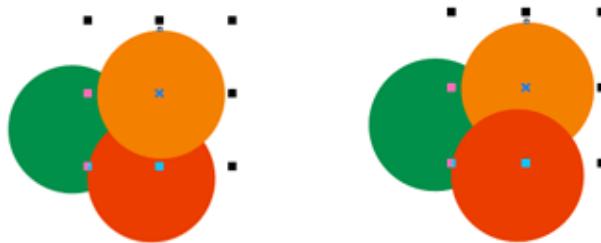


Figure 5.14: Initial position One step backward

You can also use the "Sequence manager" to re-arrange the design.

See also: To front, To back, One forward options of "Layout" menu.

One step forward - PgUp

This option of "Layout" menu is useful if you want to re-arrange the current design. First select an object and then click on this option. The selected object will be embroidered after its next object.

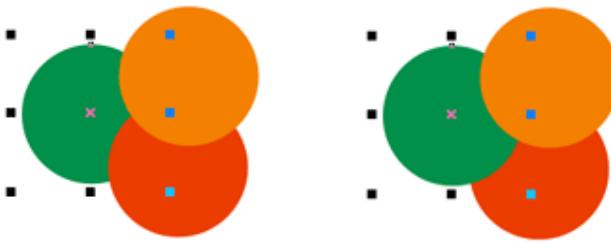


Figure 5.15: Initial position One step forward

You can also use the "Sequence manager" to re-arrange the design.

See also: To front, To back, One backward options of "Layout" menu.

Group

With this option from the "Edit" menu you can consolidate a group of objects into one. To use this option, first select the objects you wish to group together

and then click on this option. After using this function, clicking on this object will select all the sub-object and you can hide, copy, cut etc. all components as one object. The program will keep the groups of the design together even if you save and load it later. See also the "Ungroup" command which breaks groups apart.

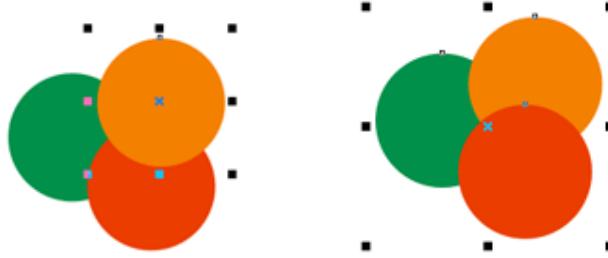


Figure 5.16: Ungrouped Grouped

Ungroup

With this option from the "Edit" menu you can highlight a group of objects that you have made with the "Group" option and isolate them into their separate components. To use this option, select the group you wish to separate and then click on this option. After that you can edit the objects separately.

Merge

In this section you can learn the possible ways to merge two designs or to copy a part of one design and paste it into another.

Merging parts of designs with mouse

If you want to copy an object from one design to another (drag-drop), you can follow the instructions below:

Go to "File>Open" and select two files to merge together. You can select multiple files to load by clicking on the first one, then clicking on the second one while holding down the "Ctrl" key.

Go to "Window>Tile Vertical" in order to view both designs on the screen at the same time. You may also want to press the "Spacebar" to toggle the roll-ups off.

1. Select the object(s) you want to copy to the other design.

- Click on the selected object(s) and begin dragging it towards the design. Before you cross the “window panel” between the two designs, press and hold down the “Shift” key. When you see a small white box



appearing in the other design, you should let go of both the mouse button and the Shift key. To merge an entire design into another one, use the same procedure as listed above, except first go to “Edit > Select all”, then “Arrange > Group” before merging the design into another one. This will allow you to move the merged design around in the other design as a single unit.

Advance Merging

This is an advanced way of merging designs that allows you to merge not only the objects, but the Effects, Styles and Patterns used in one design into another design. For example, suppose you are digitizing a design, and you remember that you have a design where you used a “rope” like “Running” stitch effect that worked well. To do this, use the following procedure:

- First of all, you must already have a design loaded in the program to merge into.
- Go to “File>Merge” and select an .NGS file from the any directory.
- When you select a file, the Merge dialog box will appear with some options.



Figure 5.17: Merge dialog box

- By default, every aspect of the design you selected is highlighted, such as “Design data”, “Patterns”, “Styles”, “Effects”, “Stitch data”, “Outline data”, and “Backdrops”. You may unselect certain aspects of the design by clicking on them so they are no longer highlighted in blue. For example, if you are looking for only a certain stitch Effect from the design, unselect everything except Effects. If you are looking for only a

certain Running stitch Style from the design, unselect everything except Styles.

After clicking "OK", you will see that all aspects of the design you selected have been imported into the original design. Please be aware that you may receive unexpected results if you do not give careful consideration to the exact data that you want to bring from one design to another. For example, having two backdrops on one design is not necessary in most cases. Fortunately, "Effects", "Styles" or "Patterns" will not overwrite "Effects", "Styles" or "Patterns" in the original design in the merged design, if they have the same name. The part of the design, which will be added in the current, will be grouped. In case that you want to ungroup them, you have to click on "Ungroup" option of "Edit" menu.

Cut

With this option of "Edit" menu you can remove a part of the design (or the whole design) and paste it in another design or in another application (like Microsoft Word) as a .WMF or .BMP file.

Copy

With this option from the "Edit" menu you can make a copy of a part of the design (or the whole design) and paste it in another design or another application (like Microsoft Word) as a .WMF or .BMP file.

Paste

With this option from the "Edit" menu, you can transfer a part of another design into the current one.

2-point copy

This tool is useful when you want to copy a design and at the same time placed in another position in the design area rotated, enlarged or shrunk. Select an object and then activate the function from menu "Layout > 2-point Copy"; the cursor will turn to cross. Select two points inside or outside of the selected image by creating a straighten line.

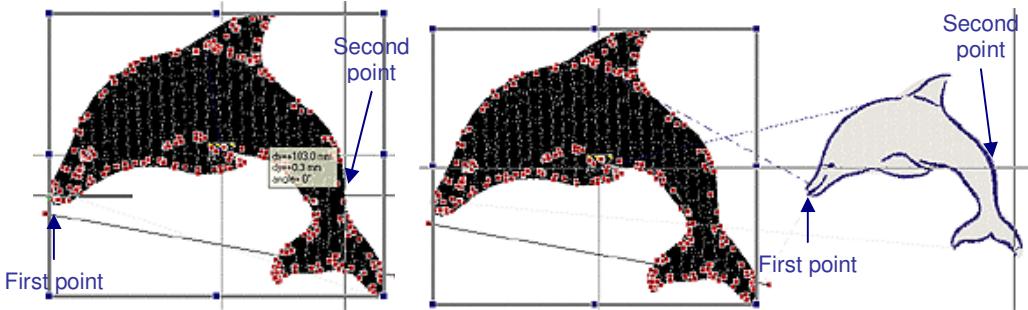


Figure 5.18: 2 - point copy

paste a copy

The cursor will remain as a cross; in order to create a copy of the design you have to create another straighten line in your design where the copied design will placed depending on the angle of the straighten line that you have created.

Copy an object from one design to another

In eXPerience there is another copying ability that allows you to copy objects from one design to another using drag and drop technique. If you want to copy an object from one design to another (drag-drop), you have to hold the shift key during dragging, to temporarily de-activate the auto-panning so that you can drag the object out of the window. The Object(s) remains selected on the new design and you can move it on the position that you want. To use this feature, you must have both designs open and use the "Tile Horizontal" or "Tile Vertical" option of "Window" menu.

Duplicate design

You can activate this function from the "Edit" menu or from the shortcut key Ctrl + D of the keyboard.

This function creates a new window with your design duplicated. Your current design remains unchanged. It is useful for creating multiple designs and creating many variations of a design that will help you choose the one you like more.



Split objects

By clicking on a point and then to another, the split objects, splits all the stitches that are passing under the blue line specified by the two points. By

clicking additional points, you can specify a polyline, which splits the objects of the design. By clicking the right mouse button, you stop adding points and start a new polyline. Pressing right button again ends the operation. If you want to reverse this operation, you can use the "Join" option from the "Edit" menu.

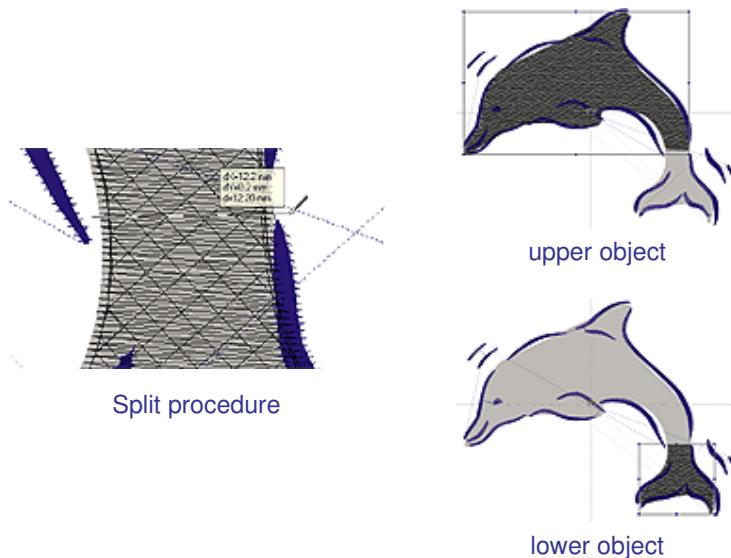


Figure 5.19: Split object

Important: This tool does not convert the stitches to thread trims or color changes, but only splits objects. If you want to add these functions, you must select the object you wish to place trims and click on the thread trim button of the horizontal toolbar. Also it is important to know that this function can be used only on stitch data objects.

Join Ctrl+J

With this option of "Edit" menu you can unite the selected objects as one object. In this case the program automatically recognizes the closest or the connecting points of the sections in order to create the object and make the branches. The two objects become one and can be handled as one object.

In order to join objects you have to have in mind some rules that are important to follow while joining objects!

You can only join objects of the same stitch type.

The joined objects are keeping the color, special functions and characteristics of the higher ordered object in the "sequence manager". For example if you select the second and the fifth object (objects of the same stitch type) of the

“Sequence manager” and then apply “Join” function on them, the fifth object will inherit all the characteristics of the second object (color, underlay, special functions...).

The special functions of the object(s) that are lower in the order of “Sequence Manager” are removed.

The “Join” function is very useful whenever you want to reduce color changes in the design, simplify the design and reduce embroidery time.

In case that you wish to add on one or more objects with a new punched object you can use the "Add section" option of "Object editor right click menu".

The opposite function can be called by pressing the "Break apart" option of "Edit" menu or the "Break apart" option of "Object editor right click menu".

Density adjustment

In this section you can learn the possible ways to change the density of the objects of the designs.

Change Stitch-count

With the “Modify density” tool you can change the number of stitches contained in the selected object(s). If you haven't selected anything, then the changes will be applied to the whole design.

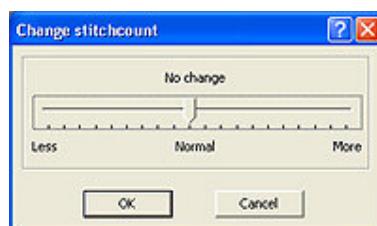


Figure 5.20: Change stitch count

In the “Change stitch count” dialog box that appears, using the Track bar, you can specify the percentage of the stitches that will be added or reduced.



Figure 5.21: Initial state 20% less stitches 30% more stitches

Also the stitch count of a punching object can be changed from the density or length parameters of the "Options" tab of "Object Properties" roll up that is available in the "object properties" toolbar.

See also: "Auto-density Apply" option of "Stitches" menu.

Auto-density Apply

Using this option on the "Stitches" menu, you can adjust the density of the selected objects or the entire design (if you haven't selected any object). You can use this function to match the densities to those that were present before the objects were scaled.

This tool is very important in case you changed the size of certain objects without keeping the same percentage of stitches. In this case, the program changes the stitch count of every object, trying to keep the same density that the object had before the scale operation.

These functions can be applied only on stitch data object. In order to change the density of a punching object you can use the density or length parameters of the "Options" tab of "Object Properties" roll up.

Auto-density Reset

Using this option on the "Stitches" menu, you can reset the counter, which keeps the density that every object should have after scaling.

Example: An object has 40 stitches and you expand it 150%. After this you call the "Auto-density Reset" and "Auto-density apply" the object will have 40 stitches. If you will expand it again 150% and then call "Auto-density apply" the object will have 60 stitches.

Attention: You must be aware that if you have enlarged a stitch data object, the density is automatically decreased because the program keeps the same

stitch count. If you call this option you can't automatically adjust the density later.

Note: Auto density function does not work in punching objects. In this case the density depends on the density or length parameters of the "Options" tab of "Object Properties" roll up.



Modify Satin width

Using this tool you can change the width of the satin stitches within the object(s) that you have selected. If nothing is selected, then the change will be applied to the whole design.

In the following dialog box you have to specify:



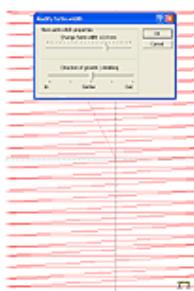
Figure 5.22: Modify Satin width

Change satin width

With this track bar you can specify the change of the satin stitch width in millimeters.



Figure 5.23: Initial state



+ 2 mm satin width



- 2 mm satin width

Direction

With this track bar you can specify the direction of the growth or shrinking of the satin bar.



Figure 5.24: Initial state

+ 2 mm satin width
and grow out- 2 mm satin width
and grow in

You must always take in consideration that only the satin cover stitches are changing. The underlays are remaining in the same position.

Note: This option can be active only in **Stitch data objects**.

In **Satin/ZigZag** objects with **punching data** you can use the "**Compensation**" option that is available in the "object properties" toolbar.

In Satin serial objects with **punching data** you can use the "**Width**" option that is available in the "object properties" toolbar.

Filter

With this tool you can make automatic corrections on the selected objects or the whole design.

This tool is working differently in **Stitch data objects** and in **Punching data objects**.

- **In Stitch data objects**

The Filter tool can correct designs or part of them, where the stitches are not following correctly the outline (Stitched outside of shapes) or stitches that are not keeping the same density. With this way you can increase the quality of your designs.

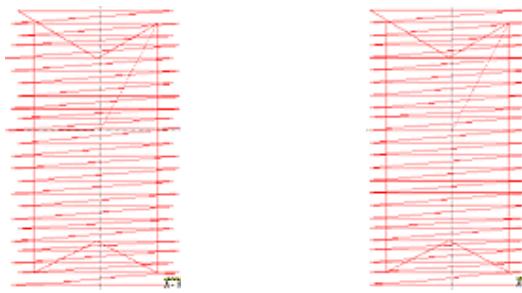


Figure 5.25:

Before filter

After filter

Notice: This tool should not be used more than two times in the same design and we would suggest after you have edited the current design.

- **In Punching data objects**

The Filter tool erases nodes that are not needed. The way that the filter will be applied on the selected objects depends on the value of the "Tolerance" of the following dialog.

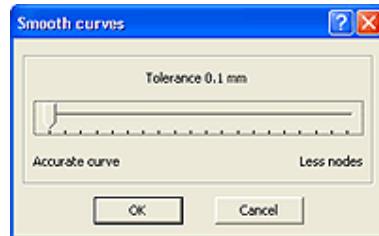


Figure 5.26: Smooth curves

With the "Track bar" of this parameter you can arrange the maximum movement of the outline after the "Filter" has applied on it.

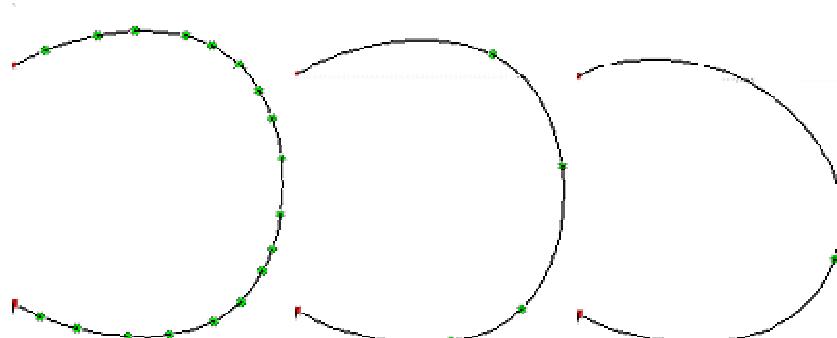


Figure 5.27: Initial state

Accurate curve

Less nodes

If the "Track bar" is near to the "Accurate curve" side the nodes will be reduced but the shape of the object will not change. On the other hand, if the "Track bar" is near to the "Less nodes" side, the nodes will be set to minimum needed and the shape of the object will change.

Reverse

With this tool you can reverse the way that the selected parts of design will be embroidered.

This tool works differently in **Stitch data objects** than the **Punching data objects**.

- **In Stitch data objects**

This tool will reverse the sequence of the stitches. This is the reason why before you will use this tool you should separate the underlay stitches from the cover stitches. This can be done by using the "Knife" tool or the "Insert special function"  option.

- **In Punching data objects**

This tool will change the **Exit**  point to **Entry**  and vice versa.



Object editor menu

The object editor menu is the menu that appears when you right click on the selected object.

This menu appears only in case you have selected only one object.

The options you can select on this menu are:

- **Zoom in**
- **Add block fill**
- **Add vector fill**
- **Add form fill**
- **Change entry point**
- **Change exit point**
- **Add section**
- **Break apart**
- **To style**
- **Conversion of Stitch type**

The above mentioned options can not be seen in all stitch types. It depends on the stitch type of the object which is selected.

Zoom in

Using this function you can zoom-in your view to a portion of a design. First you have to click on this tool and the mouse cursor becomes a magnifying glass. Then you can click on a point and drag the mouse holding the left button. The area that you mark will be the new view port.

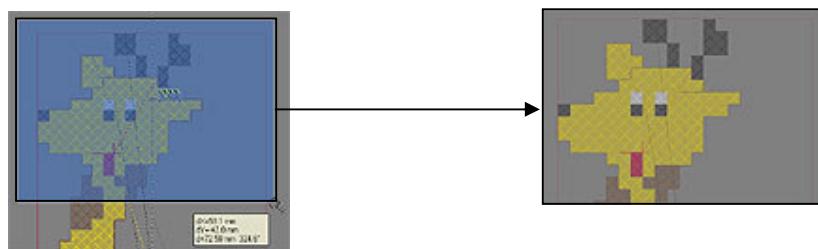


Figure 5.28: Zoom area

New view port

Clicking the right mouse button on the design area also invokes the zoom-in operation.

Add block fill

Block fill is a repetitive drawing, made from stitches, inside a step, satin, Zig-Zag or Satin serial object.



Figure 5.29: Add block fill

If the "Add block fill" option is selected, the cursor becomes as a crosshair and you can start drawing the shape of the block fill. The way of punching is the same like punching a normal object. Also it is possible the shape that you will create to contain more than one sections.

Also it is possible to add a character for any Windows available fonts. In order to convert a character as a block fill you have to press the "T" letter from the keyboard just after you have selected the "Add object fill" option or just after

you have punched a section of the block fill you wish to create. On the following dialog you can select the font, script, style and size of the character you wish to add as block fill.

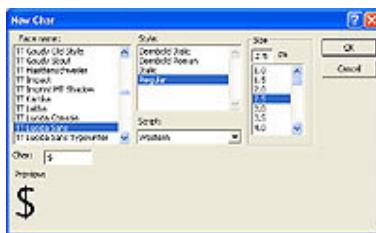


Figure 5.30: Insert character or symbol

In the "Char" field you can type the character you wish. Also at the bottom of the dialog it is previewed the character or symbol that will be added as block fill.

After pressing the "OK" button the cursor becomes as a cross and you can specify the position of the character. The block fill that was added can be viewed by 3D previewing (View > Preview3D) the design.

Of course it is possible to add more sections on the already created block fill. You can do that if you don't right click twice to exit, when you finish with the creation of the block fill, but right click once and continue adding another "block fill" in the object.

The pattern of the inserted "Block fill" can be edited in "Node Editing" mode. By selecting the "Block fill" that was added, immediately two more identical shapes appear, one next to it and one under it. Those two shapes are setting the way that the "Block fill" pattern will appear on the embroidery. With the mouse you can move them in new positions, like moving a single node, and change the "Block fill" pattern.

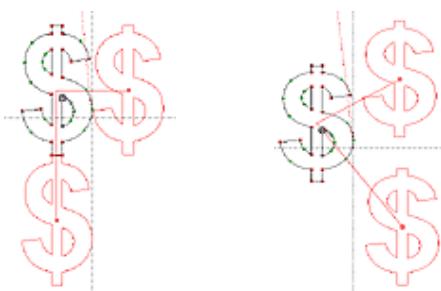


Figure 5.31: Change Block fill pattern

Add vector fill

Vector fill is a drawing, made from stitches, inside a Step, satin, Zig-Zag or Satin serial object. Except the stitches on the edge, the only stitches, of the current object, will be on the outline of the vector fill.



Figure 5.32: Add vector fill

If the "Add vector fill" option is selected, the cursor becomes as a crosshair and you can start drawing the shape of the vector fill.

The way of punching is the same like punching a normal object. Also it is possible the shape that you will create to contain more than one section.

Also it is possible to add a character for one of Windows available fonts.

In order to use a character as a vector fill you have to press the "T" letter from the keyboard just after you have selected the "Add vector fill" option or just after you have punched a section of the vector fill you wish to create.

On the following dialog you can select the font, script, style and size of the character you wish to add as vector fill. In the "Char" field you can type the character you wish. Also at the bottom of the dialog it is previewed the character or symbol that will be added as vector fill. After pressing the "OK" button the cursor becomes as a cross and you can specify the position of the character. The block fill that was added can be viewed by 3D previewing (View > Preview3D) the design.

Of course it is possible to add more sections on the already created vector fill. You can do that if you don't right click twice to exit, when you finish with the creation of the block fill, but right click once and continue adding another "block fill" in the object.

You can edit the inserted "Vector fill" in "Node editing" mode.

Add form fill

Form fill is a drawing, made from stitches, inside a step, satin, Zig-Zag or Satin serial object. The "Form fill" should always be a closed shape and there will be no stitches inside this shape.



Figure 5.33: Add form fill

If the "Add form fill" option is selected, the cursor becomes as a crosshair and you can start drawing the shape of the form fill. The way of punching is the same like punching a normal object. Also it is possible the shape that you will create to contain more than one sections.

Also it is possible to add a character for one of Windows available fonts. In order to convert a character as a form fill you have to press the "T" letter from the keyboard just after you have selected the "Add form fill" option or just after you have punched a section of the form fill you wish to create. On the following dialog you can select the font, script, style and size of the character you wish to add as form fill. In the char field you can type the character you wish. Also on the bottom of this dialog you can see the preview of the character that will be added as form fill. After pressing the "OK" button the cursor becomes as a cross and you can specify the position of the character.

Of course it is possible to add more sections on the already created block fill. You can do that if you don't right click twice to exit, when you finish with the creation of the block fill, but right click once and continue adding another "block fill" in the object

You can edit the inserted "Form fill" in "Node editing" mode.

Change entry point

With this object you change the entry point of the selected object.

When the option "Change entry" point is selected, the cursor becomes as a cross and you can specify the entry point of the selected object by clicking on the point you wish. The cursor automatically snaps on the edge of the object.

In case that you would like the entry point to be on the best possible position, right click just after you have selected the "Change entry" point option.

Another way to change the entry point of the objects of the current design is to use the  icon of the horizontal toolbar.

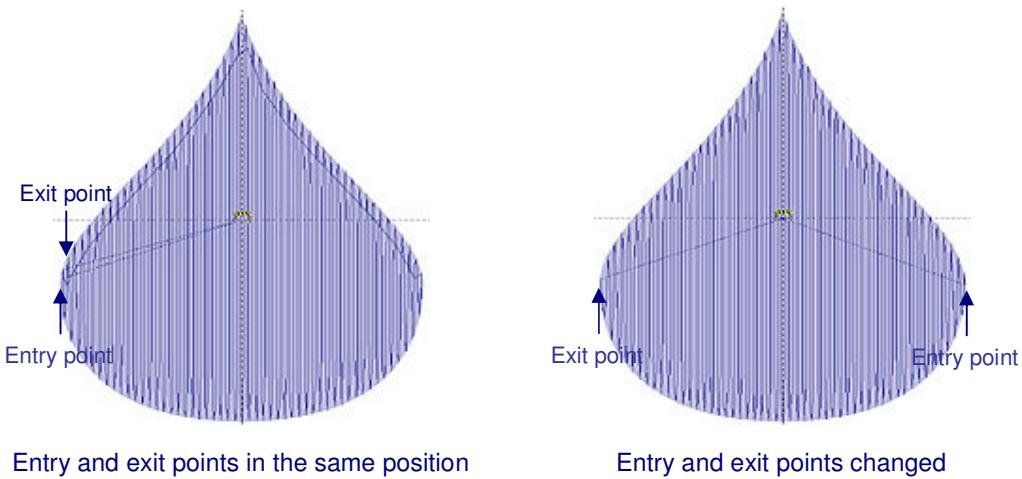


Figure 5.34: Change entry point

Change exit point

With this object you change the exit point of the selected object.

When the option Change exit point was selected, the cursor becomes as a cross and you can specify the exit point by clicking on the point you wish. The cursor automatically snaps on the edge of the object.

In case that you would like the exit point to be on the best possible position, right click just after you have selected the Change entry point option.

Another way to change the exit point of the objects of the current design is to use the  icon of the horizontal toolbar.

Add section

With this option you can add a section on the selected object.

When this option is selected the cursor becomes as a crosshair and you can start punching sections.

The sections that will be added will be made with the same stitch type with the selected object. For example if you have an object made with Step stitch type the section that will be added will be step with the same stitch direction.

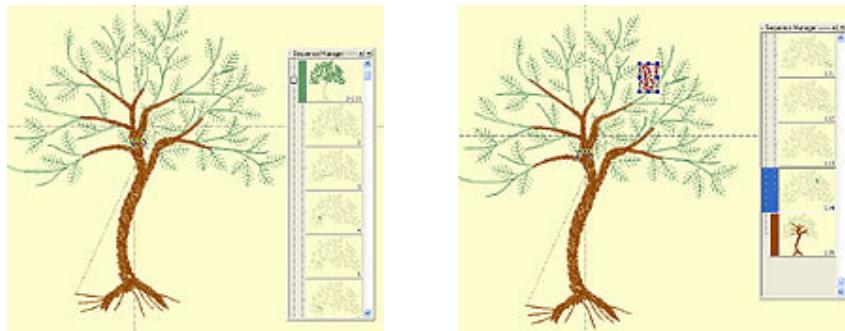


Figure 5.35: Initial state

Added section from the right click menu

It is possible to add more than one sections. You can do that either activating the "Add section" function again or while the "Add section" is active and you have closed the first section you wanted to insert, you can continue creating a new section without having to right click again with the mouse and fill with stitches the new section.

The opposite function can be called by pressing the "Break apart" option of the "Object editor menu" and the "Break apart" option of "Edit" menu.

Break apart

Using this option from the "Edit" menu, or from the right click menu of the selected object, (while "Object editor" is active) you can split the selected object to its sections. In this case the sections of the object will become separate objects that can be selected and edited separately.



Figure 5.36: Join state

Break apart

In case that you have selected more than one object you can use only the "Break apart" option of "Edit" menu.

The opposite function can be called by pressing the "Add section" option of "Object editor" right click menu or the "Join" option of "Edit" menu.

To Style

Inside experience you have the ability to save a simple design you have created as a style. You can create any simple design with any stitch type and save it as a style by selecting it and then selecting the "To style" option from

the right click menu. The “Save as” dialog will appear, where you can specify the name you want the style to have. By clicking ‘OK’ the style will be automatically added to the “Styles” option list of “Object properties” toolbar. From there you can apply it to any design you want.

Also, if you want to edit the style more, you can open it inside the style editor (Tools>Style stitches) and make any changes you want.

Important tip: To get better embroidery results when you are saving a design as a style you have to do some editing first.

- Remove any Underlay that the design might have from “Object properties” toolbar. Styles do not have underlay.
- Remove Fix and Lock stitches if any applied on the design from “Object properties” toolbar
- Change “Entry” and “Exit” points of the design to be from middle left to middle right side. This is important because this is the way the style is applied on a specific object.
- Check for zero length stitches and delete them. Zero length stitches produce errors to the style and in general to the embroidery result.

To “stitch type”

The other options that the “object editor” right click menu has, appears depending on the stitch type that the selected object has. Therefore you can convert the stitch type of the selected object to the one that appears on the right click menu. All possible combinations from stitch type to stitch type are possible and are listed in the following table.

This ability of instantly converting one stitch type to another is very useful and can reduce the embroidery designing time. In addition you can try different fill stitch types or different border stitch types and select the one that looks better or fits better.

FROM TO	MANUAL	RUNNING	SATIN	STEP	ZIG-ZAG	SATIN SERIAL	PIPPING
MANUAL		✓	✓	✓	✓	✓	✓
RUNNING	✓		✓	✓	✓	✓	✓
SATIN	✓	✓		✓	✓	✓	✓
STEP	✓	✓	✓		✓	✓	✓
ZIG-ZAG	✓	✓	✓	✓		✓	✓
SATIN SERIAL	✓	✓	✓	✓	✓		✓
PIPPING	✓	✓	✓	✓	✓	✓	

Whenever you convert any stitch type in any of Satin, Zig-Zag and Piping stitch types, the automatic “Directions” and ‘Divide’ tools will be activated immediately requesting from you to add “Directions” or “Divide” parts of the converted object. The “Directions” and “Divide” tools appear as red and green bullets on the outline of the design respectively. The current bullet is moving together with the movement of mouse and takes new positions allowing you to make easier additions of “Directions” and “Divides”. In order to add directions or divides you have to click once on the first side of the design and then once more on the other, creating a straight line that will define the Direction or Divide line on the design. If you want to remove a “Direction” or “Divide” you have already added you can simply click on ‘X’ that exists at the middle of the line and will be removed. Also you can change the position of an existing direction by click and dragging the bullet of the created line from its current position to a new one.

In order to switch between directions and divides you have to press the ‘D’ shortcut key that will change the “Directions” tool to “Divide” (Red bullet to Green) and vice versa. This is the only way that you can change between the two. When you finish editing the design you have to right click to end the process.

Add new object to end

Using this option in "Layout" menu, all new objects added to the design will be placed at the end of it. Otherwise new objects will be added after the selected object.

This occurs when you are copying objects from the current design or when you are punching a new object.

Objects copied from other designs are always placed at the end of the current design.

With this way you can easily arrange the sequence of the objects that you are copying or creating in the current design.

Of course in order to rearrange the objects of a design, you can use the Sequence manager roll up or the options: "To front", "To back", "One forward", "One backward" options of "Layout" menu.

Array

Another transformation tool which is not in the "object-properties" toolbar, is the "Array" tool that can be activated from the menu "Layout-Array". The "Array" tool is useful when you want to make many copies of your design or of a selected part of it. It works with the same way that you can create a table in any document editor.

In the dialog box that appears when you activate the function you can specify:

- the "**Number of horizontal Copies**".
- the "**Number of vertical Copies**".
- the "**Spacing between horizontal copies**"
- the "**Spacing between vertical copies**" and
- If you want to "**Keep colors together**"

Make your adjustments and click "Ok" button to apply the function (Figure 5.37).

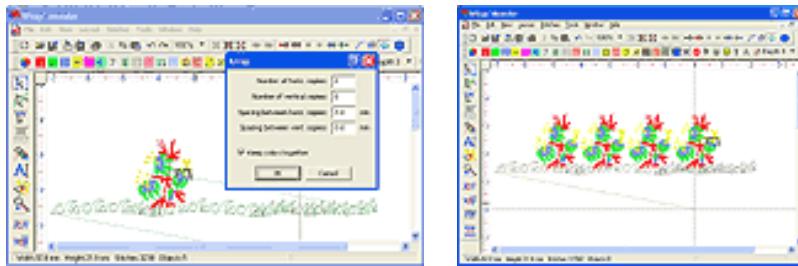


Figure 5.37: Array

Number of horizontal Copies

In this field you can specify the number of copies, of the selected designs, you want to be created in the horizontal axis.

Number of vertical Copies

In this field you can specify the number of copies, of the selected designs, you want to be created in the vertical axis.

Spacing between horizontal copies

In this field you can specify the distance of the horizontal copies that will be created.

Spacing between vertical copies

In this field you can specify the distance of the vertical copies that will be created.

Keep colors together

If you want the colors of the selected design to be together when will be sewed you have to check the checkbox. Otherwise uncheck it.

Divide

With this option of "Stitches" menu you can split the stitches that are bigger than a specific length.

This option is enabled in "Object editor" mode and it works in "Stitch" data object. In case that you wish to split the stitches of one or more punching objects, you have to do it by applying styles or patterns on it.

In order to use the “Divide” option, first you have to select the object(s) you want and then click on the “Divide” option.

On the following dialog with the scroll bar you can specify the maximum length of the stitches.

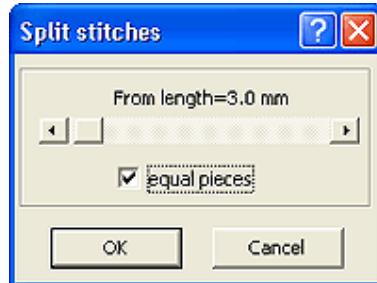


Figure 5.38: Divide

All the stitches that are bigger than the length that you specify with this scroll bar will be split in more than one stitch.

With the following field you can specify the way that the stitches will be split. If the "equal pieces" field is enabled, every stitch of the selected object will be split in the needed pieces with equal length.

Example 1: In case that an object has a 5mm stitch, the "From length" field was set as 3.0 mm and the "Equal pieces" parameter is enabled, the stitch will be split in two pieces and their length will be 2.5mm.

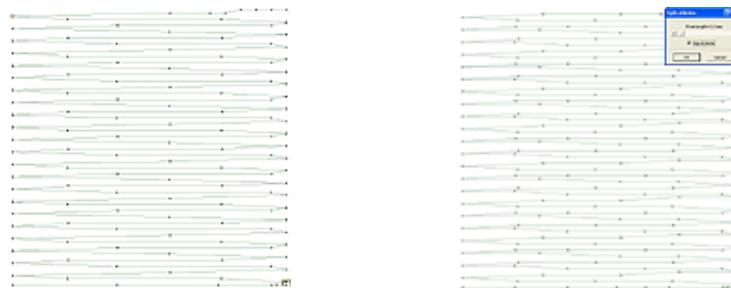


Figure 5.39: 5mm stitch length

After “Divide” 2.5mm stitch length

That does not mean that all the stitches of the object, after the divide option is applied, will have the same length. This depends on the original length of the stitches.

Example 2: On the above mentioned example, if the next stitch is 5.2mm, this stitch will be split in two pieces and their length will be 2.6mm. As you can understand, in case of a satin bar, the length of the stitches that will be created after the divide option is applied, depends on the width of the satin bar.

If the "equal pieces" field is disabled, every stitch of the selected object will be split in the needed pieces but their length will not be equal. In this case the

program will create so many stitches that their length will be equal to the maximum length and one stitch at the end that its length will be less than the value of the "From length" field.

Example 3: On the first given example, if the "Equal pieces" parameter is disabled, the stitch will be split again in two pieces but the length of the first stitch will be 3.0mm and the length of the second stitch will be 2.0mm.

Press the "OK" button to apply the changes you have made. If you want to discard the changes, press the "Cancel" button.

Trace outlines

With this option of "Stitches" menu you can convert the selected stitch data objects of the current design to **punching data objects** (more info in Appendix A).

On the following dialog you can arrange the tolerance of the generated object by using the track bar.

The tolerance is the distance between the original position of the stitches and the position of the outline of the object that finally will be created. It is obvious the smaller the tolerance, the more nodes will be created.

It is important to know that if an object was converted to punching object, the original is still in the design and you can compare it with the result.

The opposite function of Trace outline is the "Erase outlines" option of "Stitches" menu.

Erase outlines

With this option you can delete all the outline information of the selected object(s) or from the whole design. You can apply it by selecting the object and clicking on the "Erase outline" option from the "Stitches" menu.

After its activation, all the **punching data objects** (more info in Appendix A) will be converted to **stitch data** (more info in Appendix A).

The opposite function of erase outline is the "Trace outlines" option of the "Stitches" menu.

Special functions toolbar

The Special functions toolbar is the second horizontal tool bar that are located on the top of the screen, when the software is loaded.

To apply a special function on an object, follow the steps below:

Select one or more objects of the current design.

Click on the special function, which will be applied on the selected object(s)

The Special functions toolbar consists of:

- The Color management, shown with the  icon.
- The color palette, shown with the  icons. The palette contains 20 colors.
- The threads trim function, shown with the  icon.
- The stop function, shown with the  icon.
- The needle up function, shown with the  icon.
- The frame out function, shown with the  icon.
- The sequence function, shown with the  icon.
- The appliqu  function, shown with the  icon.
- The borer function, shown with the  icon. The depth of the borer (especially for PFAFF machines) can be arranged from the  drop down menu.
- The icon  can be used only in stitch mode (machine file format or .ngs format without outlines) and gives the opportunity to add a special function between two stitches. In this case the object containing these two stitches will be split in two objects.
- The following two icons give the opportunity to change the entry and the exit point(s) of the selected object(s). The icon  specifies the entry point and the icon  specifies the exit point. In case more than one objects are selected and one of the two mentioned buttons is pressed, the program shows one by one the selected objects with dot-outline and asks for the entry or the exit point. Click on the point you would like to be the entry or the exit of the object marked with a dot-outline.

An other way to change the entry or the exit point of a selected object, is to right click on it and from the menu to select the “Change entry” or “Change exit” option.

Sequin options

In eXperience you have the ability to change the size, the shape and the color of sequins. In order to do that you have to select an inserted sequin, right click with the mouse on the sequins thread color of the “special functions” toolbar and click on the “Sequin shape/size” function from the pop-up menu. The following dialog box appears:

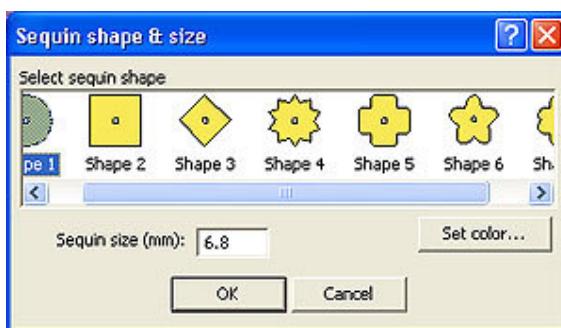


Figure 5.40: Sequin shape & size dialog

In the dialog box you can select the shape you want the sequins to have, by clicking on the shape you want from the list. In addition you can set the size of sequins by inserting the diameter length of the circle where the shape of a sequin is virtually contained, in the “Sequin size (mm)” field.

If you want to change the color of the sequins you can click on the “Set color” button, select the color you want and click the “Ok” button to apply the changes.

When you finish with the adjustments click “Ok” to apply the changes in the design.

Design Start/End point

With this option from the "Edit" menu you can change the start and end point of the current design.

The Start point is the crossing point of the two dot lines and the End point it is marked with the icon.

In the sub-menu you can choose one of the following options:

- **Move design start**
- **Move design end**
- **Return to design start**

Move design start

Using this option you can set the start of the design.

When this option is selected the program shows the current design in a rectangle made by red dotted lines and the cursor becomes as a cross. Also there are one vertical and one horizontal dot lines showing the center of the design.

To set the start point to the position you want, just click on this position.



Move design end

Using this option you can set the end of the design.

When this option is selected the program shows the current design in a rectangle made by red dot lines and the cursor becomes as a cross. Also there are one vertical and one horizontal dot lines showing the center of the design.

To set the end point to the position you want, just click on this position.

Return to design start

Using this option you can move the cursor to the start point.

Edit step pattern

Using this option on the "Stitches" menu, you can change a step pattern or convert a satin object to step. This option changes the step or the satin of the selected objects, or the entire design if no objects are selected.

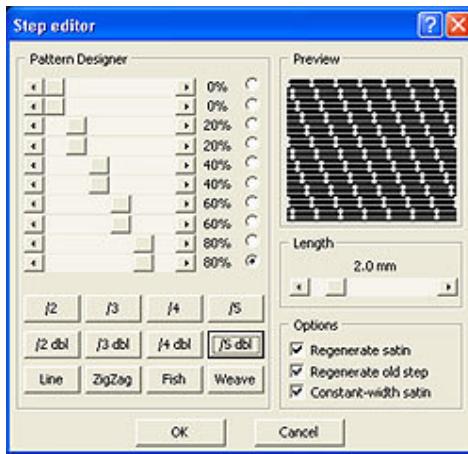


Figure 5.41: Step editor

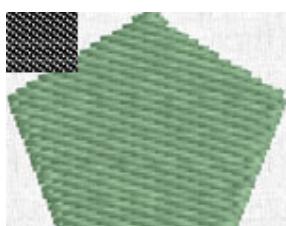
This option can be active only in **Stitch data objects**.

The parameters you have to specify in this option are:

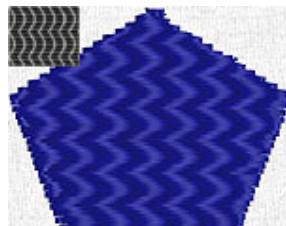
- The **type of the step** that you want to use.
- The **length** of the step.
- Which part will be **calculated**.

Preset steps

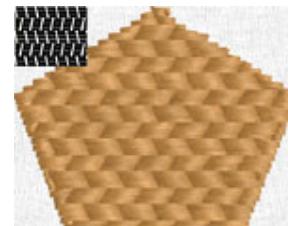
By clicking on one of these buttons, you can select one of the existing step patterns.



"/3" step pattern



"Fish" step pattern



"Weave" step pattern

Figure 5.42: Step predefined patterns

The pattern of step it is visible on the preview window. The scroll bar above of the pre-made steps shows the way that the pattern was made. Moving the scroll bars you can change the stitches of the step.

The diamond on the right side of every scroll bar shows until, which scroll bar you want to use for the current pattern. By clicking on one of these diamonds the program will use the selected scroll bar and all of its previous. As you can see, these points are useful if you want to make your own step pattern or you want to edit an already existing step and add or remove lines.

Preview

In this area you can see the type of step that you have selected. Also in this area, you can see the changes that you may have made to the step by changing the scroll bars.

Length

By using the "Length" scroll bar you can choose the length where the effect (the pattern of the step you selected) will be repeated.

Calculate satin

If you enable this option, the program will convert all the satin areas inside the selected objects to the step pattern that you have selected.

Calculate old step

If you enable this option, the program will re-calculate the existing step areas inside the selected objects to the step pattern you have selected.

Constant - width satin

If you have a satin with all stitches having the same direction, you should not mark this option.

Otherwise, if the satin is changing directions and has more or less the same width, then you have to enable this option so that the shape you are creating follows the shape of the satin. In case of a **punching step object** (more info in Appendix A) you can use the "Complex pattern" option of "Tools" menu and the "Convert step to satin" of "Stitches" menu.

6

Stitch editor

Introduction

In the "stitch editor" mode you can see the stitches of the current design. You can make as many adjustments as you want on the stitches and create the embroidery design that will be embroidered exactly in the way you want. In addition you will learn how to select, move, add, remove or divide stitches and any combination exists that can make your life easier.

View direction of stitches

In the "Stitch editor" mode that you can activate by clicking on the "Edit stitches" tool at the modes toolbar, you have the ability to view the direction of stitches of your embroidery design. In order to do that you have to "Zoom in" a lot (depends on the design) until the stitches become clearer.

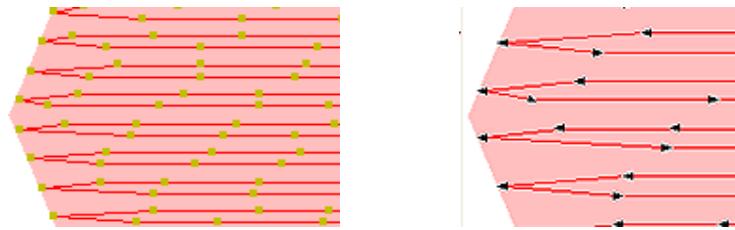


Figure 6.1:

Normal view

Stitch direction view

At some point you will see that the small squares that show the needle penetration points will change and become arrows that show the embroidering direction of each stitch.

This option can be really useful when you want to make specific adjustments on specific stitches in the design and you need to know the stitch direction.

Selections in stitch editor

There are many ways to make selections in the stitch editor. You can make multiple selections or single stitch selections by creating a rectangle selection or by single clicking on the specific stitch you want to move. The selection abilities you have are listed here:

Rectangle selection

If you want to select more than one stitches you can do it by drawing a rectangle that will contain all the stitches you want to select. In order to do that you have to click on the “Edit stitches” tool at the “modes” toolbar, click and drag on the working area to draw a rectangle over the stitches you want to select and release the mouse click to confirm your selection. After making the selections you can move them by clicking and dragging on any of the selected stitches or make any other transformation you want.

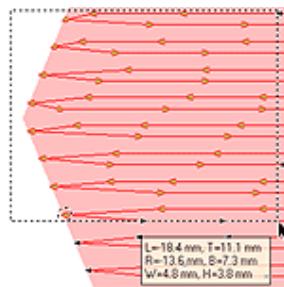


Figure 6.2: Rectangle selection

There are, also, special rectangle selections that you can do by using “Ctrl”, “Shift” or “Alt” keys.

If you have already made a rectangle selection you can hold the “Shift” key and add more stitches to the current selection by creating a new rectangle selection that will contain the stitches you want to add.

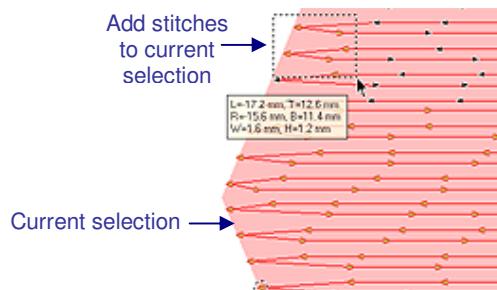


Figure 6.3: Add stitches (hold “Shift”) to current selection

By holding down the “Ctrl” key you can invert the current status of the selected stitches.

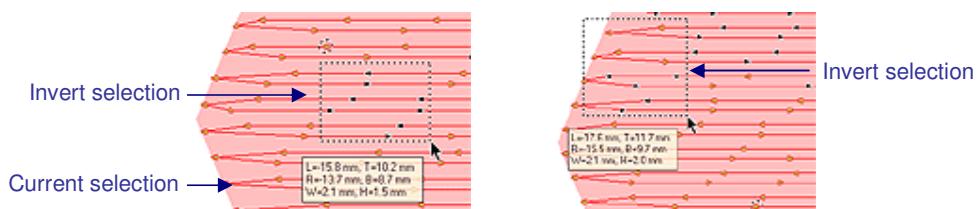


Figure 6.4: Invert selection (hold “Ctrl”) to current selection

For example if you have made a rectangle selection and you want to invert the status (from selected to unselected and vice versa) of some of the selected, you can create a rectangle selection over the stitches you want to change, by clicking and dragging, and immediately you will see that the stitches are inverted. This ability can help you create specific and multiple selections from different parts of the design, therefore more stitch editing power.

Finally, if you have already made a rectangle selection you can hold the “Alt” key and remove stitches from the current selection by creating a new rectangle selection that will contain the stitches you want to remove.

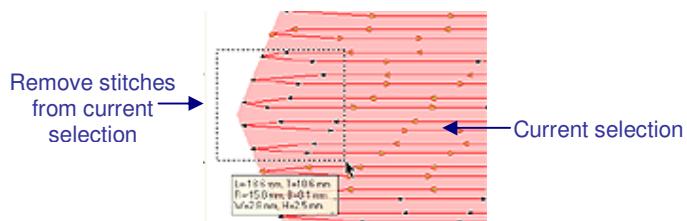


Figure 6.5: Remove from (hold “Alt”) current selection

All the stitches inside the rectangle selection will be immediately deselected leaving the remaining as it was.

Single click selections

If you want to make specific stitch selections you can simply click on the stitch you want to select and will become selected. The selected point is the same with the needle penetration point that the embroidery machine will make on the fabric.

There are also special “single click selections” that you can do by using the “Ctrl”, “Shift” or “Alt” keys.

If you select a stitch point and then by holding down the “Shift” key, select another one, all the stitches between those two points will be selected. In this case the “Shift” key works like a stitch point addition tool.

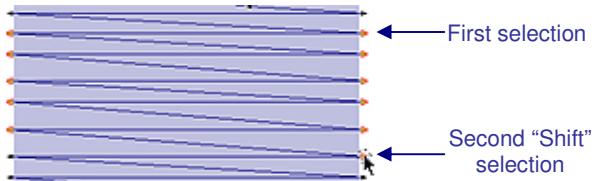


Figure 6.6: selection with “Shift”

The other special selection tool is activated by holding down the “Ctrl” key. The “Ctrl” key works like an inversion tool of the current status of the selected point. For example, if you hold the “Ctrl” key down and make stitch point selections you will end up with multiple stitch selections of single stitch points. If you continue holding the “Ctrl” key, by clicking on an already selected stitch point, you can instantly remove it from your current selection. Therefore by using the “Ctrl” key you can add or remove stitch points to your current selection by changing each time the status of a stitch point.

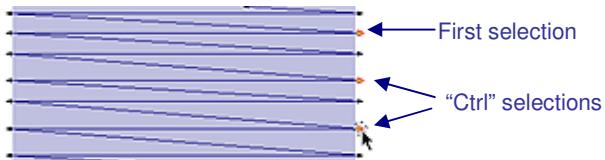


Figure 6.7: selection with “Ctrl”

Finally, if you want you can remove specific stitch points from a current selection by using the “Alt” key. You can do that by holding down the “Alt” key and clicking on any stitch point you want to remove.

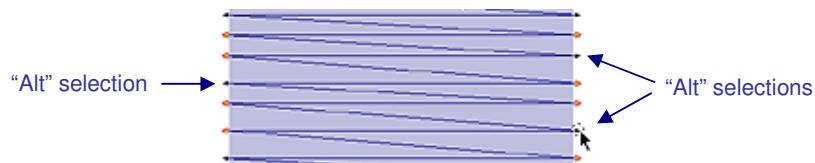


Figure 6.8: selection with “Alt”

All the previously selected stitch points will be instantly become unselected.

Move stitches

If you want to move one stitch or multiple stitches, first you have to click on the “Edit stitches” tool from the modes toolbar to activate the stitch editor. Then, you have to click and drag the selected stitches and move them to a new position. By using the selection techniques we described above you can make complicated stitch movements that give you powerful stitch editing abilities.

Also you can go to the exact stitch you want, by using the arrows of the keyboard or with the tape buttons  of the horizontal toolbar. When you find the stitch you want to move you can click and drag it to its new position.

There are also special stitch movements that we will describe below.

Snap movements

A really useful stitch movement that you can make is the snap movement. This movement of stitches can be activated by holding down the “Ctrl” key and click and dragging the selected stitch points. While dragging, a red line will appear starting from the center of the selected stitch points.

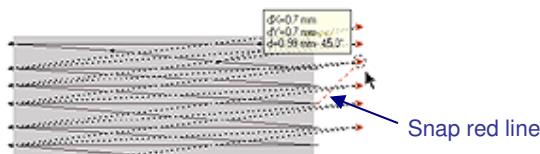


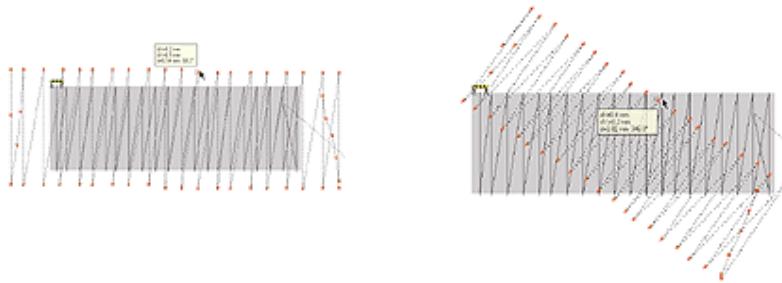
Figure 6.9: Snap movement

This line snaps on specific angles and help you to make accurate movements along the direction of the angle you want. The angles that the red line snaps are: 0° , 45° , 90° , 135° , 180° , 225° , 270° and 315° .

All directions movement

Another useful way to move stitches is by moving the selected stitch points to all directions proportionally based on the virtual center of the selection. In order to do that you have to select the stitch points you want and by holding

down the “Alt” key click and drag to the direction you want all the selected stitches to be moved.



“Alt” movement with enlargement

“Alt” movement with rotation

Figure 6.10: All direction stitch movements

If you try to move the stitch points you will see that they have a flexible movement in all directions that can help you easily reposition the stitch points on the design.

Add stitches

Using this tool you can add stitches to the current design. This function can be used only when you are in “stitch mode”.

First click on the stitch where you want to add stitches and press the “Insert” key from the keyboard or the “Insert” option of the right click menu. Each subsequent click adds a stitch after your initial location and before the stitch you have selected.

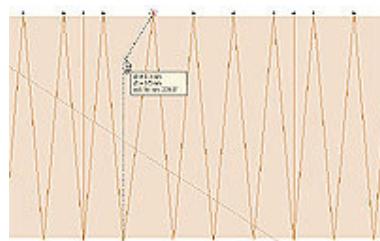


Figure 6.11: Add stitches

After finishing with the insertion of stitches you can simply right click with the mouse and the function will end.

If you want to add stitches at the end of the current object, you can press the “Num +” key of the keyboard or select the “Insert at end” function from the right click menu, following the same procedure we described previously.

Delete stitches

In order to delete stitches, first you have to select the stitches that you want to delete, by using the selection options we described, and then press the “Delete” key from the keyboard or select the “Delete” option from the right click menu. This action will remove the selected stitches from the design and will recalculate the rest to fit in the changes.

Replace stitches

Follow the steps below in order to replace a number of existing stitches with new ones.

You have the ability to replace a single stitch point or multiple selection of stitch points. If you want to replace a single stitch point you have to select it, select the “Replace” option of “Stitches” menu or the “Replace” option from the right click menu and position the stitch point to a new position.

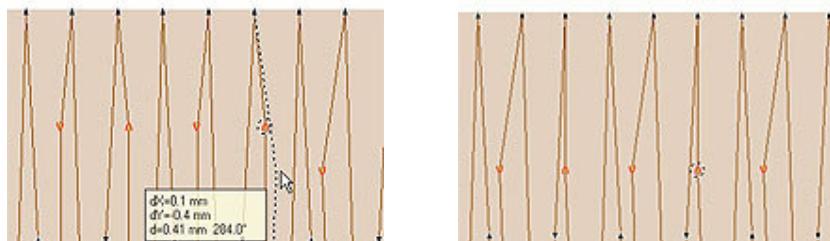


Figure 6.12: Replace selected stitches

Right click and replace all the rest

On the other hand if you want to replace a multiple selection of stitch points you have to again select the “Replace” option of “Stitches” menu or the “Replace” option from the right click menu and start replacing the stitches to each new positions. In addition, if you replace the first stitch of a multiple stitch’s selection and then you right click with the mouse; all the remaining stitches will be moved respectively to a new position according the movement of the first stitch.

Now, if you want to apply “Replace” stitches function like the previous versions of eXperience, you have to select the stitches you want to replace and then apply the “Replace” stitches function.

If you want to Replace stitches without affecting the underlay you have to select the first stitch of the outline and then “Shift” select the last stitch of the outline you want to replace and then apply the “Replace” function. The “Shift”

key allows you to select all the stitches between two selected stitch points in the stitch flow, without affecting the underlay. Therefore, by using "shift" selection procedure and the "Replace" function of "Stitches" menu you can simulate the multiple replacement of stitches of previous versions.

Remove small

With this option from the "Stitches" menu, you can remove the small stitches which can cause thread breaks from the current design.

Please note that "Borer" objects will not be removed by using this function.

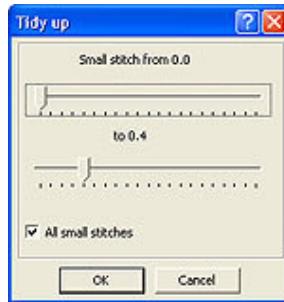


Figure 6.13: Remove small

The parameters you have to set for this option are:

- **Lower range** at which you think that the stitches are too small.
- **Upper range** at which you think that the stitches are too small.
- if you want to **remove all** the small stitches.

Small stitches from (mm)

Using the track bar below, you can specify the lower range at which you think that the stitch is too small (in millimeters). Most of the time this option will be 0.0 millimeters.

To (mm)

Using the track bar below, you can specify the upper range at which you think the stitch is too small. Most of the time this option will be 0.8 millimeters.

All small stitches

If this option is enabled, the program will remove all small stitches.

Attention: You must be aware when using this option that if that you have small stitches in a row multiple (three for example), the design may be distorted.

The small stitches of the current design can be viewed also on the "Histogram" of "Design Info..." dialog.

Move outline

Follow the steps below in order to move a number of stitches to another position following user mouse input:

1. Select the outline stitch points you want to move by holding the "Ctrl" key.
2. Click on "Move outline" option from "Stitches" menu or the same option from the right click menu.
3. In the following dialog you have to specify the type of the object that the selected stitches belong (running, satin, step) and click "Ok".

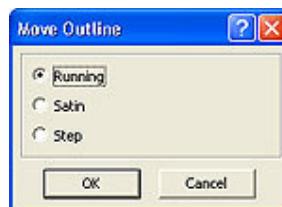


Figure 6.14: Move outline

4. Each subsequent click moves one stitch after the other from the initial location to a new location.

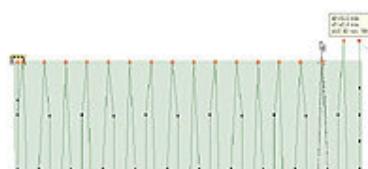


Figure 6.15: Moving outline stitches one after another

5. Clicking the Right mouse button ends the function by moving the rest of the selected stitches according the latest moved stitch.



Figure 6.16: Movement after right click

Another way to move the selected stitches of the outline is by clicking and dragging them in their new position.

Note: In case that you have selected running stitch type, you can move all stitches between the initial and the end location.

Convert step to satin

Using this option on the "Stitches" menu, you can convert a step object to satin. This option is available only for "stitch data objects" and not for data that contain outlines.

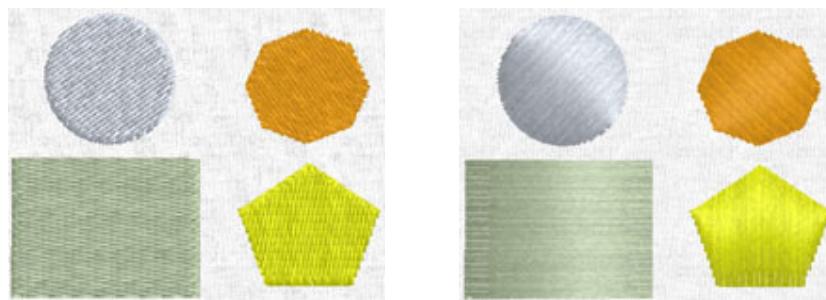


Figure 6.17: Step objects

Converted to Satin

Of course you have to be careful because what you see on the screen may not be embroidered well. For example, a very wide satin (above 12 mm) won't embroidered well.

7

Node editor

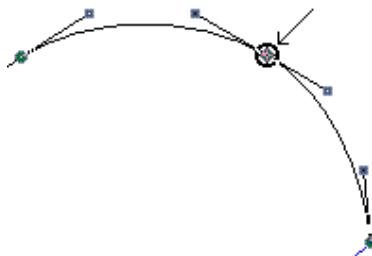
Introduction

In this chapter we will analyze all the node editing abilities that eXPerience has. You will learn how to select, move, add, delete and split the nodes of an embroidery design. In addition, you will learn all the terminology that will help you to understand node editing better and how to use the functions of the node editor's right click menu.

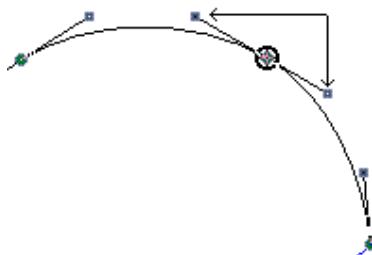
What is a node

There are two kinds of nodes. The curve nodes which are indicated with * characters and the curve break nodes which are shown with the # characters. During punching all nodes that you are adding are curve nodes. If you want to add a curve break you should hold the "Shift" key from the keyboard while clicking on the point that you want. If you have placed a curve

node, you can convert it to a curve break node using the node editor, which can be viewed by clicking the right mouse button over the node you wish to convert.



A node is the point indicated with the arrow in the drawing on the left.



A curve can be controlled by the tangent, which is indicated with the arrows in the drawing on the left.

What is a direction

The direction always indicates the way that the stitches will be sewn. The most important information is that you don't have to add nodes on satin or Zig-Zag to show the direction. The direction indicator is separate from the nodes.



Figure 7.1: Direction 45°

This allows one part of a design to have directions in one orientation and another part with a different direction.



Edit punching nodes

During punching you can edit the nodes that you have punched. First you have to click on the "Node Edit" icon, which is on the vertical toolbar (modes) and that will enter you in node editing mode. The current design changes to outlines and you can see the punching nodes of the selected object.

The changes that you can make are:

- **Select node(s)**
- **Move node(s)**
- **Change the tangents of a node**
- **Delete node(s)**
- **Insert a node**

Additional functions are available by selecting one or more nodes and clicking the right mouse button. This calls the menu of the **node editor**.

If you click on a curve, the  point appears on it. By clicking the right mouse button on this point you can call the **curve editor menu**.

Select Node(s)

If you want to select one of the punching nodes, click on the node and it becomes bigger indicating that it is selected.

If you want to select more than one node, click and drag the mouse on the screen forming a rectangle. All the nodes contained within this rectangle will be selected.

In case you need to select multiple nodes that can't be contained in a rectangle, you can select the nodes one by one holding the "Ctrl" button when you are clicking on the node you want to select.

In case that you want to select all the nodes which are between two nodes, you have to click on the first one and holding the "Shift" key click on the last node that you want to select.

You can do the same using both rectangles and nodes.

If you have selected more than one node you can move or delete them but you can not change the tangents controlling them.

In addition, you can use the Select All option of the node editing menu.

Move node(s)

If you have punched a curve and you want to move one or more nodes, you should select the node(s), click on one of them and drag the mouse to the point that creates the desired shape. If you have selected more than one node, they will be moved together, keeping the same distances that they had before. For example view the image below:

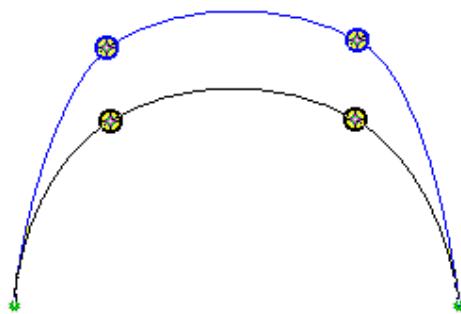


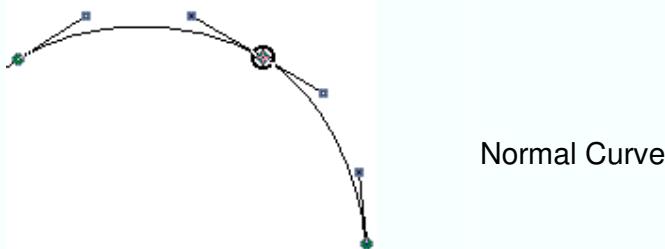
Figure 7.2: Move multi nodes

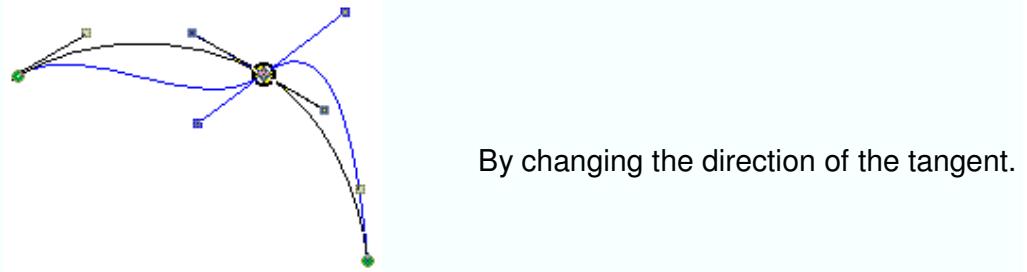
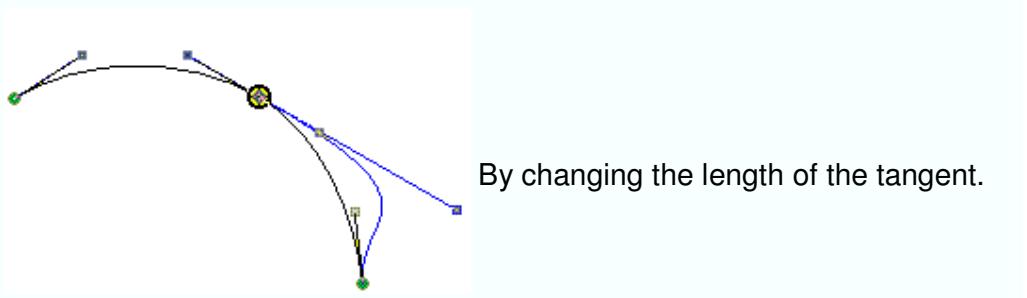
Also if you want to move one or more nodes 1/10 of millimeter towards a specific direction, you have to press the arrow showing this direction.

For movements of 1 millimeter to a specific direction you can hold down the “Ctrl” key from the keyboard and then click the arrow to the direction you want the nodes to be moved.

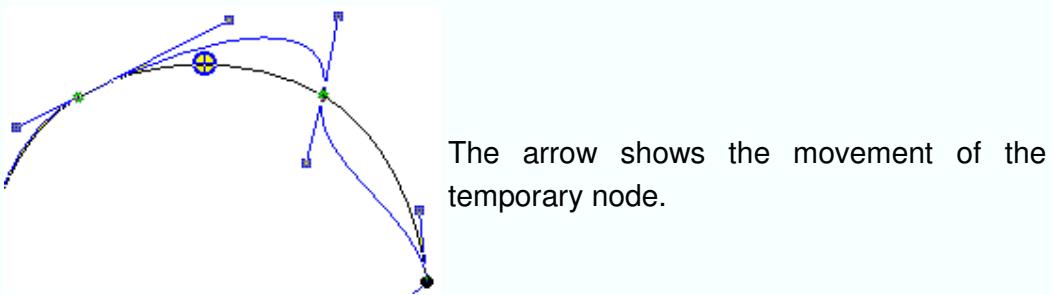
Change the tangents of a node

If you want to change a curve you can move, insert or delete one or more nodes. You can also edit a curve using the tangents of a node. This can be done by clicking on the control point of the tangent, and dragging it in the direction that you want. By changing the direction and the length of the tangent, the curve will change also. For example:





Also the tangents of a curve can be changed by clicking on this curve and drug it on another point, as you can see in the following draw.



The black line shows the curve prior to the movement and the blue line indicates its shape after the changes.

Delete a node

If you don't need a node you can delete it. First select the node(s) that you want to delete and then click the "Delete" key on your keyboard. You can also click the right mouse button over one of the selected node(s) and choose the "Delete node(s)" option of the node editing menu.

Attention: If you delete one or more nodes of a curve, the shape of the object it may change.

Insert a node

As you can see with the curve node tangents, curves become very flexible. Many times you will need to insert an additional node inside a curve. To create a new node, click on the point where you wish to insert it. The  character will appear on the curve. If this is not the exact point that you wanted to insert it, you can click on another point of the curve. By pressing the "Insert" key on the keyboard a new node is inserted in the position you have defined. The new inserted node can be edited as an existing node.

You may also insert a node by selecting a node point and using the "Insert node(s)" option of the node editing right click menu. The new node will be added between the selected node and the one next to it.

You can also call this same option from the curve editor menu.

Punching nodes editor menu

This menu is shown when you have selected nodes and then clicked the right mouse button. The options that appear are the following:

- **Curve**
- **Curve break**
- **To lines**
- **Insert Nodes**
- **Delete nodes**
- **Fit curve**
- **Select all**
- **Join**
- **Split**
- **Enable corners**
- **Disable corners**
- **Add direction**
- **To block fill**
- **To vector fill**

- **To form fill**
- **To outline**
- **Transform**

* **Curve node**

During punching all nodes that you are adding are curve nodes. That means that the curve that you are creating is smooth. While changing the tangents of a curve node, the curve changes from both sides of the node, as you can see in the following figure 7.3.

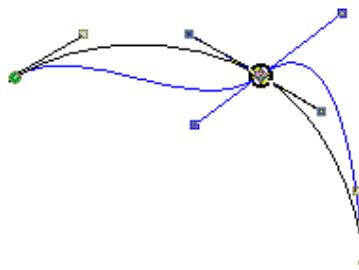


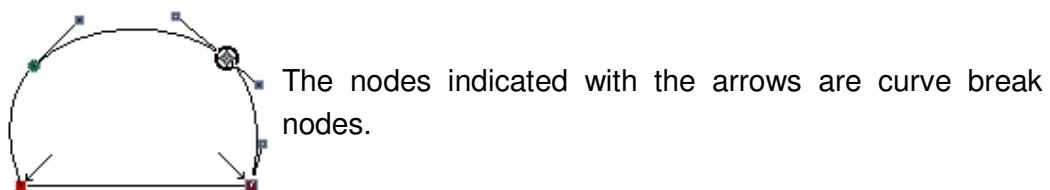
Figure 7.3: Curve node tangents

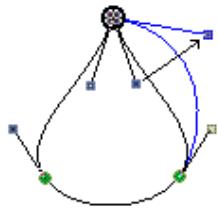
With the black line you can see how the curve was before to be changed and with the blue line, how the curve will be after the changes.

If you don't want this movement, you can use a curve break node or change the current node to a curve break node by using the nodes editor right click menu.

■ **Curve-break node**

These nodes can be used if you want to create a corner in an outline. To create a curve break node during punching, you hold the "Shift" key on the keyboard while adding the nodes of the curve. The difference with the curve node is that you can change the tangents of one side of the curve without the other part being changed.





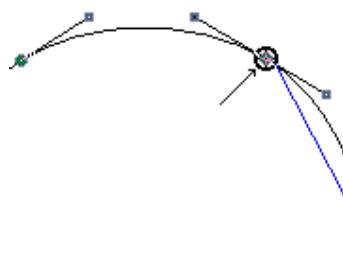
We changed the tangent of the node indicated by the arrow. The right side of the curve of the node changed but not the left.

In the drawing with the black color, you can see the curve as it was. The blue color version shows the result after the operation.

If you want to change the current node to a “curve node” you can use the nodes editor menu.

To lines

If you have a curve and you want two nodes to be connected with a straight line, you can use the option "To lines" of the node editing menu. First you have to select the node, which will start the line. This is the node that you can see in the following drawing indicated with the arrow. Clicking the right mouse button presents the node editor menu and you can choose the option "To line". This can also be done if you have selected more than one node.



The black line shows the curve as it was before.

The blue line shows the result of the "To Lines" conversion.

The arrow points to the node at which you should call the node editor menu and the "To line" option.

This option changes the type of the selected node(s) and their next node(s) to curve break. This change cannot be cancelled by the “Fit curve” option. In this case you should use the “Curve” option.

Fit curve

This function allows many changes on a curve without adding unnecessary nodes. There will be many times that the results will not be what you expected and you can't restore the curve. In this case you need to use the "Fit curve" option which restores the selected curve nodes to its original shape without affecting the entire shape.

Attention: If you have transformed nodes using the "Curve", "Curve break" or "To lines" option, the conversions are not cancelled. If this is the case you should reset all of the nodes to their original positions.

Select all

As described in the selection chapter you can select one or more nodes of a curve. If you want to select all the nodes of a curve, you can use the "Select all" option of the node editing right click menu. First you have to select a node of a curve by clicking on it. By right clicking on the selected node you can display the node editing menu and then choose the "Select all" option. This selects all the nodes of the current curve. If you want to select all the nodes of multiple curves you have to select a node of each curve and then use the "Select all" option. All nodes for all curves with selected nodes will then be selected.

You can call the same option from the curve editor menu.

Join

With this option you can join two nodes (make them one). First you have to select two nodes from two different curves.

Attention: These nodes should be the first or the last node of each curve, but not necessarily the same kind. These nodes should be near each other and the two curves should be in the same section.

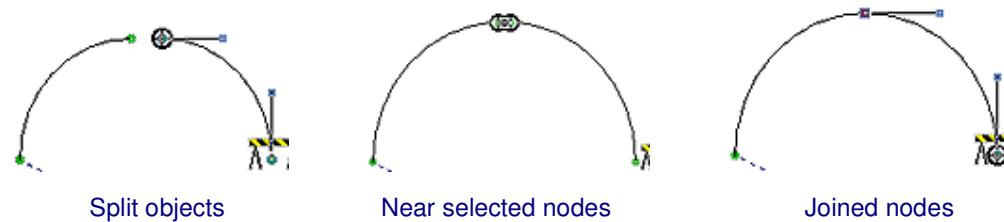


Figure 7.4: Join nodes

By right-clicking, you can call the "Join" option. The two nodes and curves become one. After that you can edit the new curve as normal.

In the case of wanting to join two curves of satin stitches, you should select both pairs of nodes and their directions.

Split

With this option of “Curve editor” right click menu you can split the selected node or the current curve in two sections.

This option can be called in case that the current outline is a part of running or satin serial section.

In order to split a node, you have to right click on the selected node and click on “Split” option. The selected node will become as two nodes that belong to the same object but in two different sections.

In case that you have selected the split option on a point that there is not any existing node, the problem adds two separate nodes. The split nodes that will be created can be joined again by selecting them and applying the “Join” function from the right click menu.

Enable corners

In order this option to appear in the node editing right click menu, you have to select a corner node together with the direction that is on the corner. This option is available only for satin and Zig-Zag corner stitches. At corners, the program automatically determines if it should put a corner or not. If the program did not put a corner where you think one belongs, you can call this option and change the way that the corner will be embroidered.

Using this option you can change specific corners in your embroidery design and create exactly the embroidering style you want.

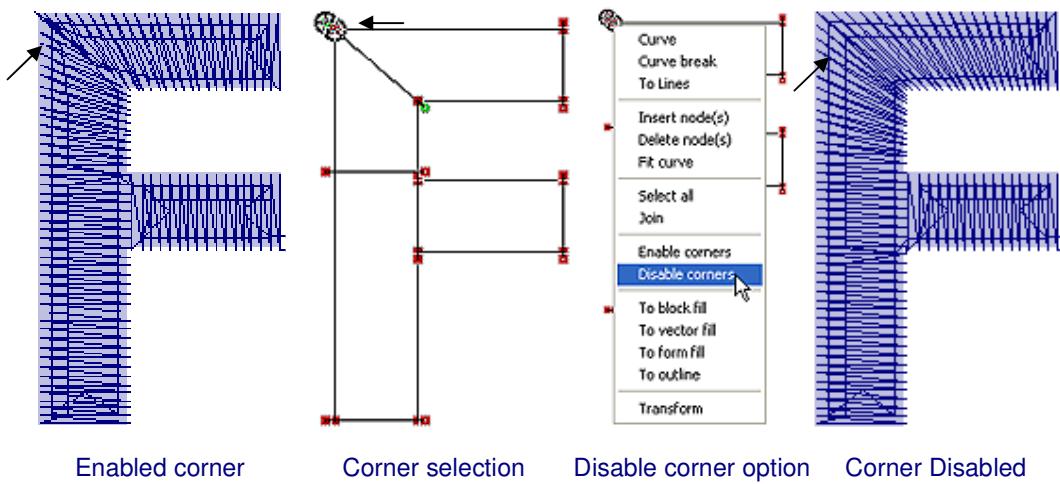


Figure 7.5: Enable/Disable corners

Disable corners

In order this option to appear in the node editing right click menu, you have to select a corner node together with the direction that is on the corner. This option is available only for satin and Zig-Zag corner stitches. At corners, the program automatically determines if it should put a corner or not. If the program put a corner where you think one doesn't belong, you can call this option and change the way that the corner will be embroidered.

Add direction

This option is enabled only if the object that you are creating is a satin or Zig-Zag object. With this function you can add (insert) a new direction for the object without needing to punch it again or add nodes.

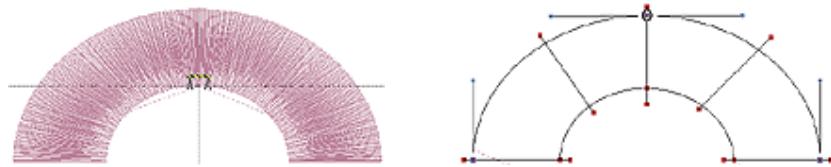


Figure 7.6: Current direction of stitches

First you click on this option and the cursor becomes a cross. After that you have to add pairs of nodes which show the directions that you want to add.

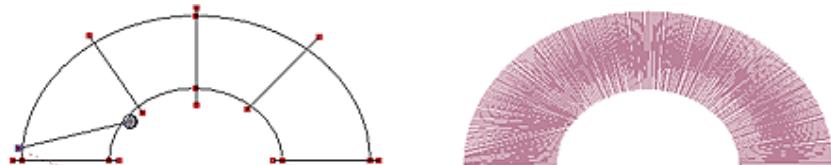


Figure 7.7: Changed direction

If you want to stop adding directions, you have to press the right mouse button.

To block fill

With option of node editing menu, you can transfer the current section to block fill. Block fill is a repetitive drawing, made from stitches, inside a step, satin, Zig-Zag or Satin serial object. In case that the transform that you are asking can not be done, there will be no change on the current section.

For more information see the "Add block fill" option.

To vector fill

With option of node editing menu, you can transfer the current section to vector fill. Vector fill is a drawing, made from stitches, inside a step, satin, Zig-Zag or Satin serial object. Except the stitches on the edge, the only stitches, of the current object, will be on the outline of the vector fill. In case that the transform that you are asking can not be done, there will be no change on the current section.

For more information see the "Add vector fill" option.

To Form fill

With option of node editing menu, you can transfer the current section to form fill. Form fill is a drawing, made from stitches, inside a step, satin, Zig-Zag or Satin serial object. The Form fill should always be a closed shape and there are no stitches inside this shape.

In case that the transform that you are asking can not be done, there will be no change on the current section.

For more information see the "Add form fill" option.

To Outline

With this option of node editing menu, you can transfer the current section to outline.

In case that the transform that you are asking can not be done, there will be no change on the current section (e.g. Font fill in Satin object).

In case that there is a step object with front fill on it and you change the front fill to outline, the program will create a hole made of the shape of the front fill.



Figure 7.8: Font fill to outline

Transform in Node editor

With this option of node editor right click menu, you can edit the section(s) of the object.

In this mode of node editor you can:

- Move the selected section(s).
- Copy the selected section(s).
- Resize the selected section(s).
- Rotate the selected section(s)
- Slant the selected section(s)
- Copy by reference line the selected section(s).
- Array the selected section(s).

The benefit when you are using the Transform option of node editor is that the program does not recalculate the stitches in any operation, it is possible to edit every section of the current object separately and it is possible to edit part of the current object like object, vector and form fill.

Curve editor menu

This pop up menu appears when you right click on a curve  node.

The option that this menu has, are the following:

- **Curve**
- **To Line**
- **Insert node**
- **Delete node**
- **Fit curve**
- **Select all**
- **Split**
- **Transform**

All the function has the same functionality with those from the “punching node editor” menu.

Cross-stitch node editing

Editing nodes of a cross-stitch object is different from editing any other stitch type object. When you click on the “Edit nodes” tool of the “modes” toolbar the cross-stitch design becomes an outline design. When you click on a cross-stitch object the grid that the crosses are placed appears and you can edit the crosses of the design.

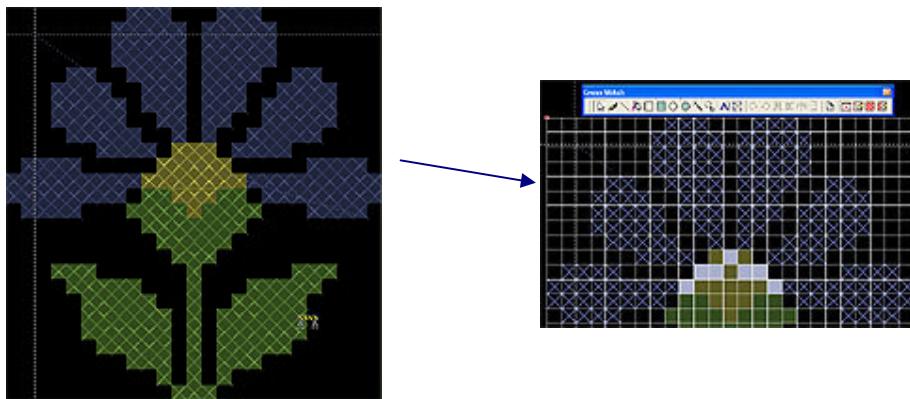


Figure 7.9: Cross-stitch design

Node editing mode

At the same time the cross-stitch toolbar appear. This toolbar contains all the tools needed for editing cross-stitch designs. We will explain the cross-stitch toolbar later in this manual.

8

How to Punch

Introduction

In this chapter we will analyze the digitizing process in eXperience. You will learn how to adjust the parameters of all stitch types and how to use them to create exactly the embroidery design you want.

How to punch

In order to punch an object of the design, first you have to select the stitch type that you wish to use.

This can be done from the “Options” tab of Object Properties roll up and then press the “Digitize” button  from vertical toolbar. Also you can press one of the F2 - F10 keys accordingly to the stitch type you wish. In both cases the

cursor becomes as a crosshair and you can start punching the outline you wish.

In order to create an outline you have to specify its nodes. The way of adding nodes depends on the stitch type you have selected.

- For Manual stitch type you have to create the outline of the design you want to create by inserting nodes that will create a line with Manual stitches.
- For Running stitch type a smooth curve connects the nodes that you are adding, creating the outline of the design you want to embroider.
- For Satin stitch type a smooth curve connects the nodes that you are adding but the nodes have to be always in pairs, filling the object you want to embroider.
- For Step stitch type you have to specify first the direction of the stitches and after this the outline which will be filled with the step stitches.
- For Zig-Zag stitch type a smooth curve connects the nodes that you are adding but the nodes have to be always in pairs, filling the object you want to embroider.
- For Satin Serial stitch type a smooth curve connects the nodes that you are adding, creating the outline of the design you want to be filled with Satin Serial stitches.
- For Piping stitch type a smooth curve connects the nodes that you are adding, but the nodes that will create the shape of the object, have to be always in pairs, filling the object with Piping stitches.
- For Photo-stitch stitch type you have to specify first the direction of the stitches and after this the outline which will be filled with the step stitches.
- Finally, for Cross-stitch stitch type you have to create a rectangle matrix area where you will place the cross-stitch stitches that will create the cross-stitch shape you want to embroider.

In addition you can insert a shape that will specify the area where the stitches will be placed. In order to insert a shape you have to activate the "Digitizing" tool (for Running, Step, Satin Serial and Photo-Stitch) and before start digitizing click the "S" letter from the keyboard (for Running and Satin serial) or after defining direction of stitches (for Step and Photo-stitch). The "Insert shape" dialog box will appear from which you can select the shape you want to enter in the design. The area that the shape will cover will be filled with stitches.

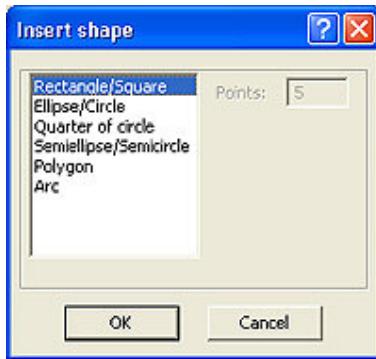


Figure 8.1: Insert shape

The punched outline is the first object that you are creating. In order to close the object you have to right click once. After this you can start punching the second section (multiple sections).

When you have punched the sections of the current object and you have closed the last section with right click, you should press again the right click in order to close the object.

After that the program asks for the exit point of the object that you have just punched. With click on the position you wish you can place the exit point on this specific position. In case that you would like the exit point to be placed on the best possible position, just press the right button of the mouse.

When you have finished with the object you punched, you can continue punching its next point as we described above. The new object will be the same stitch type as the previous object. In case that you wish to continue punching a new object which will be made with a different stitch type you have to right click and the select the new stitch type (as we described at the beginning) or to press one of the F2-F10 keys in order to select the stitch type of the new object.

Auto digitize for Satin, Zig-Zag and Piping

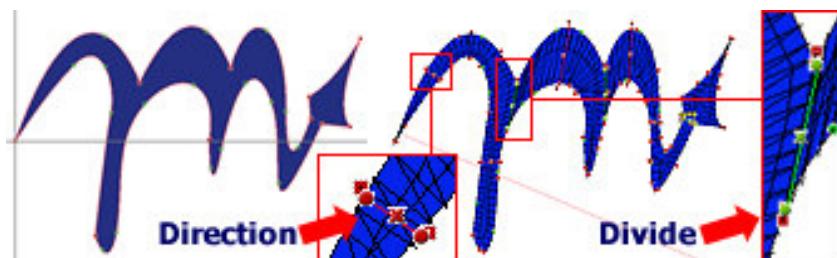
There is also another way to digitize with Satin, Zig-Zag and Piping stitches that allows you to specify the outline of the object you want to fill with stitches instead of digitizing in pairs of nodes. The digitizing process is taking place like digitizing a closed Running object.

More specific in order to “Auto digitize” with Satin, Zig-Zag and Piping stitches you have to select one of the three stitch types from “Object Properties”

“Options” tab and then click on the “Auto Digitize” tool from “Modes” toolbar or directly click on the Shift+F4(Satin), Shift+F6(Zig-Zag) or Shift+F8(Piping) shortcut keys to start immediately the digitizing process. The

digitize cross will appear and you can start digitizing the outline of the shape you want to embroider. A smooth curve will connect the nodes that you will add creating the shape of the object you want to digitize.

When you finish digitizing the shape of the object you have to right click once. The digitizing cross will appear allowing you to continue digitizing the next object as a branch of the first one. When you finish digitizing you have to right click in order to “exit point cross” of the design to appear. With the exit point cross you can define the exit point of the design you have created but if you want to be inserted automatically you have to right click again.



At this part of digitizing you can add directions and divide sections of the objects you have created. In order this to be done, a red or a green bullet appears on the outline of the object you have created. With the red bullet you can add directions on the shape you have created by clicking once on the one side of the object and then to the other side of the object. You can add as many directions you like or you can add none and let eXPerience add them for you automatically by right clicking again. While you are in the “directions” mode of automatic digitizing you change to “divide” mode by clicking on ‘D’ key. The red bullet will become green and you can start dividing the object in the same way you are adding directions. You have to click once to one side of the object and then to the other side of the object, dividing the shape to two smaller objects inside the same shape. You can divide more the shape, by adding more divide lines. If you want you can switch to “directions” mode and add more directions by clicking on the ‘D’ key. Finally, if you want to remove a direction or division line you can do it only when you are digitizing the design and by clicking on the small ‘X’ that they have on them. You can also change the position of the direction/divide lines by click and dragging the red/green bullet from its current place to a new one.

When you finish adding directions and dividing the objects you can right click again to finish this process. The digitizing cross appears again allowing you to create the next object with the same color and stitch type. The steps that have to be followed for the addition of the next object are the same with those that

are described above. If you do not want to continue digitizing you can right click again and end the digitizing process.

Finally, this new automatic way of creating Satin, Piping and Zig-Zag stitch objects allows you to insert, also, ready made shapes with the selected stitch type. After starting the “Auto digitize” tool and before inserting any node, press the ‘S’ shortcut key. The “Insert shape” dialog box will appear from which you can select the shape you want to enter in the design. The area that the shape will cover will be filled with stitches. Instead of ‘S’ you can press ‘T’ and add a character with the Font and size you want. Immediately after activating the Auto digitize tool press ‘T’ and the “New char” dialog will appear where you can specify the character you want to add as a design.

Object Properties – Options

On the “Options” tab of “Object properties” roll – up, you can see and change the parameters of the selected objects. On the following drop down menu you can see the stitch types of eXperience. These are:

- **Manual - F2**
- **Running - F3**
- **Satin - F4**
- **Step - F5**
- **Zig-Zag - F6**
- **Satin Serial - F7**
- **Piping - F8**
- **Photo-stitch - F9**
- **Cross-stitch - F10**

Every stitch-type has its own parameters and we will explain them one by one.

Manual – F2

By selecting manual stitch type and then clicking on the digitize button you can add manual stitches. With this stitch, a straight line connects the nodes that you are adding. The parameter that you can change in this stitch type is:

- The **maximum length**
- The **style** of the stitches that you will create.

Maximum length

With this numeric field, you can specify the maximum length of the stitches that you are adding. If the manual stitches that you have inserted are bigger than the maximum stitch length you have defined the software will split the stitches in order their length to be equal with their maximum length.

Style

With this parameter, you can change the type of the stitch. In manual stitch type the size of the style, depend on the distance of between the points (nodes) that you punched.

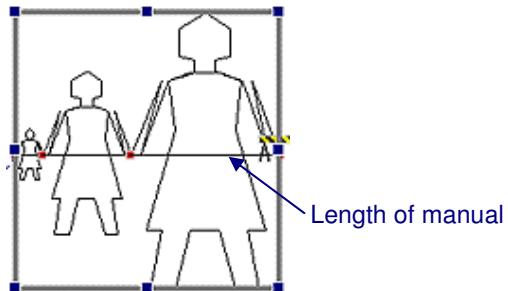


Figure 8.2: Style size

The program contains some default styles but you can also make your own, using the Style stitches option on the Tools menu. By clicking on the area which initially displays "none", you can see the icons of the styles that your program currently contains and you can select one by clicking on it. If your roll up has been reduced and you can't see a style you want, you can use the scroll bar on the right of the menu to scroll through the icons.

Running – F3

With this option of Object properties roll up you can add a series of running stitches. In this case, a smooth curve connects the nodes that you are adding. As always, you can edit the curve you have made, following the instructions that are shown in the edit punching nodes chapter.

The parameters that you can change in this type of punching are:

- The **length** of the stitches.
- If there would be **fix and lock** stitches at the start/end of the objects.

- The **offset** of stitches according to the punching curve.
- The **repeats** that you want.
- The **offset** of each **repeat**
- The percentages of the **random**.
- **Style Selection**.
- **Frames** - Specifies the way that the style will be repeated.
- **Incline** - Specifies if the styles will be placed will have constant length or not.
- **Sequins** – Add sequins in the running.
- **Seq. technique** - Select the technique that the sequins will be embroidered.
- **Skip Sequins** - Select the number of sequins that will be skipped.
- The **Closest point** connection of the current object.

Length

With this numeric field you can specify the length of the stitches for the punching object that you are adding.

Fix & Lock stitches

With this parameter you can specify whether the program will lock the stitches at the start or end of the selected objects. The lock stitches are small stitches that keep the thread from unraveling off the fabric. If you want to change this option you should click on this field and on the following menu select one of the available options:

None	In this case there will be no lock stitches at the start or end of the selected objects.
Fix	In this case the lock stitches will be placed at the beginning of the selected objects.
Lock	In this case these stitches will be placed at the end of the selected objects.
Fix&Lock	In this case these stitches will be placed at both the beginning and the end of the selected objects.

Offset

With this numeric field you can specify the distance between punched curve and the position of the stitches in millimeters.



Figure 8.3:

Without offset

With offset

Repeats

With this numeric field you can specify the repeats of the punching object that you are adding. In some cases the program has to add the tacking before starting to punch, so don't worry if you have selected five (5) repeats and they turn out to be six (6).

Repeats offset

With this numeric field you can specify the distance between the punched curve and the position of the stitches in percentages in each repeat.

Random

With this numeric field you can specify the percentage of stitch randomness in the selected or new punching object. For example if you specify 20% random and the stitch length is 4 mm, all the stitches in this object will be between 3.2 and 4mm. Even if you are using the random parameter, the maximum stitch will not be longer than the stitch length that you have specified.

Style

With this parameter, you can change the type of the stitch. The length of the style depends on the stitches length parameter. The program contains some default styles but you can also make your own, using the Style stitches option on the Tools menu. By clicking on the area which initially displays "none", you can see the icons of the styles that your program currently contains and you can select one by clicking on it. If your roll up has been reduced and you can't

see a style you want, you can use the scroll bar on the right of the menu to scroll through the icons.



Figure 8.4: Select Style

Frames

This parameter configures the way that film type styles can be applied. You can set to be repeated only the middle style of the film (Repeat middle), all of them (Repeat All) in a row without omitting anyone or apply the style randomly (Random).

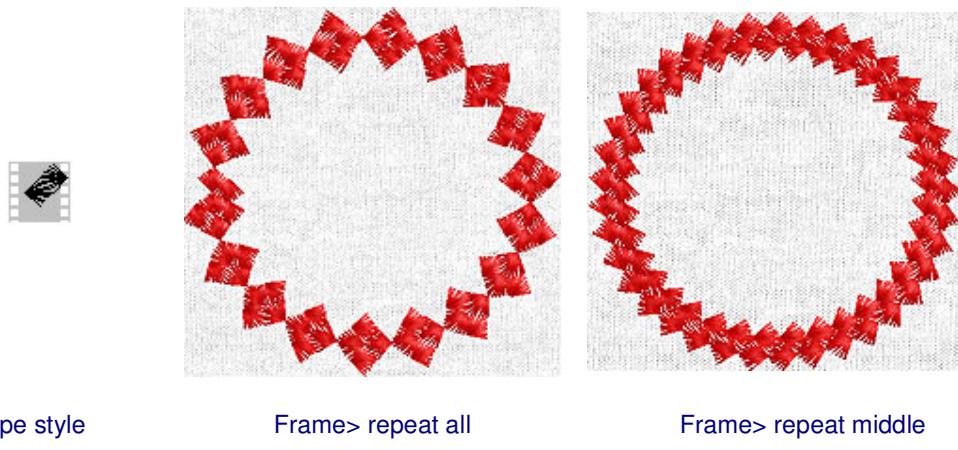


Figure 8.5: Frames option

Incline

This parameter is very important when you want to punch a drawing that is very small in actual size. If you select "Yes" on this logical filed, in the new punching object that you add (or within the selected object), the program will keep the same stitch length. This is very useful when you create running designs with styles or inserting sequins in the design. Otherwise, if you select "No", the program will change the stitch length while following the outline.

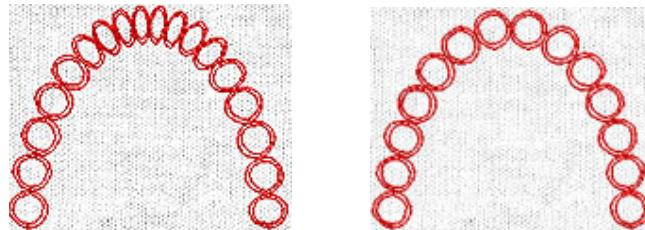


Figure 8.6:

Incline No

Incline Yes

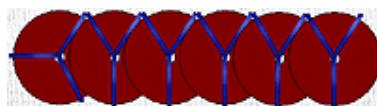
Sequins

With this logical field you can specify if you want to add sequins to the running design or not. If you select “Yes” on this logical field, in any new punching object that you will add (or on any selected object) the program will insert sequins.

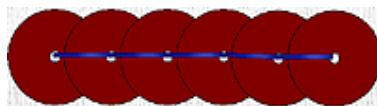
Seq. technique

With this option you can specify the embroidering technique you want to use in holding sequins on the fabric. You can choose between five different sequence techniques:

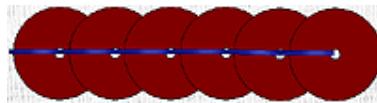
- **Star:** This option hold the sequins from three different places like a star and it make the sequins steady.



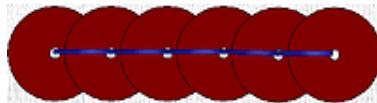
- **Forward:** This option holds the sequins with a single stitch over the sequin, while inserts the sequins from left to right.



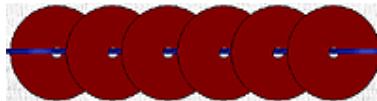
- **Forward 2:** This option holds the sequins with a single stitch that passes twice over the sequin, while inserts the sequins from left to right. This option holds better the sequin in comparison with the “Forward” option.



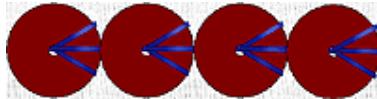
- **Forward 3:** This option holds the sequins with a single stitch over the sequin, while inserts the sequins from left to right but uses different holding technique from “Forward”.



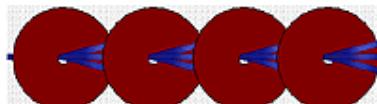
- **Backward:** This option holds the sequins with a single stitch, while inserts the sequins with a backwards move from right to left. This technique gives an invisible sequin hold on the fabric when we have overlapping sequins.



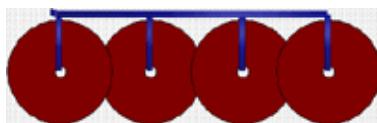
- **Arrow 30 deg:** This option holds the sequin with three stitches in 30 degrees angle that they look like an arrow. They also keep the sequin steady on the fabric.



- **Arrow 15 deg:** This option holds the sequin with three stitches that they look like an arrow. They also keep the sequin steady on the fabric.



- **Bunch:** This option holds the sequin like a bunch. The main holding stitches are vertical and horizontal creating the shape of sequential "T".

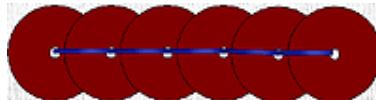


- **Cross:** This option holds the sequins in four points like a cross. This is a great technique for creating sequins designs that have distance between them.



For example: For 5mm sequin the running length that you can have in order the technique to be applied perfectly is 4mm and above 6,5 mm.

- **Simple:** This option holds the sequins with a single stitch over the sequin, while inserts the sequins from left to right. The difference with this sequin technique is that it has not any limitations.



Therefore you have to be careful when you apply it because piercing of sequins might occur. Always simulate the embroidering process of the designs that you apply sequins on, to avoid piercing of sequins.

Skip Sequins

With this option you can define the number of sequins you want to be skipped in running object filled with sequins. Therefore, if you set the “Skip Sequins” value to 2, the software will automatically skip 2 sequins after every one that will embroider.

Closest point

With this logical field you can specify if the starting point of the current object will be the closest point to the end point of the previous object. The starting point can also be changed from the horizontal toolbar or the “clean up expert” tool.

This parameter reduces embroidering time and increases the embroidering efficiency. Also the connections between the objects are the optimal that ensures better flow of the embroidery machine while embroidering.

Satin – F4

With satin stitch type you can add a punching object of satin stitches. In this case, a smooth curve connects the nodes that you are adding. As always you can edit the curve you have made, following the instructions shown in the edit punching nodes chapter. The most important thing in using satin is that you have to add the node points in pairs. The program automatically adds the direction of stitches which connect a pair of nodes. The direction of the stitches can be edited independently of the node placements.

The parameters that you can change in this type of punching are:

- The **density**
- The type of the **underlay**.
- If there would be **fix and lock** stitches at the start/end of the objects.
- If **corners** should be made where needed.
- The percentages of the **compensation**
- The percentages of the **random** width
- The **direction of the random**
- **Style** selection.
- The way and the **position** that the **Style** will be placed.

- **Pattern** selection.
- The way that the **pattern** will be placed (Number of **repeats**).
- **Length** of pattern.
- If **Sort/Long** stitches should be made where needed.
- If **Half-pitch compensation** should be made at the beginning and the end of the satin bar.
- The **Side change** of satin.
- The **Variable pitch**.
- The **Spitz stitch** of satin.
- The **Closest point** connection of the current object.

Each time you click on a punching object, the object properties roll up changes to reflect the parameters of it.

Density

With this numeric field you can specify the density of the satin stitches that you are adding.

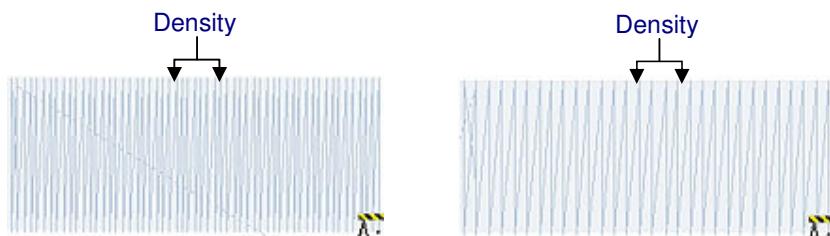


Figure 8.7: 0,6 mm density

1,2 mm density

Underlay

With the next field you can select the underlay you want to use. To select or change the underlay you have to click on this field and select one of the following types:

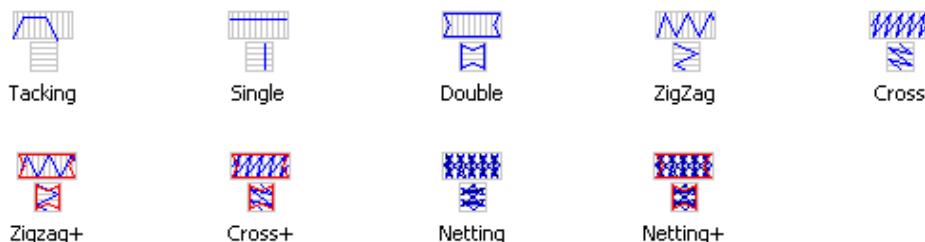


Figure 8.8: Underlay options

Fix & Lock stitches

With this parameter you can specify whether the program will lock the stitches at the start or end of the selected objects. The lock stitches are small stitches that keep the thread from unraveling off the fabric. If you want to change this option you should click on this field and on the following menu select one of the available options:

None	In this case there will be no lock stitches at the start or end of the selected objects.
Fix	In this case the lock stitches will be placed at the beginning of the selected objects.
Lock	In this case these stitches will be placed at the end of the selected objects.
Fix&Lock	In this case these stitches will be placed at both the beginning and the end of the selected objects.

Corners

In this logical field you can active or disable the corners on the current object. The corners are needed in case that there is steep change of the direction of the satin and there are curve break nodes on the outlines. The corners that would be made depends on the shape of the outlines.

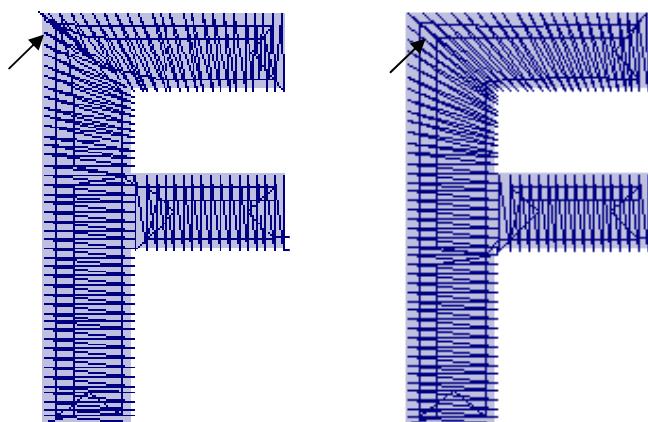


Figure 8.9:

Corners Yes

Corners No

Compensation

With this numeric field, you can choose the width of the satin stitch based on the width of the outline in millimeters. For example, if you want the width of the satin to be 0,5mm longer than the width of the outline, you should set the Compensation percentage to 0.5mm.

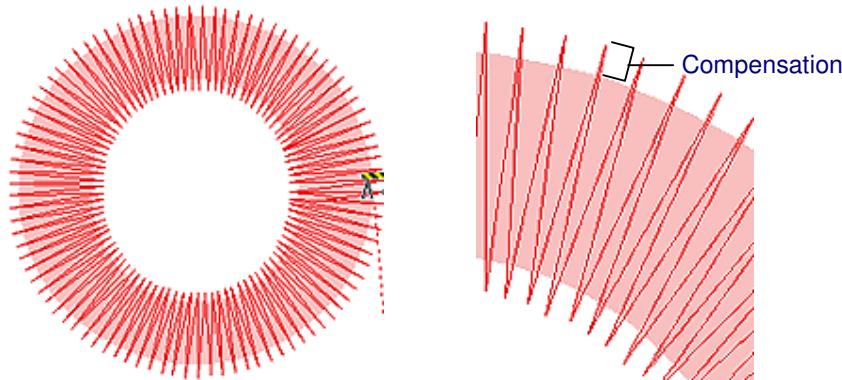


Figure 8.10: Compensation in Satin

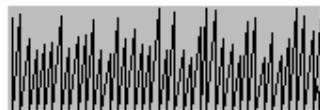
Random width

With this numeric field you can specify the percentage of the random of the width of the satin (Zig - Zag or Satin serial). Using this parameter, the length of the satin stitches will be between the width of the outline and the width of the outline minus the percentage that you have specified.

For example: If you have made an outline 4mm and the random factor is set to 20%, the length of the stitches of the satin (Zig - Zag or Satin serial) will be between 3.2 and 4mm.

Direction of the random

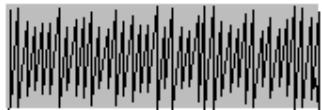
With these three options you can specify whether the random stitches will be from both sides or which side they will be from. The choices that you have for random are:



Random only on the first side.



Random only on the second side.



Random on both sides.

Style selection:

By clicking on the right side of this field, you can view the available styles for the current design. To choose one of these styles, click on its icon (Figure 8.11). If your roll up has been reduced and you can't see the style that you want, you can use the scroll bar on the right to find it. To add a new style you should click on the "Style stitches" option from Tools menu.



Figure 8.11: styles

Style on

With this option you can specify the position that the Style will be placed. The options in this menu are:

First stitch	In this case the style will be on the first stitch of the satin. The second will be a normal one, the third with style, the fourth normal and so on.
Both stitches	In this case the style will be on all the stitches of the satin.
First+stretch	In this case the style will be only on the first stitch as before, but during scaling the style is not retained.
Both+stretch	In this case the style will be on all the stitches, but during scaling the style is not retained.

Pattern selection:

By clicking on the right side of this field (Figure 8.12), you can choose the type of the pattern that you want to use. To choose one of these patterns, click on its icon.



Figure 8.12: Patterns



Figure 8.13: Satin patterns

The way that the pattern will be placed (Number of repeats)

You can specify the pattern used for the object. The options are the following:

- None: In this case there will be no pattern on the satin.
- Ceeding: In this case the pattern will be placed on the Satin as many times possible depending on the defined pattern's "length".
- Fit 1-10: With these options you can specify how many times the pattern will be repeated on the satin

Length of pattern:

With this numeric field you can specify the length of the pattern to be used if you have selected the ceeding option for the pattern parameter. The length can be specified in millimeters.

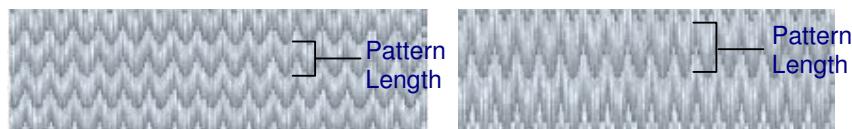


Figure 8.14: Pattern's Length

Short/Long

In this logical field you can active or disable sort/long stitches to the current object. The sort/long stitches are needed in case that there is steep change of the direction of the satin and there are not curve break nodes on the outlines.

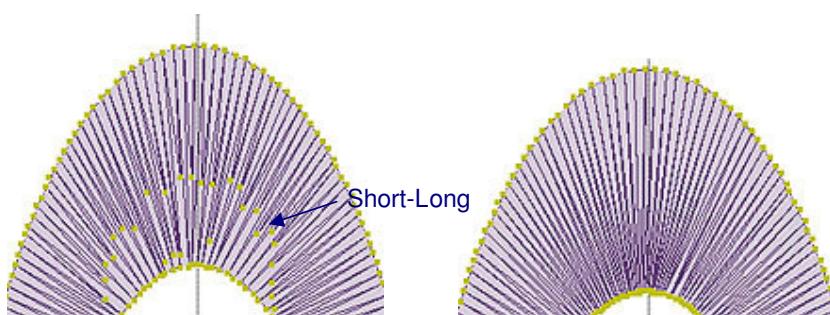


Figure 8.15: With Short-Long stitches

Without Short-Long stitches

Half-pitch compensation

In case that this logical parameter is set as “Yes” the program will start placing the stitches after a half of thread thickness. This parameter is useful in creating high quality small Satin objects, for example small letters.

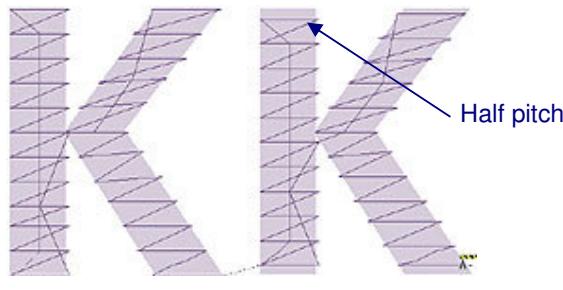


Figure 8.16: Without Half pitch With Half pitch

In addition, half-pitch compensation is good to be applied because it manipulates also the thread thickness while embroidering. Therefore, the design that you are currently viewing on your screen will be embroidered as it look like.

Side changes

In case that this logical parameter is set as Yes the program will create the longest stitch in the current satin object. Its advantage is that produces automatically thicker satin embroidery results without increasing the number of stitches.

Variable pitch

The program will balance the density sensitivity when an object narrows in size according to the percentage you have set in this field.

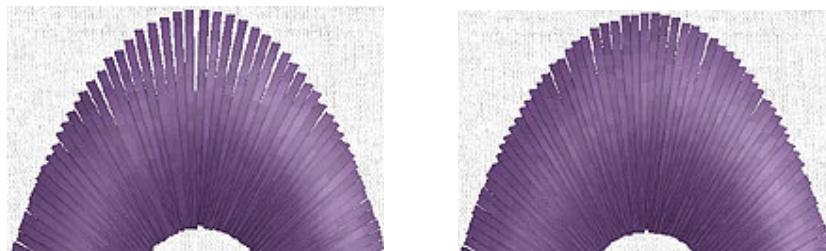


Figure 8.17: With “No” variable pitch

With “100%” variable pitch

Spitz stitch

In case that this logical parameter is set as Yes the program will protrude an extra stitch when a satin triangle is created. Its main functionality is to create high quality satin corners.

Closest point

With this logical field you can specify if the starting point of the current object will be the closest point to the end point of the previous object. The starting point can also be changed from the horizontal toolbar or the clean up expert tool. This parameter reduces embroidering time and increases the embroidering efficiency. Also the connections between the objects are the optimal that ensures better flow of the embroidery machine while embroidering.

Step – F5

With Step stitch type you can add a punching object of step stitches. In order to create a step stitch object you have to specify first the direction of the stitches and after this the outline which will be field by the step stitches.

The direction of the step can be set with the first two nodes. In case that after entering the first node, the right click of the mouse was pressed, the new step will keep the same direction with the previous step. If there was not previous step, the direction of the new one will be 0 degrees (horizontal).

When inputting the nodes of the outline, a smooth curve connects the nodes that you are adding. In case that you want to add a curve break, you have to keep pressed the Shift button from the keyboard. As always you can edit the curve you have made, following the instructions shown in the edit punching nodes chapter.

The parameters that you can change in this type of punching are:

- The **density**.
- The **length** of the stitches
- The type of the **underlay**.
- If there would be **fix and lock** stitches at the start/end of the objects.
- The **square end** on the edge on the step.
- The percentages of the **compensation**
- The percentages of the **random** of the stitch length.

- The percentages of the **gradient**.
- The **Patterns** parameter that you have in this type of punching is the pattern selection.
- **Style** selection.
- If the Style will be **stretched** or not
- The way the **Frames** of a style will be applied.
- If style with sequins will be applied with **Incline**
- If the Style will be **Bi directional** or not
- **Clip** - If the style will be clipped by following the shape of the step or not.
- The **closest point** of the current object.

Density

The density parameter (which is a numeric field) specifies the distance between the lines of stitches of the step. The number of this field shows the distance between one line of stitches and the line after its next, as you can see on the following Figure 8.18.

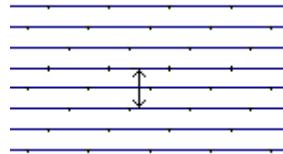


Figure 8.18: Density

Length

The length parameter (which is a numeric field) specifies the length of every stitch of the step. The length of the stitches counts in millimeters.

Underlay

In this filed you can select the underlay of the selected step object or the object that you are going to punch.

On the following window you can select one of the below type of underlay.



Figure 8.19: Step underlays

Fix/Lock

With this parameter you can specify whether the program will lock the stitches at the start or end of the selected objects. The lock stitches are small stitches that keep the thread from unraveling off of the fabric. If you want to change this option you should click on the area on the right (where you see the word <Fix&Lock>). On the following menu there are four options for this parameter:

None	In this case there will be no lock stitches at the start or end of the selected objects.
Fix	In this case the lock stitches will be placed at the beginning of the selected objects.
Lock	In this case these stitches will be placed at the end of the selected objects.
Fix&Lock	In this case these stitches will be placed at both the beginning and the end of the selected objects.

Square end

This field (which is a logical field) specifies the way that the way that the stitches will be on the edge of the outline of the step. The following two draws shows the way that the stitches will be with and without square end.

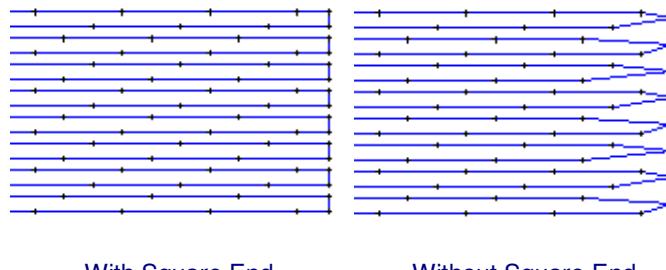


Figure 8.20: Square end

Experience software always enable this options when the density is more than 1 mm. This limit can be changed from the parameters.

Compensation:

The compensation parameter has to do with the tendency of a punching object to shrink in itself in the direction of stitching. This means that sometimes you have to adjust your digitized design from its original position. With the compensation numeric field you can specify the percentage of the movement of the stitches, in order to cover its shrink in.

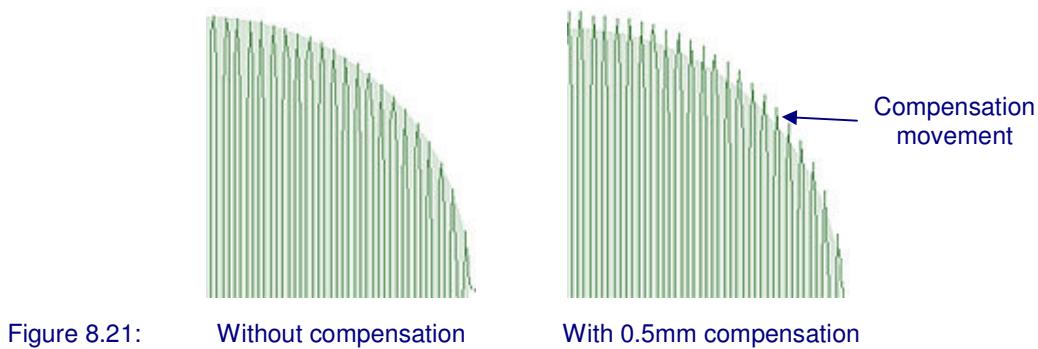


Figure 8.21: Without compensation With 0.5mm compensation

Random

This numeric field allows you to randomize the length of the stitches of the step. With the number that can be seen on the right, you can specify the percentage of stitch randomness in the selected or new punching object.

Example: if you will specify 20% random and the stitch length is 3 mm, all the stitches of this object will be between 2.4 to 3mm.



Figure 8.22: Without random stitches With 20% random stitches

Even if you are using the random parameter, the maximum stitch will not be longer than the stitch length that you have specified.

Gradient

With this numeric field you can make a step which has different density at the beginning compared to the end, and it indicates the percentage change of the density. With the number that can be seen on the right, you can specify the percentage of the difference between the start and finish of the step.

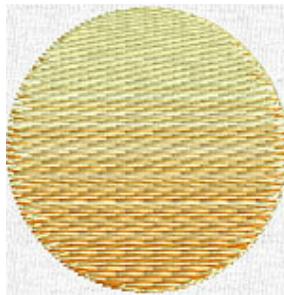


Figure 8.23: Gradient with two step objects

Example: If you specify the gradient parameter as 100% and the starting density of the step is 0.50 mm, the density at the end of the object will be 1.00 mm.

Pattern selection

Patterns are the shapes that are created in step with the needle penetrations. On the window coming up when you click on the area on the right (shows simple), you can see the icons of the available patterns. To choose one of these patterns, click on it. If the pattern you are searching for, is not visible in the window you can use the scroll bar on the right side to scroll through the icons.

For every pattern you have selected the program automatically changes the density and the stitch length of the step in order to show with the best way the selected pattern.



Figure 8.24: Applied step patterns

Style

With this parameter, you can change the type of the stitches of the step. The program contains some default styles but also you can make your own, using the Style stitches option on the Tools menu. By clicking on the area on the right, which initially displays "none", you can see the styles that your program currently contains and you can select one by clicking on it. If the style you are searching it is not visible in the window you can use the scroll bar on the right side to scroll through the icons.



Figure 8.25: Applied step styles

For every style you have selected the program automatically changes the density and the stitch length of the step in order to show with the best way the selected style.

Stretch

The size of the style dependents on the stitch length that you have selected. The program changes the size of the style proportional. With this logical field you can specify if the height of the style will be proportional of its length or not. In case that this filed is disabled the style will be proportional.

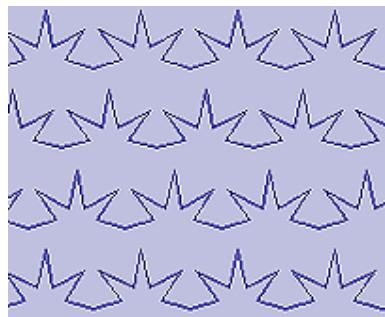
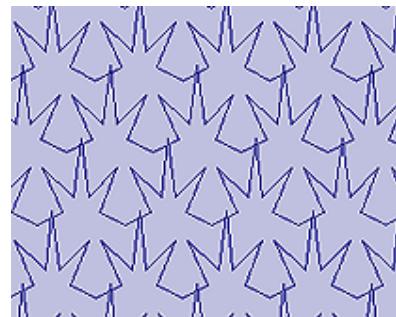


Figure 8.26: Without stretch



With stretch

In case that this filed is enabled the style will be stretched in a way that its highest point will be on the center of the previous line.

Bi directional

With this logical option you can specify if you want the style to be “Bi-directional” or not. If you set this option to “Yes” the style will fill the shape following a zig-zag path (for example: from left to right, from right to left and so forth). On the other hand if you set it to “No” it will place the style always from one direction to the other (for example: from left to right and then again from left to right).

This option is very useful when it used with styles that have sequins. By setting the “Bi-directional” option to “No” and applying a simple style with sequins you can fill an area and produce the fish scale effect easily.

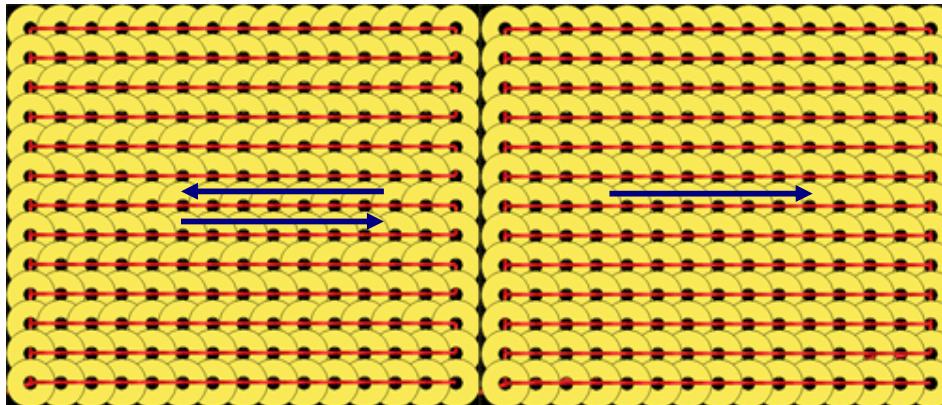


Figure 8.27: Bi-directional "Yes"

Bi-directional "No"

Incline

This logical option when it is set to "Yes" removes any "Pattern" that is currently applied on the design and disables "Clip" option. This option fills the object with the style by keeping the outline of the shape as accurate as possible without following any pattern. With this option enabled the software will try to fit the complete style inside object by keeping the same style size to all repetitions.

This option is useful also when you want to fill an object with a style that has sequins. It allows you to fill the object completely with stitches by fitting the style inside the object.

Frames

This parameter configures the way that film type styles can be applied. You have three options. **Repeat all**, **Repeat middle**, and **Random**

- **Repeat all:** With this option selected all style frames will be repeated sequentially.
- **Repeat middle:** With this option selected only the middle style frame will be repeated.
- **Random:** With this option selected, the style frames will be applied randomly.

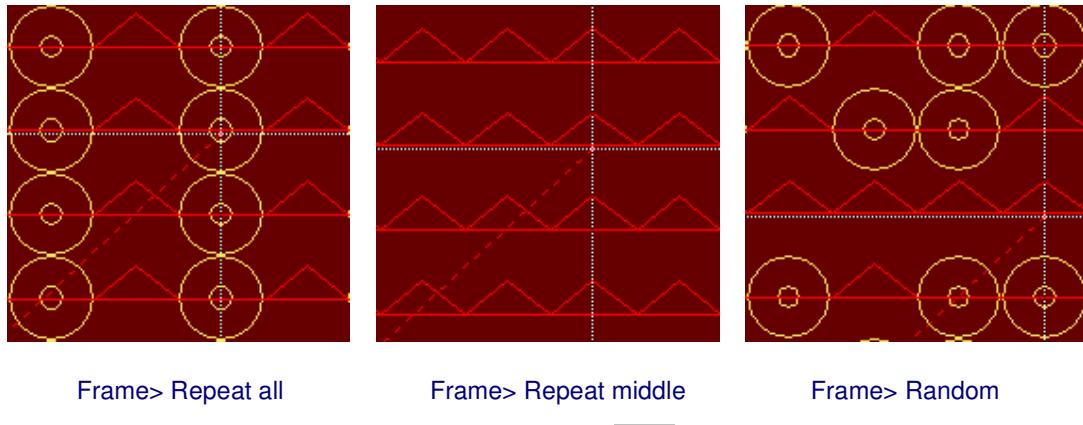


Figure 8.5: Frames options of a style with two frames

Clip

With this logical filed you can specify the way that the styles will be on the edge of the step. In order to follow the outline of the step there are two ways. The first way is to change the length of the style in order to cover the distance till the edge.

The second way is to clip the style according to the outline of the step. If the clip option is enabled, the program will follow the second way and if not the first way.

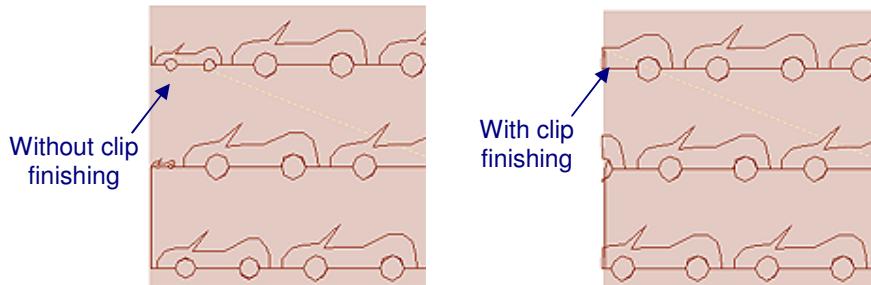


Figure 8.27: Without Clip With Clip

Closest point

With this logical field you can specify if the starting point of the current object will be the closest point to the end point of the previous object. The starting point can also be changed from the horizontal toolbar or the clean up expert tool. This parameter reduces embroidery time and increases the embroidery efficiency. Also the connections between the objects are the optimal that ensures better flow of the embroidery machine while embroidering.

Zig-Zag – F6

With zig-zag stitch type you can add a punching object of zig-zag stitches. In this case, a smooth curve connects the nodes that you are adding. As always you can edit the curve you have made, following the instructions shown in the edit punching nodes chapter. The most important thing in using satin is that you have to add the node points in pairs. The program automatically adds the direction of stitches which connect a pair of nodes. The direction of the stitches can be edited independently of the node placements.

The parameters that you can change in this type of punching are:

- The **density**.
- The type of **underlay**.
- If there would be **fix and lock** stitches at the start/end of the objects.
- The **Square end** on the edge of Zig- Zag.
- If **corners** should be made where needed.
- The percentages of the **compensation**.
- The percentages of the **random width**
- The **direction of the random**
- **Style** selection.
- In which stitch the **style will be**
- The way that the pattern will be placed (Number of repeats).
- **Pattern** selection.
- **Length** of pattern.
- If **Sort/Long** stitches should be made where needed.
- If **Half-pitch compensation** should be made at the beginning and the end of the zig-zag bar.
- The **Variable pitch**.
- The **Spitz stitch** of Zig-Zag.
- The **Closest point** of the current object.

Each time you click on a punching object, the object properties roll up changes to reflect the parameters of it.

Density

With this numeric field you can specify the density of the zig-zag stitches that you are adding.

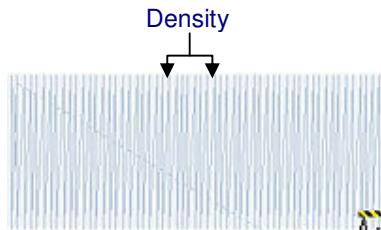
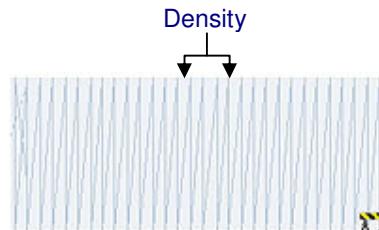


Figure 8.28: 0,6 mm density



1,2 mm density

Underlay

With the next field you can select the underlay you want to use. To select or change the underlay you have to click on this field and select one of the following types:

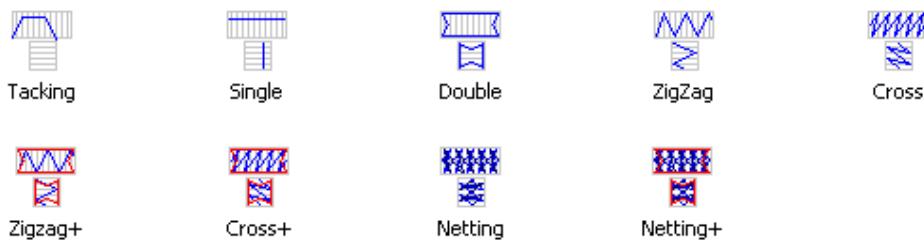


Figure 8.29: Zig-Zag underlay selection

Fix & Lock stitches

With this parameter you can specify whether the program will lock the stitches at the start or end of the selected objects. The lock stitches are small stitches that keep the thread from unraveling off the fabric. If you want to change this option you should click on this field and on the following menu select one of the available options:

None	In this case there will be no lock stitches at the start or end of the selected objects.
Fix	In this case the lock stitches will be placed at the beginning of the selected objects.
Lock	In this case these stitches will be placed at the end of the selected

	objects.
Fix&Lock	In this case these stitches will be placed at both the beginning and the end of the selected objects.

Square end

In square end field you have two options. The Square and Comb as you can view on the following drawings. We would suggest in case you have selected one of these options, to avoid the underlay.

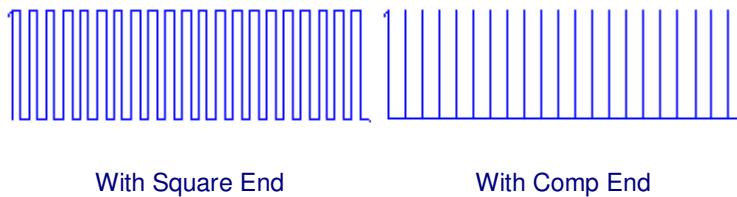


Figure 8.30: Square end

Corners

In this logical field you can active or disable the corners on the current object. The corners are needed in case that there is steep change of the direction of the satin and there are curve break nodes on the outlines. The corners that would be made depends on the shape of the outlines.

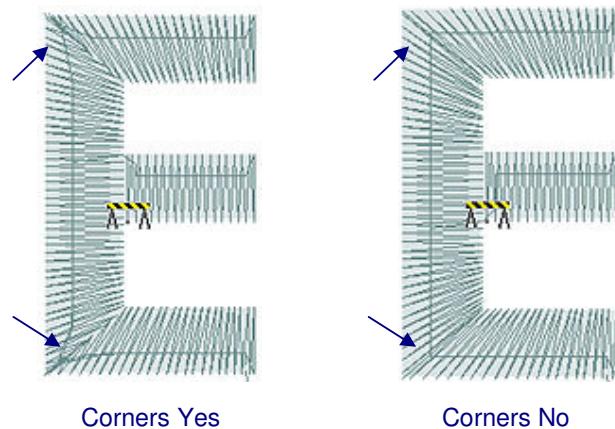


Figure 8.31: Corners

Compensation

With this numeric field, you can choose the width of the Zig-zag stitch based on the width of the outline in millimeters. For example, if you want the width of

the Zig-zag to be 0,5mm longer than the width of the outline, you should set the Compensation percentage to 0.5mm.

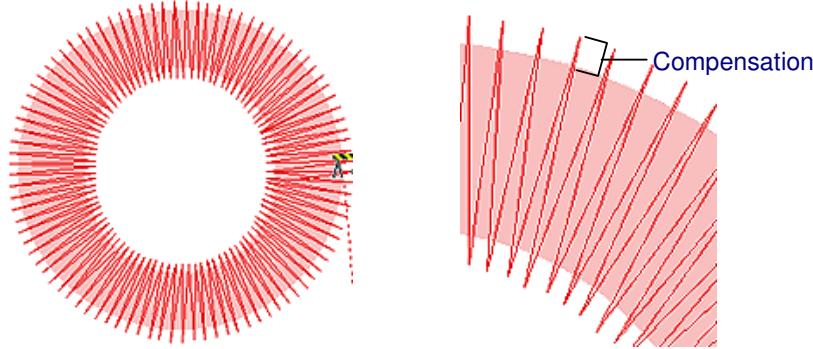


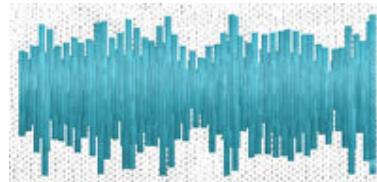
Figure 8.32: Compensation in Zig-Zag

Random width

With this numeric field you can specify the percentage of the random of the width of the zig-zag (Satin or Satin serial). Using this parameter, the length of the zig-zag stitches will be between the width of the outline and the width of the outline minus the percentage that you have specified.



Figure 8.33: 30% Random width

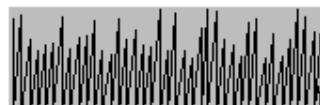


60% Random width

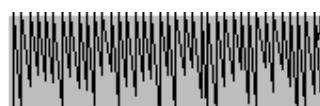
For example: If you have made an outline 4mm and the random factor is set to 20%, the length of the stitches of the zig-zag (Satin or Satin serial) will be between 3.2 and 4mm.

Direction of the random

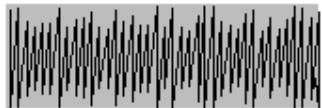
With these three icons you can specify whether the random stitches will be from both sides or which side they will be from. The choices that you have for random are:



Random only on the first side.



Random only on the second side.



Random on both sides.

Style selection:

By clicking on the white area on the right, you can view the styles that you can select. To choose one of these styles, click on it. If your roll up has been reduced and you can't see the style that you want, you can use the scroll bar on the right to find it. To add a new style you should click on the Style editor option from "Tools" menu.

**Style on**

By clicking on the white area to the right, you can see the available styles. To choose one of these styles, click on it. The options in this menu are:

First stitch	In this case the style will be on the first stitch of the zig-zag. The second will be a normal one, the third with style, the fourth normal and so on.
Both stitches	In this case the style will be on all the stitches of the zig-zag.
First+stretch	In this case the style will be only on the first stitch as before, but during scaling the style is not retained.
Both+stretch	In this case the style will be on all the stitches, but during scaling the style is not retained.

Pattern selection:

By clicking on the right side of this field, you can choose the type of the pattern that you want to use. To choose one of these patterns, click on its icon.



Length of pattern:

With this numeric field you can specify the length of the pattern to be used if you have selected the ceeding option for the pattern parameter. The length can be specified in millimeters.

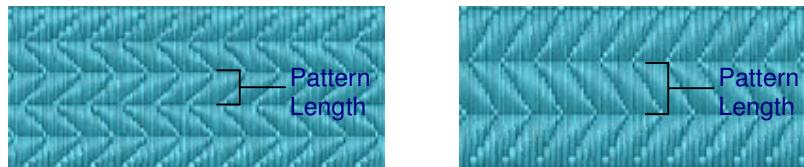


Figure 8.34: Length of pattern

The way that the pattern will be placed (Number of repeats)

You can specify the pattern used for the object. The options are the following:

- None: In this case there will be no pattern on the Zig-Zag.
- Ceeding: In this case the pattern will be placed on the Zig-Zag as many times possible depending on the defined pattern's "length".
- Fit 1-10: With these options you can specify how many times the pattern will be repeated on the Zig-Zag

Short/Long

In this logical field you can active or disable sort/long stitches the current object. The sort/long stitches are needed in case that there is steep change of the direction of the satin and there are not curve break nodes on the outlines.

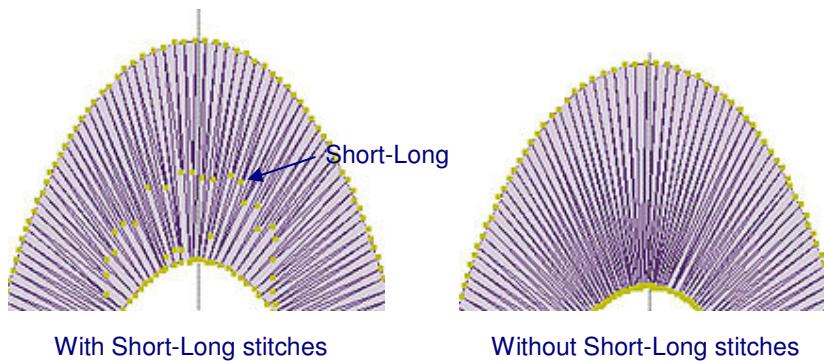


Figure 8.35: Short/Long Stitches

Half-pitch compensation

In case that this logical parameter is set as Yes the program will start placing the stitches after a half of thread thickness. This parameter is useful in creating high quality small Zig-Zag objects, for example small letters.

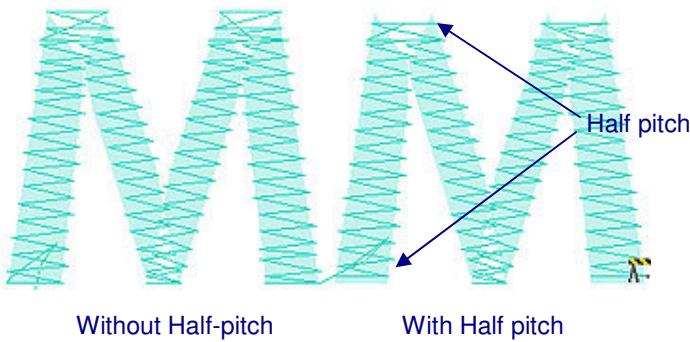


Figure 8.36: Half-pitch compensation in letters

In addition, half-pitch compensation is good to be applied because it manipulates also the thread thickness while embroidering. Therefore, the design that you are currently viewing on your screen will be embroidered as it looks like.

Variable pitch

The program will balance the density sensitivity when an object narrows in size according to the percentage you have set in this field.

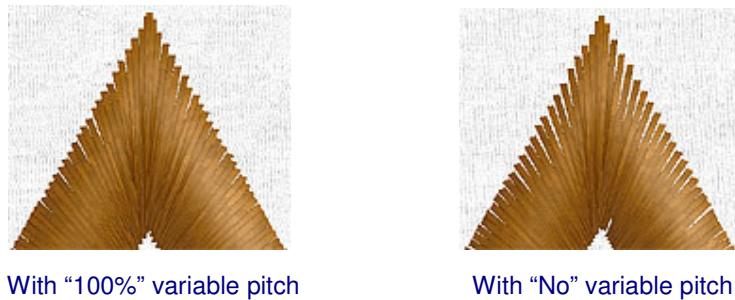


Figure 8.37: Variable pitch option

Spitz stitch

In case that this logical parameter is set as Yes the program will protrude an extra stitch when a Zig-Zag triangle is created. Its main functionality is to create high quality Zig-Zag corners.

Closest point

With this logical field you can specify if the starting point of the current object will be the closest point to the end point of the previous object. The starting point can also be changed from the horizontal toolbar or the clean up expert tool. This parameter reduces embroidering time and increases the embroidering efficiency. Also the connections between the objects are the

optimal that ensures better flow of the embroidery machine while embroidering.

Satin serial – F7

With satin serial stitch type you can add a punching object of satin stitches. In this case, a smooth curve connects the nodes that you are adding. As always you can edit the curve you have made, following the instructions shown in the edit punching nodes chapter. The most important thing in using satin serial is that you have to add a single curve made of nodes and the program creates a satin bar with constant width, following the curve you have punched. The parameters that you can change in this type of punching are:

- The **density**
- The **width** of the satin bar.
- The type of **underlay**.
- If there would be **fix and lock** stitches at the start/end of the objects.
- **Generate As**
- If **corners** should be made where needed.
- The **offset** of the satin serial.
- The percentages of the **random** width
- The **direction of random**
- **Style** selection.
- In which stitch the **style will be**
- The way that the pattern will be placed (Number of repeats).
- **Pattern** selection.
- **Length** of pattern.
- If **Sort/Long** stitches should be made where needed.
- If **Half-pitch compensation** should be made at the beginning and the end of the satin bar.
- The **Side change** of satin.
- The **Variable pitch**.
- The **Spitz stitch** of satin.
- The **Closest point** connection of the current object.

Each time you click on a punching object, the object properties roll up changes to reflect the parameters of it.

Density

With this numeric field you can specify the density of the Satin serial stitches that you are adding.

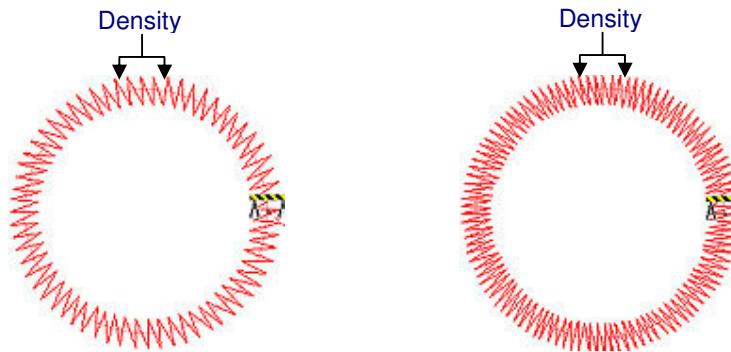


Figure 8.38:

Density 0.5mm

Density 0,3mm

Width

In this field you can specify the width of the satin serial in mm.

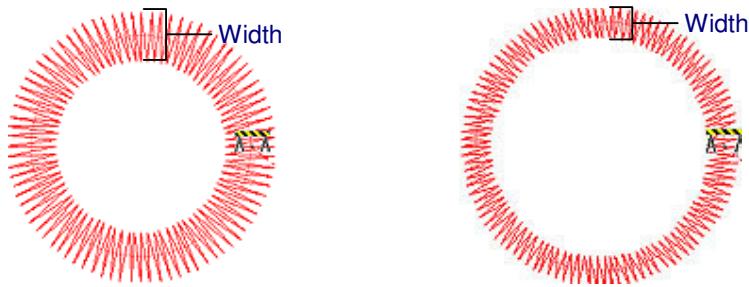


Figure 8.39:

Width 2mm

Width 1mm

Underlay

With the next field you can select the underlay you want to use. To select or change the underlay you have to click on this field and select one of the following types:

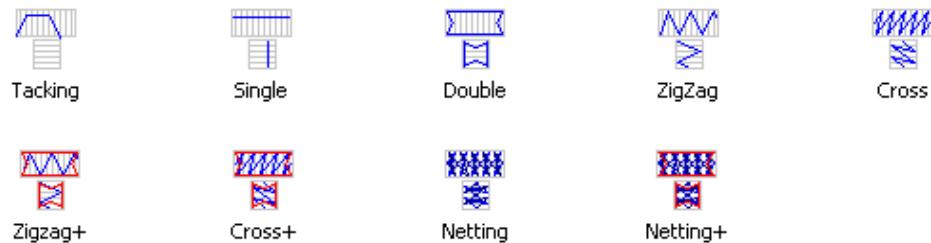


Figure 8.40: Satin serial underlay options

Fix & Lock stitches

With this parameter you can specify whether the program will lock the stitches at the start or end of the selected objects. The lock stitches are small stitches that keep the thread from unraveling off the fabric. If you want to change this option you should click on this field and on the following menu select one of the available options:

None	In this case there will be no lock stitches at the start or end of the selected objects.
Fix	In this case the lock stitches will be placed at the beginning of the selected objects.
Lock	In this case these stitches will be placed at the end of the selected objects.
Fix&Lock	In this case these stitches will be placed at both the beginning and the end of the selected objects.

Generate As

With this option you can generate Satin serial in two possible ways, Satin and Zig-Zag. The “Satin” option will produce Satin serial with Satin stitches and the “Zig-Zag” option will produce Satin serial with Zig-Zag stitches. You can apply this option either by activating the one you prefer before creating the Satin serial object you prefer, or by selecting any existing Satin serial object and changing the “Generate As” option.

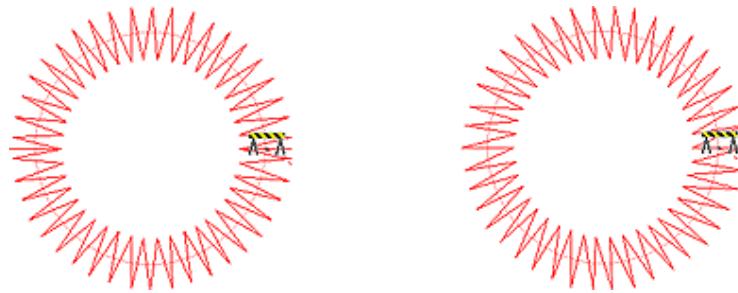


Figure 8.41: Satin Serial As Zig-Zag

Satin Serial As Satin

Corners

In this field you can active or disable the corners on the current object. The corners are needed in case that there is steep change of the direction of the Satin serial and there are curve break nodes on the outlines. The corners that would be made depends on the shape of the outlines.

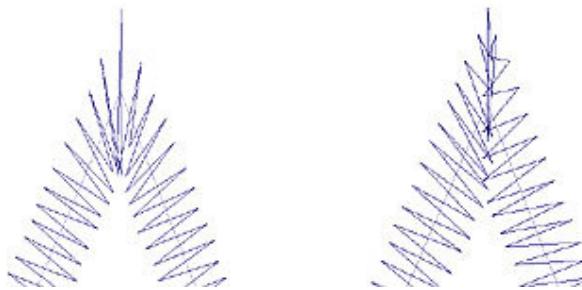


Figure 8.42:

Corners "No"

Corners "Yes"

Offset

In this numeric filed you can specify the distance of the punched curve from the center of the satin serial. This tool is very useful in case that the satin serial is a border of another object (e.g. step).

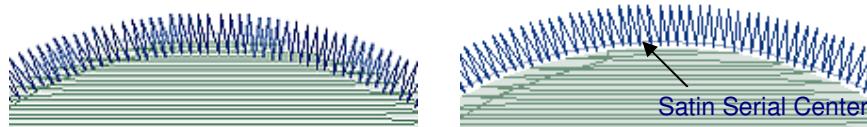


Figure 8.43:

Without offset

With 0.7mm offset

The “offset” values can be either positive or negative and the movement of the offset can be either under or over the center of the satin serial according the embroidering direction.

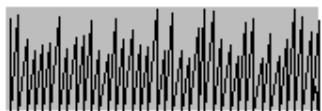
Random width

With this scroll bar you can specify the percentage of the random of the width of the Satin serial (Zig - Zag or Satin). Using this parameter, the length of the Satin serial stitches will be between the width of the outline and the width of the outline minus the percentage that you have specified.

For example: If you have made an outline 4mm and the random factor is set to 20%, the length of the stitches of the Satin serial (Zig - Zag or Satin) will be between 3.2 and 4mm.

Direction of the random

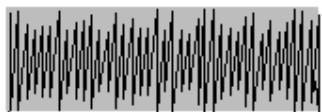
With these three icons you can specify whether the random stitches will be from both sides or which side they will be from. The choices that you have for random are:



Random only on the first side.



Random only on the second side.



Random on both sides.

Style selection:

By clicking on the white area on the right, you can view the styles that you can select. To choose one of these styles, click on it. If your roll up has been reduced and you can't see the style that you want, you can use the scroll bar on the right to find it. To add a new style you should click on the Style editor option from Tools menu.



Style on

By clicking on the white area to the right, you can see the available styles. To choose one of these styles, click on it. The options in this menu are:

First stitch	In this case the style will be on the first stitch of the zig-zag. The second will be a normal one, the third with style, the fourth normal and so on.
Both stitches	In this case the style will be on all the stitches of the zig-zag.
First+stretch	In this case the style will be only on the first stitch as before, but during scaling the style is not retained.
Both+stretch	In this case the style will be on all the stitches, but during scaling the style is not retained.

The way that the pattern will be placed (Number of repeats)

You can specify the pattern used for the object. The options are the following:

- None: In this case there will be no pattern on the satin serial.
- Ceeding: In this case the pattern will be placed on the Satin serial as many times possible depending on the defined pattern's "length".
- Fit 1-10: With these options you can specify how many times the pattern will be repeated on the satin serial.

In order the pattern to be visible on the Satin serial you have to increase the width of it.

Pattern selection:

By clicking on the right side of this field, you can choose the type of the pattern that you want to use. To choose one of these patterns, click on its icon.



Length of pattern:

With this numeric field you can specify the length of the pattern to be used if you have selected the ceeding option for the pattern parameter. The length can be specified in millimeters.

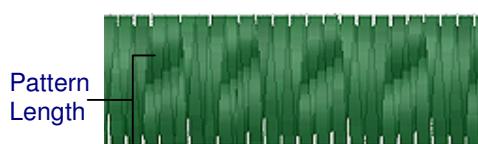
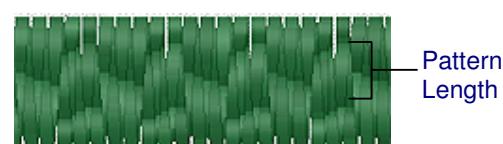


Figure 8.44: Length of pattern 3mm



Length of pattern 1,5mm

Short/Long

In this field you can active or disable sort/long stitches to the current object. The sort/long stitches are needed in case that there is steep change of the direction of the Satin serial and there are not curve break nodes on the outlines.

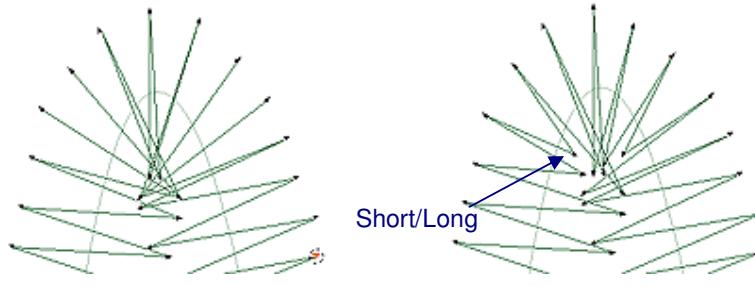


Figure 8.45: Short/Long "No"

Short/Long "Yes"

Half-pitch compensation

In case that this parameter is set as Yes the program will start placing the stitches after a half of thread thickness. This parameter is useful in creating high quality small Satin serial objects.

Side changes

In case that this parameter is set as Yes the program will create the longest stitch in the current Satin serial object. Its advantage is that produces automatically thicker Satin serial embroidery results without increasing the number of stitches.

Variable pitch

The program will balance the density sensitivity when an object narrows in size according to the percentage you have set in this field.

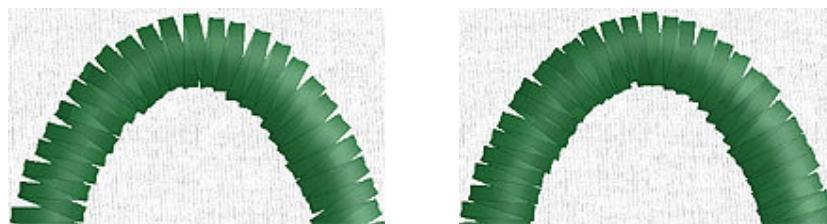


Figure 8.46: With "No" Variable pitch

With 100% Variable pitch

Spitz stitch

In case that this parameter is set as Yes the program will protrude an extra stitch when a Satin serial small angle corner is created. Its main functionality is to create high quality Satin serial sharp changes of direction.

Closest point

With this logical field you can specify if the starting point of the current object will be the closest point to the end point of the previous object. The starting point can also be changed from the horizontal toolbar or the clean up expert tool. This parameter reduces embroidering time and increases the embroidering efficiency. Also the connections between the objects are the optimal that ensures better flow of the embroidery machine while embroidering.

Piping – F8

With piping stitch type you can add a punching object of piping stitches. In this case, a smooth curve connects the nodes that you are adding. As always you can edit the curve you have made, following the instructions shown in the edit punching nodes chapter. The most important thing in using piping is that you have to add the node points in pairs just like satin or Zig-Zag. The program automatically adds the direction of stitches which connect a pair of nodes. The direction of the stitches can be edited independently of the node placements.

The parameters that you can change in this type of punching are:

- The **density**
- The **length**
- If there would be **fix and lock** stitches at the start/end of the objects.
- If the stitch type will be **Chain/Loop**
- The percentage of the **random**.
- Gradient
- **Pattern** selection.
- The way that the pattern will be placed (Number of repeats).
- **Style** selection.
- If **Short/Long** stitches should be made where needed.
- The **Closest point** of the current object.

Density

The density parameter (which is a numeric field) specifies the distance between the lines of stitches of the piping. The number of this field shows the distance between one line of stitches and the line after its next, as you can see on the following Figure 8.47.

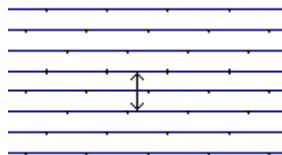


Figure 8.47: Piping density

Length

The length parameter (which is a numeric field) specifies the length of every stitch of the step. The length of the stitches counts in millimeters.

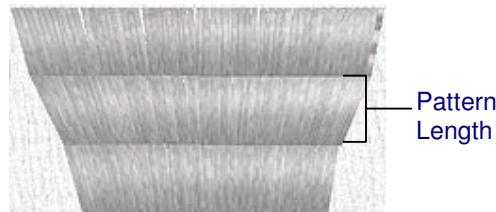


Figure 8.48: Piping length

Fix & Lock

With this parameter you can specify whether the program will lock the stitches at the start or end of the selected objects. The lock stitches are small stitches that keep the thread from unraveling off of the fabric. If you want to change this option you should click on the area to the right (where you see the word <Fix&Lock>). On the following menu there are four options for this parameter:

None	In this case there will be no lock stitches at the start or end of the selected objects.
Fix	In this case the lock stitches will be placed at the beginning of the selected objects.
Lock	In this case these stitches will be placed at the end of the selected objects.
Fix&Lock	In this case these stitches will be placed at both the beginning and the end of the selected objects.

Chain/Loop

By enabling this logical parameter, the digitized area will be made with Chain/Loop. That means that the stitches will be placed in such a way that they make circles, following the shape of the outline.

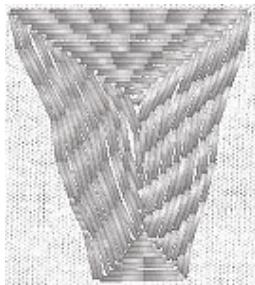


Figure 8.49: Chain/Loop

Random

This numeric field allows you to randomize the length of the piping stitches. With the entered value in the field, you can specify the percentage of stitch randomness in the selected or new punching object.

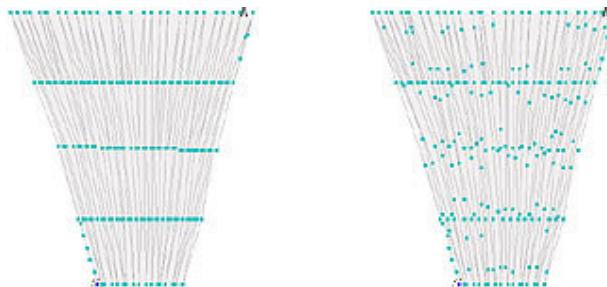


Figure 8.50: Piping Random 0%

Piping Random 30%

Example: if you will specify 20% random and the stitch length is 3 mm, all the stitches of this object will be between 2.4 to 3mm. Even if you are using the random parameter, the maximum stitch will not be longer than the stitch length which you have specified.

Gradient

With this numeric field you can make a Piping which has different density at the beginning compared to the end, and it indicates the percentage change of the density. In the field you can specify the percentage of the difference between the start and finish of the step.

Example: If you specify the gradient parameter as 100% and the starting density of Piping is 0.50 mm, the density at the end of the object will be 1.00 mm.

The way that the pattern will be placed (Number of repeats)

In this field you can specify the way that the selected pattern will be applied on the current object. You can specify how many times the pattern will be repeated on the piping object from the “Pattern fit” jump menu of the object properties toolbar. For example if you have selected the Fit 4 option the selected pattern will be shown 4 times on the current piping object.

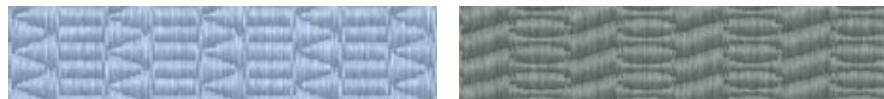


Figure 8.51: Pattern Fit

Pattern selection

Patterns are the shapes that are created in piping with the needle penetrations.

On the window coming up when you click on the area to the right (shows simple), you can see the icons of the available patterns. To choose one of these patterns, click on it. If the pattern you are searching is not visible in the window you can use the scroll bar on the right side to scroll through the icons.

For every pattern you have selected the program automatically changes the density and the stitch length of the piping in order to show with the best way the selected pattern.

Style

By clicking on the white area on the right, you can view the styles that you can select. To choose one of these styles, click on it (Figure 8.52). If your roll up has been reduced and you can't see the style that you want, you can use the scroll bar on the right to find it. To add a new style you should click on the Style editor option from Tools menu.



Figure 8.52: Style

Short/Long

This logical parameter has to do with the stitches that will pass from the thick or narrow parts of the created piping.

If you want to keep the same density in all parts of the piping you should enable this parameter. With this way there will be less stitches passing from the narrow parts of the piping and more stitches from the thick parts.

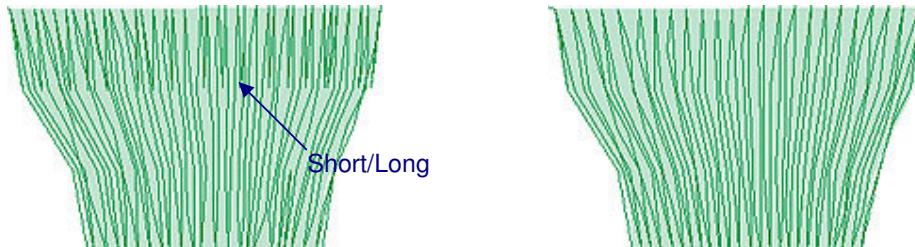


Figure 8.53: With short/Long

Without Short/Long

If this parameter is disabled, the same number of stitches will pass from all the parts of piping. Therefore in some narrow parts, there may be too many stitches passing and the quality of the result may not be the expected one. On the other hand if this parameter is disabled, the piping gets a 3D look.

Closest point

With this logical field you can specify if the starting point of the current object will be the closest point to the end point of the previous object. The starting point can also be changed from the horizontal toolbar or the clean up expert tool. This parameter reduces embroidering time and increases the embroidering efficiency. Also the connections between the objects are the optimal that ensures better flow of the embroidery machine while embroidering.

Photo stitch – F9

With Photo-stitch type you can add a punching object of Photo-strokes. The program automatically recognizes the graduation of colors of any backdrop image and sets fill stitches on it. The fill stitches are satin bars that cover the backdrop image area.

The parameters that you can change in this type of punching are:

- **Width** of the satin bars
- Starting **density** of the satin bars
- The **Negative** function
- **Compensation**
- The **Gamma** function



Figure 8.54: Actual Photo

Filled with Photo-strokes

Width of the satin bars:

With this parameter you can adjust the width of satin bars.

Starting density of the satin bars:

With this parameter you can adjust the density of the satin bars that cover the backdrop image.

Negative

With this parameter you can invert Photo-strokes and get the opposite results. If the logical value is Yes, the Satin bars that cover the image area, are becoming thicker.

Compensation:

With this parameter you can choose the percentage of the width of the satin stitch bars based on the width of the outline.

Gamma

With this parameter you can adjust the brightness of midtone stitches produced in photo-stitch. The lower limit of the gamma value is 0.5 and the

upper limit is 4.5. Therefore the values that the gamma parameter can take are between those limits.

Cross Stitch – F10

With this stitch type you can add an object made of cross stitches. When the Cross stitch type is selected and you have clicked on the digitizing tool of the “Modes” toolbar, the mouse becomes as pencil. With click and drag with the pencil you can select the area (rectangle) that will be covered with cross stitch.

The parameters that you can change in this type of punching are:

- The **Width** of the cross stitches.
- The **Height** of the cross stitches.
- If there would be **Fix/Lock** stitches at the start/end of the objects.
- The **repeats** that you want.
- If **Short/Long** stitches will be made.
- **Closest point**

Cell width

With this numeric field you can specify the width of the cross stitches. When the cross stitch area (rectangle) is set, this number specifies how many crosses will be placed horizontally. The smaller the number the more the cells that will be placed.

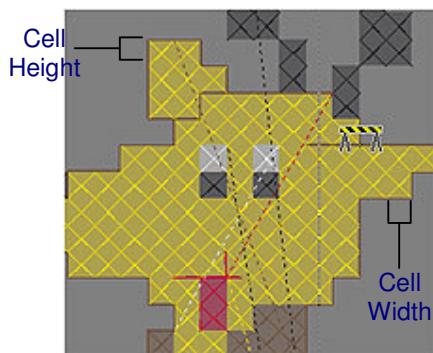


Figure 8.55: Cross-stitch cell width and height

Cell height

With this numeric field you can specify the height of the cross stitches. When the cross stitch area (rectangle) is set, this number specifies how many crosses will be placed vertically. The smaller the number the more the cells that will be placed.

Fix & Lock stitches

With this parameter you can specify whether the program will lock the stitches at the start or end of the selected objects. The lock stitches are small stitches that keep the thread from unraveling off the fabric. If you want to change this option you should click on this field and on the following menu select one of the available options:

None	In this case there will be no lock stitches at the start or end of the selected objects.
Fix	In this case the lock stitches will be placed at the beginning of the selected objects.
Lock	In this case these stitches will be placed at the end of the selected objects.
Fix&Lock	In this case these stitches will be placed at both the beginning and the end of the selected objects.

Repeats

With this numeric field you can specify how many stitches will be needed for every cross stitch. Therefore if you set the “Repeats” to be one, the cross-strokes will be embroidered only once. In any other case the times that the cross-strokes will be embroidered will be equal with the number of repeats you have set.

Short /Long

This logical field is relative with the number of repeats. If there are more than one repeats set, the “short/long” field will specify if the stitches after every repeat will be placed on the same position or not. If this parameter is enabled, the stitches having the same direction will not have the same length.

Closest point

With this logical field you can specify if the starting point of the current object will be the closest point to the end point of the previous object. The starting

point can also be changed from the horizontal toolbar or the clean up expert tool. This parameter reduces embroidering time and increases the embroidering efficiency. Also the connections between the objects are the optimal that ensures better flow of the embroidery machine while embroidering.

Presets

Each stitch type has many parameters that can take many different values. Setting and remembering the optimal values of each stitch type is difficult for everyday usage. For this reason eXperience has the ability to create presets for each stitch type that can be loaded instantly saving you time adjusting the parameters from the start. You can do that by adjusting the parameters of a stitch type and then right clicking on the "Object Properties" toolbar in the "Options" tab and from the popup menu selecting the "Add Preset" option. In the dialog box that will appear, just name the preset and click "Ok".



Figure 8.56: Add presets dialog

Now you can use the preset by right clicking on the Object Properties toolbar in the Options tab and from the popup menu select "Presets" or by clicking the preset name, shown at the end of the popup menu.



Figure 8.57: Load presets

Moreover in **Punching mode**, you can select the preset you want by pressing "E" key or the asterisk '*' key (from the numeric keyboard) and in the following dialog select the preset with single click or by typing the number of the preset you wish to use.

Remember that each stitch type has its own presets. You can make as many presets as you wish. The presets are saved in the design you are currently work. If you want the presets you have created to be available in any design, you have to create a Template that will contain all the presets in. Therefore every time you are creating a new design using this template, all the presets will be available to the new design.

Also the presets can be merged in any design from the menu "File>Merge..."

9

Tools

Introduction

In this chapter you can learn how to use some helpful tools of eXperience in order to create styles, patterns and effects. In addition, we will describe how you can insert and create clipart designs that can enrich your embroidery designs with ready made designs. Also, we will analyze how you can insert automatically border in the embroidery designs, how you can make Venere cuts and increase the quality of the embroidery by using the cleanup expert tool.

Style stitches

Style in eXperience means a way of movement from one point to another, which normally can be done by one stitch. The style stitches usually form shapes that can be applied on different stitch types. There are two ways to

create Styles inside eXPerience, by using the “Style Editor” or by creating a design normally and the saving it as style.

Style editor

The “Style stitches” option of “Tools” menu gives you the ability to open the “Style editor” and create styles.

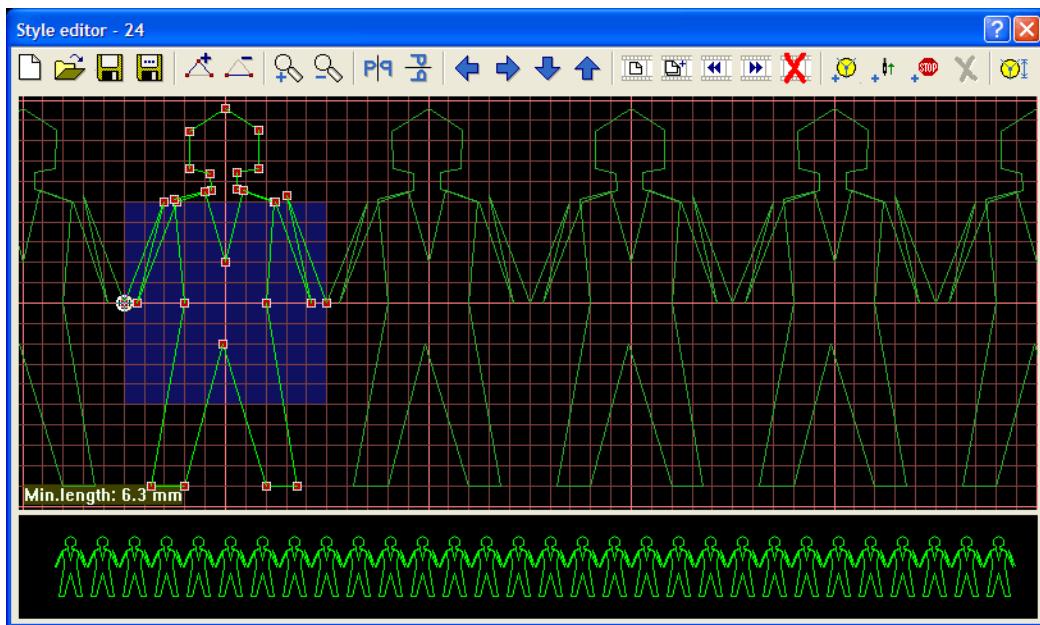


Figure 9.1: Style editor

The Toolbar of “Style Editor” dialog, shown above has the following buttons:

	By pressing this button you can create a new Style. In case that there is an unsaved style the program will ask if you want to save it or not.
	By pressing this button you can load an existing Style. In case that there is an unsaved style the program will ask if you want to save it or not. On the following dialog by clicking on a style you can select it and by pressing the “OK” button you can load it.
	By pressing this button you can save the current Style. In case that the Style was never saved before, the program automatically calls the "Save as" dialog.
	By pressing this button you can save the current Style with a new name. In the following dialog you have to specify the name of the Style. By pressing the OK button the style will be saved under the name you have

	chosen.
	<p>By pressing this button you can add a stitch in the current style. The stitch will be added right after the selected one.</p> <p>By pressing the "Insert" button from the keyboard also activates the add stitch operation.</p> <p>To stop adding stitch points you have to "Right click" once.</p>
	<p>By pressing this button you can delete the selected stitch. Pressing the "Delete" button from the keyboard also activates the delete stitch operation.</p>
	<p>Using this tool you can zoom-in your view to a portion of a Style designer. First you have to click on this tool and the mouse cursor becomes a magnifying glass. After that you have to click on a point and drag the mouse holding the left button. The area that you mark will be the new view port.</p> <p>Clicking the right mouse button on the style designer area also invokes the zoom-in operation.</p> <p>To Zoom-in in the style editor you can use, also, the mouse wheel.</p>
	<p>Using this option you can zoom-out your view of the current design. The new view port will be the same as it was before the last zoom-in.</p> <p>Double clicking the right mouse button on the style designer area also activates the zoom-out function.</p> <p>To Zoom-out in the style editor you can use, also, the mouse wheel.</p>
	<p>Using this option you can mirror the style that you have created, horizontally. In this case the sequins of the stitches will be changed as well.</p>
	<p>Using this option you can mirror the style that you have created, vertically.</p>
	<p>By pressing this button, all the nodes of the style (except the first and the last one) will be moved one point (half of the grid) to the left.</p>
	<p>By pressing this button, all the nodes of the style (except the first and the last one) will be moved one point (half of the grid) to the right.</p>

	By pressing this button, all the nodes of the style (except the first and the last one) will be moved one point (half of the grid) down.
	By pressing this button, all the nodes of the style (except the first and the last one) will be moved one point (half of the grid) up.
	Adds a “New frame” to the Style. The new frame continues from the previous one, allowing you to have series of different styles in a single style. Any style that includes frames it is shown in the styles list to be inside a film(.
	By selecting this option the current style frame will be duplicated. You can move between frames by using “Select Next” and “Select Previous” frames.
	With “Select Previous frame” option you can move to the previous frame of the style.
	With “Select Next frame” option you can move to the Next frame of the style.
	With “Delete frame” option you can delete the current frame. You must be careful when you delete a frame because you might lose valuable work.
	With this option you can add a “Sequin” on the selected stitch (current stitch). Inside Style editor you can create styles with more than one sequins.
	With this option you can add “Needle Up” special function on the current/selected stitch. This option allows you to create styles that will include jump-stitches, which are very useful when you want to create Frill designs.
	With this option you can add “Stop” special function on the current/selected stitch.
	This option becomes available only when the current/selected stitch has a special function (Needle up, Sequin or Stop) applied. By selecting this option you can remove the special function that is applied on the

	current/selected stitch.
	With this option you can select the shape, the color and the proportional size of the sequins you have added. With the "Sequin size (%)" percentage value you can define the proportion of stitch length (that you will set on "Object properties" toolbar) that will be covered from the Sequin's radius. For example: if you set the "Sequin size (%)" to 50 and the stitch length to 5mm, you can apply 5mm size sequins that will be one next to the other (sequins will osculate).
	By clicking on this button you can close "Style editor". The software automatically will ask you if you want to save the style or not. Another way to exit the dialog is by pressing the "Esc" key from the keyboard.

When you open a style inside style editor or you create a new one, you can edit it by using the available tools. You can also edit the current style by using the mouse. To select a stitch, you have to click on the start and ending points. With click and drag you can move the selected stitch to different position.

For any change you are making on the style, you can see how the style will look like on the preview area at the bottom of the "Style editor" window.

On the left bottom side of the editing area, you can see the "Minimum stitch length" that you can specify when you are using this style. This number depends on the length of the style stitches and the "Internal tidy-up" parameter of the design that you are going to use the specific style. This is the suggested length parameter that you should use when the current style will be selected from the "Object properties" roll up. In case that this number is big, it means that by mistake one or more stitches are very small and the length should be long enough to avoid small stitches (zero length stitches).

Also, at the left bottom side you can view the "Current frame" of the style. This is very useful when you are creating styles with many frames and you want each time to know the exact frame you are editing.

When you are creating styles with sequins it is important to remember that the "Style editor" is based on 5mm sequin size. Therefore based on 5mm sequin size you can proportionally set the dimension of the sequins you will use from "Sequins size"  dialog.

Using style editor

Style editor is a complex tool with many abilities in creating unique styles that can be used in many different stitch types. All the styles are available to all stitch types that support styles.

In the following three sections we will analyze how to create a new style stitch, how to create a complex style stitch and how to edit an existing style stitch.

Create style stitch

In order to create a new style stitch you have to follow the steps below.

1. Select “Tools” menu “Style Stitches” option to open the “Style Editor” window.
2. Create a design using the “Insert”  and “Delete Point”  tools. You have to insert the stitch points exactly in the way that will be embroidered.
3. Click on the “Insert”  button and start inserting stitch points by left clicking on the position you want.

The “Blue reference area” is the target section of the frame in the stitch design but you can exceed the boundaries of it if you want. By inserting stitch points outside the Blue reference area you can create complex patterns. Notice the Preview Screen at the bottom that displays how the style will look like when will be repeated.

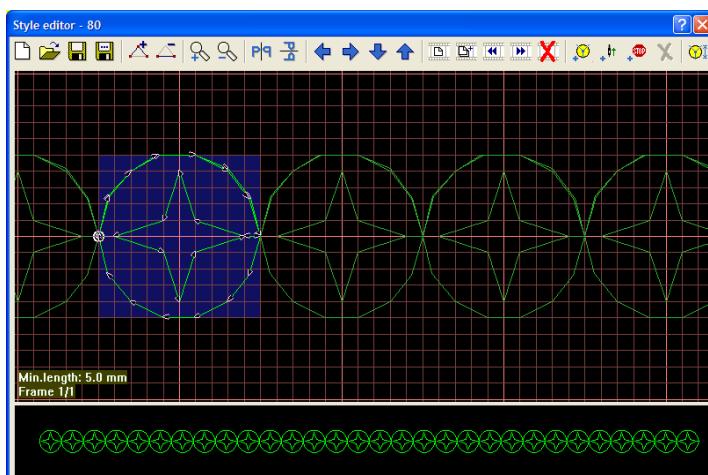


Figure 9.2: Create style stitches

4. After finishing the creation of style, click on the  “Save” or  “Save As” icons. On the dialog box that will appear type the name you want the Style to have and click “Ok” button.
5. The saved style will be added in the “Style” option of “Object Properties” roll-up.
6. You can verify the style stitch by adding some running stitches on the working area and then selecting the style from the “Style” option of “Object Properties” roll-up and use it on the design.

Create a complex style stitch (film)

To create a complex style stitch (film) in the “Style editor” you have to follow the steps below:

1. Select “Tools>Styles Stitches” to open the “Style Editor” window.

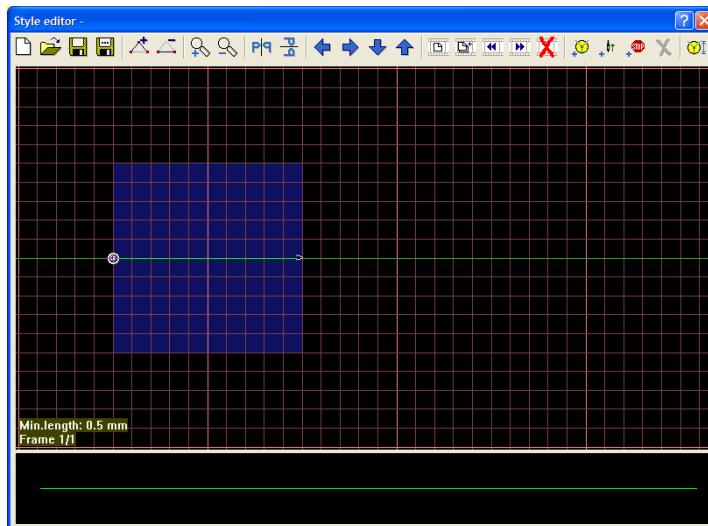
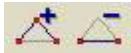


Figure 9.3: Step 1

2. Create a rectangle design using the  “Insert” and “Delete Point” tools. The Blue Reference Area is the target section of the frame in the stitch design. Notice the Bottom Preview Screen that displays how the design will look like.

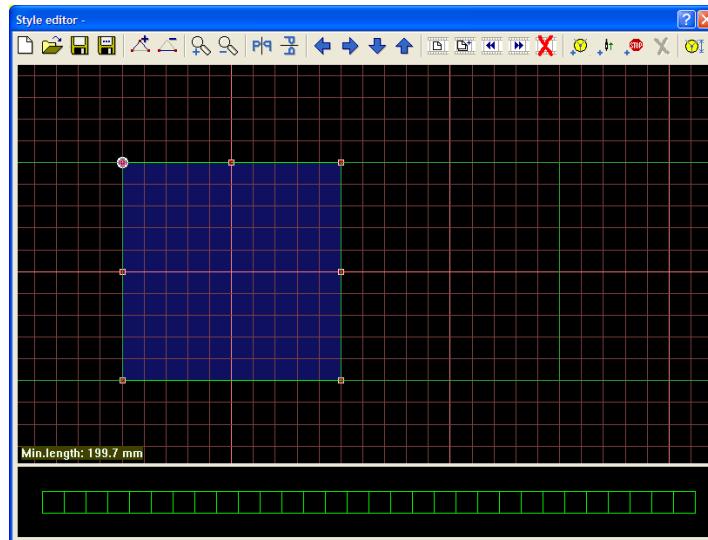


Figure 9.4: Step 2

3. Click the “New Frame” Icon three times. This will create three new frames. Now click on the “Previous” frame icon one time. This will position the Blue Reference area into the center space. View the Preview area at the bottom. Notice the spacing has changed from the previous example. The spacing is helpful in distinguishing the styles between them.

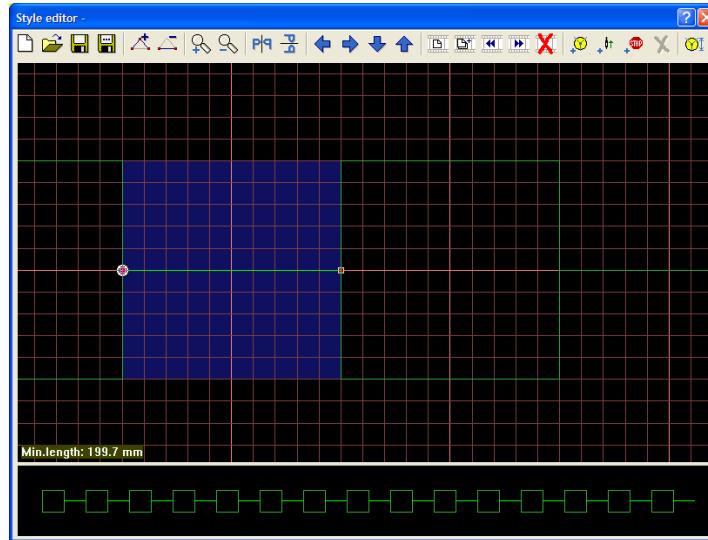


Figure 9.5: Step 3

4. The next style stitch that we will add is a “STAR”. Start inserting the points that will create the star using the “Insert point” tool and create the star shown below (Figure 9.6).

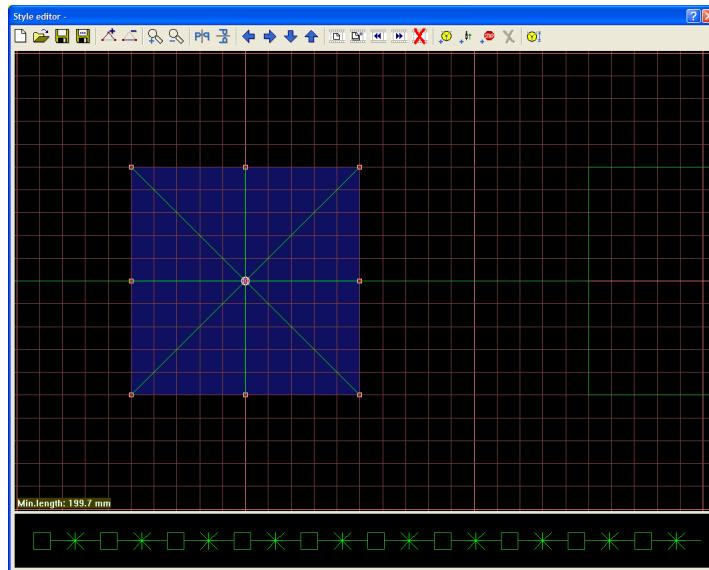


Figure 9.6: Step 4

5. When you finish creating the star, click the “New Frame” icon two times.
6. Select the “Previous Frame Icon”. And start creating a “Diamond” design like the one shown below (Figure 9.7).

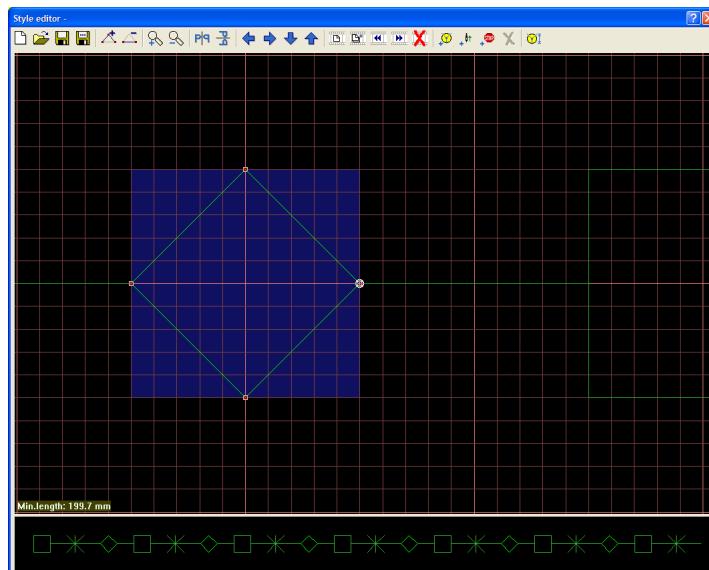


Figure 9.7: Step 6

7. Now the sequence of style stitches (film) is ready. In order to be available any time that will be needed we must save it by clicking on the “Save” or “Save As” icons. On the dialog box that will appear type the name you want the film to have and click “Ok” button.

8. You can verify the style stitch by adding some running stitches on the working area and then selecting the style from the “Style” option of “Object Properties” roll-up and use it on the design.

Create a Frill style stitch

In order to create a Frill style stitch you have to follow the steps below:

1. From “Tools” menu select “Style Stitches” option to open the “Style Editor” window.

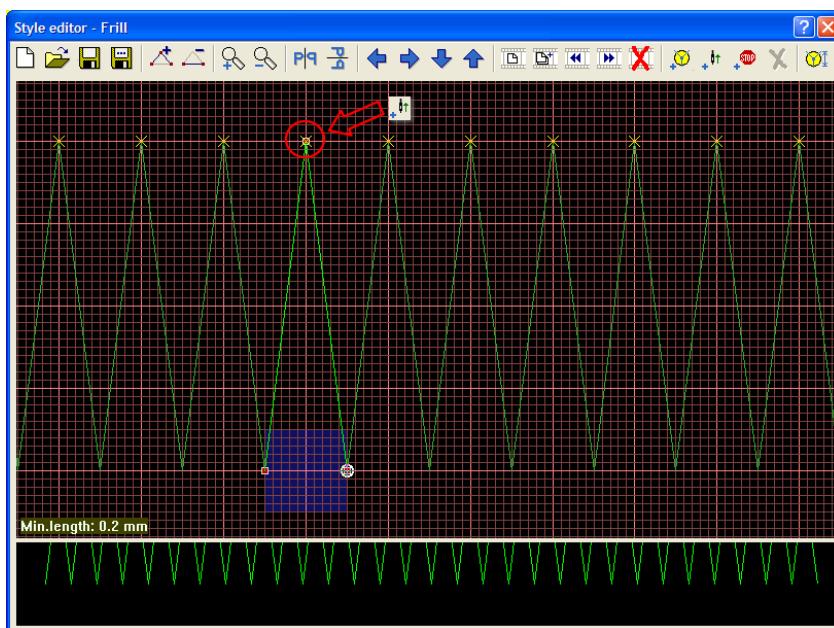


Figure 9.8: Frill style stitch

2. Create a style design by clicking the “Insert” option adding one stitch point as it is shown in the image above. You have to insert the stitch point $3 \frac{1}{2}$ square far from the first stitch point (or more according the frill folding you want to get), to force the mechanism drag the frill out.
3. On the inserted stitch point apply the “Needle up” Special function that will force the machine to make a jump-stitch instead of applying the stitch on the fabric. Together with the jump-stitch a portion of the frill will be dragged out. To do that, right click once to end the addition of stitches, select the stitch and then click on the “Needle up” icon.
4. When the ending stitch will be applied, at the end of the “Blue reference area”, the frill will be folded and produce the needed embroidery result.

5. After finishing the creation of style, which is very simple, click on the  “Save” or  “Save As” icons. On the dialog box that will appear type the name you want the Style to have and click “Ok” button.
6. The saved style will be added in the “Style” option of “Object Properties” roll-up.
7. You can verify the style stitch by drawing a spiral with Running stitches on the working area and then selecting the style from the “Style” option of “Object Properties” roll-up and use it on the design.
8. You will end up with a frill design ready to be embroidered.
Important: When you are creating frill designs, make sure that the thread carrier you are using (each color number on the Special functions toolbar represents a thread carrier) is the same with the thread carrier you have applied the Frill mechanism.

Create a style stitch with sequins

Inside “Style editor” you have the ability to create styles with sequins that you can apply to fill objects with various stitch types. To create styles with Sequins you have to follow the steps below:

1. From “Tools” menu select “Style Stitches” option to open the “Style Editor” window.

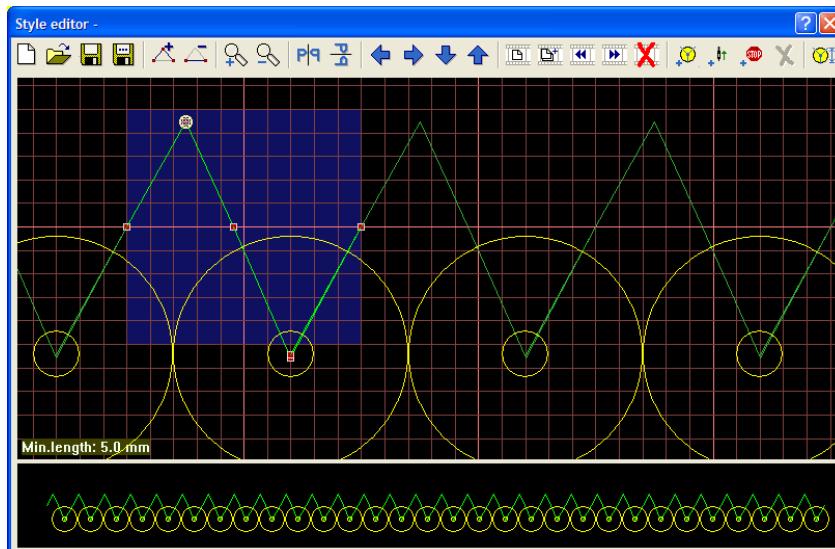


Figure 9.9: Sequin style stitch

2. Start drawing the style design you want by clicking the “Insert” option and adding stitch points on the “Blue reference area”.

3. At the position where you want the sequin to be added, you have to “Right click” once to end adding stitches.
4. Select the stitch by clicking on it and click the “Sequin”  option from the toolbar. The sequin will be added on the specific stitch.
5. By keeping the same stitch selected click the “Insert”  option and add the holding stitches in the way you want to be applied.
6. Then continue by drawing the rest style.
7. When you are ready Right click once to end the process.
8. If you want you can add more Sequins by selecting a stitch point and then clicking on the “Sequin” option.
9. After finishing the creation of style, click on the  “Save” or  “Save As” icons. On the dialog box that will appear type the name you want the Style to have and click “Ok” button.
10. The saved style will be added in the “Style” option of “Object Properties” roll-up.
11. You can verify the style stitch by drawing a shape with Running or any other stitches on the working area and then select the style from the “Style” option of “Object Properties” roll-up. The style will be automatically applied on the design.
12. By adjusting the Density and Length you can get the desired embroidery results.

Edit a style stitch

In order to edit an existing style you have to follow the steps listed below.

1. Select “Tools>Styles Stitches” to open the “Style Editor” window.
2. Click on the “Load” button. The “Select style” window will appear.

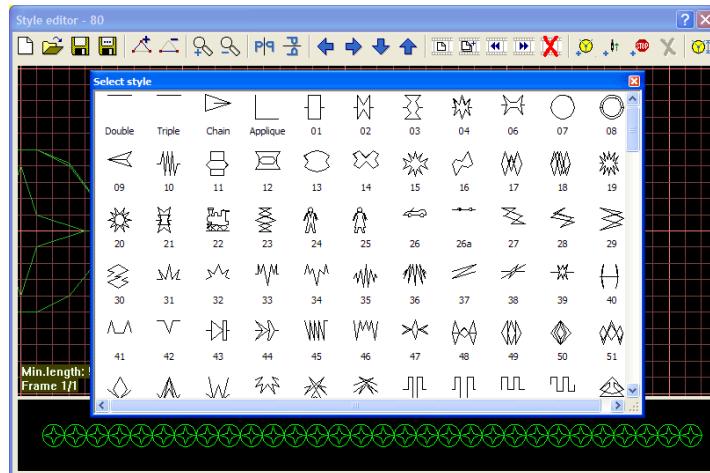


Figure 9.10: Edit styles

3. Select the style you want to edit by simply clicking on it.
4. The style appears in the “Style editor” where you can make any adjustments you want, using the tools from the toolbar of “Style editor”.
5. When you finish editing the style design click on the “Save”  button to save changes you made on the design.
6. You can verify the style stitch by adding some running stitches on the working area and then selecting the style from the “Style” option of “Object Properties” roll-up and use it on the design.

Design to Style

Inside experience you have the ability to save a simple design you have created as a style. You can create any simple design with any stitch type and save it as a style by selecting it and then selecting the “To style” option from the right click menu. The “Save as” dialog will appear, where you can specify the name you want the style to have. By clicking ‘OK’ the style will be automatically added to the “Styles” option list of “Object properties” toolbar. From there you can apply it to any design you want.

Also, if you want to edit the style more, you can open it inside the style editor and make any changes you want.

Important tip: To get better embroidery results when you are saving a design as a style you have to do some editing first.

- Remove any Underlay that the design might have from “Object properties” toolbar. Styles do not have underlay.
- Remove Fix and Lock stitches if any applied on the design from “Object properties” toolbar
- Change “Entry” and “Exit” points of the design to be from middle left to middle right side. This is important because this is the way the style is applied on a specific object.
- Check for zero length stitches and delete them. Zero length stitches produce errors to the style and in general to the embroidery result.

Convert a symbol to Style

It is very easy to save a symbol as a style. To do that you have to follow the steps below:

1. Select “Running” stitch type from “Object properties” toolbar.
2. Click on “Digitize” tool from “Modes” toolbar to the left to start digitizing process.
3. Press the ‘T’ character from the keyboard to activate the “New Char” dialog that will allow you to enter a specific symbol on the working space filled with running stitches.

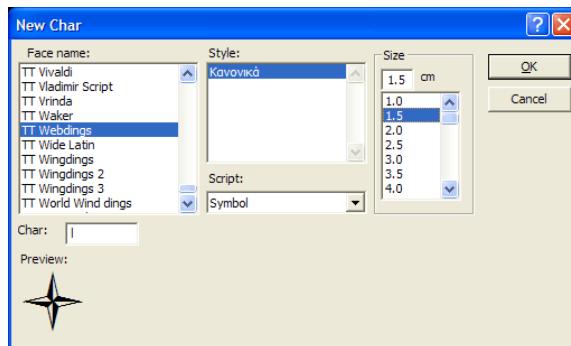


Figure 9.11: Edit styles

4. Select the “TT Webdings” from the Face name (Font symbol) list.
5. Type ‘I’ character in the “Char” field. A star symbol will appear in the preview area.
6. Click ‘OK’ to apply.

7. Click once on the working area and the star symbol will appear filled with Running stitches. Right click two or three times (depends on the level of the software) to end digitizing process.
8. Change the symbol size to be appropriate for a style.
9. Set “Fix/Lock” option from “Object properties” to “None”.
10. Change “Entry” point by selecting the objects and then the “Move entry point” option from standard toolbar. The cursor will change to a cross. Click at the middle left side of the star symbol to set the new entry point.
11. Change “Exit” point by selecting the object and the “Move exit point” option from standard toolbar. The cursor will change to a cross. Click at the middle right side of the star symbol to set the new exit point.
12. Right click on the star symbol and select “To Style” option.
13. Type the style name on the “Save as” dialog that appears and click ‘OK’ to save it.
14. The style is saved in the “Style” list that exists in “Object properties toolbar” and you can use it immediately. But before using it you have first to check the design for zero length stitches (0 to 0.4mm) inside “Style editor”.
15. From “Tools” menu select “Style stitches”. The “Style editor” will appear. Click on the open icon and from the “Select style” dialog select “Star” style.

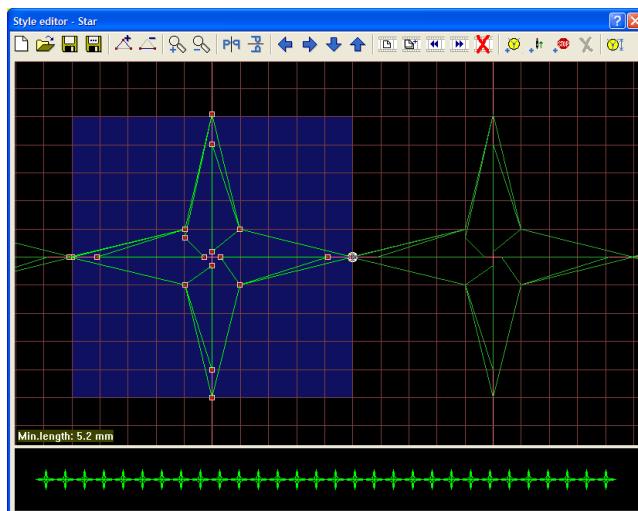


Figure 9.12: Edit styles

16. The Star style will open in the “Blue reference area” with the first stitch selected. With the left/right arrow keys from the keyboard you can move from stitch to stitch and by pressing the “Delete” key or the

 “Delete point” option from toolbar, you can remove any small or unneeded stitches you might find. This process it is important because it will help you produce better embroidery results. Also, by deleting small and unneeded stitch points the Minimum stitch length (“Min.length” value that appears at the bottom left corner) value decreases allowing you to use smaller stitch length when you apply the style on a design.

17. Once you are ready save the style once more by pressing the “Save”

 option from the toolbar and close “Style Editor”

18. You can use the style stitch by adding some running stitches on the working area and then selecting the style from the “Style” option of “Object Properties” roll-up and use it on the object.

Complex Pattern editor

With this option of "Tools" menu you can create your own pattern. Patterns are shapes that can be seen in step or Satin, created from stitches.

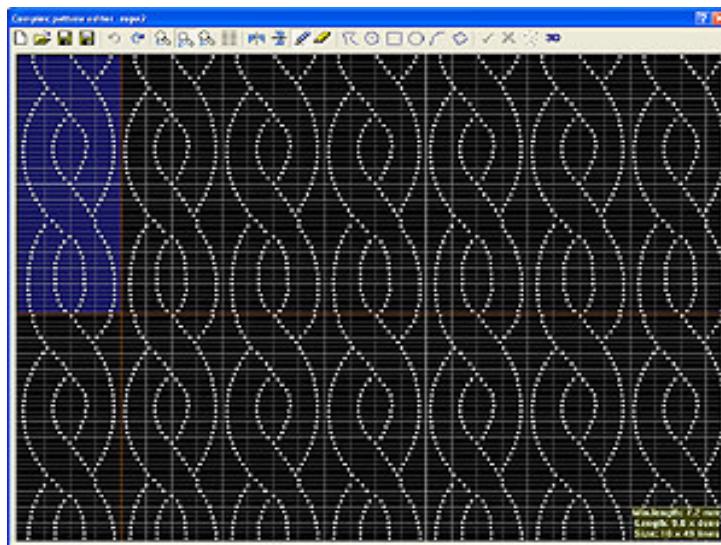


Figure 9.13: Complex pattern editor

To create or edit a pattern you can use the functions of the horizontal toolbar:

	By pressing this button you can create a new Pattern. In case that there is an unsaved style, the program will ask if you want to save it or not.
	By pressing this button you can load an existing Pattern. In case that there is an unsaved style the program will ask if you want to save it or not. On the following dialog by clicking on a style you can select it and by pressing the OK button you can load it.
	By pressing this button you can save the current Pattern. In case that the Style was never saved before, the program automatically calls the "Save as" dialog.
	By pressing this button you can save the current Pattern with a new name. In the following dialog you have to specify the name of the Style. By pressing the OK button the style will be saved under the name that you have chosen.
	Using this option you can undo the latest changes that you have made. With this option you can undo the seven most recent changes in the current pattern.
	Using this option you can redo the latest undo you have done. With this option you can redo the seven last undos you have called.
	Using this option you can change the zoom of the pattern that you are editing.
	Using this option you can add grid in the editing area of the Complex Pattern editor. In the following dialog you have to arrange the number of equal pieces that the editing area will be split into. In case that you want to delete the grid, you have to click on the Grid Icon and write 0 (zero) in the "Number of lines" field.
	Using this option you can mirror the pattern that you have created, horizontally.
	Using this option you can mirror the pattern that you have created, vertically.

	Using this option you can add points in the current pattern. First you have to click on this tool. After that you can click on a point and a stitch will be added. Also with click and drag you can move a stitch. In case that you want to delete a stitch, you have to click and drag it out of the border of the pattern.
	Using this option you can delete points from the current pattern. Once you click on this tool the mouse cursor becomes a circle with an X on it. After that you have to click on a point and drag the mouse holding the left button. Every point underneath the cursor will be deleted.
	Using this option you can add a polyline made of stitches in the current pattern. First you have to click on this tool and the mouse cursor becomes a pencil. After that you can specify the polyline by giving its points one by one. With right click you can stop the input of the polyline. At that time you can edit the polyline that you have created by clicking (for selection) on a point and click and drag it. To convert the polyline in stitches of pattern you have to press the  button. Every time that this polyline crosses the horizontal lines, one point will be created. The points can be specified also out of the edit area.
	Using this option you can add circle - ellipse made of stitches in the current pattern. First you have to click on this tool and the mouse cursor becomes a pencil. After that with click and drag you can specify the size of the ellipse. In case that during click and drag you are pressing the Ctrl key from the keyboard, the shape that you will create will be a circle. In case that you want the first point to be the center of the circle - ellipse, you have to keep pressing the Shift button from the keyboard during dragging. It is possible to change the size or the circle - ellipse (when it is still in vector mode) by clicking first (for selection) and then click and drag the control points which are on the limits of the circle. If the Ctrl key is pressed during dragging the ellipse will be converted to circle. To change the center of the circle, first you have to select its center with click and then click and drag it to the position you want. To convert the ellipse - circle to stitches of pattern you have to press the  button. Every time that the ellipse - circle will cross the horizontal lines, one stitch will be created.

	A part of the ellipse - circle can be out of the edit area.
	Using this option you can add a rectangle made of stitches in the current pattern. First you have to click on this tool and the mouse cursor becomes a pencil. After that with click and drag you can specify the size of the rectangle. In case that during click and dragging you are pressing the Ctrl key from the keyboard the shape that you will create will be a square. In case that you want the first point to be the center of the rectangle - circle, you have to keep pressing the Shift button from the keyboard during dragging.
	It is possible to change the size or the rectangle (when it is still in vector mode) by clicking first (for selection) and then click and drag the control points which are on its outer limits. If the Ctrl key is pressed during dragging the rectangle will be converted to square. To change the center of the rectangle, first you have to select its center with click and then click and drag it to the position you want. To convert the rectangle to stitches of pattern you have to press the  button. Every time that the rectangle will cross the horizontal lines, one stitch will be created. A part of the rectangle can be out of the edit area.

	A part of the polygon can be out of the edit area.
	<p>Using this option you can add an arc made of stitches in the current pattern. First you have to click on this tool and the mouse cursor becomes a pencil. Then you have to click on the start point of the arc and with the second click the end point of the arc. The arc follows the mouse movement (no click and drag is needed). With the third click you can specify the curve of the arc. To convert the arc to stitches of pattern you have to press the  button. Every time that the arc will cross the horizontal lines, one stitch will be created.</p> <p>A part of the polygon can be out of the edit area.</p>
	<p>Using this option you can outline an area made of stitches in the current pattern. First you have to click on this tool and the mouse cursor becomes a pencil. Then you can specify the outline by giving its points one by one, like the polyline. With right click you can stop the input of the outline. The program automatically connects the first point with the last one. In the following dialog you have to arrange, by using the scroll bars, the type of the pattern that will fill the area. To edit the points of the outline that you have created, click on it (for selection) and click and drag it to the position you wish. To convert the area in stitches of pattern you have to press the  button. Every time that the outline of the area will cross the horizontal lines, one point will be created. On the existing stitches, new stitches within the area will be added.</p> <p>The points can be specified also out of the edit area.</p>
	<p>In case that you have created a part of a pattern with lines or circle or square or arc or area, you can convert it in stitches by clicking this button.</p>
	<p>With this option you can cancel the parts of the pattern that you have made with lines or circle or square or arc or area.</p>
	<p>With this button you can create a pattern of stitches placed in random position.</p>
	<p>With this function you can see the realistic preview of the pattern you have created. During the 3D view mode you can add stitches or create a new shape of stitch and generally call all the functions we have</p>

mentioned before.

The information on the right bottom side of the complex pattern editor area shows:

- The minimum length of the pattern. This is the suggested length parameter that you should use when the current pattern will be selected on the "Object properties" roll up. In case that this number is big, it means that by mistake two or more stitches are so close that the length should be long enough to avoid small stitches.
- The second line suggests the analog between the length and the density, in such a way that the pattern will look as it actually is on the pattern editor and not stretched.
- On the third line you can see the size of the pattern area that you are using. This way you can be sure if it is a square or not.

Using complex pattern editor

The “Complex pattern editor” is a tool with many abilities in creating patterns that can be used in all stitch types that support styles. All the patterns are available instantly after their creation. Therefore you can use them directly from the “Pattern” Option in the “Style and Pattern” item in your “Object Properties” window.

In the following section we will analyze how to create a new pattern and how to edit an existing pattern.

Create a pattern

In order to create a new pattern using the “Complex pattern editor” you have to follow the step below:

1. Select “Tools>Complex pattern editor” to open the “Complex pattern editor” window. The “Complex Pattern editor” always opens with a default pattern already loaded.
2. Click on the “New” button to create a new pattern. In the dialog that will appear asking you to save the pattern click the “No” button.
3. Now you can start creating the pattern you want by using the tools described in the previous sections. The square that is highlighted with the blue color is the main design area of the pattern. You can create a new pattern also while you are in 3D mode that can be activated by

clicking on the **3D** button. Any click on the pattern design area, adds a needle penetration point on the fabric.

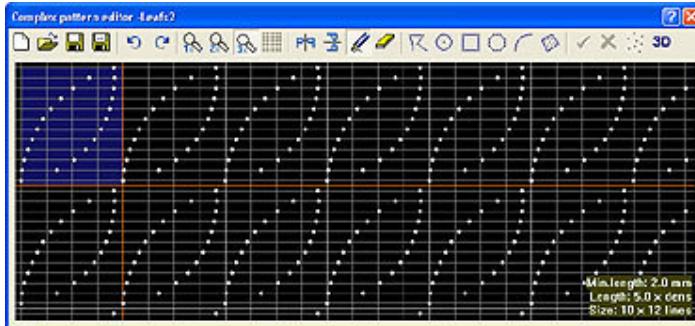


Figure 9.14: Pattern creation

4. When you finish with the creation of the pattern click on the “Save” icon to save the created pattern.
5. The program will ask you to enter the name of the created pattern. Enter the name you want the pattern to have and click the “Ok” button.
6. After saving your design, you can verify the pattern by selecting the “Pattern” Option in the “Style and Pattern” item in your “Object Properties” window and use it on a design.

Edit a pattern

In order to edit a pattern using the “complex pattern editor” you have to follow the steps listed below:

1. Select “Tools>Complex pattern editor” to open the “Complex pattern editor” window. The “Complex Pattern editor” always opens with a default pattern already loaded.
2. Click on the “Open” button to open an existing pattern. In the dialog that will appear asking you to save the pattern click the “No” button.
3. The “Select pattern” window will appear from where you can select the pattern you want to edit. Click on the pattern you want to edit and will be instantly loaded in the Complex pattern editor.

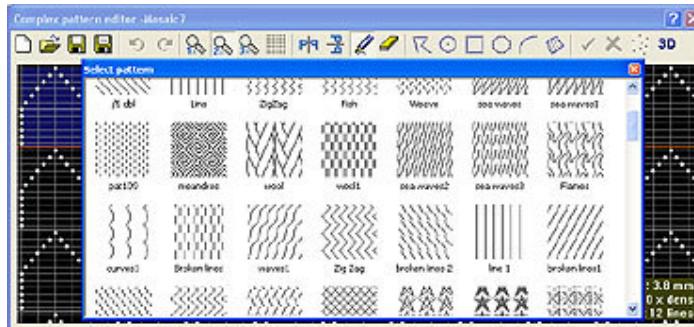


Figure 9.15: Pattern editor

4. Using the tools of the “Complex pattern editor” toolbar you can edit the pattern and change the shape of it.
5. When you finish editing the pattern click on the “Save” button to save the changes of the pattern or the “Save as” button to save the pattern with a different name.
6. After saving your design, you can verify the pattern by selecting the “Pattern” Option in the “Style and Pattern” item in your “Object Properties” window and use it on a design.

Auto border

Auto border function is very useful in creating automatic borders. With this tool you can add a border to any object in the design.

In order to activate this function you have to click on the “AutoBorder” option of the “Tools” menu. The following dialog box will appear.

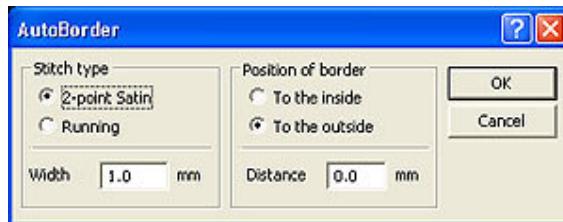


Figure 9.16: Auto border

In “AutoBorder” dialog box you can define the “stitch type” and the “position of border”.

- **Stitch type:** In this fieldset you can define the stitch type of the “auto border” function and the width you want to have. You can select between “2-point Satin” and “Running” stitch type. For “2-point Satin” also you can adjust the width you want the satin to have.

- **Position of border:** In this fieldset you can set the position you want the border to be placed. You can choose between “To the inside” and “To the outside”. Both options, if you do not enter a specific value in the “Distance” field, will be placed in the same position. The value that will be entered in the “Distance” field in millimeters, defines the distance between the default position of the border and the new position, inside or outside the object, of the border.

When you finish adjusting the options, click “Ok” to place the border to the object you have selected. The inserted border can be edited as a normal stitch object. You can make extra adjustments to the border object from the “Object properties” toolbar.

Clipart

The “Clipart” tool can be accessed from the “Stitches” menu. The Clipart function has a submenu with two options that can be used to “Insert Item” from the clipart in the design and to “Create Item” (Add) to the Clipart in order to be used any time that will be needed.

In the clipart you add as many embroidery clips as you want. You can use the existing clips or use those you have already inserted, in order to create complex designs with combinations of many clips. The clips are resizable and while inserting them you can specify the exact dimensions you want to have by defining two reference points.

Insert clipart by reference line

With this function you can add existing clipart embroidery designs to your design. You can select any embroidery design that exists in the Clipart and insert it immediately, one or more times, in the existing design in the size you want. In order to insert a clipart item to the design you have to follow the steps below:

1. From the “Tools” menu select “Clipart > Insert item” or press the “I” key from the keyboard. The “Symbol Library” dialog box appears.



Figure 9.17: Insert clipart

2. In the left side of the dialog box are listed all the categories of the Clipart items. Its category contains many clips that are ready to be embroidered. Also in each clip there are two “x” points that defining the insertion reference line. Select the category where the clip is located and then click on it.
3. Click “Ok” button to insert the item in the design or double click on it.
4. The “Symbol library” dialog box will close and the mouse will change to cross. The program expects two clicks with the mouse that will define the reference line where the clip will be placed. Those two points are the points that are shown with two “x” in the selected clip. The distance between the two clicks, which will be made in the design and the angle are defining also the size and the rotation direction of the inserted clip.
5. Click the first point and then the second to insert the clip. With the Ctrl pressed while clicking you can place the clip exactly in the 0° , 90° , 180° or 270° degrees. After inserting the second reference point you will see the clip inserted in the position you have defined and the mouse pointer remaining a cross.
6. You can continue inserting copies of the same clips by defining the two reference points needed or you can right click with the mouse to finish inserting clips.

You can insert a new clip by following the same steps as many times as you want.

While you are in the “Symbol library” dialog box from the right click menu of a selected clip you can rename or delete the clip.

Create new item by reference line

This tool helps you to add new items to clipart library that you can insert in any future design. The design is saved in a subsection of the clipart that you can

define. The next time that you will use the clipart tool all the new inserted clips will be available. In order to create (add) a clipart item to the “Symbol library” you have to follow the steps below:

1. Select the object(s) that you want to add or the whole design and from the “Tools” menu click on the “Clipart>Create item” option.
2. The mouse pointer will change to cross. The program now expects from you to define two reference points that will be used as insertion reference line points, each time you want to insert the clip in a design.
3. Click the first point and then the second to define the insertion reference line points of the clip. With the Ctrl pressed while clicking you can define reference points exactly in the 0°, 90°, 180° or 270° degrees. After inserting the second reference point the “Define symbol” dialog box will appear (Figure 9.15).

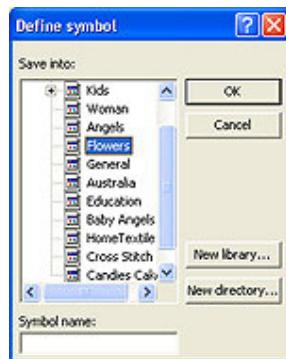


Figure 9.18: Define symbol

4. In the dialog box you have the following options:

Save into: In the “Save into” list you can view the structure of the current clipart library.

New library: by clicking this button you can create a new clipart library. A standard “Save” dialog box will appear where you can save the name of the new Clipart library. In order any library to be visible in the Clipart tool must be located in the “eXPerience/clipart/” subdirectory. The creation of new libraries can help in better organization of the clips and in the portability of the clipart library. You can transfer a whole library of designs to another computer that has eXPerience installed by simply sending a clipart library file.

New directory: In order to use this button you must first select from the “Save into” area the position where the new directory will be placed in the clipart library as a subdirectory. For example, if you want to insert a new directory on the first level of the library you have to

click on the name of the library and then click on the “New directory” button. By clicking the “New directory” button will be asked to enter a name for the new directory. When you click on the “Ok” button you will see the new directory to be created in the location that you have specified as a subdirectory.

Symbol name: In this field you can specify the name of the clip that will be added in the library.

5. Make the adjustments you want, select the directory, where the clipart will be placed, from the “Save into” area, enter a name in the “Symbol name” field and click “Ok” button to finish the addition of the clip.

You can continue adding clips in the library following the previous steps. The next time that you will open the clipart dialog you will find the new clips in the directories you have specified with the name you entered. If you want to rename or delete any design or directory, you can do it by activating the respective options in the right click menu of the selected item.

Venere cutting system

The cutting needle VENERE is a new revolutionary system in the embroidery industry, which allows every cut, namely every incision to be made directly on the embroidery machine.

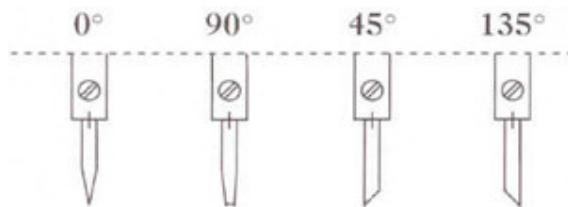


Figure 9.19: Venere knives

The installation of four needles on a machine, as show in the picture, permits every kind of cut. The system consists of 4 cutting needles, which replace the regular embroidery needles. They are installed at an angle of 45° to each other (0° - 45° - 90° - 135°). Simple forms such as rectangles, rhombi, squares, etc. requires only two needles for cutting. However, with all four needles, every kind of complex forms can be archived. The use of these does not require any change in the machine. The only need is two switch off the "thread break" sensor.

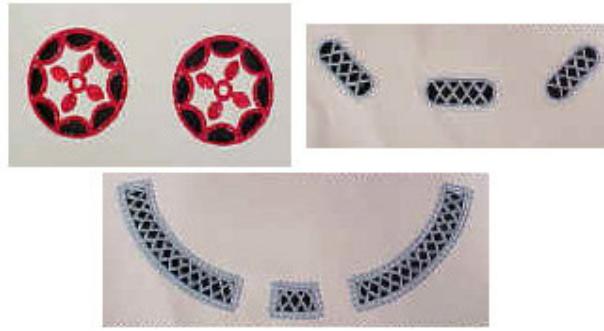


Figure 9.20: Venere designs

To achieve this function, a running stitch which runs parallel to the embroidery must be inserted in the existing design. Its stitch length should not exceed 1mm. The cutting needle has width of 1,2mm. The cutting can be programmed independently, either before or after the embroidery. This novelty enables the embroidery companies to create special artwork in different branches with a higher quality, shorter production time and lower costs.

Apply Venere cutting system

In order to create Venere cuts you have to create the shapes that you want to be cut in the design area. Especially for this reason we have created a tool that can be used to create Venere cuts. It works like the digitizing tool but instead of placing stitches, specifies the area where the Venere needles will cut the fabric.

You can activate the “Digitize Venere cutting” tool from the “Tools” menu. When this option is active the cursor becomes as a crosshair and you can start punching the outline you wish to cut.

In order to create an outline you have to specify its nodes. The way of adding nodes is similar to Running stitch type punching way. By left clicking with the mouse you are inserting nodes that will create the outline of the area you want to cut. If you hold the “Shift” key while left clicking the nodes will become curve brakes. If you have made a mistake while entering nodes you can delete the last inserted node by clicking the “Backspace”. After that you can continue entering nodes normally. In addition you can insert a shape that will specify the area where Venere cut will be made. In order to insert a shape you have to activate the “Digitize Venere cutting” tool and before start digitizing click the “S” letter from the keyboard. The “Insert shape” dialog box will appear from which you can select the shape you want to enter in the design. The area that the shape will cover will be cut with Venere.

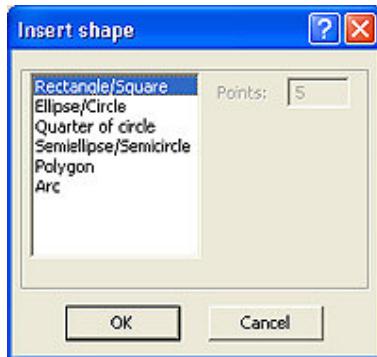


Figure 9.21: Insert shape dialog

The punched outline or the shape is the first object that you are creating. In order to continue creating a new Venere cut outline you have to right click once. The cursor remains as a cross waiting from you to enter the next outline (auto-branching). When you finish entering Venere cut outlines or shapes right click once more.

The program asks for the exit point of the object that you have just punched. With click on the position you wish you can place the exit point on this specific position. In case that you would like the exit point to be placed on the best possible position, just press the right button of the mouse again. Even if you have created open shapes, the Venere tool automatically closes them by cutting also the straight line between the first and the last inserted node.

Venere cutting tool automatically recognizes the created outlines that needed to be cut and decides the best possible way that have to be cut by using the correct combination of the four cutting needles.

Venere cutting printout

The printout of a Venere cut design is important to the embroidery process. In the printout, except of the standard information, you can find also, information about, which "Venere Knife" must be placed in which needle currier in order "Venere cutting" function to work properly. Depending on when you want the cuts to be made (before or after the embroidery) you can change the cutting order by changing the sequence of embroidering process.

For avoiding mistakes while placing the "Venere Knifes" follow the guidelines.

- Knife — = Place 0° knife in the specified needle currier
- Knife / = Place 45° knife in the specified needle currier
- Knife | = Place 90° knife in the specified needle currier

- Knife \ = Place 135° knife in the specified needle currier

Set tablet Reference point

This tool it is useful if you have a tablet installed in your computer. It gives you the possibility to adjust your tablet in order to work accurately with eXPerience. You can activate this tool from the “Set tablet Ref. point” of the “Layout” menu.

With this tool you can configure your tablet. You have to set two reference points on the tablet that will be the points that define your design on the tablet. The two reference points will be set from the program as the boundaries of the design. Therefore will be easier for you to work with your tablet and have accurate results.

Cleanup Expert

With this clever and innovating tool, you can auto correct embroidery errors and negligence, that happen during punching a design. Features like unnecessary trims, forgotten trims, Fix/Lock additions or removals, are no more subjects to take time to correct. With simple tick boxes you can modify the whole design or the selected parts.

This modification can be done in four steps:

- **Fixing and Locking**
- **Special Functions**
- **Start - End Points**
- **Rule Parameters**

Fixing and Locking

This step of Clean-up expert tool is separated in two parts. The first part has to do with the fixing stitches placed at the beginning of the objects and the second part has to do with the locking stitches placed at the end of the objects.

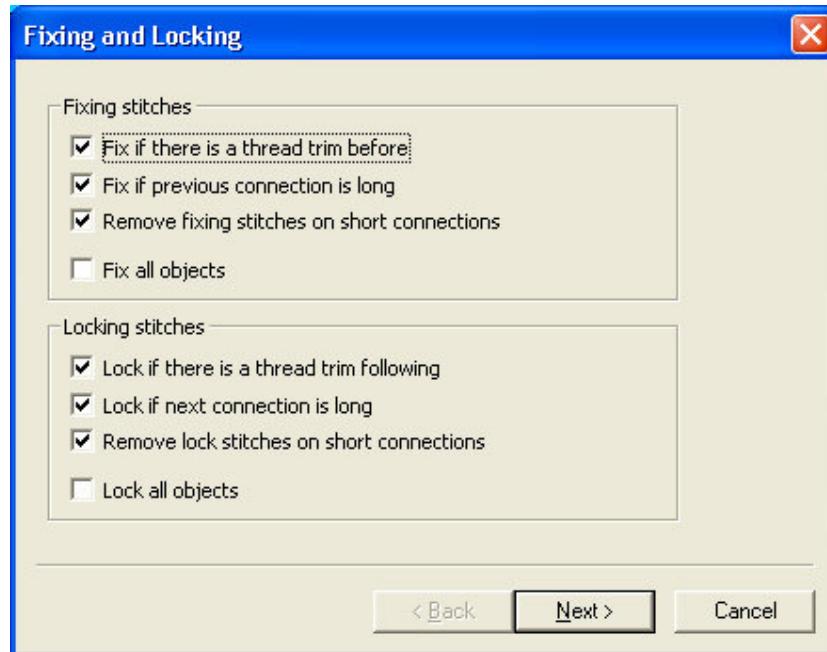


Figure 9.22: Fixing and Locking dialog

Fixing stitches

- **Fix if there is a thread trim before**

By enabling this parameter you can add fixing stitches, if there is a thread trim function at the beginning of the objects.

- **Fix if previous connection is long**

By enabling this parameter you can add fixing stitches, if there is a long stitch connecting the current object with the previous one.

- **Remove fixing stitches on short connections**

By enabling this parameter you can delete the unnecessary fixing stitches on the short-distanced objects.

- **Fix all objects**

By enabling this parameter you can add fixing stitches to the whole design or the selected objects. If this option is checked the upper 3 check boxes will be ignored.

Locking stitches

- **Lock if there is a thread trim following**

By enabling this parameter you can add locking stitches, if there is a thread trim function at the end of the objects.

- **Lock if next connection is long**

By enabling this parameter you can add locking stitches, if there is a long stitch connecting the current object with the next one.

- **Remove locking stitches on short connections**

By enabling this parameter you can delete the unnecessary locking stitches on the short-distanced objects.

- **Lock all objects**

By enabling this parameter you can add locking stitches to the whole design or the selected objects. If this option is checked the upper 3 check boxes will be ignored.

Special Functions

This step has also four tick boxes and refers on adding or removing thread trims on the design or the selected objects.

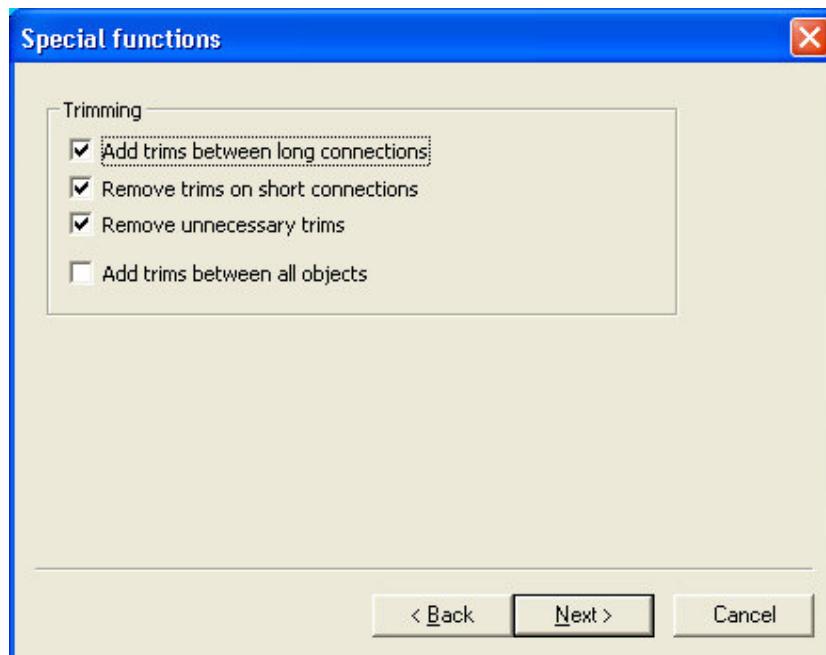


Figure 9.23: Special functions dialog

Add trims between long connections

With this parameter you can force the program to add trims between long distance objects.

Remove trims on short connections

With this parameter you can remove the thread trims between short distance objects.

Remove unnecessary trims

With this parameter you can delete the thread trims between objects where the trim is not needed. This error occurs when you rearrange the sequence of the objects.

Add trims between all objects

By enabling this parameter you can add thread trims to the objects of the whole design or the selected objects. If this option is checked the upper 3 check boxes will be ignored.

Start - End Points

This step of Clean-up expert tool is separated in two parts.

The first part changes the position of the entry points of the objects and the second part changes the position of the exit points of the objects.

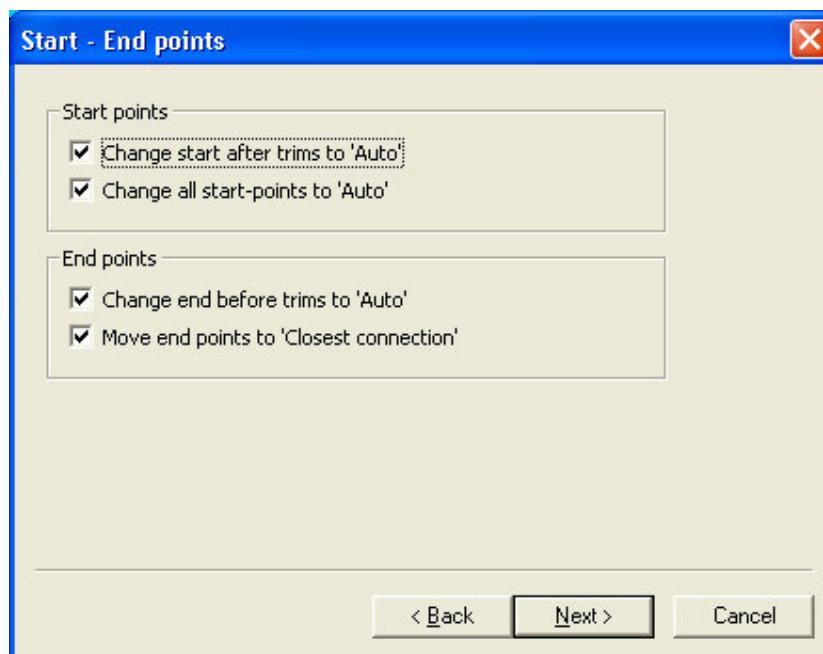


Figure 9.24: Start – End points dialog

Start points

- **Change start after trims to "Auto"**

By enabling this parameter you can remove the user defined start points of an object, when thread trim function exists at the beginning of the object.

- **Change all start-points to "Auto"**

By enabling this parameter you can remove the user inserted start points of the objects and let the program determine the starts of each object.

End points

- **Change end before trims to "Auto"**

By enabling this parameter you can remove the user defined exit points of an object, when thread trim function exists at the end of the object.

- **Move end points to "Closest connection"**

By enabling this parameter you can remove the user inserted exit points of the objects and let the program determine the exit of each object accordingly to the position of the next one.

Rule Parameters

The next dialog box that appears is the “Rule Parameters” where you have the following options:

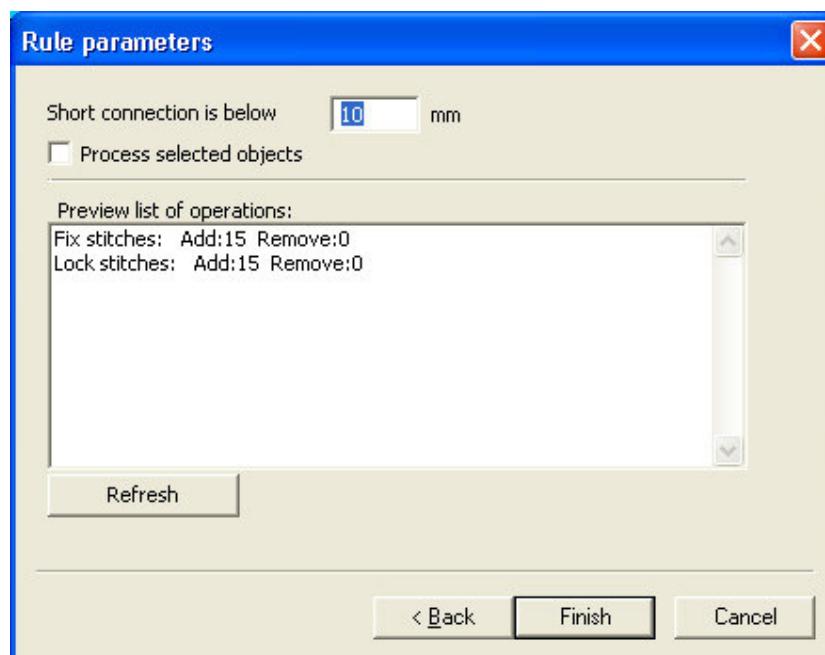


Figure 9.25: Rule parameters dialog

Short connection is below

On this numeric input you determine the value in mm, under which a stitch length will be considered as short. Note that this is the distance you determine as short on the check boxes input.

Process selected object

If this parameter is enabled, the rules that have been specified in the previous dialogs, will take effect only on the selected objects.

Preview list of operations

In this area, you can preview the modifications that will be done by clean-up expert on the design, after clicking on finish.

Refresh

The refresh button recalculates the modifications, when a different distance has been given.

Finish

With click on the Finish button the changes and the rules you have specified in Clean up expert tool, will be applied on the current design or on the selected objects.

10

Working with Text

Introduction

In this chapter we will analyze the way that you can create text art designs in eXPerience. You can transform any True Type font to embroidery in any stitch type quickly with high embroidery results. Also, you can insert text on a path and text in an envelop. Instead of True type fonts you can use the pre-digitized fonts that eXPerience provides to you to create Satin and Zig-Zag text art design. Another useful tool that will be analyzed is the “Name Drop” that can save you time in the production of text designs.

Text

In this section you will learn how to place text objects and how to edit them.

A text object is a part of the design which is made by characters. In order to create a text object you should press the **A** icon of the vertical toolbar or the "L" shortcut key from the keyboard, when you have loaded an existing design or when you have created a new design. It does not matter if the design you have loaded has stitch data objects or punching data objects.

The stitch type of the text object that will be created depends on the selected stitch type of the punching options roll up and can be edited in "Node editor" mode.

The text dialog has three menu tabs:

- **Enter text**
- **Advanced text options**
- **Alignment**

Each one will be analyzed thoroughly in the following sections.

Enter text

In this section of the Text dialog you can specify the basic characteristics of the text that you are willing to add.

These parameters are:

- The **font** that will be used
- The available **Styles**
- The available **Scripts**
- The **size** of the text
- The **text** that you want to create

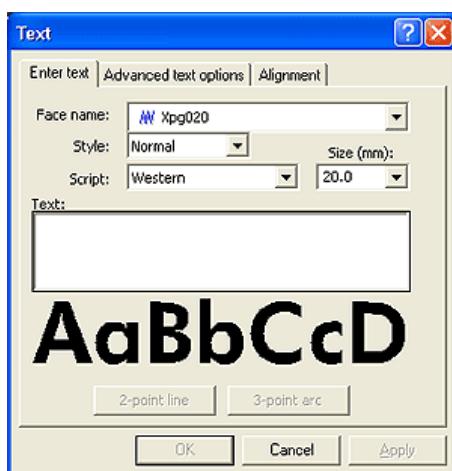


Figure 10.1: Enter text

Face name

With this drop down menu, you can select the font of the characters that you will create. The Font selection varies from stitch type to stitch type. For Running, Satin Serial Satin, Zig-Zag and Piping and Step you can select to use any of the pre-digitized fonts or the installed fonts of the computer.

The drop down menu has two types of Fonts. Those that have the  icon at the beginning and those that have the True Type "TT" characteristic.

The fonts with the  icon are pre-digitized fonts and are located in the Fonts sub-folder.

The fonts with the characteristic TT are True Type fonts that are installed in your computer and the program automatically converts them to the selected stitch type.

At the bottom of the text dialog you can see how the font you have selected will be digitized.

Styles

With this menu you can select the style of the selected face name (font). The options of this menu depend on the available styles of the selected face name (font). The possible options of this menu are: Normal, Bold, *Italic* or **Bold Italic**. On the bottom part of the text dialog you can see how the font will look like with the selected style.

Script

With this menu you can select the script of the selected face name (font). The scripts are sets of characters that mainly depend on the characters that every country is using.

The options that this menu lists depend on the available script of the selected face name (font).

Same possible options of this menu are: Western, Arabic, Cyrillic etc.

Size

With this menu you can select the height of the letters that you will create from the predefined sizes in the jump menu. The values that this field can take are in millimeters. The height of a font is the distance between the lowest to the

highest point of the capital letter A. Also you can type in this field the size of the font you wish.

Text

In this area you can type the text that you want to create. If you want to write to the next line, press the "Enter" key from the keyboard and continue typing normally. It works like a normal text editor, therefore you can insert many sentences and the program will punch them normally.

2-point line

With this button in the Text dialog, you can specify the length of the text that you will create with two points.

After you have entered the text you wish with its parameters, press the "2-point line" of the text dialog. In order to enter the text with the "2-point line" follow the steps below.

1. When the button "2-point line" is pressed, the cursor becomes a cross and you can specify the lowest left point of the text. Click on the position you want your text to start.
2. The cursor is still a cross but there is a line, connecting the first point and the cursor. This line shows where the text will be placed on. In order to create a horizontal or vertical line you can use the "Ctrl" key from the keyboard.
3. Click on the position you want the second point of the text to be inserted. The text that will be created will start from the first entered point and it will finish on the second point (2-point line). The height of the characters of the text will stay proportional to their width.

At that point it is possible to specify the height of the text. This can be done if you drag the mouse to the position you want, while you are specifying the right bottom position of the text. In this case the characters will not be proportional scaled but stretched, in order to follow input length and height. The same functions can be called for the "Fixed length" part of the "Advanced text options" section of the Text dialog that is analyzed later in this chapter.

4. For Step stitch type

If you are entering text with step stitch type now you have to specify the direction of step by clicking on two points that will create a line with the angle you want. The angel can be changed later in node editing mode.

The direction of step stitch type can be defined automatically by right mouse clicking immediately after the step stitch type. The new object text will keep the same direction with any previous punched step. If there was not previous step, the direction of the new one will be 0 degrees (horizontal).

After that you will have to specify the exit point of the text object as it is described below for the rest stitch types.

For the rest stitch types

In all other cases at that point you have to specify the exit point of the text object. By clicking on the position you wish you can place the exit point on this specific position. In case that you would like the exit point to be placed on the best possible position, just press the right button of the mouse.

5. The text object now is placed in the position you have specified with the use of the "2-point line" function.

The "2-point arc" function it is very useful when you want to enter text with specific dimension in a specific position.

3-point arc

With this button in the Text dialog, you can specify an arc (part of a circle) where the text will be put on.

After you have entered the text you wish with its parameters, press the "3-point arc" of the text dialog. In order to enter the text with the "3-point arc" follow the steps below.

1. When the button "3-point arc" is pressed, the cursor becomes a cross and you can specify the lowest left point of the text. Click on the position you want your text to start.
2. The cursor is still a cross but there is a line, connecting the first point and the cursor. This line shows where the text will be placed on. In order to create a horizontal or vertical line you can use the "Ctrl" key from the keyboard.
3. Click on the position you want to be the lowest right point of the text. The text that will be created will start from the first entered point and it will finish on the second point.
4. The cursor at that point remains a cross and now you can specify the curvature of the arc that you will create. When you move the mouse

you can see how the arc will be. Click on the position you want to specify the arc that your text will be placed on. The text that will be created will start from the first entered point and it will finish on the second point, following the drawn curve.

The height of the characters of the text will keep the proportional to their width.

Also it is possible to specify the height of the text. This can be done if you drag the mouse to the position you want, the same time you are clicking to specifying the third point of the arc. In this case the characters will not be proportional scaled but stretched, in order to follow input length and height. The same function can be called from the "Text on arc" part of the "Advanced text options" of the text dialog.

5. For Step stitch type

If you are entering text with step stitch type now you have to specify the direction of step by clicking on two points that will create a line with the angle you want. The angel can be changed later in node editing mode.

The direction of step stitch type can be defined automatically by right mouse clicking immediately after the step stitch type. The new object text will keep the same direction with any previous punched step. If there was not previous step, the direction of the new one will be 0 degrees (horizontal). After that you will have to specify the exit point of the text object as it is described below for the rest stitch types.

For the rest stitch types

In all other cases at that point you have to specify the exit point of the text object. By clicking on the position you wish you can place the exit point on this specific position. In case that you would like the exit point to be placed on the best possible position, just press the right button of the mouse.

6. The text object now is placed in the position you have specified with the use of the “3-point arc” function.

The “3-point arc” function it is useful for placing text on the border of a circle design or creating artistic text designs.

Enter text in the working area

When you have made the adjustments you want and you have specified the text that you want to create, press the OK button to enter the text in the design area. The mouse turns to cross and waits from you to specify the position you

want the text to be placed. When the mouse moves, on the status line of the program (for Windows Me or previous version) or near the mouse (in Windows 2000 or XP) you can view the current position of the mouse on the design area (Figure 10.2).

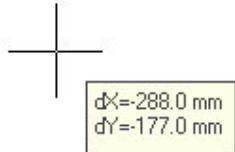


Figure 10.2: Current position of mouse

With click, you can specify where the left bottom corner of the text will be.

If the text object that you willing to add is Step, after its position on the design area you have to specify the direction of the stitches, as it is described on step stitch type of the "object properties" options.

After that you can specify the exit point of the text object. By clicking on the position you wish you can place the exit point on this specific position. In case that you would like the exit point to be placed on the best possible position, just press the right button of the mouse.

In case that you want to create a text object made by step stitches and after the placement of the text you press right click, the new object text will keep the same direction with the previous punched step. If there was not previous step, the direction of the new one will be 0 degrees (horizontal).

Also it is also possible to place the text in the current design by using the "2-point line" or 3-point arc" buttons.

Advanced text options

In this section of **text dialog**, you can:

- Place a **text on the arc**
- **Fix the length** of the text
- **Rotate every character** of the text (Escapement)

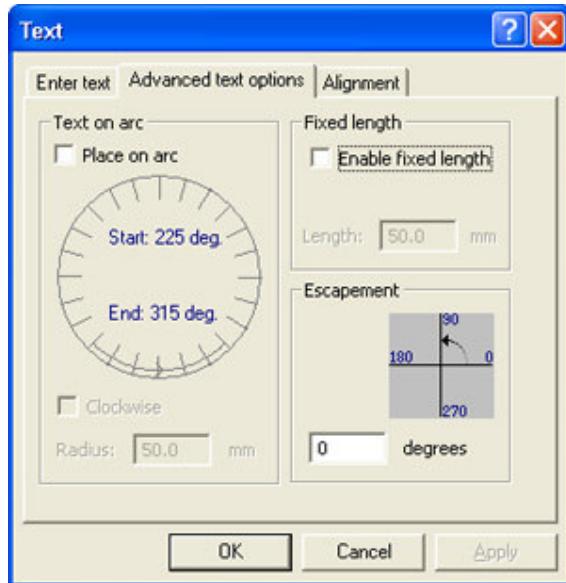


Figure 10.3: Advanced text options

Text on arc

With this option you can place the text that you have typed in “Enter text” section on the arc.

On the above drawing with the two arrows, you can see the start and the end point of the arc.

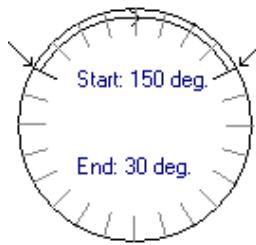


Figure 10.4: Text on arc

You can click and drag these points on the position you want.

If during dragging the Ctrl key from the keyboard is pressed, the start and the end position will be multiple of 15 degrees.

If during dragging the Shift key from the keyboard is pressed, the start and end points will be moved symmetrical.

In any case, in the middle of the circle, can be viewed the position of the start and the end point.

With the clockwise field, you can specify the way that the text will be placed on the circle as follows (Figure 10.5):



Figure 10.5: Example of text on arc

The "Radius" field specifies the size of the circle where the text will be placed on. This field specifies the radius of the circle in millimeters.

You can also put a text object on an arc by using the "3-point arc" button of the Enter text section of Text dialog.

Fixed length

With this option you can place the text that you have typed in **Enter text** section on a line that its length can be specified in the "Length" field. With the "Length" field you can specify the distance between the left bottom corner to the right bottom corner of the entered text.

You can also put a text object on a line by using the "2-point line" button from the "Enter text" section of "Text" dialog but the fixed length will be adjusted to the length of the specified "2-point line".

Escapement

With this parameter you can rotate every character of the text you have added. In the following field you can specify the rotation of the characters in degrees.

On the following drawing you can see a text with 90 degrees escapement.

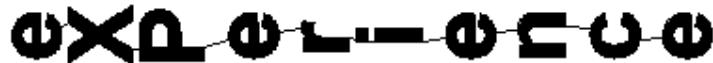


Figure 10.6: Escapement

When you finish with adjustments in the text dialog you can click the “Ok” button and place the text in the design area following the guidelines of the “Enter text in the working area” section described above.

Alignment

In the “Alignment” tab of the “Text” dialog you can specify the following options:

- **Horizontal alignment** of text
- **Vertical alignment** of text
- **Extra spacing** between letters

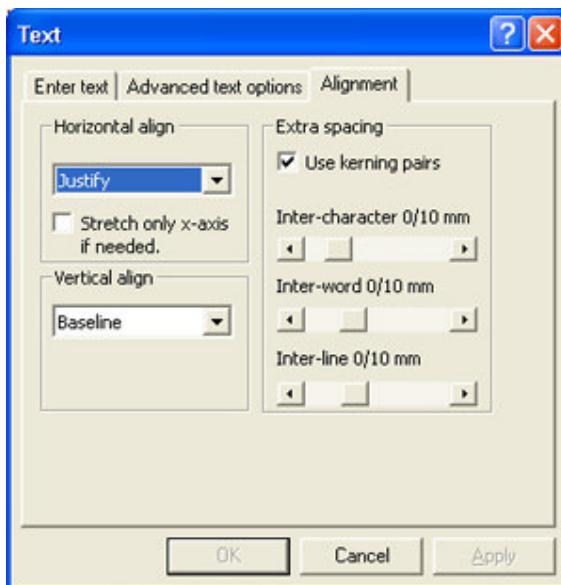


Figure 10.7: Text Alignment

Combinations of the Tex dialog box parameters can produce unique well formatted text embroidery designs.

Horizontal align

With this option you can specify the horizontal alignment of the text that will be inserted in the design area. The alignment options are the same with the default horizontal alignment options of any text editor; therefore you will find them familiar and easy to understand.

The “Alignment” options can be used mainly when you want to use the “2-point line” text insertion or the “3-point arc” or the “Text on arc” placement of text.

The pop-up menu has five possible alignment ways that are listed below:

- Stretch to fit: When this option is active the letters of the text that will be placed in the design area will be stretched to fit the pre-defined dimensions of the line or arc that you have inserted.
- Left: When this option is active the letters of the text that will be placed in the design area will be left aligned on the line or arc you have inserted.
- Center: When this option is active the letters of the text that will be placed in the design area will be aligned to center on the line or arc you have inserted.
- Right: When this option is active the letters of the text that will be placed in the design area will be right aligned on the line or arc you have inserted.
- Justify: When this option is active the letters of the text that will be placed in the design area will be “Justified” on the line or arc you have inserted by increasing the distance between the letters and words.

Under the alignment pop-up menu there is a checkbox (Stretch only x-axis if needed) which stretches the inserted text in x-axis only if it is needed. This option is not available at “stretch to fit” align option.

This option, when is active, is applied in special cases like the insertion of more than one lines of text.

For example: if you have inserted a multi-line text with the “2-point line” tool where you give specific dimensions for the text insertion place, the “Stretch only x-axis if needed” will stretch proportionally the words that exceed the length of the “2-point insertion line” (Figure 10.8).



Figure 10.8: Stretch option

Vertical align

With this option you can specify the Vertical alignment of the text that will be inserted in the design area.

The pop-up menu has five possible alignment ways that are listed below:

- Baseline: When this option is active the text will be placed on an imaginary line.
- Top: When this option is active the text will be placed over the imaginary text line.
- Center: When this option is active the text will be placed at the middle of the imaginary text line.
- Bottom: When this option is active the text will be placed at the under the imaginary text line.

Extra spacing

The extra spacing parameters are useful for changing the spacing between characters, words and sentences.

The options that you have are listed below:

- Use kerning pairs: Kerning is the space between characters and the adjustment of that space. Often, Kerning is used to place two characters closer together than usual. Kerning increases readability and makes letters appear balanced and proportional especially at larger font sizes.
- Inter-character 0/10 mm: With this track-bar you can specify the distance between the characters of an inserted word.
- Inter-word 0/10 mm: With this track-bar you can specify the distance between the words of an inserted sentence.
- Inter-line 0/10mm: With this track-bar you can specify the distance between the lines of an inserted paragraph.

Adjusting the “Extra spacing” parameters you can have a well formatted text paragraph ready to be embroidered.

Edit inserted text

Once you have inserted text in the design area you can also edit it. In order to edit any text object you can follow the basic editing abilities of eXPerience or select it by clicking on it and activating the Text tool. The Text dialog box will appear containing all the parameters of the selected text object.

In the Text dialog box you can make any adjustment you want on the text, even change the entire text, and apply them immediately by clicking on the “OK” button or the “Apply” button. When you click on the “Apply” button all the changes are applied on the text object, but the “Text” dialog box remains open. With this capability you can edit the text designs and make the needed adjustments easier and in less time.

Convert any font to any stitch type

With experience you as we mentioned above you can convert any True Type Font installed in the computer in any supported stitch type. Therefore you can install any font you want in your computer and create unique text based embroidery designs. Also you can convert Symbol based fonts in to embroidery with the stitch type you prefer.



Figure 10.9: Fonts to any stitch type

When you activate the “Text” tool from the modes toolbar or by pressing the “L” key from the keyboard the “Text” dialog box appears. In the “Face name” drop down menu of the “Enter text” tab it is possible to view and select any font between the pre-digitized fonts that are included in the software and the installed fonts in the system.

Create artistic transformations to text

In any text object you can make artistic transformations. There are two tools that can produce artistic text:

- **Place Text on a Path.**
- **Transform Text by envelope.**

Add Path

You can place a text object on a path by using the “Add Path” function from the right click menu of the text object while the “object editor” is active. If you activate the “Add path” the following Dialog box will appear (Figure 10.10).

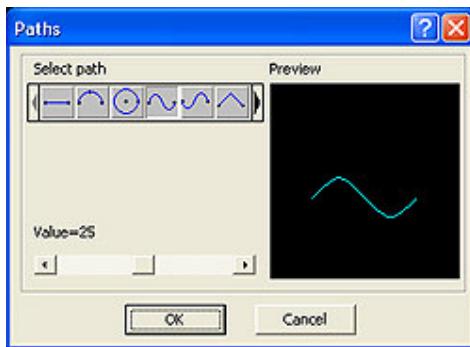


Figure 10.10: Paths dialog

In the “Paths” dialog box you can “Select path”, change the shape of the selected path by adjusting the “Value” track-bar and view on which path the text object will be placed on, at the Preview area.

When adding path to a text object it is important to keep in mind that sharp changes of direction might produce letter overlapping.

If you want to add text on a path you have to specify the path, make the adjustment you want and click “Ok” to apply the path on the selected text object (Figure 10.11).

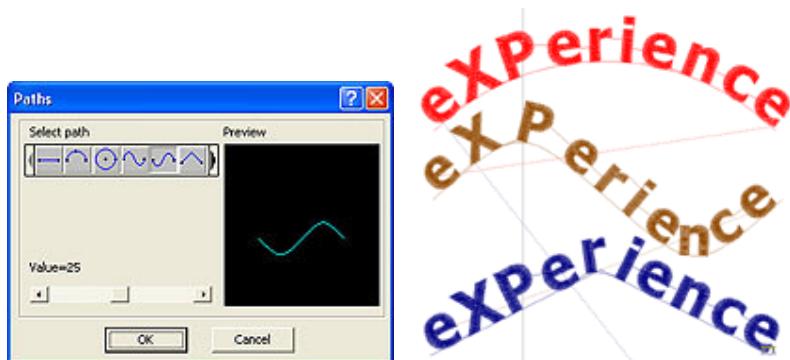


Figure 10.11: Add path on text

If you want to remove the path you have to select the text object, right click on it and click on the “Delete path” option. The program will ask with a dialog box if you want to “keep distorted shape”. If you click “Yes” the path will be removed but the text object will look like is on path. On the other hand if you click “No” the path will be removed and the text object will return to the state before the addition of the path.

The “Add path” function can be applied again in the same text object without any problem.

Add envelope

You can place a text object on a path by using the “Add envelope” function from the right click menu of the text object while the “object editor” is active. If you activate the “Add envelope” the following Dialog box will appear (Figure 10.12).

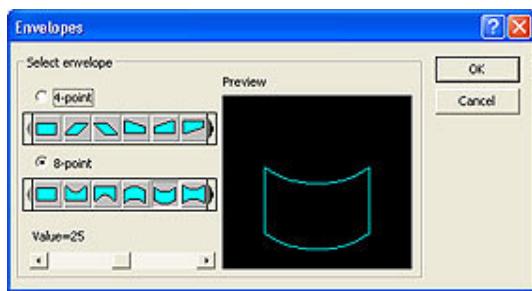


Figure 10.12: Envelop dialog

In the “Envelops” dialog box you can “Select envelop” between “4-poin” shapes and “8-point” shapes, change the shape of the selected path by adjusting the “Value” track-bar and view on which envelope the text object will be placed in, at the Preview area.

If you want to add text on an envelope you have to specify the path, make the adjustment you want and click “Ok” to apply the envelop on the selected text object (Figure 10.13).

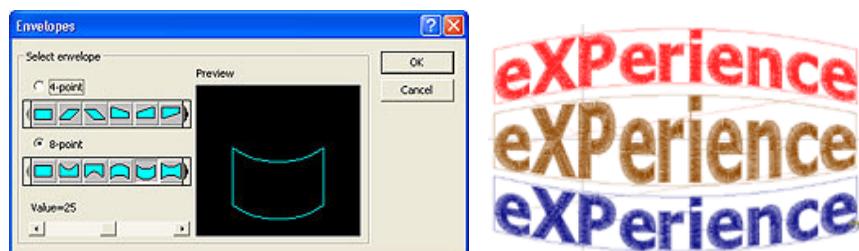


Figure 10.13: Add envelop on text

If you want to remove the envelope you have to select the text object, right click on it and click on the “Delete envelope” option. The program will ask with a dialog box if you want to “keep distorted shape”. If you click “Yes” the envelope will be removed but the text object will look like is in an envelope. On the other hand if you click “No” the envelope will be removed and the text object will return to the state before the addition of the path.

The “Add envelope” function can be applied again in the same text object without any problem.

Name drop

The “Name drop” tool is the easiest way to create multiple designs with different inserted text in each design! For example, if you want to embroider the names of all countries in the world you can simply create the embroidery design that will be the same in all designs, insert the name of the first country and by using the “Name Drop” tool produce all the other designs. It will be clearer to you when we will analyze the way that “Name Drop” is applied.

Name Drop tool

The “Name Drop” function can be activated from the right click menu of a selected text object, when the Object editor is active. If activate “Name Drop” function the Name Drop dialog box will appear (Figure 10.14).

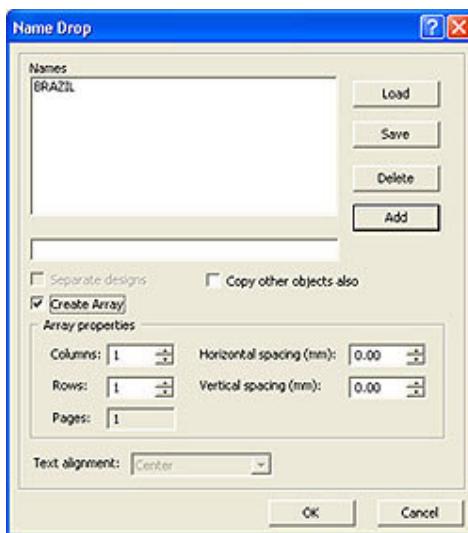


Figure 10.14: Name Drop dialog

In the dialog box you have to adjust many parameters in order to get the result you want. All the possible adjustments will be analyzed below.

Load

With the “Load” button you can load an existing “Name Drop” list. All the names that the list has will appear in the “Name” text area where you can edit them.

Save

With the “Save” button you can save a “Name Drop” list in a file, which you can load when you will needed again. The default directory that you can save the name drop is the “Designs” that is located in the installation directory of the program in your hard disc. You can create a new folder where you can save the “Name Drop” lists that you will create and every time load them from there.

Delete

With the “Delete” button you can delete any name in the “Names” text area. The name that will be deleted can be either from a loaded or from a new created “Name Drop”. In order to keep any changes you have made you can save the “Name Drop” list in a new file or overwrite an old one.

Note: You can not call back any deleted item in the “Name Drop” dialog box.

Add

With the “Add” button you can add new names in the “Names” list. The names can be entered in the text field next to the add button. Any added name will be used to create a new copy of the text object that the name drop is applied on, by replacing the text of the text object with the added name in the “Names” list.

Names

In the “Names” text area are listed all the names that will be used in order the “Name Drop” function to be applied. Any changes produced from adding or deleting names are all listed in the “Names” text area.

Separate designs

With the “Separate designs” checkbox you can define the way you want the name drops to be created.

If the checkbox is checked the “Name Drop” tool will create separate files for each name drop listed in the “Names” text area.

It will create new files that will contain the text object, on which the “Name Drop” was applied, replaced from a name of the “Names” list.

If you have checked the “Copy other object also” checkbox (described below) in each new file created will be copied also all the objects that exist in the source design.

Copy other objects also

With the “Copy other object also” checkbox all the objects in the design are copied and reproduced in each “Name drop” that will be created. This option is very useful when you want to create many copies of the design by changing only the text of the design.

Create Array

The “Create Array” option is the other way of applying the “Name Drop” function to the selected text. When this option is selected the “Array properties” area is activated where you can specify the way that the “Name Drops” will be inserted in the design.

In the “Array properties” area you can specify the “Columns” and the “Rows” of the table that will be created with designs that the “Name Drop” will produce. Also you can specify The “Horizontal” and “Vertical” spacing between the objects in mm.

The “Pages” field shows the number of virtual pages that will be created. While adding rows and columns in their fields automatically the pages are reduced. The lowest value of the “Pages” field is one and it is the optimal (always reduce pages number to 1 by increasing columns and rows) because all the “Name Drops” are produced in one page without overlapping. If the “Pages” value is greater than one then the “Name Drop” tool will place the names that were not placed in the array over the names that are first in the “Names” list. The “Pages” value is there to help you not forget to add all the names listed, in the array that will be created.

The array is placed on the current design without creating any other like the “Separate designs” option do.

Text alignment

With the “Text alignment” you can specify the whey that the name inserted in the “Names” list will be aligned when the “Name Drop” will be applied. You can choose between two options “Stretch” or “Center”.

If you select “Stretch” from the drop down menu all the names will be stretched to fit the area that the initial text is covering on the design.

If you select “Center” option from the drop down menu all the names will be centered in the area that the initial text is covering on the design.

Create Name Drop in separate files

In order to create the “Name Drop” in separate files you have to follow the steps listed below:

1. Create or load the design you want to use and insert the text where you will apply the “Name Drop” tool.



Figure 10.15: Step 1

2. Select the text object, right click with the mouse and select the “Name drop” function. The “Name drop” dialog box will appear.

Add names in the “Names” list or load from a file other names you have previously used.

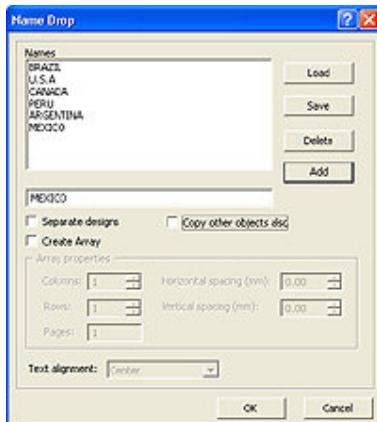


Figure 10.16: Step 2

3. Check the “Separate designs” checkbox and the “Copy other objects also” (Figure 10.17) in order to create each name drop in a separate file a by copying also all the objects that are in the source design.



Figure 10.17: Step 3

4. Click “Ok” button to create the name drops (Figure 10.18).

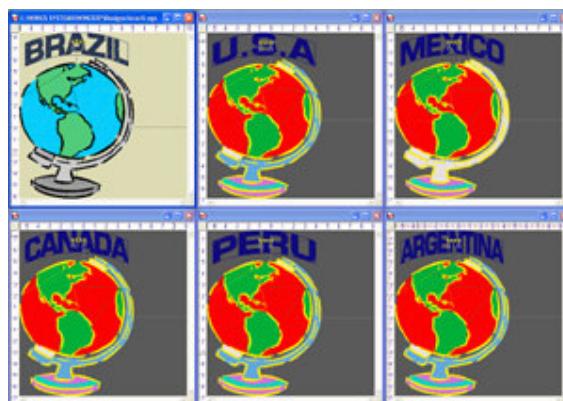


Figure 10.18: Step 4

Create Name Drop array

In order to create the “Name Drops” in an array you have to follow the steps listed below:

1. Create or load the design you want to use and insert the text where you will apply the “Name Drop” tool.



Figure 10.19: Step 1

2. Select the text object, right click with the mouse and select the “Name drop” function. The “Name drop” dialog box will appear.
3. Add names in the “Names” list or load from a file other names you have previously used.

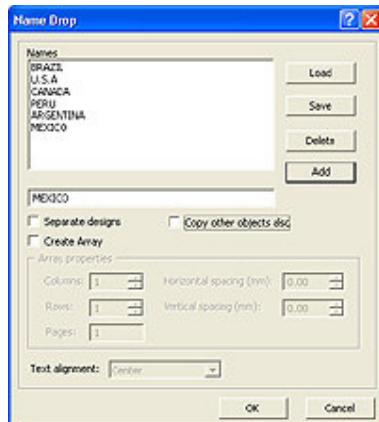


Figure 10.20: Step 3

4. Check the “Create Array” checkbox and the “Copy other objects also” (Figure 10.21) in order to create a table with all the name drops by copying also all the objects that are in the source design.

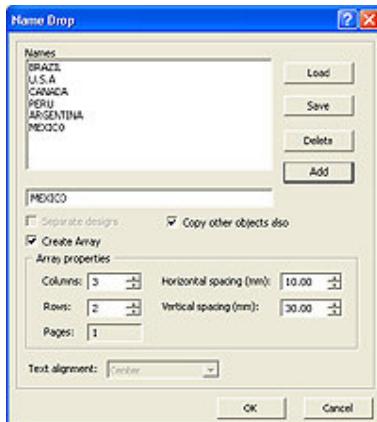


Figure 10.21: Step 4

5. Click “Ok” button to create the name drops (Figure 10.22).



Figure 10.22: Step 5

The result is an array of the source design with the text (name of the country) changed. In no time we have created five more designs ready to be embroidered.

Open and use fonts with Font Creator

With the “Font Creator” you can open existing pre-digitized fonts or create your own pre-digitized fonts. All the existing fonts can be digitized in the way that you want, using your own digitizing experience and style.

Open satin fonts

In the “Font Creator” are includes also 34 pre-digitized fonts that are ready to be used. In order to open and use one of the existing fonts you have to activate the “Open satin font” function from the “Tools> Font editor” menu. The “New/Load satin-stitch font” dialog box appears. It is a standard Open

windows dialog box (figure 10.23) where are listed all the pre-digitized fonts in .SSF file format.

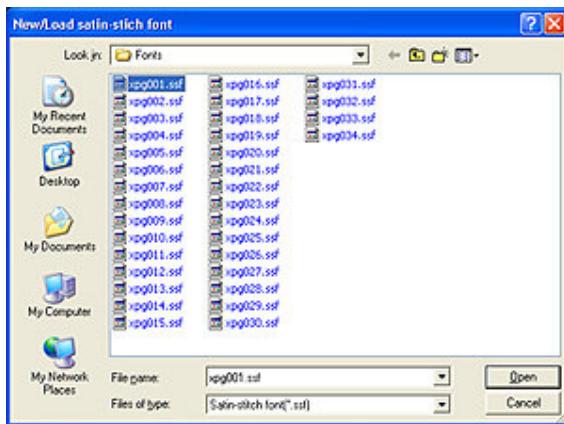


Figure 10.23: Open satin stitch font

Select one “Font type” from the list and click “Open”. The following tool box appears (Figure 10.24). All the pre-digitized characters are shown in yellow boxes.

You can open any of the characters by simply double clicking on it. The pre-digitized character will open in a new eXPerience window where you can edit it or copy and paste it in any design. The fonts are resizable and can be adjusted to fit your needs.



Figure 10.24: Font Creator Toolbox

Also if you select a character and click the “Delete” button that is located in the lower left corner, the character becomes blank and all the stitches are removed. You can digitize again the delete character and save it in its current position. The save process will be explained in the next section.

In the Fonts Creator toolbox (Figure 10.24) there are different Scripts; ASCII, Western. Those are the active scripts that can be viewed and used immediately. In most of the fonts there are more scripts available that can be added and digitized in order to be used in any design. In order to add a new script you have to click on the “New script” button and in the next dialog box to select one of the supported Scripts of the current font. The new script will be added as a tab menu next to the active Scripts of the font. Each script contains characters that can be digitized and added in the font library.

The last button that exists in the Fonts Creator toolbox is the “Create Kern pairs” that is not active in the figure 10.24 above. This button can be used once in any new script that is added. It is important to be applied because it creates some rules to the characters of the script that enhance text insertion of the specific font script in any embroidery design.

Create satin or zig-zag fonts

With “Font Creator” you can create fonts with Satin and Zig-zag stitch type. You can use your experience and expertise to create your own fonts or use any of the pre-digitized fonts to enhance your artwork.

In order to create a new Font in eXPerience you have to follow the steps below:

1. Click on the “Font Editor> Open Satin font” option of “Tools” menu, “New/Load satin-stitch font” (Figure 10.25) dialog box appears dialog.
2. In the “Name” field type the name of the font you wish to create and press the “Open” button. The name that you will use should not exist in C:\WingsXP\Fonts directory
3. The following dialog will come up.

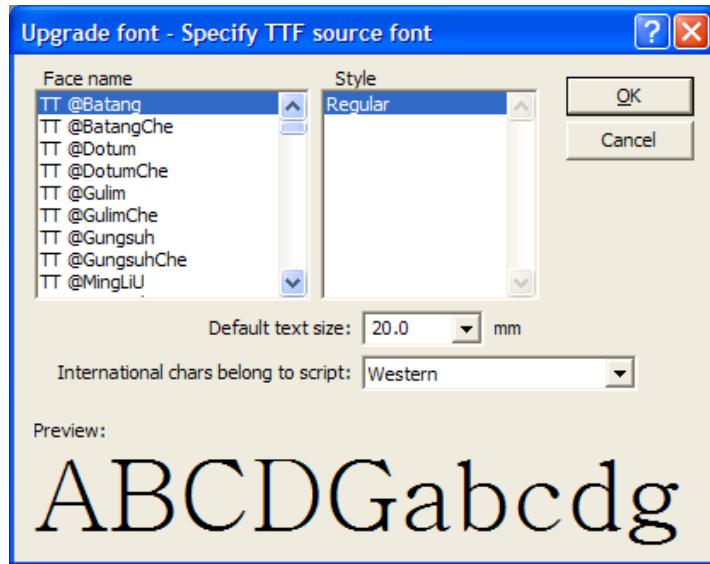


Figure 10.25: TTF source font dialog

4. In the “Face name” you can specify the “Font” you want to digitize. In the “Style” part you can specify the style of the Font (Regular, Italic, Bold, Normal...).

In the “Default text size” you can specify which will be the default size of each character that will be digitized.

One important parameter is the “International Chars belongs to script”. Using this option you can create characters for more than one language. For example the ASCII characters are the most common characters but there are other languages that are using different characters like the O with two dots on the top of the English characters etc. You can select those that you will use more often and add them in the Font creator toolbox (Figure 10.24).

Make your selections and click “Ok” button to continue.

5. When the “Ok” button is pressed the Font creator toolbox will appear (figure 10.24). In this roll up toolbox can be viewed the characters of the selected font and on the top can be viewed the script you have selected.
6. With double click on a character a new design will be created which has as backdrop the character of the font.
7. Now you can start punching normally.
8. When you finish punching the Character you can save the current character by clicking on the “Font Editor>Save character” option of “Tools” menu or press “Ctrl+F12” shortcut key.

The already punched characters are marked with a yellow background color and the characters that are not have white background color.

In case that you want to add one more scripts you can click the “New script” button, select the script and click to “Ok” button to insert the new script.

Do not forget for every new script you should click on the “Create Kerning Pairs” button to enhance the new script characters.

IMPORTANT NOTICE: Every time you create a new font you have to load and save (punching is not needed) the first character of the first script which is an empty square. It is important to do that if you want to use your font through the “Text” tool.

Add punched characters

The characters that each font has are too many; therefore time will be needed for each one to be punched. In Font creator you don't have to punch all the characters at once. You can punch some, save them and then close the font creator. In order to add characters you have to follow the steps that follows:

1. Click on the “Font Editor>Open Satin font” option of “Tools” menu, “New/Load satin-stitch font” (Figure 10.23) dialog box appears dialog.
2. Select from the list the font that you will add new punching characters in it and press the “Open” button.
3. The “Font Creator” toolbox (Figure 10.24) will appear with the selected font loaded.
4. Select the script tab (Western, ASCII...) you want and double click on the character you want to punch.
5. A new design will be created which has as backdrop the character of the font.
6. Select from the object properties toolbar between satin and zig-zag stitch type, the one you want the character to have and activate the digitize tool from the “Modes” toolbar.
7. Start digitizing the character. When you finish punching the Character you can save the current character by clicking on the “Font Editor>Save character” option of “Tools” menu or press Ctrl+F12 shortcut key.
8. The character is saved in the Font Creator toolbox and background of the character becomes yellow that show that the character is ready to be use.

9. You can continue punching other characters following the steps 4 to 7.

Note: You don't need to punch all the existing characters but only those that are used more frequently from you.

You can finish your work with the “Font Creator” toolbox by simply closing it.

With this tool you can create a number of high quality pre-digitized fonts that you can use in your everyday embroidering process.

11

Cross stitch

Introduction

In this chapter we will analyze the tools that you can use to create unique cross-stitch designs. Using each one separately or a combination of them you can create the design you want quickly and effectively. Even cross-stitch text art designs can be made with the use of the respective tools.

Cross stitch Toolbar

To start digitizing cross-stitch you select "Cross-stitch" from Object Properties roll-up and you press the digitize  button. Alternatively you can press the hot-key "F10". Then you draw a rectangle covering all the area that will be done as cross-stitch. There is no need for this rectangle to be completely filled with crosses, so you can draw it larger than the actual cross-stitch size. Be

sure to cover all of the design and not only the current color that you will digitize.

When the cross stitch area is placed the following toolbar comes up:



Figure 11.1: Cross stitch toolbar

Modes

The most important buttons are four last buttons that are visible on the second line of the toolbar, which are the modes of the cross-stitch.

<input checked="" type="checkbox"/> Draw Cross	If this button is pressed, you can add crosses by using one of the first eight drawing tools.
<input checked="" type="checkbox"/> Erase Cross	By pressing this button, you can delete the added crosses, by using one of the first eight drawing tools.
<input checked="" type="checkbox"/> Draw Tacking	When you press this button, you can add tacking paths, by using one of the first eight drawing tools.
<input checked="" type="checkbox"/> Erase Tacking	If this button is pressed, you can delete the added tacking paths, by using one of the first eight drawing tools.

Drawing tools

With this tools you can add (draw) cross stitches / delete cross-strokes or tacking path (depends on the selected mode) in the created rectangle.

<input checked="" type="checkbox"/> Pointer	With this tool you can specify the position where the cross-stitch or tacking path (depending on the selected mode) will be placed. This is the only tool that - if you click on a position with cross-stitch - it erases it.
---	---

 Brush	This tool helps you in adding / deleting cross-stitches or tacking path (depending on the mode) with click and drag.
 Line	This tool adds / deletes cross-stitches or tacking path (depending on the mode), by specifying lines with click and drag.
 Flood Fill	With this tool you can add / delete cross-stitches or tacking path (depending on the mode) in an area, which is surrounded with cross-stitches (fill area).
 Rectangle	This tool adds / deletes a rectangle, made from cross-stitches or tacking path (depending on the mode).
 Filled Rectangle	This tool helps you in adding / deleting a filled rectangle, made from cross-stitches or tacking path (depending on the mode).
 Ellipse	This tool adds / deletes a circle, made from cross-stitches or tacking path (depending on the mode).
 Filled Ellipse	With this tool you can add / delete a filled circle, made from cross-stitches or tacking path (depending on the mode).
 Text	With this tool you can add text, made with cross-strokes in the current design. Read more in the next section "Cross stitch text".

Selecting tools

With the following tools you can select a part of the crosses of the object. The selected part of can be edited with the **Transform** tools.

 Magic wand	The magic wand tool, lets you select a consistently area with cross-strokes, without having to trace its outline.
 Area selection	With this tool you can select by clicking and dragging the mouse on the screen to draw a rectangle. The entire cross-stitch area that is covered from the rectangle will be selected. When selecting items, if you hold the "Shift" key you can add items to the selection. Therefore you can add crosses to the selection by clicking on the crosses you want. Also you can unselect crosses by holding the "Alt" key. In this mode you can move, copy or

	delete the selected parts of the cross stitch.
--	--

Transform tools

With the following tools you can edit the selected parts of cross stitches.

 Area selection	When you have selected the crosses you want with the "Area selection" tool, you can click and drag the selected part to the position you want.
 Cut	With this option of "Edit" menu (also it can be seen on the horizontal toolbar) you can remove the selected part of cross stitches and paste it in another cross stitch object.
 Copy	With this option of "Edit" menu (also it can be found on the horizontal toolbar) you can make a copy of the selected part of cross stitches and paste it in an other cross stitch object or in the same cross stitch object.
 Paste	With this option of "Edit" menu (also it can be seen on the horizontal toolbar) you can paste the cross stitch part that you have cut or copied.
 Clockwise rotation	With this tool you can rotate the selected part of the cross-stitches, 90 degrees clockwise.
 Non-clockwise rotation	With this tool you can rotate the selected part of the cross-stitches, 90 degrees non-clockwise.
 Bold vertically	With this tool you can make the selected part bold by adding vertical cross-strokes.
 Bold horizontally	With this tool you can make the selected part bold by adding horizontal cross-strokes.
 Vertical mirror	With this tool you can mirror the selected part vertically.
 Horizontal mirror	With this tool you can mirror the selected part horizontally.

Canvas' Tools

With this tools you can change the parameters of the created canvas (the area where the cross stitches will be placed).

 Create same canvas	With this button you can create a similar canvas (like the current one) and therefore be able to use more than one colors for filling the cross-stitch area.
 Canvas size	With this tool you can change the size of the canvas. Read more in the following section "Resize grid".

A Cross stitch text

When the pointer  is selected and you press the lettering button , you can add a text made with cross stitches.

In the following dialog you can type the text that you willing to add. The letters can be seen in preview mode.

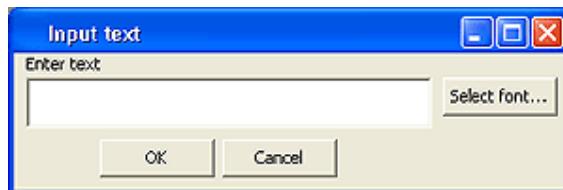


Figure 11.2: Cross stitch text

In case that wish to wish to change the parameters of the text you can press the "Select font" button.

The parameters that you can change are:

- The **font** that will be used
- The available **Styles**
- The available **Scripts**
- The **size** of the text
- The **effects** that will be added in the text

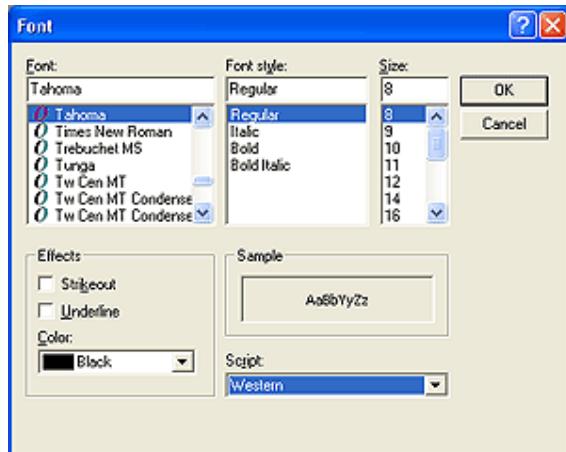


Figure 11.3: Select font dialog

Font

In this area you can select the font of the characters that you will create. By using the scroll bar or the right side, you can see the next or previous available fonts. The fonts that are visible in this area depend on the fonts that are installed in your computer.

On "Sample" area of this dialog you can see how the font you selected will look like.

Font Styles

With this menu you can select the style of the selected font. The options that you have in this menu depend on the available styles of the selected font.

The possible options of this menu are: Normal, Bold, *Italic* or ***Bold Italic***. In the "Sample" area of the dialog you can view how the font you have selected will look like.

Script

With this menu you can select the script of the selected font. The scripts are sets of characters that mainly depend on the characters that every country is using.

The options that you have in this menu depend on the available script of the selected font.

Same possible options of this menu are: Western, Arabic, Cyrillic etc.

Size

With this menu you can select the height of the letters that you will create. The

number that can be seen in these fields is counted in millimeters. The height of a font is the distance between the lowest to the highest point of the capital letter A. Also you can type in this field the size of the font you wish.

Effects

In case that the "Strikeout" parameter is enabled, a straight line made of cross stitches will be placed on the middle of the text.

In case that the "Underline" parameter is enabled, a straight line made of cross stitches will be placed on the bottom of the text.



Resize grid

With this dialog you can change the parameters of the canvas where the cross stitches will be placed.

On the top of the "Resize grid" dialog you can view the number of cells horizontal and vertical.

You can change the number these two parameters by typing the number you wish to be added or subtracted.

With the following area, made from nine (9) squares you can specify the position where the new cells will be added (Figure 11.4).



Figure 11.4: Resize grid

The square that is selected specifies the position of the existing cross-stitch area. Each time you add cells a new canvas is created with the given size. The existing canvas with the design is copied on the new canvas in the location you have selected on the squares. More specific:

Top-Left corner

If this square is selected, the existing cells and the already made cross stitches will be placed on the top left corner of the new canvas.

Middle-Left

If this square is selected, the existing cells and the already made cross stitches will be placed in the middle of the left side of the new canvas.

Bottom-Left corner

If this square is selected, the existing cells and the already made cross stitches will be placed on the bottom left corner of the new canvas.

Middle-Top

If this square is selected, the existing cells and the already made cross stitches will be placed in the middle of the top side of the new canvas.

Middle

If this square is selected, the existing cells and the already made cross stitches will be placed in the middle of the new canvas.

Middle-Bottom

If this square is selected, the existing cells and the already made cross stitches will be placed in the middle of the bottom side of the new canvas.

Top-Right corner

If this square is selected, the existing cells and the already made cross stitches will be placed on the top right corner of the new canvas.

Middle-Right

If this square is selected, the existing cells and the already made cross stitches will be placed in the middle of the right side of the new canvas.

Bottom-Right corner

If this square is selected, the existing cells and the already made cross stitches will be placed on the bottom right corner of the new canvas.

Stretch bitmap to new grid

In case that this parameter is enabled, none of the above mentioned squares will be active and the existing cross stitch object will be stretched accordingly to the size change of the canvas. The stretch will be done by adding or deleting crosses horizontally or vertically.

Scaling method

With these two radio buttons you can specify if the added cells will change the size of the canvas or not.

In case that the "*Keep cell size unchanged*" is enabled, the size of the canvas will be increased or decreased accordingly to the new values of "Cells Horizontal" and "Cells Vertical" fields.

In case that the "*Keep object size unchanged*" is enabled, the size of the cells will be changed in order to keep the same canvas size.

12

Sequins

Introduction

In this chapter we will analyze how you can create embroidery designs with sequins. Sequins are used widely nowadays in embroidering to create impressive designs that will give another feel to the garment. To insert sequins in the designs that you are creating you can use any of the available stitch types that support styles. For Manual and Running stitch types, especially, there are two different ways to apply sequins. Using Manual stitch type, you can create sequin designs with more manual way, but on the other hand using Running stitch type you can make them automatically and easily.

How to punch sequins

Sequins are used widely in the embroidery for creating flashy designs on the clothes. In eXperience sequins are inserted using Manual and Running stitch

types but can be also applied to other stitch types by applying a style with sequins that you can create with the “Style editor”.

Sequins with Manual stitch type

Manual stitches are inserted in the design by selecting manual stitch type from the “Object Properties” toolbar and then clicking on the “digitize” button to start digitizing. With the manual stitch, a straight line connects the nodes that you are adding. The way of punching sequins in eXperience is similar to inserting manual stitches.

1. First you have to select “Manual” stitch type in order to start punching.
2. At the beginning of the object you should put some fixing stitches.
3. Then press the “S” letter from the keyboard and a sequin (following the mouse movement) will appear.
4. Click on a position and the sequin will be placed at that position. Then you must place the stitches that will hold the sequin on the fabric and continue by inserting the next sequin.
5. When you finish entering sequins you can right click with the mouse to exit the digitizing process.

The sequins that are placed correctly and will be embroidered without any problem have yellow color. Those that are not placed in the right position and will not be embroidered correctly have red color. The red sequins must be repositioned in order to become yellow.

Another way to add sequins to an object created with manual stitches is by applying style with sequins. This is not recommended though because the stitch length of Manual stitch type does not have a standard length.

IMPORTANT NOTICE:

The first stitch of every sequin can not be on any position coming from the bottom side of the sequin. The following draw can give you an idea.

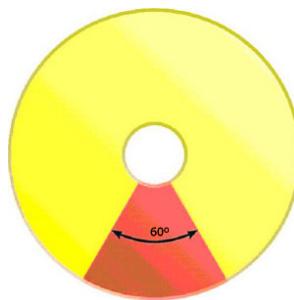


Figure 12.1: sequin's restricted area

The first stitch cannot be on the red area that is highlighted (figure 12.1) on the bottom of the sequin. The reason is that the sequin will cut the thread when the sequin device will try to put the sequin. The sequins that are placed from this angle are automatically highlighted with red color, allowing you to easily recognize them.

There are also new mechanisms that do not have problem inserting sequins from this angle. If you have such mechanism you can ignore the red sequins and create the design in the way you want.

Important: Always check the designs with sequins for unneeded sequin piercing. If such stitches exist you have to change their position from “Stitch editor”.

Sequins with Running stitch type

Another way to enter sequins in your designs is by using running stitches. You can create any design you want with Running stitches and then you can simply place sequins on the running by selecting the object and activating the “Sequins” option from the “Object Properties > Options” tab. Immediately the Running object will be filled with sequins.

After activating the sequins you can adjust the sequin’s embroidery technique and the distance you want to have between them by adjusting the stitch length. The sequins by default are placed with overlapping embroidering style. If you want to make any change on the distance from one sequin to the other you have to adjust the stitch “length” of Running.

Working with running stitches is easier because you can create the design you want and place sequins automatically afterwards. You can make the adjustments you want by using the tools of eXPerience and create the design that will meet your preferences.

Furthermore, if you want to fill an area with sequins you can do it by creating running lines that will cover the shape area and then activate the sequins option. The area will be filled with sequins creating the shape you want to embroider. You can still make any adjustments on the running objects by selecting the objects and change its position or each length.

Finally, another way to add sequins on running designs is by applying a style with sequins that you have created inside “Style editor”. The style will be applied on the Running object allowing you to adjust the sequin overlapping by changing the stitch length from “Object Properties” toolbar.

Sequins on other stitch types

Inside eXperience you have the ability to fill an area with sequins by using any of the available stitch types that support “Styles”. You can fill an area with step, piping, satin or zig-zag stitches by applying a style with sequins on the selected object. Therefore, you can create a style with sequins, create an object filled with step stitches (for example) and apply the style on it. The step object will be filled with sequins ready to be embroidered. This is an easy way to fill an area with sequins. After applying a style with sequins you have to adjust some options from “Object properties” toolbar such as stitch “Length”, “Density”, “Pattern”, “Bidirectional”, Incline and “Clip”. These options allow you to fill the object with sequins in the way you want.

Important: Always simulate the embroidering process, inside “stitch editor”, by checking if there are sequin piercing points. If you find any, move the stitch or delete it.

Sequins on text

You can easily place sequins on the outline of text art designs. One way to do that is by inserting the text you want, made with Running stitches and simply activating the “Sequins” option from the “Object Properties > Options” tab. Immediately the Text design will be filled with sequins creating the shapes of the characters.

When you fill running stitches with sequins you must be careful because there are many parameters that must be taken under consideration when you place sequins on Text art designs. First off all, you must consider the size of your text because sequins have specific sizes and can not fit in very small text designs. Also, if you want accuracy in the fonts that you are using you have to enlarge the text design until you are satisfied with the shape of the font’s characters that you want to embroider.

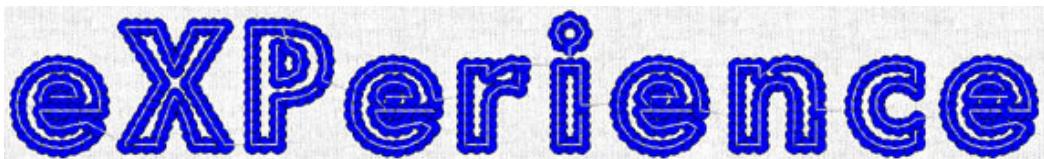


Figure 12.2: Sequins on text

In addition each time you are changing the size of sequins you must always adjust the length of running stitches. eXperience each time that you are changing the stitch length, recalculates stitches and adjusts sequins to fit in the best possible way. Therefore you must always make some adjustments to make sequins embroidered in the way you want.

Another way to add sequins to text objects is by inserting any text filled with a stitch type that supports styles and then applying a style with sequin on it. For example you can insert a text object filled with "Step" stitches and from the "Style" option of "Object properties" toolbar select a style with sequins. The style will be applied on the Text object with the default stitch "Length" and "Density" of Object properties toolbar. By adjusting the "Length" you can set how close each sequin will be placed with its next and by adjusting the "Density" you can set the density of stitches where sequins are placed on. This method allows you to create your own style with sequins and apply it on the text object producing unique embroidery results.

Automatic sequins on Running stitches

To create a design with sequins automatically you can choose between different procedures. You can, first, create the design with running stitches, as a normal running design and then activate the "sequins" option that will place sequins on the running design. The other way is to create the design's running objects one by one and each time you finish an object fill it with sequins.

Both ways are productive; you choose the one you prefer or use a combination of both ways.

In order to create sequins design using the first way, you have to follow the steps below:

1. Start creating the design, you want to fill with sequins, with running stitches (keep the needed distances between running stitches in order the sequins to be placed correctly),
2. When you finish designing you have to set the size and the shape of the sequins that you will use by selecting the "sequin shape/size" option from the right click menu of the running stitch thread color carrier you are using
3. After that select all the running objects that will be filled with running stitches
4. Select the holding technique of sequins from the "Seq. technique" option of the "Object properties > Options" toolbar
5. From the "Object properties > Options" toolbar set the "Sequins" option to "Yes"
6. All running object will be filled with sequins, creating the design you want to embroider

7. Set the Running stitch “Length” to the preferred distance in order to produce the results you want
8. You can select individual objects and edit them separately by changing its options.
9. After finishing the object editing you can proceed to the embroidering process.

The other way that you can create sequin embroidery designs is the following:

1. Select the “sequin shape/size” option from the right click menu of the running stitch thread color carrier you will use to create the running objects.
2. Select the color, the type and set the size of sequins
3. After that select the color and press “F3” to start the digitizing process
4. Start creating the running object, you want to fill with sequins,
5. After that select the holding technique of sequins from the “Seq. technique” option of the “Object properties > Options” toolbar,
6. Again from the “Object properties > Options” toolbar set the “Sequins” option to “Yes”
7. The running object will be filled with sequins, creating the shape you designed.
8. Set the Running stitch “Length” to the preferred distance in order to produce the overlapping results you want
9. If you want you can duplicate (Ctrl + D) the running object as many times as you want in order to fill an area with sequins,
10. You can continue creating Running objects by repeating the steps 3 to 8.
11. After finishing the object editing you can proceed to the embroidering process.

Following one of the two ways, described above, or a combination of both you can create sequin designs easily.

Important: In running objects, “Curve break” nodes  in positions that are not needed must be taken under consideration, to be turned to “curve” nodes , because they might produce unexpected results while working with sequins.

Fill area with style sequins

To fill an area with style sequins it is quite simple and can be applied on every stitch type that supports styles. The procedure that you have to follow is similar to all those stitch types, but some of them have some extra options available for sequins. We will analyze these options below:

1. Start creating a “New” design based on a “Template” that includes styles with sequins.
2. Create a design you want to fill with sequins by using any of the fill stitch types (Step, Satin, Zig-Zag, Piping) that support styles.
3. When you finish designing you have to set the size and the shape of the sequins that you will use by selecting the “sequin shape/size” option from the right click menu of the running stitch thread color carrier you are using.

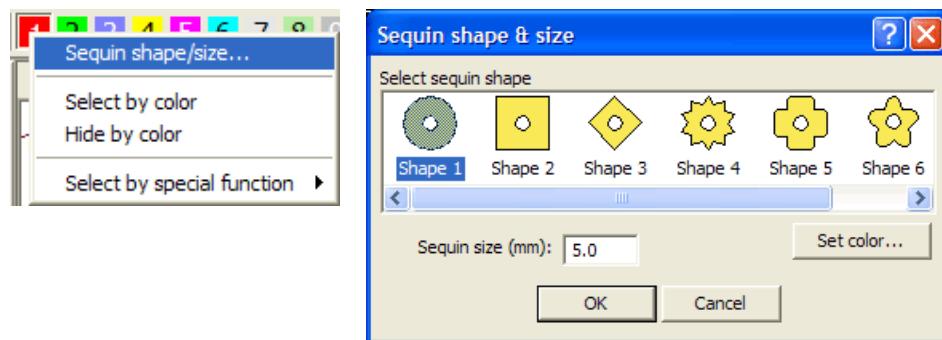


Figure12.3: Sequin shape/size dialog

4. After that select the stitch objects you want to fill with sequins. The object that you will select must be filled with the same stitch type.
5. From “Object properties” toolbar select the “Style” option. All available styles will appear. Select the one you want to apply from the list. If you have created a style with sequins and you have save it in the current Template, it will be, also, available in the list.
6. The style with sequins will be applied on the selected objects filling the area with sequins.

To objects filled with Step stitches.

- a. To step objects first you have to set the “Density” from “Object properties” toolbar. The “Density” value must be based on the size of the style you have applied. To simple styles with sequins usually the “Density” value is equal with the size of a sequins multiplied by

2. (Example: For sequin size 5mm, “Density” can be set to 10mm to fill an area with sequins without overlapping)
- b. Then you have to adjust the stitch “Length” of Step. The stitch length value varies with the style you have applied on the object. The “Minimum stitch length” that you can apply for the specific style it is shown inside the “Style Editor”. If you load the style inside the “Style Editor” you will view it at the bottom left corner.
 - c. Also, you can specify if you want the sequins to be “Bi-directional” or not. If you set this option to “Yes” the sequins will fill the shape following a zig-zag path (for example: from left to right, from right to left and so forth). On the other hand if you set it to “No” it will place the sequins always from one direction to the other (for example: from left to right and then again from left to right).

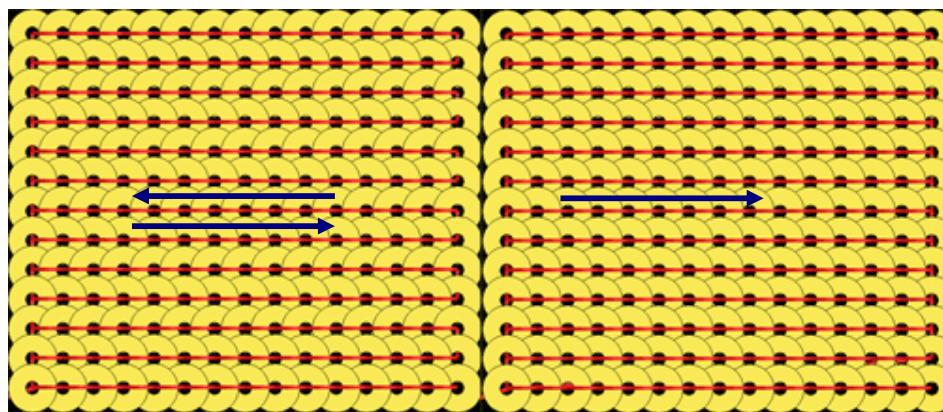


Figure 12.4: Bi-directional “Yes”

Bi-directional “No”

- d. You can also change the pattern you want sequins to be placed on the shape. You can do that by selecting the “Pattern” you want from the respective option of “Object properties” toolbar. The selected pattern will be applied affecting the way the style with sequins is applied.
- e. Another option that you can apply on styles with sequins is the “Incline” option. This option when it is set to “Yes” removes any “Pattern” that is currently applied on the design and disables “Clip” option. This option fills the object with sequins by keeping the outline of the shape as accurate as possible without following any pattern.
- f. You can use any of the available options that are listed on “Object properties” toolbar. With the proper combination you of options you can produce the result you want. We cannot propose you specific

guidelines that you can follow because they vary for each style with sequins that you apply.

To objects filled with Piping stitches.

- a. To Piping objects first you have to set the “Density” from “Object properties” toolbar. The “Density” value must be based on the size of the style you have applied. To simple styles with sequins usually the “Density” value is equal with the size of a sequins multiplied by 2. (Example: For sequin size 5mm, “Density” can be set to 10mm to fill an area with sequins without overlapping)
- b. The piping object is filled with sequins by following a Zig-zag path based on piping stitch type. If you want the way
- c. Then you have to adjust the stitch “Length” of Piping. The stitch length value varies with the style you have applied on the object. The “Minimum stitch length” that you can apply for the specific style it is shown inside the “Style Editor”. If you load the style inside the “Style Editor” you will view it at the bottom left corner.
- d. You can also change the pattern you want sequins to be placed on the shape. You can do that by selecting the “Pattern” you want from the respective option of “Object properties” toolbar. The selected pattern will be applied affecting the way the style with sequins is applied.
- e. You can use any of the available options that are listed on “Object properties” toolbar. With the proper combination you of options you can produce the result you want. We cannot propose you specific guidelines that you can follow because they vary for each style with sequins that you apply.

To objects filled with Satin stitches.

- a. To Satin objects first you have to set the “Density” from “Object properties” toolbar. The “Density” value must be based on the size of the style you have applied. To satin objects, styles with sequins are applied only on each side of satin and do not fill the object with sequins. Therefore not all styles will fit on satin objects.
- b. If you want to fill the area with sequins you have to apply a pattern on the style. To do that you have to select the pattern you want from the “Pattern” list that you will find on “Object properties” toolbar. The

pattern will be applied immediately on the object adding more sequins and filling the area.

- c. You can adjust the pattern “Length” to make sequins fill the objects in the way you prefer. This option will work only if you apply a “Pattern” on the object.
- d. You can use any of the available options that are listed on “Object properties” toolbar. With the proper combination you of options you can produce the result you want. We cannot propose you specific guidelines for all options that you can follow, because they vary for each style with sequins that you apply. Some options it is better to have them disabled (set to “No”); these are: “Short/long”, “Half pitch comp.”, “Corners”, “Side changes” and “Spitz stitch”.

To objects filled with Zig-Zag stitches.

- b. To Zig-zag objects first you have to set the “Density” from “Object properties” toolbar. The “Density” value must be based on the size of the style you have applied. To zig-zag objects, styles with sequins are applied only on each side of satin and do not fill the object with sequins. Therefore not all styles will fit on Zig-zag objects.
 - c. If you want to fill the area with sequins you have to apply a pattern on the style. To do that you have to select the pattern you want from the “Pattern” list that you will find on “Object properties” toolbar. The pattern will be applied immediately on the object adding more sequins and filling the area.
 - d. You can adjust the pattern “Length” to make sequins fill the objects in the way you prefer. This option will work only if you apply a “Pattern” on the object.
 - e. You can use any of the available options that are listed on “Object properties” toolbar. With the proper combination you of options you can produce the result you want. We cannot propose you specific guidelines for all options that you can follow, because they vary for each style with sequins that you apply. Some options it is better to have them disabled (set to “No”); these are: “Short/long”, “Half pitch comp.”, “Corners” and “Spitz stitch”.
7. After making the needed adjustments on the stitch type you have

8. Simulate the design inside the stitch editor to check if there are any misplaced stitches that pierce sequins. Change the position of those stitches to avoid that.
9. After finishing the object editing you can proceed to the embroidering process.

Note: Each style when you open it in the “Style Editor” has a Minimum stitch length value that is shown at the bottom left area of the screen. This value displays the minimum length that can be applied on the style and helps you avoiding zero length stitches. In cases where sequins exist inside the style this value

13

Options

Introduction

In this chapter we will analyze the adjustments that you can do in the options of eXperience in order to fit your preferences. We will discuss the changes you can do in the display properties, in the printing properties, in some general features that experience has and how you can change the levels of eXperience.

Options

There are several adjustments that can be made in eXperience. Most of them are in the “Options” dialog box which can be opened from the menu “Tools > Options”. In the dialog box that appears you can adjust the properties in each menu tab.

Display

In the display tab you can adjust options that are correlated with the display mode of the program.

- **Monitor width:** In this area you can define the actual width of your monitor. This is important if you want to view your digitized designs in their actual size when 100% zoom selection is clicked. In order to find your monitor's width you can measure the visible area with a ruler. The result of your measurement must be entered in the text field "Visible area" at the right metric format. Another way to define your monitor's width is by knowing the size of your monitor in inches, and simply clicking on the respective "monitor preset" size button. The program will automatically set your monitor's width. In order to activate your changes you have to click "Ok" at the "Options" dialog box.

The next time you try to view your embroidery design in 100% zoom, the size of your design will be the actual one.

- **Viewing options:**

Enable Automatic panning: With this option checked you can set if the pan option will be on or not. In case that this field is enabled, with Ctrl + right click you can change the view port of the screen, by moving the mouse outside of the border of the current design.

Show design during move, rotate etc. operations: When this tool is active you can view the designs while they being transformed (moved, rotated, slanted, etc). This option in order to take effect you have to restart the software.

Show translucent selection rectangle: When this option is checked every time you are creating a selection rectangle area with the mouse, a blue translucent rectangle is drawn. If you disable this option, only the outline of the rectangle will be visible. This option in order to take effect you have to restart the software.

Show dimension tool tip: When this option is checked the dimension tool tip appears next to cursor while digitizing or while making rectangle selections with mouse.

Zoom- all border area: This field specifies the width of the border (counted in pixels) of the selected area. The same parameter is enabling in Zoom all function. Therefore you can easily select even the objects that are in the edge of the screen.

- **Language:** From this drop down menu you can specify the language of the software. This option in order to take effect you have to restart the software.

Printing

This tab shows the general parameters of the printing function. You have the ability to adjust the following options.

- **Printout fonts:** These two fields specify the fonts that will be used in the printouts. You can select any font from the already installed fonts in the computer. The True Type fonts can be used for Dot-matrix, Laser and inkjet printers. The Vector fonts can be used for plotters.
- **Size of text:** This field specifies the size of the letters that the printouts will have counted in Pts.
- **Printout parameters:**

Design bitmap DPI: This field specifies the DPI that will be used in the printouts. Design bitmap DPI should be around half the printer's DPI. Bigger number generates finer lines with less accurate colors and uses more memory. For example, on a printer with 360 dpi, you can put it from 120 to 180 dpi. There is no need to set this number above 254 dpi.

Company name: This field specifies the contents of the company name field on the printout. In this filed you can write the name of your company.

Auto-fit design when displaying print preview: This fields specifies the way that every design will be displayed in print preview. If the Auto-fit option in enabled the program will use as many as possible number of pages in order to show the design in actual size (scale 100%). If the Auto-fit option in disabled and the design is bigger than the default page size of your printer, the program will show the design shrunk, in order to fit in one page. On the right bottom corner of the printout, you can view the percentage of the shrunk.

General

This tab shows other parameters, beyond the categories mentioned above.

- **3.5" embroidery floppy disk is:** The following radio-button control specifies which floppy disk drive is 3.5" and can accept floppy disks (A:,

B: or None). This control is very important in case that you would like to read or write a design on a disk.

- **Other options:** In this field set you can specify the following:

Ask start of block when digitizing: This option when it is enabled always asks the starting point of the block that you are currently digitizing.

Count stitches assuming 4mm max: This checkbox specifies the way that the stitches of the current design will be counted. If this file is enabled, all the stitches will be counted in such a way that the maximum length will be 4 mm. For example, a 9mm stitch counts as 3 stitches (2X4 mm and 1X1 mm). If this parameter is a 9 mm stitch counts as 1 stitch (1X9 mm).

Loaded designs are always maximized: This checkbox specifies the way that every design will appear when it is loaded. If this parameter is enabled all the designs will be loaded maximized, if not all the designs will be loaded cascaded.

Icon browser selection method without using CTRL key: This checkbox specifies the way of multi selection in “Browser” option. If this option is disabled, in order to select more than one designs in “Browser” you have to keep pressed the Control (CTRL) button of the keyboard. If this option is enabled, in order to select more than one designs in Browser, just click on the design you want.

Show object shadows: This checkbox specifies if the “show field outlines”  option will be enabled or disabled every time that eXPerience starts. This option shows the outline of the design that you are digitizing behind the stitches. If you disable it no outline will appear behind the digitized objects.

- **Default 3D preview fabric:**

Change fabric: This file specifies the fabric that will be used in order to show the designs in 3D preview. The following dialog is a normal file open dialog and the files that can be used as fabric are 256x256 pixel bitmaps, 24-bit color, containing a gray image of the fabric. They must be edited for seamless tiling. When you change the fabric from this option, it will become automatically the default fabric that will be used from the software every time that the software will start.

The “Relative brightness” track-bar specifies the brightness of the fabric. The current fabric and its path can be viewed on the top of the “3D preview fabric” area.

- **Undo levels:** This field specifies how many times you can roll back an action in the design. You can increase or decrease it using the arrows next to the field or by entering directly the value in the field. Too high “undo level” value means more memory usage and the opposite.
 - In the same location there is another field where you can specify the auto backup occurrence. You can set the Auto backup mechanism to occur after every change you are making on the design or more. The only thing you have to do is to change the Auto backup value.

Key

In this tab you can enable or disable levels in eXperience.

- **Requested level / options:** In this field-set you can view all the modes/levels that are available in eXperience. You can enable or disable each mode/level you have bought by selecting the one you have form the “Program level” jump menu. Also you can “Enable all” or “Disable all” options by clicking the respective button.

If you change the level without updating the software, the new level will not take effect.

- **Update to new level:** In the lower section of the key tab are located the functions that can be used to change the levels of eXperience.

Old parts: In this field is located the current serial code of the program.

New parts: In this field must be entered the code that will activate a new level of eXperience. This code is provided from your supplier when you purchase a different level of the software.

Key form: The “KeyForm” button is creating a web based report with the current state of the program. When you will need to change the level of the software you will be asked to send a “KeyForm” to your supplier.

Update: This button works together with the “New parts” field. If you buy a new level, your supplier will give you a new update code to activate it. The code must be placed in the “New parts” field and the

“Update” button must be clicked afterwards. The level will be activated when you restart eXPerience.

Note: keep in mind that when you update a level the respective level in the “Requested level / options” must be checked in order the new level to work.

14

Creating embroidery designs

Introduction

In this chapter we will analyze the way that you can create embroidery designs with any stitch type that eXPerience supports. In addition we will discuss some appliqu  techniques and how you can make artistic designs using the transformation tools of eXPerience.

Create an embroidery design from scratch

There are many ways that you can follow to create your embroidery design. You can create a “New” design and start digitizing immediately or insert a backdrop image design that the will help you to create a copy of it with stitches placed on it. The second approach is more widely used in digitizing because it easier to place stitches on an already specified outline from creating the entire design without the guidelines of an image.

Therefore it is easier to create a backdrop design by creating it in CorelDRAW or Illustrator and then import it in the working area where the digitizing process will take place.

Lets take it from the beginning to see how easy is to create an embroidery design in eXPerience. First of all you have to create a new design from the “File>New” option. In the “New Design” dialog box that will appear you can set the parameters that the working area you want to have and you can specify the “Width” and “Height” of the frame you will use in your embroidery machine. Also, you can load any “Template” you want or select the default one (Styles-Patterns.ngs) that contains all the styles and patterns of the software. Finally, you can “Select” the “Backdrop” design you want to embroider and then click the “OK” button to confirm your selections.

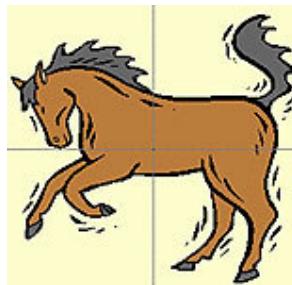


Figure 14.1: Backdrop image

The working space of the new design will appear with your backdrop design at the center of it. If you have loaded one of your own templates you can proceed to the digitizing process. Otherwise you have to adjust the current template to your preferences.

In order to prepare the working area first of all you have to adjust the thread color palette and the color of the fabric. Therefore you have to activate the “Color management” tool from the “Special Functions” toolbar and set the thread manufacturer’s color palette you prefer, together with the fabric color by changing the background color. When you finish with these changes you can click on the “OK” button to confirm the changes.

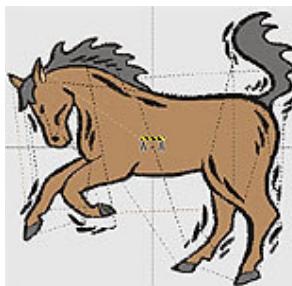


Figure 14.2: Changed backdrop color

Save the design in “.ngs” file format under the directory you prefer, to avoid loosing your work. From the “.ngs” file format you can re-save your design in any embroidery file format you want without loosing any changes you have made in the design. Do not forget to frequently save your designs for avoid losing important work.

Now you are ready to start setting stitches on the backdrop design. This is the most important procedure in the embroidery designing life cycle. Before start digitizing you have to spend the required amount of time in planning and pathing your design. A proper embroidering sequence must start from the areas that are back and finish with those that are at front. Therefore you must take in consideration and organize in your mind, which objects you will embroider first and which, last.

After planning and pathing you can start digitizing. In order to do that, select the stitch type you want to digitize from the drop down menu of “Objects properties” “Options” tab and adjust the parameters to those that are appropriate for your design. You must be careful with the adjustments because they are responsible for the way that the stitches will be placed on the fabric. If you have forgotten to make an adjustment on the stitch type, you can select the object you have digitized and change its stitch type presets afterwards.

If you have made many changes to the stitch type settings and you want to reset them, for a reason, to the default ones you can right click on them and select the “Reset” option. This will return the option of the specific stitch type to each default values.



Figure 14.3: Design filled with stitches

After placing the stitches and made the adjustments you want by applying the tools that eXperience includes for increasing the embroidery quality of the software (cleanup expert), you can continue with the embroidering phase.

You can continue by printing your design and save it in the embroidery machine file format you want.

In the printout you can view all the information needed to you for the embroidering process in order to avoid any embroidering mistake. If you want you can adjust the information you will see in the printout from the “Print Preview” dialog box.

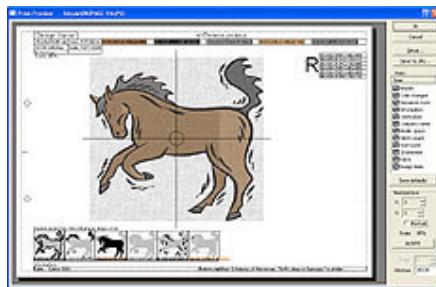


Figure 14.4: Print Preview of the design

While saving the design from “.ngs” to any other embroidering machine file format you might asked to specify extra information about the maximum stitch length between objects and the number of jump-strokes you want to be a thread cut. Those are customizations of the embroidery machine file to your needs. Make the needed adjustments, save the design and send it to the embroidery machine.

It is good practice to keep information for the design in the saved “.ngs” embroidery file. In the “Design info” option that you can activate from the “File” menu you can add useful information about the created embroidery design. This information can be saved only in the “.ngs” file format and can help to find your designs easier with the search tool that eXPerience includes. Also, you can use the information as reference in the creation of any other similar embroidery design. It is like holding a database of design’s information.

When you finish with the design you can continue with the creation of the next one by following the same steps.

Working with Manual stitches

With Manual stitch type you can add stitches exactly in the position you want to be placed on the fabric without any automation. This gives you the ability to take the power in your hands and make the designs you want by inserting stitches in the way you prefer.

In order to add manual stitches on a design you have to select the manual stitch type from the “Options” tab of the “Object Properties” toolbar and then click on the “Digitize”  tool from the “modes” toolbar. Another way to add

manual stitches on the designs is by simply clicking the “F2” button from the keyboard.

Note: While digitizing you can delete the last inserted node by pressing the “Backspace”. If you want to delete more press it as many times as needed.

After activating the manual stitch type the “cursor” will turn to a “cross” which means that you are ready to start entering manual stitches on the working area. Each time that you will click on the working area a manual stitch will be added. The stitch length of the inserted stitch is defined from the start and the end insertion points of each manual stitch. You can set the maximum manual stitch length from the “Object Properties” toolbar by defining the exact length in millimeters.

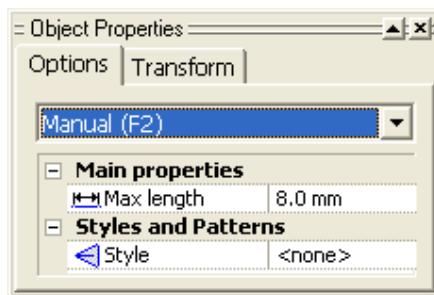


Figure 14.5: Manual options

Also, you can add “Styles” on the inserted manual stitches by selecting any from the “Style” option of the “Object properties” toolbar. The tricky point in adding styles to manual stitches is that the size of the style depends on the stitch length of the inserted manual stitches. Therefore, if you have inserted long and short manual stitches successively and apply a style on them you will end up with small and large styles respectively. This ability gives you an extra tool for creating artistic designs by using styles on manual stitches.

While inserting manual stitches on the working area you can press the “S” letter that will invoke a sequin and insert it in the design. You can continue entering sequins on the design manually until you are satisfied with the result. Using, the sequins options with the manual stitch type you can create design that will include sequins in specific locations giving them a better look and feel.

In addition, while digitizing with manual stitches you can use the “Ctrl” and “Alt” keys and combination of them to enhance your digitizing abilities. If you hold the “Ctrl” key, the digitizing cross locks on the horizontal and vertical axis where you can insert manual stitches. If you release the “Ctrl” key the digitizing cross will behave normally. On the other hand if you hold the “Alt”

key down the digitizing cross will not snap on the edges of any inserted backdrops. Those abilities can be found useful in the digitizing process to make precise stitch insertions.

Also, you can create branches with manual stitches easily. You can start digitizing with manual stitches by creating a line object; right click once to close the inserted object and continue digitizing the next object that will be the next part of the branch. You can do that again and again until you create the design you want. When you finish with the last inserted branch, you can right click once more to end the digitizing process of the object. The last inserted manual stitch will be also the “exit point” of the design.

To summarize, when you want to insert manual stitches on the design you have to:

1. press the “F2” button to activate the digitizing process,
2. start inserting stitches on the working area by clicking on the points (press “S” key to insert sequins) where the stitches you want to be inserted,
3. right click once to end the inserted object
4. continue if you want by creating another manual stitch object as a branch
5. or right click again to end the digitizing process.

These are mainly the ways that you can use manual stitch type.

Working with Running stitches

Running stitch type is defined by a smooth curve that connects the nodes that you are adding. It is one the most usual stitch types in the embroidering life cycle. You can add running stitches by simply clicking on the working area and create the shape you want to embroider.

In order to start digitizing with running stitches, you have to select the “Running” stitch type from the “Options” tab of the “Object Properties” toolbar and then click on the “Digitize”  tool from the “modes” toolbar. Another way to add running stitches on the design is by simply clicking the “F3” button from the keyboard.

After activating the Running stitch type the “cursor” will turn to a “cross” which means that you are ready to start entering running stitches on the working area. Each time that you will click on the working area a node will be added that will define the one of the, at least, two needed for a running stitch to be inserted. By entering nodes on the working area you can create the shape that will be filled with running stitches.

Note: While digitizing you can delete the last inserted node by pressing the “Backspace”. If you want to delete more press it as many times as needed.

When you finish inserting the first running object you have to right click once to close it. The digitizing cross will continue to exist letting you to create another running object as a branch. You can insert as many branches as you want by following the same steps. When you finish inserting running objects you can right click once again to set the “exit point” of the running object. The digitizing cross immediately changes to a small cross waiting form you the exit point of the design. The position that you will click on will be the “exit point” of the design. If you do not set an exit point and right click again, eXperience will automatically set the exit point to the best possible position and end the creation of the first running object. The digitizing cross will appear again waiting from you to start the creation of the next object. To terminate the digitizing process right click again.

In order to make your life easier eXperience includes some ready shapes that you can insert and place Running stitches on them. In order to do that you have to activate the Running stitch type and before insert any node on the working area press the “S” key. The “Insert shape” dialog box will appear from where you can select the shape you want to insert in the working area.

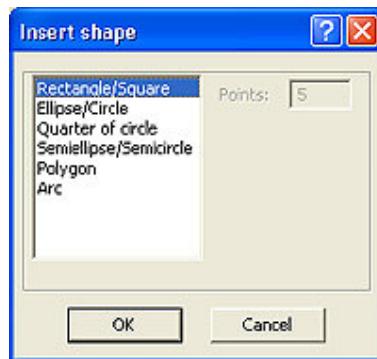


Figure 14.6: Insert shape dialog

Select the one you want and click “OK” to insert it in the working area. The shape will be immediately filled with Running stitches and the digitizing cross

will remain, waiting from you to insert the next running design. If you want you can continue inserting shapes following the same procedure.

Instead of ‘S’ you can press ‘T’ and add a character with the Font and size you want. When you activate Running digitizing process, press ‘T’ and the “New char” dialog will appear where you can specify the character you want to add as a Running design.

In addition, while digitizing with running stitches you can use the “Ctrl”, “Shift” and “Alt” keys and combination of them to enhance your digitizing abilities. If you hold the “Ctrl” key, the digitizing cross locks on the horizontal and vertical axis where you can insert running stitches. If you release the “Ctrl” key the digitizing cross will behave normally.

On the other hand if you hold the “Alt” key down the digitizing cross will not snap on the edges of any inserted backdrops. Finally, if you hold the “Shift” key down the running stitches that you will enter will not be on a curve but on a straight line. You can make also combinations of the function keys to create the conditions you want while inserting running stitches.

When you finish with the design you want to create or before its creation you can make any adjustment you want the running stitches to have from the “object properties” toolbar. You can adjust the length of the inserted stitches, add Fix/Lock stitches, set the offset, specify the number of running repeats and if you want to have offset. In addition you can specify the random length you want your design to have, insert style stitches, activate the incline option, insert sequins and select their embroidery technique, and activate the closest point connection point between objects.

All these options are giving you the power to make any adjustments you want on the running stitches and produce the embroidery results you want.

Note: More about adjusting Running stitch type options you can read in “Chapter 8” at “Running” section.

To summarize, when you want to insert running stitches on the design you have to:

1. Press the “F3” button to activate the digitizing process,
2. Start inserting stitches on the working area by clicking on the points (press “S” key to insert a shape) where the stitches you want to be inserted,
3. Right click once to end the inserted object

4. Continue if you want by creating another running stitch object as a branch
5. Or right click again to end creation of the first object and set the exit point of the design
6. Click on the position you want the exit point to be or right click again to let the software define the best possible automatically
7. Continue digitizing the next running object or right click again to terminate the digitizing process.

These are mainly the ways that you can insert running stitches on the working area and create embroidery designs.

Working with Satin stitches

With satin stitch type you can add a punching object of satin stitches. In this case, a smooth curve connects the nodes that you are adding. The most important thing in using satin is that you have to add the node points in pairs. The program automatically adds the direction of stitches which connect a pair of nodes.

In order to start digitizing with satin stitches, you have to select the “Satin” stitch type from the “Options” tab of the “Object Properties” toolbar and then click on the “Digitize”  tool from the “modes” toolbar. Another way to add Satin stitches on the design is by simply clicking the “F4” button from the keyboard.

After activating the Satin stitch type the “cursor” will turn to a “cross” which means that you are ready to start entering satin stitches on the working area. Each time you click on the working area, a node will be added that will define one of the two direction points of satin. You must always insert nodes in pairs, the one against the other, in order to create proper satin objects. When you finish digitizing the satin object you can right click once to end it. The digitizing cross will continue to exist letting you to insert more than one satin objects as branches.

Note: While digitizing you can delete the last inserted node by pressing the “Backspace”. If you want to delete more press it as many times as needed.

When you finish inserting satin objects you can right click once again to set the “exit point” of the satin object. The digitizing cross immediately changes to

a small cross waiting for you the exit point of the design. The position that you will click on will be the “exit point” of the design. If you do not set an exit point and right click again, eXPerience will automatically set the exit point to the best possible position and end the creation of the first satin object. The digitizing cross will appear again waiting for you to start the creation of the next object. To terminate the digitizing process right click again. If you want you can add a new satin object by following the same steps.

In addition, while digitizing with satin stitches you can use the “Ctrl”, “Shift” and “Alt” keys and combination of them to enhance your digitizing abilities. If you hold the “Ctrl” key, the digitizing cross locks on the horizontal and vertical axis where you can insert satin nodes. If you release the “Ctrl” key the digitizing cross will behave normally. This ability can help you in the creation of accurate shapes on the vertical and horizontal axis.

On the other hand if you hold the “Alt” key down the digitizing cross will not snap on the edges of any inserted backdrops. Finally, if you hold the “Shift” key down the outline of the digitized satin shape will be not created with curved lines but with straight lines. Therefore you can create satin objects with cornered outlines or with curved outlines. You can make also combinations of the function keys to create the conditions you want while inserting satin stitches.

You can also edit the direction of the satin objects from the node editor. You can click on the “Edit nodes” tool on the modes toolbar to activate the node editor. After that you can select the satin object you want to edit and move the nodes of the direction you want to change. When you finish you can click back to the object editor by clicking on the “Edit objects” tool and view how the satin object changed. The software automatically recalculates the stitches in order to produce the embroidery design with changes you have made in the node editor. You can do as many changes as needed to produce the preferred result.

There are many parameters you can adjust in satin stitches that can help you to produce the satin design you prefer. These parameters can be adjusted before creating the satin object or after the creation of the satin object. You can adjust the density, set an underlay, add fix and lock stitches, enable corners and add compensation. Also, you can set your satin object to have random width, specify the side of the random stitches, apply styles, apply patterns, define if you want to have short long stitches and half pitch compensation, enable side changes, define the percentage of the variable pitch, activate spitz stitch and the closest point between objects.

Note: More about adjusting Satin stitch type options you can read in “Chapter 8” at “Satin” section.

To summarize, when you want to insert satin stitches on the design you have to:

1. Press the “F4” button to activate the digitizing process,
2. Start inserting satin stitches on the working area by defining the area in pairs of nodes
3. Right click once to end the inserted satin object
4. Continue if you want by creating another satin stitch object as a branch
5. Or right click again to end creation of the first object and set the exit point of the design
6. Click on the position you want the exit point to be or right click again to let the software define the best possible automatically
7. Continue digitizing the next satin object or right click again to terminate the digitizing process.

These are mainly the ways that you can insert satin stitches on the working area and create embroidery designs.

Working with Step stitches

With Step stitch type you can add a punching object of step stitches. In order to create a step stitch object you have to specify first the direction of the stitches and after this the outline which will be field by the step stitches.

In order to start digitizing with step stitches, you have to select the “Step” stitch type from the “Options” tab of the “Object Properties” toolbar and then click on the “Digitize”  tool from the “modes” toolbar. Another way to add Step stitches on the design is by simply clicking the “F5” button from the keyboard.

After activating the Step stitch type the “cursor” will turn to a “cross” which means that you are ready to define the area that will be filled with step stitches on the working area. With the first two nodes you can define the direction of step stitches. In case that after entering the first node, you right click once, the new step will keep the same direction with the previous step if there is one. Otherwise, the direction of the new one will be 0 degrees (horizontal).

After that you can start entering nodes that will create the shape that will be filled with step stitches. When inputting the nodes of the outline, a smooth curve connects the nodes that you are adding. When you finish digitizing the step object you can right click once to end it. The digitizing cross will continue to exist letting you to insert more than one step objects as branches. You can insert as many branches as you want by following the same steps.

Note: While digitizing you can delete the last inserted node by pressing the "Backspace". If you want to delete more press it as many times as needed.

When you finish inserting step objects you can right click once again to set the "exit point" of the step object. The digitizing cross immediately changes to a small cross waiting for you the exit point of the design. The position that you will click on will be the "exit point" of the design. If you do not set an exit point and right click again, eXperience will automatically set the exit point to the best possible position and end the creation of the first step object. The digitizing cross will appear again waiting from you to start the creation of the next object. To terminate the digitizing process right click again.

In order to make your life easier eXperience includes some ready shapes that you can insert and place step stitches on them. In order to do that you have to activate the Step stitch type and before insert any node on the working area press the "S" key. The "Insert shape" dialog box will appear from where you can select the shape you want to insert in the working area.

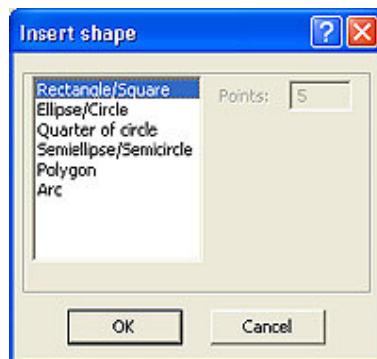


Figure 14.7: Insert shape dialog

Select the one you want and click "OK" to insert it in the working area. The shape will be immediately filled with Step stitches and the digitizing cross will remain, waiting from you to insert the next running design. If you want you can continue inserting shapes by following the same procedure.

Instead of ‘S’ you can press ‘T’ and add a character with the Font and size you want. After setting the direction of step then press ‘T’ and the “New char” dialog will appear where you can specify the character you want to add as a design.

In addition, while digitizing with Step stitches you can use the “Ctrl”, “Shift” and “Alt” keys and combination of them to enhance your digitizing abilities. If you hold the “Ctrl” key, the digitizing cross locks on the horizontal and vertical axis where you can insert nodes that will create the shape that will be filled step stitches. If you release the “Ctrl” key the digitizing cross will behave normally.

On the other hand if you hold the “Alt” key down the digitizing cross will not snap on the edges of any inserted backdrops. Finally, if you hold the “Shift” key down the nodes of the step stitches that you will enter will not be on a curve but on a straight line. You can, also, make combinations of the function keys to create the conditions you want while inserting nodes in order to create the step objects. Especially the “Ctrl+Shift” combination adds extra abilities to step stitch type that we will analyze later in this chapter.

Experience gives you the ability to change the direction of stitches of an existing step object using the node editor. Select the “Edit Nodes” option from the “modes” toolbar, click on the outline of the step object, in order the direction to appear, and click and drag a node of the direction to set the new angle of it. The changes have immediate effect and can be viewed in the object editor’s view mode.

There are many parameters you can adjust in step stitches that can help you to produce the step design you prefer. These parameters can be adjusted before creating the step object or after the creation of the step object. You can adjust the density, change the stitch length, set an underlay, add fix and lock stitches, enable square end and add compensation. Also, you can set the step pattern to have random stitch length, add gradient to step object, apply styles, apply patterns, define if you want the styles to be stretched, activate the clip option and the closest point between objects.

Note: More about adjusting Step stitch type options you can read in “Chapter 8” at “Step” section.

To summarize, when you want to insert step stitches on the design you have to:

1. Press the “F4” button to activate the digitizing process,
2. Set step direction with the first two nodes and then

3. Start inserting nodes that will shape the area you want to fill with step stitches or click the “S” to insert a shape from the list
4. Right click once to end the inserted step object
5. Continue if you want by creating another step object as a branch
6. Or right click again to end creation of the first object and set the exit point of the design
7. Click on the position you want the exit point to be or right click again to let the software define the best possible automatically
8. Continue digitizing the next step object or right click again to terminate the digitizing process.

These are mainly the ways that you can insert step stitches on the working area and create embroidery designs.

Working with Zig-Zag stitches

With zig-zag stitch type you can add a punching object of zig-zag stitches. In this case, a smooth curve connects the nodes that you are adding. The most important thing in using zig-zag is that you have to add the node points in pairs. The program automatically adds the direction of stitches that connect a pair of nodes.

In order to start digitizing with zig-zag stitches, you have to select the “Zig-zag” stitch type from the “Options” tab of the “Object Properties” toolbar and then click on the “Digitize”  tool from the “modes” toolbar. Another way to add Zig-zag stitches on the design is by simply clicking the “F5” button from the keyboard.

After activating the Zig-zag stitch type the “cursor” will turn to a “cross” which means that you are ready to start entering zig-zag stitches on the working area. Each time you click on the working area, a node will be added that will define one of the two direction points of zig-zag. You must always insert nodes in pairs, the one against the other, in order to create proper zig-zag objects. When you finish digitizing the zig-zag object you can right click once to end it. The digitizing cross will continue to exist letting you to insert more than one zig-zag objects as branches.

Note: While digitizing you can delete the last inserted node by pressing the “Backspace”. If you want to delete more press it as many times as needed.

When you finish inserting zig-zag objects you can right click once again to set the “exit point” of the zig-zag object. The digitizing cross immediately changes to a small cross waiting for you the exit point of the design. The position that you will click on will be the “exit point” of the design. If you do not set an exit point and right click again, eXPerience will automatically set the exit point to the best possible position and end the creation of the first zig-zag object. The digitizing cross will appear again waiting from you to start the creation of the next object. To terminate the digitizing process right click again. If you want you can add a new zig-zag object by following the same steps.

In addition, while digitizing with zig-zag stitches you can use the “Ctrl”, “Shift” and “Alt” keys and combination of them to enhance your digitizing abilities. If you hold the “Ctrl” key, the digitizing cross locks on the horizontal and vertical axis where you can insert zig-zag nodes. If you release the “Ctrl” key the digitizing cross will behave normally. This ability can help you in the creation of accurate shapes on the vertical and horizontal axis.

On the other hand if you hold the “Alt” key down the digitizing cross will not snap on the edges of any inserted backdrops. Finally, if you hold the “Shift” key down the outline of the digitized zig-zag shape will be not created with curved lines but with straight lines. Therefore you can create zig-zag objects with cornered outlines or with curved outlines. You can make also combinations of the function keys to create the conditions you want while inserting zig-zag stitches.

You can also edit the direction of the zig-zag objects from the node editor. You can click on the “Edit nodes” tool on the modes toolbar to activate the node editor. After that you can select the zig-zag object you want to edit and move the nodes of the direction you want to change. When you finish you can click back to the object editor by clicking on the “Edit objects” tool and view how the zig-zag object changed. The software automatically recalculates the stitches in order to produce the embroidery design with changes you have made in the node editor. You can do as many changes as needed to produce the preferred result.

There are many parameters you can adjust in zig-zag stitches that can help you to produce the zig-zag design you prefer. These parameters can be adjusted before creating the zig-zag object or after the creation of the zig-zag object. You can adjust the density, set an underlay, add fix and lock stitches, enable corners, add square end to them and add compensation. Also, you can set your zig-zag object to have random width, specify the side of the random stitches, apply styles, apply patterns, define if you want to have short

long stitches and half pitch compensation, define the percentage of the variable pitch, activate spitz stitch and the closest point between objects.

Note: More about adjusting Zig-zag stitch type options you can read in “Chapter 8” at “Zig-zag” section.

To summarize, when you want to insert zig-zag stitches on the design you have to:

1. Press the “F6” button to activate the digitizing process,
2. Start inserting zig-zag stitches on the working area by defining the area in pairs of nodes
3. Right click once to end the inserted zig-zag object
4. Continue if you want by creating another zig-zag stitch object as a branch
5. Or right click again to end the creation of the first object and set the exit point of the design
6. Click on the position you want the exit point to be or right click again to let the software define the best possible automatically
7. Continue digitizing the next zig-zag object or right click again to terminate the digitizing process.

These are mainly the ways that you can insert zig-zag stitches on the working area and create embroidery designs.

Working with Satin-Serial stitches

Satin serial stitch type is defined by a smooth curve that connects the nodes that you are adding. It is a very useful stitch type that is mainly used in creating borders in step shapes and outline objects. You can add satin serial stitches by simply clicking on the working area and create the shape or the border you want to embroider.

In order to start digitizing with satin serial stitches, you have to select the “Satin serial” stitch type from the “Options” tab of the “Object Properties” toolbar and then click on the “Digitize”  tool from the “modes” toolbar. Another way to add satin serial stitches on the design is by simply clicking the “F7” button from the keyboard.

After activating the Satin serial stitch type the “cursor” will turn to a “cross”, which means that you are ready to start entering satin serial stitches on the working area. Each time that you will click on the working area a node will be added that will define the one of the, at least, two needed for a satin serial stitch to be inserted. By entering nodes on the working area you can create the shape that will be filled with satin serial stitches.

Note: While digitizing you can delete the last inserted node by pressing the “Backspace”. If you want to delete more press it as many times as needed.

When you finish inserting the first satin serial object you have to right click once to close it. The digitizing cross will continue to exist letting you to create another satin serial object as a branch. You can insert as many branches as you want by following the same steps. When you finish inserting satin serial objects you can right click once again to set the “exit point” of the satin serial object. The digitizing cross immediately changes to a small cross waiting for you the exit point of the design. The position that you will click on will be the “exit point” of the design. If you do not set an exit point and right click again, eXperience will automatically set the exit point to the best possible position and end the creation of the first running object. The digitizing cross will appear again waiting from you to start the creation of the next object. To terminate the digitizing process right click again.

In order to make your life easier eXperience includes some ready shapes that you can insert and place Satin serial stitches on them. In order to do that you have to activate the Satin serial stitch type and before insert any node on the working area press the “S” key. The “Insert shape” dialog box will appear from where you can select the shape you want to insert in the working area.

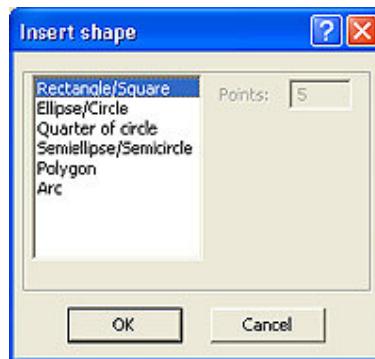


Figure 14.10: Insert shape dialog

Select the one you want and click “OK” to insert it in the working area. The shape will be immediately filled with Satin serial stitches and the digitizing

cross will remain, waiting from you to insert the next satin serial design. If you want you can continue inserting shapes following the same procedure.

Instead of ‘S’ you can press ‘T’ and add a character with the Font and size you want. When you activate Satin serial digitizing process, press ‘T’ and the “New char” dialog will appear where you can specify the character you want to add as a Satin serial design.

In addition, while digitizing with satin serial stitches you can use the “Ctrl”, “Shift” and “Alt” keys and combination of them to enhance your digitizing abilities. If you hold the “Ctrl” key, the digitizing cross locks on the horizontal and vertical axis where you can insert satin serial stitches. If you release the “Ctrl” key the digitizing cross will behave normally.

On the other hand if you hold the “Alt” key down the digitizing cross will not snap on the edges of any inserted backdrops. Finally, if you hold the “Shift” key down the satin serial stitches that you will enter will not be on a curve but on a straight line. You can make also combinations of the function keys to create the conditions you want while inserting satin serial stitches.

When you finish with the design you want to create or before its creation you can make any adjustment you want the satin serial stitches to have from the “object properties” toolbar. You can adjust the density and the width of the inserted stitches, choose an underlay, add Fix/Lock stitches, select the type of the generated stitches, enable corners and set the offset. In addition you can set your satin serial object to have random width, specify the side of the random stitches, apply styles and patterns, define if you want to have short long stitches and half pitch compensation, define the percentage of the variable pitch, activate spitz stitch and the closest point between objects.

All these options are giving you the power to make any adjustments you want on the satin serial stitches and produce the embroidery results you want.

Note: More about adjusting Satin serial stitch type options you can read in “Chapter 8” at “Satin serial” section.

To summarize, when you want to insert satin serial stitches on the design you have to:

1. Press the “F7” button to activate the digitizing process,
2. Start inserting stitches on the working area by clicking on the points (press “S” key to insert a shape) where the stitches you want to be inserted,
3. Right click once to end the inserted object

4. Continue if you want by creating another satin serial stitch object as a branch
5. Or right click again to end the creation of the first object and set the exit point of the design
6. Click on the position you want the exit point to be or right click again to let the software define the best possible automatically
7. Continue digitizing the next satin serial object or right click again to terminate the digitizing process.

These are mainly the ways that you can insert satin serial stitches on the working area and create embroidery designs.

Working with Piping stitches

With piping stitch type you can add a punching object of piping stitches. In this case, a smooth curve connects the nodes that you are adding. The most important thing in using piping is that you have to add the node points in pairs. The program automatically adds the direction of stitches which connect a pair of nodes.

In order to start digitizing with piping stitches, you have to select the “Piping” stitch type from the “Options” tab of the “Object Properties” toolbar and then click on the “Digitize”  tool from the “modes” toolbar. Another way to add Piping stitches on the design is by simply clicking the “F8” button from the keyboard.

After activating the Piping stitch type the “cursor” will turn to a “cross” which means that you are ready to start entering piping stitches on the working area. Each time you click on the working area, a node will be added that will define one of the two direction points of piping. You must always insert nodes in pairs, the one against the other, in order to create proper piping objects. When you finish digitizing the piping object you can right click once to end it. The digitizing cross will continue to exist letting you to insert more than one piping objects as branches.

Note: While digitizing you can delete the last inserted node by pressing the “Backspace”. If you want to delete more press it as many times as needed.

When you finish inserting piping objects you can right click once again to set the “exit point” of the piping object. The digitizing cross immediately changes

to a small cross waiting for you the exit point of the design. The position that you will click on will be the “exit point” of the design. If you do not set an exit point and right click again, eXPerience will automatically set the exit point to the best possible position and end the creation of the first piping object. The digitizing cross will appear again waiting for you to start the creation of the next object. To terminate the digitizing process right click again. If you want you can add a new piping object by following the same steps.

In addition, while digitizing with piping stitches you can use the “Ctrl”, “Shift” and “Alt” keys and combination of them to enhance your digitizing abilities. If you hold the “Ctrl” key, the digitizing cross locks on the horizontal and vertical axis where you can insert piping nodes. If you release the “Ctrl” key the digitizing cross will behave normally. This ability can help you in the creation of accurate shapes on the vertical and horizontal axis.

On the other hand if you hold the “Alt” key down the digitizing cross will not snap on the edges of any inserted backdrops. Finally, if you hold the “Shift” key down the outline of the digitized piping shape will be not created with curved lines but with straight lines. Therefore you can create piping objects with cornered outlines or with curved outlines. You can make also combinations of the function keys to create the conditions you want while inserting piping stitches.

You can also edit the direction of the piping objects from the node editor. You can click on the “Edit nodes” tool on the modes toolbar to activate the node editor. After that you can select the piping object you want to edit and move the nodes of the direction you want to change. When you finish you can click back to the object editor by clicking on the “Edit objects” tool and view how the piping object changed. The software automatically recalculates the stitches in order to produce the embroidery design with changes you have made in the node editor. You can do as many changes as needed to produce the preferred result.

There are many parameters you can adjust in piping stitches that can help you to produce the piping design you prefer. These parameters can be adjusted before creating the piping object or after the creation of the piping object. You can adjust the density, change the stitch length, add fix and lock stitches and enable chain/loop option. Also, you can set the piping pattern to have random width, add gradient to piping object, apply styles and patterns, define if you want the stitches to be short/long and activate the closest point connection between objects.

Note: More about adjusting Piping stitch type options you can read in “Chapter 8” at “Piping” section.

To summarize, when you want to insert piping stitches on the design you have to:

1. Press the “F8” button to activate the digitizing process,
2. Start inserting piping stitches on the working area by defining the area in pairs of nodes
3. Right click once to end the inserted piping object
4. Continue if you want by creating another piping stitch object as a branch
5. Or right click again to end the creation of the first object and set the exit point of the design
6. Click on the position you want the exit point to be or right click again to let the software define the best possible automatically
7. Continue digitizing the next piping object or right click again to terminate the digitizing process.

These are mainly the ways that you can insert piping stitches on the working area and create embroidery designs.

Working with Photo-stitch stitches

With Photo-stitch type you can add a punching object of Photo-strokes. The program automatically recognizes the graduation of colors of any backdrop image and sets fill stitches on it. The fill stitches are satin bars that cover the backdrop image area. With photo-stitch you can create a perception of the image you have inserted and embroider it on any fabric. For better results the image must be large enough in order the image details to be clearer. Photo-stitch is a stitch type that can produce imprecise results.

In order to start digitizing with photo-stitch stitches, you have to select the “Photo-stitch” stitch type from the “Options” tab of the “Object Properties” toolbar and then click on the “Digitize”  tool from the “modes” toolbar. Another way to add Satin stitches on the design is by simply clicking the “F9” button from the keyboard.

After activating the Photo-stitch stitch type the “cursor” will turn to a “cross” which means that you are ready to define the area that will be filled with photo-stitch stitches on the working area. With the first two nodes you can

define the direction of photo-stitch stitches (proposed angle for photo-stitch direction is 45° , 135° , 225° , 315°). In case that after entering the first node, you right click once, the new photo-stitch will keep the same direction with the previous photo-stitch if there is one. Otherwise, the direction of the new one will be 0 degrees (horizontal).

After that you can start entering nodes that will create the shape that will be filled with photo-stitch stitches. When inputting the nodes of the outline, a smooth curve connects the nodes that you are adding. When you finish digitizing the photo-stitch object you can right click once to end it. The digitizing cross will continue to exist letting you to insert more than one photo-stitch objects as branches. You can insert as many branches as you want by following the same steps.

Note: While digitizing you can delete the last inserted node by pressing the “Backspace”. If you want to delete more press it as many times as needed.

When you finish inserting photo-stitch objects you can right click once again to set the “exit point” of the photo-stitch object. The digitizing cross immediately changes to a small cross waiting form you the exit point of the design. The position that you will click on will be the “exit point” of the design. If you do not set an exit point and right click again, eXPerience will automatically set the exit point to the best possible position and end the creation of the first photo-stitch object. The digitizing cross will appear again waiting from you to start the creation of the next object. To terminate the digitizing process right click again.

In order to make your life easier eXPerience includes some ready shapes that you can insert and place photo-stitch stitches on them. In order to do that you have to activate the Photo-stitch stitch type and before insert any node on the working area press the “S” key. The “Insert shape” dialog box will appear from where you can select the shape you want to insert in the working area and cover the backdrop image with photo stitches.

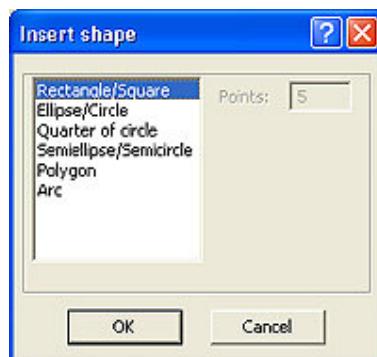


Figure 14.11: Insert shape dialog

Select the one you want and click “OK” to insert it in the working area. The shape will be immediately filled with Photo-stitch stitches and the digitizing cross will remain, waiting from you to insert the next Photo-stitch design. If you want you can continue inserting shapes by following the same procedure.

Instead of ‘S’ you can press ‘T’ and add a character with the Font and size you want. After setting the direction of photo-stitch then press ‘T’ and the “New char” dialog will appear where you can specify the character you want to add as a design.

In addition, while digitizing with Photo-stitch stitches you can use the “Ctrl”, “Shift” and “Alt” keys and combination of them to enhance your digitizing abilities. If you hold the “Ctrl” key, the digitizing cross locks on the horizontal and vertical axis where you can insert nodes that will create the shape that will be filled with photo-stitch stitches. If you release the “Ctrl” key the digitizing cross will behave normally.

On the other hand if you hold the “Alt” key down the digitizing cross will not snap on the edges of any inserted backdrops. Finally, if you hold the “Shift” key down the nodes of the photo-stitch stitches that you will enter will not be on a curve but on a straight line. You can, also, make combinations of the function keys to create the conditions you want while inserting nodes in order to create the photo-stitch objects.

Experience gives you the ability to change the direction of stitches of an existing photo-stitch object using the node editor. Select the “Edit Nodes” option from the “modes” toolbar, click on the outline of the step object, in order the direction to appear, and click and drag a node of the direction to set the new angle of it. The changes have immediate effect and can be viewed in the object editor’s view mode.

You can adjust also the parameters of Photo-stitch type in order to produce better results. By adjusting the width and density of the satin bars on the design you can find the best possible image representation and produce the best embroidery result. In addition you can specify the compensation of the photo-stitch object, to activate the negative projection and adjust the gamma of the inserted photo stitches.

In complex images you can create multiple photo stitch layers with different colors that will give you a better representation of the image on the embroidery result.

Working with Cross-stitch stitches

With Cross-stitch stitch type you can create any design you want easily. You can start inserting crosses in the design by clicking on the table that will hold all the cross-strokes and shape the design you want to create. eXPerience supports you with various cross-stitch designing tools that can help you in the cross-strokes insertion process.

To start digitizing with cross-stitch you have to select "Cross-stitch" from the "Object Properties" roll-up and then press the "digitize"  button from the "modes" toolbar. Alternatively you can press the hot-key "F10". The cursor will turn to a "pencil" waiting for you to draw a rectangle that will cover all the area that will be filled with cross-strokes. There is no need for this rectangle to be completely filled with crosses, so you can draw it larger than the actual cross-stitch size. If you have inserted a backdrop image, be sure to cover the entire design and not only the current color that you will digitize.

When the cross-stitch table area is placed on the working area the cross-stitch toolbar will appear. From this toolbar you can select the tool that you will use in order to insert strokes in the table. You can place single crosses or use any of the existing shape tools (rectangles, circles) to insert a shape in it. The inserted shape is filled immediately with strokes. You can continue inserting cross-strokes until you are satisfied with the embroidery result. Even if you have inserted crosses in wrong positions you can easily delete them by selecting any of the erase tools that exist on the cross-stitch toolbar. You can create the entire cross-stitch design in a single table or in multiple tables.

You can, also, create taking strokes that will connect the objects in the way you prefer. Taking strokes are easily inserted, like placing cross-strokes, and easily removed. You can use the special selection tools to select the cross-strokes and apply on them any of the transformation tools that are included in the Cross-stitch toolbar. You can rotate, mirror and duplicate, the design vertically or horizontally. You can make combinations with these transformation tools and decrease the embroidery designing time.

You can adjust also the parameters of cross-stitch type in order to produce better results. You can specify the cell width and height of the table's squares, add fix and lock strokes and adjust the number of cross-stitch repeats. In addition you can activate the short/long strokes option and the closest point connection between objects. You can adjust the parameters before or after the creation of the embroidery design.

The best way to create a cross-stitch design is by inserting a backdrop image of the design you want to create, insert a table over the entire image and start inserting crosses in the table. You can fill the image with cross-strokes by changing stitch color each time the color of the image changes, or create multiple tables that each one will hold a different color. Therefore you have the flexibility to create the cross-stitch design in the way you prefer.

Automatic fill digitizing function

Running, Step, Satin Serial, Photo-stitch stitch types in “Digitize” mode, and Satin, Zig-Zag, Piping in “Auto digitize” mode, have an extra digitizing function that can reduce digitizing process dramatically. This function recognizes automatically the area that you want to be covered with stitches and fills it immediately. It is a powerful tool that can reduce the time of the embroidery designing process. This function can be applied on an imported vector design which has areas that needed to be covered with stitches.

In order to activate this function and use it on an inserted backdrop, you have to follow the steps below:

1. Select the stitch type you want from the “Options” tab of the “Object properties” toolbar.
2. Click on the “Digitize” tool of “Modes” toolbar, for Running, Step, Satin Serial, Photo-stitch stitch types or to “Auto Digitize” tool of “Modes” toolbar for Satin, Zig-Zag, Piping stitch types and start the digitizing process.
3. If the stitch type you have chosen needs a direction to be defined, you have to do it with the first two clicks. Otherwise you can continue with the next step
4. Hold down the “Ctrl + Shift” keys and click on the border of the object (area of the backdrop) you want to fill with stitches.
5. The function will automatically recognize the area you have clicked on.
6. Right click once to confirm the action.
7. Click again to define the exit point of the object or right click in order the exit point to be defined automatically.
8. For Satin, Zig-Zag and Piping stitch types that we used the “Auto digitize” tool, now you can add directions or create cuts on the object.

9. Now you can continue by digitizing the next object or right click to end digitizing process.

The shape is now covered with stitches of the stitch type you have initially selected. This function is working perfectly in most of the cases. It is easier to create embroidery design through this process because is less time consuming process.

Auto trim function

Another automatic digitizing ability you have, in the digitizing method described above, is that you can automatically fill the complex objects with stitches but keep the inner objects without stitches. For example, (figure 14.8) if you have a rectangle with text inside and you want to fill it with step stitches but leave the text without step stitches, you have to follow the steps below:



Figure 14.8: Backdrop image

1. Select the “Step” stitch type from the “Options” tab of the “Object properties” toolbar.
2. Click on the “Digitize” tool of the “Modes” toolbar in order to start the digitizing process.
3. With the first two clicks, define the direction of step.
4. Now hold down the Ctrl + Shift keys and click on the border of the rectangle object (area of the backdrop) you want to fill with step stitches.
5. The function will automatically recognize the area you have clicked on.
6. Continue holding down the Ctrl + Shift keys and start clicking once on the border of each letter in the design. Each time you click on a letter this will be automatically selected and not filled with step stitches.
7. When you finish the letters, Right click once to confirm the action.
8. Click again to define the exit point of the object or right click in order the exit point to be defined automatically.

9. Now you can continue by digitizing the next object or right click to end digitizing process.

The result will look like the Figure 14.9 below. As you can see the rectangle is filled with step stitches but the letters are left without a fill. The characters look like trims inside the step area.

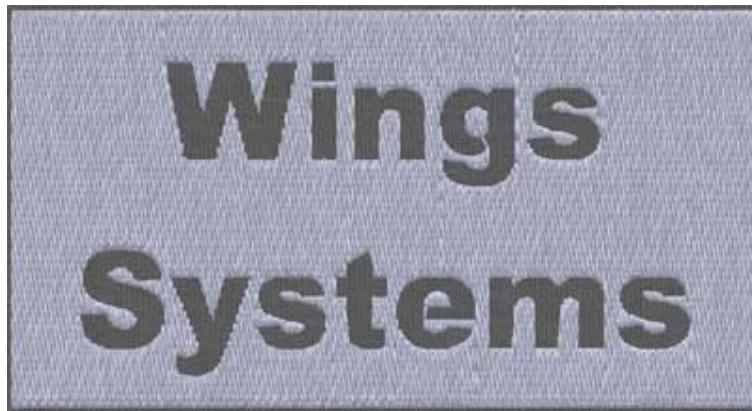


Figure 14.9: Image embroidered

Following the same steps you can apply the same trim effects in any shape that contains another shape inside it. It is a very useful tool that can help you to decrease the digitizing process of the designs.

Using Appliqué

EXPerience has a specific function for placing appliqué in the design and can be activated by clicking on the “Applique”  icon from the standard toolbar. When you activate the appliqué option on a specific object of the design the program positions the placement of appliqué before the selected object. Therefore, when the program, while following the embroidering sequence, reaches at the object that contains the Applique function in it, first will execute the Applique function and then will embroider the object.

Appliqué techniques

There are many different ways in embroidering appliqué, one of them that suit most in eXperience we will analyze here.

In order to digitize a design that includes one or more appliqué, first, you have to create the placement stitches. The placement stitches are running stitches that will indicate where the appliqué will be placed. After that you have to click on the “Appliqué” option, which will stop the machine so that you can place

your appliquéd on the item being sewn. In order to avoid sticking your hand under the machine’s head to properly place the appliquéd, you’ve better insert a manual stitch at the uppermost position in the design, activate the “appliquéd” option on the manual stitch object and then activate the “needle up” option. In the embroidering sequence this procedure will have as a result, the embroidery machine to stop in the position of the manual stitch with the needle up and the frame in front of you.

In case that you want to add appliquéd on a hat, you need to do the manual stitch in the opposite direction. This happens because the cap design runs upside down and the bottom of the design becomes the top. Therefore the manual stitch that you will add together with the “Appliquéd” function must be placed at the bottom of the design.

After the manual stitch that you have made in order to have the frame out, you have to place the appliquéd on the fabric and then start the embroidering machine in order the holding stitches to be placed on the applique. The holding stitches can be Running with style on it, Satin serial or Zig-Zag stitches. Those stitches can be used to create the border of the appliquéd that will tack down the appliquéd on the fabric or embroider a design in the appliquéd that will also hold the design on the fabric.

Now in order to make the cleaning of appliquéd on the fabric there are three basic ways to do it.

- **After embroidery cleaning**
- **During embroidery cleaning**
- **Laser or manual cut**

After embroidery cleaning:

If the appliquéd you have placed on the design has irregular outline, after the finish of the embroidering process, you have to take it out of the embroidering machine and cut it accordingly. This is the “after embroidery cleaning” that need minimizes embroidering but In some cases decreases embroidery quality of the applique.

During embroidery cleaning:

This cleaning process works like the “After embroidery cleaning” process but it has additional steps.

After placing the appliquéd on the design a running outline will have to be embroidered in order to show where the appliquéd must be cut. Then again a manual stitch at the upper most position on the design must be made, for the reason described previously. The machine has to be stopped again in order the appliquéd to be cut according to the shape. After that the holding stitches must be placed that will tack down the applique on the fabric.

This is a more time consuming cleaning procedure but it produces better embroidery quality.

Laser or manual cut:

This cleaning process needs the help of a laser cutter or manually cutting the appliquéd fabric. Before placing the appliquéd on the fabric, it has to be cut previously exactly to the shape you want with the use of a laser cutter or by manually cutting the design. Then the holding stitches must be placed that will tack down the appliquéd on the fabric.

Following this cleaning procedure you can create high quality embroidery in less time but it needs preliminary work on the appliquéd fabric.

Notice: Do not use simple running stitches as border holding stitches because there is a possibility the appliquéd not to be sewn correctly on the fabric.

Following the guidelines described above you can create high quality appliquéd designs with a quick and effective way. Of course, you can use your embroidering style and imagination and create the embroidery designs you want by using all the available tools in eXperience.

Create Artistic Designs with transformation tools

Using the transformation tools of eXperience you can create Artistic design easily. In this section we will show how easily you can create the wreath of an embroidery design. The result of the design will look like the following figure 14.12.



Figure 14.12: Artistic design

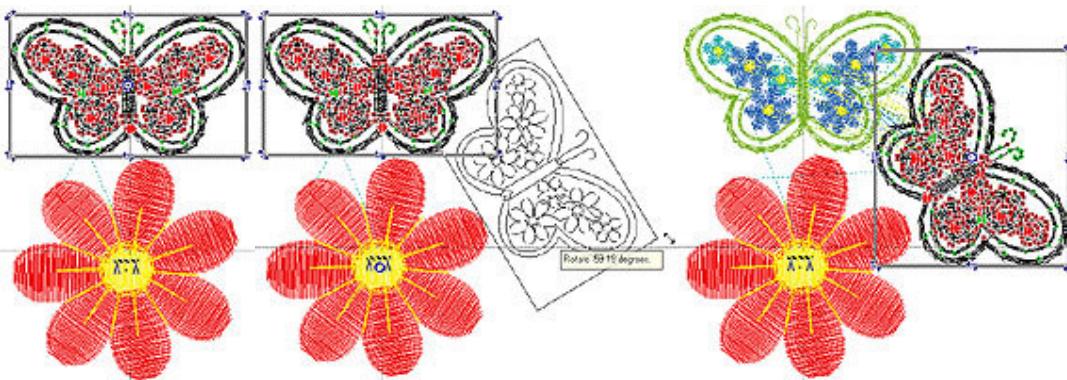
In order to create this artistic embroidery design, we used the flower in the middle and one butterfly. The initial state of the design was look like the following figure 14.13.



Figure 14.13: Initial state

In order to create the Artistic design you have to follow the steps:

1. Select the butterfly design, and click again on it in order the rotation handles to appear.
2. Move the rotation center of the design and place it at the middle of the flower design.



Butterfly in rotation mode > Move rotation center > Rotate and duplicate the design

Figure 14.14: Rotation technique

3. Now, drag the upper right rotation handle and rotate it from left to right until the butterfly is placed next to the previous one. While rotating the butterfly and before releasing the mouse click, you have to press the right mouse button to duplicate it. A rotated copy of the design appears next to the original butterfly design.

Another way to rotate the design is from the “Object properties” toolbar “Transform” tab. There, in the “Rotation” option you can set the exact angle you want the design to be rotated and apply the rotation to a duplicate of the butterfly design.

4. To avoid doing the same transformation again and again, you can activate the “Repeat last transformation” option from the “Edit” menu or press the “R” key from the keyboard. This option will do the job for you and will repeat the rotation and duplication of the design in perfect symmetry.

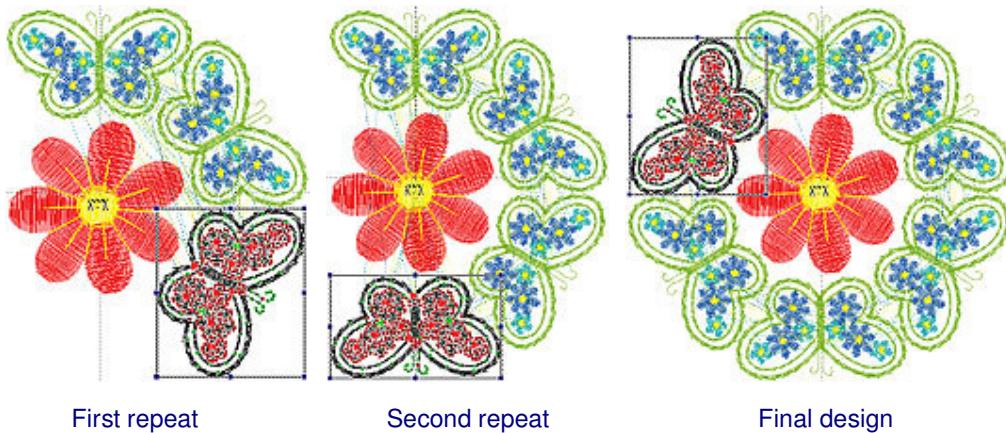


Figure 14.15: Repeat rotated design

- When you finish applying the “Repeat last transformation” option you will end up with an Artistic design that took less than a minute to create.

Artistic Mirroring designs

Another way to create artistic embroidery designs is by using mirroring in combination with the other transformation tools. We will analyze an example that will show how easily you can create a design using simple shapes and the tools of experience.

Initially you will have to create or import an existing embroidery design like the one shown in the figure 14.16 below.



Figure 14.16: Simple shape

After that you will have to select it and click again on it to activate the rotation handles. Then move the rotation center of the design outside of the design on the vertical axis. Grab the low right rotation handle and rotate the design anticlockwise while right clicking with the mouse in order to create a rotated copy of the design.

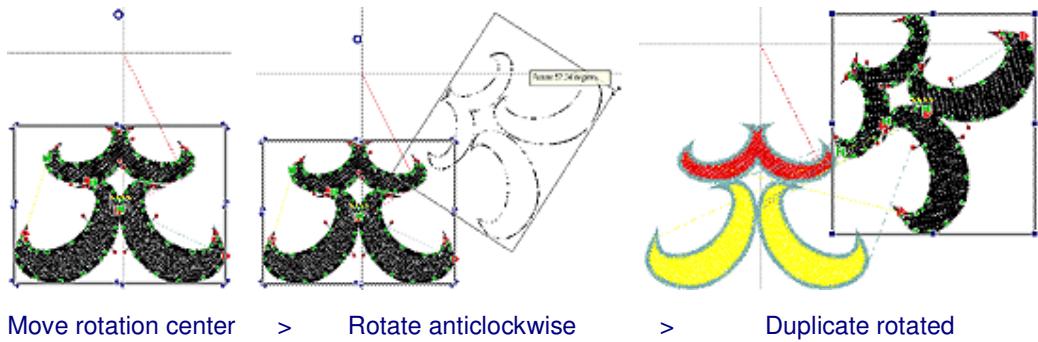


Figure 14.17: Rotate design

Select both designs by holding the “Shift” or the “Ctrl” key and by dragging the low middle handler of the “selection rectangle” upwards you will start creating the horizontal mirror of the design. If you hold the “Ctrl” key also while dragging you will activate the snapping tool that will snap at every 25% of mirroring enlargement. This tool will help you to create an accurate size mirror

of the design. Before releasing the mouse right click once for a mirrored copy to be created.

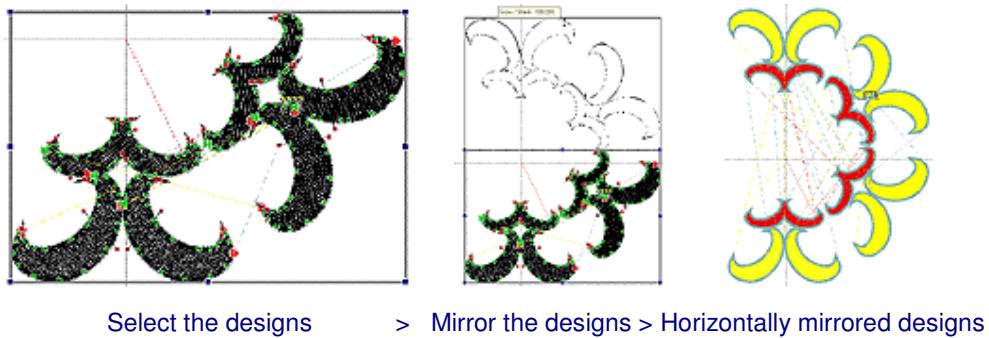


Figure 14.18: Mirror design

If you find the above procedure difficult there is another way to do the same thing using the “Scale” tools from the “Object Properties” toolbar “Transform” tab. Select the designs, click on the “Mirror Y” button and then the “Apply to Duplicate” button. On the workspace a copy of the mirrored design will appear over the source design. Now the only thing that you have to do is to move the duplicated design and place it above the source design.

After that you have to select again the entire design and follow a similar procedure to create a vertical mirror of the design. This time you have to drag the middle right selection handler and drag it to the left. Again, hold the “Ctrl” key to help you create an accurate size mirror of the design and before release the mouse click, right click once for a copy of the mirrored design to be created.

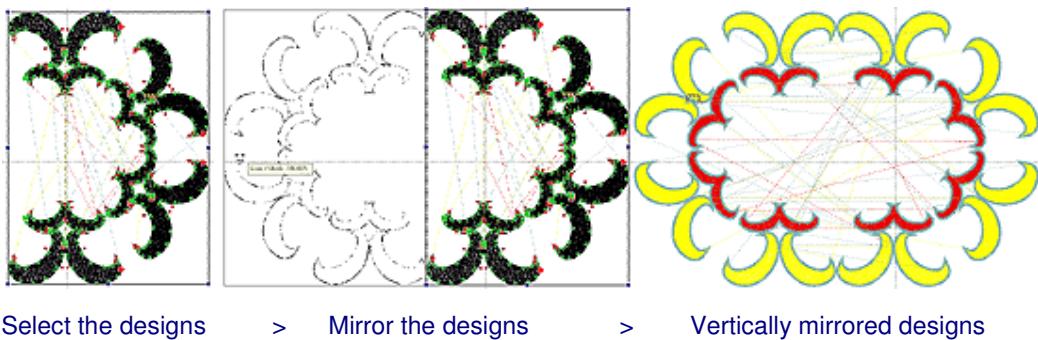


Figure 14.19: Mirror design again

You can do the same thing using the “Scale” tools from the “Object Properties” toolbar “Transform” tab.

As you can see we have created an artistic frame by using a simple design. To finish with the embroidery design we will add an embroidery design in the middle as shown in the figure 14.20 below.



Figure 14.20: Artistic embroidery design

You can use your imagination and create any design you want.



Appendix: Glossary

In the Glossary you can find explanation of the terminology that is used in the manual.

Cancel

By pressing the **Cancel** button, you can discard the changes you have made on the current dialog.

Field types

In eXperience Object properties – Options, there are two types of fields:

- **Numeric fields**

These types of fields are accepting only numbers. To change a numeric parameter you have to click on it and type by the keyboard the number that this parameter will be. Another way to change the value of a numeric field is to use the arrows on the right side. Also the value of this field can be changed by using the scrolling wheel of the mouse.

- **Logical fields**

The logical fields accept two values, Yes or No. This way you can specify if the parameter will be true or false. To change the value of this type of field you have to click on it and on the following menu select the value that you wish.

Mouse Terminology

The typical mouse features two buttons on top that register clicks and a trackball underneath that registers movement. Here is some mouse terminology that will be used in this manual.

- To move your mouse is to move it without pressing any buttons.

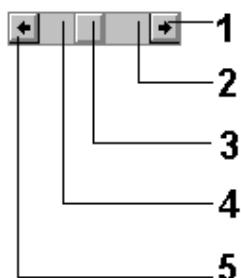
- To click is to press and immediately release the left mouse button without moving the mouse. For example, you click a tool icon to select a tool.
- To right-click is to press and release the right mouse button. This is frequently used to access special commands not visible on the menu.
- To double-click is to press and release the left mouse button twice in rapid succession without moving the mouse.
- To click-and-drag is to press the left mouse button, hold it down, move the mouse to a new position, and release the button. This is used to move a block, a stitch, or a node.

Ok

By pressing the OK button, you can apply the changes you have made on the current dialog.

Scroll bar

This scroll bar appears in many places in the program and helps you to change parameters. For example, when you want to change the density of a punching object, you have to specify how much the density will be. Near the scroll bar or on top of it, appears a display box indicating the value you specify in text.



1. Click to increase one scale unit.
2. Click to increase ten scale units.
3. Drag to move to the point you want.
4. Click to decrease ten scale units.
5. Click to decrease one scale unit.

Stitch data Objects

Stitch data objects are the parts of a design that don't have any outline information. That means that for these objects the only known information is the movements of the frame.

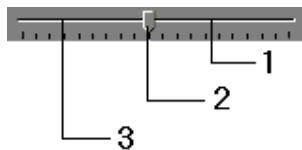
For example: The objects of a design which was loaded from a machine disk, have only stitch data information.

In eXperience software it is possible to have Stitch data and Punching data objects in the same design.

Additionally, there are functions that are not active in both types of objects or there are functioning differently.

Track – bar

This track bar appears in many places in the program and helps you to change parameters. For example, when you want to change the stitch count of a design, you have to specify the percentage of increase or decrease in the number of stitches. Near the scroll bar appears a display box indicating the value you specify in text.



1. Click to increase ten scale units.
2. Drag to move to the point you want.
3. Click to decrease ten scale units.

Also you can change the value of the track bar by pressing the Left & Right arrows of the keyboard.

Punching data objects

Punching data objects are the parts of a design that has outline information. That means that for these objects the known data is the area and the stitch type that will be used, in order to be filled with stitches.

For example: The objects of a design which were created with eXperience software, have only punching data information.

Important notice: In any transform of a punching object, the program recalculates the objects. This way the punching objects keep the same high quality.

In eXperience software it is possible to have Stitch data and Punching data objects in the same design.

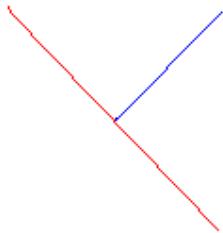
More over there are functions that are not active in both types of objects or there are functioning differently.

What is a section

A section is a part of an object.

In order to create an object you have to punch its sections. The program automatically recognizes the closest or the connecting points of the sections in order to create the object and make the branches. The exit and entries point between the sections cannot be changed. In this case you have to break the selected object to its sections.

A simple example of section you can see below.



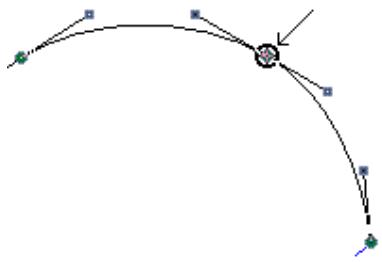
In the given example with red and blue line can be seen the two sections. The colors were selected in order to explain with the best way the meaning of the sections and the reason why they are needed.

In reality all the sections of an object has the same color, belong to the same stitch type and there is not any special function between them.

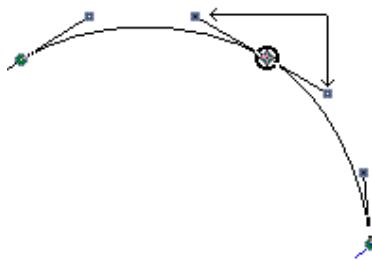
What is a node

There are two kinds of nodes. The curve nodes which are indicated with * characters and the curve break nodes which are shown with the # characters. During punching all nodes that you are adding are curve nodes. If you want to add a curve break you should hold the "Shift" key from the keyboard while clicking on the point that you want. If you have placed a curve node, you can convert it to a curve break node using the node editor, which

can be viewed by clicking the right mouse button over the node you wish to convert.



A node is the point indicated with the arrow in the drawing on the left.



A curve can be controlled by the tangent, which is indicated with the arrows in the drawing on the left.

What is a direction

The direction always indicates the way that the stitches will be sewn. The most important information is that you don't have to add nodes on satin or Zig-Zag to show the direction. The direction indicator is separate from the nodes.



Figure 7.1: Direction 45°

This allows one part of a design to have directions in one orientation and another part with a different direction.

B

Appendix: Hot keys – Quick reference card

General		
Main functions		
New design ⁽¹⁾	Ctrl+N	
Open design ⁽¹⁾	Ctrl+O	
Save design ⁽¹⁾	Ctrl+S	
Save character into font ⁽¹⁾	Ctrl + F12	
Print design ⁽¹⁾	Ctrl+T	
Close design ⁽¹⁾	Ctrl + F4	
Close program ⁽¹⁾	Alt + F4	
Help ⁽¹⁾	F1	
Undo changes ⁽¹⁾	Alt+Backspace / Ctrl+Z	
Redo changes ⁽¹⁾	Alt+Enter / Ctrl+Shift+Z	
Backdrops		
Hide backdrop	Alt+1	
Bitmap with Gamma correction	Alt+2	
Bitmap light	Alt+3	
Bitmap without correction	Alt+4	
Vector B/W lines	Alt+2	
Vector Colored lines	Alt+3	
Vector filled outlines	Alt+4	
Viewing tools		
Cross hair	C	
Grid ⁽¹⁾	G	
Zoom in	Z	
Zoom all ⁽¹⁾	A	
Redraw ⁽¹⁾	W or Ctrl + W	
Show/Hide roll-ups	Space	
Magnifier 1.5X ⁽¹⁾	Alt+Z	
Measure ⁽¹⁾	Shift+Right Click	
Preview ⁽¹⁾	P	
Preview selected ⁽¹⁾	Ctrl+P	
Design info	Ctrl+I	
Other		
Divide and Add direction ⁽⁴⁾	D	

	Presets ⁽²⁾	E / Num *
	Trim	F
Switch to		
	Object editor	B
	Stitch editor ⁽³⁾	M
	Node editor	N
(1) These shortcuts do not work during digitizing		
(2) These shortcuts do not work in stitch editor		
(3) Not active in Node editor		
(4) Active while auto-digitizing		

Object Editor

Rearrange

	To end	Home
	To front	End
	1 step backward	Page Down
	1 step forward	Page UP

Selection

	Select next object	Tab
	Select previous object	Shift+Tab
	Invert selection	Num -
	Select all	Num +
	Hide object(s)	H
	Show object(s)	Ctrl+H
	Group	Ctrl+G
	Ungroup	Ctrl+U

Transform

	Move object(s) 1/10 mm left	←
	Move object(s) 1/10 mm right	→
	Move object(s) 1/10 mm up	↑
	Move object(s) 1/10 mm down	↓
	Move object(s) 1mm left	Ctrl+ ←
	Move object(s) 1mm right	Ctrl+ →
	Move object(s) 1mm up	Ctrl+ ↑
	Move object(s) 1mm down	Ctrl+ ↓
	Delete object(s)	Del
	2-point copy	K
	Join objects	Ctrl + J
	Break apart	Ctrl + B
	Align objects	Ctrl + A
	Repeat last change	R
	Copy object(s)	Ctrl+C / Ctrl + Ins
	Cut object(s)	Ctrl+X / Shift + Del
	Paste object(s)	Ctrl+V / Shift + Ins

Other		
Duplicate design	Ctrl+D	
Duplicate design while click and drag	D	
Input text	L	
Input symbol from Library	I	

Stitch Editor		
Basic stitch editing		
Insert Stitch	Ins	
Insert stitch at start	Num +	
Delete stitch	Del	
Selection		
Go to the first stitch of the next object	Tab	
Go to the first stitch of previous object	Shift + Tab	
Go to the first stitch of the current object	↓	
Go to the next object	↑	
Go to next stitch	→	
Go to previous stitch	←	

Node Editor		
Basic node editing		
Move node(s) 1/10 mm left	←	
Move node(s) 1/10 mm right	→	
Move node(s) 1/10 mm up	↑	
Move node(s) 1/10 mm down	↓	
Move node(s) 1mm left	Ctrl+ ←	
Move node(s) 1mm right	Ctrl+ →	
Move node(s) 1mm up	Ctrl+ ↑	
Move node(s) 1mm down	Ctrl+ ↓	
Insert node	Ins	
Delete node(s)	Del	
Join nodes	Ctrl+J	
Selection		
Next node	Tab	
Previous node	Shift+Tab	

Digitizing		
Start digitizing		
Manual	F2	
Running	F3	
Satin	F4	
Step	F5	
Zig-Zag	F6	
Satin Serial	F7	
Piping	F8	
Photostitch	F9	
Cross Stitch	F10	
Auto digitize satin	Shift+F4	
Auto digitize zig-zag	Shift+F6	
Auto digitize piping	Shift+F8	
Corections		
Delete last digitized node	Backspace	
Hide objects	H	
Show objects	Ctrl+H	
Insert options		
Text	L	
Text in vector, form and block fill	T	
Shapes	S	
Cross stitch		
Add Cross	1	
Remove Cross	2	
Add Tacking	3	
Remove Tacking	4	
Viewings tools		
Zoom in	Z	
Zoom out	Shift + Z	
Auto-digitizing		
Divide and Add direction while auto-digitizing	D	

Variable Pitch Table (100%)						
		Satin Density (in mm)				
		0,35	0,40	0,45	0,50	0,55
Satin Width (in mm)	0,25	0,70	0,80	0,90	1,00	1,10
	0,50	0,60	0,68	0,77	0,85	0,94
	0,75	0,53	0,60	0,68	0,75	0,83
	1,00	0,46	0,52	0,59	0,65	0,72
	1,50	0,40	0,46	0,52	0,58	0,63
	2,00	0,37	0,42	0,47	0,53	0,58
	2,50	0,35	0,40	0,45	0,50	0,55
	3,00	0,35	0,40	0,45	0,50	0,55
	3,50	0,35	0,40	0,45	0,50	0,55
	4,00	0,35	0,40	0,45	0,50	0,55
	4,50	0,34	0,38	0,43	0,48	0,53
	5,00	0,33	0,37	0,42	0,47	0,51
	5,50	0,32	0,36	0,41	0,45	0,50
	6,00	0,30	0,34	0,38	0,43	0,47
	6,50	0,28	0,32	0,36	0,41	0,45
	7,00	0,27	0,31	0,35	0,39	0,43
	7,50	0,27	0,31	0,35	0,39	0,43
	8,00	0,27	0,31	0,35	0,39	0,43

e.g. A satin bar, with 1mm width and 0,4 density will become 0,52 density when using 100% variable pitch

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